

**Dallas to Houston High-Speed Rail
Final Environmental Impact Statement**

**Appendix H:
Response to Draft EIS Comments
Set 1 of 3**



Federal Railroad
Administration

1. INTRODUCTION

The Federal Railroad Administration (FRA) signed the Draft Environmental Impact Statement (EIS) on December 15, 2017, and the United States Environmental Protection Agency (EPA) published a Notice of Availability (NOA) for the Project in the Federal Register on December 22, 2017 (82 FR 60723). FRA circulated the Draft EIS to affected local jurisdictions, state and federal agencies, tribes, community organizations and other interested groups, interested individuals and the public. The Draft EIS was available for public review in hard copy at the locations listed in **Appendix B, Distribution List**, of the EIS. The Draft EIS was also posted on the FRA Project website (<https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail-draft>). The public comment period on the Draft EIS closed on March 9, 2018. For a detailed discussion on public hearings, notifications and meeting materials, refer to **Section 9.6.1, Public and Agency Involvement, Public Hearings**, and **Section 9.6.2, Public and Agency Involvement, Draft EIS Comment Period**.

1.1 Receiving Comments

FRA received a total of 20,848 submissions from approximately 6,000 individuals, agencies, elected officials, businesses and/or organizations¹ during the public comment period that extended from December 22, 2017, to March 9, 2018. Submissions were categorized by comment topic, which resulted in some submissions being split into multiple comments.

Comments were received in multiple formats, including in person at public hearings, through emails/letters and through comments submitted on the Project's website.

1.1.1 Public Hearings

FRA held 11 public hearings to accept agency and public comments on the Draft EIS during the comment period. The public hearings served as a forum for disseminating information about the Project and obtaining public comments on topics addressed in the Draft EIS. The public hearings gave the community an opportunity to review and comment on Project Alternatives, environmental resources, and Project information. The public hearings for the Draft EIS consisted of two parts: an open house and a formal hearing with a public comment session.

Hearing attendees were given the opportunity to provide oral comments in two ways: in front of the audience/to FRA and to a court reporter. Court reporters were available at every hearing to create transcripts of the meetings. Hearing attendees were also given the opportunity to provide written comments, either on their own paper or on comment forms. **Table H-1** displays the estimated number of attendees at each meeting and the number of oral-audience, oral-court reporter and written comments that were received at each hearing.

Additional written questions or comments were also accepted online, by U.S. mail or by email during the public extended public comment period.

¹ Approximately 1,445 individuals, businesses and/or organizations made two or more submissions during the public comment period. For instance, one individual made 1,712 distinct submittals. Additionally, some organizations compiled comments from an unknown number of individuals. Each distinct submission was counted separately, regardless of whether it was a repeated comment.

Table H-1: Public Hearing Submissions and Attendance				
Hearing Location	Attendees	Oral -Audience	Oral-Court Reporter	Written
Dallas	239	24	7	45
Ellis	250	54	10	6
Navarro	213	51	4	20
Freestone	119	25	4	18
Limestone	91	29	5	4
Leon	254	40	0	60
Madison	323	40	0	37
Grimes	391	47	4	399
Waller	455	45	14	785
Harris (2 meetings)	636	79	16	267
Total	2,971	434	64	1,641

Source: AECOM 2019

1.1.2 Emails and Letters to FRA

Comments were accepted via email to the Project email address (DallasHoustonHSR@urs.com), via email directly to FRA or by U.S. postal mail to FRA. Approximately 5,486 individual emails were received by FRA during the comment period and 523 letters/packages were mailed to FRA.

1.1.3 Comments on FRA website

Comments were accepted online using the link provided on FRA's Project website.² Over 62 percent of comments were received through the FRA website (**Figure H-1**). Commenters were first asked to clarify their submission type (individual, business, elected official, federal agency, Texas agency, local agency or organization). Commenters could provide comments directly into a text box, upload documents/comments or both. Upwards of 13,000 comments were received solely through the Project website.

² Currently <https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail>; but during the public comment period the website was <https://www.fra.dot.gov/Page/P0779>.

Public Comment Form 1 Comment 2 Review 3 Your Copy

Dallas to Houston High-Speed Rail Environmental Impact Statement

On December 22, 2017, the Federal Railroad Administration (FRA) released a Draft Environmental Impact Statement (Draft EIS) for the Dallas to Houston High-Speed Rail Project. FRA is accepting comment on the Draft EIS now through March 9, 2018.

Contact Information

All fields are optional unless otherwise indicated.

Submitted By: Individual

First Name: [Text Field] Last Name: [Text Field]

Address: [Text Field] City: [Text Field]

State: Texas ZIP: [Text Field]

Email: [Text Field]

I want to be added to the project mailing

Your Comment

Please use the box below to make a comment on the Dallas to Houston High-Speed Rail Environmental Impact Statement. After you have entered your comments, please hit "Continue" to review your comments.

[View FRA Project Website](#)

Insert comments on Dallas to Houston High-Speed Rail Environmental Impact Statement

[Upload File](#)

Figure H-1: FRA Website Public Comment Form

1.2 Reviewing Comments

All comments were compiled into an online project-specific portal called SmartComment.³ The comment software allowed for comments to be classified and sorted. Online submissions were directly loaded into the online management tool, while handwritten or typed hard copies of letters were scanned into an electronic readable PDF file. Scanned originals of all comments were attached to the comment in the comment database. Transcripts of verbal comments gathered during the 11 public hearings were also scanned and uploaded into the database.

1.2.1 Classifying Comments

All comments were reviewed by FRA and classified into 37 separate categories that reflected chapters in the EIS and common themes in public comments. The online comment management tool allowed for submissions to be assigned to multiple categories, if necessary. A submission rarely fell into one single category, such as Build Alternative or Eminent Domain. FRA “sliced” submissions into multiple categories to make sure that all themes and issues were categorized and addressed. Therefore, portions

³ Comments received through the online public comment form were classified as website submissions.

of a submission may have been classified in one category, while another portion of that submission had another comment that was classified differently. This resulted in 20,848 submissions being classified into 25,309 distinct comments (Table H-2).

Table H-2: Comment Categories and Volume			
Topic	Comments	Duplicates	Total
Build Alternatives	1,121	7,776	8,897
Support	1,019	3,756	4,775
Land Use	855	719	1,574
Oppose	963	266	1,229
Project Viability	812	19	831
Safety and Security	743	14	757
Transportation	633	11	644
Socioeconomic and Community	579	26	605
NEPA	509	12	521
Noise and Vibration	477	13	490
Threatened and Endangered	405	24	429
Other	382	39	421
Station Locations	125	240	365
Eminent Domain	351	14	365
Property Value	330	3	333
Utilities and Energy	327	0	327
Public Involvement	301	10	311
Cultural Resources	294	12	306
Purpose and Need	271	17	288
Not Germane to NEPA	193	0	193
Waters of the U.S.	181	0	181
TCRR	116	58	174
Floodplains	164	8	172
Indirect and Cumulative	160	0	160
Water Quality	148	3	151
Recreation	138	0	138
Aesthetics and Visual	95	0	95
Air Quality	93	0	93
Engineering Design	89	2	91
Soils and Geology	84	0	84
Unclassified	83	0	83
Technology	51	2	53
Environmental Justice	43	0	43
Hazardous Materials	43	0	43
Electromagnetic Fields	32	0	32
Operations	28	0	28
GHG	15	0	15
Handicapped and Elderly	9	0	9
Maintenance	3	0	3
Total	12,265	13,044	25,309

Source: AECOM, 2019

1.2.2 Duplicate Comments

Of the 20,848 submissions that were received, many duplicate or recurring comments were identified. The online comment management tool scanned all comments and identified word-for-word duplicate comments.

Approximately 13,044 of the submissions received were categorized as duplicate comments. Many of the comments included form letters or standardized letters that were identical to others received. Discussed further in **Section 3.0, Form letters**, FRA received seven form letters that were word-for-word copies of the same statement. SmartComment scanned all comments received and placed the 13,044 duplicate comments into approximately 400 duplicate categories, where FRA was able to respond to each duplicate category individually. For example, a duplicate category contained a comment that had been submitted 3,252 times, while another duplicate category had been submitted twice. but was identical.

1.3 Responding to Comments

Three types of responses to comments were prepared: standard responses, unique responses or a combination of standard and unique.

Standard responses were developed because many of the comments received during the public comment periods raised similar concerns about the Project and its environmental impacts. FRA prepared a list of standard responses to address the most frequently raised concerns. The standard responses provide a comprehensive response to an issue so that multiple aspects of the issue are addressed in an organized manner in one location. This reduces repetition of responses. When an individual comment raised a concern discussed in a standard response, the response to the individual comment includes a cross-reference to the appropriate standard response. In all, 200 standard responses were developed, on issues such as eminent domain, aesthetic and visual, air quality, etc. For the complete list of standard responses, refer to **Section 1.3.2, Standard Responses to Comments**.

Standard responses were broken out into 24 categories and include the following:

General (GN):	GN-1 through GN-9
Air Quality (AQ):	AQ-1 through AQ-14
Aesthetic and Visual (AS):	AS-1
Build Alternative (BA):	BA-1 through BA-12
Cultural Resources (CR):	CR-1 through CR-13
Eminent Domain (ED):	ED-1 through ED-5
Elderly and Handicapped (EH):	EH-1
Energy and Utilities (EU):	EU-1 through EU-8
Floodplains (FP):	FP-1 through FP-4
HazMat (HZ):	HZ-1 through HZ-5
Land Use (LU):	LU-1 through LU-14
National Environmental Policy Act (NE):	NE-1 through NE-10

Natural Resources (NR):	NR-1 through NR-6
Noise and Vibration (NV):	NV-1 through NV-10
Public Involvement (PI):	PI-1 through PI-12
Purpose and Need (PN):	PN-1 through PN-4
Recreation (RF):	R F-1 through RF-5
Safety and Security (SS):	SS-1 through SS-27
Socioeconomics and Community Facilities (SC):	SC-1 through SC-22
Soils and Geology (SG):	SG-1 through SG-5
Technology/Operations/Maintenance (TC):	TC-1 through TC-7
Transportation (TR):	TR-1 through TR-12
Property Value (VA):	VA-1 through VA-4
Waters (WW):	WW-1 through WW-9

During development of the standard responses, FRA continued to evaluate the categories, specific topics discussed and how comments were addressed within a single or multiple standard responses (e.g., some standard responses were combined into a larger discussion within a single response). This resulted in 22 standard response codes that were not used. These codes were removed through FRA’s finalization of standard responses and the overall response to comments. However, the standard response codes remain in the table to maintain numbering and consistency with responses and to account for comments that had been assigned standard responses. Standard response codes that are no longer used are listed in **Section 1.3.2, Standard Responses to Comments**.

Unique responses were used when a comment presented a site-specific or isolated issue that warranted a specialized response. Many times, a comment presented a broader issue that was addressed through a standard response(s), and also had a unique response to provide more detail to the response.

An example of a comment received through the Project website is shown in **Figure H-2**. The commenter provided a comment through the website, which was uploaded to SmartComment. The comment reviewed by FRA and broken into categories, as shown in **Figure H-3**. In this example, the comment was broken into four separate categories based on the themes expressed: eminent domain, transportation, project viability and noise and vibration. The commenter also expressed two statements that were assigned to project viability.

As shown in **Figure H-3**, individual standard responses were provided for each of the broken out categories. **Table H-3** includes the final presentation of the example comment and responses as compiled in the overall individual comment and response table provided at the end of Appendix H.

Kim Wells-Baker

Who will give approval to a non railroad for eminent domain?

When having to reroute roadways who will maintain cost of new roads in the future?

When roads are damaged by trucks bringing abundant supplies to each location, who will cover the overused damaged roads?


If Amtrak get a 2% ridership how did TCR come up with a 36% ridership?

What is the dBA for two trains passing in opposite directions and how will the EPA approve such a loud dBA? This will occur on a daily basis and with the EPA calculated safe noise level for public to prevent hearing loss to be a 70 decibel time weighted average and 85 decibel sound has a 31.6% more energy than 70 how will that be addressed... again 85 dBA is more at a speed of 115 mph... so how is the noise being calculated? Noise has a nonauditory health impact. Typically it has been stated that a high speed train at 215 mph @ 100 feet is 95 decibels.

Who determines when a private company can condemn private property?

What if money runs out to build the entire statewide plan, what will become of the viaducts and other infrastructure?

Figure H-2: Example of Comment Received from Project Website

Kim Wells-Baker 

P-1-1: Eminent Domain | status: FINAL FEIS | assigned: Jason Aprill Edit Comment P-1-1

Who will give approval to a non railroad for eminent domain?
Who determines when a private company can condemn private property?

Final Response
Refer to ED-1 08/22/2019 11:19 AM last updated

P-1-2: Transportation | status: FINAL FEIS | assigned: Jason Aprill Edit Comment P-1-2

When having to reroute roadways who will maintain cost of new roads in the future?
When roads are damaged by trucks bringing abundant supplies to each location, who will cover the overused damaged roads?

Final Response
Refer to TR-7. 06/01/2019 10:03 AM last updated

P-1-3: Project Viability | status: FINAL FEIS | assigned: Megan Inman Edit Comment P-1-3

If Amtrak get a 2% ridership how did TCR come up with a 36% ridership?

Final Response
Refer to GN-2. 06/07/2019 12:16 PM last updated

P-1-4: Noise and Vibration | status: FINAL FEIS | assigned: Lance Meister Edit Comment P-1-4

What is the dBA for two trains passing in opposite directions and how will the EPA approve such a loud dBA? This will occur on a daily basis and with the EPA calculated safe noise level for public to prevent hearing loss to be a 70 decibel time weighted average and 85 decibel sound has a 31.6% more energy than 70 how will that be addressed... again 85 dBA is more at a speed of 115 mph... so how is the noise being calculated? Noise has a nonauditory health impact. Typically it has been stated that a high speed train at 215 mph @ 100 feet is 95 decibels.

Final Response
Refer to NV-4 and NV-6. 07/19/2019 02:21 PM last updated

P-1-5: Project Viability | status: FINAL FEIS | assigned: Megan Inman Edit Comment P-1-5

What if money runs out to build the entire statewide plan, what will become of the viaducts and other infrastructure?

Final Response
Refer to NE-1, NE-9 and PN-3. 06/07/2019 12:16 PM last updated

[Add a Comment](#)

Figure H-3: Example of Categorized Comment

Table H-3: Example Comment and Response				
Submitted By	Date Submitted	Submission Type	Comment	Response
Kim Wells-Baker	1/29/2018	Website	Who will give approval to a non-railroad for eminent domain? When having to reroute roadways who will maintain cost of new roads in the future? When roads are damaged by trucks bringing abundant supplies to each location, who will cover the overused damaged roads? If Amtrak get a 2% ridership how did TCR come up with a 36% ridership? What is the dBA for two trains passing in opposite directions and how will the EPA approve such a loud dBA? This will occur on a daily basis and with the EPA calculated safe noise level for public to prevent hearing loss to be a 70 decibel time weighted average and 85 decibel sound has a 31.6% more energy than 70 how will that be addressed... again 85 dBA is more at a speed of 115 mph... so how is the noise being calculated? Noise has a nonauditory health impact. Typically it has been stated that a high speed train at 215 mph @ 100 feet is 95 decibels. Who determines when a private company can condemn private property? What if money runs out to build the entire statewide plan, what will become of the viaducts and other infrastructure?	Refer to ED-1, GN-2, NE-1, NE-9, NV-4, NV-6, PM-3 and TR-7

1.3.1 List of Acronyms

The following acronyms are used in the standard responses in **Section 1.3.2, Standard Responses to Comments.**

AAI	All Appropriate Inquiries
ACGIH	American Conference of Governmental Industrial Hygienists
ACS	American Community Survey
ADA	Americans with Disabilities Act of 1990
AIS	Aquatic Invasive Species
AMSL	above mean sea level
ANSI	American National Standards Institute
APE	Area of Potential Effect
APTA	American Public Transportation Association
AST	aboveground storage tank
AU	Assessment Unit
AU ID	Assessment Unit identification
AVE	Area of Visual Effect
BA	Biological Assessment
BA	Bardwell
BMP	Best Management Practice
BO	Biological Opinion
BTU	British Thermal Unit
BVCOG	Brazos Valley Council of Governments
CAFE	Corporate Average Fuel Economy
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
CFR	Code of Federal Regulations
CH ₄	Methane
CM	Compliance Measure
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide equivalent
CORRACTS	Corrective Action
CR	Corsicana
CSA	Combined Statistical Area
CWA	Clean Water Act
CWR	continuously welded rail
CWS	Community Water System
DAL	Dallas Love Field
dB	decibels
dBA	A-weighting system
DFIRM	Digital Flood Insurance Rate Map
DFW	Dallas-Fort Worth International Airport
DH	Downtown Houston
DHS	Department of Homeland Security
DNPL	Delisted National Priorities List

DO	Dissolved Oxygen
DOT	U.S. Department of Transportation
ECOS	Environmental Conservation Online System
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EJ	Environmental Justice
ELF	Extremely Low Frequency
EM	Electromagnetic
EMF	Electromagnetic Field
EMI	Electromagnetic Interference
EMS	Emergency Medical Services
EMST	Ecological Mapping Systems of Texas
EMU	Evaluation Mapping Unit
EO	Executive Order
EOR	Element of Occurrence
ERCOT	Electric Reliability Council of Texas
ESA	Environmental Site Assessment
F	Fahrenheit
FBI	Federal Bureau of Investigation
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FM	Farm to Market
FOS	Final Operating Scenario
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
G	Gauss
GCD	Groundwater Conservation District
GHG	Greenhouse Gas
GHz	gigahertz
GIS	Geographic Information System
GLO	Texas General Land Office
gm	gram
GNIS	Geographic Names Information Service
GPS	Global Positioning System
GTD	Global Terrorism Database
GW	Groundwater
GWP	Global Warming Potential
Has	habitat suitability analysis
HC	Hockley
HCFC	hydrochlorinated fluorocarbon
HCM	Highway Capacity Manual
HDM	Hydraulic Design Manual
HEC	Hydraulic Engineering Circular
H-GAC	Houston-Galveston Area Council

HGB	Houston-Galveston-Brazoria
HGSD	Harris-Galveston Subsidence District
HMTA	Hazardous Materials Transportation Act
HOTCOG	Heart of Texas Council of Governments
HOU	Houston Hobby Airport
HSIPR	High Speed Intercity Passenger Rail
HSR	High-Speed Passenger Rail
HTC	Historic Texas Cemeteries
HUC	Hydrologic Unit Code
HUD	Housing and Urban Development
Hz	Hertz
IAH	Houston George Bush Intercontinental Airport
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IEEE	Institute of Electric and Electronics Engineers
IH	Interstate Highway
IHW	Industrial Hazardous Waste
IOP	Innocent Owner/Operator
IPaC	Information for Planning and Conservation
IR	infrared
ISA	Initial Site Assessment
JRC	Central Japan Railway Company
kHz	kilohertz
Kns	Nacatoch Sand Formation
Ko	Ozan geological formation
kV	kilovolt
KVP	Key Viewpoint
Kwc	Wolfe City geological formation
Ldn	Day-Night Sound Level
LEP	Limited English Proficiency
LI	Low Income
LID	Low Impact Development
LOD	Limits of Disturbance
LOS	Level of Service
LPST	Leaking Petroleum Storage Tank
LQG	Large Quantity Generator
LT	Long-Term Noise Monitoring Site
LU	Landscape Unit
LWCF	Land and Water Conservation Fund
MAP ID	Map Identification Number
MBTA	Migratory Bird Treaty Act of 1918
MD	Middle
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
μT	microTesla
mgd	million gallons per day
mg/m^3	milligrams per cubic meter
MHz	megahertz
MM	Mitigation Measure

MMBTU	Million BTUs
MMI	Modified Mercalli Intensity
MOW	Maintenance-of-Way
MPE	Maximum Permissible Exposure
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSAT	Mobile Source Air Toxics
MSD	Municipal Setting Designation
MTP	Metropolitan Transportation Plan for North Central Texas
MW	megawatts
MWh	megawatt hours
mW/cm ²	milliwatts per square centimeter
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NCA	U.S. National Climate Assessment
NCHRP	National Cooperative Highway Research Program
NCTCOG	North Central Texas Council of Governments
NEPA	National Environmental Policy Act
NGA	National Gas Act
NHD	National Hydrography Dataset
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NIEHS	National Institute of Environmental Health Sciences
NIH	U.S. National Institutes of Health
NLCD	National Land Cover Dataset
NO ₂	Nitrogen Dioxide
NOA	Notice of Availability
NOAA	National Oceanic Atmospheric Association
NOV	Notice of Violation
NO _x	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NT	Neutral Temperature
NTIS	National Technical Information Service
NTNCWS	Non-Transient Non-Community Water System
NWI	National Wetlands Inventory
O ₃	Ozone
OET	Office of Engineering and Technology
OH	Overhead
OSHA	Occupational Safety and Health Administration
OTHM	Official Texas Historic Markers
PA	Programmatic Agreement
PAH	Polycyclic Aromatic Hydrocarbons

Pb	lead
PCB	Polychlorinated Biphenyl
PFC	Perfluorinated Compound
PHMSA	Pipeline and Hazardous Materials Safety Administration
PM	Particulate Matter
PMT	Passenger-Mile Traveled
ppm	parts per million
PST	Petroleum Storage Tank
Ql	Lissie geological formation
Qw	Willis geological formation
RCC	Railroad Commission of Texas
RCRA	Resource Conservation and Recovery Act
RF	Radiofrequency
RNT	Rail Neutral Temperature
ROD	Record of Decision
ROW	Right-of-Way
RPA	Rule of Particular Applicability
RPZ	Runway Protection Zone
RTEST	Rare, Threatened and Endangered Species of Texas
RTHL	Recorded Texas Historic Landmarks
RTP	Regional Transportation Plan
SAL	State Antiquities Landmark
SFHA	Special Flood Hazard Areas
SGCN	Species of Greatest Conservation Need
SH OSR	State Highway – Old San Antonio Road
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SP	Sectioning Post
SPCC	Spill Prevention, Control, and Countermeasure
SQG	Small Quantity Generator
SSP	Sub-Sectioning Post
SSURGO	Soil Survey Spatial and Tabular Data
ST	Short-Term Noise Monitoring Site
START	Study of Terrorism and Responses to Terrorism
STATSGO2	U.S. General Soil Map by State
STB	Surface Transportation Board
SVOC	Semivolatile Organic Compound
SWA	Southwest Airlines
SWPPP	Storm Water Pollution Prevention Plan
T	Tesla
TAC	Texas Administrative Code
TARL	Texas Archeological Research Laboratory
TAS	Texas Accessibility Standards
TCEQ	Texas Commission on Environmental Quality
TCHST	Texas Central High-Speed Train
TCP	Texas Central Partners

TCR	Texas Central High-Speed Railway, LLC
TCRR	Texas Central Railroad
TDEM	Texas Division of Emergency Management
TDS	Total Dissolved Solids
TEXU	Texas Utilities General Company
THC	Texas Historical Commission
THPO	Tribal Historic Preservation Office
TMDL	Total Maximum Daily Load
TMF	Trainset Maintenance Facility
TNCWS	Transient Non-Community Water System
TPDES	Texas Pollutant Discharge Elimination System
TPH	Total Petroleum Hydrocarbon
TPSS	Traction Power Substation
TPWD	Texas Parks and Wildlife Department
TRE	Trinity Railway Express
TSD	Hazardous Waste Treatment, Storage and Disposal Facility
TSHA	Texas State Historical Association
TSS	Total Suspended Solids
TUEX	TU Electric Big Brown Steam Electric Station Rail
TWDB	Texas Water Development Board
TxDOT	Texas Department of Transportation
TxLED	Texas Low Emission Diesel Fuel
TXNDD	Texas Natural Diversity Database
TxWRAP	Texas A&M Wildlife Risk Assessment Portal
UCR	Uniform Crime Reporting
UG	Underground
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act
UPRR	Union Pacific Railroad
USCB	United States Census Bureau
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
V/m	volts per meters
VdB	vibration decibels
VMT	Vehicle Mile Traveled
VOC	Volatile Organic Compound

1.3.2 Standard Responses to Comments

The 197 standard responses that FRA developed in response to public comments are provided in **Table H-4**.

Table H-4: Standard Responses	
GN-1	<p>Chapter 3.0, Environmental Consequences of the Final EIS identifies the data collection process and data used for analysis within each environmental resource section, including the Study Area for each resource. Data collection and analysis was completed for each of the resource Study Areas using the most accurate data available at the time of analysis and based on industry standards and best practices. Throughout Chapter 3.0, Environmental Consequences, updated data is incorporated into the impact analysis for the applicable resources. Additionally, all maps have been updated the Final EIS with the most current data available at the time of analysis.</p> <p>Throughout the conceptual design phase of the Dallas to Houston HSR Project, TCRR also collected data to develop and support project design efforts. This data was independently gathered and assessed by TCRR and has not been used by FRA to evaluate environmental impacts of the Project in the NEPA process.</p>
GN-2	<p>In response to public comment, AECOM, on behalf of FRA, independently evaluated the ridership inputs, assumptions, and methodology used by TCRR, which included both business and personal travel patterns as detailed in TCRR’s original June 19, 2018 and updated March 25, 2019 Ridership Forecast Reports. Based on the independent evaluation, FRA determined that TCRR used a reasonable approach to conduct their ridership assessment and the outputs of the assessment are reasonable based on the methodology. Since the ridership forecast approach and outputs were deemed reasonable, the FRA continued to use, TCRR’s ridership estimate (5-7 million passengers per year) in both the Draft EIS and Final EIS. A summary of this AECOM’s review is included in Appendix J, Miscellaneous Memoranda, Ridership Demand Forecasting Methodology Assessment.</p> <p>As part of the Project development process, the horizon year is used to forecast the impact of growth on the travel network and support the decision-making process. Since the Draft EIS, TCRR has continued to refine their ridership projections. As a result, TCRR’s projected ridership numbers have increased since the publication of the Draft EIS. However, for purposes of this Final EIS, FRA continues to use the original ridership projections from the Draft EIS as this represents a more conservative estimate of impacts.</p>
GN-3	<p>FRA evaluated reports and references that were cited in public comments on the Draft EIS. FRA’s findings in relation to these resources, including the documents referenced in this comment, are contained in Appendix H, Response to Draft EIS Comments, Referenced Reports Memorandum.</p>

Table H-4: Standard Responses	
GN-4	<p>As stated in Section 1.1.2.2, Introduction, USDOT Credit or Financial Assistance of the Final EIS, TCRR (including its affiliated companies) may pursue financial assistance from the Department of Transportation (DOT), including through the Railroad Rehabilitation and Improvement Financing (RRIF) (45 U.S.C. Chs. 821 et seq.) or Transportation Infrastructure Finance and Innovation Act (TIFIA) (23 U.S.C. Chs. 601-609) to finance a portion of the Project. These are the two primary credit programs maintained by the USDOT and are overseen by the Build America Bureau (Bureau) and the Council on Credit and Finance. To date, TCRR has not submitted an application for credit assistance for the Project.</p> <p>Should TCRR receive credit or financial assistance from USDOT, additional Federal standards requirements attached to the provision of federal funds or financial assistance, including domestic buying preferences (e.g., RIFF Buy America policies), prevailing wage laws, employee protections, and property acquisition standards may apply to the Project. For example, information about the Buy America policy for the RRIF program is available on the Bureau’s website at the following link: https://www.transportation.gov/buildamerica/programs-services/rrif/buy-america.</p> <p>FRA’s federal action pertaining to the Project that triggers the obligation to comply with NEPA is the issuance of Rule of Particular Applicability. FRA would not be issuing any federal credit assistance for the Project. While this EIS may be used to satisfy USDOT NEPA obligations that stem from providing credit assistance for the Project, any actions by USDOT credit programs and related activities of the Bureau and Council on Credit and Finance, such as evaluation of loan applications and recommendations regarding assistance, are separate from FRA’s federal action.</p> <p>Additionally, the Project is not receiving funding or financing from the state of Texas or any local public entities (municipal, county or Council of Government) funds.</p>
GN-5	<p>TCRR would be responsible for the maintenance and safe operations of its trainsets, right-of-way, system and ancillary facilities as well as, all associated costs.</p>
GN-6	<p>The HSR stations are designed to accommodate connections to existing local public transportation in Dallas and Houston, and shared ride options, private vehicles and rental cars at all stations.</p>
GN-7	<p>FRA evaluated the Project proposed by TCRR, including station locations. TCRR proposed three stations as part of the Project: two terminal stations (Dallas and Houston) and one intermediate Brazos Valley Intermediate Station in Grimes County.</p> <p>As discussed in Section 2.5.2.1, Alternatives Considered, Station Alternatives Analysis, TCRR initially evaluated three station alternatives in Dallas and eight station options in Houston. No intermediate station alternatives were evaluated during the alternatives analysis screening because it was too early in the planning and conceptual design process to identify potential intermediary station locations without the alignment alternatives. The terminal station options were developed by TCRR using the following criteria: access to existing transportation and roadway networks and development opportunities. Based on these analyses, TCRR proposed three alternative locations for the Houston Terminal Station near IH-610 and US 290 (Industrial Site Terminal Option, Northwest Mall Terminal Option, and the Northwest Transit Center Terminal Option); a single location for the Dallas Terminal Station in south Dallas (near IH-30 and Lamar Street); and the intermediate Brazos Valley Intermediate Station in Grimes County near Roans Prairie on SH30.</p> <p>FRA independently evaluated these proposed stations in both the Draft EIS and this Final EIS. An overview of the stations in the Final EIS is located in Section 2.5.2.2, Alternatives Considered, Dallas Terminal Station, 2.5.2.3, Alternatives Considered, Houston Terminal Station Options and 2.5.2.4, Alternatives Considered, Brazos Valley Intermediate Station. Additional details are located in Appendix F, TCRR Final Conceptual Engineering Design Report and Appendix G, TCRR Final Conceptual Engineering Plans and Details.</p>

Table H-4: Standard Responses	
GN-8	As detailed within TCRR’s August 21, 2019 Surface Transportation Board (STB) filing, TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement that would give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket. TCRR would provide transfer service between the Terminal Stations and the Amtrak facilities in both Houston and Dallas, as detailed in Section 2.2.5.1, Alternatives Considered, Amtrak Through-ticketing Agreement of the Final EIS.
GN-9	While TCRR announced its preferred location for a Houston Terminal Station during the public comment period for the Draft EIS, FRA did not identify a preferred Houston Terminal Station Option in the Draft EIS. FRA continued to evaluate all three Terminal Station Options in Houston – Houston Industrial Site Terminal Station Option, Houston Northwest Mall Terminal Station Option and the Houston Northwest Transit Center Terminal Station Option throughout the preparation of this Final EIS. Based on the analysis contained in the Final EIS, FRA identified the Northwest Mall Terminal Station Option as the preferred Houston Terminal Station, as detailed in Section 2.7.3, Alternatives Considered, Comparison of Houston Terminal Station Option Alternatives .
AQ-1	<p>The projection of future power plant emissions was completed through an analysis of the emission trends of power plants at the state-level that would produce the power consumed by HSR. Data from the Energy Information Agency (EIA) was used to illustrate the declining trend in percent of total power that combustion generation comprises and used to quantitatively project total emissions factors based on that. This analysis was discussed in Section 3.2, Air Quality.</p> <p>Regarding electric, hybrid, and LNG vehicles, emissions factors used in calculating vehicle emissions were derived from the EPA’s latest Motor Vehicle Emission Simulator (MOVES) model, MOVES2014b. The model accounts for different fuel and engine technologies, including electric vehicles, and changes with future years with default assumptions EPA deemed appropriate for national trends. MOVES2014b has provisions to factor in the lack of tailpipe emissions from electric vehicles (EV) in the aggregate emissions factors, but the default assumption for the EV population is zero, because the market share is so small. However, MOVES does not calculate the indirect emissions that would come from power plants having to supply electricity to EVs. Predictions about the percentage of EVs making up new car sales vary wildly from the Energy Information Agency’s (EIA) prediction of modest growth from 1 percent to 8 percent and then flattening from 2028 through 2050, to Bloomberg’s prediction of exponential growth to almost 60 percent by 2040. However, the prediction by the world’s biggest car manufacturers themselves are tempered, predicted to be a combined 8 million sold by 2030, or about 9 percent of the current global sales (which would be even a smaller percentage of future global sales). The greatest factor affecting all predictions is generally the cost of batteries and the EV price premium. Texas’ rate of adoption of EVs has been projected to be on the low end of the spectrum among states, at 15 to 25 registrations per 10,000, or about 0.2 percent. Given the widely varying predictions and low current percentage, it would be very speculative to account for EV shares of passenger vehicles and thus EVs were not included in the assessment. Given the low rate of adoption in Texas and the modest growth predicted by the government and car manufacturers themselves, the future percentage would more likely be minor. Also, a shift to electric vehicles would still result in energy demand using the same emissions-producing sources (power plants) that the HSR would use.</p>

Table H-4: Standard Responses	
AQ-2	<p>Average annual daily traffic (AADT) figures from past or current years are not relevant for comparison to VMT numbers being projected for 2024 and 2040. By 2035, the AADT in the IH-45 corridor from Dallas to Houston by TxDOT’s own estimation is expected to reach 106,475 vehicles per day (vpd). With the percentage of transport trucks constituting 20 percent in this forecasted AADT, the annual VMT for passenger vehicles would be 7.43 billion miles (106,475 vpd X 0.8 X 239 miles X 365 days/year). The VMT removed assumed in the Draft EIS of 2.55 billion miles would represent 34 percent of this associated VMT, and not more than 100 percent of IH-45 2040 VMT. The HSR passenger trip assumption was verified with TCRR to represent one-way trips instead of the assumption of round trips used in the Draft EIS. The VMT removed has been revised accordingly in the Final EIS and the revised 2040 annual VMT removed of 1.35 billion miles represents only 18 percent of the IH-45 2040 VMT.</p>
AQ-3	<p>Passenger ridership numbers were verified by TCRR to indicate the number of trips in one direction. Therefore, the emissions for the Final EIS were revised with this assumption to calculate the numbers of cars removed from the road due to HSR use. The assumption of one-way trips was checked for its impact on the conclusion of HSR net project emissions impacts for the Draft EIS emission estimate and is summarized in tons per year below for the largest emission alternative (A). This change reduced by half the vehicle miles traveled (VMT) and vehicle emissions removed by HSR use, but there was still a net reduction of operational emissions for all pollutants, except for nitrogen oxides and sulfur dioxide. Sulfur dioxide was also projected to increase under the original round-trip assumption. The net emission increase for both pollutants is less than de minimis in both the DFW and HGB nonattainment areas. Therefore, the conclusion of no adverse long term impacts to air quality from operational air emissions would not change. This revised assumption and analysis was included in the Final EIS Section 3.2.3.2 Air Quality, Operational Emissions Methodology and 3.2.5.2.4 Air Quality, Operational Emissions.</p> <p>Previous assumption: Trip distance = 478 miles; 2040 VMT avoided = 2,552,520,000 miles Revised assumption: Trip distance = 239 miles; 2040 VMT avoided = 1, 347,960,000miles</p> <p>For 2026: HSR Operation Emissions: NOx = 67.2, VOC = 6.4, PM10 = 6.8, SO2=61, CO = 45.9, CO2eq = 172,941 CO2eq Metric Tons 156,889 Vehicle Emissions: NOx=36.4, VOC=18.2, PM10=31.8, SO2=1.8, CO=1, 194.4, CO2eq=235,480, CO2eq Metric Tons=213,624 Net Emissions: NOx = -30.8, VOC = -11.8, PM10=-25.0 SO2=59.2, CO = -1,148, CO2eq = - 68,937, CO2eq Metric Tons = - 62,539</p> <p>For 2040: HSR Operation Emissions: NOx = 30.1, VOC = 4. 8, PM10 = 3.3, SO2 = 9.7, CO = 32.7, CO2 equivalent = 122,032, CO2eq Metric Tons = 110,706 Vehicle Emissions: NOx = 24.3, VOC = 18.6, PM10 = 52, SO2 = 1.5, CO = 979.4, CO2eq = 296,996, CO2eq Metric Tons = 269,430 Net Emissions: NOx = -5.8, VOC = -13.8, PM10 = -48.7, SO2 = 8.2, CO = - 947, CO2 equivalent = - 192,865, CO2eq Metric Tons = -174,964</p>

Table H-4: Standard Responses

<p>AQ-4</p>	<p>The passenger vehicle occupancy of 1.2 passengers per car was the project-specific occupancy assumed for all passenger vehicle station arrivals (drive and park, rental car, taxi etc.) used by TCRR in planning station traffic and facilities. This number reflects the average number of train passengers expected to arrive by these modes of travel to the station. For the EIS analysis, conceptually this would reflect the numbers of passengers dropped off that would otherwise be using cars, for the share of travel mode that would be using cars without the HSR (94 percent). Because this was project-specific it was adopted. Also, at the time of the preparation of the Draft EIS, it was consistent with what was used in state transportation planning (1.25). Actual surveyed vehicle occupancy in the state had been falling below 1.2, including in the Dallas-Fort Worth area, as indicated in the sources with state vehicle occupancy rates. A state-specific vehicle occupancy rate was updated only in late 2017 after the Draft EIS published. This information, used for estimating roadway user delay costs, recommended a revision of the previous rate of 1.2 to 1.5 based on newer national survey data. Sensitivity of the conclusion of HSR net project emissions impacts to this vehicle occupancy rate was tested by using 1.5 passengers/car to recalculate vehicle emissions that would be reduced, employing the revised one-way trip assumption (discussed in the Passenger Trip Assumption response) and the same other inputs and assumptions used in the Draft EIS calculations. The results are summarized in tons per year below for the largest emission alternative (F) and indicate that there would still be a net reduction of emissions for all pollutants, except for NOx and sulfur dioxide, which was also projected to increase under the original round-trip assumption, with HSR usage. The net emission increase for both pollutants is less than de minimis in both the DFW and HGB nonattainment areas. Therefore, the conclusion of no meaningful adverse long-term impacts from operational air emissions would not change. The sensitivity analysis and calculation details were included with the revised air quality section and updates to estimates using newer state power generation data.</p> <p>For 2026: HSR Operation Emissions: NOx = 67.2, VOC = 6.4, PM10 = 6.8, SO2 = 61, CO = 45.9, CO2eq = 172,941, CO2eq Metric Tons = 156,889 Vehicle Emissions: NOx = 29.1, VOC = 14.6, PM10 = 25.4, SO2 = 1.5, CO = 911.2, CO2eq = 188,395, CO2eq Metric Tons = 170,909 Net Emissions: NOx = - 38.1, VOC = -8.2, PM10 = -18.6, SO2 = 59.5, CO = - 865.3, CO2eq = - 15,454, CO2eq Metric Tons = - 14,020</p> <p>For 2040: HSR Operation Emissions: NOx = 30.1, VOC = 4.8, PM10 = 3.3, SO2 = 9.7, CO = 32.7, CO2 equivalent = 122,032, CO2eq Metric Tons = 110,706 Vehicle Emissions: NOx = 19.6, VOC = 14.9, PM10 = 39.3, SO2 = 1.2, CO = 771.6, CO2eq = 237,649, CO2eq Metric Tons = 215,592 Net Emissions: NOx = 10.5, VOC = -10.1, PM10 = -36.0, SO2 = 8.5, CO = -738.9, CO2eq = - 115,617, CO2eq Metric Tons = -104,886</p>
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Table H-4: Standard Responses	
AQ-5	<p>The emissions factors used in calculating vehicle emissions were derived from the EPA’s latest Motor Vehicle Emission Simulator (MOVES) model, MOVES2014b. The model accounts for different fuel and engine technologies, including electric vehicles, and changes with future years with default assumptions EPA deemed appropriate for national trends. MOVES2014b has provisions to factor in the lack of tailpipe emissions from electric vehicles (EV) in the aggregate emissions factors, but the default assumption for the EV population is zero, because the market share is so small. However, MOVES does not calculate the indirect emissions that would come from power plants having to supply electricity to EVs. Predictions about the percentage of EVs making up new car sales vary wildly from the Energy Information Agency’s (EIA) prediction of modest growth from 1 percent to 8 percent and then flattening from 2028 through 2050, to Bloomberg’s prediction of exponential growth to almost 60 percent by 2040.^{4,5} However, the prediction by the world’s biggest car manufacturers themselves are tempered, predicted to be a combined 8 million sold by 2030, or about 9 percent of the current global sales (which would be even a smaller percentage of future global sales).⁶ The greatest factor affecting all predictions is generally the cost of batteries and the EV price premium.⁷ Texas’ rate of adoption of EVs has been projected to be on the low end of the spectrum among states, at 15 to 25 registrations per 10,000, or about 0.2 percent.⁸ Given the widely varying predictions and low current percentage, it would be very speculative to account for EV shares of passenger vehicles. Also, a shift to electric vehicles would still result in energy demand using the same emissions-producing sources (power plants) that the HSR would use.</p>
AQ-6	<p>The NEPA analysis used available information to calculate emissions to assess potential environmental impacts. The TCRR forecasted annual ridership of 4.4 million and 7.2 million for 2024 and 2040, respectively, represent averages of occupancy of 44 percent and 62 percent given the planned service levels of 68 and 80 trainsets per day with trainsets of a 400-passenger capacity. Regarding the calculations for vehicle emission reductions, the team confirmed the trainsets could accommodate the assumed ridership based on the planned level of service and car capacity.” With respect to concerns of unrealistically high trainset occupancy leading to overestimating the vehicle removal emissions benefits, other high-speed rail planning literature did not indicate these projections to be either extremely optimistic or pessimistic. Studies of the environmental impact of different travel modes by University of California at Berkeley considered high/low occupancy rates to be 90 percent/10 percent for high speed rail, and 110 percent/25percent for rail in general for averages of 50 percent and 67 percent, respectively.^{9,10} High speed rail price studies in Spain, which had been experiencing low HSR occupancy rates compared with other European Union countries, used 60 percent as an average planning basis, or cited 66 percent as actual average occupancies targeted for increase through pricing.¹¹ The TCRR occupancy rates appear to be reasonable.</p>

⁴ Rissman, Jeffrey. September 14, 2017. The Future of Electric Vehicles In The U.S., Part 1: 65 percent -75 percent New Light-Duty Vehicle Sales By 2050. Forbes.

⁵ Cohan, Dan. 01/24/17. Electric car sales predictions all over the map. The Hill.

⁶ Lacey, Stephen. July 17, 2017. Everyone Is Revising Their Electric Vehicle Forecasts Upward—Except Automakers. Greentech Media.

⁷ Cohan, Dan. 01/24/17. Electric car sales predictions all over the map. The Hill.

⁸ Center for Automotive Research. 2011. Deployment Rollout Estimate of Electric Vehicles 2011-2015. CAR, Ann Arbor, Michigan. <https://www.cargroup.org/publication/deployment-rollout-estimate-of-electric-vehicles-2011-2015/> (accessed 5/25/2018)

⁹ Chester, Mikhail and Arpad Horvath. 2010. Life-Cycle Environmental Assessment of California High Speed Rail. Access. 37:25–5. Accessed January 25, 2016. <http://www.accessmagazine.org/>

¹⁰ Chester, Mikhail V. Life-cycle Environmental Inventory of Passenger Transportation in the United States. Dissertation, Berkeley, CA: Institute of Transportation Studies, University of California, Berkeley, 2008.

¹¹ Ortega, Alejandro, Guzman, Andres Felipe, Preston, John and Vassallo, Jose Manuel (2016) Price elasticity of demand in high-speed rail lines of Spain: impact of new pricing scheme. Transportation Research Record, 2597, 90-98. (doi:10.3141/2597-12)

Table H-4: Standard Responses	
AQ-7	<p>The TxDOT Statewide Ridership Analysis Report that used the Statewide Analysis Model (SAM) stated that it was a high level evaluation of forecasted ridership and cost effectiveness for various corridors to determine which ones may warrant further analysis.¹² The report points out that the ridership forecast was conducted probabilistically to address uncertainties in estimated costs and forecasted ridership due to the inherent nature of a statewide high-level study that contained many unknowns that would need to be further evaluated and clarified in more in-depth corridor level studies. The report further states that the analysis was not intended to provide a detailed ridership analysis of an individual corridor, because many assumptions were applied to all corridors statewide, and would need to be modified to more accurately reflect the characteristics of any particular corridor. The range of ridership of 0.7 million to 2.7 million from the report cited in many comments were not the most appropriate Dallas-Houston corridor figures to use from this report. This is because the report states that further analysis was conducted on this corridor due to the results of the preliminary analysis being lower than other corridors, despite having higher numbers of intercity travelers. With further analysis using characteristics derived from publicized assumptions of the TCRR HSR at the 2013 date of the report, the ridership forecasted doubled to 7.8 million annual riders by 2035 with probabilistic results ranging 1.5 million to 5.7 million. The TCRR ridership number of 7.2 million that resulted from specific market analyses and using more specific and current service assumptions, are similar to the TxDOT projection of 7.8 million annual riders.</p>
AQ-8	<p>As discussed in Section 3.2.6.1 Air Quality, Compliance Measures, Construction of the Project would increase local and regional emissions of particulate matter (fugitive dust) and pollutant emissions from fuel combustion. However, construction emissions would be temporary and transient in nature occurring only in active construction areas. The short-term emissions increases during the construction period would be reduced through Best Management Practice (BMP) mitigation measures as discussed in Section 3.2.6.1 Air Quality, Compliance Measures. Potential air quality impacts associated with operation of the trainset and the Grimes County station and roads leading to the station would be minor. Cars traveling to the Roans Prairie Station would be expected to come from College Station or Huntsville and would be expected to consist of vehicles that would otherwise travel to Houston or Dallas. Both College Station and Huntsville are in areas in attainment of National Ambient Air Quality Standards (NAAQS), and only a portion of the road traffic along the highway routes leading to Houston or Dallas would divert to the Roans station. Therefore, attainment of these air quality standards would not be expected to be compromised in Grimes County due to traffic along SH 30 and SH 90. It should also be noted that the main highway route from College Station to Dallas would tend to use SH 30 to connect to IH 45. Therefore, part of the traffic that would be diverted to the Roans station would already travel through SH 30.</p>
AQ-9	<p>The 106,475 vpd cited in the comment is not using an average per station for the entire route, but is a corridor-long average from TxDOT's 2035 forecast of average AADT along the whole Houston-Dallas corridor in the report cited in the Final EIS.¹³ Since it is a corridor-long average, it is a useful metric for numbers of travelers originating in Houston and traveling to Dallas (or vice versa). Also, the comment misconstrues what 14percent is being applied to. It is not being applied to the projected 2035 AADT. It is only a statement of what percentage of the total projected AADT the car trips deferred would represent. The car trips deferred are derived from the forecasted ridership, not from AADT volumes. The comment's figure of 17,763 vpd is more than the 14,630 vpd derived from the ridership, corroborating it is possible versus this citation of TxDOT SAM mapping data.</p>

¹² Texas Department of Transportation (TxDOT). 2013. Statewide Ridership Analysis Report. Technical report written for TxDOT by HNTB and Alliance Transportation Group.

¹³ Texas Department of Transportation (TxDOT). 2011. TxDOT Administration Research: Tasks Completed FY2010. Report No. FHWA/TX-11/0-6581-TI-2. Technical report produced for TxDOT by Texas Transportation Institute

Table H-4: Standard Responses	
AQ-10	<p>The EPA MSAT rule requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. As a result, future MSAT emissions would likely be lower than present levels as a result of EPA's national control programs and are expected to reduce priority MSAT emissions by 91percent from 2010 to 2050 (see Projected National MSAT Emission Trend figure located in Section 3.2.3Air Quality, Methodology). The same future improvements in emissions control that are implemented in the MOVES model that EPA used to demonstrate expected decreases in MSAT are implemented in the MOVES modeling used to generate vehicle emissions that would be avoided. With regard to the assertion of rising popularity of electric and other alternatively powered vehicles, the current percentage of passenger vehicles comprised of electric vehicles is negligible and forecasts of future rates of adoption by the buying public are so widely variable as to render adjusting for this very speculative. Government and auto manufacturer estimates of adoption tend to be much lower. Predictions about the percentage of EVs making up new car sales vary wildly from the Energy Information Agency's (EIA) prediction of modest growth from 1percent to 8 percent and then flattening from 2028 through 2050, to Bloomberg's prediction of exponential growth to almost 60 percent by 2040.^{14,15} However, the prediction by the world's biggest car manufacturers themselves are tempered, predicted to be a combined 8 million sold by 2030, or about 9 percent of the current global sales (which would be even a smaller percentage of future global sales).¹⁶ The greatest factor affecting all predictions is generally the cost of batteries and the EV price premium.¹⁷ Texas' rate of adoption of EVs has been projected to be on the low end of the spectrum among states, at 15 to 25 registrations per 10,000, or about 0.2 percent.¹⁸ Given the widely varying predictions and low current percentage, it would be very speculative to account for EV shares of passenger vehicles. Also, a shift to electric vehicles would still result in energy demand using the same emissions-producing sources (power plants) that the HSR would use.</p>
AQ-11	<p>FRA will require TCRR to implement and enforce all applicable Compliance and Mitigation Measures as listed in Section 3.2.6 Air Quality, Avoidance, Minimization and Mitigation.</p>

¹⁴ Rissman, Jeffrey. September 14, 2017. The Future of Electric Vehicles In The U.S., Part 1: 65 percent -75 percent New Light-Duty Vehicle Sales By 2050. Forbes.

¹⁵ Cohan, Dan. 01/24/17. Electric car sales predictions all over the map. The Hill.

¹⁶ Lacey, Stephen. July 17, 2017. Everyone Is Revising Their Electric Vehicle Forecasts Upward—Except Automakers. Greentech Media.

¹⁷ Cohan, Dan. 01/24/17. Electric car sales predictions all over the map. The Hill.

¹⁸ Center for Automotive Research. 2011. Deployment Rollout Estimate of Electric Vehicles 2011-2015. CAR, Ann Arbor, Michigan. <https://www.cargroup.org/publication/deployment-rollout-estimate-of-electric-vehicles-2011-2015/> (accessed 5/25/2018)

Table H-4: Standard Responses	
AQ-12	<p>There was an error in the HGB miles noted in the Draft EIS that has been revised to correctly reflect the approximate 27 miles from the Houston city center to the northern edge of Harris County. Also, in the Draft EIS passenger ridership numbers were incorrectly assumed to represent round trips. . Passenger ridership numbers were verified with TCRR to indicate the number of trips in one direction. Therefore, the emissions for the Final EIS were revised with this assumption to calculate the numbers of cars removed from the road due to HSR use. The assumption of one-way trips was checked for its impact on the conclusion of HSR net project emissions impacts for the Draft EIS emission estimate. This change halved the VMT and vehicle emissions removed by HSR use, but there was still a net reduction of operational emissions for all pollutants, except for nitrogen oxides and sulfur dioxide. This was true of the overall operational emissions and conformity pollutants NOx and VOC in the HGB NAA, with net HGB emissions in 2026 and 2040 respectively of -7.5 and -1.0 tons per year (TPY) for NOx, and -2.9 to -3.3 TPY for VOC. In addition to net positive NOx emissions in the HGB NAA in both 2026 and 2040. DFW NAA NOx is also a net positive, at 17.1 tons per year in 2026 and 6.2 TPY in 2040, which is 12.4 to 34.2 percent of the de minimis threshold to determine if general conformity applies. Therefore, the conclusion of no adverse long term impacts to air quality from operational air emissions would not change. This revised assumption was included in the Final EIS.</p> <p>See AQ-4 discussing the vehicle occupancy assumption for details on this assumption. When the vehicle occupancy assumption is also changed to 1.5 in addition to the passenger assumption revision and uniform ERCOT power assumption, the net NOx emissions in the HGB NAA still shows NOx reductions in 2026 of -2.7 TPY and -4.8 TPY in 2040 and -6.9 to -7.2 TPY for VOC. With vehicle occupancy changed, the DFW NAA NOx in 2026 and 2040 are respectively, -8.3 to -6.6 TPY, while all other HGB and DFW emissions in 2026 and 2040 showed net reductions (except for SO2 as already described in the Draft EIS).</p>

Table H-4: Standard Responses

<p>AQ-13</p>	<p>The ridership numbers used in the Final EIS analysis are commensurate with occupancy rates assumed for high speed rail planning or environmental analysis.^{19,20} The TCRR ridership report was reviewed and found to use reasonable travel market demand methodologies as detailed in Appendix J, Ridership Technical Memorandum. Analysis in the Draft EIS incorrectly assumed that ridership passenger numbers represented round trips. Passenger ridership numbers were verified with TCRR to indicate the number of trips in one direction. VMT was revised with one way trip assumptions using the same methodology previously applied and described in Section 3.2.3.2 Air Quality, Operational Emissions Methodology and based on the re-calculated emissions, there was no net increases as comment asserts. The emissions for the Final EIS were revised with the assumption of one-way trips to calculate the numbers of cars removed from the road due to HSR use. The assumption of one-way trips was checked for its impact on the conclusion of HSR net project emissions impacts for the Draft EIS emission estimate and is summarized in tons per year below for the largest emission alternative (A). This reduced by half the vehicle miles traveled (VMT) and vehicle emissions removed by HSR use, but there was still a net reduction of operational emissions for all pollutants, except for nitrogen oxides and sulfur dioxide. Therefore, the conclusion of no adverse long-term impacts to air quality from operational air emissions would not change. This revised assumption was included in the Final EIS.</p> <p>Previous assumption: Trip distance = 478 miles; 2040 VMT avoided = 2,552,520,000 miles Revised assumption: Trip distance = 239 miles; 2040 VMT avoided = 1,347,960,000 miles</p> <p>For 2026: HSR Operation Emissions: NOx = 67.2, VOC = 6.4, PM10 = 6.8, SO2 = 61, CO = 45.9, CO2eq = 172,941, CO2eq Metric Tons = 156,889 Vehicle Emissions: NOx = 36.4, VOC = 18.2, PM10 = 31.8, SO2 = 1.8, CO = 1,194, CO2eq = 235,480, CO2eq Metric Tons = 213,624 Net Emissions: NOx = - 30.8, VOC = - 11.8, PM10 = -25.0, SO2 = 59.2, CO = -1, 148, CO2eq = - 68,937, CO2eq Metric Tons = - 62,539</p> <p>For 2040: HSR Operation Emissions: NOx = 30.1, VOC = 4.8, PM10 = 3.3, SO2 = 9.7, CO = 32.7, CO2 equivalent = 122,032, CO2eq Metric Tons = 110,706 Vehicle Emissions: NOx = 24.3, VOC = 18.6, PM10 = 52.0, SO2 = 1.5, CO = 979.4, CO2eq = 296,996, CO2eq Metric Tons = 269,430 Net Emissions: NOx = 5.8, VOC = - 13.8, PM10 = - 48.7, SO2 = 8.2, CO = -947, CO2eq = -192,865, CO2eq Metric Tons = -174,964</p>
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¹⁹ Chester, Mikhail and Arpad Horvath. 2010. Life-Cycle Environmental Assessment of California High Speed Rail. Access. 37:25–5. Accessed January 25, 2016. <http://www.accessmagazine.org/>

²⁰ Chester, Mikhail V. Life-cycle Environmental Inventory of Passenger Transportation in the United States. Dissertation, Berkeley, CA: Institute of Transportation Studies, University of California, Berkeley, 2008.

Table H-4: Standard Responses	
AQ-14	<p>Analysis in the Draft EIS incorrectly assumed that ridership passenger numbers represented round trips. Passenger ridership numbers were verified with TCRR to indicate the number of trips in one direction. Therefore, the vehicle miles traveled (VMT) avoided for the Final EIS were revised with the assumption to recalculate the resultant fuel and energy use reductions. The assumption of one-way trips was checked for its impact on the conclusion of HSR net energy saved and no adverse impact on energy usage and is summarized below for the largest emission alternative (A). This change reduced by half the VMT, gallons of fuel saved and associated energy usage reduced by HSR use, but there was still a net reduction of energy used. Even in the case of initial service level in 2026, net energy savings is estimated. This is summarized below for 2040 and detailed in the Final EIS. Therefore, the conclusion of no adverse long term impacts on energy consumption and depletion of energy sources does not change. This revised assumption was included in Section 3.9.5.2.3 Utilities, Fuel.</p> <p>VMT = 1,347,960,000, Gallons of Fuel Saved = 39,529,619, Net energy saved = 2,711,370 MMBTU</p>

Table H-4: Standard Responses

<p>AS-1</p>	<p>The impact analysis for Aesthetics and Scenic Resources is presented in Section 3.10 of the Final EIS. See Section 3.10.3, Aesthetics and Scenic Resources, Methodology for a definition of key terms, including landscape unit (LU). The 13 LUs were identified based on common visual features and characteristics including population density, geology, topography, and built environment. These areas were structured to represent the many diverse views along a 240-mile corridor. Section 3.10.3, Aesthetics and Scenic Resources, Methodology also describes the methodology for assessing impacts, which is based on FHWA guidance for conducting visual impact analysis. The text explaining the methodology was updated in response to public comments to offer more detail about the procedure FRA followed to assess visual impacts. Specifically, the Final EIS defines key terms, the existing visual quality assessment and the procedure for evaluating visual impacts. This impact analysis considered several factors, including the sensitivity of viewer groups and the activity in which the viewer would be engaged while viewing the Project area in order to determine length of time viewer groups may spend viewing certain areas and their response to changes in visual quality.</p> <p>The EIS identifies adverse visual impacts at some locations. The Final EIS includes updated visual impact analysis based on TCRR engineering refinements (see Section 2.5.4, Alternatives Considered, Engineering Refinements) and comments received during the public comment period, as documented in the summary of impacts in Section 3.10.5, Aesthetics and Scenic Resources, Environmental Consequences. Approximately 55 percent of the Project would be on viaduct and could be visible at greater distances if there are no existing vegetation or trees limiting views of the Project. Additionally, approximately 48 percent of the alignment is adjacent to existing infrastructure, such as utility lines, pipelines, freight rail, or roads. When on embankment or cut construction, the Project may not be visible at greater distances. Additionally, the Project could be visible if viewers are at higher elevations than the Project. Views toward the Project, however, may be limited by existing trees or vegetation, especially in areas where most of the terrain is flat or trees and vegetation are mature and dense. Mature trees along the Project Area may reach heights of 30 feet or greater. As seen in many pictures of existing conditions throughout Section 3.10, Aesthetics and Scenic Resources, it is common for properties to have trees and vegetation along property lines, which further limits expansive views beyond property lines.</p> <p>Those viewers, who are non-travelers, closest to the Project, or with clear sight lines to the Project, have been identified as having the most adverse visual impacts. Where visual impacts would occur, mitigation and avoidance measures as detailed in Section 3.10.6, Aesthetics and Scenic Resources, Avoidance, Minimization and Mitigation would be used to minimize the impacts, such AS-MM#3 Preserve Existing Vegetation and Feather Edges for planting trees or additional vegetation. Visual impacts related to construction of noise barriers will be addressed during final design by TCRR, described further in Section 3.4.6.2, Noise and Vibration, Noise Mitigation. As summarized in Section 3.10.7, Aesthetics and Scenic Resources, Build Alternatives Comparison, the Preferred Alternative would have the following impacts on landscape units: eight neutral, two beneficial and two adverse. Beneficial impacts improve the experience for the viewer and may enhance visual resources or create improved views of those resources. Impacts which adversely impact visual quality degrade the quality of the visual resources, obstruct sensitive views or change desired views. Neutral impacts occur when the existing visual quality is not perceived to be enhanced or degraded. These impacts could result in a change to the existing visual quality; however, viewer sensitivities are low to moderate, and the Project would be compatible with the existing environment.</p>
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Table H-4: Standard Responses	
BA-1	<p>As discussed in Section 1.1.1, Introduction, Project History, the Dallas to Fort Worth Core Express Service Project is being studied under a separate environmental review and is not part of this HSR project. NCTCOG has included high speed or express passenger rail corridors in its long-range regional transportation plan <i>Mobility 2045</i>. One of these corridors is between Dallas and Fort Worth, for which NCTCOG is currently initiating a study and potentially an EIS (referred to as the <i>Alternative Analysis, Preliminary Engineering, and NEPA Documentation for High-Speed Transportation Service Between Dallas and Fort Worth, Texas</i>). The study is evaluating improved intercity commuter rail, high-speed rail, and potential hyperloop technologies, and connectivity to the planned Intermodal Hub in downtown Dallas.</p> <p>The Dallas to Fort Worth Project is also identified in Table 4-2, Past, Present, and Reasonably Foreseeable Projects Considered for Cumulative Impact Analysis, and included in the cumulative impacts' analysis in Chapter 4, Indirect and Cumulative Analysis. To date, there are no available detailed plans of NCTCOG's Dallas to Fort Worth service and potential future extensions of the Dallas to Houston HSR project have not been identified or evaluated in this Final EIS.</p>
BA-2	<p>Texas Department of Transportation (TxDOT) is studying the need for passenger rail connections to Austin and/or San Antonio. TxDOT's "Texas Rail Plan," last updated May 2016) reviews current and potential future projects, including this Dallas to Houston HSR Project. The Texas Rail Plan addresses existing and future passenger and freight rail service in Texas. Passenger rail updates are provided annually, and the full plan is revised every four years.</p>
BA-3	<p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements of the Final EIS, changes to the Project, as presented in the Draft EIS, have occurred as the conceptual engineering design progressed. Throughout the NEPA process, TCRR has continually refined the design of the Project to reduce the Project footprint, or LOD, in this EIS and avoid or minimize impacts to the socioeconomic, natural, cultural and physical environment. These engineering refinements were based on environmental and engineering surveys, stakeholder engagement, public input, design development, and the findings of FRA's environmental analyses. Therefore, the Build Alternatives depicted in the Final EIS differ from the alignment alternatives originally developed in the Dallas to Houston HSR Draft EIS.</p> <p>While refinements occurred primarily to Build Alternative A since the Draft EIS, all six Build Alternatives (A through F) are assessed in the Final EIS. TCRR's revisions can be categorized into four main groups:</p> <ul style="list-style-type: none"> • Alignment and Profile Refinements and Optimizations • Station refinement and optimizations • General HSR Program Refinements and Optimizations (e.g., TMF relocations and additional of emergency access points) • LOD refinements and Optimizations <p>Additional details are located in Section 2.5.4, Alternatives Considered, Engineering Refinements and in Appendix F, TCRR Final Conceptual Engineering Design Report and Appendix G, TCRR Final Conceptual Engineering Plans and Details</p> <p>Design modifications made by TCRR since the Draft EIS resulted in approximately 17.5 percent of the track centerline being shifted to an area outside of a previous LOD. Also, as a result of these design modifications, the overall footprint of the Project evaluated was reduced by approximately 23 percent.</p> <p>The impacts associated with these refinements to the conceptual engineering have been assessed by FRA in the Final EIS.</p>

Table H-4: Standard Responses	
BA-4	<p>FRA evaluated the Project as proposed by TCRR, which is based on the Japanese N700-Series Tokaido Shinkansen technology. TCRR proposed this high-speed rail technology as the technology that would best fulfill their operational objective, as detailed in Section 1.2.1.2, Introduction, TCRR Objectives. FRA’s evaluation of proposed corridor alternatives is documented in the Dallas to Houston High-Speed Rail Project, Corridor Alternatives Analysis Technical Report as detailed in Section 2.4, Alternatives Considered, Development and Evaluation of Proposed Corridors. As detailed in Section 2.4.2, Alternatives Considered, Description of Other Modes Considered of the EIS, this evaluation also considered the application of higher-speed and conventional rail service within the Dallas to Houston corridor (no service currently operates in this corridor) and determined that while higher-speed and conventional rail service may be able to use existing railroad ROW on either the BNSF or UPRR corridors, these potential corridor alternatives would not be able to meet TCRR’s objective to employ the N700-Series HSR system as proposed in TCRR’s petition for a Rule of Particular Applicability or meet a Purpose and Need of the Project to reach high-speed passenger rail travel speeds not to exceed 205 mph.</p> <p>FRA also evaluated direct bus service (several current service providers) and the expansion of IH-45 as part of corridor alternatives analysis. While these modes may support traffic congestion relief for vehicular transportation, they would not meet TCRR’s 90-minute travel objective. Additionally, direct bus service or IH-45 expansion would not provide passenger rail service, as per the Purpose and Need of the Project or TCRR’s objectives. As reflected in the Final EIS, FRA has not evaluated other types of high-speed rail as part of this Project.</p>
BA-5	<p>As discussed in Section 2.4.4, Alternatives Considered, Corridor Alternative Retained for Further Analysis of the EIS, FRA determined that the Utility Corridor (Preferred Corridor), in its entirety, would be retained for further investigation as it would best meet the Project’s Purpose and Need and TCRR’s technological, operational and environmental objectives, defined in Section 1.2.1, Introduction, Purpose. FRA determined that there were no major physical characteristics, operational feasibility or environmental constraints that would eliminate the Utility Corridor from further consideration.</p> <p>FRA determined that portions of the IH-45, BNSF and UPRR Corridors would be retained for further investigation in the <i>Dallas to Houston High Speed Rail Project, Alignment Alternatives Analysis Report</i> in the event that constraints arose along the Utility Corridor.</p>
BA-6	<p>As discussed in Section 2.6.1, Alternatives Considered, No Build Alternative of the EIS, the No Build Alternative would not provide congestion relief, improve safety on IH-45, meet current and future transportation needs between Dallas and Houston and would not offer an alternative transportation mode that would connect to existing modes. The No Build Alternative would not meet the specified Purpose and Need for this Project (detailed in Section 1.2, Introduction, Purpose and Need for the Dallas to Houston High-Speed Rail Project). The No Build Alternative has not been eliminated from the EIS. Throughout Chapter 3.0, Environmental Baseline and Consequences, the No Build Alternative is described as a baseline for comparison of resource impacts with Build Alternatives A through F and the Houston Terminal Options. Additionally, as discussed in Section 3.11, Transportation of the EIS, the No Build Alternative includes evaluations of planned and programmed transportation improvements.</p>

Table H-4: Standard Responses

<p>BA-7</p>	<p>As detailed in Section 2.7, Alternatives Considered, Preferred Alternative, FRA considered the comparative analysis of the No Build Alternative, the Build Alternatives A through F and the Houston Terminal Station Options presented in the Final EIS. FRA identified Build Alternative A and the Houston Northwest Mall Terminal Station Option as the Preferred Alternative. In identifying the Preferred Alternative, FRA considered environmental, technical, and other factors, including the alternative that would best meet the cooperating agencies’ defined plans, policies and regulations.</p> <p>As discussed in Section 2.7.1, Alternatives Considered, Statutory Considerations, Build Alternatives, D, E, and F were not recommended by FRA as the preferred alternative due to Segment 2B’s impacts to Lake Bardwell fee land. Per USACE’s National Non-Recreation Outgrant Policy, Segment 2B could not be carried forward in the USACE’s Section 408 authorization evaluation, as there is a viable alternative not on federal property. Segments 1 and 5, common to all Build Alternatives, would impact three 4(f) resources along common segments in Dallas and Harris counties. Additionally, Segment 3C (on Build Alternative C) would use an additional property, Fort Boggy State Park. Further coordination with TPWD determined that under Texas Parks and Wildlife Code Chapter 26, Protection of Public Parks and Recreational Lands, that Segment 3C would not carried forward under the TPWD evaluation criteria as there are viable alternatives (Build Alternatives A,B, D and E) not on state property. .</p> <p>When the environmental impacts of Build Alternative A and B are compared across all resource areas, Build Alternative A would have overall fewer permanent and temporary impacts, as noted in Table 2-14 and described in Section 2.7, Alternatives Considered, Preferred Alternative. Therefore, FRA identified Build Alternative A as the preferred alternative.</p> <p>Build Alternative A (depicted in Figure 2-29) would be comprised of Segments 1, 2A, 3A, 4 and 5. The proposed HSR infrastructure and operations are detailed within Section 2.2, Alternatives Considered, Proposed HSR Infrastructure and Operations. Based on existing infrastructure and changes in topography, combined with the need to minimize vertical changes along the HSR line, the double-track system would be constructed using a combination of viaduct (a bridge like structure), at-grade, or retained fill/embankment. Approximately 55 percent of the HSR line would be constructed on viaduct. Approximately 129 miles of the Preferred Alternative would be constructed on viaduct, 27 miles by cut construction and 79 miles on embankment. Please refer to Appendix D, Project Footprint Maps of the EIS where the HSR track configurations are shown for the entire project footprint.</p> <p>While TCRR announced its preferred location for a Houston Terminal Station during the public comment period for the Draft EIS, FRA did not identify a preferred Houston Terminal Station Option in the Draft EIS. FRA continued to evaluate all three Terminal Station Options in Houston – Houston Industrial Site Terminal Station Option, Houston Northwest Mall Terminal Station Option and the Houston Northwest Transit Center Terminal Station Option throughout the preparation of this Final EIS. Based on the analysis contained in the Final EIS, FRA identified the Northwest Mall Terminal Station Option as the preferred Houston Terminal Station Option, as detailed in Section 2.7.3, Alternatives Considered, Comparison of Houston Terminal Station Option Alternatives.</p>
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Table H-4: Standard Responses

<p>BA-8</p>	<p>As noted in Section 1.2.1.2, TCRR Objectives in the Draft EIS, TCRR identified the Dallas to Houston corridor as an ideal distance to implement high-speed intercity passenger rail connecting two of the largest urban centers in the country. With proposed terminal stations options in Dallas and Houston, the Study Area encompasses a 10 county area including Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller and Harris counties.</p> <p>Many routes between Dallas and Houston were evaluated by the FRA prior to release of the Draft EIS (December 22, 2017) and published for public review on FRA’s project website (https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail). These routes were documented in: 1) HSR Corridor Alternatives Analysis Technical Report, published August 10, 2015; and 2) HSR Alignment Alternatives Analysis Report, published November 6, 2015. The HSR Corridor Alternatives Analysis Technical Report compared four corridors (BNSF, IH-45, UPRR and Utility) and identified the preferred as the Utility Corridor. The Utility Corridor was further evaluated in the HSR Alignment Alternatives Analysis Report, where FRA completed an independent, multi-level screening analysis to evaluate TCRR’s 21 alignment alternatives within the Utility Corridor. As detailed in Section 2.5.1.1, Alternatives Considered, Level I Screening the screening considered the Purpose and Need of the Project, TCRR’s alignment objectives (i.e., maximizing grade separation and minimizing environmental impacts and constructability concerns) and TCRR’s design guidelines (i.e., maximum operating speed and minimum alignment curvature. As detailed in Section 2.5.1.2, Alternatives Considered, Level II Screening, the next screening assessed the remaining alignment alternatives within specific geographic groups and used a desktop level evaluation of environmental, physical, and socioeconomic criteria and other factors (as detailed in Table 2-2 of the EIS) to further refine the number of alternative alignments.</p> <p>The resulting analysis identified eight segments (1, 2A, 2B, 3A, 3B, 3C, 4 and 5) from primarily the Utility Corridor (and minor portion from the IH-45 and BNSF/UPRR Corridors) that create the six end-to-end Build Alternatives (A through F) for evaluation in the Draft EIS and this Final EIS, as depicted in Figure 2-28. Segment descriptions in Section 2.6.2, Alternatives Considered, Build Alternatives, are included to identify the locations of the segments and the differences between the Build Alternatives.</p> <p>The Final EIS has been prepared with public and agency involvement, which is summarized in Chapter 9.0, Public and Agency Involvement. Information from the public and agency meetings outlined in Chapter 9.0 helped shape the content of the Scoping document, HSR Corridor Alternatives Analysis Technical Report, HSR Alignment Alternatives Analysis Report, the Draft EIS, and this Final EIS.</p>
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Table H-4: Standard Responses

<p>BA-9</p>	<p>The IH-45 Corridor was thoroughly evaluated by FRA in the HSR Corridor Alternatives Analysis Technical Report, dated August 10, 2015, and the HSR Alignment Alternatives Analysis Report, dated November 6, 2015. These reports compared four potential corridors (BNSF, IH-45, UPRR and Utility) and identified the preferred corridor as the Utility Corridor to be carried forward for additional study and analysis in the EIS.</p> <p>As discussed in Section 2.4.3, Alternatives Considered, Corridor Screening Methodology of the EIS, FRA eliminated the IH-45 Corridor because sufficient right-of-way (ROW) does not exist throughout the entirety of the interstate corridor and would result in greater direct impacts to residential and commercial properties. Also, the IH-45 corridor was the only corridor alternative that would directly impact the Sam Houston National Forest, resulting in impacts to recreation resources and managed habitat. The physical characteristics of the highway ROW would not be suitable for HSR operations due to the existing curvature. Eliminating the curves to safely reach the trainset operating speeds, would result in greater direct impacts to residential and commercial properties. Roadway interchanges would require extensive reconstruction above or below the HSR tracks and would result in increased direct impacts to residential and commercial properties. Therefore, the IH-45 Corridor was not identified by FRA as the preferred corridor.</p> <p>FRA also determined that portions of the IH-45 Corridor should be retained for further investigation in the Final EIS if constraints arose along the Utility Corridor. Portions of the IH-45 Corridor were included in Build Alternatives C and F. As discussed in Section 2.7.1, Alternatives Considered, Statutory Considerations, Build Alternative F was removed as an option by FRA due to Segment 2B’s impacts to Lake Bardwell fee land. Per USACE’s National Non-Recreation Outgrant Policy, Segment 2B would not be carried forward in the USACE’s Section 408 authorization evaluation, as there is a viable alternative not on federal property. Additionally, Segment 3C (on Build Alternative C) would use an additional property, Fort Boggy State Park. Further coordination with TPWD determined that under Texas Parks and Wildlife Code Chapter 26, Protection of Public Parks and Recreational Lands, that Segment 3C would not be carried forward under the TPWD evaluation criteria as there are viable alternatives (Build Alternatives A,B, D and E) not on state property.</p>
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Table H-4: Standard Responses	
BA-10	<p>As discussed in Section 2.4.3, Alternatives Considered, Corridor Screening Methodology of the EIS, FRA eliminated the BNSF and UPRR corridors predominantly because the physical characteristics of the BNSF and UPRR ROWs would not be suitable for high-speed rail operations due to curvature of the existing freight rail line. The curvature of existing rail lines would not permit the HSR trainsets to safely operate through the curves at the speeds necessary to meet the travel time objectives. Additionally, BNSF and UPRR declined consent to share existing ROW for the majority of the 240 miles between Dallas and Houston due to safety concerns. The immediate adjacency of high-speed rail with BNSF and UPRR corridors would require installation of a safety wall, which would be cost-prohibitive if installed the entire 240-mile length of the corridor. To address curvature constraints and the need for a barrier safety wall, these alternatives would need to be located farther from the existing freight rail infrastructure and would result in greater property impacts.</p> <p>While the BNSF and UPRR corridors were eliminated from further evaluation as part of the Corridor Alternatives Analysis, FRA recognized that opportunities may exist for TCRR to negotiate with BNSF and UPRR to locate the HSR track adjacent to or within the ROW of the host railroad for short distances in order to minimize potential adverse impacts in certain areas along the route. Therefore, portions of the BNSF and UPRR corridors were retained for further investigation in the event that constraints arose along the Utility Corridor. As a result, portions of Segments 1 and 5 parallel existing BNSF and/or UPRR tracks. On Segment 1, the alignment begins on the south side of downtown Dallas near IH-30 and Lamar Street and parallels the existing UPRR freight line towards IH-45. It crosses the Trinity River, running between the existing BNSF freight line and IH-45 as it crosses E. Illinois Avenue, Loop 12 and Simpson Stuart Road. South of Simpson Stuart Road, Segment 1 separates from IH-45 and generally follows the BNSF freight line, crossing IH-20, N. Lancaster/Hutchins Road, E. Pleasant Run Road and W. Beltline Road. On Segment 5 in Houston, the alignment parallels UPRR and US 290/Hempstead Road into the Houston Terminal Options. Segments 1 and 5 are represented in all Build Alternatives A through F. In the EIS, TR-CM#4, Railroad Crash Barriers, identifies where the HSR System would run parallel to freight railroads and would require crash barriers.</p>
BA-11	<p>The Cross Texas Transmission, LLC (Cross Texas) Limestone to Gibbons Creek Project is an approximately 68-mile 345-KV overhead transmission line through Leon, Madison, and Grimes Counties. This project is not associated with the HSR project. Due to the differences in the project's type (transportation versus electrical transmission), design and construction needs (alignment and curvature requirements); any decisions made for the Limestone to Gibbons Creek Project are not applicable to the HSR project.</p>
BA-12	<p>As stated in Section 1.2.2.6, Introduction, Limitations of Existing Transportation Modes of the EIS, Southwest Airlines (SWA) is the primary carrier of passengers between Dallas and Houston and reported in 2013 a 50 percent decrease in that route as they move to more long-haul flights. Nationally, short-haul traffic for SWA in 2014 continued to decline by more than 35 percent since 2000. Additional carriers may choose to enter the Dallas to Houston market, but carriers across the industry have scaled back their short-haul routes in order to offer longer, more profitable, non-stop service. In addition to expanding long-haul services, SWA ended 2017 with international service to 14 destinations, including from Houston and Dallas and has also announced plans to continued expanding international service (anticipated a total of 15 international destinations in 2020). Due to the steady decline in short-haul routes over the past six years and the focus on international expansion over the past two year, an increase in short-haul routes between Dallas and Houston is not expected.</p>

Table H-4: Standard Responses	
CR-1	<p>For the Final EIS, the Oxford Cemetery was previously determined eligible for the National Register of Historic Places (NRHP) (see Table 3.19-5 and Section 3.19.4.2.7, Cultural Resources, Madison County) based on the results of the evaluation in compliance with Section 106 of the National Historic Preservation Act (<i>Protection of Historic Properties [36 C.F.R. § 800]</i>). The Oxford Cemetery is located approximately 95 feet north of the current Limits of Disturbance (LOD) of Segment 4 (Build Alternatives A, B, D and E) and therefore would not be physically impacted by the Project.</p> <p>The Ten Mile Cemetery was determined not eligible for the NRHP by the FRA, in consultation with the Texas Historical Commission (THC), under Section 106 but was designated as a Historic Texas Cemetery in 2016 (see Table 3.19-4) and is adjacent to the LOD of Segment 4 (Build Alternatives A, B, D and E). While no physical impacts are expected at the Ten Mile Cemetery based upon known cemetery boundaries, unavoidable visual, noise and/or vibration impacts may occur.</p> <p>All cemeteries in Texas are protected under provisions of the Texas Health and Safety Code in Chapters 711-715; Title 13 § 2, Chapter 22, Rule 22.4(b) of the Texas Administrative Code – <i>Unknown and Abandoned Cemeteries</i>, and Rule 22.5 of the Texas Administrative Code – <i>Removal of Remains from an Abandoned or Unknown Cemetery</i>; and in Section 28.03(f) of the Penal Code of Texas which prohibits the use of cemetery property for non-cemetery purposes.</p> <p>Prior to construction, TCRR will comply with Texas cemetery laws as stated in Section 3.19.2, Cultural Resources, Regulatory Context and Section 3.19.6.1, Cultural Resources, Compliance Measures, and all impacts will be addressed through consultation with the THC in order to avoid impacting cemeteries and burials as much as possible. Additional investigations such as archival research, oral interviews, and/or archeological investigations to locate unmarked grave shafts will be undertaken to verify the modern boundary is accurate relative to the area of ground disturbing activities.</p>

Table H-4: Standard Responses	
CR-2	<p>While cultural resources surveys have been conducted for portions of the Project area, many areas have yet to be surveyed due to a lack of access to property, including the areas containing the reported cemetery on the Kickapoo Preserve and the stage coach site. The Final EIS includes the results of all fieldwork completed based on available access through March 2019. In accordance with Section 106 of the National Historic Preservation Act (Section 106) and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), FRA TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) that allows for the phased identification, evaluation and assessment of effects to historic and archeological resources (including cemeteries) within the Area of Potential Effects (APE) as access to private parcels becomes available.</p> <p>All information provided by landowners and interested parties, including oral histories, regarding the presence of historical sites, artifacts, and cemeteries, will be used by cultural resource personnel to locate historic and archeological resources, both previously recorded and unrecorded within the APE. Due to Mr. Welch’s knowledge of Waller County history and the Kickapoo Preserve, he was invited and is recognized as a Consulting Party in the Section 106 process and the development of the PA. The PA outlines a comprehensive methodology to identify historic properties eligible for, or listed in, the National Register of Historic Places, and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. This process is discussed in Section 3.19.6.2, Cultural Resources, Programmatic Agreement of the Final EIS and the Draft PA is included as Appendix L, Programmatic Agreement.</p> <p>All cemeteries in Texas are protected under provisions of the Texas Health and Safety Code in Chapters 711-715; Title 13 § 2, Chapter 22, Rule 22.4(b) of the Texas Administrative Code – <i>Unknown and Abandoned Cemeteries</i>, and Rule 22.5 of the Texas Administrative Code – <i>Removal of Remains from an Abandoned or Unknown Cemetery</i>; and in Section 28.03(f) of the Penal Code of Texas which prohibits the use of cemetery property for non-cemetery purposes.</p> <p>Prior to construction, TCRR will comply with Texas cemetery laws as stated in Section 3.19.2, Cultural Resources, Regulatory Context and Section 3.19.6.1, Cultural Resources, Compliance Measures, and all impacts will be addressed through consultation with the THC in order to avoid impacting cemeteries and burials as much as possible. Additional investigations such as archival research, oral interviews, and/or archeological investigations to locate unmarked grave shafts will be undertaken to verify the modern boundary is accurate relative to the area of ground disturbing activities.</p>
CR-3	<p>Due to the size and scale of the Project, combined with the limited right-of-entry to many of the private land holdings, the identification, evaluation and assessment of effects to historic properties within the Area of Potential Effects will be completed in a phased manner as access to private land holdings is granted. This phased approach is in accordance with 36 C.F.R. § 800.4(b)(2) and 5(a)(3). The Final EIS was updated to clearly note the status of the cultural resources identification efforts through March 2019. Additionally, the language was revised to reflect Texas state laws regarding cemeteries will be adhered to for all cemeteries, not just those that are considered historic properties or Historic Texas Cemeteries.</p> <p>The Draft Programmatic Agreement (PA) is being circulated with the Final EIS (Appendix L, Programmatic Agreement). The PA addresses the continued identification, evaluation, assessment and resolution of effects to historic properties.</p>

Table H-4: Standard Responses	
CR-4	<p>Section 106 of the National Historic Preservation Act (Section 106) requires federal agencies to consider the effects of their actions on historic properties. In accordance with Section 106 and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), FRA TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) that will allow for the phased identification, evaluation, and assessment of effects to historic properties as access to private land holdings becomes available after publication of the Final EIS. Historic and archeological resources can include structures, buildings, sites, districts and objects. During the identification and evaluation phases, cultural resources may be determined eligible for listing in the National Register of Historic Places (NRHP), as well as eligible as National Register Historic Districts. The Antiquities Code of Texas allows for certain cultural resources to be designated and protected as Registered Texas Historic Landmarks or as State Antiquities Landmarks, which can be found in Section 3.19.2, Cultural Resources, Regulatory Context of the Final EIS.</p> <p>The PA outlines a comprehensive methodology to identify historic properties, and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. Cultural resources surveys have been conducted for portions of the Project area where right of entry to private landholdings has been granted. The areas that remain to be surveyed will be subject to the methodology outlined in the PA. This process is discussed in Section 3.19.6.2, Cultural Resources, Programmatic Agreement of the Final EIS and the Draft PA is included as Appendix L, Programmatic Agreement.</p>
CR-5	<p>Section 106 of the National Historic Preservation Act (Section 106) requires federal agencies to consider the effects of their actions on historic properties. In accordance with Section 106 and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), FRA TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) that will allow for the phased identification, evaluation and assessment of effects to historic and archeological resources as access to private land holdings becomes available after publication of the Final EIS. All information provided by landowners and interested parties, including oral histories, regarding the presence of historical sites and Native American artifacts, will be used by project archeologists and cultural resource personnel to locate historic and archeological resources, both previously recorded and unrecorded within the Area of Potential Effects. The PA outlines a comprehensive methodology to identify historic properties eligible for, or listed in, the National Register of Historic Places, and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. This process is discussed in Section 3.19.6.2, Cultural Resources, Programmatic Agreement of the Final EIS and the Draft PA is included as Appendix L, Programmatic Agreement.</p>

Table H-4: Standard Responses	
CR-6	<p>Information provided by landowners and interested parties, including oral histories, will be used by project archeologists to locate both previously recorded and unrecorded cemeteries and unmarked burials within the Area of Potential Effects. Also, FRA TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) that allows for the continued identification and evaluation of historic properties (including cemeteries), and assessment of effects to those properties, in a phased manner in accordance with 36 C.F.R. § 800.4(b)(2) and 5(a)(3). The Draft PA is included as Appendix L, Programmatic Agreement of the Final EIS.</p> <p>All cemeteries in Texas are protected under provisions of the Texas Health and Safety Code in Chapters 711-715; Title 13 § 2, Chapter 22, Rule 22.4(b) of the Texas Administrative Code – <i>Unknown and Abandoned Cemeteries</i>, and Rule 22.5 of the Texas Administrative Code – <i>Removal of Remains from an Abandoned or Unknown Cemetery</i>; and in Section 28.03(f) of the Penal Code of Texas which prohibits the use of cemetery property for non-cemetery purposes.</p> <p>Prior to construction, TCRR will comply with Texas cemetery laws as stated in Section 3.19.2, Cultural Resources, Regulatory Context and Section 3.19.6.1, Cultural Resources, Compliance Measures, and all impacts will be addressed through consultation with the THC in order to avoid impacting cemeteries and burials as much as possible. Additional investigations such as archival research, oral interviews, and/or archeological investigations to locate unmarked grave shafts will be undertaken to verify the modern boundary is accurate relative to the area of ground disturbing activities.</p>
CR-7	<p>The Programmatic Agreement (PA), which is being developed and will be executed by the FRA, TCRR, Texas Historical Commission (THC), and other Signatories to comply with Section 106 of the National Historic Preservation Act (Section 106) for this Project, contains an Unanticipated Discovery Plan which outlines the protocol if cultural resources or human remains are inadvertently discovered during construction. If unexpected discoveries are encountered, the protocol requires construction in the immediate vicinity of the discovery stops, the resource(s) are protected from harm, appropriate parties (including Tribes if applicable) are notified, and the Section 106 process for those resources is completed before construction resumes. The protocol also includes training for contractors that explains what constitutes an Unanticipated Discovery and the steps they must follow if a discovery is made. The Unanticipated Discovery Plan is summarized in Section 3.19.6.2, Cultural Resources, Programmatic Agreement and is appended to the Draft PA, which is included as Appendix L, Programmatic Agreement of the Final EIS.</p>

Table H-4: Standard Responses	
CR-8	<p>The Ten Mile Cemetery was determined not eligible for the National Register of Historic Places (NRHP) by the FRA, in consultation with the Texas Historical Commission (THC), under Section 106 of the National Historic Preservation Act but was designated as a Historic Texas Cemetery in 2016 (see Table 3.19-4). The cemetery is adjacent to the LOD of Segment 4 (Build Alternatives A, B, D and E). While no physical impacts are expected at the Ten Mile Cemetery based upon known cemetery boundaries, unavoidable visual, noise and/or vibration impacts may occur.</p> <p>All cemeteries in Texas are protected under provisions of the Texas Health and Safety Code in Chapters 711-715; Title 13 § 2, Chapter 22, Rule 22.4(b) of the Texas Administrative Code – <i>Unknown and Abandoned Cemeteries</i>, and Rule 22.5 of the Texas Administrative Code – <i>Removal of Remains from an Abandoned or Unknown Cemetery</i>; and in Section 28.03(f) of the Penal Code of Texas which prohibits the use of cemetery property for non-cemetery purposes.</p> <p>Prior to construction, TCRR will comply with Texas cemetery laws as stated in Section 3.19.2, Cultural Resources, Regulatory Context and Section 3.19.6.1, Cultural Resources, Compliance Measures, and all impacts will be addressed through consultation with the THC in order to avoid impacting cemeteries and burials as much as possible. Additional investigations such as archival research, oral interviews, and/or archeological investigations to locate unmarked grave shafts will be undertaken to verify the modern boundary is accurate relative to the area of ground disturbing activities.</p> <p>Archival research indicates the current location of the Union Baptist Church was established ca. 1950 and falls within the LOD of Segment 4 (Build Alternatives A, B, D and E). The ca. 1950s church building was recently demolished and replaced by the current church building in 2016. Because the building was constructed after the historic period defined for this study (1972 or before) and does not possess exceptional significance, FRA has determined the church is not eligible for listing in the NRHP. The THC concurred on the FRA determination in 2019. The THC letter of concurrence for Madison County, which includes both Ten Mile Cemetery and Union Baptist Church, can be found in Appendix E, Cultural Resources Technical Memorandum.</p>

Table H-4: Standard Responses	
CR-9	<p>The referenced report, <i>A Cultural Resource Survey of a 500 Acre Tract on Kickapoo Road, Waller County, Texas, Moore Archeological Consulting, Inc. Report of Investigations Number 567 (D. Driver 2010)</i>, was specific to a 500-acre archeological survey conducted on the Kickapoo Preserve, which was required by the United States Army Corps of Engineers, Galveston District for permitting of a different project. This Project’s Limits of Disturbance (LOD) within Segment 5 (common to all Build Alternatives A through F) partially overlaps this previously surveyed area. Four sites were identified during the survey (41WL30, 41WL31, 41WL32, and 41WL33). Only one site (41WL33) identified in that report is located within the LOD for the Project. The remaining sites are 490 feet east (41WL30), 1,010 feet west (41WL31), and 340 feet east (41WL32). The Texas Historical Commission (THC) determined on April 16, 2010, site 41WL33 is not eligible for inclusion in the National Register of Historic Places (NRHP).</p> <p>For sections of the project that have not been surveyed, in accordance with Section 106 of the National Historic Preservation Act and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), the FRA TCRR, THC, and other Signatories are developing and will execute a Programmatic Agreement (PA) which will allow for the phased identification, evaluation and assessment of effects to historic and archeological resources as access to private land holdings becomes available after publication of the Final EIS. The PA outlines a comprehensive methodology to identify historic properties eligible for, or listed in, the NRHP, and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. This process is discussed in Section 3.19.6.2, Cultural Resources, Programmatic Agreement of the Final EIS and the Draft PA is included as Appendix L, Programmatic Agreement.</p> <p>The Waller County Historical Commission has been invited and is recognized as a Consulting Party in the development of the PA (Table 3.19-1, Section 3.19.3.1.1).</p>
CR-10	<p>Homecoming Cemetery and Queens City Cemetery are alternate names for the Honey Springs Cemetery. This cemetery is reported as resource DA.082 in the Final EIS. The FRA, in consultation with the Texas Historical Commission (THC), determined Resource DA.082 is eligible for listing in the National Register of Historic Places (NRHP). Records at the THC indicated the potential presence of unmarked burials within the LOD for the proposed Project. Because the boundary for the NRHP-eligible property had not been fully delineated, the THC required additional field survey and archeological investigations to locate any unmarked graves within the Project Limits of Disturbance (LOD) (see Table 3.19-5 in the Final EIS).</p> <p>The parcel immediately east of the Honey Springs Cemetery was mechanically scraped between June 10 and July 10, 2019. No evidence for the presence of unmarked graves was identified within the accessible areas of the parcel, outside of tree canopy/drip line. However, construction monitoring will be conducted for any elements of the Project that will impact the western extent of the Study Area that was not scraped during these investigations. The THC has concurred with the results of the mechanical scraping. The letter of concurrence can be found in Appendix E, Cultural Resources Technical Memorandum.</p> <p>All cemeteries in Texas are protected under provisions of the Texas Health and Safety Code in Chapters 711-715; Title 13 § 2, Chapter 22, Rule 22.4(b) of the Texas Administrative Code – <i>Unknown and Abandoned Cemeteries</i>, and Rule 22.5 of the Texas Administrative Code – <i>Removal of Remains from an Abandoned or Unknown Cemetery</i>; and in Section 28.03(f) of the Penal Code of Texas which prohibits the use of cemetery property for non-cemetery purposes. If unmarked graves are identified during construction monitoring and cannot be avoided or are affected in an unexpected manner, they will be handled according to the above-mentioned provisions of Texas Health and Safety Code.</p>

Table H-4: Standard Responses	
CR-11	<p>In accordance with Section 106 of the National Historic Preservation Act and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), the FRA TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) to allow for the phased identification, evaluation and assessment of effects to historic and archeological resources as access to private land holdings becomes available after publication of the Final EIS. Historic and archeological resources can include structures, buildings, sites, districts, and objects. The PA outlines a comprehensive methodology to identify historic properties eligible for, or listed in, the National Register of Historic Places, and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. This process is discussed in Section 3.19.6.2, Cultural Resources, Programmatic Agreement and the Draft PA is included as Appendix L, Programmatic Agreement.</p>
CR-12	<p>In accordance with Section 106 of the National Historic Preservation Act and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), the FRA TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) to allow for the phased identification, evaluation and assessment of effects to historic and archeological resources as access to private land holdings in all affected counties becomes available after publication of the Final EIS. All information, including oral histories, provided by landowners and interested parties regarding the presence of historical sites, artifacts, and cemeteries, will be considered by historians and archeologists to identify historic and archeological resources, both previously recorded and unrecorded within the Area of Potential Effects. Historic and archeological resources can include structures, buildings, sites, districts, and objects such as stagecoach routes, forts, farmsteads, pump houses, wells, and Native American sites. The PA outlines a comprehensive methodology to identify historic properties eligible for, or listed in, the National Register of Historic Places, and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. Cultural resources surveys have been conducted for portions of the Project area, though many areas remain to be surveyed and will be subject to the methodology outlined in the PA. The terms of the PA are discussed in Section Cultural Resources, 3.19.6.2, Programmatic Agreement and the Draft PA is included as Appendix L, Programmatic Agreement.</p>
CR-13	<p>Due to the size and scale of the Project, combined with the limited right-of-entry to many of the private land holdings, initial fieldwork efforts focused on urban centers as the Build Alternatives shared common segments in the Dallas and Houston metropolitan areas. The Build Alternatives in these areas were also less likely to be subject to design changes due to the limitations of feasible route options in the urban centers. However, the criteria to identify properties that are eligible for the National Register of Historic Places (NRHP) will be consistently applied to identify and assess all properties within the Area of Potential Effects. In accordance with Section 106 of the National Historic Preservation Act and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), the FRA TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) that would allow for the continued phased identification, evaluation and assessment of effects to historic and archeological resources as access to private land holdings becomes available after publication of the Final EIS. The Draft PA is included as Appendix L, Programmatic Agreement. The PA outlines a comprehensive methodology to identify historic properties eligible for, or listed in, the National Register of Historic Places (NRHP), and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. All resources that meet the criteria for listing in the NRHP, regardless of location or ownership, will be subject to the methodology outlined in the PA. The terms of the PA are also discussed in Section 3.19.6.2, Cultural Resources, Programmatic Agreement.</p>

Table H-4: Standard Responses	
ED-1	Under state (Texas Administrative Code (TAC) § 21 and 10 TAC § Chapter 2206, Subchapter E) and federal authorities, some private companies in industries like oil and gas, railroads, telecommunications and utilities are authorized to acquire land through eminent domain. TCRR is responsible for all land acquisition for the Project. FRA is not participating in the land acquisition process for the Dallas to Houston HSR Project, nor do the USDOT or FRA have the ability to grant eminent domain authority to another entity. Any determinations regarding TCRR’s authority to exercise eminent domain are independent of FRA’s rulemaking activity and the NEPA analysis conducted by FRA.
ED-2	FRA is not participating in the land acquisition process for the Dallas to Houston HSR Project. TCRR is responsible for negotiating with impacted landowners and municipalities along the length of the 240-mile route to obtain temporary access and acquire land necessary for construction and operation of the Project in accordance with applicable Texas law. TCRR shall develop a relocation mitigation plan, in consultation with local municipalities as detailed in Section 3.13.6.2, Land Use, Mitigation Measures, LU-MM#3: Acquisition and Relocation Mitigation Plan.
ED-3	As discussed in Section 3.13.4 – Land Use, Affected Environment of the EIS, the majority of the Project would cross private land. Use of lands under local/state or federal jurisdictions for the Project would be minimal. Prior to construction, TCRR must work with all impacted entities, including TxDOT, FHWA, and all local authorities, to obtain necessary permits, agreements, or easements for the use of publicly-owned rights of way (ROW).
ED-4	TCRR intends to acquire mineral rights not already severed from the surface unless specifically requested by the landowner.
ED-5	The presiding Counties and Districts will determine on a case by case basis which landowners would require a court appointed attorney and who would be responsible for payment of those attorneys. TCRR is committed to working one-on-one with landowners and negotiating fair processes consistent with all Texas laws.
EH-1	<p>The Americans with Disabilities Act (ADA)’s requirements will be incorporated into the design documents by TCRR as the Project’s design will be fully compliant with all relevant ADA requirements. ADA requirements will be enforced during the design, construction and operation phases for the HSR project by the United States Department of Justice (US DOJ)’s Civil Rights Division, which has enforcement responsibility for the ADA and Section 504 of the Rehabilitation Act of 1973. The FRA Office of Civil Rights will provide technical assistance on accessibility compliance for design, construction, and operations.</p> <p>The Project design, construction and operations will be fully compliant with the following ADA regulatory requirements:</p> <ul style="list-style-type: none"> • 49 Code of Federal Regulations (CFR) 37 - ADA Transportation Services for Individuals with Disabilities; • 49 CFR 38 - ADA Accessibility Specifications for Transportation Vehicles; and, • 2010 ADA Standards for Accessible Design, dated September 15, 2010. <p>None of the above ADA requirements are being waived or exempted for any phase of the Project as part of the NEPA process.</p>

Table H-4: Standard Responses	
EJ-1	<p>Under Executive Order 12898 (59 Fed. Reg. 7629, February 16, 1994), FRA must identify and address, as appropriate, disproportionately high and adverse effects of its actions on minority and low income populations. FRA identified minority and/or low-income block groups and communities through publicly available information from the US Census Bureau's American Community Survey (ACS) 2016 5-year estimates and data obtained through community outreach, coordination with partner agencies, and public feedback. Section 3.18.3, Environmental Justice, Methodology of the Final EIS underwent substantial revisions to clarify analyses definitions, criteria and process. Through updated methodology, the assessment was also revised to more accurately identify minority and/or low-income communities throughout the Project Area. As detailed within the Final EIS Section 3.18.3.3, Environmental Justice, Outreach, FRA held additional public listening sessions targeting potentially impacted Environmental Justice communities. Additionally, Section 3.18.5, Environmental Justice, Environmental Consequences, now identifies the location of potential disproportionately high and adverse impacts on minority and/or low income block groups across the entirety of the Project, as well as, localized impacts to identified minority and/or low-income communities. Section 3.18.6, Environmental Justice, Mitigation Measures, describes potential mitigation that was developed through public listening sessions and feedback directly from impacted residents and community members. The mitigation measures section also includes a list of applicable mitigation measures that would minimize temporary impacts related to construction activities. Additional information can be found in Appendix D, Environmental Justice Mapbook and Appendix E, Environmental Justice Technical Memoranda.</p>
EU-1	<p>PHMSA and FERC requirements are discussed in more detail in Section 3.9.2, Utilities and Energy, Regulatory Context. TCRR is designing and would construct the Project based on industry and regulatory agency standards, as discussed in Section 3.9.6, Utilities and Energy, Avoidance, Minimization and Mitigation. TCRR is obligated to apply PHMSA safety requirements, including those related to pipeline damage, electrical emissions, and cathodic protection, where there are pipeline crossings. FERC has no jurisdiction or decision-making authority over the construction or operation of the HSR Project. FERC-regulated pipelines occur in the Study Area, and relocation and/or maintenance activities of these utilities during the construction of the HSR Project may require FERC involvement by the applicable utility providers.</p>

Table H-4: Standard Responses	
EU-2	<p>Tables 3.9-1 and 3.9-2 in Section 3.9, Utilities and Energy, summarize (by county) the number of utilities crossed by or running parallel to the Project. Various subsequent tables in this section detail the number and impact to each type of utility (electric, water, oil and gas etc.) by county. These are also depicted within Appendix D, Mineral and Utility Resources Mapbook. TCRR has also provided an initial list of utilities by individual line that will be crossed and need relocation, elevation or protection in place, in Appendix F, TCRR Final Conceptual Engineering Design Report. As described in Section 3.9.5.2.1, Utilities and Energy, Utilities, the LOD for the Project includes the areas of potential electrical utility modifications as a direct impact of the Project. As this is based on existing preliminary information and early coordination by TCRR with utility owners, TCRR will be conducting further investigation in the field and further coordination with utilities as construction design advances to determine all utilities to be impacted. The cost of relocating these utilities is not included in this NEPA analysis, however, the costs of all necessary relocations would be borne by TCRR as part of construction costs for this Project or other agreements with the utility providers. As discussed in Section 3.9.5.2.1, Utilities and Energy, Utilities, utility providers would be responsible for undertaking any potential relocations, pole adjustments and/or new connections. The location of these modifications would be determined by the utility provider. Utility providers would coordinate modifications with ERCOT, as appropriate.</p> <p>As described in Section 3.9.6, Utilities and Energy, Avoidance, Minimization and Mitigation, mitigation measures EU-MM#1: Identification of Utilities, EU-MM#2: Relocation of Major Utilities, and EU-MM#3: Protection and Encasement of Major Utilities require TCRR to perform below ground utility exploration to verify exact locations and depths of known subsurface utilities and resolve conflicts with each major utility provider, including relocation or protection of existing utilities. Compliance measure EU-CM#7: Abandonment and Relocation of Oil and Gas Wells requires TCRR to abandon or relocate all oil and gas wells within the LOD of the Project. The abandonment of wells would be conducted in accordance with the Railroad Commission of Texas Statewide Rule 14, Plugging (Revised). For gas facilities and pipelines outside the Project footprint, 3.16.6.1, Safety and Security, Avoidance, Minimization and Mitigation, Compliance Measures, SS-CM#4: Perform Hazard Analysis requires TCRR to establish a risk-based hazard management program and hazard analysis. The hazard management program would establish the process used to identify and analyze hazards; methods for determining frequency, severity, and corresponding risk of identified hazards; procedures for identifying hazard controls or mitigating actions; and risk management roles and responsibilities within the organization.</p>
EU-3	<p>Because the HSR would draw from the existing power grid via connections at each Traction Power Substation (TPSS) to common 138 kilovolt transmission lines along the alignment, the system would be incapable of being a selective and/or sole recipient of power during brownouts. To do so would require disconnecting or switching off every other non-HSR connection and powering these major transmission lines exclusively for the HSR. As detailed within Appendix F, TCRR Final Conceptual Engineering Design Report, the points and alignments of these connections would ultimately be determined by the utility owner, and designs developed by the utility would be approved through their standard regulatory and environmental review processes. HSR power supply would be subject to these utilities' operational and power restoration procedures, which consider all connected uses. Power grids and the HSR just are not designed, built or operated to selectively allow powering HSR operation and not accounting for other connected loads.</p>

Table H-4: Standard Responses	
EU-4	<p>Section 3.9.5.2.2, Utilities and Energy, Energy describes where the electricity would come from (the statewide grid), the power consumption involved, and the anticipated impacts to the electrical power supply considering the HSR operation power demand and statewide long term power capacity planning. The large majority of the statewide grid is managed by the Electric Reliability Council of Texas (ERCOT). As the principle manager of the grid, ERCOT must forecast and provide for short-term and long-term growth power demand, while considering many factors such as planned industrial, commercial and residential uses, and future population growth in general. ERCOT must also identify the necessary added generation capacity to meet this need, plus a reserve margin above that (e.g., a contingency amount of generation capacity above the projected peak demand).</p> <p>As indicated in the Final EIS, the longer term planning reserve margin is 13.75 percent of added capacity, and the HSR peak power demand (which real average operation would be less), would constitute only 0.3 percent of that margin. Therefore, future HSR demand would not jeopardize future power needs. As time progresses and future needs become more near term needs, ERCOT establishes more robust reserve margins, which averaged 15.9 percent to 25.4 percent (2016 forecast for 2017 to 2026) and 7.5 percent to 12.2 percent (2018 forecast for 2019 to 2023)²¹. Also as outlined in Section 3.9.5.2.2, Utilities and Energy, Energy, TCRR would have to coordinate with and plan the HSR demand with power service providers, and this demand would have to be known and planned for within ERCOT, to complete development reviews prior to construction to more accurately determine the electricity needs of the HSR. Therefore, ERCOT is able to account for the estimated HSR power demand in planning for the future statewide power supply. In addition, utility providers would coordinate electricity demand with ERCOT, as appropriate.</p>
EU-5	<p>Table 3.9-10, Electrical Transmission Line Impacts, in Section 3.9, Utilities and Energy illustrates the types and the number of electrical utility modifications that would be required, including new connections to HSR facilities. TCRR identified potential locations for these new electrical connections for the Project (see Appendix F, TCRR Final Conceptual Engineering Design Report).</p> <p>As described in Section 3.9.5.2.1, Utilities and Energy, Utilities, TCRR would be responsible for obtaining the necessary authorization from each electric utility provider to provide service to the HSR system. However, the utility providers would ultimately be responsible for undertaking any new connections. The utility provider would manage and lead an environmental process coordinated through the Texas Public Utility Commission that is associated with the modifications to provide the connections to TCRR's infrastructure. This process includes a routing analysis that requires an environmental impact assessment, as well as a public involvement process. These potential actions by the utility providers are discussed further in Chapter 4.0, Indirect and Cumulative Impacts.</p>
EU-6	<p>All natural gas utility providers, including Atmos Energy, are required to operate compressor stations in accordance with operational safety regulations, including regulations issued by Pipeline and Hazardous Materials Safety Administration (PHMSA), and would have to schedule and consider ignition sources during their operational safety tests.</p> <p>Appendix F, TCRR Final Conceptual Engineering Design Report, Section 4.1, Safety Regulations discusses safety regulations that would be followed for the Project. The Project will be designed and constructed based on PHMSA requirements for where there are pipeline crossings and interactions with pipeline facilities.</p>

²¹ ERCOT. Summer Summary. *Report on the Capacity, Demand and Reserves (CDR) in the ERCOT Region, 2019-2023*. December 4, 2018. <http://www.ercot.com/content/wcm/lists/167023/CapacityDemandandReservesReport-Dec2018.xlsx>. Accessed 9/7/2016.

Table H-4: Standard Responses	
EU-7	The referenced compressor station is located approximately 615 feet west of the rail centerline and approximately 515 feet from the LOD and therefore will not be impacted by the Project. While not specifically discussed in the Draft or Final EIS, as it is located outside of the Study Area for Utilities and Energy, it can be seen in Appendix D, Mineral Utility Resources Mapbook , page 233.
EU-8	The potential for sparking associated with the electrical catenary system is described in Appendix F, TCRR Final Conceptual Engineering Design Report, Section 7.2.3 Overhead Catenary System (OCS) , which states that the two pantographs in a trainset would be electrically connected to reduce sparking from the gap between the wire and pantograph.
FP-1	<p>As stated in Section 3.8.5.2, Floodplains, Build Alternatives, all identified FEMA floodplain crossings would be fully spanned with viaduct (bridge type structure) and include a minimum of three feet of freeboard above the base flood elevation if in the 100-year flood zone (Zones A, AE, and AO) or above the modeled water surface elevation to be completed during final design. This allows for free movement of water in those areas and would avoid and/or minimize floodplain impacts. Flood Zone AE is defined as areas subject to inundation by the 1-percent-annual-chance flood event where base flood elevations are determined while Flood Zone A is defined as areas subject to inundation by the 1-percent-annual-chance flood event where base flood elevations are not determined. Flood Zone AO is defined as river and stream flood hazard areas and areas with 1-percent or greater chance of shallow flooding each year with an average depth of one to three feet. As detailed within Section 3.8.3.1 Floodplains, Floodplains, preliminary determinations for floodplains were made based on FEMA floodplain data. As part of FP-CM#1: Floodplain Development Permit, the Preferred Alternative will be surveyed prior to construction to determine base flood elevations and conduct a hydrologic model analysis. In areas along the route that will be on embankment, culverts will be constructed to allow for movement of water. Fencing would only be used in areas not on viaduct. The construction, operations and maintenance of this Project would not impede upstream/downstream flow of waters. Section 3.8.6.1, Floodplains, Compliance Measures; FP-CM#1: Floodplain Development Permit, FP-CM#2: Construction Floodplain Best Management Practices, and FP-CM#3: Operational Floodplain Best Management Practices outline compliance measures for obtaining a floodplain development permit and minimizing disruption of flow.</p> <p>TCRR is working with federal, state and local agencies during the design process to ensure compliance with all federal, state and local laws, regulations, and policies through avoidance, minimization, and mitigation measures including floodplain development permits for the placement of viaduct piers as stated in Section 3.8.6.1, Floodplains, Compliance Measures. For additional information on permitting see Chapter 8.0, Applicable Federal, State and Local Permits and Approvals.</p>
FP-2	<i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
FP-3	As indicated in Section 3.7.4.8.1, Waters of the U.S., Water Resources , the Final EIS was updated to add Sulphur Creek as a notable stream in Grimes County. Sulphur Creek as well as the majority of its tributaries would be crossed by viaduct. The tributaries that would not be crossed by viaduct would be crossed via culvert. For additional information on viaduct and culvert crossings see Section 3.7, Waters of the U.S. and Appendix F, TCRR Final Conceptual Engineering Design Report, Section 13.5 .

Table H-4: Standard Responses	
FP-4	<p>In coordination with the City of Houston and Harris County, TCRR updated the floodplain data within Harris County to account for the 500-year flood. As depicted in Appendix F, TCRR Conceptual Engineering Design Report, TCRR originally designed the Project in response to the 100-year flood. However as a direct result of the Hurricane Harvey flooding, the Project design has been updated to account for 500-year flood events.</p>
HZ-1	<p>Hazardous materials/waste sites identified along the Project are summarized in Section 3.5, Hazardous Materials and Solid Waste, Tables 3.5-2, 3.5-3, and 3.5-6. In Harris county, there are 215 low-risk sites, 112 moderate-risk sites, and 2 high-risk sites. As presented in Table 3.5-6, there are 84 hazardous materials sites within or adjacent to the LOD in Harris county. Of those 84 sites, 38 are located within the LOD and will likely be disturbed. Only high-risk sites and moderate risk sites within or adjacent to the LOD are discussed in more detail in Section 3.5.4.1, Hazardous Materials and Solid Waste, Hazardous Materials. The remaining sites are either classified as low-risk sites (no evidence of past or current contamination) or are not located within proximity to cause an environmental concern and therefore are not discussed in detail.</p> <p>Environmental consequences due to disturbing hazardous materials sites are discussed in Section 3.5.5.2, Hazardous Materials and Solid Waste, Build Alternatives. Mitigation measures are discussed in Section 3.5.6.2, Hazardous Materials and Solid Waste, Mitigation Measures. Remediation/clean-up costs are not addressed in the Final EIS because costs will vary depending on findings from Environmental Site Assessments (ESA) and level of clean-up needed.</p>
HZ-2	<p>Avoidance, minimization, and mitigation measures for hazardous materials sites are discussed in Section 3.5.6, Hazardous Materials and Solid Waste, Avoidance, Minimization and Mitigation. All high-risk sites and moderate-risk sites within or adjacent to the LOD would require Phase I ESAs by TCRR prior to construction as discussed in Section 3.5.6.2, Hazardous Materials and Solid Waste, Mitigation Measures, HM-MM#1: Environmental Site Assessments. In Harris county, TCRR shall conduct a Phase I ESA at 52 of the 84 sites that are adjacent or within the LOD . The remaining 32 sites were classified as low-risk sites (no evidence of past or current contamination) based on a review of the databases listed in Table 3.5-1 or are not located within proximity to cause an environmental concern, and therefore did not require further investigation. Each identified site was assigned a map identification number (MAP ID), listed in Table 3.5-2, and has been plotted for reference purposes in the Potential Hazardous Materials Sources Mapbook, Appendix D. The Wyman Gordon Forging facility (Map ID 152) was initially classified as a low risk site in the Draft EIS. Based on the number of comments received during public meetings regarding this property, the Wyman Gordon Forging facility has been re-classified as a moderate risk site in the Final EIS and would require a Phase I ESA by TCRR including review of deed restrictions. The property is located 0.26 mile southwest of Segment 5 and is an inactive industrial hazardous waste corrective action site for soil affected by metals, chromium, nickel, and cleanup was completed in 2014. As discussed in Section 3.5.6.2, Hazardous Materials and Solid Waste, Mitigation Measures, HM-MM#3: Previously Unidentified Hazardous Materials, a hazardous materials contingency plan will be prepared by TCRR prior to construction to address the potential for discovery of unidentified hazardous materials or waste.</p>

Table H-4: Standard Responses	
HZ-3	<p>Based on a review of historic aerial photos, a water body existed from the 1970s to 2016 on the property at 22400 Northwest Lake Dr., Houston (tax parcel ID# 1385350010001), which is adjacent to the LOD. Currently, Visual Comfort is operating at this property. According to the property's vesting deeds, this property was owned by Wyman Gordon Forgings until 2012. It is unclear whether the water body was used as a stormwater drainage feature or if it was used as a wastewater/waste pit. This property was not identified in the review of aerial maps for the Draft EIS. Photos taken in 2016 when the water body was drained show the water having a metallic iridescent sheen. Therefore, this property has been added to the Final EIS (Map ID 494) and classified as a moderate-risk site that would require further investigation by TCRR (Phase I and/or Phase II ESAs). The pond was drained and a new construction (Visual Comfort) was built in its place in 2017.</p> <p>Based on a review of historic aerial photos, a water body existed from the 1980s to 2006 on the property at 0 Northwest Lake Dr., Houston (tax parcel ID# 1272810010010), which is adjacent to the LOD. Currently, Gulf Coast Modification LP is operating at this property. According to the property's vesting deeds, this property was owned by Wyman Gordon Forgings until 2012. It is unclear whether the water body was used as a stormwater drainage feature or if it was used as a wastewater/waste pit. This property was not identified in the review of aerial maps for the Draft EIS. A drainage feature and a MOW Facility are proposed by the Project at this property. Therefore, this property has been added to the Final EIS (Map ID 495) and classified as a moderate-risk site that would require further investigation by TCRR (Phase I and/or Phase II ESAs). The pond was drained in 2008 and new construction (Gulf Coast Modifications) was built in its place in 2019.</p>
HZ-4	<p>An estimate of the amount of solid waste that would be generated during the construction and operation of the Project is provided in Section 3.5.5, Hazardous Materials and Solid Waste, Environmental Consequences. The Draft EIS did not state that the operation of the Project would produce less than 220 pounds per month of hazardous waste. An estimate of the monthly hazardous waste generation is not available at this stage of the Project design. Hazardous waste generated during construction could include contaminated excavated soil. Hazardous waste generated at the TMFs and MOW facilities during operation could include used oil, used cleaning products, solvents, and paint. During construction, TCRR shall prepare a Waste Management Plan as discussed in Section 3.5.6.2, Hazardous Materials and Solid Waste, Mitigation Measures, MM#4: Waste Management. Hazardous waste will be handled and disposed according to applicable federal and local regulations. Wastewater discharges from the TMF/MOW facilities to a water of the state or publicly-owned treatment works (POTW) would require a TPDES or local wastewater discharge permit. This requirement has been updated in Section 3.3, Water Quality and Chapter 8.0, Federal, State and Local Permit of the Final EIS.</p>
HZ-5	<p>Section 3.5.6.2, Hazardous Materials and Solid Waste, Mitigation Measures, HM-MM#2: Hazardous Materials Management requires TCRR to prepare and adhere to a Hazardous Materials Plan and a Spill Prevention Control and Countermeasures (SPCC) Plan. In addition, HM-MM#4: Waste Management requires TCRR to prepare and adhere to a Waste Management Plan (WMP).</p>

Table H-4: Standard Responses	
LU-1	<p>Refer to 3.13.3.3 Assessment, Land Use for details about the land acquisition analysis (parcel and structure acquisition and/or displacement). Land use data was based on the state land use code in the corresponding county appraisal district's property data. When a property had multiple valuation types, the one with the largest amount of acreage was used for display purposes on the maps.</p> <p>Specific land use information within a half-mile wide Study Area (a quarter-mile on either side of the high-speed rail track centerline) was collected to establish the context of site-specific impacts based on the 13 distinct land use categories. Land use information was collected from existing and approved plans, review of aerial photography and windshield surveys. Additionally, the intensity or density of land use in and along the track area was evaluated and the overall character or harmony of the land use was reviewed throughout Section 3.13, Land Use.</p>
LU-2	<p>As detailed in Table 3.13-5 the total acreage of farms in the 10-counties impacted by the Project is almost 3.5 million, which is approximately three percent of the total acres of farms in Texas. The average farm size in the 10 counties is 210 acres, which is less than half the size of the average Texas farm at 511 acres. The total market value of crops sold in the 10 counties was approximately \$265 million, which represents approximately 4 percent of the total market value of crops sold in Texas, which was \$6.9 billion.</p> <p>Overall, 3 of the 10 counties rank in the top 25 percent of all Texas counties in agricultural production value. The highest-ranking county of the 10 counties impacted by the Project in terms of agricultural production is Leon County, which ranked 27 of all 254 Texas counties, while the lowest-ranking county of the 10 counties impacted by the Build Alternatives was Dallas at 160.</p> <p>While the Project will convert on average 5,200 acres of agricultural lands to a transportation use across all Build Alternatives, the analysis in 3.13.5.2 Land Use, Build Alternatives, indicates that agricultural capacity is available within the 10 counties, as well as the State of Texas. Adverse impacts to overall Texas food production would not occur.</p> <p>In order to avoid and minimize impacts to the natural, social, physical and cultural environment in designing the Build Alternatives, TCRR identified co-location opportunities with transportation and utility corridors to minimize impacts to parcel and structure acquisition and land use conversion. Within the six end-to-end Build Alternatives, 48 percent of the LOD, on average, would be located adjacent to existing road, rail or utility infrastructure.</p>

Table H-4: Standard Responses

LU-3	<p>Residential neighborhoods impacted by the Project are discussed at length in Section 3.14.5, Socioeconomics and Community Facilities. Residential neighborhoods that are impacted by the Project include: downtown Dallas, Le May and Le Forge Neighborhood, Hash Road and Nail Drive Community, Saddle Creek Forest, Plantation Forest (includes Magnolia Place and Magnolia Plantation) and the White Oak Falls neighborhood.</p> <p>As discussed in Section 3.13.3, Land Use, Methodology, the Study Area for land use conversion was a half-mile wide (a quarter-mile on either side of the HSR track centerlines and ancillary facilities). Neighborhoods outside of this area were not included in the analysis. Additionally, the Project will either go over or under existing roadways. The construction of the Project may result in changes to existing roadways in order for those roads to go under or over the track, but no public roads will be permanently closed. For a review of potential road reroutes or roadway grade modifications, refer to Section 3.11, Transportation.</p> <p>The Project Planned commercial developments mentioned in public comments include the following:</p> <p><u>Waller Town Center</u></p> <p>This is a 290 acre planned mixed-use retail, restaurant, entertainment, hotel and office project with an open air lifestyle center development typology. It is located near the intersections of US 290 and FM 2920 in far northwest Harris County. Binford Road crosses through the proposed development site. The Project would impact the eastern edge of this planned development. According to the developer, development is expected to begin in 2020.²² New electric utility lines are also planned along Binford Road. Refer to Section 4.2.1.2, Indirect and Cumulative Impacts, New Electrical Transmission Lines, for information about the environmental clearance process for these lines.</p> <p>In 2017, the Texas Legislature created under Section 59, Article XVI, Texas Constitution, the Waller Town Center Management District. The district was created to “promote, develop, encourage, and maintain employment, commerce, transportation, housing, tourism, recreation, the arts, entertainment, economic development, safety, and the public welfare in the district.”²³The most recent publicly available site plan, however, does not show roads in the development traveling toward the Project. US 290 and FM 2920 are not being modified by the Project (the Project is road under rail at these intersections). The Project would be on viaduct near the entire development site, which would allow for new roads and for travel under the Project.</p> <p>It is not possible to fully ascertain the potential impacts to the planned development as it is still in the planning phases.</p> <p><u>Georgetown Oaks</u></p> <p>This is a 993 acre planned development located along US 290 at Binford and Kickapoo Roads. This site is located east of the planned Waller Town Center and west of the Daikin-Goodman headquarters. This site is a planned mixed-use development with retail, residential, medical, office, and industrial land use types.</p> <p>It is not possible to fully ascertain the potential impacts to the planned development as it is still in the planning phases.</p>
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²² <https://www.cullinanproperties.com/waller-town-center/>

²³ <https://law.justia.com/codes/texas/2017/special-district-local-laws-code/title-4/subtitle-c/chapter-3877/>

Table H-4: Standard Responses	
LU-4	<p>The 4.2 million square foot Daikin/Goodman manufacturing facility is located along US 290 in northwest Harris County and completed in 2016. It employs 5,000 people.</p> <p>As noted in Section 3.13.3, Land Use, Methodology, the Project’s Study Area for land use conversion was a quarter-mile from the track centerlines and therefore the facility is located outside of the Project Study Area. Roads to the facility would also not be affected because the Project is on viaduct (or road under rail). FM 2920, US 290, Hempstead Highway and Old Washington Road would all be crossed by the Project and would not be rebuilt or rerouted. See Table 3.11-31, for a list of all the roads that will be crossed by viaduct in the area. Additionally, this technology park is approximately 1 mile east of the Project.</p> <p>As described in Section 3.11, Transportation, no public roads would be closed as a result of the Project. The Final EIS also reviews state and local transportation plans and finds no impacts to any planned transportation improvements.</p> <p>Local jurisdictions could extend infrastructure more easily under viaduct, helping to preserve the economic development potential of this area, including planned developments such as Waller Town Center. No adverse economic impact is expected as a result of the Project. Rather, a net positive economic impact would occur as a result of capital investment during the Project’s construction and increased state and local tax revenues resulting from TCRR’s assets and operations. Economic impacts associated with the project are detailed in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts.</p>
LU-5	<p>Engineering refinements on Build Alternatives A and D between the Draft EIS and Final EIS resulted in a shift of 3,250 feet (0.6 miles) to the east near the intersection of FM 709 and FM 3194 in Navarro County in order to minimize impacts to existing county roads. These engineering refinements also resulted in the avoidance of acquisition of Morgan Legacy Farms property. More information can be found in Section 2.5.4, Alternatives Considered, Engineering Refinements.</p>
LU-6	<p>As discussed in Section 3.13.4.2, Land Use, Agriculture, Special-Status Farmland and Agricultural Conservation Easements livestock are animals kept or raised for use or profit. Livestock are common throughout the Study Area, as shown in Table 3.13-6. In all 10 counties included in the Project’s Study Area, the general practice is to fence/gate grazing areas to prevent livestock from crossing onto adjacent landowner property, as well as transportation corridors. No permanent confined feeding operations for livestock, such as cattle or sheep, were found within the Study Area.</p> <p>As noted in 3.13.6.2, Land Use, TCRR would implement mitigation to lessen the impact of the Project on grazing lands and livestock management. TCRR shall negotiate with the landowner to provide adequate access (crossings) or compensation for land that is severed. TCRR will negotiate mitigation on a case-by-case basis with the affected landowners and shall incorporate the outcome of negotiations into the written agreements with the affected landowners, as outlined in LU-MM#2: Agriculture and Livestock Management.</p>

Table H-4: Standard Responses

<p>LU-7</p>	<p>The structure displacement/acquisition and parcel acquisition process for the Project is outlined in Section 3.13.3.3, Land Use, Assessment.</p> <p>The identification of parcels for potential acquisition was based on a number of factors including the displacement of structures in or within proximity of the LOD, percentage of the overall parcel impacted by the LOD, lack of or permanent disruption to access, and the creation of remnant parcels.</p> <p>Aerial photography was and limited field surveys were conducted to identify structures located within 200 feet of the LOD. For the purpose of this analysis, structures were identified through aerial photography as distinct rooftops and then given one of the following seven general classifications: agricultural, civic/cultural, commercial, community facilities, oil/gas, residential or transportation/utilities. A structure was then classified as either primary or secondary. A structure was secondary if it was an ancillary use to the primary structure (i.e., barn/shed). For example, if a property had a single-family home and a detached garage, the detached garage was classified as secondary because its use provided support to the primary structure on the property (the single-family home).</p> <p>Displacement</p> <p>A structure displacement occurred when a structure was within the LOD or within 50 feet of the LOD. Both primary and secondary structures could be deemed displaced. If a primary structure was deemed a displacement, the parcel would be deemed a full take or acquisition. An exception to this rule, however, was made for structures located within 50 feet of the LOD if the Project infrastructure was located within existing roadway right-of-way. Exceptions to this rule were made for structures located within 50 feet of a proposed station or when the Project would be located within existing public ROW (i.e., intersection modifications around the Dallas or Houston Terminal Stations). These structures would not be displaced and the underlying parcels would not be deemed a take. If a secondary structure was deemed displaced, it would not automatically result in a full acquisition of the parcel and would be reviewed through the structure and land acquisition processes described in Table 3.13-2. If a secondary structure was deemed displaced, it would not result in a full acquisition of the parcel.</p> <p>Acquisition</p> <p><u>Structure</u></p> <p>A structure acquisition occurred when a structure is more than 50 feet from the LOD but located on a parcel that would be deemed a take. Both primary and secondary structures could be deemed an acquisition.</p> <p><u>Parcel</u></p> <p>Land/parcel acquisition was also classified as either permanent or temporary acquisition (i.e., leased) depending on the duration of impact. Permanent acquisition would occur for parcels within the HSR ROW, while parcels within temporary construction areas would be leased or temporarily acquired. There are four categories of anticipated property acquisition based on the location and duration of impacts:</p> <ul style="list-style-type: none"> • full take – permanent acquisition of the entire parcel • partial take – permanent acquisition of a portion of the parcel • temporary take – temporary acquisition or use of the entire parcel • temporary partial take – temporary acquisition or use of a portion of the parcel <p>For more information about the structure and land acquisition methodology see 3.13.3.3, Land Use, Assessment and Appendix E, Land Use Technical Memorandum. TCRR would negotiate parcel acquisition with affected property owners on a case-by-case basis during the ROW acquisition.</p>
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Table H-4: Standard Responses	
LU-8	<p>As noted in Section 3.13.3.2, Land Use, Data Collection, land uses in the Study Area were identified based on information obtained from local and regional planning documents, readily available GIS data, aerial photography interpretation and windshield surveys. GIS data, obtained from county tax appraisal districts, included property boundaries and the assigned state land use codes. Approximately 100 unique state land use codes were reviewed and grouped into 13 distinct land use categories based on shared predominant characteristics.</p>
LU-9	<p>In order to avoid and minimize impacts to the natural, social, physical and cultural environment in designing the Project, TCRR identified co-location opportunities with transportation and utility corridors to minimize parcel and structure acquisition and land use conversion. Within the six end-to-end Build Alternatives, 48 percent of the LOD, on average, would be located adjacent to existing road, rail or utility infrastructure</p> <p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements, TCRR has continually refined the design of the Project to reduce the footprint and avoid or minimize impacts to the socioeconomic, natural, cultural and physical environment throughout the project development process. Based on environmental and engineering surveys, stakeholder engagement, public input, design development and the findings of the environmental analyses, TCRR further refined the design following the publication of the Draft EIS. The design revisions between Draft EIS and Final EIS resulted in the modified alignments that were reviewed in the Final EIS. The analysis in the Draft EIS was based on conceptual level of design as of May 2017; the analysis in the Final EIS is based on conceptual level of design as of July 2019. Approximately 17.5 percent of the centerline was shifted by TCRR (to an area outside of the LOD assessed in the Draft EIS) and the overall footprint of the Project evaluated was reduced by approximately 23 percent to minimize potential impacts. For example, between the Draft EIS and Final EIS, where practicable, TCRR eliminated road over rail crossings that would require reconfigurations of existing roads.</p>
LU-10	<p>For the purposes of this assessment, temporary conversion is defined as the use of land for the period of construction (approximately four years). The assessment of land use conversion also accounts for additional temporary construction workspace areas, such as contractor yards, and improvements required for construction, as well as maintenance facilities. Refer to Section 3.13.3.3, Land Use, Assessment for more information.</p> <p>As noted in LU-MM#1: Temporary Conversion of Land in Section 3.13.6.2, Land Use, Mitigation Measures, TCRR shall return temporarily impacted land to its pre-Project condition following the completion of construction activities in that area.</p>

Table H-4: Standard Responses	
LU-11	<p>As outlined in Section 3.13.5, Land Use, Environmental Consequences the Project would temporarily affect between approximately 1,931 acres (Build Alternative C) and 2,176 acres (Build Alternative D) of agricultural land. Between 5,076 acres (Build Alternative F) and 5,376 acres (Build Alternative B) of agricultural land would be permanently affected. See Table 3.13-11 for more information about temporary and permanent land use conversions within the LOD for agricultural land, and other land use categories.</p> <p>TCRR would consult with ranchers and agricultural landowners regarding those areas that would be temporarily and permanently disturbed with regard to crop and/or livestock production. TCRR’s negotiations could result in fragmented fields/pastures (i.e., remnant parcels) being absorbed by adjacent landowners. Measures to avoid conflicts could involve the use of enhanced creek crossings and access to maintain open movement of livestock, as well as farming or ranching equipment. While herds could move beneath the viaduct, security fencing would prevent livestock access to HSR ROW in areas not on viaduct. Permanent needs would include negotiating livestock and/or equipment crossing along areas of the alignment that are not on viaduct. Agreements between landowners and TCRR would be completed before construction begins and may include compensation for impacts to remnant parcels.</p> <p>LU-MM#2: Agriculture and Livestock Management states that TCRR shall coordinate with landowners identified as owning displaced or acquired property, as outlined in Section 3.13, Land Use and the Appendix E, Land Use Technical Memorandum to determine temporary needs for livestock management during construction, as well as permanent needs during operation of the high-speed rail system. Permanent needs would include negotiating livestock and/or equipment crossings along areas of the alignment that are not on viaduct. TCRR shall negotiate with the landowner to provide adequate access (crossings) or compensation for land that is severed. TCRR shall negotiate these management needs on a case-by-case basis with the affected landowners and shall incorporate the outcome of negotiations into the written agreements with the affected landowners.</p> <p>Approximately 55 percent of the Project is on viaduct (elevated structure), which would allow passage under the tracks for livestock and agricultural-related used, such as tractors and trailers. For more information about the Project effects on agricultural production and the overall farming economy, refer to Section 3.13.5, Land Use, Affected Environment.</p>
LU-12	<p>All road crossings for the Project would be grade-separated, which means that the Project will always be at different heights from road or rail crossings (i.e., road over rail or road under rail) and would not disrupt vehicle or rail traffic flow. The final design for road crossings will be in accordance with current specifications and design guidelines of the applicable authority (city, county, and/or TxDOT). TCRR is also working to include accommodations required by the Union Pacific Railroad (UPRR) which would include adequate vertical clearance to allow UPRR equipment to travel under the Project. Refer to Appendix G, TCRR Conceptual Engineering Plans and Details for more information. The current profile allows for future UPRR extensions near Greene Road and West Wintergreen as shown on publicly available materials for Prime Pointe.</p>
LU-13	<p>Since the release of the Draft EIS, Section 3.13.6, Land Use, Avoidance, Minimization and Mitigation has been updated to include LU-CM#5: Adhere to Development Regulations, which states that TCRR shall adhere to all applicable development regulations for any ancillary facilities that would be required and constructed.</p> <p>In addition, TCRR would adhere to all applicable local ordinances, such as tree ordinances. For example, both the city of Dallas and Houston have tree ordinances that require TCRR to mitigate and/or replace trees removed for construction. TCRR would be required only if local ordinances or land negotiations prior to construction stipulate that trees be replanted.</p>

Table H-4: Standard Responses

LU-14	<p>The assessment of impacts in this Final EIS is based on the proposed limits of disturbance (LOD) for TCRR's HSR Project. The LOD includes both permanent and temporary construction areas that have been identified by TCRR as required to construct and operate the Project, which on average is 328 feet wide. The minimum ROW required would be 100 feet to accommodate track, systems and safety fencing. Appendix D, Project Footprint Mapbook, illustrates that the ROW varies throughout the corridor. FRA's evaluation, as noted in Section 3.13, Land Use, has identified permanent impacts to approximately 7,000 acres within the Study Area. Build Alternatives A and D would have the least total permanent land use conversion (approximately 6,600 acres), while Build Alternative C and F would have the most (approximately 7,300 acres). See Table 3.13-10 and Table 3.13-17 for more information.</p> <p>TCRR must operate within the Project footprint and is limited to the temporary and permanent construction areas within the LOD. As with most major infrastructure projects, TCRR would acquire all necessary construction materials (including dirt to build embankments and berms) from within the LOD or from commercial sources.</p>
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Table H-4: Standard Responses

<p>NE-1</p>	<p>As stated in Chapter 1.0, Introduction, FRA broad authority to prescribe regulations and issue orders, as necessary, for every area of railroad safety (49 U.S.C. Chs. 20101 et seq.; 49 Code of Federal Regulations (C.F.R.) C.F.R. Chs 1.89, Parts 200-299). FRA's existing regulations do not adequately address the safety concerns and operational characteristics of the HSR system proposed by TCRR. Therefore, FRA has proposed minimum federal safety standards through an RPA (regulations that apply to a specific railroad or a specific type of operation) to ensure the TCRR's proposed system is operated safely. This regulatory action constitutes a major federal action and triggers the environmental review under NEPA. FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR, which is based on the N700-Series Tokaido Shinkansen technology. FRA did not evaluate TCRR's corporate structure, the economic or political feasibility of the Project, or Japanese financial contribution to or involvement in the Project because it is not necessary to inform the environmental analysis.</p> <p>FRA has prepared this Final EIS to evaluate and document the potential environmental impacts of the Project as required by NEPA, consistent with the Council on Environmental Quality (CEQ) NEPA regulations (40 C.F.R. Parts 1500-1508), and the FRA's Procedures for Considering Environmental Impacts (64 Fed. Reg. 28545 (1999)). FRA is the lead agency for the preparation of this Final EIS, in cooperation with the Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Surface Transportation Board (STB), United States Army Corps of Engineers (USACE) and United States Fish and Wildlife Service (USFWS).</p> <p>This Final EIS assesses the potential beneficial and detrimental effects of implementing the proposed Project and documents FRA's independent evaluation of TCRR's proposal to construct and operate the Project. As the proposed Project is not part of a larger program, FRA has determined that a Programmatic EIS would not be appropriate for this single and complete project.</p> <p>Data collection and analysis for the EIS was completed by FRA using the most accurate data available at the time of analysis and is based on industry standards and best practices. Throughout the conceptual design phase of the Dallas to Houston HSR Project, TCRR also collected environmental data to develop and support Project design efforts. This data was independently gathered and assessed by TCRR and has not been used by FRA in the environmental review or the development of this Final EIS.</p> <p>Details of the Project (including design, construction and operational specifications) have been considered in this EIS as proposed by TCRR. While these project requirements have not been validated, it should be noted that in general, the presentation of false or misleading information as part of an application for permits or financial assistance would jeopardize an applicant's receipt of a permit or financial assistance sought.</p> <p>Federal employees are subject to an ethical code of conduct set forth in 5 C.F.R. part 2635, as well as the basic obligation of public service summarized in 14 general principles found at 5 C.F.R. s. 2635.101(b). The first general principle is that public service is a public trust, requiring employees to place loyalty to the Constitution, the laws and ethical principles above private gain. The tenth principle is that employees shall not engage in outside employment or activities, including seeking or negotiating for employment, that conflict with official Government duties and responsibilities. The eleventh principle requires employees to disclose waste, fraud, abuse, and corruption to appropriate authorities.</p> <p>In addition, 18 U.S.C. s. 208 prohibits a Federal employee from working on a Government matter that will affect his or her own personal financial interest, or the financial interest of certain other people, including any person or organization with whom her or she is negotiating or have an arrangement for future employment.</p>
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Table H-4: Standard Responses	
NE-2	<p>FRA anticipates issuing a Record of Decision (ROD) and Final Rule of Particular Applicability in Summer 2020. FRA has proposed minimum Federal safety standards through a RPA (regulations that apply to a specific railroad or a specific type of operation), to ensure that TCRR's proposed system is operated safely. This regulatory action constitutes a major federal action and triggers the environmental review under NEPA. On March 10, 2020, FRA published an Notice of Proposed Rulemaking (NPRM) proposing a set of minimum federal safety standards to enable effective safety oversight of the operation of TCRR's HSR system within the United States (see 85 Federal Register 14036 [March 10, 2020]). FRA cannot issue a Final Rule prior to the issuance of the agency's ROD, which is the final step in the NEPA environmental review process. Operation could only commence if a Final Rule is issued by FRA.</p> <p>A Mitigation Monitoring Plan will be attached to the ROD, documenting mitigation of Project impacts prior to, during, and following construction and detailing FRA's and TCRR's roles and responsibilities as they pertain to the ensuring compliance with mitigation. TCRR would be responsible for the implementation of all mitigation measures.</p>
NE-3	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
NE-4	<p>FRA will document its final decision on the EIS in a ROD that outlines its decisions, the alternatives considered in reaching the decision, including the environmentally preferable alternative, and applicable mitigation in accordance with the National Environmental Policy Act (NEPA) requirements. The next steps in the NEPA process are described in Section 9.7, Public and Agency Involvement, Next Steps, of the Final EIS.</p>
NE-5	<p>FRA has prepared this Final EIS to evaluate and document the potential environmental impacts of the Project as required by NEPA, consistent with the Council on Environmental Quality (CEQ) NEPA regulations (40 C.F.R. Parts 1500-1508), and the FRA's Procedures for Considering Environmental Impacts (64 Fed. Reg. 28545 (1999)).</p> <p>FRA is the lead agency for the preparation of this EIS, and receives technical support provided by several private contractors under a Monitoring and Technical Assistance Contract (MTAC). Costs related to FRA staff time and expenses incurred by FRA staff during the review of this project are covered under FRA's annual budget. AECOM assisted FRA in the preparation of the Final EIS under the direction and supervision of the FRA, and is paid directly by TCRR, consistent with 40 C.F.R. Part 1506.5(c) and guidance issued by the CEQ (46 FR 18026). All public mailings, notices, meetings, or other related expenses are coordinated under FRA's direction by AECOM and therefore also paid for by TCRR.</p>
NE-6	<p>TCRR is not exempt from any U.S. federal, state or local laws. A summary of the required permits, approvals, and authorizations; the agency responsible for the permit and/or approval; the permit, compliance or review required; and the relevant laws and regulations is included in Table 8-1. Prior to construction, TCRR will negotiate parcel acquisition with affected property owners and must work directly with permitting agencies and local jurisdictions to obtain necessary permits for the acquisition of property and all necessary construction and operation permits. While further information about permitting/approvals process is summarized in Chapter 8.0, Applicable Federal, State and Local Permits and Approvals of the EIS, these actions are separate from FRA's NEPA analysis.</p>

Table H-4: Standard Responses	
NE-7	<p>As detailed in Section 3.13.3.3.3, Land Use, Special-Status Farmland and Agricultural Conservation Easements, pursuant to FPPA, the Farmland Conversion Impact Rating for the Project was calculated by NRCS to determine the potential impact to protected farmland. There are three main types of special-status farmland assessed in this EIS: Prime Farmland, Unique Farmland and Farmland of Statewide or Local Importance. The NRCS considers a Farmland Conversion Impact Rating score of greater than 160 to be a conversion that causes adverse effects. For Build Alternatives with a combined Farmland Conversion Impact Rating score of greater than 160, additional coordination with NRCS would be required to determine appropriate mitigation. A rating score of 160 or less would not require further consideration for protection. As presented in the Draft EIS, FRA received an initial prime farmland report from NRCS on September 9, 2016 for the Project with scores ranging from 67 to 153 Updated correspondence with NRCS, based on the revised limits of disturbance as defined in the Final EIS, was received on April 19, 2019 (included in Appendix C, Public and Agency Involvement) with scores ranging from 78 to 125 ; therefore, no further coordination with NRCS regarding prime farmland is required. Questions related to the information provided by NRCS should be directed to that agency.</p>

Table H-4: Standard Responses	
NE-8	<p>This Final EIS was developed using field surveys and publicly available desktop data analyzed by FRA throughout the development of the Final EIS. As detailed in Chapter 3.0, Affected Environment and Environmental Consequences of the Final EIS, where field surveys have not been conducted, FRA completed data collection and analysis within the Study Area for each resource using the most accurate publicly available desktop data at the time of analysis in compliance with industry standards and best practices. Where publicly available data became available between the Draft and Final EIS, FRA updated the analysis in the Final EIS. For example, Mapbooks in Appendix D of the Final EIS use the National Agriculture Imagery Program (NAIP) 2016 imagery which provides the most recent and clear aerial resolution across the entire study area, at the scale depicted in the mapbooks. FRA also utilized Google Earth imagery to analyze specific resource impacts because Google Earth provided imagery ranging from years 2016 to 2019.</p> <p>Field surveys completed by FRA were conducted only on property where access was granted. In the event that a representative of FRA inadvertently accessed property for which entry had been denied (or recently changed), or where there was a miscommunication or misunderstanding of property boundaries, the representative left the property as soon as access (or lack of) was questioned. FRA has not used the data obtained from inadvertent survey on any property where access had not been obtained.</p> <p>NEPA regulations do not require that 100 percent of the LOD be field surveyed for the purposes of preparing an EIS. Prior to construction in a given area, the LOD shall be surveyed as defined in the mitigation measures for each of the following resource areas:</p> <p style="padding-left: 40px;"> 3.6 Natural Ecological Systems and Protected Species 3.7 Wetlands and Waters of the U.S. 3.8 Floodplain Hazards and Floodplain Management 3.19 Cultural Resources </p> <p>Sections 3.6.3, Natural Ecological Systems and Protected Species, Methodology and 3.7.3, Waters of the U.S., Methodology, have been updated in the Final EIS to include a summary of surveys completed for the Final EIS. As detailed with Appendix K, Agency Specific Reports, Biological Assessment (BA) and as part of NR-CM# 4, Section 7 Consultation and Biological Opinion, additional surveys to be conducted prior to construction may be determined in the BO issued by the USFWS. Additionally, WW-CM#4, CWA Section 404, Individual Permit and WW-CM#5: Waters of the U.S. Mitigation Plan, include surveys and mitigation that would be required as part of TCRR’s Individual Permits with the USACE Fort Worth and Galveston Districts.</p> <p>Table 3.19-10 has been added to the Final EIS and details the cultural resource surveys that have been conducted as part of the Final EIS. Prior to construction, FRA will require TCRR to survey the entire preferred route in accordance with the Programmatic Agreement developed under Section 106 of the National Historic Preservation Act (Appendix E, Cultural Resources Technical Memorandum).</p> <p>Throughout the conceptual design phase of the Dallas to Houston HSR project, TCRR collected field data to develop and support project design efforts. This field data was independently gathered and assessed by TCRR and has not been used by FRA in the environmental review or the development of this Final EIS.</p>

Table H-4: Standard Responses	
NE-9	<p>Pursuant to NEPA CEQ regulations, the Final EIS identifies, evaluates and documents the reasonably foreseeable potential environmental and socioeconomic impacts of implementing the proposed HSR service between Dallas and Houston. Chapter 3.0, Affected Environment and Environmental Consequences describes the existing human, social and natural environment analyzed for the No Build, all Build Alternatives A through F and three Houston Terminal Station Options. These resources were evaluated and are documented in separate sections within this chapter. For evaluation purposes, this Final EIS assesses the proposed LOD and, as necessary, a resource specific Study Area (the Study Area varies depending on the resource being discussed and may be larger than the LOD). The order of the resources per Section is as follows:</p> <ul style="list-style-type: none"> 3.1 Introduction 3.2 Air Quality 3.3 Water Quality 3.4 Noise and Vibration 3.5 Hazardous Material and Solid Waste 3.6 Natural Ecological Systems and Protected Species 3.7 Wetlands and Waters of the U.S. 3.8 Floodplain Hazards and Floodplain Management 3.9 Utilities and Energy 3.10 Aesthetics and Scenic Resources 3.11 Transportation 3.12 Elderly and Handicapped 3.13 Land Use 3.14 Socioeconomics and Community Facilities 3.15 Electromagnetic Fields 3.16 Public Safety and Security 3.17 Recreational Facilities 3.18 Environmental Justice 3.29 Cultural Resources 3.20 Soils and Geology 3.21 Greenhouse Gas Emissions <p>Each section of Chapter 3.0, Affected Environment and Environmental Consequences generally follows this organization:</p> <p>Introduction—describes the resource being analyzed and specific terminology and references related to the particular section of the EIS. If for any reason, the format of a resource section deviates from this outline, the change is noted and explained.</p> <p>Regulatory Context—outlines federal and state laws and regulations applicable to the Project.</p> <p>Methodology— defines the Study Area for the resource and describes the methodology and data sources used to analyze impacts.</p>

Table H-4: Standard Responses	
NE-9 (cont.)	<p>Affected Environment—describes the existing condition in the context of the Study Area for each Build Alternative and Houston Terminal Station Option. The Study Area varies depending on the resource being discussed. Generally, this discussion is organized by county, then segment, from north (Dallas County) to south (Harris County).</p> <p>Environmental Consequences—describes the direct and indirect impacts for each Build Alternative and Houston Terminal Station Option and the No Build Alternative. It also explains short-term construction and long-term Project operation impacts that may result from the implementation of the Project. Generally, this discussion is also organized by county, then segment, from north (Dallas County) to south (Harris County), including the Houston Terminal Station Options.</p> <p>Avoidance, Minimization, and Mitigation—where impacts cannot be avoided or minimized through design, mitigation strategies that would reduce adverse impacts are described. Additionally, any compliance measures required by local, state or federal regulation are described.</p> <p>A summary table is included at the end of each section, providing a comparison of the anticipated impacts of each Build Alternatives and Houston Terminal Station Options. Additionally, many of these sections have supporting technical memoranda located in Appendix E, Technical Memoranda that provide additional detail and background on the technical analyses performed.</p>
NE-10	<p>The issue discussed in this comment is not germane to the NEPA process, nor FRA’s evaluation and documentation of the potential environmental impacts of the proposed Project.</p>
NR-1	<p>The noise assessment was carried out in accordance with FRA guidance (“Procedures for Considering Environmental Impacts,” 64 Federal Register 28545. May 26, 1999.). The assessment methodology, criteria for impact, and locations of noise and vibration impacts are contained in Section 3.4, Noise and Vibration. HSR effects on wildlife and livestock are assessed in Section 3.6.5.2.2, Natural Ecological Systems and Protected Species, Wildlife. The FRA guidance includes the most up to date research on noise effects on animals, which shows a very limited area close to the tracks where there would be a potential for effects. Long-term effects that might change animal behavior tend to be affected by natural changes rather than factors such as short-term noise exposure; natural changes include weather, predation, disease, and other disturbances to animal populations. Section 3.4.5.2.4, Noise and Vibration, HSR Operational Noise Impacts assessed that the Sound Exposure Level of 100dBA would only be exceeded within 15 feet from the HSR tracks, and no animals would be this close to the tracks where the HSR tracks would be at-grade because this area would be within the fenced ROW. Where the HSR tracks would be on viaduct or embankment and there would be wildlife or livestock crossings enclosed in a culvert, noise levels would be reduced by shielding either below the viaduct or within the culvert. Currently, there are no criteria for assessment of impacts from vibration on wildlife.</p>
NR-2	<p>Potential impacts to wildlife were assessed in Section 3.6.5.2, Natural Ecological Systems and Protected Species, Build Alternatives. Information regarding the regulatory context in which the assessment was conducted can be found in Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context, which includes applicable regulations pertaining to migratory birds. The Project is located within the migration corridor for several species; however, impacts to their migratory patterns are not expected as a result of the Project. The Project location on a landscape scale is minimal when considering migratory patterns over several thousand or even hundreds of miles. Mitigation measures to avoid impacts to migratory birds and comply with the Migratory Bird Treaty Act (MBTA) are described in Section 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Permitting and NR-CM#1: MBTA Compliance.</p>

Table H-4: Standard Responses	
NR-3	<p>Bald Eagles were delisted by United States Fish and Wildlife Service (USFWS) but are protected under the Bald and Golden Eagle Act and are state listed as threatened by the Texas Parks and Wildlife Department (TPWD). Their range spans across East Texas and along major water resources. For information regarding the Bald and Golden Eagle Protection Act and this species please see Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context. The Natural Resources Mapbook, Appendix D, includes locations of Bald Eagle records provided in the Texas Natural Diversity Database (TXNDD) by TPWD. Potential impacts resulting from the construction or operation of the rail to the bald eagle will be avoided by the compliance and mitigation measures listed in Sections 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Permitting and 3.6.6.2, Mitigation Measures including NR-CM#2: Bald and Golden Eagle Protection Act Compliance, which states, “Prior to the start of construction, TCRR shall hire a qualified biologist to conduct surveys for bald eagle nests within the Study Area and 660 feet beyond the Study Area limits. In accordance with the National Bald Eagle Management Guidelines and the Bald and Golden Eagle Protection Act, should bald eagle nests be discovered during the surveys or construction, TCRR shall avoid take of those nests. Additionally, an appropriate buffer distance coordinated with the USFWS shall be placed around the nests, in which construction shall be prohibited until the nest is no longer active and nesting season, defined as August 1 through January 31, is over. If an active or inactive nest is located within the vegetation clearing limits, TCRR shall consult with the USFWS to determine whether a Bald and Golden Eagle permit from the USFWS before any action that may result in take, such as removing a nest.”</p>
NR-4	<p>All federal and state listed species with potential to occur within the Study Area were evaluated in the Final EIS. Through coordination with the USFWS, it was determined that surveys would be required for three federally listed and endangered species, the Navasota ladies’-tresses, Large-fruited sand verbena, and Houston toad. Suitable habitat for these protected species was modeled along the entire Limits of Disturbance (LOD) based on habitat parameters. The models were field verified where access was provided. Information regarding the habitat modeling and parameters used can be found in Section 3.6.3, Natural Ecological Systems and Protected Species, Methodology. Additionally, coordination with species experts and the USFWS related to species surveys has been ongoing. Based on the habitat modeling, three-years of surveys for the endangered Navasota ladies’-tresses, Large-fruited sand verbena, and Houston toad were conducted on parcels where access was granted starting in Fall 2016 through Spring 2019. Four individual Navasota ladies’-tresses were observed in 2017 and 26 individuals were observed in 2018. No Houston toads or large-fruited sand verbena were observed during surveys. Impacts to endangered species will be minimized due to compliance and mitigation measures listed in Sections 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Permitting and 3.6.6.2, Mitigation Measures, specifically NR-CM#4: Section 7 Consultation and Biological Opinion. For information regarding the Endangered Species Act please see Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context and Section 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species.</p>
NR-5	<p>Impacts to wildlife are discussed in Section 3.6.5.2.2, Natural Ecological Systems and Protected Species, Wildlife, which states impacts to wildlife would be minimized by locating the HSR infrastructure adjacent to existing transportation infrastructure, utility corridors and other development, where practicable. All Build Alternatives would result in the direct loss of wildlife habitat, increase habitat fragmentation, and contribute to impediments of the movement of wildlife across the landscape. Impacts to wildlife and vegetation will be minimized due to compliance and mitigation measures listed in Sections 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Permitting and 3.6.6.2, Natural Ecological Systems and Protected Species, Mitigation Measures. All federal, state and local regulations will be complied with to minimize impacts.</p>

Table H-4: Standard Responses

NR-6	<p>Approximately 55 percent of the Project would occur on viaduct, which would allow wildlife to cross underneath the Project. Through coordination with the USFWS, wildlife crossings will be incorporated into areas along embankment to facilitate wildlife movement and prevent wildlife movement barriers. The conceptual design includes viaducts to cross floodplains and larger water resources, as well as habitats, vegetation, and riparian areas, to minimize disturbance. The viaducts are designed wide enough to conserve riparian habitats and maintain local landform. Where the Project would occur on embankment, the design includes security fencing to deter animals from entering the rail corridor. For information regarding mitigation measures to protect wildlife please see 3.6.6, Natural Ecological Systems and Protected Species, Avoidance, Minimization and Mitigation including NR-MM#6: Wildlife Crossings. For information regarding Wildlife Corridors please see Appendix E, Technical Memorandum Wildlife Crossings for information regarding location and number of crossings.</p>
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Table H-4: Standard Responses	
NV-1	<p>The noise impact assessment was carried out in accordance with the methods and procedures specified in the FRA <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> guidance document. The assessment methodology, criteria for impact, and locations of impacts are contained in Section 3.4.3.1, Noise and Vibration, Analysis Methods, Section 3.4.3.2, Noise and Vibration, Impact Criteria and Section 3.4.5, Noise and Vibration, Environmental Consequences, respectively, and additional detailed information is provided in Appendix E: Noise and Vibration Technical Memorandum.</p> <p>Following FRA guidance, noise impact is assessed based on land use category and on a comparison of the predicted project noise exposure with the existing noise exposure levels at sensitive receiver locations as determined by measurements. The details regarding the noise measurements are included in Table 3.4-8 in Section 3.4.4, Noise and Vibration, Affected Environment including the date and time of the measurements. The noise measurements followed the methodology included in the FRA noise and vibration guidance manual for conducting existing noise measurements. This methodology includes different options for determining existing noise, including full measurements over 24-hour periods as well as computations from partial measurements during one-hour periods at different times of the day.</p> <p>The FRA noise assessment is conducted on a cumulative basis, which looks at the total noise over a 24-hour period. Because of this, the noise assessment uses the total number of trains per day in the assessment, and whether or not the trains occur at the same time does not matter in the cumulative assessment. The assessment is based on the reference noise level of a trainset (traveling at a known speed), the total number of trains within 24 hours, the length of each train, and the actual speed of the trains at a given location. The criteria for noise impacts are based on a comparison of the existing background noise and the predicted Project noise for the Project, as described in Section 3.4.3.2.3, Noise and Vibration, Operational Noise Impact Criteria . Maintenance was not included in the cumulative noise impact assessment, as it would only be conducted as needed and not on a regular basis.</p> <p>Noise mitigation commitments are identified in Section 3.4.6.2, Noise and Vibration, Mitigation Measures and are consistent with FRA guidance. FRA will require mitigation where impacts would be severe. Where TCRR proposes to use sound barriers to mitigation noise impacts, TCRR shall seek input from the impacted landowners and local jurisdictions on barrier types and designs. If TCRR does not implement sound barriers, TCRR shall compensate impacted land owners for the cost of sound insulation treatments for buildings that would reduce the noise impact to a level below severe. The compensation cost shall be site-specific and shall include the cost of labor and materials. As described in Section 3.4.6, Noise and Vibration, Avoidance, Minimization and Mitigation, building sound insulation treatments include, but are not limited to, adding an extra layer of glazing to windows, sealing holes in exterior surfaces that act as sound leaks and providing forced ventilation and air conditioning so that windows do not need to be opened. It is typical to have mitigation commitments at the Final EIS phase of the project, without specific measures such as noise barrier locations, but to have detailed studies conducted during design to ensure that mitigation will be practical, viable, and provide adequate mitigation at required locations. The cost for any mitigation measures will be a part of the Project.</p>
NV-2	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
NV-3	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>

Table H-4: Standard Responses	
NV-4	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
NV-5	<p>The vibration impact assessment was carried out in accordance with the methods and procedures specified in the FRA <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> guidance document. The assessment methodology, criteria for impact, and locations of impacts are contained in Section 3.4.3.1, Noise and Vibration, Analysis Methods, Section 3.4.3.2, Noise and Vibration, Impact Criteria and Section 3.4.5, Noise and Vibration, Environmental Consequences, respectively, and additional detailed information is provided in Appendix E: Noise and Vibration Technical Memorandum.</p> <p>Unlike noise assessment, vibration assessment is not based on existing background vibration levels, which are typically in the range of 50-55 VdB (below the threshold of perception). Rather, vibration assessment is based on a comparison of the predicted project vibration levels with the FRA operational vibration impact criteria contained in Section 3.4.3.2.4, Noise and Vibration, Operational Vibration Impact Criteria, that depend on land use category and frequency of operation. Because source vibration data are not available for the Shinkansen N700-Series trainset, the projections of vibration are based on measurements of operating Pendolino high-speed trains included in the FRA guidance document. The Pendolino and Shinkansen trainsets are both of the Electric Multiple Unit (EMU) type and should have similar vibration characteristics.</p> <p>As described in Section 3.4.5.2.5, Noise and Vibration, Operational Vibration Impacts, HSR trainset operations would result in no vibration impacts at any residential or institutional locations. Furthermore, HSR trainset vibration levels will be well below the threshold for damage to structures, including underground utilities. As a mitigation commitment, where project construction activities occur in very close proximity to underground utilities, TCRR would coordinate with the utilities to identify where mitigation measures (e.g. relocation and/or encasement of pipelines) would be needed to avoid damage and would then compensate the utilities accordingly. Construction vibration impacts are addressed in Section 3.4.5.2.1, Noise and Vibration, Construction Noise and Vibration Impacts.</p>
NV-6	<p>As discussed in Section 3.4.3.1, Noise and Vibration, Analysis Methods, the noise assessment is based on a reference level of 87 dBA at 50 feet and 180 mph, in terms of sound exposure level (SEL). This level was obtained from measured sound data for the Tokaido Shinkansen N700-A operating in Japan. Although the trainset operated on the HSR system would be based on the Shinkansen N700-Series, this remodeled trainset is not yet in service and sound data for this trainset are not yet available. However, because the N700-Series will have new features which reduce air resistance and noise compared to the N700-A model, the current noise assessment should be conservative (i.e. the noise impacts will not be greater than and are likely to be less than currently projected). As the proposed project would be operating at a speed of 205 mph, the reference noise level was extrapolated to predict and assess potential impacts using methodology from the FRA <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> and the FTA <i>Transit Noise and Vibration Impact Assessment Manual</i> guidance documents as described in Appendix E: Noise and Vibration Technical Memorandum. While the noise level experienced by an individual would vary depending on their location relative to the Project, Table 3.4-12 in Section 3.4.5.2.4, Noise and Vibration, HSR Operational Noise Impacts, provides estimated noise levels for sensitive receptors throughout the project area.</p>

Table H-4: Standard Responses	
NV-7	The noise assessment methodology accounts for elevated structures and viaducts in calculating noise levels. As described in Appendix E: Noise and Vibration Technical Memorandum , noise levels were adjusted to account for the height of the trainset when on viaduct. When the trainset is elevated above the ground there is a reduction in sound absorption by the ground and there are fewer intervening structures to shield receptors from the trainset noise.
NV-8	The residences shown as moderate impacts are just above the threshold for moderate impact. For residences farther from the tracks than those where moderate impacts have been identified, noise impacts would be within acceptable ranges as the noise levels are lower at those locations.
NV-9	Speed restrictions are not considered mitigation measures by the FRA. Additionally, this would not meet the purpose and need of the project.
NV-10	The "slapping" sound is a phenomenon that only occurs in the area between the two passing trains and is only experienced by passengers on the trains, when it does occur. There is no effect on the noise at the wayside. Although the maximum noise level at the wayside from two passing trains would be greater than from a single train, this condition will only occur at a few locations for a few seconds, and the increase in noise level would be 3 decibels or less, which is a barely perceptible difference as described in Section 3.4.1.1, Noise and Vibration, Noise Basics . Based on the mathematics of decibel addition, two noise sources that generate the same sound level at a given receiver will result in a level that is 3-decibels greater than the level generated by either of the sources individually. Because two passing trains would be located at slightly different distances from a given receiver and because of the potential noise shielding effects of one trainset by the other, the increase is likely to be a bit less than 3-decibels. Furthermore, the noise assessment is not based on the maximum noise levels, but rather on the cumulative noise exposure from all trains passing by any given location over a 24-hour period so that it does not matter whether trains pass by at the same time.

Table H-4: Standard Responses

<p>PI-1</p>	<p>The Final EIS has been prepared with public and agency involvement, which is summarized in Chapter 9.0, Public and Agency Involvement. FRA created a website (https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail) for the Project and continues to update the site regularly. FRA published a Notice of Intent (NOI) to prepare an EIS for the Project in the Federal Register on June 25, 2014 and identified a 90 day scoping period. In response to public concerns and requests, FRA extended the scoping period an additional 108 days through January 9, 2015. FRA held 12 public scoping meetings throughout Texas for the Project, as well as two agency meetings during the scoping period, which are summarized in Table 9-1. The FRA received approximately 4,400 comments at the public scoping meetings and two agency coordination meetings; and through the Project website, the Project and FRA email addresses, and the U.S. mail. These comments addressed the proposed alternatives, community impacts, socioeconomic impacts, and environmental impacts, among other topics. Information from the public and agency meetings and FRA’s consideration of the comments helped shape the content of the Scoping document, Corridor Alternatives Analysis and the EIS. Comment topics are summarized in Table 9-4 of the Final EIS and all scoping comments can be found in Appendix E of the Scoping Report, which can be reviewed at: https://railroads.dot.gov/elibrary/dallas-houston-high-speed-rail-eis-appendix-e-scoping-comments.</p> <p>On December 22, 2017, EPA published a Notice of Availability (NOA) for the Project in the Federal Register and FRA circulated the Draft EIS to affected local jurisdictions, state and federal agencies, tribes, community organizations and other interested groups, interested individuals and the public. Appendix B, Distribution List of the Final EIS identifies the repository locations for copies of both the Draft and Final EIS. FRA held 11 public hearings to accept agency and public comment on the contents of the document, including FRA’s Preferred Alternative during the 78-day comment period (61--day period, with 17-day extension). In response to public comments, FRA also extended invitations to all 10 impacted county judges for additional meetings. Dallas, Ellis, and Harris counties accepted these invitations. After considering comments received on the Draft EIS, FRA prepared the Final EIS and included responses to comments in Appendix H: Response to Draft EIS Comments. FRA also consulted with Native American Tribes in accordance with Section 106 of the National Historic Preservation Act and NEPA. This is documented in Section 3.19.3.1.2, Cultural Resources, Federally Recognized Native American tribes of the Final EIS and Appendix C, Public and Agency Involvement.</p> <p>In addition to posting an electronic version of this Final EIS on the Project website (https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail). FRA has also distributed hard copies of this Final EIS to repository locations as detailed in Appendix B, Distribution List. FRA will consider all substantive comments received prior to the ROD and include them as part of the administrative record.</p>
<p>PI-2</p>	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
<p>PI-3</p>	<p>Pursuant to 40 CFR 1506.10(b),(c), and (d), the minimum required comment period for a Draft EIS is 45 days. FRA published the Notice of Availability for the Draft EIS in the Federal Register (82 FR 60723) on December 22, 2017 with a public comment period end date of February 20, 2018 (61 days). Based on multiple requests from the public, FRA subsequently approved an extension of the public comment period to March 9, 2018, which allowed an additional 17 days for public comment. FRA announced the extension of the public comment period at the public hearings, on the FRA website, and in an amended Federal Register Notice (83 FR 8073) dated February 20, 2018 and published on February 23, 2018. In total, FRA provided 78 days for public review and comment.</p>

Table H-4: Standard Responses	
PI-4	<p>FRA is aware that supporters and opponents of the HSR Project encouraged the submission of comments to FRA during the public comment period. All comments received by FRA during the 78-day public comment period are included in Appendix H, Response to Draft EIS Comments of the Final EIS. FRA will consider all comments submitted to FRA prior to the ROD and include them as part of the administrative record.</p> <p>Separate from FRA’s outreach under 40 C.F.R. 1501.7, TCRR also conducted public outreach throughout the history of Project development with various stakeholders, including federal, state and local agencies, elected officials, landowners and other interested parties. For example, several homeowners’ associations, particularly in northwest Houston, requested meetings with TCRR to better understand the Project and ask questions. TCRR provided a summary of the public outreach, including meetings and notifications, it conducted (see overview and TCRR Response to Comments memorandum dated June 15, 2019 attached in Appendix I, TCRR Plans and Public Outreach).</p> <p>It should be noted that stakeholder feedback solicited or received by TCRR that was not submitted to FRA is not directly considered in this Final EIS. However, the Final EIS does include Project refinements developed by TCRR based on their stakeholder engagement (e.g., Hempstead corridor, stations design and Richland realignments as detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements).</p>
PI-5	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
PI-6	<p>The Public Hearings for the Draft EIS consisted of two parts: an open house and a formal hearing and public comment session. Materials presented by the FRA at the public hearings are available for additional review at https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/documents-maps-images. The open house portion of the hearings provided an opportunity for hearing attendees to view exhibits and learn more about the Project, discuss the analysis contained in the EIS, and to ask questions of FRA and TCRR staff members. During the open house, comments and questions were referred to the appropriate subject matter experts. The formal hearing and public comment session allowed attendees to listen to a presentation on the Draft EIS and to publicly make verbal comments for the record, which were transcribed by a court reporter. The order in which individuals spoke at the Public Hearings was determined by the order in which they or their representative signed up to speak at the hearing registration table. Attendees could also dictate a comment to the hearing court reporter or submit a written or online comment during the hearing.</p> <p>When the formal hearing was adjourned, attendees were able to again view meeting exhibits and ask questions of FRA and TCRR representatives. Additionally, FRA provided information for the public hearings in Spanish and had a Spanish translator onsite at each meeting. FRA also offered individuals the opportunity to request additional translation services prior to the meeting. Additional written questions or comments were also accepted online, by U.S. mail, or by email during the public extended public comment period (December 22, 2017 – March 9, 2018). All substantive comments received during the public comment period have been responded to in the Final EIS (Appendix H, Response to Draft EIS Comments).</p>

Table H-4: Standard Responses	
PI-7	<p>All comments received during the Draft EIS public comment period (December 22, 2017 - March 9, 2018) were considered and responded to by FRA in the Final EIS (Appendix H, Response to Draft EIS Comments). Comments were accepted via email to the Project email address (DallasHoustonHSR@urs.com), email directly to FRA, online using the link provided on FRA's Project webpage (https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail), or by U.S. postal mail to FRA. All comments received prior to the ROD will be considered and included as part of the administrative record.</p>
PI-8	<p>On December 22, 2017, EPA published in the Federal Register (82 FR 60723), a Notice of Availability announcing the availability of the Dallas to Houston High-Speed Rail Draft EIS for public comment. FRA also made the Draft EIS available on its website (currently available at: https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail-draft) beginning on December 22, 2017. FRA published information about the Public Hearings in 27 different newspapers throughout the Project area with at least one advertisement each of the 10 counties traversed by the Project. FRA sent announcements to all adjacent property owners and all individuals who had asked to be included on the Project mailing list. FRA published information about the public hearings on the Project website. A description of the notification procedure used by FRA to inform the public and stakeholders of the Public Hearings can be found in Chapter 9.0, Public and Agency Involvement of the Final EIS with supporting documentation in Appendix C, Public and Agency Involvement. Appendix B, Distribution List of the Final EIS identifies the repository locations for copies of both the Draft and Final EIS.</p> <p>FRA presented the same information at all 11 public hearings for the Project. All 11 public hearings were open to the public. The public could attend one or multiple public hearings, and did not need to attend a public hearing in the county in which they reside or own property.</p>
PI-9	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
PI-10	<p>Your contact information was added to FRA's mailing list for the DHHSR Project.</p>
PI-11	<p>FRA received several requests to host an additional public hearing in Harris County, specifically within the City of Houston. FRA hosted two meetings in Harris County, the first on February 5, 2018 in Cypress and the second within the City of Houston on March 5, 2018, in proximity to the Houston Terminal Station Options outlined in the Draft EIS.</p> <p>As required by NEPA, FRA published an amended Notice of Availability in the Federal Register on February 23, 2018 announcing the extension of the public comment period for the Draft EIS. FRA ran advertisements in 25 newspapers in every county in the Project area starting on February 25, 2018 to advertise the second hearing in Harris County, and sent Public Hearing announcements to all adjacent property owners, Project stakeholders, and all individuals who had asked to be included on the project mailing list. In addition, FRA published a Public Hearing notice on the Project website. A description of the notification procedures used by FRA to inform the public and stakeholders of the Public Hearings can be found in Chapter 9.0, Public and Agency Involvement of the EIS with supporting documentation in Appendix C, Public and Agency Involvement.</p>

Table H-4: Standard Responses	
PI-12	<p>FRA attempted to schedule the public hearings at venues with the capacity to accommodate 300 to 400 people. Due to winter holiday break, tentative dates and locations were placed on hold. One venue, Madisonville ISD, was not able to accommodate the finalized date, so another venue (Truman Kimbro Convention Center) with similar capacity was booked for the Madisonville Public Hearing on February 5, 2018.</p> <p>When room capacity was reached at a venue, the local fire marshals were required by local statute to refuse admittance to any additional people until others left the venue. Although one venue did reach capacity, no member of the public was turned away. Project support staff and TCRR representatives exited the building to allow as many people as possible inside and those waiting outside were permitted entrance as others left the hearing. All attendees were offered the opportunity to speak with FRA and provide comment.</p> <p>The room layout at Navasota Junior High School was designed to allow the maximum number of people to have easy access to open house materials and Project team members, as well as to enable participants to have a place to sit during the formal hearing portion of the event. The Harris County location (Woodard Elementary) for the February 5, 2018 Public Hearing was the only location in the Cy-Fair ISD that was available for a Public Hearing on the date requested.</p>
PN-1	<p>Table 3 "Corridor Traffic Data & Projections 2002 and 2035 FHWA Freight Analysis Framework 2.2" of the referenced report details that Vehicles per day on the DFWHO segment would increase from 47,178 (9,102 trucks) in 2002 to 106,475 vehicles per day (21,423 trucks) in 2035. This would represent a more than doubling of traffic on the DFWHO segment, or an increase of 127 percent (combined vehicles and trucks). While the Draft EIS stated 200 percent, Section 1.2.2.4, Introduction, Reliability of the State Highway System, has been updated to correctly reflect this increase of 127 percent.</p>
PN-2	<p>Currently, Amtrak provides passenger rail service to the State of Texas via the long distance <i>Texas Eagle</i> service (Chicago to San Antonio rail line with connections to Los Angeles) and the long distance <i>Sunset Limited</i> service (New Orleans to Los Angeles rail line). Rail passengers must use both of these services to get from Dallas to Houston. Amtrak service includes a segment from Dallas to San Antonio via the <i>Texas Eagle</i>. Passengers then must transfer to Amtrak's <i>Sunset Limited</i> to complete the trip from San Antonio to Houston. Amtrak does not currently offer direct service from Dallas to Houston.</p>

Table H-4: Standard Responses

<p>PN-3</p>	<p>As detailed throughout Section 1.2.1, Introduction, Purpose, the purpose of the privately proposed Project is to provide the public with reliable and safe high-speed passenger rail transportation between Dallas and Houston. While the Project is anticipated to alleviate congestion, it would not eliminate all travel on IH-45, nor would it resolve local traffic congestion within Dallas or Houston.</p> <p>As discussed in Section 1.2.2, Introduction, Need, the need for HSR service is a result of increasing travel demand and the deficiencies of the existing and proposed transportation infrastructure to accommodate this growing demand between Dallas and Houston. Current direct route transportation options between Dallas and Houston are limited to vehicular (car or bus) and air travel. As, discussed further in Section 1.2.2.4, Introduction, Reliability of the State Highway System, due to increasing congestion on IH-45, as identified in Texas Transportation Institute’s 2010 report, automobile travel times between the two regions are projected to increase as travel speeds decrease. While flight time between the two regions is relatively short (60-75 minutes), the overall trip duration when considering pre-arrival time more than doubles. Pre-arrival time refers to the time recommended by the airlines (approximately 1-2 hours) to arrive at the airport to allow for flight check-in, check luggage and to pass through the Transportation Security Administration (TSA) security checkpoints. The HSR trip duration from station to station is 90 minutes per TCR’s operating plan. Time needed for boarding, security, parking, and debarking will vary for each HSR passenger; however, it is anticipated to be less than flying due lower volume of passengers arriving at the HSR stations for this specific service. As clarified within the Final EIS, it is anticipated that boarding would be similar to other passenger rail. For instance, AMTRAK recommends passengers needing baggage and ticketing assistance arrive 45 minutes prior to departure at Dallas Union Station.</p> <p>Additionally, air travel is more sensitive to inclement weather such as severe rain and snow storms or other delay-causing events from inside and outside of Texas, while HSR may be affected only by extreme weather events such as tornados or straight-line winds between Dallas and Houston as described in Sections 2.2.1 Alternatives Considered, Technology and 3.16.5.2, Safety and Security, Environmental Consequences, Build Alternatives. The HSR travel will be less impacted by most weather events when compared to air travel and would be less impacted by traffic/accidents/construction when compared to driving.</p> <p>The need for HSR as an alternative transportation mode is supported by several factors including planning studies, population growth, congestion of the state transportation system, and safety. Refer to Section 1.2.2.1, Introduction, Planning Studies and Legislative Efforts, for discussion on why HSR is a reliable transportation option to the growing population within the State of Texas.</p>
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Table H-4: Standard Responses	
PN-4	<p>As detailed throughout Section 1.2.1, Introduction, Purpose, the purpose of the privately proposed Project is to provide the public with reliable and safe high-speed passenger rail transportation between Dallas and Houston. As also noted in Section 1.2.1, Introduction, Purpose, an earlier version of the Project Purpose as it was defined during public scoping and within the HSR Alignment Alternatives Analysis Report (dated November 6, 2015), was based on the project objectives as proposed by TCRR, which included economic viability and safety requirements. As the Project advanced and coordination with cooperating agencies continued, FRA determined that economic viability is an objective of TCRR, not a component of FRA’s Project Purpose. Therefore, FRA did not include economic viability in the Project Purpose defined in Section 1.2.1, Introduction, Purpose.</p> <p>While economic viability was not included in the Project Purpose in the EIS, cost considerations were part of the criteria during Levels I and II alternatives screening, as part of feasibility, costs and constructability analyses in the corridor and route alternatives analyses described in Section 2.4, Development and Evaluation of Proposed Corridors and Section 2.5, Development and Evaluation of Initial Alignment, Station and TMF Alternatives. As summarized in Section 2.5.1.1, Alternatives Considered, Level I Screening, the Level I alternatives screening criteria were based on the initial Project purpose statement and TCRR’s objectives for the Project, which included alignment objectives (i.e., maximizing grade separation and minimizing environmental impacts and constructability concerns) and TCRR’s design guidelines (i.e., maximum operating speed and minimum alignment curvature). The Level I Screening eliminated two alternatives (DH-1 and DH-2), as they would have potential to cause environmental impacts and entail prohibitive construction costs. While economic viability was considered as a factor in eliminating these alternatives, the decision to eliminate DH-1 and DH-2 was also based on direct environmental impacts. DH-1 had the potential to create environmental impacts to six areas of concern (National Historic District Heights Boulevard Esplanade, the U.S. Healthworks Hospital, Houston and Texas Central Railroad archeology site and Cottage Grove Park) and disproportionately impact minority populations. DH-2 had the potential to create environmental impacts to nine areas of concern (National Historic District Heights Boulevard Esplanade, U.S. Healthworks Hospital, Houston and Texas Central Railroad archeology site, Cottage Grove Park, Stude Park, White Oak Park, and Hogg Park).</p> <p>As summarized in Section 2.5.1.2, Alternatives Considered, Level II Screening, FRA further evaluated 13 alignment alternatives in the Level II, Stage II Cost and Construction Screening using a combination of environmental, economic viability (i.e., cost) and construction factors developed by TCRR to address TCRR’s primary criteria of cost and constructability. The cost factor was based on typical heavy infrastructure types (i.e., embankment vs. viaduct), trackwork, grade crossings, transmission line relocations, estimated environmental mitigation costs, and complexity factors associated with development and environmentally sensitive areas.</p>

Table H-4: Standard Responses	
RF-1	<p>Section 3.17.4, Recreational Facilities, Affected Environment identified parks, trails, and facilities within the Project Area. A discussion of the methodology used to determine Recreational Facilities can be found in Section 3.17.3, Recreational Facilities, Methodology. The equestrian trails referenced in public comments are believed to be located in the private and gated Saddle Creek Forest development; however, the trails could not be identified via desktop research from publicly available resources. The Project would impact approximately 15 parcels in Saddle Creek Forest on the east side of the existing CenterPoint Energy Transmission Line electrical easement. These parcels are currently undeveloped but are platted for single family residences and from satellite imagery show no indication of developed equestrian trails. Therefore, no impacts to equestrian trails would be anticipated in the Saddle Creek Forest Development. Section 3.14.5, Socioeconomics and Community Facilities, Environmental Consequences provides additional information about the Saddle Creek Forest and Plantation Forest Developments.</p> <p>The Project would not impact the Remington Forest, Six Pines, or Oak Hallow developments.</p>
RF-2	<p>The HSR system would not affect hunting or firearms regulations within the State of Texas. A discussion about recreational hunting activities and the Project has been added to the Final EIS and can be found in Section 3.17.5.3, Recreational Facilities, Potential Impacts to Recreational Hunting.</p>
RF-3	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
RF-4	<p>The Katy Prairie Conservancy lands (also referred to as Warren Ranch Lake) are located between approximately 3,000 feet and 1,800 feet south of Segment 5, common to all Build Alternatives. These lands are located outside of the Study Area for recreational facilities in this EIS. However, in response to public comments, KVP# 41 was added from the Katy Prairie Conservancy Wildlife Viewing Platform (see Figure 3.10-23) near Warren Lake. As detailed throughout Section 3.10.5.2.12, Aesthetics and Scenic Resources, Landscape Unit #10 Northwest Suburban, Harris County line to Grand Parkway (Harris County) the potential viewer impact at the Katy Prairie Conservancy Wildlife Viewing Platform would be moderate. Katy Prairie Conservancy lands would not be intersected by the Project and given the distance from the Project would not experience changes in in noise, access, use or the viewshed. For information regarding impacts to wildlife please see Section 3.6, Natural Ecological Systems and Protected Species and Section 3.6.5.2.2, Natural Ecological Systems and Protected Species, Wildlife. Impacts to wildlife would be minimized due to compliance and mitigation measures listed in Sections 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Section 3.6.6.2, Natural Ecological Systems and Protected Species, Mitigation Measures. For information regarding vegetation please see Section 3.6.4.2, Natural Ecological Systems and Protected Species, Vegetation and mitigation measures NR-MM#4: Minimize Disturbance in Sensitive Areas and NR-MM#6: Wildlife Crossings.</p>
RF-5	<p><i>Please refer to RF-4 in the few instances that this standard response code was erroneously applied to a comment.</i></p>

Table H-4: Standard Responses	
SS-1	<p>An analysis of the Project’s potential to impact the safety or security of employees, passengers and adjacent residents is documented in Section 3.16.5, Safety and Security, Environmental Consequences. Compliance and mitigation measures that would avoid or minimize potential impacts are documented in Section 3.16.6, Safety and Security, Avoidance, Minimization, and Mitigation. Section 3.16.6 of the Final EIS has been amended to clarify that a fully-enclosed system means that the corridor is independent from other train operations and public roadways. There are no at-grade crossings, meaning a car would not have to wait for a train to pass and then drive over the tracks to the other side of the system. When on viaduct, the Project would allow for free movement underneath the rail.</p>
SS-2	<p>To mitigate the potential for collision with a person, animal, or vehicle in the ROW, FRA proposes in the NPRM a requirement that TCRR develop, adopt and comply with a Right of Way Barrier Plan (see SS-CM#9: ROW Barrier Plan) which will address unauthorized access to the ROW. As described in Section 3.16.5, Safety and Security, Environmental Consequences, the Project design employs controlled access across the length of the Project using a combination of viaduct sections and security fencing (where the Project is not on viaduct), embedded 18 inches deep into the ground to deter burrowing animals from entering the rail corridor (following best management practices for feral hogs identified by Texas A&M University and Texas Department of Agriculture). FRA did not assess specific details regarding fencing type and capabilities because they are not necessary to inform the environmental analysis. TCRR will develop additional fencing specifications as it advances design for the Project.</p> <p>Overhead road structures will have guard rails as required by TxDOT to prevent vehicle intrusion onto the rail right-of-way. Intrusion detection measures will be provided as part of the security system, and will be linked to the Project’s signal and train control system. Additionally, fencing and protective screening will be placed on bridges and abutments to minimize objects being intentionally thrown onto the path of a train. Bridges will also be actively monitored by CCTV and through physical inspections. TCRR’s planned intrusion protection features are available in Appendix F, TCRR Final Conceptual Engineering Design Report, Section 4.3, Intrusion Protection.</p>
SS-3	<p>Emergency access to trainsets would be provided at station areas, maintenance facilities and at Emergency Response and Maintenance Staging Areas (ERMSA). On average, ERMSAs are spaced at two to three mile intervals, as documented in Section 3.16.5.2, Safety and Security, Build Alternatives, Table 3.16-20. Each ERMSA accommodates six ambulance, two fire trucks, and passenger staging areas. Designs options are available in Appendix F, TCRR Final Conceptual Engineering Design Report, Drawings Volume 3. TCRR’s Emergency Preparedness Plan (see SS-CM#1, Emergency Preparedness Plan) will include procedures for high elevation rescue and emergencies in electrified territory.</p>
SS-4	<p>Operation of the Project would require federal action to regulate a passenger rail system operating at speeds not to exceed 205 mph. As described in Section 1.1.2.1, Rule of Particular Applicability, TCRR has submitted a petition for federal rulemaking for a high-speed rail system operating at speeds not to exceed 205 mph. FRA is developing a rule of particular applicability to ensure the system is operated safely. As is customary for proposing regulatory changes (such as a rule of particular applicability), FRA will notify the public through publication of a notice of proposed rulemaking in the Federal Register and provide the public opportunity to comment on the regulatory proposal before FRA makes a final determination on the proposed regulatory requirements. The regulatory approach required for the Project to operate would establish an equivalent level of safety as compared to existing requirements for passenger rail operations. TCRR would be required to comply with the regulatory action for the Project and any applicable rules of general applicability, as described in Section 3.16.6, Safety and Security, Avoidance, Minimization and Mitigation.</p>

Table H-4: Standard Responses	
SS-5	<p>The Texas Department of Transportation is a state partner with FRA in the evaluation of the environmental impacts of the Project. The state of Texas could create a new state agency or expand the role of an existing agency to include safety oversight for high speed rail, but has not done so at this time. The Project must be compliant with all laws and regulatory oversight requirements imposed in the jurisdictions in which it operates. Refer to Section 1.1.2.1, Rule of Particular Applicability, for an overview of FRA's role in establishing federal safety regulations for the Project.</p>
SS-6	<p>Several aspects of TCRR's vehicle, track, and station design facilitate security of the system and deterrence of potential criminal activity. As described in Appendix F, TCRR Final Conceptual Engineering Design Report, the HSR system features would include perimeter fencing, closed circuit television and security lighting, where appropriate, that could deter or facilitate early detection of targeted attacks. Bridges will also be actively monitored by CCTV and by physical inspections.</p> <p>To mitigate impacts to the personal security of passengers and employees, TCRR would employ controlled access to trains and security monitoring systems throughout its facilities. Passenger screening techniques will be developed through TCRR's System Security Plan (See SS-CM#8: System Security Plan), but may include a variety of active and passive screening techniques, such as bag checks or video surveillance. TCRR proposes to establish and maintain a private security department to monitor safety and security on vehicles and at facilities, as well as coordinate with local city and county law enforcement. TCRR's System Security Plan, as described under SS-CM #8, System Security Plan, will identify the controls that will be in place to safeguard the personal security of passengers and employees and to evaluate and improve the effectiveness of the security system.</p>
SS-7	<p>Section 3.16.6, Safety and Security, documents compliance measures related to system security. As described under SS-CM#8: System Security Plan, TCRR shall prepare a System Security Plan including threat and vulnerability assessments which would establish provisions for the deterrence and detection of, as well as the response to, criminal and terrorist acts on rail facilities and system operations. The System Security Plan's threat and vulnerability assessments shall address all security risks identified through TCRR's Hazard Analysis (See Section 3.16.6.1, SS-CM#4: Perform Hazard Analysis).</p>
SS-8	<p>The assessment of existing criminal activity within the Project Study Area (see Section 3.16.4, Safety and Security, Affected Environment) is based on crime rates from the Federal Bureau of Investigation's (FBI) Uniform Crime Reporting Program and a comprehensive inventory of global terrorism events maintained by the University of Maryland's National Consortium for the Study of Terrorism and Responses to Terrorism (START). Each of these data sources is made publicly available annually after an approximate two-year lag from the year in which the events occurred. The Final EIS incorporates the latest publicly available data sets, including 2017 FBI and START crime and terrorism statistics.</p>

Table H-4: Standard Responses

<p>SS-9</p>	<p>Prior to operations, TCRR shall prepare a System Security Plan (See SS-CM#8: System Security Plan) that would document processes for mitigating and/or eliminating security threats, vulnerabilities, and other identified risks. TCRR has indicated that entry to the trains will require passengers to present a valid ticket for travel. Passenger screening techniques will be developed through TCRR's System Security Plan but may include a variety of active and passive screening techniques, such as bag checks or video surveillance. Additional passenger and employee screening procedures developed through the System Security Plan must be compliant with all applicable state and federal regulations, including Texas Senate Bill 975 and the Transportation Security Administration's RAILPAX-04-01 and RAILPAX-04-02. Texas Senate Bill 975, which was signed by the governor and became effective in 2017, requires TCRR compliance with Transportation Security Administration rules for intercity passenger rail, completion of periodic risk-based threat and vulnerability assessments, and implementation (in coordination with the Transportation Security Administration) of appropriate security measures in response to results of these assessments. In addition, the Texas Senate Bill requires TCRR to collect and investigate security threat reports submitted by members of the public, designate employees with emergency management responsibilities and require those employees to complete emergency management training with the Texas Department of Public Safety. The Bill also requires high-speed rail operators to coordinate with designated law enforcement agencies, the state's Emergency Management Council and the Texas Division of Emergency Management. This legislation is consistent with other state and federal rules governing the Project and has been incorporated into the Final EIS (See Section 3.16.2, Safety and Security, Regulatory Context). TCRR must comply with this and all other applicable laws and regulations for the jurisdictions where the Project will operate.</p> <p>The 90-minute Project travel time highlighted in Section 1.2.1.2, Purpose and Need, TCRR Objectives, does not include passenger screening or wait times. Transportation Security Administration rules for passenger rail are different than those for air travel. Passenger screening for the Project would not involve multiple carriers, multiple destinations, or international connections. These differences may result in a more streamlined screening process for the Project as compared to air travel.</p>
<p>SS-10</p>	<p>Section 3.17.5, Recreation, Environmental Consequences, describes the project's potential to impact hunting and notes that no additional hunting regulations would be required as a result of the Project. As described in Section 3.16.6 Safety and Security, Avoidance, Minimization and Mitigation, SS-CM#4: Perform Hazard Analysis, TCRR shall prepare a Hazard Analysis, prior to operations, which shall identify potential hazards and unintended events that may lead to an accident, rank the identified accidental events according to their severity, and identify required hazard controls and follow-up actions. This would include, if necessary, any controls needed to prevent falling or projectile objects from interfering with safe operations. In its NPRM, FRA proposes a rule which would require TCRR to comply with Tier III requirements (Large object impact test in accordance with EN15152 and the ballistic impact resistance requirements under Appendix A of 49 CFR part 223) for cab end-facing glazing. FRA proposes that TCRR comply with Type II requirements for side-facing glazing.</p>
<p>SS-11</p>	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>

Table H-4: Standard Responses	
SS-12	In its petition for federal rulemaking, TCRR proposes a system based on the Tokaido Shinkansen HSR system, including its design safety elements, systems approach, culture of safety, and accident avoidance principles. As described in Section 3.16.5.2, Safety and Security, Build Alternatives , TCRR would utilize the JRC Tokaido Shinkansen Automatic Train Control system which would control operations and movements of the HSR trainset, including those movements made in stations and maintenance facilities, at all speeds. JRC’s Automatic Train Control systems helps prevent derailments related to excessive speed, has the ability to detect broken rails and helps prevent the trainset from entering the affected track circuit. The technology associated with this system is substantially different than traditional passenger rail systems in the US and has a proven safety record: in the over 50 years the Tokaido Shinkansen has been in service, it has moved over 6 billion passengers with zero passenger fatalities or injuries due to trainset accidents such as a derailment or collision.
SS-13	To help prevent incidents and ensure reliable operations, 49 CFR part 270 requires a formalized System Safety Program (see Section 3.16.6, Safety and Security, Avoidance, Minimization and Mitigation, SS-CM#2: System Safety Program). Additionally, TCRR will be required to have a program for system inspection, testing, and maintenance (see Section 3.16.6, Safety and Security, Avoidance, Minimization and Mitigation, SS-CM#3: Inspection, Testing and Maintenance). Together, these programs would cover all aspects of day-to-day system safety, inspection, testing, and maintenance. These programs would be developed and implemented by TCRR prior to commencing operations.
SS-14	When comparing the relative risk to an individual traveling using various modes of transportation, the most appropriate metric is fatalities or injuries per passenger mile, as each trainset vehicle carrying a large number of passengers is equivalent to a similarly large number of individual personal automobiles on the road. A comparison of transportation fatalities by mode has been added to the Final EIS Section 3.16.4, Safety and Security, Affected Environment .
SS-15	<p>The potential for natural disasters including earthquakes, floods, tornadoes, hurricanes and wildfires is highly variable from the northern portion of the Study Area to the southern portion. The relative frequency and severity of these hazards within each county has been documented in Section 3.16.4, Safety and Security, Affected Environment. Compliance measure SS-CM#4: Perform Hazard Analysis (see Section 3.16.6.1, Safety and Security, Compliance Measures) describes requirements regarding TCRR’s Hazard Analysis. The Hazard Analysis methodology and assessment criteria require TCRR to establish the process used to identify and analyze hazards; methods for determining frequency, severity, and corresponding risk of identified hazards; procedures for identifying hazard controls or mitigating actions; and risk management roles and responsibilities within the organization. Natural hazards identified through this process would be addressed with appropriate hazard controls and procedures.</p> <p>In its NPRM, FRA proposes a requirement that TCRR shall install rain, flood, and wind detectors in locations identified by the railroad, based on relevant criteria used by JRC to provide adequate warning of when operational restrictions may be necessary due to adverse weather conditions. Operating restrictions shall be defined in the railroad's operating rules. In its petition for federal rulemaking, TCRR proposes to implement the safety practices associated with the Tokaido Shinkansen HSR system, including daily use of a sweeper vehicle to ensure the ROW is clear of large debris or other hazards on the tracks.</p>
SS-16	Adequate drainage along the Project and at facilities is the key to preventing safety hazards related to flooding and flash flooding. Section 3.8.6, Floodplains identifies several strategies and mitigation measures to reduce the impacts to floodplains, and Appendix F: Appendix F, TCRR Final Constructability Report, Section 2.6, Drainage describes the methods TCRR is proposing to accommodate drainage.

Table H-4: Standard Responses	
SS-17	<p>The documentation of existing weather related hazards in Section 3.16, Safety and Security has been updated to reflect more recent data from the National Oceanic Atmospheric Association (NOAA). Data associated with Hurricane Harvey, which occurred in August and September of 2017, was not available during preparation of the Draft EIS but is included in the Final EIS analysis of potential weather hazards in Section 3.16.4, Safety and Security, Affected Environment. NOAA classified Harvey as a tropical storm where it made landfall in Harris County. Fatality and property damage associated with Hurricane Harvey does not change the severity classification in Section 3.16.4, Hurricanes and Tropical Storms, of “High” within Harris County. Compliance measure SS-CM#4: Perform Hazard Analysis (see Section 3.16.6.1, Safety and Security, Compliance Measures) describes requirements regarding TCRR’s Hazard Analysis. The Hazard Analysis methodology and assessment criteria require TCRR to establish the process used to identify and analyze hazards; methods for determining frequency, severity, and corresponding risk of identified hazards; procedures for identifying hazard controls or mitigating actions; and risk management roles and responsibilities within the organization. Natural hazards identified through this process would be addressed with appropriate hazard controls and procedures. In its NPRM, FRA proposes a requirement that TCRR shall install rain, flood, and wind detectors in locations identified by the railroad, based on relevant criteria used by JRC to provide adequate warning of when operational restrictions may be necessary due to adverse weather conditions. Operating restrictions shall be defined in the railroad's operating rules.</p>
SS-18	<p>As described in Section 3.16.6, Safety and Security, SS-CM#1: Emergency Preparedness Plan, TCRR must file and have conditionally approved an Emergency Preparedness Plan prior to operations in compliance with 49 CFR part 239. The Emergency Preparedness Plan shall include, among other components, procedures regarding elevated structures and/or electrified territories, an inventory of available emergency equipment, and a program for communication and training for any local emergency responder who could reasonably be expected to respond during an emergency situation. Under 49 CFR part 239, this program will include participation in emergency simulations and distribution of TCRR’s Emergency Preparedness Plan to emergency providers.</p>
SS-19	<p>As described in Section 3.16.6 Safety and Security, SS-CM#4, Perform Hazard Analysis, TCRR must prepare a Hazard Analysis that identifies potential hazards and unintended events that may lead to an accident, ranks the identified accidental events according to their severity, and identifies required hazard controls and follow-up actions. The hazard analysis may include items such as extreme storm, flood, wildfire, or earthquake; falling debris or projectiles; intrusion of animals or trespassers; high temperature system performance; proximity of HAZMAT and utility distribution sites; and structural damage.</p> <p>Additional safety and security compliance and mitigation measures intended to manage risks are documented in Section 3.16.6, Safety and Security, Avoidance, Minimization and Mitigation. TCRR, under 49 CFR part 270, will be required to develop a System Safety Program, as described under SS-CM#2, System Safety Program . The System Safety Program shall address safety policies, procedures, and training requirements. In its rulemaking petition, TCRR proposed minimum standards and schedules for inspection, testing, and maintenance of vehicles, track, and other critical infrastructure required for the prevention of mechanical failures. (See SS-CM#3, Inspection, Testing, and Maintenance). TCRR will supply emergency equipment consistent with the needs identified in its Emergency Preparedness Plan (see SS-CM#1, Emergency Preparedness Plan) and shall bear responsibility for the development of safety training. Local agencies would remain autonomous in their ability to determine the number of personnel in attendance at coordination and training events.</p>

Table H-4: Standard Responses	
SS-20	<i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
SS-21	As described in Section 3.16.6 Safety and Security, SS-CM#6, Liability Coverage , TCRR will be responsible for complying with all applicable state and federal insurance requirements.
SS-22	<i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>

Table H-4: Standard Responses

<p>SS-23</p>	<p>The proposed Project is entirely grade separated and would not result in any delays to cross traffic associated with waiting for an HSR vehicle to pass before crossing a track. The potential for impact to emergency response times due to modified road networks at or near crossing locations is dependent on the type and nature of each crossing modification. As detailed in Section 3.11.5, Transportation, Build Alternatives, approximately 55 percent of the Project would be constructed on rail viaduct, minimizing permanent impacts to public roads. All crossings are either ‘rail over the roadway’ or ‘roadway over rail’. Approximately 83 percent of the public road crossings would not include re-routing of the existing public road for the Preferred Alternative. Modifications to these public roadways due to vertical changes would not impact travel or emergency response time after construction is complete. In many locations, the Project would add new access roads that run parallel to the alignment, enhancing access to remote properties and improving emergency response times. Where the Project requires acquisition of a private road, all properties that rely on that road for emergency access would also be acquired, or an alternate access road would be constructed by TCRR as determined by future negotiations with affected landowners. TCRR must coordinate any reconstruction or rerouting of public roads with TxDOT or the appropriate local jurisdiction through the Road Closure Permit process described in Section 3.11.6, TR-CM#3, Road Closure Permit. As part of the Road Closure Permit, TR-MM#1, Traffic Control Plan requires TCRR to develop a traffic control plan establishing procedures for temporary road closures including emergency access, traffic management, and construction site safety. Each traffic control plan must include provisions for safe and efficient operation of all modes of transportation, including both motorists and pedestrians. Precautions that consider the safety of construction workers and inspection personnel shall also be included. The traffic control plan must be coordinated with the appropriate jurisdiction and potentially affected emergency responders to avoid any appreciable negative impact to emergency response times. Section 3.16.6, Safety and Security, SS-MM#1, Model Construction Impacts on Emergency Response Times requires TCRR to evaluate these traffic control plans using Computer Assisted Dispatch software to determine the baseline and affected response times within a jurisdiction. This modeling would capture final design modifications and would be shared with each jurisdiction, prior to any construction activity, in order to facilitate coordination.</p> <p>Safety and Security Section 3.16.5.2.2, Build Alternatives, also includes a geographic analysis of the potential effects on response times during construction based on the number of roadway modifications and available alternate routes. This information is presented in Tables 3.16-17 and 3.16-18 indicating a high, medium, low, or localized potential for effects on response times. These are not quantitative measurements of impacts, but rather qualitative assessments meant to identify areas for heightened coordination between TCRR and the governing authorities. See Section 3.16.3, Safety and Security, Methodology, for an explanation of how risks were classified. The determination of specific measured travel time impacts cannot occur until the duration, extent, and timing of each planned roadway modification has been developed through the Road Closure Permit process. In all cases, closures during construction would be short-term until the permanent road crossing is constructed.</p> <p>Local jurisdictions would have review and permitting authority over TCRR's Traffic Control Plans for any required Road Closure Permits and, through this process, would require TCRR to demonstrate sufficient mitigation of any adverse impacts to emergency response times during the construction phase. In addition to any local standards, which would be developed through further coordination, Section 3.16.6, Safety and Security, SS-MM#1, Model Construction Impacts on Emergency Response Times also requires modification of construction plans if they result in an average response time increase of ten percent or more.</p>
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Table H-4: Standard Responses	
SS-24	<i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
SS-25	<i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
SS-26	As a result of mitigated response time impacts and because TCRR will coordinate with local emergency responders to identify capabilities and coordination procedures in the event of an emergency, no new emergency facilities are expected to be needed as a result of the Project. The Project’s impact on the tax base and property taxes was assessed in Section 3.12.5.2.3, Socioeconomics and Community Facilities, Economic Impacts . The land acquired by TCRR for the Project, and the new rail structures built on it, will be taxed by the jurisdictions, providing additional tax revenue to local emergency service districts.
SS-27	<p>The potential for wildfires within the Project Study Area, including an assessment of the relative frequency and severity of recent wildfire events, has been added to the Final EIS in Section 3.16.4, Safety and Security, Affected Environment. The Project includes over 20 feet of gravel fill where on berm and over 24 feet of cleared area between adjacent vegetation where on viaduct, which would limit the spread of wildfire across the operational corridor. FRA has proposed requirements in the RPA for TCRR to control vegetation growth so that it does not interfere with the normal safe operation of the HSR system.</p> <p>TCRR’s required Emergency Preparedness Plan (see Section 3.16.6, Safety and Security, SS-CM#1, Emergency Preparedness Plan) would specify procedures for TCRR to coordinate with emergency responders regarding procedures for communication with emergency responders, and a coordination plan for providing emergency access across the operational corridor. Approximately 55 percent of the Project would be constructed on a rail viaduct, minimizing permanent impacts to public roads. Approximately 83 percent of the public road crossings on the Preferred Alternative would be ‘rail over the roadway’ or ‘roadway over rail’ and would not include re-routing of the existing public road. All crossings would meet TXDOT vertical clearance standards over public roads which would allow free passage of emergency vehicles and would not present a barrier in the event of emergency wildfire management. Where a viaduct is used to provide land owner egress on private roads or agricultural passages, clearance and width requirements are subject to negotiations with affected property owners but would typically allow for passage of farm equipment and emergency vehicles. The Emergency Preparedness Plan shall address emergency response needs and capabilities along the corridor and identify safe evacuation routes for passengers and employees, as well as procedures for emergency access to locations adjacent to the operational corridor. In many areas, access roads will be provided adjacent to the alignment.</p>
SC-1	<i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
SC-2	Section 3.14.5.2.4, Socioeconomic and Community Facilities describes potential impacts to Children’s Health and Safety with regard to Leon ISD. Additionally, mitigation measures can be found in Section 3.14.6, Socioeconomics and Community Facilities, Avoidance, Minimization and Mitigation .

Table H-4: Standard Responses	
SC-3	<p>TCRR plans to utilize dynamic ticket pricing, such that lower fares may be available for travelers who can purchase in advance or who have the flexibility to travel during lower demand times. The \$199 ticket value assumed in the Draft EIS economic impact calculations (see Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts of the Draft EIS) used an estimation of the average fare anticipated based on an assumption that TCRR pricing would be competitive with average airfares. The Final EIS has been updated to remove revenue calculations based on ridership and ticket price, due to the variable amount collected. The tax revenue estimate provided in Section 3.14.5.2.3 of the Final EIS conservatively reflects only those impacts associated with capital investment, employment, and property tax impacts. Additional tax revenue generated through the State of Texas’ Franchise Tax would fluctuate with annual changes to the state tax rate as well as TCRR revenue projections and is not included in the estimated tax impact. More information about tax revenue calculation methodology is available in Section 3.14.3.2, Socioeconomics and Community Facilities, Methodology, Economic Conditions.</p>
SC-4	<p>The construction period employment estimates presented in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts, include both direct construction employment positions as well as indirect job growth in supporting industries as a result of the Project's demand for goods and services. While FRA does not have the authority to dictate hiring practices, it is anticipated, based on comparison of project employment needs to labor force qualifications and availability, that many of these positions could be filled locally. The impact of construction personnel needs specifically could be managed through staging of planned construction activities.</p> <p>To the extent that some construction jobs may have to be filled from outside a region's existing unemployed population, the workforce would be temporary, and therefore less likely to relocate additional family members. Temporary workforce impacts on schools or other community facilities would be offset by additional property tax revenue generated by the Project. As described in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts, a net positive impact to property tax revenues would occur as a result of property assessments on the Project's built infrastructure and the transition of currently tax-exempt land uses to TCRR ownership. As a private company, TCRR would be subject to all applicable property tax levies. The temporary jobs impacts described in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts, include not only the construction labor necessary to build the project, but also the materials supply, transportation, food service, accommodation, and other workers in sectors throughout the economy needed to support the Project, the Project’s direct workforce, and their material needs.</p>
SC-5	<p>Waller County ISD covers approximately 309 square miles in Waller County and Harris County. The Project would intersect and require less than two square miles (less than 1 percent) of the ISD area. No public roadways would be closed as a result of the project as displayed in, Section 3.11.5, Transportation, Environmental Consequences. As specified by Section 3.11.6.2, Transportation, TR-MM#1: Traffic Control Plan, TCRR will develop a traffic control plans to mitigate potential roadway impacts. The plan will be made available to the public. With mitigation measures for potential roadway impacts, school bus travel times are not anticipated to be impacted, and no additional school buses are expected to be needed in response to the Project in the Waller County ISD.</p>

Table H-4: Standard Responses	
SC-6	No school districts would need to be redistricted as a result of the construction and operation of the Project. As detailed in Section 3.11.5, Transportation, Environmental Consequences no public roads would be permanently closed as a result of the Project. Approximately one-half of all crossings involve a rail viaduct over existing roads, minimizing permanent impacts. In many locations, the Project would add new access roads that run parallel to the alignment, enhancing access to remote properties and improving travel times. No additional school buses are expected to be needed in response to the Project. Section 3.11.6.2, TR-MM#1 Traffic Control Plan , outlines steps TCRR shall undertake when mitigating potential traffic impacts during construction of the Project.
SC-7	The potential for impacts to school bus routing due to modified road networks at or near crossing locations is dependent on the type and nature of each crossing modification. As detailed in Section 3.11.5, Transportation , no public roads would be closed as a result of the Project. Approximately one-half of all crossings involve a rail viaduct over existing roads, minimizing permanent impacts. In many locations, the Project would add new access roads that run parallel to the alignment, enhancing access to remote properties and improving travel times. An assessment of the Project's impacts to schools is presented in 3.14.5.2.4, Socioeconomics and Community Facilities, Impacts to Children's Health and Safety .
SC-8	A discussion and assessment of potential impacts related to school children located in proximity to the Project has been added to Section 3.14.5.2.4, Socioeconomics and Community Facilities, Impacts to Children's Health and Safety . Potential impacts to pedestrian safety occur in rural, suburban and urban areas along the Project. TR-MM#1: Traffic Control Plan includes measures to maintain pedestrian safety such as high visibility crosswalks or slower speed limits. Temporary construction could impact children's health and safety; however, these impacts would be mitigated through the use of BMPs and other mitigation measures such as SC-MM#1: Construction Management Plan . Mitigation of potential negative air quality impacts during construction are documented in Section 3.4.6, Air Quality, Avoidance, Minimization, and Mitigation .
SC-9	Information regarding Union Church can be found in Section 3.14.5.2.5, Socioeconomics and Community Facilities, Impacts to Community Facilities . Union Church would be displaced by the Preferred Alternative (Build Alternative A). As described in Section 3.14.6, Avoidance, Minimization and Mitigation, SC-MM#7: Relocation of Union Church .
SC-10	The regional employment, earnings, and sales tax calculations in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts are based on economic input-output multipliers that estimate the ripple effects of the additional demand for goods and services within an economic analysis area as a result of the Project's additional capital investment. The total demand for housing within the economic assessment area is not likely to change as a result of the Project; therefore, no adverse impacts to the regional economy are expected.

Table H-4: Standard Responses	
SC-11	<p>The Project would not directly impact the Hewlett Packard Data Center facility (including its building, drive access, and parking structures), because those features are outside the LOD. However, the southern 30 percent of undeveloped land on the 199 acre parcel would be bisected by the Project. As referenced in Section 3.13.3 Land Use, Methodology, if 30 percent or more of a parcel was inaccessible, the entire parcel was assumed to be a full acquisition for purposes of evaluating potential land use and economic impacts. As noted in Section 3.13.6.1, Land Use, Compliance Measures and Permitting, TCRR shall coordinate with individual landowners prior to construction regarding terms of use and compensation for temporary or permanent take of land on a case-by-case basis. While the Final EIS assumed a full acquisition of this parcel, the property owner and TCRR may come to a different conclusion regarding acquisition and compensation.</p> <p>The Hewlett Packard facility is located outside the range for vibration effects, as defined in Section 3.4.5, Noise and Vibration, Environmental Consequences. The regional employment, earnings, and sales tax calculations in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts are based on economic multipliers that estimate the ripple effects of the additional demand for goods and services as a result of the Project's additional capital investment. Impacts to individual landowners would be mitigated through compensation (see Section 3.13.6, Land Use, Mitigation Measures), and are not likely to noticeably impact the demand for a particular good or service within the economic assessment area.</p>
SC-12	<p>The current platted boundaries of the Kickapoo Preserve, located north of the Daiken/Goodman facility, are approximately 1,600 feet east of the LOD and would not be directly impacted by the Project. In the event of future expansion of Kickapoo Preserve into areas potentially impacted by the Project, mitigation to impacted landowners would occur as discussed in Section 3.13.6, Land Use, Avoidance, Minimization and Mitigation. Prior to construction, TCRR shall coordinate with individual landowners of affected parcels within the Kickapoo Preserve regarding compensation for temporary use or permanent take of land. TCRR will compensate affected landowners on a case-by-case basis. The regional employment, earnings, and sales tax calculations in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts are based on regional economic multipliers that estimate the ripple effects of the additional demand for goods and services as a result of the Project's additional capital investment. The total demand for housing within the economic assessment area is not likely to change as a result of individually displaced housing units within Kickapoo Preserve; therefore, no adverse impacts to the regional economy are expected.</p>
SC-13	<p>Section 3.11.3.1, Transportation, Local Framework, includes an inventory of available transportation plans that were included in the analysis of potential transportation impacts. Over one-half of the Project would be constructed as viaduct over existing and planned roadways and would result in minimal impacts to those facilities. Where the Project is designed at ground level or on a berm, existing roads would be reconstructed or rerouted over the rail alignment with costs included in the Project's capital budget. Section 3.13.6.1, Compliance Measures and Permitting, LU-CM#2, describes TCRR's approval requirements for any use of state owned ROW and Section 3.11.6, Compliance and Mitigation, TR-MM#4 Private Access describes requirements regarding maintaining access to private property.</p>
SC-14	<p>The regional employment, earnings, and sales tax calculations in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts are based on regional economic multipliers that estimate the ripple effects of the additional demand for goods and services as a result of the Project's additional capital investment. Impacts to individual landowners would be mitigated through compensation (see Section 3.13.6, Land Use, Mitigation Measures), and are not likely to noticeably impact the demand for a particular good or service within the economic assessment area.</p>

Table H-4: Standard Responses	
SC-15	An assessment of the economic impacts associated with reduced highway travel on I-45 is included in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts .
SC-16	The economic analysis described in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts assesses potential tax revenue impacts for five defined economic analysis areas. (See Section 3.14.3.2, Socioeconomics and Community Facilities, Economic Conditions for the basis for selection of these economic analysis areas.) Potential impacts to federal tax revenues, including loss of excise tax for converted air travel, loss of federal gas tax for converted auto travel, federal corporate income tax paid by TCRR, and personal income tax gains associated with positive employment and earnings, fall outside of each of those defined areas, and were not included in the net tax impact calculations.
SC-17	The Draft EIS in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts, Permanent Impacts: Employment , contained typographical errors regarding the potential tax revenue generated by HSR ticket sales that did not match the values in the corresponding table. The Final EIS has been revised to remove that text. Moreover, the Final EIS analysis no longer includes estimates of potential tax revenue streams that would rely on an assessment of TCRR's potential revenue as this is beyond the scope of NEPA. The result is a conservative estimate of potential positive tax impacts.
SC-18	<i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
SC-19	Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts , documents the expected economic impact on the Project Study Area. For each economic analysis area considered, a positive impact to employment and earnings would be generated as a result of construction activities and spending in support industries. In addition, a net positive impact to county and local property tax revenues would occur as a result of property assessments on the Project's built infrastructure and the transition of currently tax-exempt land uses to TCRR ownership. As a private company, TCRR would be subject to all applicable property tax levies. Positive property and sales tax revenues would represent a net increase in funding for local governments and community resources within Study Area Counties. However, tabulations of specific tax impacts for individual taxing authorities are beyond the scope of NEPA.
SC-20	The comment includes insufficient detail to address the source of the "20 percent Impact". The economic analysis presented in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts finds a net positive tax revenue impact for the five economic analysis areas, including the subset of counties and local jurisdictions between Dallas and Harris County. The Final EIS assesses a number of negative tax impacts, including property tax losses associated with the displacement of a built improvement and the loss in gasoline tax associated with the conversion of some auto travelers to rail passengers. However, tax revenue increases associated with property assessments on the Project's built infrastructure, the conversion of currently tax-exempt land uses to TCRR ownership, and the sales tax associated with induced spending as a result of TCRR's capital investment were large enough to produce a net positive impact to taxes. Tax impacts were calculated following the methodology described in Section 3.14.3, Socioeconomics and Community Facilities, Methodology .

Table H-4: Standard Responses	
SC-21	<p>Section 3.14.5.2.3, Socioeconomic and Community Facilities, Economic Impacts, documents the new jobs forecasted to be generated by the Project. (See Tables 3.14-19 through 3.14-21). Section 3.13.5, Land Use, Environmental Consequences summarizes business displacements. A complete inventory of business displacements, including an estimate of potential employment at displaced businesses based on average industry employment, is included in Appendix E, Land Use Technical Memorandum. This information is important in understanding potential impacts to individual employees and owners of displaced businesses. However, that displacement is not likely to impact the demand for a particular good or service within an economic assessment area. The regional employment, earnings, and sales tax calculations in Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts do not include employment estimates from Appendix E, Land Use Technical Memorandum, as it is assumed that many displaced businesses would relocate within an economic assessment area, and, where relocation is not feasible, new businesses would be created to meet demand. All employment and earnings calculations are based on regional economic multipliers that estimate the ripple effects of the Project's capital investment and do not include Project costs associated with property acquisitions or displacements.</p>
SC-22	<p>As detailed within Appendix F, TCRR Final Concept Engineering Design Report, TCRR estimates capital costs for the HSR system between \$16 billion and \$19 billion (\$2019). This estimate includes construction labor, materials, indirect costs, and approximately \$2.6 billion for systems and rolling stock. As described in Section 3.14.3, Socioeconomics and Community Facilities, Methodology, only direct construction costs and professional services (such as engineering and environmental review, and administration) were assumed in calculations of induced spending within the local economy. As provided in Table 3.14-19, the injection of capital into the construction and professional industries would lead to direct, indirect and induced employment earnings of up to \$10.8 billion in the State of Texas. An estimated \$95 million additional employment earnings would occur annually as a result of Project operations (see Table 3.16-20). FRA does not have jurisdiction over TCRR hiring practices, however, it is anticipated, based on comparison of project employment needs to labor force qualifications and availability, that many of these positions could be filled locally. Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts summarizes the evaluation of the economic impact of the Project with a net positive tax impact, estimated to generate between \$3.1 billion to \$3.6 billion for state and local taxing jurisdictions by 2040.</p>
SG-1	<p>As discussed in Section 3.20.6.1, Soils and Geology, TCRR will implement Mitigation Measures and best management practices to minimize impacts that could result from construction of the project in the type of soils found on the project alignment. SG-MM#1 Erodibility, Shrink-swell Potential, Corrosion requires TCRR to incorporate stabilization techniques and BMPs, such as use of lime stabilization and outside fill, into the design of the Project during final design to improve unstable and settlement-prone soils to minimize and mitigate the hazards of soil conditions throughout the Project alignment as a result of erodibility, shrink-swell potential, corrosion, settlement and slope failures. SG-MM#2 Pre-Construction Site Inspections requires TCRR to conduct site geotechnical inspections and slope monitoring of the Project alignment during final design to identify concerns and determine if unstable locations are in need of improvement so that those improvements can be incorporated in the final design. Additionally, WQ-MM#1 Maintenance and Inspection of Temporary Erosion and Sediment Controls and WQ-MM#6. Total Suspended Solids/Stormwater Runoff Control (Permanent) in Section 3.3.6.2.1, Water Quality, discuss sedimentation and erosion control, maintenance and inspection of temporary erosion and sediment controls implemented as part of stormwater runoff control.</p>

Table H-4: Standard Responses	
SG-2	<p>As detailed in the Final Conceptual Engineering (FCE) Report included in Appendix F, TCRR Final Conceptual Engineering Design Report of the Final EIS, TCRR obtained geotechnical data from a variety of sources, including publicly available information, data purchased or made available by private entities, and desktop and field sources. TCRR used the collected geotechnical information to support the conceptual design and analysis of HSR structures, providing inputs for typical foundation, retaining wall, embankment, and cut designs. The FCE report identified that the presence of widespread, highly-expansive soil is a primary consideration in the development of the engineering design. A secondary consideration is the potential for foundation settlement of embankments along the southern portion of the project where less consolidated materials are present.</p> <p>As referenced in SG-MM#2: Pre-construction Site Inspections, prior to construction, TCRR will conduct geotechnical site investigation of the entire preferred alternative route to inform the final design. TCRR will document the analyses, results, and recommendations of the geotechnical site investigations in the form of geotechnical interpretative reports and geotechnical design reports, as detailed in the Conceptual Engineering Design Documentation included in Appendix F, TCRR Final Conceptual Engineering Design Report of the Final EIS.</p>
SG-3	<p>SG-MM#3: Field Verification of Midlothian Quarry and Plant in Ellis County included in Section 3.20.6.1, Mitigation Measures, Soils and Geology requires TCRR to field verify boundaries of the Midlothian Quarry and Plant and take further action as necessary to minimize and avoid impacts to known mining operations in the project area.</p>
SG-4	<p>As is discussed in the FCE Report included in Appendix F, TCRR Final Conceptual Engineering Design Report of the Final EIS, the majority of the aggregates used for ballast, sub-ballast, concrete and other needs will come from existing quarries located within the State of Texas. A preliminary estimate of materials required for Project construction is contained in the Air Quality Technical Memorandum included in Appendix E, Technical Memoranda to the EIS. Sand and rock aggregates and materials utilized for concrete mixes will come primarily from regional sources of commercially established quarries and mills within 50 to 200 miles. However, the Project does anticipate a need to purchase some aggregates from out of state quarries due to the construction schedule, the specific quality requirements for track ballast, and the quantity of track ballast required. TCRR will utilize the existing rail road infrastructure as much as possible to transport aggregate. Connections to the freight railroad network have been included in the conceptual design of staging and laydown areas and are part of the LOD analyzed in the Final EIS.</p> <p>Although a substantial investment, the Project's annual construction cost would represent less than 3 percent of the state's \$94 billion (\$2018) construction GDP. An assessment of the state's aggregate production capabilities (See Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts, Temporary Impacts: Construction) revealed over 150 million metric tons of crushed stone and almost 100 million metric tons of sand and gravel in production annually, far greater than would be required by the Project. Over 20 aggregate production plants exist within the 10 county economic assessment area alone. As a result, the Project is not likely to prevent the ability to source aggregate for other roadway construction projects.</p>
SG-5	<p>Section 3.20.4, Affected Environment, Soils and Geology has been updated in the Final EIS to include tektites in the discussion of mineral resources located within the Project Area. Bediasites are a tektite associated with the Brazos River K-T Boundary Site located between Dimebox and Bedias, Texas. Additionally, Section 3.20.6.1, Mitigation Measures has been updated to include SG-MM#4: Tektite Monitoring, to monitor disturbed areas for the presence of tektites.</p>

Table H-4: Standard Responses	
TC-1	<i>This standard response code is not used and has not been applied to a comment. Through FRA’s response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
TC-2	The Shinkansen technology has been continually updated since it was first put into service more than 50 years ago. The initial generation was the 0 Series of Shinkansen. The N700-Series, currently proposed for this Project was first put into service in 1999 and continues to undergo updates and improvements. As described in the Final EIS, the technology proposed in the United States would replicate Tokaido Shinkansen HSR system with minimal modifications.
TC-3	TCRR outlined operational goals for their Project that included speeds up to 205 mph. However, actual operating speeds will vary, particularly when approaching stations. The track curvature of the alignment, designed by TCRR, will accommodate the desired operating speeds.
TC-4	TCRR’s operational plan for this Project is discussed in Section 2.2.5, Alternatives Considered, Proposed HSR Operations of the Final EIS. The estimated travel time between the terminal stations that mark the beginning and end points of the route is less than 90 minutes. There is one planned stop, Brazos Intermediate Valley Station, between the two terminal stations. This station is in Grimes County approximately halfway between Bryan - College Station and Huntsville. TCRR expects to offer express service, which means some trains would not stop at the Brazos Intermediate Valley Station. The initial operating scenario, as noted in Section 2.2.5, Alternatives Considered, Proposed HSR Operations , accounts for two trainsets each hour leaving the stations between 5:30 am and 10:00 pm (with the last trainset arriving by 11:30 pm). The six hours at night, during which there is no planned service, would be used for maintenance and inspection. This would result in 33 trains traveling southbound and 33 trains traveling northbound each day. At final operating scenario, trains may leave as often as every 10-30 minutes during peak hours.
TC-5	TCRR outlined station parking capacities in its TCRR Final Conceptual Engineering Design Report included in Appendix F . Parking capacities are considered in Sections 3.11, Transportation and 3.12, Elderly and Handicapped of the Final EIS. Parking structures are included in the footprint of each station. The Dallas Terminal Station includes parking capacity for 5,500 vehicles; the Brazos Intermediate Valley Station includes parking capacity for 1,200 vehicles and the Houston Terminal Station Options include parking capacity for 6,500 vehicles. Design details of station parking lots would be closely coordinated with the appropriate Project stakeholders during the final design and construction phase.

Table H-4: Standard Responses	
TC-6	<p>As stated in Section 2.3, Alternatives Considered, Alternatives Development Process of the Final EIS, The United States does not currently have high-speed rail that is based on the Tokaido Shinkansen technology. The trains are currently manufactured in Japan using materials from Hitachi, Kawasaki Heavy Industries, Kinki Sharyo, and Nippon Sharyo. The manufacturing processes would meet trade restrictions and standards that are in place between Japan and the United States. TCRR has confirmed the rail steel will comply with the JIS E1101 rail steel specification which is the Japanese Industrial Standard used for the Tokaido Shinkansen high speed railway. The rail steel will be manufactured to the Japanese Quality Assurance Organization (JQA) standards.</p> <p>Appendix F, TCRR Final Conceptual Engineering Design Report, of the Final EIS provides a conceptual engineering evaluation of general construction types, temporary construction facilities, and proposed location of staging and precasting sites required to construct the project. The LOD assessed in the Final EIS includes Project-specific locations designated by TCRR that would be temporary or short-term in use and only required during the construction period of the Project (e.g., construction laydown areas, workspace areas and modifications to existing utility easements). It is anticipated that, in most cases, these areas would require temporary construction easements.</p> <p>The 5 year construction schedule detailed by TCRR is included in Appendix F, TCRR Final Conceptual Engineering Design Report. For the purposes of the analysis in the Final EIS, Project mobilization was assumed to occur from January 2020 to March 2020. Regional building demolition and land grubbing for the embankment, elevated (viaduct), and retained-fill segments were anticipated to begin in March 2020 and conclude in December 2021. The major construction activities were anticipated to occur between 2020 and 2024, with construction of the TMFs, MOWs and stations completed during 2022 and 2024. Project demobilization would occur from September 2021 to December 2024. The years shown can be considered representative years for the purpose of the construction emissions analysis as detailed in the Summary Schedule Appendix F, TCRR Final Conceptual Engineering Design Report.</p>
TC-7	<p>A fully-enclosed, or closed system means that the corridor is independent from other train operations and that there are no at-grade crossings. With no at-grade crossing, cars would not have to wait for a train to pass and then drive over the tracks to the other side of the system. As there would be no fencing when on viaduct, the Project would allow for movement underneath the rail.</p>
TR-1	<p>Chapter 3.11, Transportation includes an inventory of available transportation plans that were included in the analysis of potential transportation impacts. Approximately 55 percent of the Project would be constructed as viaduct over existing and planned roadways and would result in no long-term impacts to those facilities. Where the Project is at ground level or on a berm existing roads would be reconstructed or rerouted over the rail alignment at TCRR's expense. TCRR would pay to reconstruct or reroute existing roads over the rail alignment. Refer to Appendix D, Mapbooks (specifically the Project Footprint Mapbook) for detailed maps and layouts of the Project. Refer to Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports and Appendix G, TCRR Final Conceptual Engineering Plans and Details for information regarding the alignment elevation at specific locations along the proposed project and the Station locations.</p>

Table H-4: Standard Responses	
TR-2	<p>For information about traffic impacts around the proposed Brazos Valley Intermediate Station, see Table 3.11-48: Brazos Valley Trip Direction and Mode and Table 3.11-49: Brazos Valley Terminal Impacts 2040 LOS (Delay in Seconds per Vehicle). Transit service could be provided by the Brazos Transit District or other entities to serve the Brazos Valley Intermediate Station. At this time, the Brazos Transit District does not have consistent service to this proposed station, but the agency is currently developing a service plan. The implementation of a shuttle route between the university and the station site is a reasonably foreseeable action given the proximity between the university and station site, as discussed in Section 4.3.1.2, Indirect and Cumulative Impacts.</p> <p>Additionally, as required by TR-MM#2: Intersection Improvements, TCRR shall perform a full traffic impact analysis (TIA) that complies with TxDOT TIA guidelines. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TxDOT TIA process.</p>
TR-3	<p>The Dallas Terminal Station would be located south of the DART Convention Center Station on Segment 1 and would cross the Red and Blue DART light rail lines, as well as bus routes that serve the current DART Convention Center station. DART is planning a second downtown rail line (D2) and bus service could be increased to provide better non-rail access to/from the Dallas Terminal Station. For a review of planned DART projects and impacts, specifically the D2 alignment, see Table 3.11-8: Planned Transportation Projects in Dallas County in Section 3.11.4.1.7, Transportation, Planned Projects. Additionally, TCRR continues to coordinate with DART and the City of Dallas to identify opportunities for connectivity between the DART light rail, TRE commuter rail and or DART streetcar. The station footprint includes space that DART could use for future bus bays. Refer to Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports for more information about the proposed Dallas Terminal Station site. In addition, each DART bus and rail transit route was inventoried and existing headways and service areas were analyzed. This information was reviewed to assess the impact of the HSR system on existing transit systems (refer to 3.11.3, Transportation, Methodology).</p>
TR-4	<p>TCRR continues to coordinate with stakeholders in Houston regarding multimodal connections at the Houston Terminal Station. It is reasonable to anticipate that Houston METRO would adjust bus service to provide better access to the Houston Terminal Station. For a review of planned transit projects in Harris County, see Table 3.11-35: Planned Transportation Projects in Harris County in Section 3.11.4.10.7, Transportation, Planned Projects. In addition, each METRO transit route was inventoried and existing headways and service areas were analyzed. This information was reviewed to assess the impact of the HSR system on existing transit systems (refer to 3.11.3, Transportation, Methodology).</p>

Table H-4: Standard Responses	
TR-5	<p>As noted in Section 3.11.5, Transportation, Environmental Consequences, the Project would have short-term effects due to construction and permanent impacts to transportation flows due to changes to intersection designs around the proposed HSR stations. Long-term intersection design modifications in Dallas, Grimes and Harris Counties are listed in Section 3.11.5.2, Transportation, Build Alternatives.</p> <p>Anticipated level of service (delay in seconds per vehicle) changes have been outlined for each station. Refer to Table 3.11-39: Dallas Terminal Impacts 2040 LOS (Delays in Seconds per Vehicle), Table 3.11-49: Brazos Valley Terminal Impacts 2040 LOS (Delays in Seconds per Vehicle), Table 3.11 53: Houston Industrial Site Terminal Station Option Impacts 2040 LOS (Delay in Seconds per Vehicle), Table 3.11 56: Northwest Mall Terminal Station Option Impacts 2040 LOS (Delay in Seconds per Vehicle) and Table 3.11 59: Houston Northwest Transit Center Terminal Station Option Impacts 2040 LOS (Delay in Seconds per Vehicle).</p> <p>Long-term intersection changes around the Houston Industrial Site Terminal Station Option are detailed in Table 3.11-54; long-term intersection changes around the Houston Northwest Mall Terminal Station Option are detailed in Table 3.11-57; long-term intersection changes around the Houston Northwest Transit Center Terminal Station Option are detailed in Table 3.11-60.</p> <p>Section 3.11.5.2.10, Transportation, Harris County, notes that 12 road modifications (both public and private) would be impacted by the Project in Harris County. See Table 3.11-51 for a complete list of affected roads that could affect Houston Metro service in both the short and long terms.</p> <p>3.11.6, Avoidance, Minimization, and Mitigation identifies the measures that TCRR will implement to avoid and reduce transportation impacts. As noted in TR-MM#3: Transit Coordination, prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) reasonable to anticipate that Houston METRO would adjust bus service to provide better access to the Houston Terminal Station. Additionally, prior to construction, TCRR shall develop a traffic control plan that details the sequences of construction, the detour plan temporary signing, striping of pavement marking and contract provisions, as outlined in TR-MM#1: Traffic Control Plan.</p>

Table H-4: Standard Responses	
TR-6	<p>As detailed in TR-MM#1: Traffic Control Plan, prior to construction, TCRR shall develop a traffic control plan that details the sequence of construction, the detour plan temporary signing, and striping of pavement marking, among other things. The traffic control plan shall also include provisions for safe and efficient operation of all modes of transportation during construction. Under state and local laws, TCRR shall acquire the appropriate permits/easements from TxDOT (state) and/or local municipalities prior to construction, including all current ordinances, including those that have been put into place between the release of the Draft EIS and the Final EIS. There are three main permits/easements that TCRR would be required to obtain: freight and transit crossing easements, roadway access permits and road closure permits. TCRR shall communicate traffic control measures, including reroutes and temporary closures, with the public, local officials and the media prior to and during construction activities. TCRR shall be responsible for maintaining access to all businesses and residences throughout construction with appropriate signage directing drivers to access points.</p> <p>Refer to TR-CM#1: Freight and Transit Crossing Easements, TR-CM#2: Roadway Access Permit and TR-CM #3: Road Closure Permit in Section 3.11.6.1, Transportation, Compliance Measures for permitting requirements.</p> <p>For more information about traffic control measures to be used during construction, see TR-MM#1: Traffic Control Plan in Section 3.11.6.2, Transportation, Mitigation Measures. As in most infrastructure projects, construction would temporarily cause traffic disruption. Prior to construction TCRR shall coordinate with TxDOT and local municipalities to obtain both roadway access permits and road closure permits, as discussed in TR-CM#2: Roadway Access Permit and TR-CM#3: Road Closure Permit. Increases in traffic volumes due to construction vehicles reroutes/patterns will be identified as part of obtaining the roadway access permits and road closure permits.</p>
TR-7	<p>TCRR will pay for the construction of new and/or modified roadway segments required as part of the implementation of the Dallas to Houston HSR project, for both private and public roads. TCRR would maintain private roads within their ROW. As detailed in Section 1.5.3 General HSR Program Refinements and Optimizations, TCRR Final Conceptual Engineering Design and Constructability Reports (Appendix F), TCRR shall also develop shared access roads to provide for maintenance, emergency response access and private property access with corresponding reduction in the number of new public roads to decrease burden on roadway authorities. Shared access roads would be constructed and maintained by TCRR but would be open for public access. TCRR would coordinate design details, ownership, and maintenance responsibilities for these roads with the appropriate with the appropriate local, municipal, county, state, or federal authority during more advanced design during the final design and construction phase.</p> <p>Reroutes to existing public roads would result in the addition of between approximately 16.6 and 47 miles of new publicly accessible roads, depending on the Build Alternative (refer to Table 3.11-61).</p> <p>As detailed in TR-MM#1: Traffic Control Plan, TCRR would have to coordinate with the counties in the event that roads are damaged during construction. Once construction is complete, local, municipal, county, state, or federal agencies would continue to have jurisdiction regarding ongoing road maintenance. The traffic control plan provides for safe and efficient operation of all modes of transportation during construction, which would require all damaged roads to be repaired to maintain adequate level of service.</p>

Table H-4: Standard Responses

TR-8	<p>Since the release of the Draft EIS, TCRR continued making refinements to the preferred alternative and re-evaluated roadway crossings to minimize the modification to existing roadway infrastructure as noted in Section 3.11.5, Transportation, Environmental Consequences.</p> <p>The Project will either go over or under existing roadways. The construction of the Project may result in changes to existing roadways in order for those roads to go under or over the track, but no public roads will be permanently closed. A public road that interacts with the Project can be modified in the following ways:</p> <ul style="list-style-type: none"> • Road under railway—There are two conditions where this configuration would occur: (1) the road would be depressed (below grade) beneath the railway; or (2) the road would remain at-grade while the railway would be elevated (viaduct) • Road over railway—Either the road would be elevated to go over the railway or the road would remain at-grade and the railway would be depressed • Relocation—Existing road would be relocated to avoid conflict with the railway • Road Adjustment —Existing road would be realigned to avoid conflict with the railway • Reroute—Road approaching from one or both sides of the railway, would be rerouted on new access roads (maintained by TCRR) to an alternate, nearby crossing <p>A private roadway, such as a driveway, may be rerouted or closed. Where a private roadway is closed, TCRR would either acquire the property or build a new access road to the property. For more information about the acquisition process or road access negotiations between TCRR and property owners, see Standard Response LU-7 and Standard Response TR-10, respectively.</p> <p>Approximately 55 percent of the Project is on viaduct (elevated structure) which would allow passage under the tracks. Most crossings would be rail over road with the vertical clearance for public roads meeting TxDOT standards at a minimum (16.5 feet). In some instances, the vertical clearance would be as high as 22 feet to accommodate the movement of heavy equipment. Individual landowner needs, in this case clearance and/or compensation, will be determined through consultation between TCRR and the impacted landowner. For instances where the road is built over the rail, the design of the structural elements, including concrete and steel bridges, foundations, culverts, and transition structures, would conform to the AASHTO Load-and-Resistance Factor Design (LRFD) Bridge Design Specification. The TxDOT Bridge Design Manual would be used for the design of structures within TxDOT’s jurisdiction, as noted in Section 3: Basis of Design, TCRR Final Conceptual Engineering Design and Constructability Reports (Appendix F).</p> <p>State and local transportation plans were reviewed in the Final EIS and no meaningful impacts to any planned transportation improvements identified. These plans will continue to be considered during construction, and the elevated rail line will be constructed to allow future expansion of roadways described in the state and local transportation plans. As a result, no impacts to economic development as a result of diminished transportation are expected. Rather, a net positive economic impact is expected to occur as a result of capital investment during the Project’s construction and increased state and local tax revenues resulting from TCRR’s assets and operations. Economic impacts associated with the project are detailed in Section 3.12, Socioeconomics and Community Facilities.</p> <p>As in most infrastructure projects, construction will temporarily cause traffic disruption and TCRR would be required to implement mitigation measures during construction. These measures are outlined in Section 3.11.6.2 Mitigation Measures. TR-MM#1: Traffic Control Plan in outlines the type of measures the Traffic Control Plan must contain.</p>
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Table H-4: Standard Responses	
TR-8 (cont.)	<p>Additionally, prior to construction, TCRR shall coordinate with TxDOT and local municipalities to obtain the appropriate permits, as outlined in Section 3.11.6.1, Transportation, Compliance Measures. As detailed in Section 1.5.3 General HSR Program Refinements and Optimizations of the TCRR Final Conceptual Engineering Design and Constructability Reports (Appendix F), TCRR shall also develop shared access roads to provide for maintenance, emergency response access and private property access with corresponding reduction in the number of new public roads to decrease burden on roadway authorities. Shared access roads would be constructed and maintained by TCRR but would be open for public access.</p>
TR-9	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
TR-10	<p>Driveways and private roads were not usually provided grade separations from the Project. If driveway access is limited or eliminated for a property that would not be acquired, TCRR shall work with the landowner to develop options for access. See Section 3.13.3.3.4, Land Use, Structure Displacement and Land Acquisition of Section 3.13, Land Use for more information.</p> <p>If private property is blocked or divided by the Project, TCRR shall coordinate with individual landowners regarding compensation for temporary use or permanent take of land. TCRR and the affected landowner shall negotiate the compensation and/or terms on a case-by-case basis.</p>
TR-11	<p>Weiser Air Park is located approximately 1,000 feet west of the Project Location. Between the release of the Draft EIS and the Final EIS, this air park announced on June 8, 2019 that they would close. Weiser Air Park has been purchased by a private buyer and closed in September 2019. The property would not no longer be a general aviation facility.</p> <p>In the future, if the air park reopens, Federal Aviation Administration (FAA) airspace studies would be required. It would be likely that the Project would affect the clearance zones for aviation activities at the air park.</p> <p>Airspace studies are required by the Federal Aviation Administration (FAA) for changes to the Airport Layout Plan (ALP) and for the use of construction equipment. The FAA processes airspace study applications for conformance with environmental regulations and to determine if the project will have an impact on air operations, navigation aids or radio transmissions.</p>

Table H-4: Standard Responses

<p>TR-12</p>	<p>TCRR is not responsible for methods in which passengers will arrive at the stations. Potential riders may travel to and from the stations by walking, biking, driving and parking a personal vehicle, hiring a shared car (Uber, Lyft for example) or cab and being dropped off, being dropped off by another driver/private vehicle, or connecting via existing public transportation options.</p> <p>As noted in TR-MM#3: Transit Coordination, prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.</p> <p>As discussed in Section 1.1.3.2, Surface Transportation Board, TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement to give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket. As detailed within TCR’s August 21, 2019 STB filing, it is anticipated that the Project would, after a three-year ramp up period, transport 18,300 to 20,500 passengers each year utilizing the single through ticket.</p> <p>As documented within Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports and Appendix G, TCRR Final Conceptual Engineering Plans and Details and TCR’s August 21, 2019 STB filing, TCRR would provide and manage integrated ticketing and transfer service between the proposed HSR Dallas and Houston Terminals and Amtrak’s existing Union Station (Dallas) and Houston Station. Connections between the TCR and Amtrak stations would include:</p> <p>Dedicated pedestrian walkway and improved sidewalk access from the Dallas HSR Terminal to the Convention Center DART station. This is included in the HSR Dallas Terminal Station design detailed in Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports and Appendix G, TCRR Final Conceptual Engineering Plans and Details.</p> <p>Operation of air-conditioned, rubber tire electric buses (capable of transporting passengers and luggage) between the respective HSR Terminal and Amtrak station in Dallas and Houston. Vehicles are anticipated to be similar to the Proterra Catalyst 35 all-electric bus, the EMOSS MB16 all-electric mini bus or other commercially available electric vehicles. Maps of anticipated routes are depicted in the routes are depicted in TCR’s August 21, 2019 STB filing.</p> <p>In Dallas, the transfer service would operate over existing roads (approximately 0.8 miles one-way) between Dallas Union Station and the HSR Terminal utilizing Young St., South Lamar St., and Cadiz St (refer to Figure 3.11-5).</p> <p>In Houston, the transfer service would operate over existing roads approximately 7.4 miles one-way) between Houston’s Amtrak Station and the HSR Terminal utilizing IH-45, IH-10, and IH-610 (refer to Figure 3.11-6).</p> <p>TCR’s August 21, 2019 STB filing includes a schedule of anticipated bus transfers based on TCR’s and Amtrak’s respective train schedules. It is anticipated that the bus transfers would include:</p> <ul style="list-style-type: none"> • 28 one-way transfers a week (4 daily) between Dallas Union Station and the HSR Terminal • 12 one-way transfers a week between Houston’s Amtrak Station and the HSR Terminal
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Table H-4: Standard Responses	
VA-1	<p>TCRR would negotiate all parcel acquisition resulting from the Project with the affected landowner. The Final EIS analysis is based on that negotiated prices reflecting the fair market value of displaced residences and/or businesses, allowing for investment in new or similar areas outside the LOD.</p> <p>As detailed within Section 3.14.5.2.3, Economic Impacts, adverse effects are expected to be minimal. Potential impacts to individual property valuations were beyond the scope of this analysis; it is not likely that these would produce an impact for the regional economy. Generally, the factors most cited in the literature that correlate to adverse property value impacts are near railroad tracks with the presence of potentially hazardous materials carried by freight rail, and nuisance factors like noise and vibration. This Project will be a passenger railroad only, with its own dedicated track, therefore no freight or hazardous materials will be transported. Section 3.4.6, Noise and Vibration, Avoidance, Minimization and Mitigation identifies a number of avoidance, minimization and mitigation measures to minimize impacts to properties in areas where higher noise or vibration levels may be present. As a result of minimal noise and vibration impacts and the absence of freight traffic on the proposed right-of-way, adverse effects on the values of adjacent properties would likely be minimal, and could be offset by the additional tax revenue generated by TCRR's property on the proposed right-of-way. The Project is unlikely to result in a loss of property tax income to the jurisdictions in which it operates.</p>
VA-2	<p>As described in Land Use Section 3.13.6.1, Compliance Measures and Permitting the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), provides protections and assistance to owners/occupants/tenants of residential and business properties affected by Federally financed projects. For example, the Uniform Act requires recipients of Federal financial assistance to complete an appraisal of the potentially acquired property and provide the landowner with a written offer of compensation that clearly outlines what is being acquired. Relocation expenses may be included in the compensation. The Uniform Act also requires landowners be given 90 days written notice to vacate the property prior to possession.</p> <p>If TCRR Federal financial assistance for the Project, TCRR must comply with the Uniform Act.</p>
VA-3	<p>The Project's impact on the tax base and property taxes was assessed in Section 3.14, Socioeconomics and Community Facilities (specifically Section 3.14.3 – Methodology and Section 3.14.4.2- Economic Setting) with data for the evaluation provided in Appendix E, Socioeconomic and Community Facilities Technical Memorandum. The land acquired by TCRR for the Project and the new rail structures will be taxed by individual jurisdictions, providing additional tax revenue. As detailed within Section 3.14.5.3, Economic Impacts, potential impacts to individual property valuations were beyond the scope of this analysis. See also Standard Response VA-1.</p>

Table H-4: Standard Responses	
VA-4	<p>The House Estate wedding venue is located approximately 1,200 feet north of the Project, where the rail would be constructed on viaduct. The visual impact at this area is depicted as KPV #27 in 3.10.5, Aesthetics and Visual, Environmental Consequences, Figure 3.10-87 of the Final EIS. The resulting change in the view from the House Estate Wedding Venue would cause an adverse visual impact. Mitigation measures, such as AS-MM#1: Visual Screening, AS-MM#3: Preserve Existing Vegetation and Feather Edges and AS-MM#4: Low Impact Development (LID) would minimize visual impacts. The House Estate wedding venue is also located on page 241 of Appendix D, Land Use Mapbook.</p> <p>Existing land use within the half mile study area, as described in Section 3.13.3, Methodology, was calculated in Table 3.13-4 and depicted in the mapbook based on information obtained from local and regional planning documents, readily available GIS data, aerial photography interpretation and windshield surveys. The general land use of the House Estate and surrounding areas is mapped as agricultural. Additionally, the structure would not be displaced or acquired. The Project would directly impact about 5% of the parcel, which would not deem the entire parcel an acquisition. For more details, refer to 3.13, Land Use.</p> <p>The wedding venue is not shown as having a moderate or severe noise impact, as illustrated on Sheet 241 of the Appendix D, Community and Cultural Resources Mapbook. For more information about the noise and vibration analysis, see 3.4, Noise and Vibration.</p> <p>The FRA evaluated the House Estate for National Register of Historic Places (NRHP)-eligibility, and in consultation with the Texas Historical Commission (THC), has determined the resources are not eligible for listing in the NRHP. The THC provided concurrence on the determination in a letter dated May 1, 2020. A copy of the concurrence letter can be found in Appendix E, Cultural Resources Technical Memorandum.</p>
WW-1	<p>Measures to mitigate impacts to water quality are outlined in Section 3.3.6.2, Water Quality, Mitigation Measures and Section 3.8.6.1, Floodplains, Compliance Measures, and include: WQ-MM#1: Maintenance and Inspection of Temporary Erosion and Sediment Controls, WQ-MM#3: Site-restoration and Revegetation, and WQ-MM#6: Total Suspended Solids/Stormwater Runoff Control (Permanent), and FP-CM#2: Construction Floodplain Best Management Practices. TCRR has designed and would construct stormwater facilities to avoid overburdening existing drainage infrastructure and to comply with applicable federal, state and local regulations. TCRR has designed and would construct detention ponds to compensate for increases in impervious cover, slow stormwater runoff, reduce flood risk and water contamination. Section 3.8.5.2.3, Floodplains, Hydrology and Appendix F: TCRR Final Conceptual Engineering Design Report, Section 13 discuss the detention pond criteria.</p> <p>As stated in Section 3.3.6.1, Water Quality, Compliance Measures WQ-CM#2: TPDES General Construction Permit (TXR150000) and Multi-Sector General Permit (TXR050000) and WQ-CM#3: Stormwater Management/Stormwater Pollution Prevention Plan, TCRR would be required to obtain a Texas Pollutant Discharge Elimination System General Construction Permit and TCRR would prepare and implement a Stormwater Pollution Prevention Plan to reduce the amount of erosion, sedimentation and pollution entering surface waters.</p>

Table H-4: Standard Responses	
WW-2	<p>TCRR has designed the Project in accordance with compliance measures outlined in Section 3.7.6.1, Waters of the U.S., Compliance Measures and Permitting. TCRR will avoid impacting waters of the U.S., including wetlands, to the maximum extent practicable. WW-CM#1: Avoidance and Minimization states that permanent impacts to waters of the U.S. would be limited to 0.50 acre or less at each single and complete crossing, where practicable. WW-CM#4: CWA Section 404, Individual Permit states that TCRR would obtain an Individual Permit where avoiding waters of the U.S. is not practicable. TCRR is working directly with the USACE through this permitting process to assess measures to mitigate impacts to waters of the U.S. as outlined in Section 3.7.6.2, Waters of the U.S., Mitigation Measures, WW-MM#1: Compensatory Mitigation.</p> <p>Springs and seeps are included in the delineations of wetlands and waters of the U.S. discussed in Sections 3.7.4, Waters of the U.S., Affected Environment and 3.7.5, Waters of the U.S., Environmental Consequences. In addition, with regards to groundwater quality, springs are analyzed and discussed in Sections 3.3.4, Water Quality, Affected Environment and Section 3.3.5, Water Quality, Environmental Consequences. Delineations were based on publicly available desktop data (National Hydrography Data and Texas Water Development Board) for properties without right of entry as well as field reconnaissance for properties with right of entry. Prior to construction, TCRR will survey the LOD along the entire Preferred Alternative to identify all waters and special aquatic sites within the LOD and determine anticipated impacts.</p> <p>Approximately 55 percent of the Project would be constructed on viaduct (elevated) which allows for free movement of water and minimizes impacts to streams (including spring-fed streams), ponds, special aquatic sites, wetlands, springs, and seeps. In the areas along the route that would be on embankment, culverts would be constructed to allow for movement of water. Section 3.7.6.1, Waters of the U.S., Compliance Measures and Permitting, WW-CM#2: Maintain Low Flow states that TCRR will design and construct water crossings to maintain low flow and/or minimize stream relocations. Section 3.8.6.1, Floodplains, Compliance Measures outlines compliance measures to minimize disruption to floodplains. Information regarding stream crossings including viaduct and culvert design is outlined in Appendix F: TCRR Final Conceptual Engineering Design Report, Section 13.5.</p> <p>TCRR is working with federal, state and local agencies during the design process to ensure compliance with all federal, state and local laws, regulations, and policies through avoidance, minimization, and mitigation measures. Applicable federal, state, and local permits and approvals are outlined in Chapter 8.0, Applicable Federal, State, and Local Permits and Approvals.</p>
WW-3	<i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
WW-4	<i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>
WW-5	<i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i>

Table H-4: Standard Responses	
WW-6	<p>As stated in Section 3.3.2, Water Quality, Regulatory Context, the Safe Drinking Water Act protects drinking water sources including rivers, lakes, reservoirs, springs, and groundwater wells. In addition, TCEQ created the Source Water Assessment and Protection Program which includes the Wellhead Protection Program that is designated to protect groundwater sources of drinking water. TCRR shall identify and coordinate all well plugging and abandoning or relocations (drilling) with TCEQ as stated in Section 3.3.6.2, Water Quality, Mitigation Measures, WQ-MM#4: Well Modifications. Prior to construction, TCRR shall identify and coordinate all well plugging and abandonment activities with the appropriate regulatory agency (the TCEQ, Texas Railroad Commission, or Texas Water Development Board). TCRR shall coordinate any relocations (drilling) with the appropriate regulatory agency. Additionally, TCRR shall hire licensed drillers in accordance with Texas Department of Licensing specifications outlined in 16 TAC 76.</p> <p>TCRR would minimize impacts to water quality of impaired stream segments through the use measures to prevent soil erosion, to keep runoff rates similar to existing conditions, and to prevent collected sediment and contamination from entering water as outlined in Section 3.3.6.2, Water Quality, Mitigation Measures, WQ-MM#1: Maintenance and Inspection of Temporary Erosion and Sediment Controls, and WQ-MM#6: Total Suspended Solids/Stormwater Runoff Control (Permanent) and Section 3.8.6.1, Water Quality, Compliance Measures, WQ-CM#2: TPDES General Construction Permit (TXR150000) and Multi-Sector General Permit (TXR050000). Section 3.8.5.2.2, Floodplains, Geohydrology states that it is anticipated that the water needs of the Project, including stations, would be supplied by local, existing public water supplies and groundwater.</p>
WW-7	<p><i>This standard response code is not used and has not been applied to a comment. Through FRA's response to comments and process, responses that had used this code have now been combined into another standard response. This code remains in the table to maintain numbering.</i></p>
WW-8	<p>The route would be constructed on viaduct at all Spring Creek and Spring Creek tributary crossings which would allow for free movement of water in those areas. As a result, no impacts to Spring Creek or its tributaries are anticipated.</p>
WW-9	<p>As stated in Section 3.13.2, Land Use, Regulatory Context, the Agricultural Act of 2014 and Texas Farm and Ranch Lands Conservation Program are used to help landowners protect working agricultural lands and limit non-agricultural uses of the land from fragmentation and development. The Texas Parks and Wildlife has adopted the Land and Water Resources Conservation and Recreation Plan to guide the development of lands under the Texas Parks and Wildlife's management. Avoidance, minimization and mitigation measures for agriculture and livestock management are outlined in Section 3.13.6.2, Land Use, Mitigation Measures, LU-MM#2: Agriculture and Livestock Management.</p> <p>TCRR is working with federal, state and local agencies during the design process to ensure compliance with all federal, state and local laws, regulations, and policies through avoidance, minimization, and mitigation measures.</p>

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2. AGENCY COMMENTS

FRA received comments from federal, state and Local agencies and governments. The letters from the agencies are provided in this section, as is the response letters to each agency.

2.1 Federal Agency

- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

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**Comment Response Matrix for the Draft EIS
for Texas High Speed Rail Project**

Comment Form

Page 1 of 3

Reviewer Name: Darvin Messer, US Army Corps of Engineers – Fort Worth District, (SWF)
Reviewer Title: Regulatory Project Manager
Reviewer Telephone Number: 817-886-1744
Reviewer e-mail Address: darvin.messer@usace.army.mil

Thank you for using this form to enter your comments on the DEIS for Texas High Speed Rail. Please enter the page number, line number(s), and your comment in the columns noted. If you are consolidating the comments of more than one reviewer, please note the name associated with each comment in the row above those comments. When you save this file with your comments, please save it with your last name and organization in the filename.

DEIS Comments

Chapter/ Page Number	Page / Line Number	Review authority	Comment
General			USACE is submitting these compended interdisciplinary comments compliant with the extended deadline of March 9, 2018. Should additional substantive comments be received pursuant to our Public Notices for the project that require coordination and/or action/response from FRA beyond the deadline (i.e.via regular mail delivery), a summary and/or addendum of those comments will be provided to FRA expeditiously.
General		SWF/404	While we are not providing specific comments about the need and purpose and alternatives analysis on the DEIS, we need to ensure that such a statement is included in our comments to FRA. It should also be stated that the majority of our previous comments on chapters 1 and 2 still stand and that the applicant will need to fully address those concerns associated with their pursuit of a permit from us independently of the EIS.
General		SWF/404	As a cooperating agency and as part of their permitting process, the USACE intends to use FRA's EIS to the maximum extent practicable to address the USACE's evaluation of a permit application in accordance with Section 404 of the Clean Water Act of 1972 (33

Chapter/ Page Number	Page / Line Number	Review authority	Comment
			U.S.C. § 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403). In addition to its public interest evaluation and determination, the USACE is required to conclude whether the applicant's proposal is the Least Environmentally Damaging Practicable Alternative (LEDPA) in accordance with the Section 404(b)(1) guidelines.
1		SWF/404	The Purpose and Need Sections do not reflect the USACE Purpose and Need for this project. The USACE will appropriately address these in accordance with our statutory authorities in our own Combined decision documents, including EA
3.6.3	3.6-4,5 and 6	SWF/404	There appears to be an inconsistency in the defined study area for the Houston toad – on pgs. 4-5 it's described as being the LOD only; while on page 6 a 3.1 mile buffer is included per USFWS study protocol. Please clarify.
3.7 / various / including WOUS Technical Memo	various	SWF/404	Based on the information provided by the applicant, TCP, in the draft IP application, there appear to be multiple substantial deviations in the quantity of WOUS compared to information contained in the ADEIS. It has been communicated by the applicant's 404 consultant and is understood that these differences are due to the continuing field verification of the extent of the WOUS. This is another consideration as to why USACE is doing a separate NEPA document for its permit decision.
4.3.2.3.1	4-9	SWF/404	Utility relocations required for construction/operation of the project should be disclosed to their fullest extent in the EIS; including those that would result in impacts to WOUS. This is another consideration as to why USACE is doing a separate NEPA document for its permit decision.

**Comment Response Matrix for the Draft EIS
for Texas High Speed Rail Project**

Comment Form

Page 1 of 3

Reviewer Name: Felicity Dodson, US Army Corps of Engineers – Galveston District, (SWG)
Reviewer Title: Regulatory Project Manager
Reviewer Telephone Number: 409-766-3105
Reviewer e-mail Address: felicity.a.dodson@usace.army.mil

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****Please note, this review covers topics related to project components that are jurisdictional under Section 404 of the Clean Water Act, within the SWG boundary, that are likely to require a Department of Army (DA) Permit. Components of the DEIS that SWG would use as supplemental material to evaluate and/or write a decision document for a DA permit are also included.****

DEIS Comments

Chapter/ Page Number	Paragraph/ Line Number	Review authority	Comment
ES-2	ES.4	404	ES of Purpose and Need – As written, the P&N is too specific to meet the Corps 404.B.1 requirements, and does not cover impacts to wetlands and waters of the US (WOUS). However, the will address our needs in our administrative records.
ES-8	ES.9.1, Line 5+	404	The Limits of Disturbance (LOD) proposed to be evaluated in the Alternatives does not include all impacts to areas jurisdictional under Section 404. The Corps intends to evaluate all areas outside the EIS LOD in the Corps combined decision document.

**Comment Response Matrix for the Draft EIS
for Texas High Speed Rail Project**

Comment Form

Page 2 of 3

Reviewer Name: Felicity Dodson, US Army Corps of Engineers – Galveston District, (SWG)
Reviewer Title: Regulatory Project Manager
Reviewer Telephone Number: 409-766-3105
Reviewer e-mail Address: felicity.a.dodson@usace.army.mil

ES-13	ES 9.7 Line 8+, and Table 4		Four protected species are listed as potentially impacted by the Build Alternative. In the narrative, or the table, the counties that the species are located in should be listed.
ES-14	ES 9.8, Lines 1-10	404	SWG recommends that FRA include a statement acknowledging impacts to wetlands and WOUS outside the LOD, such as installation of utility corridors and staging areas, and explain their reasoning for not including those sites in the FEIS. This would be helpful to the Corps in explaining why those areas are evaluated separately in our Decision Document.
ES-32	ES 10 Paragraph 8	404	It is stated that FRA has not identified a preferred alternative for the Houston Terminal Station. This presents a timing and logistical concern for SWG. At the time of public notice, the applicant stated that their preferred alternative for the Houston Station location was not specified. Three alternatives were included in the project plans. A preferred alternative must be indicated for the Corps to evaluate the project impacts, avoidance, and compensatory mitigation plan (if any), including appropriate coordination, prior to rendering a permit decision. Delay in identifying a preferred alternative is likely to cause delays in the project schedule.
2-24	2.5.1.2 Entire Section and Tables	404	Stating that impacts would be unavoidable due to the environmental criteria in the Level II, Stage I and Stage II, does not adequately discuss the analysis of alternatives. A summary of the evaluation at each stage should be included either in a narrative or table. Wetlands and WOUS should be included.

**Comment Response Matrix for the Draft EIS
for Texas High Speed Rail Project**

Comment Form

Page 3 of 3

Reviewer Name: Felicity Dodson, US Army Corps of Engineers – Galveston District, (SWG)
Reviewer Title: Regulatory Project Manager
Reviewer Telephone Number: 409-766-3105
Reviewer e-mail Address: felicity.a.dodson@usace.army.mil

3.8-8	3.8	404	A discussion of floodplain management, post Hurricane Harvey should be added to this section to address changes, new normal conditions, high risk areas that were discovered, or developed as a result of the storm.
4.9	4.3.2.3.2 Entire Section and Table 4-1	404	Reasonably foreseeable projects - The development of new businesses and support facilities (rental car agencies, stores, restaurants, etc) likely to be proposed in the area of the Houston Station should be discussed, including whether the facilities would likely be constructed in uplands or wetlands.
x	x	404	WOUS Technical Memo – The totals for the wetlands, waters, and stream tables should be updated for each county. The tables should be placed in order when bound (Table 25 and 26 are mixed up in the DEIS), and totals for each county should be highlighted for clarity.

Comment Response Matrix for the Draft EIS for Dallas to Houston HSR EIS

Comment Form

Reviewer Name: James E. Barrera
Reviewer Title: Regulatory Archeologist/Project Manager
Reviewer Telephone Number: 817.886.1838
Reviewer e-mail Address: james.e.barrera@usace.army.mil

Thank you for using this form to enter your comments on the ADEIS for Texas High Speed Rail. Please enter the page number, line number(s), and your comment in the columns noted. If you are consolidating the comments of more than one reviewer, please note the name associated with each comment in the row above those comments. When you save this file with your comments, please save it with your last name and organization in the filename.

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
Gen		Barrera/Section 106	We need a draft Programmatic Agreement (PA) for the treatment of adverse effects to historic properties. Pending review of the draft PA by USACE Office of Council, this PA would hopefully cover Section 106 for USACE and FRA. USACE and SHPO must be Signatories on the PA. Coordination of the draft PA should be moving between Signatories now. Please provide a draft of the PA to USACE for review and comment by Date XX, 2018.	
Gen			Greater efforts in engaging tribes needs to be made. Particularly with the Caddo Nation.	
Gen			Only 12% of the LOD has been surveyed for	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			<p>archeological sites. This means that many archeological sites, architectural resources (encountered during archeological survey), and historic cemeteries that are not recorded are likely to be encountered between now and the completion of surveys. This needs to be very clear in the EIS instead of painting a picture that makes it sound like, based on 12% of the LOD surveyed, we have a firm grasp on adverse effects at this point. A more accurate statement would be: based on only 12% of the LOD surveyed, we know very little about the anticipated adverse effects to all cultural resources within the LOD. That should be upfront in all parts of the EIS where cultural resources are referenced.</p>	
Gen			<p>The areas of USACE federal control and responsibility need to be highlighted, this should include: above ground utility locations and permittee responsible mitigation (PRM) sites. If the PRM sites have not yet been selected then it should be very clear in the EIS that these areas must be covered by both ESA and Section 106.</p>	
Gen		Barrera/106	<p>USACE is fully supportive of all comments provided from the Texas Historical Commission in their letter to FRA dated February 20, 2018.</p>	
Attachment L		Barrera/106	<p>In this document it is summarized that nine (9) varying methods of archeological survey are currently in use on this project. This is overly</p>	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			<p>complex since most surveyed employ one to three at most. If a survey methodology uses three varying methods, then the surveys are generally broken into high, medium, and low probability (at the very most). My final thought here is, I am concerned that delivering nine varying methods of archeological survey to crews that are daily overseen by a crew chief, would result in even more variety. And then further concern that this method may not do justice for the cultural resources. In the USACE permit area, or area of federal control and responsibility, the survey area should be treated as a high probability setting.</p>	
Attachment L		Barrera/106	<p>Multiple cemeteries are in the LOD. Is this clear enough in the EIS, early and up front within the respective sections? The cemetery discussions in the EIS should include discussions about avoidance/minimization/mitigation; in that order.</p>	
Attachment L		Barrera/106	<p>Multiple archeological sites in the LOD with an unknown eligibility for listing to the NRHP. Therefore these sites are treated as eligible. These are the sort of resources that the lead federal agency should be able and willing to visit during coordination of treatment for adverse effects. The consultant visiting on behalf of the lead federal agency does not address the requirement of the federal agency providing determinations of eligibility for the</p>	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			NRHP and effect determinations.	
				Press <Tab> for adding a row to the table.

**Comment Response Matrix for the Draft EIS
for Dallas to Houston HSR EIS**

March 2018
Comment Form

Reviewer Name: Jason Story
Reviewer Title: Environmental Resources Specialist in the Regional Planning and Environmental Center (RPEC), NEPA lead for the Section 408 review
Reviewer Telephone Number: 817-886-1852
Reviewer e-mail Address: jason.e.story@usace.army.mil

Thank you for using this form to enter your comments on the DEIS for Texas High Speed Rail. Please enter the page number, line number(s), and your comment in the columns noted. If you are consolidating the comments of more than one reviewer, please note the name associated with each comment in the row above those comments. When you save this file with your comments, please save it with your last name and organization in the filename.

Chapter/ Page Number	Paragra ph/ Line Number	Reviewer/ authority	Comment	FRA Response
ES/ES-24	ES.9.18	Story/408	The LOD overlaps with the newly constructed Dallas Floodway Extension trail that is located on the south bank of the Trinity River along the Chain of Wetlands cells A, B, and C. This trail currently ends close to IH45. There are several proposed options for continuing the trail from this point. USACE has shapefiles for the completed trails that are part of the Dallas Floodway Extension. The City of Dallas may have the location of existing and future City trails.	
ES/ES-30	ES.10	Story/408	Omit the use of <i>USACE-owned land</i> , instead	

Chapter/ Page Number	Paragra ph/ Line Number	Reviewer/ authority	Comment	FRA Response
			use <i>U.S. Army Corps of Engineers</i> (or use Acronym) <i>federally authorized civil works projects or shorten to USACE Projects</i> , after first introducing full description, and use full description as needed later in the document.	
Chapter 2.0/2-56	2.7.1	Story/408	Under Section 408 the USACE does not consult with the EPA. Recommend separating the Section 404 and Section 408 content.	
Chapter 2.0/2-56	2.7.1	Story/408	Omit the use of <i>USACE-owned land</i> , instead use <i>U.S. Army Corps of Engineers</i> (or use Acronym) <i>federally authorized civil works projects or shorten to USACE Projects</i> , after first introducing full description, and use full description as needed later in the document. Earlier in the DEIS, in 1.1.3.1 U.S. Army Corps of Engineers, <i>USACE federally authorized civil works projects</i> is correctly used.	
Chapter 3/3.6-50	Dallas County	Story/408	Omit the use of <i>USACE-owned property</i> , instead use <i>U.S. Army Corps of Engineers</i> (or use Acronym) <i>federally authorized civil works projects or shorten to USACE Projects</i> , after first introducing full description, and use full description as needed later in the document. The correct title is: Appendix E, Impacts to USACE Projects Technical Memorandum. Do not use USACE Properties.	
Chapter 3/3.7-6	3.7.4.1.2 USACE Projects	Story/408	Central Wastewater Treatment Plant is part of the Dallas Floodplain Extension. Change to Dallas Floodway Extension- Central Wastewater Treatment Plant.	

Chapter/ Page Number	Paragra ph/ Line Number	Reviewer/ authority	Comment	FRA Response
Chapter 3/3.7-30	3.7.5.2.1 Dallas County	Story/408	The loss of bottomland hardwoods within the LOD in the 408 area north of the river and west of IH45 may require mitigation or stipulations as part of the Section 408 permission process. The waters of the U.S. in this area were delineated and only a small part is now classified as wetlands (the NWI classified most of this area as forested wetlands). This area is part of the DFE Floodway and is planned for retention and management of the floodplain forest there (Great Trinity Forest). Loss of non-wetland forest would constitute a loss to the DFE project. Also see Appendix D. Natural Resources map book sheet 2.	
Chapter 3/3.7-32	USACE Projects	Story/408	The correct title is: Appendix E, Impacts to USACE Projects Technical Memorandum. Do not use USACE Properties.	
Chapter 3/3.7-50	WW- CM#6: Section 408 Permissi on	Story/408	Central Wastewater Treatment Plant is part of the Dallas Floodway Extension. Change to Dallas Floodway Extension- Central Wastewater Treatment Plant.	
Chapter 3/3.9-37	EU- MM#2: Relocati on of Major Utilities.	Story/408	Relocation of the water supply line to the DFE Chain of Wetlands may require mitigation or stipulations as part of the Section 408 permission process. Impacts from relocation of other utilities within the 408 area that occur outside of the HSR LOD may require separate	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			NEPA compliance and separate Section 408 review.	
Chapter 3/3.17-6	3.17.4.1. 2 Trails	Story/408	There are both recently constructed Dallas Floodway Extension trails that run along the Chain of Wetlands and planned trails that overlap with the HSR LOD that are nearby. The trail that overlaps is newly constructed and is located on the south bank of the Trinity River along the Chain of Wetlands cells A, B, and C. The overlap trail section is specifically the part that currently ends just west of IH45 north of the CWWTP. This trail serves a dual purpose, for recreation and maintenance access for the Dallas Floodway Extension Chain of Wetlands. There are several planned continuations of this trail which could be impacted by the HSR. These trails are part of the recommended plan under the 1999 Dallas Floodway Extension EIS and ROD, and are specifically described in the construction agreement for the Dallas Floodway Extension between the USACE and the City of Dallas.	
Chapter 3/3.17-3	3.17.4 Affected Environment	Story/408	The Great Trinity Forest overlaps with the LOD. The DFE Floodway is part of the Great Trinity Forest. The DFE Floodway was planned to retain the Great Trinity Forest in the area of the LOD. Several past NEPA documents refer to the Great Trinity Forest beginning at the downstream terminus of the Dallas Floodway at the Santa Fe RR Bridge	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			<p>there and continuing downstream, overlapping with the HSR corridor.</p> <p>The 2014 Dallas Floodway Project FEIS says, “The Great Trinity Forest is downstream of the Dallas Area Rapid Transit (DART) and AT&SF Railroad Bridge crossings...” Several figures in this EIS also have the area immediately downstream of the AT&SF Railroad Bridge and overlapping with the HSR LOD labeled as the Great Trinity Forest.</p> <p>See the following quote from the 2013 Trinity Parkway FEIS, “The Great Trinity Forest refers to an area of approximately 7,000 acres of land, of which approximately 4,600 acres are forested, that is planned by the City of Dallas for multiple uses including parkland, recreation, ecosystem restoration, and flood control. The Great Trinity Forest includes a large area of floodplain associated with the main stem of the Trinity River from the south end of the Dallas Floodway at the AT&SF Railroad Bridge downstream to IH-20 and the White Rock Creek floodplain upstream from the Trinity River to IH-30.” Also see PLATE 3 – 16 from the Trinity Parkway FEIS, which has the existing and future Great Trinity Forest lands graphically displayed.</p> <p>The 1999 Dallas Floodway Extension FEIS</p>	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			<p>also says, "This area roughly includes the Trinity River main stem flood plain lying between the existing Dallas Floodway and Interstate Highway 20 crossing and within the White Rock Creek flood plain upstream to Interstate Highway 30." And the recommended plan includes managing the Dallas Floodway Extension Floodway (where the LOD crosses and impacts) by retaining and enhancing the bottomland hardwood floodplain habitat for multiple purposes.</p> <p>The point on my comment is the Great Trinity Forest seems to be incorrectly identified in the DEIS. Based upon the documents listed above, the HSR LOD is crossing the Great Trinity Forest.</p>	
Chapter 9/9-9	9.3.2 Environmental Resource Agency Meetings	Story/408	In Table 9-5, under USACE Fort Worth District, add 33 USC Section 408, or Section 14 of the Rivers and Harbors Act as a second responsibility besides Section 404.	
Appendix D. Community and Cultural Resources	Sheets 1-4	Story/408	There is an existing Dallas Floodway Extension trail partially located where the "proposed Trinity Forest Trail" is depicted on the figures. This Trinity Forest Trail line may	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
map book			need to amended, or deleted and replaced with the true existing and proposed trails. The USACE has shapefiles (and can provide to FRA) for the existing trail and proposed extension for the newly constructed trails which run along the Chain of Wetlands.	
Appendix D. Natural Resources map book	Sheets 2-3	Story/408	Much of the bottomland hardwood forest area north of the river within the LOD is not forested wetlands as indicated by field delineation work (field collected data in legend). Impacts to this bottomland forest (part of the DFE and the Great Trinity Forest) may be subject to 408 mitigation because of habitat loss/loss to DFE Great Trinity Forest.	
Appendix D. Natural Resources map book	Sheets 2-3	Story/408	The yellow hashed locations for USACE Project Areas are incorrect and incomplete on the maps. The DF does not extend downstream of the Santa Fe RR Bridge. The DFE Floodway begins at the Santa Fe RR Bridge and continues downstream. The Able sumps are part of the DF project. The Chain of Wetlands, which are part of the DFE project are not depicted. Refer to the Appendix E. Technical Memorandum 408 Impacts to USACE Projects Maps and boundaries for the correct DF and DFE project features. USACE would not oppose if these USACE Project Areas are omitted from the Natural Resources map book. Our comment on Appendix E. Technical Memorandum 408 Impacts,	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			recommends a map book to present this area in several pages similar to the size and scale of the Natural Resources map book depicting the DF and DFE project features.	
Appendix D. Land Use map book	Sheets 1-3	Story/408	The DFE Floodway is partially colored as commercial and park in places. The DFE Floodway is designed to be managed with the Great Trinity Forest bottomland hardwood habitat being retained. The DFE Floodway and DFE features are not commercial areas, they have several authorized project purposes (flood control, ecosystem restoration, and recreation). See other comments concerning the extent of the Great Trinity Forest. Corrections may be necessary to these sheets. The area upstream of IH-45 is designated as the Great Trinity Forest, and is also part of the DFE Floodway.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Page 1, Section 408	Story/408	First sentence should read: "The authority to grant permission to alter USACE federally authorized civil works projects (USACE Projects) is contained in Section 14 of the Rivers and Harbors Act of 1899 and codified in Title 33 USC Section 408 (Section 408). Current Section 408 policy can be found within Engineer Circular (EC) 1165-2-216, <i>Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Work Projects Pursuant to 33 USC 408.</i> "	

Chapter/ Page Number	Paragra ph/ Line Number	Reviewer/ authority	Comment	FRA Response
			After introducing "USACE Projects" use this throughout the TM.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Page 1, Section 408		I recommend using the full name for the Dallas Floodway Extension and the Dallas Floodway on page two, and throughout the TM. Eliminate the acronyms DF and DFE. Spell out Interstate Highway 45.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Page 2		I recommend using the full name for the Dallas Floodway Extension and the Dallas Floodway in the TM. Eliminate the acronyms DF and DFE. Especially in the bullet list, spell out.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Page 4		I recommend a 3-4 page map book in landscape view instead of the single page portrait map. Model this after the other map books with respect to scale, for example the Appendix D. Natural Resources map book. Within the legend, please separate the Dallas Floodway Extension and the Dallas Floodway features, and label them in the legend as either part of the Dallas Floodway Extension and the Dallas Floodway. Keep specific names as well, for example Upper/Lower Chain of Wetlands (Dallas Floodway Extension). Name Lamar and Cadillac Levees as future levees. Label Chain of Wetland	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			Cells.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Wetland s, Page 5		Please report only the wetlands impacts within the 408 area of the LOD, not for the entire Dallas County area.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Vegetati on, page 5		Please report only the vegetation impacts within the 408 area of the LOD, not for the entire Dallas County area.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Table 4, page 6		Please report in this table only the vegetation impacts within the 408 area of the LOD, not for the entire Dallas County area.	
Appendix E. Technical Memorandum 408 Impacts to USACE Projects	Table 4, page 6		Please include a summary of the 408 area of the LOD for other applicable resource impacts: Hazardous Materials, Air Quality, Noise and Vibration, Endangered Species Act, Floodplain Hazards and Floodplain Management, Recreation, or others you see necessary to include.	
Appendix E.	Permissi		Omit this paragraph. It is only one sentence	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
Technical Memorandum 408 Impacts to USACE Projects	on Request Process, Page 7		long and similar material is presented in other places in the DEIS. Please keep Ellis County paragraph as is.	
Appendix F. Final Draft Conceptual Engineering Report	1.4/page 13	Story/408	Statement says, "...impacts to the existing Lamar Levee..." Lamar Levee is not existing, it is planned, a not yet constructed feature of the Dallas Floodway Extension project.	
Appendix F. Final Draft Conceptual Engineering Report	1.4/page 13	Story/408	Statement says, "...impacts to federally owned lands." If this is referring to Lake Bardwell, then name it specifically. The Dallas Floodway and Dallas Floodway Extension are not federally owned lands.	
				Press <Tab> for adding a row to the table.

**Comment Response Matrix for the Draft EIS
for Dallas to Houston HSR EIS**

March 2018
Comment Form

Reviewer Name: Leslie Crippen
Reviewer Title: Archaeologist in the Regional Planning and Environmental Center (RPEC) for the Section 408 review
Reviewer Telephone Number: 817-886-1470
Reviewer e-mail Address: leslie.crippen@usace.army.mil

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Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
General		Crippen/408 /106	Concur with all comments submitted by the Texas Historical Commission 20 Feb 2018. Evaluation of above ground resources and identification of archaeological resources are far from complete. Quantification of impacts throughout the report are misleading.	
General		Crippen/408 /106	Please engage with USACE as soon as possible to begin development of a programmatic agreement for Section 106 of the NHPA. Agreement structure, USACE 408/404 permission areas, appropriate consulting parties, and procedures for compliance to be included and finalized via consultation with	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			agreement signatories.	
3.19-1	3/2-3	Crippen/408 /106	While the official letting date of the project is 2017, completion is anticipated to take several years. Assessment of cultural resources should include resources that may be considered historically significant at the anticipated time of completion. The 5 year buffer described on line 5-6 of the same paragraph does not seem a realistic expectation for the timeline of this project.	
3.19-6	Table 3.19-1	Crippen/408 /106	USACE Fort Worth District requested to be a signatory to a programmatic agreement via comments on the Administrative Draft Environmental Impact Statement submitted on August 18, 2017. Please revise the table to include consultation conducted with any parties after January 2016.	
3.19-8, Appx. E	Table 3.19-2	Crippen/408 /106	Table 3.19-2 indicates that the Alabama-Coushatta Tribe of Texas declined to participate in formal consultation. The letter from Mr. Bryant Celestine from March 12, 2015 included in Appendix E states that potential impacts to assets of the Alabama-Coushatta Tribe in association with this undertaking could not be completely ascertained at that time. They express an interest in the Coushatta Trace, as well as potential archaeological resources within the project area.	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			Please correct the table and clarify what efforts have been made to include the Alabama-Coushatta Tribe of Texas in ongoing cultural resources investigations.	
3.19-13	Table 3.19-3	Crippen/408/106	Deeply buried archaic period deposits have been identified in the Dallas Floodway. Cultural resources investigations in the 408 area should include mechanical trenching in order to reach deeply buried deposits.	
Appendix E / 104	Paragraphs 3-5	Crippen/408/106	USACE requests copies of interim and final cultural resources reports.	
				Press <Tab> for adding a row to the table.

**Comment Response Matrix for the Draft EIS
for Dallas to Houston HSR EIS**

March 2018
Comment Form

Reviewer Name: Joseph Murphey
Reviewer Title: Historical Architect in the Regional Planning and Environmental Center (RPEC) for the Section 408 review
Reviewer Telephone Number: 817-229-1956
Reviewer e-mail Address: joseph.s.murphey@usace.army.mil

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Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
3.10-10	Table 3.10	Murphey/408/106	The Dallas Floodway, not just the Trinity River or individual pump stations, should be included as a visual resource in Landscape Unit #1. It has had a profound visual impact as a landscape on the City of Dallas since the early twentieth century and its continuing significance is evidenced by the ongoing discussions over its evolution into a greenbelt/recreational area for the city in the 21 st century.	
3.19-1		Murphey/408/106	“Historic Resource” is misleading because “historic” implies significance or importance by definition and therefore NRHP eligibility.	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			<p>“Historical” does not refer to importance but to a past time. “Historical resources” is a more accurate term. For example, I am a historical architect. Frank Lloyd Wright was a historic architect. “Built environment” is also an appropriate term.</p>	
3.19-1		Murphey/40 8/106	<p>The consideration of historical resources should be 50 years from the expected completion date, not the letting of the project.</p>	
3.19-1		Murphey/40 8/106	<p>National Register Criteria Consideration G should be mentioned and considered in evaluating impacts to historical resources.</p>	
3.19-3		Murphey/40 8/106	<p>It should be noted that this EIS covers several separate and distinct Section 106 undertakings. For example, the USACE 408 permit is an undertaking with its own unique APE (taking into account P.L. 111-212), historic properties present and impacts to be considered. These should be delineated. Otherwise, USACE will have to coordinate and develop an agreement document, duplicating efforts.</p>	
3.19-6		Murphey/40 8/106	<p>USACE as a consulting party that did not respond is misleading. USACE is a SIGNATORY PARTY to this agreement, because it has assigned responsibilities under the agreement (e.g. issuing a 408).</p>	
3.19-9		Murphey/40 8/106	<p>Historic(al) Resources APE – This section should delineate the APE of each of the undertakings, including, but not limited to the USACE undertaking to issue a 408 permission.</p>	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
3.19-41			It should be noted that USACE does not make Section 106 determinations under P.L. 111-212 for the Dallas Floodway but has determined it to be a significant cultural resource as defined by NEPA.	
3.19-94		Murphey/408/106	The PA should delineate ALL the undertakings taking place under the agreement. The Preamble should specifically mention each undertaking. For example, the USACE undertaking to issue a 408 permission in Dallas County should have its own Whereas clause. USACE is to be a Signatory because it has responsibilities under the agreement.	
3.19-96		Murphey/408/106	Historic resources and historic properties are used interchangeably in this section. See previous comments on the use of the term "historic" also, the term "the project" is used, while there are several undertakings. This PA is about a single project but several undertakings. As a cultural section, it should be addressing undertakings.	
APPENDI X D SHEET 1		Murphey/408/106	The USACE APE for the 408 does not include the Dallas Floodway due to P.L. 111-212. It should show a separate APE for the USACE undertaking.	
APPENDI X E 408 Impacts	Figure 1	Murphey/408/106	Figure 1 of the AECOM Technical Memo does not show the APE of the 408 USACE undertaking.	
APPENDI X E 408	Page 6, paragraph	Murphey/408/106	Page 6, paragraph 2. For the portion of the project that impacts the Dallas Floodway, no	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
Impacts	2.		determination of effect will be made under Section 106. A determination of impact under NEPA will be made and if the impact is significant to the historic resource, USACE will independently determine appropriate mitigation required to issue the 408 permission to meet NEPA compliance in regard to cultural resources. The THC letter dated 30 December 2011 is not relevant to the 408 permission.	
APPENDI X E 408 Impacts	Page 6, paragraph 3.	Murphey/40 8/106	This addresses many of the comments previously made but burying it deep within Appendix E in a technical memo obscures the information to the general audience. This needs to be spelled out in the main document and in the Programmatic Agreement.	

**Comment Response Matrix for the Draft EIS
for Dallas to Houston HSR EIS**

March 2018
Comment Form

Reviewer Name: David Clark
Reviewer Title: Environmental Protection Specialist in the Regional Planning and Environmental Center (RPEC) for the Section 408 review
Reviewer Telephone Number: 817-886-1876
Reviewer e-mail Address: david.s.clark@usace.army.mil

Thank you for using this form to enter your comments on the DEIS for Texas High Speed Rail. Please enter the page number, line number(s), and your comment in the columns noted. If you are consolidating the comments of more than one reviewer, please note the name associated with each comment in the row above those comments. When you save this file with your comments, please save it with your last name and organization in the filename.

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
3.5-3	4 th para	Clark/408	The paragraph concerning Texas Code 361.751-361.754 is incomplete, and appears to have a run-on sentence at the end. Also, while liability is limited for in-place contamination that migrates into the LOD properties, that liability protection is not so clear if actions on LOD properties cause migration of contaminants. For example, excavation of soil on an LOD property adjacent to a site with a contaminated groundwater plume has the potential to change groundwater gradient and potentially	

Chapter/ Page Number	Paragraph/ Line Number	Reviewer/ authority	Comment	FRA Response
			destabilize or change the direction of the flow of that plume. In that case, the project proponent may be liable for any cleanup. Recommend clarifying this paragraph in relation to this issue, and in relation to the text of the relevant Texas code.	
3.5-19	Map ID 131	Clark/408	The "Exxon RS 63615" facility, or map ID 131, is flagged for further investigation, but is not highlighted. Not sure this site would require further investigation anyway. Clarify.	
Table 3.5-2		Clark/408	Not sure that risk decisions and methodology for Table 3.5-2 is consistent. For example, map IDs 301, 289, 307 and 131 have more or less identical findings, yet the risk decisions and choice to pursue further investigation are different. Clarify the reason for these risk decisions to stay consistent.	
3.5-16	Map ID 96	Clark/408	Map ID 96 is shown in the Appendix D mapbook as a moderate risk site, but isn't listed in Table 3.5-2 or discussed in Section 3.5.4.1.1.	
3.5-19	Map ID 134	Clark/408	Recommend Map ID 134 be moderate risk rather than low risk. Despite no environmental conditions beyond active diesel ASTs, site is within the LOD and is an asphalt plant. There is potential cleanup needed after acquisition of a property with an asphalt plant due to the materials handled and produced.	



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
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January 6, 2020

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Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

The United States Army Corps of Engineers (USACE) - Fort Worth District (SWF) and the USACE – Galveston District (SWG) provided consolidated written comments to the Federal Railroad Administration (FRA) on March 9, 2018. The FRA is preparing an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes with a high-speed rail system approximately 240 miles in length.

On December 15, 2017, the FRA released the Draft EIS for public review and comment. In addition to the above referenced letter from USACE, FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018). FRA is developing a Final EIS that incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. All comments received during the public comment period, and FRA's responses will be included as appendix to the Final EIS.

Enclosed is FRA's response to comments received from the USEPA on March 9, 2018. The FRA looks forward to continued discussions with the USACE on this environmental review.

Sincerely,

Marlys Osterhues
Chief, Environment and Project Engineering Division

Enclosure

Table 1. Comment and Response Matrix on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
1/ Messer 1	General	Darvin Messer	USACE is submitting these compended interdisciplinary comments compliant with the extended deadline of March 9, 2018. Should additional substantive comments be received pursuant to our Public Notices for the project that require coordination and/or action/response from FRA beyond the deadline (i.e.via regular mail delivery), a summary and/or addendum of those comments will be provided to FRA expeditiously.	Comment noted.
2/ Messer 2	General	Darvin Messer	While we are not providing specific comments about the need and purpose and alternatives analysis on the DEIS, we need to ensure that such a statement is included in our comments to FRA. It should also be stated that the majority of our previous comments on chapters 1 and 2 still stand and that the applicant will need to fully address those concerns associated with their pursuit of a permit from us independently of the EIS.	Additionally, Section 1.1.3.1, Introduction, U.S. Army Corps of Engineers has been updated to state that “The USACE federal action to authorize construction of the Project is separate from FRA’s issuance of a RPA and any other federal action for the Project. The USACE will complete additional analyses to support their review of TCRR’s permit application independently of this EIS. This includes the preparation of environmental analysis for compliance with NEPA and consultation with the FRA under Section 106 and the National Historic Preservation Act.”
3/ Messer 3	General	Darvin Messer	As a cooperating agency and as part of their permitting process, the USACE intends to use FRA’s EIS to the maximum extent practicable to address the USACE’s evaluation of a permit application in accordance with Section 404 of the Clean Water Act of 1972 (33U.S.C. § 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403). In addition to its public interest evaluation and determination, the USACE is required to conclude whether the applicant’s proposal is the Least Environmentally Damaging Practicable Alternative (LEDPA) in accordance with the Section 404(b)(1) guidelines.	This information is included in Section 1.1.3.1, Introduction, U.S. Army Corps of Engineers of the Final EIS.
4/ Messer 4	1	Darvin Messer	The Purpose and Need Sections do not reflect the USACE Purpose and Need for this project. The USACE will appropriately address these in accordance with our statutory authorities in our own Combined decision documents, including EA	Comment noted.

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
5/ Messer 5	3.6.3; 3.6-4,5,6	Darvin Messer	There appears to be an inconsistency in the defined study area for the Houston toad – on pgs. 4-5 it's described as being the LOD only; while on page 6 a 3.1 mile buffer is included per USFWS study protocol. Please clarify.	<p>The data for the Houston toad was collected from within the Limits of Disturbance (LOD) and an extended 3.1 miles (5km) Houston toad specific survey area outside of the LOD based on recommendations from the USFWS. Data presented within the Final EIS reflects acreages of habitat occurring within the LOD only, and not the extended 3.1 miles (5km) Houston toad specific survey area.</p> <p>Text was updated in Section 3.6.3, Natural Ecological Systems and Protected Species, Methodology to state, "Similarly [to the Bald Eagle], the Study Area for the Houston toad included the LOD for each Build Alternative. However, surveying for this species was extended an additional 3.1 miles (5 km) on each side of the LOD based on mobility of the species and recommendations from the U.S. Fish and Wildlife Service (USFWS)."</p>
6/ Messer 6	3.7; various	Darvin Messer	Based on the information provided by the applicant, TCP, in the draft IP application, there appear to be multiple substantial deviations in the quantity of WOUS compared to information contained in the ADEIS. It has been communicated by the applicant's 404 consultant and is understood that these differences are due to the continuing field verification of the extent of the WOUS. This is another consideration as to why USACE is doing a separate NEPA document for its permit decision.	<p>FRA will continue to coordinate with the USACE regarding potential impacts to Waters of the U.S. As outlined in WW-CM#4, CWA Section 404, Individual Permit in Section 3.7.6.1, Waters of the U.S, Compliance Measures and Permitting.</p> <p>As previously discussed, FRA's evaluation of potential impacts to waters of the U.S. used National Hydrography Dataset (NHD) and National Wetlands Inventory (NWI) data supplemented with fieldwork where access was granted. FRA understands that TCRR's consultant who prepared the original CWA 404/408 application and permission request used a different approach, which incorporated a desktop analysis of NHD and NWI data.</p> <p>Section 3.7.3, Waters of the U.S, Methodology has been updated in the Final EIS to state "FRA conducted surveys concurrent with the USACE and TCRR, and data collected through June 1, 2018, are</p>

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
				<p>presented in this EIS (Appendix E, Waters of the U.S. Technical Memorandum). Field assessments completed by FRA were conducted on property where access was granted, as the entire LOD was not accessible for field assessment. Approximately 42 percent of the LOD for Build Alternative A was surveyed by FRA (see Section 3.1, Affected Environment and Environmental Consequences, Introduction, for additional details on focused methodology on Build Alternative A for the Final EIS). The analysis for this Final EIS assumes wetlands and waterbodies within the LOD are waters of the U.S. The ongoing USACE fieldwork for the Section 404 Permit could result in a determination that some presumed waters of the U.S. are non-jurisdictional. This could result in a change in impacts to wetlands and waterbodies, and potentially result in the Final EIS identifying greater impacts to waters of the U.S. than would result from the Project.”</p>
7/ Messer 7	4.3.2.3.1; 4-9	Darvin Messer	<p>Utility relocations required for construction/operation of the project should be disclosed to their fullest extent in the EIS; including those that would result in impacts to WOUS. This is another consideration as to why USACE is doing a separate NEPA document for its permit decision.</p>	<p>As detailed in the updated Final EIS in Section 2.5.4.1, Alternatives Considered, Updated LOD Definition and also Section 3.1.2.3, Introduction, Limits of Disturbance, in addition to the proposed permanent HSR ROW, construction of the Project would include the permanent relocation or alteration of existing utilities and easements (i.e., underground pipelines, above ground electrical transmission lines, and/or existing roads). These activities, including the proposed footprint of relocated roads, are also included the LOD. Potential impacts from the relocation or alteration of existing utilities and easements are assessed throughout Chapter 3.0, Affected Environment and Environmental Consequences, including potential impacts to waters of the U.S. in Section 3.7.</p> <p>Additionally, the LOD in the Final EIS has been</p>

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
				updated to include potential impacts from proposed new electrical transmission lines to meet the traction power demand of the Project from the existing power grid. The potential impacts of the proposed electrical transmission line routes are assessed in Chapter 4.0, Indirect Effect and Cumulative Impacts.
8 /Dodson 1	ES.4; ES-2	Felicity Dodson	ES of Purpose and Need – As written, the P&N is too specific to meet the Corps 404.B.1 requirements, and does not cover impacts to wetlands and waters of the US (WOUS). However, the will address our needs in our administrative records.	Based on discussions with USACE it is FRA’s understanding that USACE will be issuing three Environmental Assessments (EA’s) to meet their National Environmental Policy Act (NEPA) requirements under Section 404/408 and will rely on the Final EIS to the greatest extent possible.
9/ Dodson 2	ES.9.1; ES-8	Felicity Dodson	The Limits of Disturbance (LOD) proposed to be evaluated in the Alternatives does not include all impacts to areas jurisdictional under Section 404. The Corps intends to evaluate all areas outside the EIS LOD in the Corps combined decision document.	<p>Section 3.7.3, Waters of the U.S, Methodology has been updated in the Final EIS to state “FRA conducted surveys concurrent with the USACE and TCRR, and data collected through June 1, 2018, are presented in this EIS (Appendix E, Waters of the U.S. Technical Memorandum). Field assessments completed by FRA were conducted on property where access was granted, as the entire LOD was not accessible for field assessment. Approximately 42 percent of the LOD for Build Alternative A was surveyed by FRA (see Section 3.1, Affected Environment and Environmental Consequences, Introduction, for additional details on focused methodology on Build Alternative A for the Final EIS). The analysis for this Final EIS assumes wetlands and waterbodies within the LOD are waters of the U.S. The ongoing USACE fieldwork for the Section 404 Permit could result in a determination that some presumed waters of the U.S. are non-jurisdictional. This could result in a change in impacts to wetlands and waterbodies, and potentially result in the Final EIS identifying greater impacts to waters of the U.S. than would result from the Project.”</p> <p>As detailed in the updated Final EIS in Section 2.5.4.1, Alternatives Considered, Updated LOD</p>

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
				Definition and also Section 3.1.2.3, Introduction, Limits of Disturbance , in addition to the proposed permanent HSR ROW, construction of the Project would include the permanent relocation or alteration of existing utilities and easements (i.e., underground pipelines, above ground electrical transmission lines, and/or existing roads). These activities, including the proposed footprint of relocated roads, are also included the LOD. Potential impacts from the relocation or alteration of existing utilities and easements are assessed throughout Chapter 3.0, Affected Environment and Environmental Consequences , including potential impacts to waters of the U.S. in Section 3.7.
10/ Dodson 3	ES.9.7; ES-13	Felicity Dodson	Four protected species are listed as potentially impacted by the Build Alternative. In the narrative, or the table, the counties that the species are located in should be listed.	The narrative states three federally listed species (Houston toad, Large-fruited sand verbena, Navasota ladies' tresses). The affected counties can be found in Table 3.6-7 and Table 3.6-8 in Section 3.6, Natural Ecological Systems and Protected Species.
11/ Dodson 4	ES.9.8; ES-14	Felicity Dodson	SWG recommends that FRA include a statement acknowledging impacts to wetlands and WOUS outside the LOD, such as installation of utility corridors and staging areas, and explain their reasoning for not including those sites in the FINAL EIS. This would be helpful to the Corps in explaining why those areas are evaluated separately in our Decision Document.	As detailed in the updated Final EIS in Section 2.5.4.1, Alternatives Considered, Updated LOD Definition and also Section 3.1.2.3, Introduction, Limits of Disturbance , in addition to the proposed permanent HSR ROW, construction of the Project would include the permanent relocation or alteration of existing utilities and easements (i.e., underground pipelines, above ground electrical transmission lines, and/or existing roads). These activities, including the proposed footprint of relocated roads, are also included the LOD. Potential impacts from the relocation or alteration of existing utilities and easements are assessed throughout Chapter 3.0, Affected Environment and Environmental Consequences , including potential impacts to waters of the U.S. in Section 3.7.
12/ Dodson 5	ES.10; ES-32	Felicity Dodson	It is stated that FRA has not identified a preferred alternative for the Houston Terminal Station. This presents a timing and logistical concern for SWG. At	While TCRR did announce a preferred Houston Terminal Station option during the public comment period, FRA did not identify a preferred Houston

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
			<p>the time of public notice, the applicant stated that their preferred alternative for the Houston Station location was not specified. Three alternatives were included in the project plans. A preferred alternative must be indicated for the Corps to evaluate the project impacts, avoidance, and compensatory mitigation plan (if any), including appropriate coordination, prior to rendering a permit decision. Delay in identifying a preferred alternative is likely to cause delays in the project schedule.</p>	<p>Terminal Station location in the Draft EIS. FRA has continued to evaluate the Houston Industrial Site Terminal Station Option, Houston Northwest Mall Terminal Station Option, and the Houston Northwest Transit Center Terminal Station Option throughout the Final EIS. Based on this analysis, FRA has identified the Houston Northwest Mall Terminal Station Option as the preferred Houston Terminal Station, as detailed in Section 2.7.3, Alternatives Considered, Comparison of Houston Station Option Alternatives.</p>
13/ Dodson 6	2.5.1.2; 2-24	Felicity Dodson	<p>Stating that impacts would be unavoidable due to the environmental criteria in the Level II, Stage I and Stage II, does not adequately discuss the analysis of alternatives. A summary of the evaluation at each stage should be included either in a narrative or table. Wetlands and WOUS should be included.</p>	<p>As noted in Section 1.2.1.2, Introduction, TCRR Objectives in the Final EIS, TCRR identified the Dallas to Houston corridor as an ideal distance to implement high-speed intercity passenger rail connecting two of the largest urban centers in the country. With proposed terminal station options in Dallas and Houston, the Study Area encompasses the 10-county area including Dallas, Ellis, Navarro, Freestone, Limestone, Leon, Madison, Grimes, Waller and Harris.</p> <p>Many routes between Dallas and Houston were evaluated by the FRA prior to release of the Draft EIS (December 22, 2017) and published for public review on FRA's project website (https://railroads.fra.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail). These routes were documented in: 1) High Speed Rail (HSR) Corridor Alternatives Analysis Technical Report, published August 10, 2015; and 2) HSR Alignment Alternatives Analysis Report, published November 6, 2015. The HSR Corridor Alternatives Analysis Technical Report compared four corridors (BNSF [Burlington Northern Santa Fe Railway], Interstate Highway [IH] 45, UPRR [Union Pacific Railroad] and Utility) and identified the preferred as the Utility Corridor. The Utility Corridor</p>

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				<p>was further evaluated in the HSR Alignment Alternatives Analysis Report, where FRA completed an independent, multi-level screening analysis to evaluate TCRR's 21 alignment alternatives within the Utility Corridor. As detailed in Section 2.5.1.1, Alternatives Considered, Level I Screening, the Level I Screening considered the Purpose and Need of the Project, TCRR's alignment objectives (i.e., maximizing grade separation and minimizing environmental impacts and constructability concerns) and TCRR's design guidelines (i.e., maximum operating speed and minimum alignment curvature). As detailed in Section 2.5.1.2 Alternatives Considered, Level II Screening, the Level II Screening assessed the remaining alignment alternatives within specific geographic groups and used a desktop level evaluation of environmental, physical, and socioeconomic criteria and other factors (as detailed in Table 2-2 of the Final EIS) to further refine the number of alternative alignments.</p> <p>These findings, including impacts to waters of the U.S., are described in full within the Dallas to Houston High Speed Rail Project, Alignment Alternatives Analysis Report, which is available on the FRA project website: https://railroads.fra.dot.gov/elibrary/dallas-houston-high-speed-rail-project-alignment-alternatives-analysis-report.</p> <p>The resulting analysis identified eight segments (1, 2A, 2B, 3A, 3B, 3C, 4, and 5) from the Utility Corridor that create the six end-to-end Build Alternatives (A through F) for evaluation in the Draft EIS and this Final EIS, as depicted in Figure 2-28. Segment descriptions in Section 2.6.2, Alternatives Considered, Build Alternatives, are included to illustrate the locations of the segments and the</p>

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
				<p>differences between the Build Alternatives. The Final EIS has been prepared with public and agency involvement, which is summarized in Chapter 9.0, Public and Agency Involvement. Information from the public and agency meetings outlined in Chapter 9.0, Public and Agency Involvement helped shape the content of the Scoping document, HSR Corridor Alternatives Analysis Technical Report, HSR Alignment Alternatives Analysis Report, the Draft EIS, and this Final EIS.</p>
14/ Dodson 7	3.8; 3.3-8	Felicity Dodson	<p>A discussion of floodplain management, post Hurricane Harvey should be added to this section to address changes, new normal conditions, high risk areas that were discovered, or developed as a result of the storm.</p>	<p>As described in Section 3.8.3.1, Floodplains, the Final EIS uses current Federal Emergency Management agency (FEMA) Digital Flood Insurance Rate Map (DFIRM) data to calculate floodplains impacts.</p> <p>Additionally, TCRR is working with federal, state and local agencies during the design process to ensure compliance with all federal, state and local laws, regulations, and policies through avoidance, minimization, and mitigation measures including floodplain development permits for the placement of viaduct piers as stated in Section 3.8.6.1, Floodplains, Compliance Measures. As detailed within this section, natural events such as hurricanes (i.e. Hurricane Harvey in August 2017) that cause flooding events may result in floodplain boundary changes; therefore, TCRR shall monitor FEMA mapped floodplain boundaries during final design to ensure design components comply with local floodplain regulations.</p> <p>In coordination with the City of Houston and Harris County, TCRR updated the floodplain data within Harris County to account for the 500-year flood. As depicted in Appendix F, TCRR Conceptual Engineering Design and Constructability Reports, TCRR originally designed the Project in response to the 100-year flood. However as a direct result of the</p>

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
				Hurricane Harvey flooding, Project design has been updated to account for 500-year flood events.
15/Dodson 8	4.3.2.3.2; Table 4-1; 4.9	Felicity Dodson	Reasonably foreseeable projects - The development of new businesses and support facilities (rental car agencies, stores, restaurants, etc) likely to be proposed in the area of the Houston Station should be discussed, including whether the facilities would likely be constructed in uplands or wetlands.	Section 4.3.1.3, Indirect and Cumulative Impacts, Houston Terminal Station discusses the Project-influenced development effects in the area of the Houston Terminal Station Options. Additionally, Table 4-5 summarized all direct and indirect impacts of the Project.
16/ Dodson 9	WOUS Technical Memo	Felicity Dodson	WOUS Technical Memo – The totals for the wetlands, waters, and stream tables should be updated for each county. The tables should be placed in order when bound (Table 25 and 26 are mixed up in the DEIS), and totals for each county should be highlighted for clarity.	All data within the FEIS including the tables in Appendix E, Waters of the U.S. Technical Memorandum have been updated with the latest information. Totals for each county are summarized at the end of each respective table.
17/ Barrera 1	General	James E. Barrera	We need a draft Programmatic Agreement (PA) for the treatment of adverse effects to historic properties. Pending review of the draft PA by USACE Office of Council, this PA would hopefully cover Section 106 for USACE and FRA. USACE and SHPO must be Signatories on the PA. Coordination of the draft PA should be moving between Signatories now. Please provide a draft of the PA to USACE for review and comment by Date XX, 2018.	Consultation among the FRA, State Historic Preservation Office (SHPO), USACE, Advisory Council on Historic Preservation (ACHP), TCRR and Consulting Parties regarding the Programmatic Agreement is currently in progress. Both the USACE and SHPO are Signatories on the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement).
18/ Barrera 2	General	James E. Barrera	Greater efforts in engaging tribes needs to be made. Particularly with the Caddo Nation.	Caddo Nation has been in contact with FRA (Kevin Wright) in January 2018 and requested they be notified of post-review and unanticipated human remain discoveries that may have cultural significance.
19/ Barrera 3	General	James E. Barrera	Only 12% of the LOD has been surveyed for archeological sites. This means that many archeological sites, architectural resources (encountered during archeological survey), and historic cemeteries that are not recorded are likely to be encountered between now and the completion of surveys. This needs to be very clear in the EIS instead of painting a picture that makes it sound like, based on 12% of the LOD surveyed, we have a firm grasp on adverse effects at this point. A	Section 3.19.4.1, Cultural Resources Investigations , has been updated to state that additional field efforts for archeological and historic resources was conducted through March 15, 2019. The percentage of the LOD surveyed for archeological sites, to date, is approximately 27% and for historic resources it is approximately 83%. The methodology applied to these investigations has followed the Research Designs approved by the THC and USACE.

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			<p>more accurate statement would be: based on only 12% of the LOD surveyed, we know very little about the anticipated adverse effects to all cultural resources within the LOD. That should be upfront in all parts of the EIS where cultural resources are referenced.</p>	<p>Section 3.19.4.1.1, Cultural Resources Investigations, Historic Resources, states “The historic resources’ investigation found a total of 874 sites (containing 1,362 historic resources) located within the Project historic resources APE through January 2019. Not all of the historic resources identified through the literature review and background research phases of the survey, which took into account changes by TCRR to the conceptual design of the Project, could be recorded in the field either due to lack of visibility from the public ROW, lack of access to private property or additional design changes post-fieldwork. Of the total historic resources within the APE, 735 sites (containing 1,141 historic resources) were recorded in the field. Historic resources that still require field verification were identified as having high, moderate or low potential for NRHP eligibility (see Section 3.19.3.2.7). Field documentation and NRHP evaluation of the remaining 139 sites and 221 historic resources will be completed during a subsequent phase of fieldwork and prior to construction.”</p> <p>Section 3.19.4.1.2, Cultural Resources Investigations, Archeological Resources, states “Fieldwork for the archeological investigations covered a total of 3,953.0 acres in the 10 counties crossed by the Project as of March 15, 2019. Approximately 73 percent of the archeological resources APE remains unsurveyed for archeological materials due to: property access denials, access to parcels being rescinded, the inability to access parcels surrounded by restricted properties, and design changes to the Project post-fieldwork.”</p> <p>The initial phases of the survey were focused on high</p>

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
				<p>probability areas designated as Evaluation Mapping Units (EMUs) 1, EMU 2 and EMU 3 (see Table 3.19-3 for full definitions of EMU 1 through EMU 9), which constitute approximately 70.1 percent of the APE overall (Table 3.19-9), combined with the land areas where right-of-entry was granted.</p> <p>Section 3.19, Cultural Resources has been updated in the Final EIS with the information collected and analyzed through the literature reviews, background research, and field investigations. Surveys that remain to be completed will be conducted through the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) FRA is developing for this Project in consultation with the USACE and other Signatories.</p>
20/ Barrera 4	General	James E. Barrera	<p>The areas of USACE federal control and responsibility need to be highlighted, this should include: above ground utility locations and permittee responsible mitigation (PRM) sites. If the PRM sites have not yet been selected then it should be very clear in the EIS that these areas must be covered by both ESA and Section 106.</p>	<p>As detailed in the updated Final EIS in Section 2.5.4.1, Alternatives Considered, Updated LOD Definition and also Section 3.1.2.3, Introduction, Limits of Disturbance, in addition to the proposed permanent HSR ROW, construction of the Project would include the permanent relocation or alteration of existing utilities and easements (i.e., underground pipelines, above ground electrical transmission lines, and/or existing roads). These activities, including the proposed footprint of relocated roads, are also included in the LOD. Potential impacts from the relocation or alteration of existing utilities and easements are assessed throughout Chapter 3.0, Affected Environment and Environmental Consequences, including potential impacts to waters of the U.S. in Section 3.7.</p> <p>Additionally, the LOD in the Final EIS has been updated to include potential impacts from proposed new electrical transmission lines to meet the traction power demand of the Project from the existing</p>

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
				<p>power grid. The potential impacts of the proposed electrical transmission line routes are assessed in Chapter 4.0, Indirect Effect and Cumulative Impacts.</p> <p>FRA has identified in WW-MM#1: Compensatory Mitigation, that as a result of WW-CM#4: CWA Section 404, Individual Permit and WW-CM#5: Waters of the U.S. Mitigation Plan, the USACE will determine the amount of compensatory mitigation that TCRR shall be required to implement. Pending approval of the mitigation plan by the USACE and prior to construction, TCRR shall purchase wetland mitigation credits (on an acreage basis) and stream mitigation credits (on a linear footage basis). If credits are unavailable, TCRR shall develop permittee responsible mitigation sites as required by the USACE. Any areas not currently in the Area of Potential Effects for compliance with Section 106 will be included per Stipulation III.H of the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories.</p>
21/ Barrera 5	General	James E. Barrera	USACE is fully supportive of all comments provided from the Texas Historical Commission in their letter to FRA dated February 20, 2018.	Comment noted.
22/ Barrera 6	Attachment L	James E. Barrera	In this document it is summarized that nine (9) varying methods of archeological survey are currently in use on this project. This is overly complex since most surveyed employ one to three at most. If a survey methodology uses three varying methods, then the surveys are generally broken into high, medium, and low probability (at the very most). My final thought here is, I am concerned that delivering nine varying methods of archeological survey to crews that are daily overseen by a crew chief, would result in even more variety. And then further concern that this method may not do justice for the cultural resources. In the USACE permit area, or area of federal control and responsibility, the survey area should be treated as a high probability	<p>The survey methods vary, depending on the specific circumstances of the landscape. The establishment of nine Evaluation Mapping Units (EMUs) was intended to structure and tailor the survey effort to each of the nine major types of environments likely to be encountered. FRA developed the survey methodology in consultation with THC, and THC concurred with the use of the methodology on December 14, 2015.</p> <p>The approach employed for the HSR still breaks the APE down into the usual three classes: High, Moderate, and Low <i>Archaeological Potential</i> (which is the relative likelihood for archaeological resources</p>

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			setting.	<p>to be present). The only difference with FRA’s approach is that it includes an added variable – <i>Integrity Potential</i>, and this is broken down into High, Moderate, and Low Integrity Potential. When combining Archaeological Potential (i.e., the likelihood for sites to occur), and Integrity Potential (the likelihood that any sites will retain integrity), FRA ended up with nine categories (the EMUs).</p> <p>Because each of the EMU classes are coded into the field crew’s GPS units, there is no question about what field methodologies are supposed to be employed at any location. No significant variations were observed in the day to day operations and results when comparing between different crew chiefs. In addition, the survey has to-date been structured such that only one or two different types of EMUs are encountered, which has reduced the likelihood for any errors to occur.</p> <p>This approach has allowed FRA to focus more intensively on those areas of the landscape that are more likely to contain sites that retain integrity</p> <p>Following this methodology, it is anticipated that USACE permit areas were treated as High Archaeological Potential areas, though the integrity potential varies, depending on local geomorphic conditions.</p> <p>The Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) FRA is developing for this Project in consultation with the USACE and other Signatories requires the continued application of the concurred upon methodology for the remainder of Section 106 surveys.</p>
23/ Barrera 7	Attachment L	James E. Barrera	Multiple cemeteries are in the LOD. Is this clear enough in the EIS, early and up front within the respective	Section 3.19.4, Cultural Resources, Affected Environment , lists one cemetery located within the

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			sections? The cemetery discussions in the EIS should include discussions about avoidance/minimization/mitigation; in that order.	<p>LOD, three cemeteries adjacent to the LOD, and five cemeteries located within 150 feet of the LOD. The information in the Final EIS is organized by county so information on each cemetery can be found under the heading of 'County' where they are located. Three cemeteries located adjacent to the LOD or within 150 feet of the LOD are identified as eligible for listing on the National Register of Historic Places (NRHP)). These cemeteries and any additional cemeteries identified as eligible for the NRHP will be addressed through the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) FRA is developing in consultation with the USACE and other Signatories. Cemeteries not listed in, or eligible for listing in, the NRHP are protected under state law.</p> <p>As outlined in CR-CM#1: THC Consultation for Cemeteries Not Eligible or Listed in the NRHP in Section 3.19.6.1, Cultural Resources, Compliance Measures, TCRR would be required to comply with State of Texas cemetery laws.</p>
24/ Barrera 8	Attachment L	James E. Barrera	Multiple archeological sites in the LOD with an unknown eligibility for listing to the NRHP. Therefore these sites are treated as eligible. These are the sort of resources that the lead federal agency should be able and willing to visit during coordination of treatment for adverse effects. The consultant visiting on behalf of the lead federal agency does not address the requirement of the federal agency providing determinations of eligibility for the NRHP and effect determinations.	Section 3.19.4.1.2, Cultural Resources, Archeological Resources lists the previously recorded archeological sites within the LOD. The Final EIS has been updated to clarify the five sites of unknown eligibility are being treated as eligible until field verification and recommendations can be made. located within the Trinity River Levees.
26/ Story 2	ES.10; ES-30	Jason Story	Omit the use of USACE-owned land, instead use U.S. Army Corps of Engineers (or use Acronym) federally authorized civil works projects or shorten to USACE Projects, after first introducing full description, and use full description as needed later in the document.	Updated throughout Final EIS and in Appendix E, USACE 408 Impacts Technical Memorandum to use "USACE Projects" instead of "USACE-owned land" after introducing "USACE federally authorized civil works projects".
27/ Story 3	2.7.1; 2.0-56	Jason Story	Under Section 408 the USACE does not consult with the EPA. Recommend separating the Section 404 and	"in consultation with EPA" has been removed from Section 2.7.1, Alternatives Considered, Statutory

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			Section 408 content.	Considerations.
28/ Story 4	2.7.1; 2.0-56	Jason Story	Omit the use of USACE-owned land, instead use U.S. Army Corps of Engineers (or use Acronym) federally authorized civil works projects or shorten to USACE Projects, after first introducing full description, and use full description as needed later in the document. Earlier in the DEIS, in 1.1.3.1 U.S. Army Corps of Engineers, USACE federally authorized civil works projects is correctly used.	Updated throughout Final EIS and in Appendix E, USACE 408 Impacts Technical Memorandum to use “USACE Projects” instead of “USACE-owned land” after introducing “USACE federally authorized civil works projects”.
29/ Story 5	3.6; 3.6-50	Jason Story	Omit the use of USACE-owned property, instead use U.S. Army Corps of Engineers (or use Acronym) federally authorized civil works projects or shorten to USACE Projects, after first introducing full description, and use full description as needed later in the document. The correct title is: Appendix E, Impacts to USACE Projects Technical Memorandum. Do not use USACE Properties.	Updated throughout Final EIS and in Appendix E, USACE 408 Impacts Technical Memorandum to use “USACE Projects” instead of “USACE-owned land” after introducing “USACE federally authorized civil works projects”.
30/ Story 6	3.7.4.1.2; 3.7-6	Jason Story	Central Wastewater Treatment Plant is part of the Dallas Floodplain Extension. Change to Dallas Floodway Extension- Central Wastewater Treatment Plant.	The Final EIS has been updated as suggested in Section 3.7.4.1.2, Waters of the U.S., USACE Projects.
31/ Story 7	3.7.5.2.1; 3.7-30	Jason Story	The loss of bottomland hardwoods within the LOD in the 408 area north of the river and west of IH45 may require mitigation or stipulations as part of the Section 408 permission process. The waters of the U.S. in this area were delineated and only a small part is now classified as wetlands (the NWI classified most of this area as forested wetlands). This area is part of the DFE Floodway and is planned for retention and management of the floodplain forest there (Great Trinity Forest). Loss of non-wetland forest would constitute a loss to the DFE project. Also see Appendix D. Natural Resources map book sheet 2.	Comment noted.
32/ Story 8	USACE Projects; 3.7-32	Jason Story	The correct title is: Appendix E, Impacts to USACE Projects Technical Memorandum. Do not use USACE Properties.	Updated throughout Final EIS and in Appendix E, USACE 408 Impacts Technical Memorandum to use “USACE Projects” instead of “USACE-owned land” after introducing “USACE federally authorized civil works projects”..

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36/ Story 12	3.17.4; 3.17-3	Jason Story	<p>The Great Trinity Forest overlaps with the LOD. The DFE Floodway is part of the Great Trinity Forest. The DFE Floodway was planned to retain the Great Trinity Forest in the area of the LOD. Several past NEPA documents refer to the Great Trinity Forest beginning at the downstream terminus of the Dallas Floodway at the Santa Fe RR Bridge there and continuing downstream, overlapping with the HSR corridor. The 2014 Dallas Floodway Project FINAL EIS says, “The Great Trinity Forest is downstream of the Dallas Area Rapid Transit (DART) and AT&SF Railroad Bridge crossings...” Several figures in this EIS also have the area immediately downstream of the AT&SF Railroad Bridge and overlapping with the HSR LOD labeled as the Great Trinity Forest. See the following quote from the 2013 Trinity Parkway FINAL EIS, “The Great Trinity Forest refers to an area of approximately 7,000 acres of land, of which approximately 4,600 acres are forested, that is planned by the City of Dallas for multiple uses including parkland, recreation, ecosystem restoration, and flood control. The Great Trinity Forest includes a large area of floodplain associated with the main stem of the Trinity River from the south end of the Dallas Floodway at the AT&SF Railroad Bridge downstream to IH-20 and the White Rock Creek floodplain upstream from the Trinity River to IH-30.” Also see PLATE 3 – 16 from the Trinity Parkway FINAL EIS, which has the existing and future Great Trinity Forest lands graphically displayed. The 1999 Dallas Floodway Extension FINAL EIS also says, “This area roughly includes the Trinity River main stem flood plain lying between the existing Dallas Floodway and Interstate Highway 20 crossing and within the White Rock Creek flood plain upstream to Interstate Highway 30.” And the recommended plan includes managing the Dallas Floodway Extension Floodway (where the LOD crosses and impacts) by retaining and enhancing the bottomland hardwood floodplain habitat for multiple</p>	<p>Language used in Section 3.17, Recreational Facilities and Chapter 7.0, 4(f) and 6(f) Resources, have been revised to use the name William Blair Jr. Park instead of “the Great Trinity Forest”. That title more accurately reflects data from the City of Dallas Parks and Recreation park boundaries.</p>

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			purposes. The point on my comment is the Great Trinity Forest seems to be incorrectly identified in the DEIS. Based upon the documents listed above, the HSR LOD is crossing the Great Trinity Forest.	
37/ Story 13	9.3.2; 9-9	Jason Story	In Table 9-5, under USACE Fort Worth District, add 33 USC Section 408, or Section 14 of the Rivers and Harbors Act as a second responsibility besides Section 404.	Table 9-5 has been updated to include the Rivers and Harbors Act as a second responsibility.
38/ Story 14	Appendix D: Community and Cultural Resources; Sheets 1-4	Jason Story	There is an existing Dallas Floodway Extension trail partially located where the "proposed Trinity Forest Trail" is depicted on the figures. This Trinity Forest Trail line may need to amended, or deleted and replaced with the true existing and proposed trails. The USACE has shapefiles (and can provide to FRA) for the existing trail and proposed extension for the newly constructed trails which run along the Chain of Wetlands.	FRA has coordinated with the USACE to update trail information on the identified figure in Appendix D. The area described here within the LOD is an identified Section 408 mitigation area.
39/ Story 15	Appendix D: Natural Resources; Sheets 2-3	Jason Story	Much of the bottomland hardwood forest area north of the river within the LOD is not forested wetlands as indicated by field delineation work (field collected data in legend). Impacts to this bottomland forest (part of the DFE and the Great Trinity Forest) may be subject to 408 mitigation because of habitat loss/loss to DFE Great Trinity Forest.	FRA will continue to coordinate with the USACE in regard to potential impacts to Waters of the U.S. As previously discussed, FRA's evaluation of potential impacts to waters of the U.S. used National Hydrography Dataset (NHD) and National Wetlands Inventory (NWI) data supplemented with fieldwork where access was granted. FRA understands that TCRR's consultant who prepared the original CWA 404/408 application and permission request used a different approach, which incorporated a desktop analysis of NHD and NWI data. Section 3.7.3, Waters of the U.S, Methodology has been updated in the Final EIS to state "FRA conducted surveys concurrent with the USACE and TCRR, and data collected through June 1, 2018, are presented in this EIS (Appendix E, Waters of the U.S. Technical Memorandum). Field assessments completed by FRA were conducted on property

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				<p>where access was granted, as the entire LOD was not accessible for field assessment. Approximately 42 percent of the LOD for Build Alternative A was surveyed by FRA (see Section 3.1, Affected Environment and Environmental Consequences, Introduction, for additional details on focused methodology on Build Alternative A for the Final EIS). The analysis for this Final EIS assumes wetlands and waterbodies within the LOD are waters of the U.S. The ongoing USACE fieldwork for the Section 404 Permit could result in a determination that some presumed waters of the U.S. are non-jurisdictional. This could result in a change in impacts to wetlands and waterbodies, and potentially result in the Final EIS identifying greater impacts to waters of the U.S. than would result from the Project.”</p>
40/ Story 16	Appendix D: Natural Resources; Sheets 2-3	Jason Story	<p>The yellow hashed locations for USACE Project Areas are incorrect and incomplete on the maps. The DF does not extend downstream of the Santa Fe RR Bridge. The DFE Floodway begins at the Santa Fe RR Bridge and continues downstream. The Able sumps are part of the DF project. The Chain of Wetlands, which are part of the DFE project are not depicted. Refer to the Appendix E. Technical Memorandum 408 Impacts to USACE Projects Maps and boundaries for the correct DF and DFE project features. USACE would not oppose if these USACE Project Areas are omitted from the Natural Resources map book. Our comment on Appendix E. Technical Memorandum 408 Impacts, recommends a map book to present this area in several pages similar to the size and scale of the Natural Resources map book depicting the DF and DFE project features.</p>	<p>This Figure in Appendix D, Appendix E, USACE 408 Impacts Technical Memorandum and associated figures have been updated based on coordination with USACE. Additionally, this technical memorandum has been updated to include the recommended mapbook detailing USACE Projects. Information corrected within this technical memorandum has been carried through the Final EIS.</p>
41/ Story 17	Appendix D: Land Use; sheets 1-3	Jason Story	<p>The DFE Floodway is partially colored as commercial and park in places. The DFE Floodway is designed to be managed with the Great Trinity Forest bottomland hardwood habitat being retained. The DFE Floodway and DFE features are not commercial areas, they have several authorized project purposes (flood control,</p>	<p>Land use in the Study Area was identified based on information obtained from local and regional applicable planning documents, readily available GIS data, aerial photography interpretation and windshield surveys. Appendix E, USACE 408 Impacts Technical Memorandum has been updated with a</p>

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			ecosystem restoration, and recreation). See other comments concerning the extent of the Great Trinity Forest. Corrections may be necessary to these sheets. The area upstream of IH-45 is designated as the Great Trinity Forest, and is also part of the DFE Floodway.	new Mapbook, <i>Project Footprint in association with USACE Projects</i> , better depicting the Dallas Floodway features.
42/ Story 18	Appendix E: 408 Impacts to USACE Projects; Page 1, Section 408	Jason Story	First sentence should read: "The authority to grant permission to alter USACE federally authorized civil works projects (USACE Projects) is contained in Section 14 of the Rivers and Harbors Act of 1899 and codified in Title 33 USC Section 408 (Section 408). Current Section 408 policy can be found within Engineer Circular (EC) 1165-2-216, Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Work Projects Pursuant to 33 USC 408." After introducing "USACE Projects" use this throughout the TM.	Updated throughout Final EIS and in Appendix E, USACE 408 Impacts Technical Memorandum to use "USACE Projects" instead of "USACE-owned land" after introducing "USACE federally authorized civil works projects".
43/ Story 19	Appendix E: 408 Impacts to USACE Projects; Page 1	Jason Story	I recommend using the full name for the Dallas Floodway Extension and the Dallas Floodway on page two, and throughout the TM. Eliminate the acronyms DF and DFE. Spell out Interstate Highway 45.	Updated throughout Final EIS and in Appendix E, USACE 408 Impacts Technical Memorandum to use full name of Dallas Floodway and Dallas Floodway Extension. Interstate Highway 45 has been spelled out.
44/ Story 20	Appendix E: 408 Impacts to USACE Projects; Page 2	Jason Story	I recommend using the full name for the Dallas Floodway Extension and the Dallas Floodway in the TM. Eliminate the acronyms DF and DFE. Especially in the bullet list, spell out.	Updated throughout Final EIS and in Appendix E, USACE 408 Impacts Technical Memorandum to use full name of Dallas Floodway and Dallas Floodway Extension.
45/ Story 21	Appendix E: 408 Impacts to USACE Projects; Page 4	Jason Story	I recommend a 3-4 page map book in landscape view instead of the single page portrait map. Model this after the other map books with respect to scale, for example the Appendix D. Natural Resources map book. Within the legend, please separate the Dallas Floodway Extension and the Dallas Floodway features, and label them in the legend as either part of the Dallas Floodway Extension and the Dallas Floodway. Keep specific names as well, for example Upper/Lower Chain of Wetlands (Dallas Floodway Extension). Name Lamar	Appendix E, USACE 408 Impacts Technical Memorandum and associated figures have been updated based on coordination FRA conducted with USACE. Additionally, this technical memorandum has been updated to include the recommended mapbook detailing USACE Projects. Information corrected within this technical memorandum has been carried through the Final EIS.

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			and Cadillac Levees as future levees. Label Chain of Wetland Cells.	
46/ Story 22	Appendix E: 408 Impacts to USACE Projects; Wetlands, Page 5	Jason Story	Please report only the wetlands impacts within the 408 area of the LOD, not for the entire Dallas County area.	Appendix E, USACE 408 Impacts Technical Memorandum and associated tables has been updated to only report impacts within the 408 area. The county is still included in the table title for consistency of presentation with Final EIS.
47/ Story 23	Appendix E: 408 Impacts to USACE Projects; Vegetation, Page 5	Jason Story	Please report only the vegetation impacts within the 408 area of the LOD, not for the entire Dallas County area.	Appendix E, USACE 408 Impacts Technical Memorandum and associated tables has been updated to only report impacts within the 408 area. The county is still included in the table title for consistency of presentation with Final EIS.
48/ Story 24	Appendix E: 408 Impacts to USACE Projects; Table 4, Page 6	Jason Story	Please report in this table only the vegetation impacts within the 408 area of the LOD, not for the entire Dallas County area.	Appendix E, USACE 408 Impacts Technical Memorandum and associated tables has been updated to only report impacts within the 408 area. The county is still included in the table title for consistency of presentation with Final EIS.
49/ Story 25	Appendix E: 408 Impacts to USACE Projects; Table 4, Page 6	Jason Story	Please include a summary of the 408 area of the LOD for other applicable resource impacts: Hazardous Materials, Air Quality, Noise and Vibration, Endangered Species Act, Floodplain Hazards and Floodplain Management, Recreation, or others you see necessary to include.	Appendix E, USACE 408 Impacts Technical Memorandum and has been updated to summarize impacts related to waters of the U.S., water quality, floodplains, vegetation, and cultural resources for the 408 area.
50/ Story 26	Appendix E: 408 Impacts to USACE Projects; Permission Request Process,	Jason Story	Omit this paragraph. It is only one sentence long and similar material is presented in other places in the DEIS. Please keep Ellis County paragraph as is.	Section has been updated to read "In response to these potential impacts to USACE projects, TCRR shall submit a Section 408 request to the USACE Fort Worth District. All Build Alternatives (A through F) would require 408 authorizations from the USACE Fort Worth District in Dallas County. "

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51/ Story 27	Appendix F: Final Draft Conceptual Engineering Report; 1.4-13	Jason Story	Statement says, "...impacts to the existing Lamar Levee..." Lamar Levee is not existing, it is planned, a not yet constructed feature of the Dallas Floodway Extension project.	Appendix F, TCRR Conceptual Engineering Design and Constructability Reports includes documentation prepared by TCRR. Edits to these documents have been requested.
52/ Story 28	Appendix F: Final Draft Conceptual Engineering Report; 1.4-13	Jason Story	Statement says, "...impacts to federally owned lands." If this is referring to Lake Bardwell, then name it specifically. The Dallas Floodway and Dallas Floodway Extension are not federally owned lands.	Appendix F, TCRR Conceptual Engineering Design and Constructability Reports includes documentation prepared by TCRR. Edits to these documents have been requested.
53/ Crippen 1	General	Leslie Crippen	Concur with all comments submitted by the Texas Historical Commission 20 Feb 2018. Evaluation of above ground resources and identification of archaeological resources are far from complete. Quantification of impacts throughout the report are misleading.	<p>Section 3.19.4.1, Cultural Resources Investigations, was updated to state that additional field efforts for archeological and historic resources was conducted through March 15, 2019. The percentage of the LOD surveyed for archeological sites, to date, is approximately 27% and for historic resources it is approximately 83%. The methodology applied to these investigations has followed the Research Designs approved by the THC and USACE. Un-surveyed areas remain for archeological materials due to: property access denials, access to parcels being rescinded, the inability to access parcels surrounded by restricted properties, and design changes to the Project post-fieldwork. The results of the ongoing historic and archeological surveys are discussed in Section 3.19.4.2.</p> <p>The initial phases of the survey were focused on high probability areas designated as Evaluation Mapping Units (EMUs) 1, EMU 2 and EMU 3 (see Table 3.19-3 for full definitions of EMU 1 through EMU 9), which constitute approximately 70.1 percent of the APE overall (Table 3.19-9), combined with the land areas where right-of-entry was granted.</p>

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				<p>Section 3.19, Cultural Resources has been updated in the Final EIS with the information collected and analyzed through the literature reviews, background research, and field investigations. Surveys that remain to be completed will be conducted through the Programmatic Agreement Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) FRA is developing for this Project in consultation with the USACE and other Signatories.</p>
54/ Crippen 2	General	Leslie Crippen	Please engage with USACE as soon as possible to begin development of a programmatic agreement for Section 106 of the NHPA. Agreement structure, USACE 408/404 permission areas, appropriate consulting parties, and procedures for compliance to be included and finalized via consultation with agreement signatories.	Consultation among the FRA, SHPO, USACE, ACHP, TCRR and Consulting Parties regarding the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) is currently in progress. The USACE is a Signatory on the PA, which will be appended to the Final EIS.
55/ Crippen 3	3.19; 3.19-1	Leslie Crippen	While the official letting date of the project is 2017, completion is anticipated to take several years. Assessment of cultural resources should include resources that may be considered historically significant at the anticipated time of completion. The 5-year buffer described on line 5-6 of the same paragraph does not seem a realistic expectation for the timeline of this project.	The methodology used for the historic resources investigations follows the historic resources Research Design approved by the THC and USACE. The 5-year buffer was applied to the letting date for the Project as it was known at the time. Further survey work will be conducted through the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories.
56/ Crippen 4	Table 3.19-1; 3.19-6	Leslie Crippen	USACE Fort Worth District requested to be a signatory to a programmatic agreement via comments on the Administrative Draft Environmental Impact Statement submitted on August 18, 2017. Please revise the table to include consultation conducted with any parties after January 2016.	Consultation among the FRA, SHPO, USACE, ACHP, TCRR and Consulting Parties regarding the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) is currently in progress. The USACE is a Signatory on the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement). Table 3.19-1 and associated text in the Final EIS has been updated to reflect the initial invitation to consult. All other subsequent correspondence can be found in

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				Appendix E, Cultural Resources Technical Memorandum.
57/ Crippen 5	Table 3.19-2; 3.19-8	Leslie Crippen	Table 3.19-2 indicates that the Alabama-Coushatta Tribe of Texas declined to participate in formal consultation. The letter from Mr. Bryant Celestine from March 12, 2015 included in Appendix E states that potential impacts to assets of the Alabama-Coushatta Tribe in association with this undertaking could not be completely ascertained at that time. They express an interest in the Coushatta Trace, as well as potential archaeological resources within the project area. Please correct the table and clarify what efforts have been made to include the Alabama-Coushatta Tribe of Texas in ongoing cultural resources investigations.	Table 3.19-2, Federally Recognized Native American Tribal Governments in Section 3.19.3 Methodology has been updated and corrected. The Alabama-Coushatta Tribe of Texas requested to be notified if discoveries are made in areas of concern. Notification to the tribe will be completed in accordance with the process outlined in the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories.
58/ Crippen 6	Table 3.19-3; 3.19-13	Leslie Crippen	Deeply buried archaic period deposits have been identified in the Dallas Floodway. Cultural resources investigations in the 408 area should include mechanical trenching in order to reach deeply buried deposits.	Survey work conducted in the USACE 408 areas will follow the process outlined in the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories.
59/ Crippen 7	Appendix E: CR; Paragraphs 3-5	Leslie Crippen	USACE requests copies of interim and final cultural resources reports.	Interim and addendum cultural resources reports, as well as concurrence letters from the THC have been uploaded to the Project SharePoint Site. The SharePoint Site will continue to be updated with subsequent reporting.
60/ Murphy 1	3.10; table 3.10-10	Joseph Murphey	The Dallas Floodway, not just the Trinity River or individual pump stations, should be included as a visual resource in Landscape Unit #1. It has had a profound visual impact as a landscape on the City of Dallas since the early twentieth century and its continuing significance is evidenced by the ongoing discussions over its evolution into a greenbelt/recreational area for the city in the 21st century.	As noted in Table 3.10-6 of the Final EIS, the Dallas Floodway has been added as a visual resource for Landscape Unit #1.
61/ Murphy 2	3.19; 3.19-1	Joseph Murphey	“Historic Resource” is misleading because “historic” implies significance or importance by definition and therefore NRHP eligibility. “Historical” does not refer to importance but to a past time. “Historical resources” is a more accurate term. For example, I am a historical architect. Frank Lloyd Wright was a historic architect.	This language reflects the language that has been included in the interim reports and the Programmatic Agreement and should remain such that all associated documents are consistent.

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			"Built environment" is also an appropriate term.	
62/ Murphy 3	3.19; 3.19-1	Joseph Murphey	The consideration of historical resources should be 50 years from the expected completion date, not the letting of the project.	The methodology used for the historic resources investigations follows the historic resources Research Design approved by the THC on November 18, 2015 and USACE. The 5-year buffer was applied to the letting date for the Project as it was known at the time. Further survey work will be conducted through the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) FRA is developing in consultation with the USACE and other Signatories.
63/ Murphy 4	3.19; 3.19-1	Joseph Murphey	National Register Criteria Consideration G should be mentioned and considered in evaluating impacts to historical resources.	Section 3.19.2, Cultural Resources, Regulatory Context includes all Criteria Considerations A-G and has been considered in evaluating impacts.
64/ Murphy 5	3.19; 3.19-3	Joseph Murphey	It should be noted that this EIS covers several separate and distinct Section 106 undertakings. For example, the USACE 408 permit is an undertaking with its own unique APE (taking into account P.L. 111-212), historic properties present and impacts to be considered. These should be delineated. Otherwise, USACE will have to coordinate and develop an agreement document, duplicating efforts.	The USACE Areas of Potential Effect (APE) are encompassed by the APE for the Dallas to Houston High-Speed Rail Project. USACE jurisdictional areas will be depicted on maps as an appendix to the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories. FRA understands that USACE will provide FRA mapping of USACE APE during Programmatic Agreement development.
65/ Murphy 6	3.19; 3.19-6	Joseph Murphey	USACE as a consulting party that did not respond is misleading. USACE is a SIGNATORY PARTY to this agreement, because it has assigned responsibilities under the agreement (e.g. issuing a 408).	The USACE is a signatory to the Programmatic Agreement (which will be attached to the Final EIS in Appendix L, Programmatic Agreement) and Table 3.19-1 has been updated to reflect USACE's role.
66/ Murphy 7	3.19; 3.19-9	Joseph Murphey	Historic(al) Resources APE – This section should delineate the APE of each of the undertakings, including, but not limited to the USACE undertaking to issue a 408 permission.	The USACE APE is encompassed by the APE for the Dallas to Houston High-Speed Rail Project. USACE jurisdictional areas will be defined on maps as an appendix to the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories. FRA understands that USACE will provide FRA mapping of USACE APE during Programmatic Agreement development.
67/ Murphy 8	3.19; 3.19-41	Joseph Murphey	It should be noted that USACE does not make Section 106 determinations under P.L. 111-212 for the Dallas	The Final EIS has been updated to reflect this information in Section 3.19.2, Regulatory Context .

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			Floodway but has determined it to be a significant cultural resource as defined by NEPA.	
68/ Murphy 9	3.19; 3.19-94	Joseph Murphey	The PA should delineate ALL the undertakings taking place under the agreement. The Preamble should specifically mention each undertaking. For example, the USACE undertaking to issue a 408 permission in Dallas County should have its own Whereas clause. USACE is to be a Signatory because it has responsibilities under the agreement.	The Preamble of the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories has been updated to define the undertaking and agency responsibilities.
69/ Murphy 10	3.19; 3.19-96	Joseph Murphey	Historic resources and historic properties are used interchangeably in this section. See previous comments on the use of the term "historic" also, the term "the project" is used, while there are several undertakings. This PA is about a single project but several undertakings. As a cultural section, it should be addressing undertakings.	The term "Historic Resource" is used to identify resources in the built environment that are greater than 45 years old. The term "Historic Property" is used to identify resources that are listed in, or eligible for listing in, the National Register of Historic Places. The Preamble of the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories has been updated to define the undertaking and agency responsibilities.
70/ Murphy 11	Appendix D; Sheet 1	Joseph Murphey	The USACE APE for the 408 does not include the Dallas Floodway due to P.L. 111-212. It should show a separate APE for the USACE undertaking.	The USACE APE is encompassed by the APE for the Dallas to Houston High-Speed Rail Project. USACE jurisdictional areas will be defined on maps as an appendix to the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories. FRA understands that USACE will provide FRA mapping of USACE APE during Programmatic Agreement development.
71/ Murphy 12	Appendix E; Figure 1	Joseph Murphey	Figure 1 of the AECOM Technical Memo does not show the APE of the 408 USACE undertaking.	The USACE APE is encompassed by the APE for the Dallas to Houston High-Speed Rail Project. USACE jurisdictional areas will be defined on maps as an appendix to the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories. FRA understands that USACE will provide FRA mapping of USACE APE during Programmatic Agreement development.
72/ Murphy 13	Appendix E; Page 6, paragraph 2	Joseph Murphey	For the portion of the project that impacts the Dallas Floodway, no determination of effect will be made under Section 106. A determination of impact under NEPA will be made and if the impact is significant to the	Further consultation for the Dallas Floodway will be conducted through the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories.

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
			historic resource, USACE will independently determine appropriate mitigation required to issue the 408 permission to meet NEPA compliance in regard to cultural resources. The THC letter dated 30 December 2011 is not relevant to the 408 permission.	
73/ Murphy 14	Appendix E; Page 6, paragraph 3	Joseph Murphey	This addresses many of the comments previously made but burying it deep within Appendix E in a technical memo obscures the information to the general audience. This needs to be spelled out in the main document and in the Programmatic Agreement.	Section 3.19, Cultural Resources and the Programmatic Agreement FRA is developing in consultation with the USACE and other Signatories has been updated based on comments received on the Draft EIS and consultation among Signatories and Consulting Parties.
74/ Clark 1	3.5; 3.5-3	David Clark	The paragraph concerning Texas Code 361.751-361.754 is incomplete, and appears to have a run-on sentence at the end. Also, while liability is limited for in-place contamination that migrates into the LOD properties, that liability protection is not so clear if actions on LOD properties cause migration of contaminants. For example, excavation of soil on an LOD property adjacent to a site with a contaminated groundwater plume has the potential to change groundwater gradient and potentially destabilize or change the direction of the flow of that plume. In that case, the project proponent may be liable for any cleanup. Recommend clarifying this paragraph in relation to this issue, and in relation to the text of the relevant Texas code.	The paragraph concerning Texas Code 361.751-361.754 has been updated in the Final EIS to state "The Texas Health and Safety Code also includes a provision stating a property owner is not liable for contamination that has migrated onto a property from a source of contamination not located on the property. This does not preclude the requirement to handle any contaminated material encountered during construction in an appropriate manner. The EPA has delegated regulatory authority to the State of Texas to oversee releases from regulated storage tanks within the state. The statute creating and governing the Texas Petroleum Storage Tank Program is the Texas Water Code, Chapter 26, Subchapter I."
75/ Clark 2	3.5; 3.5-19	David Clark	The "Exxon RS 63615" facility, or map ID 131, is flagged for further investigation, but is not highlighted. Not sure this site would require further investigation anyway. Clarify.	Map ID 131 has been highlighted in Table 3.5-2 in the Final EIS for further investigation since it is adjacent to the LOD and is a moderate-risk site.
76/ Clark 3	3.5; Table 3.5-2	David Clark	Not sure that risk decisions and methodology for Table 3.5-2 is consistent. For example, map IDs 301, 289, 307 and 131 have more or less identical findings, yet the risk decisions and choice to pursue further investigation are different. Clarify the reason for these risk decisions to stay consistent.	The risk decisions and methodology for Table 3.5-2 are consistent. Map IDs 131 and 301 are adjacent to the LOD, while 289 and 307 are not. Therefore, further investigation was not recommended for the latter two.

COMMENT NUMBER	SECTION / PAGE	REVIEWER	COMMENT	RESPONSE
77/ Clark 4	3.5; 3.5-16	David Clark	Map ID 96 is shown in the Appendix D mapbook as a moderate risk site, but isn't listed in Table 3.5-2 or discussed in Section 3.5.4.1.1.	Map ID 96 has been removed from Appendix D, HazMat Mapbook . It is a historic Municipal Solid Waste (MSW) site, and closure was confirmed in 1972. It is approximately 1 mile from the centerline. Based on the search distances in Table 3.5-1 , there is no need to include it in the Final EIS.
78/ Clark 5	3.5; 3.5-19	David Clark	Recommend Map ID 134 be moderate risk rather than low risk. Despite no environmental conditions beyond active diesel ASTs, site is within the LOD and is an asphalt plant. There is potential cleanup needed after acquisition of a property with an asphalt plant due to the materials handled and produced.	To be consistent with the methodology described in Section 3.5.3.1, Hazardous Materials and Solid Waste, Hazardous Materials , Map ID 134 remains as low risk site because there is no evidence of any current or past contaminant releases.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

February 20, 2018

Mr. Kevin Wright
U.S. Department of Transportation
Federal Rail Road Administration
1200 New Jersey Avenue SE-MS-20
Washington, D.C. 20590

Dear Mr. Wright:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas, has completed its review of the Draft Environmental Impact Statement (DEIS) prepared by the Federal Railroad Administration (FRA) for the proposed Texas Central High Speed Railway's (TCRR)'s Dallas to Houston High Speed Rail (HSR) Project. The DEIS analyzes potential environmental impacts of the proposal to construct and operate a 240 mile-long HSR system connecting Dallas and Houston, Texas, using the Japanese N700 Tokaido Shinkansen HSR technology.

EPA rates the DEIS as LO "Lack of Objections". The EPA's Rating System Criteria can be found here: <http://www.epa.gov/oecaerth/nepa/comments/ratings.html>. The DEIS has sufficiently demonstrated that the anticipated environmental impacts associated with the selected alternative can be minimized, mitigated and/or avoided as required by law. The lead Federal agency, FRA, anticipates full compliance with all environmental regulations and assures such compliance will be completed prior to the issuance of the Record of Decision thus completing the NEPA process. In an effort to assist the applicant in the Federal permitting process required under Section 404 of the Clean Water Act, EPA is offering the enclosed comments as suggested recommendations for the applicant's consideration specific to minimizing and/or mitigating wetland resource impacts.

EPA appreciates the opportunity to review the DEIS. Our classification will be published on the EPA website, <http://www.epa.gov/compliance/nepa/eisdata.html>, according to our responsibility under Section 309 of the CAA to inform the public of our views on the proposed Federal action. Please send our office one copy of the Final EIS (FEIS). If you have any questions or concerns, please contact Michael Jansky of my staff at jansky.michael@epa.gov or 214-665-7459 for assistance.

Sincerely,

for Kenneth Rice

Robert Houston, Chief
Special Projects Section
Compliance Assurance and
Enforcement Division

Enclosure:

**EPA Region 6
Section 404 Clean Water Act
Wetlands Comments
Dallas to Houston High-Speed Rail DEIS**

Avoidance and Minimization of Impacts to Waters of the United States (U.S.)

EPA's wetlands program notes in the DEIS that the HSR project design will use elevated viaducts on approximately 60% of the Build Alternatives to avoid and minimize impacts to waters of the U.S., to the greatest extent possible. The DEIS explains the TCRR will work in coordination with U.S. Army Corps of Engineers (USACE) to prepare a final design to avoid and minimize impacts to waters of the U.S., as practicable. Section 2.7.2. of the DEIS further states that ongoing engineering design can further minimize these impacts by increasing the percent of tract on viaduct or structure.

As part of the design process, EPA encourages avoidance and minimization options be evaluated through-out the project. For example, although the half acre wetland or less value at each single and complete crossing is a USACE Nationwide Permit (NWP) threshold value, this value is not an individual permit threshold. EPA believes limiting wetland impacts at crossings and other high speed passenger rail (HSR) facilities under this threshold may not necessarily equate to avoiding or minimizing impacts to the greatest extent practicable. EPA suggests that avoidance and minimization measures be evaluated beyond limiting impacts to half acre or less as identified in Compliance Measure WW-CM#1.

Mitigation Plan and Mitigation Measures

EPA continues to encourage mitigation for all unavoidable impacts to wetlands and waters of the U.S. According to the DEIS, WW-CM#5 Mitigation Measure explains that a draft mitigation plan has been submitted to the USACE and, once approved by the Corps, the final mitigation plan will be adopted by the FRA and made part of the FEIS. If possible, EPA asks that the draft mitigation plan be shared with EPA Region 6 wetland staff for review prior to final approval.

Compensatory mitigation is also of interest to our agency. The compensatory mitigation measure, WW-MM#1, suggests that the amount of compensatory mitigation required will be based on total impacts to waters of the U.S. along with other considerations. If temporary fill activities are expected to be in place for an extended period of time, the EPA recommends consideration of additional mitigation for these impacts. As written, it is unclear if the TCRR only intends to only mitigate for permanent impacts from crossings and features that exceed USACE NWP thresholds of 0.1 acres or 300 linear feet of stream at each single and complete crossing. If this is the intent, the FEIS needs to clarify this point.

EPA appreciates this opportunity to comment. If there are any questions or need of clarification on the above wetland comments, please contact Mr. Paul Kaspar within the EPA Region 6 Wetlands Section at 214-665-7459 or by e-mail at kaspar.paul@epa.gov for assistance.



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

January 6, 2020

Robert Houston
Chief, Special Projects Section
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Mr. Houston,

The U.S. Environmental Protection Agency (EPA) provided written comments to the Federal Railroad Administration (FRA) in a letter February 20, 2018. The FRA is preparing an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes with a high-speed rail system approximately 240 miles in length.

On December 15, 2017, the FRA released the Draft EIS for public review and comment. In addition to the above referenced letter, FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018). FRA is developing a Final EIS that incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. All comments received during the public comment period, and FRA's responses will be included as appendix to the Final EIS.

Enclosed is FRA's response to comments received from the EPA on February 20, 2018. The FRA looks forward to continued discussions with the EPA on this environmental review.

Sincerely,

Marlys Osterhues
Chief, Environment and Project Engineering Division

Enclosure

cc: Michael Jansky, EPA

COMMENT	RESPONSE
<p>EPA's wetlands program notes in the DEIS that the HSR project design will use elevated viaducts on approximately 60% of the Build Alternatives to avoid and minimize impacts to waters of the U.S., to the greatest extent possible. The DEIS explains the TCRR will work in coordination with U.S. Army Corps of Engineers (USACE) to prepare a final design to avoid and minimize impacts to waters of the U.S., as practicable. Section 2.7.2. of the DEIS further states that ongoing engineering design can further minimize these impacts by increasing the percent of tract on viaduct or structure.</p>	<p>Based on the current design assessed in the Final EIS, approximately 55 percent of the Build Alternatives will be constructed on viaduct.</p> <p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements of the Final EIS, TCRR continued to refine the conceptual design after the release of the Draft EIS based on the results of environmental and engineering surveys, stakeholder engagement, design development and the findings of the environmental analyses. These modifications and optimizations have been incorporated into the updated Final EIS.</p> <p>Furthermore, as final design progresses, avoidance and minimization of Wetlands and other Waters of the U.S. will be incorporated into the design to the maximum extent practicable. Refer to WW-CM#1, Avoidance and Minimization; WW-CM#4, CWA Section 404, Individual Permit and WW-CM#5, Waters of the U.S. Mitigation Plan in Section 3.7.6, Waters of the U.S., Avoidance, Minimization and Mitigation Measures.</p>
<p>As part of the design process, EPA encourages avoidance and minimization options be evaluated through-out the project. For example, although the half acre wetland or less value at each single and complete crossing is a USACE Nationwide Permit (NWP) threshold value, this value is not an individual permit threshold. EPA believes limiting wetland impacts at crossings and other high speed passenger rail (HSR) facilities under this threshold may not necessarily equate to avoiding or minimizing impacts to the greatest extent practicable. EPA suggests that avoidance and minimization measures be evaluated beyond limiting impacts to half acre or less as identified in Compliance Measure WW-CM# 1.</p>	<p>Section 3.7.3, Waters of the U.S., summarizes FRA's identification and analyses of Project impacts to waters of the U.S., including minimization and Mitigation Measures in Section 3.7.6.</p> <p>Furthermore, TCRR and FRA consulted with the USACE Fort Worth and Galveston Districts to document the expected wetlands impacts, permits and mitigation needs in conjunction with this EIS. When evaluating TCRR's application for a Clean Water Act Section 404 permit, the USACE shall evaluate the HSR system for impacts to waters of the U.S., and verify that the HSR system includes appropriate avoidance, minimization and mitigation measures. Refer to Section 3.7.6, Waters of the U.S., Avoidance, Minimization and Mitigation Measures.</p> <p>As part of WW-CM#5, Waters of the U.S. Mitigation Plan and in conjunction with WW-CM#4: CWA Section 404, Individual Permit, permittee responsible mitigation and mitigation banks will be used to satisfy the compensatory mitigation to unavoidable impacts to</p>

COMMENT	RESPONSE
	<p>Waters of the U.S. In addition, TCRR shall take all appropriate and practicable measures to avoid and minimize adverse impacts to Waters of the U.S. during construction. The mitigation plan shall include sufficient detail to demonstrate measures taken to avoid, minimize and mitigate the aquatic functions that would be lost or impaired as a result of the selected Alternative.</p>
<p>EPA continues to encourage mitigation for all unavoidable impacts to wetlands and waters of the U.S. According to the DEIS, WW-CM#5 Mitigation Measure explains that a draft mitigation plan has been submitted to the USACE and, once approved by the Corps, the final mitigation plan will be adopted by the FRA and made part of the FEIS. If possible, EPA asks that the draft mitigation plan be shared with EPA Region 6 wetland staff for review prior to final approval.</p>	<p>As stated in WW-CM#5, Waters of the U.S. Mitigation Plan, TCRR is developing a mitigation plan through continued coordination with the USACE. FRA will coordinate with the USACE to obtain a copy of the draft mitigation plan for the USEPA, once it is available.</p>
<p>Compensatory mitigation is also of interest to our agency. The compensatory mitigation measure, WW-MM# 1, suggests that the amount of compensatory mitigation required will be based on total impacts to waters of the U.S. along with other considerations. If temporary fill activities are expected to be in place for an extended period of time, the EPA recommends consideration of additional mitigation for these impacts. As written, it is unclear if the TCRR only intends to only mitigate for permanent impacts from crossings and features that exceed USACE NWP thresholds of 0.1 acres or 300 linear feet of stream at each single and complete crossing. If this is the intent, the FEIS needs to clarify this point.</p>	<p>Section 3.7.3, Waters of the U.S., summarizes FRA’s identification and analyses of Project impacts to waters of the U.S., including minimization and Mitigation Measures in Section 3.7.6. Furthermore, TCRR and FRA consulted with the USACE Fort Worth and Galveston Districts to document the expected impacts, permits and mitigation needs in conjunction with this EIS. When evaluating TCRR’s application for a Clean Water Act Section 404 permit, the USACE shall evaluate the HSR system for impacts to waters of the U.S., and verify that the HSR system includes appropriate avoidance, minimization and mitigation measures. Refer to Section 3.7.6, Waters of the U.S., Avoidance, Minimization and Mitigation Measures.</p> <p>As part of WW-CM#5, Waters of the U.S. Mitigation Plan and in conjunction with WW-CM#4: CWA Section 404, Individual Permit, TCRR shall develop a mitigation plan to provide compensatory mitigation for permanent impacts exceeding district thresholds (0.1 acre or 300 linear feet of waters of the U.S. at each single and complete crossing within the Fort Worth District and impacts exceeding 0.1 acre or 200 linear feet at each single and complete crossing within the Galveston District) in accordance with the requirements of the Clean Water Act and as agreed upon by the</p>

COMMENT	RESPONSE
	<p>respective USACE Districts, including specific mitigation guidelines within each district. USACE is evaluating the Project under the provisions of one standard Individual Permit within each District's AOR. TCRR, under the oversight of the USACE, shall comply with all the conditions required in the Section 404 permit during construction and operation of the Project.</p>



United States Department of the Interior
FISH AND WILDLIFE SERVICE
Texas Coastal Ecological Services Field Office
17629 El Camino Real, #211,
Houston, Texas 77058
281/286-8282/ (Fax) 281/488-5882



March 9, 2018

Mr. Kevin Wright
Environmental Protection Specialist
Federal Railroad Administration
1200 New Jersey Ave, SE
Washington, D.C. 20590

Dear Mr. Wright:

This letter provides the U.S. Fish and Wildlife Service (Service) comments on the Draft Environmental Impact Statement (DEIS) for the Central Texas High Speed Rail Corridor from Dallas to Houston. The DEIS was published in the Federal Register on December 22, 2017. The Service agreed to participate as a cooperating agency on this project by letter dated November 5, 2014.

Pursuant to the mission of the Service, our comments as a cooperating agency will be directed to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. Our comments are consistent with respective authorities of the Endangered Species Act, Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, and other appropriate laws and administrative guidance pertinent to the Department of the Interior.

MAIN TEXT I

ES.9.7 – In the event Federal Railroad Administration (FRA) identifies protected species, the process to comply with ESA section 7(a)(2) is formal consultation, not formal coordination. Recommend the language be corrected globally prior to publication of the FEIS.

3.6.3 – “The Study Area for the Houston toad is the LOD [limits of disturbance] for each Build Alternative.” The Study Area for the Houston toad, including the limits of current survey efforts extend many kilometers beyond the LOD. As of the date of these comments, the project proponent was considering discontinuing study, including Houston toad surveys, for all but the preferred alternative. These items should be clarified in the text.

Houston toads do not simply exist in proximity to water sources (typically ponds or wetlands). Fully aquatic life stages (egg and tadpole) and seasonal breeding behavior by adults encompasses only a fraction of Houston toad life cycle. The remainder and most of their life cycle is spent foraging, moving, and dispersing through non-aquatic habitats, in some cases, many thousands of feet from breeding ponds. Most Houston toad detections have been made in medium to low suitability habitat.

Please clarify the following statement, "Should the water source no longer be viable, then all surrounding potential habitat would be removed, and this can include areas outside the LOD." Why would loss of an aquatic habitat necessitate removal of "all surrounding potential habitat"? We recommend this be clarified and corrected.

Consistent with the comments we made on the administrative DEIS, 70 percent canopy cover may constitute ideal Houston toad habitat, but does not and should not be used to exclude habitat possessing greater or lesser canopy cover. Houston toad modelling should be ground-truthed to ensure there are no areas of remnant or restored native prairies as these constitute suitable Houston toad habitat.

3.6.3 and 3.6.4.4.1– large-fruited sand-verbena

FRA has committed to complete 3 years of survey for the large-fruited sand-verbena within the LOD for Segments 3C and 4. Suitable habitat for the large-fruited sand-verbena has been identified along both Segments 3C and 4. To date, FRA has identified a preferred build alternative. However, the Service recommends that FRA commit to continuing presence/absence surveys along both Segments 3C and 4 for the large-fruited sand-verbena, for a complete 3-year assessment. The survey protocol should be updated to include the locations of survey.

3.6.4.4.1 – Protected Plant Species

"Presence/absence surveys for the large-fruited sand-verbena were conducted between March 30 and April 4, 2017 in areas along the segments of the LOD within Freestone and Leon counties (Segments 3C and 4) identified in the habitat suitability model for this species." Year 1 survey results provided to the Service in a Technical Memo dated April 21, 2017, requested the removal of an additional 439 acres of potentially suitable habitat, due to its dense canopy cover and lack of sunlight. The Service requested that further justification or ground-truthing be provided prior to exclusion of these acres from future survey efforts. The consultant for FRA, AECOM, communicated with a species expert and ground-truthed accessible areas.

The Service recognizes that suitable habitat for the large-fruited sand-verbena is open and does not typically support a dense cover. We consider it appropriate in the habitat suitability modeling to exclude habitat with more than 60percent canopy coverage. However, the Service cautions in excluding these acres from future survey efforts as plants could be found in transitional areas of less-optimal habitat.

3.6.5.2.1 Environmental Consequences, Build Alternatives

Regarding elevation of the project, the Service needs to know where this will occur. This information should include staging areas, access roads, and development of all other facilities as it could likely disturb or have permanent impacts on the large-fruited sand-verbena and its seed bank.

The Project would also require routine maintenance and inspection of infrastructure and ultimately a cleared right-of-way (ROW). Again, these activities could likely result in disturbing or permanently impacting plants and the seed bank. Introduction of nonnative grasses threatened the species. Routine ROW maintenance could introduce nonnatives into suitable large-fruited sand-verbena habitat, both inside the LOD and outside. FRA should consider and address this point.

3.6.5.2.3 Protected Species

The Service questions the basis on which FRA makes a not likely to adversely affect (NLTA) determination for the Houston toad. FRA has completed a portion of a 3 year survey effort, which is not sufficient to infer absence of this species. When the multi-year survey is complete, and if no Houston toads have been identified, such a determination may be defensible.

The Service does not provide “concurrence” for biological assessments where a may affect, likely to adversely affect determination has been made.

NR-CM#6: Presence of Houston toad During Construction

The Service does not determine access for species surveys.

NR-MM#12 Mowing Height Restriction within Houston toad Habitat

For clarification, if mowing is not entirely precluded, the recommended mowing height is to set the mowing deck as high as possible, or at least 5-inches. This is not likely sufficient to avoid harm to any anurans present. The recommendation is made to maintain as much vegetative cover as possible.

MAIN TEXT III

4.4.6.2 The Service questions the basis on which FRA makes a NLTA determination for the Houston toad. FRA has completed a portion of a 3 year survey effort, which is not sufficient to infer absence of this species. When the multi-year survey is complete, and if no Houston toads have been identified, such a determination may be defensible.

If occupied habitat is identified and lost due to Project related effects, the Service would recommend formal consultation be initiated by FRA.

The species-related surveys coordinated to date should ultimately support section 7(a)(2) consultation with the Service, but at present, the Service has provided technical assistance and has not received a request to initiate informal consultation.


3.6.5.2.3 Protected Species

The Service recommend Texas Central Railroad commit to conducting surveys in all potentially affected stream reaches that may provide suitable habitat for candidate freshwater mussel species. Stating impacts “could be minimized and/or avoided” is not a commitment to avoid and minimize.

We look forward to working cooperatively with FRA on the National Environmental Policy Act evaluation. Collaboration on the EIS is an opportunity for the Service to assist FRA in ensuring conservation of fish and wildlife resources, and their habitats, while meeting project objectives. If you have any questions, please contact Charlotte Kucera at 512-490-0057, extension 224.

Sincerely,



 Charles Ardizzone
Project Leader
Texas Coastal Ecological Services Field Office

cc: Melissa Neeley, TxDOT ENV, Austin, TX (electronic)
Debra Bills, USFWS, Arlington, TX (electronic)
Denise Baker, USFWS R2, Albuquerque, NM (electronic)



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

January 6, 2020

Charles Ardizzone
Project Leader
U.S. Department of Interior
Fish and Wildlife Service
Texas Coastal Ecological Services Field Office
17629 El Camino Real, #211
Houston, Texas 77058

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Mr. Ardizzone:

The U.S. Department of the Interior Fish and Wildlife Service (USFWS) provided written comments to the Federal Railroad Administration (FRA) in a letter dated March 9, 2018. The FRA is preparing an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes with a high-speed rail system that is approximately 240 miles in length.

On December 15, 2017, the FRA released the Draft EIS for public review and comment. In addition to the above referenced letter, FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018). FRA is developing a Final EIS that incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. All comments received during the public comment period, and FRA's responses will be included as appendix to the Final EIS.

Enclosed is FRA's response to comments received from the USFWS on March 9, 2018. Please note the Biological Assessment discussed in the enclosed was provided to USFWS on November 15, 2019, and initiation of formal Section 7 consultation was provided by the USFWS on December 20, 2019. The FRA looks forward to continued discussions with the USFWS on this environmental review.

Sincerely,

Marlys Osterhues
Chief, Environment and Project Engineering Division

Enclosure

cc: Denise Ruffino, USFWS

AGENCY COMMENT	RESPONSE
<p>MAIN TEXT I</p> <p>ES.9.7 — In the event Federal Railroad Administration (FRA) identifies protected species, the process to comply with BSA section 7(a)(2) is formal consultation, not formal coordination. Recommend the language be corrected globally prior to publication of the FEIS.</p>	<p>The FEIS has been updated throughout to refer to Section 7 consultation, as recommended.</p>
<p>3.6.3 — “The Study Area for the Houston toad is the LOD [limits of disturbance] for each Build Alternative.” The Study Area for the Houston toad, including the limits of current survey efforts extend many kilometers beyond the LOD. As of the date of these comments, the project proponent was considering discontinuing study, including Houston toad surveys, for all but the preferred alternative. These items should be clarified in the text.</p> <p>Houston toads do not simply exist in proximity to water sources (typically ponds or wetlands). Fully aquatic life stages (egg and tadpole) and seasonal breeding behavior by adults encompasses only a fraction of Houston toad life cycle. The remainder and most of their life cycle is spent foraging, moving, and dispersing through non-aquatic habitats, in some cases, many thousands of feet from breeding ponds. Most Houston toad detections have been made in medium to low suitability habitat.</p> <p>Please clarify the following statement, “Should the water source no longer be viable, then all surrounding potential habitat would be removed, and this can include areas outside the LOD.” Why would loss of an aquatic habitat necessitate removal of “all surrounding potential habitat”? We recommend this be clarified and corrected.</p> <p>Consistent with the comments we made on the administrative DEIS, 70 percent canopy cover may constitute ideal Houston toad habitat, but does not and should not be used to exclude habitat possessing greater or lesser canopy cover. Houston toad modelling should be ground-truthed to ensure there are no areas of remnant or restored native prairies as these constitute suitable Houston toad habitat.</p>	<p>Distance to water source is only one parameter that was used to evaluate suitable habitat. Currently, FRA is considering areas with 60% or greater habitat suitability to be habitat for the toad. This allows for one parameter (soil, canopy cover, or distance to water source) to be absent. This includes areas of dispersal and less suitable breeding habitat, including restored prairie habitat.</p> <p>The habitat model was ground-truthed while deploying acoustic monitors in February 2017. Soil pits were dug to ensure appropriate soil parameters and several habitat photos were taken.</p> <p>The Final EIS has been updated to provide clarification as recommended. Specifically the following text was added to Section 3.6.3, Natural Ecological Systems and Protected Species, Methodology, “For the purposes of this study, areas of 60 percent suitability or greater were delineated to allow for one habitat parameter (soil, canopy cover, or water source) to be absent, resulting in the presence of both optimal and marginal habitat within the final delineation. This allowed for dispersal habitats and some native prairies to be included within the modeled habitat.” to clarify that the model could include areas that are not considered optimal habitat. Additionally, no habitat was removed by the model except for developed areas.</p> <p>The statement “Should the water source no longer be viable, then all surrounding potential habitat would be removed, and this can include areas outside the LOD” was removed since no such habitat was removed.</p>
<p>3.6.3 and 3.6.4.4.1— large-fruited sand-verbena</p> <p>FRA has committed to complete 3 years of survey for the large-fruited sand-verbena within the LOD for Segments 3C and 4. Suitable habitat for the large-fruited sand-verbena has been</p>	<p>The Final EIS has been updated to include all survey results. As noted in Section 3.6.4.4.1, Natural Ecological Systems and Protected Species, Protected Plant Species surveys have been completed on Segments 3C and 4 and no large-</p>

AGENCY COMMENT	RESPONSE
<p>identified along both Segments 3C and 4. To date, FRA has identified a preferred build alternative. However, the Service recommends that FRA commit to continuing presence/absence surveys along both Segments 3C and 4 for the large-fruited sand-verbena, for a complete 3-year assessment. The survey protocol should be updated to include the locations of survey.</p>	<p>fruited sand verbena was observed; thus, absence of the species can be presumed for properties that were surveyed all three years.</p>
<p>3.6.4.4.1 — Protected Plant Species</p> <p>“Presence/absence surveys for the large-fruited sand-verbena were conducted between March 30 and April 4, 2017 in areas along the segments of the LOD within Freestone and Leon counties (Segments 3C and 4) identified in the habitat suitability model for this species.”</p> <p>Year 1 survey results provided to the Service in a Technical Memo dated April 21, 2017, requested the removal of an additional 439 acres of potentially suitable habitat, due to its dense canopy cover and lack of sunlight. The Service requested that further justification or ground-truthing be provided prior to exclusion of these acres from future survey efforts. The consultant for FRA, AECOM, communicated with a species expert and ground-truthed accessible areas.</p> <p>The Service recognizes that suitable habitat for the large-fruited sand-verbena is open and does not typically support a dense cover. We consider it appropriate in the habitat suitability modeling to exclude habitat with more than 60percent canopy coverage. However, the Service cautions in excluding these acres from future survey efforts as plants could be found in transitional areas of less-optimal habitat.</p>	<p>FRA surveyed all parcels where access was granted including transitional zones with canopy cover of 0-60%. The results are provided in the Biological Assessment located in Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS.</p>
<p>3.6.5.2.1 Environmental Consequences, Build Alternatives</p> <p>Regarding elevation of the project, the Service needs to know where this will occur. This information should include staging areas, access roads, and development of all other facilities as it could likely disturb or have permanent impacts on the large-fruited sand-verbena and its seed bank.</p> <p>The Project would also require routine maintenance and inspection of infrastructure and ultimately a cleared right-of-way (ROW). Again, these activities could likely result in disturbing or permanently impacting plants and the seed bank. Introduction of nonnative grasses threatened the species. Routine ROW maintenance could introduce nonnatives into suitable large-fruited sand-verbena habitat, both inside the LOD and outside. FRA should consider and address this point.</p>	<p>The Biological Assessment outlines the mitigation measures to reduce impacts to the large-fruited sand verbena. The Limits of Disturbance is depicted in maps included as part of Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS. Aquatic Species was added to Section 3.6.6.2, Natural Ecological Systems and Protected Species, Mitigation Measures to ensure compliance with state regulations. This measures states “Prior to construction, TCRR shall develop an SWPPP to minimize impacts to resources, including aquatic protected species such as fish and mussel species. TCRR will coordinate with TPWD to determine whether protected mussel species presence/absence surveys are required prior to construction in streams that would be directly impacted to avoid take of individual species.”</p>

2.2 State Agency and/or Official

- Texas Department of Agriculture
- Texas Historical Commission
- Texas Parks and Wildlife Department
- Texas State House, District 3
- Texas State House, District 16
- Texas State Senate, District 3
- Texas State Senate, District 6

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TEXAS DEPARTMENT OF AGRICULTURE
COMMISSIONER SID MILLER

March 9, 2018

Kevin Wright
Environmental Protection Specialist
Federal Railroad Administration
1200 New Jersey Ave. SE, MS-20
Washington, D.C. 20590

Re: Dallas to Houston High Speed Rail Project
Draft Environmental Impact Statement

Mr. Wright,

I want to thank you for the opportunity to provide my comments to the Draft Environmental Impact Statement (DEIS) for the Dallas to Houston High Speed Rail project. As you are aware, a large percentage of the overall trackage is proposed to dissect a pristine part of rural east Texas. Additionally, it is clear that a notable percentage of Texas agricultural production will be negatively affected.

Some of my main concerns are as follows:

- Approximately 56% of the land needed for the project is currently used for production agriculture, which equates to the removal of approximately 4,500 acres from this vital land use. Additionally, production capability on remaining properties will be permanently altered. From cattle production to row crop farming, this land is invaluable to Texas' economy, as well as our food and textile supply.
- Drainage pattern modifications could destroy ponds, tanks, and lakes that are crucial to the producer who relies on this natural resource to water herds and crops. Any modification to these patterns can upset large areas, both in the immediate vicinity and for miles downstream.
- Some of Texas' heritage and longest standing ranches, that the state designates as Century Ranches, will be permanently altered. These ranches are vital to our economy, our food supply, and our way of life.

- With the division of both large and small tracts, the lack of free movement of equipment, livestock, and wildlife will devastate the individual producer and the community as a whole. I am aware of private ranches that the DEIS indicates no pass-through, or connection, from one side to another. This is unacceptable; all our producers must have access to all of their resources. Further, basing any connection on the physical size of current livestock production, limits the producer's ability to expand operations and/or adjust for seasonal or market trends.
- The reduction in remaining land values will devastate producers and landowners. In many cases, land values support the underwriting of agriculture loans and mortgages, which are crucial to economic upward mobility opportunities and growth.

Finally, I take issue with the violation of private property rights through eminent domain for this project. The farmers, ranchers, and landowners of Texas are critical to Texas' vibrancy, economy, and way of life. Consequently, I oppose the proposed Dallas to Houston high speed rail project.

If I can be of service, please feel free to contact my office. Thank you again.

A handwritten signature in blue ink, appearing to read "Sid Miller". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Sid Miller
Texas Agricultural Commissioner



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Sid Miller
Texas Agricultural Commissioner
Texas Department of Agriculture
P.O. Box 12847
Austin, Texas 78711

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Mr. Miller:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the Texas Department of Agriculture provided on March 9, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment 1: *Approximately 56% of the land needed for the project is currently used for production agriculture, which equates to the removal of approximately 4,500 acres from this vital land use. Additionally, production capability on remaining properties will be permanently altered. From cattle production to row crop farming, this land is invaluable to Texas' economy, as well as our food and textile supply.*

Response 1: The preferred Build Alternative (Alternative A) would permanently impact approximately 5,252 acres of agricultural land, as shown in **Table 3.13-10** of the Final EIS. Permanent impacts would include the loss of crops. Section 3.13.5.2.4 of the Final EIS also recognizes that the Project would fragment existing fields and create remnant parcels, which could further impact crop production.

Sections 3.14.4.5.3, Socioeconomics and Community Facilities, Agricultural Economy and 3.14.5.2.3 Socioeconomics and Community Facilities, Economic Impacts of the Final EIS discuss the importance of

agricultural land to the Texas economy. The market value of crops and livestock produced within Study Area counties is approximately \$680 million, representing about 3.2 percent of agricultural production within the state. The average loss of crop income across all Build Alternatives would range from \$408,000 (Alternative F) to \$431,000 (Alternative B) annually. This would represent an approximately one percent loss in the average annual market value of crops across all counties within the Study Area. There is adequate available agricultural land within the Study Area counties to offset any crop production losses. The permanent conversion of pastureland would not directly result in the loss of livestock revenue, as the primary economic asset (livestock) can be relocated more readily than agricultural crops and are less dependent on available acreage.

The Project includes avoidance, minimization, and mitigation measures to reduce impacts on agriculture. In developing the Build Alternatives, TCRR identified colocation opportunities with transportation and utility corridors to minimize impacts to parcel and structure acquisition and land use conversion. Approximately 55% of the Project would be constructed on viaduct (elevated structure), which would allow passage under the tracks for livestock and agricultural equipment, such as tractors and trailers.

TCRR would consult with landowners regarding those areas that would be temporarily and permanently disturbed with regard to crop and/or livestock production. TCRR's negotiations could result in fragmented fields (i.e., remnant parcels) being absorbed by adjacent landowners or compensation for remnant parcels. TCRR negotiations with landowners would also include either compensation for impacts to livestock or mitigation to assist the landowner in managing livestock on the remaining property, such as access to water resources, additional fencing, underpasses and/or gates for overall herd movement. TCRR would coordinate with landowners to relocate livestock during the construction period. TCRR would complete agreements with landowners prior to the start of construction

Comment 2: *Drainage pattern modifications could destroy ponds, tanks, and lakes that are crucial to the producer who relies on this natural resource to water herds and crops. Any modification to these patterns can upset large areas, both in immediately vicinity and for miles downstream.*

Response 2:

Approximately 55 percent of the Project would be constructed on viaduct (elevated) which allow for free movement of water and minimize impacts to streams (including spring-fed streams), ponds, special aquatic sites, wetlands, springs, and seeps. In the areas along the route that would be on embankment, culverts would be constructed to allow for movement of water. **Section 3.7.6.1, Waters of the U.S., Compliance Measures and Permitting, WW-CM#2: Maintain Low Flow** states that TCRR will design and construct water crossings to maintain low flow and/or minimize stream relocations. **Section 3.8.6.1, Floodplains, Compliance Measures** outlines compliance measures to minimize disruption to floodplains. Information regarding stream crossings including viaduct and culvert design is outlined in **Appendix F: TCRR Final Conceptual Engineering Design Report, Section 13.5.**

Comment 3: *Some of Texas' heritage and longest standing ranches, that the state designates a Century Ranches, will be permanently altered. These ranches are vital to our economy, or food supply, and our way of life.*

Response 3: Section 106 of the National Historic Preservation Act (Section 106) requires federal agencies to consider the effects of their actions on historic properties, which can include structures, buildings, sites, districts and objects. The Antiquities Code of Texas allows for certain cultural resources to be designated and protected as Registered Texas Historic Landmarks or as State Antiquities Landmarks. Century Ranches are not

protected under the National Historic Preservation Act nor the Antiquities Code of Texas; therefore, the FRA did not include an assessment of impacts to Century Ranches. Any historic or archeological resources on Century Ranches potentially impacted by the Project will continue to be evaluated under the Section 106 process to determine eligibility.

Comment 4: *With the division of both large and small tracts, the lack of free movement of equipment, livestock, and wildlife will devastate the individual producer and the community as a whole. I am aware of private ranches that the DEIS indicates no pass-through, or connection, from one side to another. This is unacceptable; all our producers must have access to all of their resources. Further, basing any connection on the physical size of current livestock production, limits the producer's ability to expand operations and/or adjust for seasonal or market trends.*

Response 4: Section 3.13.6.2, Land Use, Mitigation Measures, of the Final EIS includes mitigation for ranches and livestock movement. **Mitigation Measure LU-MM#2: Agriculture and Livestock Management** states that TCRR shall coordinate with landowners identified as owning displaced or acquired property, as outlined in Section 3.13, Land Use and the Appendix E, Land Use Technical Memorandum to determine temporary needs for livestock management during construction, as well as permanent needs during operation of the high-speed rail system. Permanent needs would include negotiating livestock and/or equipment crossings along areas of the alignment that are not on viaduct. TCRR shall negotiate with the landowner to provide adequate access (crossings) or compensation for land that is severed. TCRR shall negotiate these management needs on a case-by-case basis with the affected landowners and shall incorporate the outcome of negotiations into the written agreements with the affected landowners.

Approximately 55 percent of the Project is on viaduct (elevated structure), which would allow passage under the tracks for livestock and agricultural-related used, such as tractors and trailers. For more information about the Project effects on agricultural production and the overall farming economy, refer to **Section 3.13.5, Land Use, Affected Environment.**

Comment 5: *The reduction in remaining land values will devastate producers and landowners. In many cases, land values support the underwriting of agriculture loans and mortgages, which are crucial to economic upward mobility opportunities and growth.*

Response 5: TCRR would negotiate all parcel acquisition resulting from the Project with the affected landowner. The Final EIS analysis is based on negotiated prices reflecting the fair market value of displaced residences and/or businesses, allowing for investment in new or similar areas outside the LOD. As detailed within **Section 3.14.5.2.3, Economic Impacts,** adverse effects are expected to be minimal to individual property valuations. Potential impacts were beyond the scope of this analysis; it is not likely that these would produce an impact for the regional economy.

Comment 6: *I take issue with the violation of private property rights through eminent domain for this project. The farmers, ranchers, and landowners of Texas are critical to Texas' vibrancy, economy, and way of life. Consequently, I oppose the proposed Dallas to Houston high speed rail project.*

Response 6: Under state (Texas Administrative Code (TAC) § 21 and 10 TAC § Chapter 2206, Subchapter E) and federal authorities, some private companies in industries like oil and gas, railroads, telecommunications and utilities are authorized to acquire land through eminent domain. TCRR is responsible for all land acquisition for

the Project. FRA is not participating in the land acquisition process for the Dallas to Houston HSR Project, nor do the USDOT or FRA have the ability to grant eminent domain authority to another entity. Any determinations regarding TCRR's authority to exercise eminent domain are independent of FRA's rulemaking activity and the NEPA analysis conducted by FRA.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

TEXAS HISTORICAL COMMISSION
real places telling real stories

February 20, 2018

Kevin Wright
Federal Railroad Administration
1200 New Jersey Avenue SE, MS-20
Washington, DC 20590

Re: *Project Review Under Section 106 of the National Historic Preservation Act, Dallas to Houston High-Speed Rail, Draft Environmental Impact Statement, Multiple Counties, Texas (FRA/USACE/106, THC #201805356)*

Mr. Wright:

Thank you for your correspondence of December 19, 2017, transmitting the above-referenced Draft Environmental Impact Statement (Draft EIS). This letter serves as comment on the proposed undertaking from the State Historic Preservation Officer, the Executive Director of the Texas Historical Commission (THC).

As described in the Draft EIS, the Federal Railroad Administration (FRA) is considering issuance of a Rule of Particular Applicability to establish safety regulations for the proposed Texas Central High-Speed Railway (TCRR) as a railroad operating at speeds greater than 150 miles per hour. Issuance of such a Rule constitutes a Federal undertaking subject to the National Environmental Policy Act, Section 106 of the National Historic Preservation Act, Section 4(f) of the Department of Transportation Act, and related environmental regulations. Although other Federal agencies, such as the U.S. Army Corps of Engineers, are cooperating in the project, FRA is the designated lead Federal agency for the preparation of the Draft EIS.

THC staff, led by Justin Kockritz (History Programs Division), Rebecca Shelton (Archeology Division), and Alex Toprac and Lydia Woods (Division of Architecture), have completed their review of the Draft EIS, and have some key comments that apply throughout the document and to the review of the project in general. Also, attached is a comment matrix of more specific Draft EIS comments, questions, and suggested revisions.

First, THC understands that due to the scale and complexity of the project, and the lack of right-of-entry to much of the land within the Build Alternatives considered, the identification and evaluation of historic properties within the Areas of Potential Effect (APE) are a work in progress and will be phased over time. Approximately less than 50% of the historic-age aboveground resources within the APE have been evaluated, and only 12% of the limits of disturbance have been surveyed for archeological resources. Throughout the EIS, the current status of these identification efforts should be clearly noted, and it should be stated that the analysis of the Build Alternatives relies on the best available, though necessarily incomplete, information regarding historic properties in the project APE.

Next, throughout the EIS, references are made to executing a project Programmatic Agreement (PA), which THC has long expected and fully supports. Please contact our office to begin consultation on this PA. THC hopes that we, FRA, cooperating Federal agencies, the Advisory Council on Historic Preservation, and the appropriate consulting parties can execute the PA prior to the issuance of the Final EIS, or at least come to agreement on its terms. The PA should include: the procedure for the continued identification and evaluation of historic-age properties and archeological sites within the APE as access is obtained and as the APE changes due to refining the alignment or to account for related ancillary features (staging areas, mitigation areas, temporary easements, etc.); procedures for unanticipated discoveries of potential historic properties; the assessment of effects of the project on historic properties; and, the resolution of adverse effects to historic properties.

It is important to note that the state laws regarding cemeteries, including chapters of the Texas Health and Safety Code, the Administrative Code, and the Penal Code, apply to *all* cemeteries, not just those that are designated as a Historic Texas Cemetery or that are listed in, or eligible for listing in, the National Register of Historic Places. Throughout the Draft EIS, references to Texas cemetery laws and regulations should be revised to reflect that these state laws will be adhered to; several of the most relevant sections have been identified in the comment matrix. As the archeological survey work continues, please coordinate as early as possible with our Archeology Division to identify areas where additional investigations may be required to delineate cemetery boundaries or to determine the presence of previously unknown or unmarked burials.

Finally, for several properties, the Draft EIS includes findings when THC has not yet formally concurred with FRA's evaluation of the property's eligibility for listing in the National Register and/or its assessment of the project's effects. The Draft EIS errs on the side of caution and generally assumes that properties are eligible for listing in the National Register, and that any potential effects will be adverse, unless THC has previously concurred otherwise. If there are properties that FRA now proposes to determine eligible for listing in the National Register, or to treat them as eligible—such as Linfield Elementary (Dallas County site DA.110b)—we request that FRA provide notice of this determination and any appropriate documentation for our review. For historic properties that the Draft EIS proposes a finding of effect that THC has not yet concurred with—for instance, the Cadiz Street Overpass and Underpass (Dallas County site DA.023), where THC requested engineering and architectural plans prior to concurring with FRA's adverse effect finding, or the Furney Richardson School (Freestone County site FR.016a-g), where THC requested viewshed renderings prior to concurring with FRA's finding of no adverse effect—the subsequent assessment of effects should be detailed in the project PA.

We look forward to further consultation with your office and hope to maintain a partnership that will foster effective historic preservation. Thank you for your cooperation in this Federal review process, and for your efforts to preserve the irreplaceable heritage of Texas. If you have any questions concerning our comments regarding National Register eligibility of aboveground resources, please contact Justin Kockritz at 512-936-7403 or justin.kockritz@thc.texas.gov; for any questions concerning our comments regarding the project's potential effects to historic properties, please contact Alexander Toprac at 512-463-6183 or alexander.toprac@thc.texas.gov, or Lydia Woods at 512-463-9122 or lydia.woods@thc.texas.gov; or, for any questions concerning our comments on archeological resources, please contact Rebecca Shelton at 512-463-6043 or rebecca.shelton@thc.texas.gov.

Sincerely,



Justin Kockritz, Historian, Federal Programs
For: Mark Wolfe, State Historic Preservation Officer

cc: Michael Johnsen, Federal Railroad Administration, *via email*
Jimmy Barrera, U.S. Army Corps of Engineers—Fort Worth District, *via email*
Darvin Messer, U.S. Army Corps of Engineers—Fort Worth District, *via email*
Tanya McDougall, AECOM, *via email*



Texas Historical Commission
Draft EIS Comment Matrix

#	EIS Page	EIS Section	THC Comments	THC Reviewer & Division
1	General		Please contact THC to begin consultation on the project Programmatic Agreement (PA). The PA should include: the procedure for the continued identification and evaluation of historic-age properties and archeological sites within the Area of Potential Effect (APE) as access is obtained and as the APE changes due to refining the alignment or to account for related ancillary features (staging areas, mitigation areas, temporary easements, etc.); procedures for unanticipated discoveries of potential historic properties; the assessment of effects of the project on historic properties; and, the resolution of adverse effects to historic properties.	THC
	General		Approximately less than 50% of the historic-age aboveground resources within the APE have been evaluated and only 12% of the limits of disturbance have been surveyed for archeological resources. Throughout the EIS, the current status of these identification efforts should be clearly noted, and it should be stated that the analysis of the Build Alternatives relies on the best available, though necessarily incomplete, information regarding historic properties in the project APE.	THC
3	General		There are several properties for which THC has not yet formally concurred with FRA's evaluation of the property's eligibility for listing in the National Register of Historic Places and/or its assessment of the project's effects. If there are properties that FRA now proposes to determine eligible for listing in the National Register, or to treat them as eligible, we request that FRA provide notice of this determination and any appropriate documentation for our review. For historic properties that the Draft EIS proposes a finding of effect that THC has not yet concurred with, the subsequent assessment of effects should be detailed in the project PA.	THC
4	General		State laws regarding cemeteries, including chapters of the Texas Health and Safety Code, the Administrative Code, and the Penal Code, apply to all cemeteries, regardless of their ownership and not just cemeteries that are designated as a Historic Texas Cemetery or that are listed in, or eligible for listing in, the National Register of Historic Places. Please revise the Draft EIS throughout as necessary to reflect that these state laws will be adhered to. Several of the most relevant sections are identified below.	THC
5	General		When specifically referring to historic properties and compliance with Section 106, we prefer to use "effect" rather than "impact" to match the language in 36 CFR §800.	Kockritz, History Programs

Texas Historical Commission
Draft EIS Comment Matrix

#	EIS Page	EIS Section	THC Comments	THC Reviewer & Division
6	ES-26	ES.9.20, Cultural Resources	Revise the final paragraph to read, "...which are not usually considered eligible for listing..." Revise the last sentence of this paragraph to clarify whether "resources" here is meant to apply to all cultural resources or only cemeteries.	Shelton, Archeology
7	ES-26	ES.9.20, Cultural Resources	The APE should include all project components, not just the linear corridor. The PA should include a procedure for Section 106 consultation regarding ancillary facilities, like staging areas, mitigation areas, or temporary easements, that may be identified later.	Shelton, Archeology
8	ES-26	ES.9.20, Cultural Resources	Since only 12% of the Build Alternatives have been surveyed for archeology, the numbers of sites affected is misleading. This concern applies to Table 16 as well; recommend renaming it or deleting it. Also, note which of the build alternatives this initial survey encompasses, and what the average of historic resources is per mile, or per Build Alternative, to provide some sense of unanticipated discoveries.	Shelton, Archeology
9	ES-26	ES.9.20, Cultural Resources	Recommend including definitions of the four NRHP Criteria verbatim from the National Park Service's National Register Bulletin No. 15.	Kockritz, History Programs
10	ES-26	ES.9.20, Cultural Resources	Recommend using the definitions of the seven Criteria Considerations verbatim from the National Park Service's National Register Bulletin No. 15. There are some minor discrepancies, i.e.: NPS Criteria Consideration B "the surviving structure <i>most importantly</i> associated with a historic person or event" versus EIS "the <i>only extant</i> property associated with an important historic person or event" [emphasis added].	Kockritz, History Programs
11	ES-27	ES.9.20, Cultural Resources	Revise the first line to read, "...the Texas Historical Commission (THC), the State Historic Preservation Office (SHPO) for the State of Texas..."	Kockritz, History Programs
12	ES-27	ES.9.20, Cultural Resources	Revise the third paragraph, third line, to read, "To date, FRA documented 407 sites..."	Kockritz, History Programs
13	ES-28	ES.9.20, Cultural Resources	Revise the first paragraph to read, "...continue the evaluation of, and assessment of effects to, cultural resources..."	Kockritz, History Programs
14	ES-29	ES.9.23, Section 4(f) Resources	Recommend a clearer definition and citation of 4(f), such as, "Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits USDOT agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and water fowl refuges, or public and private historic properties, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use."	Kockritz, History Programs

Texas Historical Commission
Draft EIS Comment Matrix

#	EIS Page	EIS Section	THC Comments	THC Reviewer & Division
15	ES-29	ES.9.23, Section 4(f) Resources	Revise the first paragraph, third line, to read, "One Section 4(f) <i>park</i> resource..."	Kockritz, History Programs
16	ES-30	ES.9.23, Section 4(f) Resources	Revise the first line to read, "To date, FRA has determined that the Build Alternatives would require..."	Kockritz, History Programs
17	ES.30-31	ES.10, FRA's Preferred Alternative	Revise to read, "To date, FRA has determined that the Preferred Alternative..."	Kockritz, History Programs
18	ES-32	Table 18	This table represents a low percentage of the total historic properties potentially affected since large portions of the APE have not been surveyed. Please clarify what these statistics reflect.	Shelton, Archeology
19	2-59	2.7.2 Alternative Comparison	Again, it should be noted here that the identification and evaluation of historic properties is still incomplete.	Kockritz, History Programs
20	3.19-1	Introduction	Text Box: Minor font change to clean up.	Kockritz, History Programs
21	3.19-1	Cultural Resources-Introduction	For clarity, we encourage FRA to use the term "Historic-Age Resource" for properties that are 45 or more years of age, to differentiate between all historic-age resources that are/will be evaluated and "Historic Properties" that meet the definition at 36 CFR §800.16(l)(1).	Kockritz, History Programs
22	3.19-1	Cultural Resources-Introduction	In Texas, cultural resources may also be designated as a Recorded Texas Historic Landmark (RTHL). Under 13 Tex. Admin. Code § 21.9, to receive an RTHL designation, a property must "demonstrate architectural and historical significance and architectural and historical integrity." As this requirement is substantially similar to the requirements for National Register eligibility, THC generally recommends treating RTHLs as eligible for listing in the National Register.	Kockritz, History Programs
23	3.19-2	NRHP Criteria Considerations	Recommend using the definitions of the seven Criteria Considerations verbatim from the National Park Service's National Register Bulletin No. 15. There are some minor discrepancies, i.e.: NPS Criteria Consideration B "the surviving structure <i>most importantly</i> associated with a historic person or event" versus EIS "the <i>only extant</i> property associated with an important historic person or event" [emphasis added].	Kockritz, History Programs
24	3.19-3	Four Step Process	Recommend revising Step 3 to read, "Assess the potential effect(s) the project..." and Step 4 to read, "Resolve any adverse effects..."	Kockritz, History Programs

Texas Historical Commission
Draft EIS Comment Matrix

#	EIS Page	EIS Section	THC Comments	THC Reviewer & Division
25	3.19-3	Programmatic Agreements	Recommend revising this paragraph to include citation of 36 CFR §800.14(b) which authorizes the execution of programmatic agreements for complex projects.	Kockritz, History Programs
26	3.19-5	Antiquities Code of Texas	Revise the first paragraph to read, "Prior to any fieldwork on non-federal public land..."	Kockritz, History Programs
27	3.19-5	Antiquities Code of Texas	The five SAL criteria listed here (and cited at 13 Tex. Admin. Code § 26.10) are only for evaluating archeological sites. The criteria for evaluating historic buildings/structures can be found at 13 Tex. Admin. Code § 26.19.	Kockritz, History Programs
28	3.19-5	Texas Health and Safety Code	The Texas Health and Safety Code regulations apply to <i>all</i> cemeteries, not just those designated as historic,	Kockritz, History Programs
29	3.19-6/7	Table 3.19-1	Revise the organizations to read "[Name] County Historical Commission." Although THC frequently works with County Historical Commissions (CHC), they are independently established by their respective county and are not formally affiliated with THC.	Kockritz, History Programs
30	3.19-6/7	Table 3.19-1	THC recommends inviting the following additional organizations to participate as consulting parties: Preservation Dallas, City of Houston Historic Preservation Office, and Preservation Houston.	Kockritz, History Programs
31	3.19-14	3.19.3.2.5	At the end of the second paragraph, add "...interim reports and that any effects to previously unidentified historic properties will be taken into account."	Kockritz, History Programs
32	3.19-17	Table 3.19-4	Revise to combine DA.024a-b Cadiz Street Pump Station as they form a historically-related complex and a single historic property.	Kockritz, History Programs
33	3.19-17	Table 3.19-4	Recommend revising the resource name of DA.028 to just "Dallas Coffin Company (within Sears Complex Historic District)."	Kockritz, History Programs
34	3.19-18	Table 3.19-4	Revise DA.194 to "Strain Farm" and indicate that the property is also a designated SAL.	Kockritz, History Programs
35	3.19-18	Table 3.19-4	Correct formatting for the Navarro County header.	Kockritz, History Programs
36	3.19-19	Table 3.19-4	Revise the resource name of FA.024 to "Asia."	Kockritz, History Programs
37	3.19-20	First Paragraph	It would be helpful to include these numbers of historic-age resources identified through background research, those that have thus far been field verified, and those that have been determined NR-eligible in the Executive Summary to give an idea of the status of the field survey work.	Kockritz, History Programs

Texas Historical Commission
Draft EIS Comment Matrix

#	EIS Page	EIS Section	THC Comments	THC Reviewer & Division
38	3.19-21	Table 3.19-5: Dallas County	Include the THC comments regarding DA.076a-b, the Guiberson Corporation Residence and Machine Shop, and DA.194, the Strain Farm Historic District.	Toprac, Architecture
39	3.19-21	Table 3.19-5: Ellis County	It would be helpful to note that THC concurred that the Geaslin Homestead (EL.020) was <i>not</i> eligible. The only reference to the property in the Draft EIS is in Table 3.19-4 as a previously identified resource, but its NR-eligibility is not given.	Toprac, Architecture
40	3.19-23	Table 3.19-5: Harris County	THC concurred there would be no adverse effect to the Humble Oil Station (HA.024b).	Kockritz, History Programs
41	3.19-46	DA.110a-b	Recommend revising the header to indicate that FRA proposes to treat both properties as NR-eligible. Given the anticipated direct effects to the properties, THC continues to recommend an intensive evaluation of their eligibility for listing in the National Register.	Kockritz, History Programs
42	3.19-74	Table 3.19-12	Table does not accurately reflect the number of adversely affected NR-eligible resources. For instance, Segment 1 (Dallas County) the table shows no historic properties adversely affected, but correspondence determined at least 3 (Guiberson Corporation Residence, Guiberson Corporation Machine Shop, and Honey Springs Cemetery), and as many as 6 (Smith Family Cemetery, Linfield Elementary, and the Strain Farm Historic District) pending further evaluation, would be adversely affected. Please verify these totals and revise as necessary.	Toprac, Architecture
43	3.19-76	DA.023 Cadiz Street Overpass and Underpass	THC has not formally concurred with FRA's finding that the proposed station would have an adverse effect; our letter of August 25, 2017, requests 30-60-90% plans in order to assess the potential effects to the Cadiz Street Overpass and Underpass.	Kockritz, History Programs
44	3.19-78	DA.030 Sears HD	Revise this section heading to include the Furniture Warehouse Complex (DA.031).	Kockritz, History Programs
45	3.19-79	DA.056 Corinth Street Underpass and Overpass	Revise the section heading to read, "Potential Indirect Adverse Effect." As noted in the paragraph below, THC previously noted the potential for indirect adverse effects to the Corinth Street Underpass and Overpass, but requested 30-60-90% plans to formally assess the effects.	Kockritz, History Programs
46	3.19-79	DA.072 Dallas Floodway	Revise this section to note that the project will have no adverse effect to the Dallas Floodway Historic District if the Belleview Pressure Sewer will not be directly affected.	Kockritz, History Programs
47	3.19-81	DA.110a Smith/Kinnard Family Cemetery	The Texas Health and Safety Code regulations apply to <i>all</i> cemeteries, not just those designated as historic.	Kockritz, History Programs

**Texas Historical Commission
 Draft EIS Comment Matrix**

#	EIS Page	EIS Section	THC Comments	THC Reviewer & Division
48	3.19-81	DA.110a Smith/Kinnard Family Cemetery and DA.110b Linfield Elementary School	THC has not formally concurred with FRA's determination that DA.110a and/or DA.110b are eligible for listing in the National Register. However, we have requested further information and evaluation of these properties. Also, revise similarly to EL.016a Geaslin Cemetery below.	Kockritz, History Programs
49	3.19-81	DA.110b Linfield Elementary School	THC has requested a more intensive survey and research be provided for an official determination of eligibility before reviewing and making a determination of effect.	Toprac, Architecture
50	3.19-82	DA.194 Strain Farm	THC has not formally concurred with FRA's determination that the project would have no adverse effect to the Strain Farm; we have requested additional information to complete the assessment of potential effects.	Kockritz, History Programs
51	3.19-82	EL.016a Geaslin Cemetery	The Texas Health and Safety Code regulations apply to <i>all</i> cemeteries, not just those designated as historic. Revise the third line to read, "...due to the historic cemetery being..." Revise the fifth line to read, "Historic Cemeteries in Texas..." Revise the twelfth line to read, "...potential impacts to the historic cemetery..."	Kockritz, History Programs
52	3.19-83	LN.034 Nettles Cemetery	Revise similarly to EL.016a Geaslin Cemetery above.	Kockritz, History Programs
53	3.19-83	FR.008 Cotton Gin Cemetery	Revise similarly to EL.016a Geaslin Cemetery above.	Kockritz, History Programs
54	3.19-84	FR.016a-g Furney Richardson School	The THC has requested additional information regarding this site to make an effects determination. We have not yet received this additional information and are therefore not able to concur with FRA's determination at this time.	Woods, Architecture
55	3.19-84	LE.001a Little Flock Cemetery	Revise similarly to EL.016a Geaslin Cemetery above.	Kockritz, History Programs
56	3.19-85	MA.003 Randolph Cemetery	Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Randolph Cemetery has not yet been submitted to THC.	Kockritz, History Programs
57	3.19-85	MA.010 Ten Mile Cemetery	Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Ten Mile Cemetery has not yet been submitted to THC.	Kockritz, History Programs
58	3.19-86	GR.024 Singleton Cemetery	Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Singleton Cemetery has not yet been submitted to THC.	Kockritz, History Programs

Texas Historical Commission
Draft EIS Comment Matrix

#	EIS Page	EIS Section	THC Comments	THC Reviewer & Division
59	3.19-86	GR.033 Ratliff Cemetery	Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Ratliff Cemetery has not yet been submitted to THC.	Kockritz, History Programs
60	3.19-88	HA.212 Beth Yeshurum/Post Oak Cemetery	Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Beth Yeshurum/Post Oak Cemetery has not yet been submitted to THC.	Kockritz, History Programs
61	3.19-89	Table 3.19-13	This table should be revised as necessary to reflect THC's comments.	Kockritz, History Programs
62	3.19-97	Post-Review Discoveries	Revise the first sentence to read, "Secretary of the Interior qualified cultural resources professionals..."	Kockritz, History Programs
63	4-10, 4-11, & 4-17	4.3.2.4, 4.3.3.2, & Table 4-1	These sections do not accurately reflect the adverse effects to historic properties that FRA and THC have concurred on, such as the direct adverse effect to the House at 29702 Castle Road (HA.004a), or the historic properties for which the effects evaluation has not been completed, such as the Furney Richardson School (FR.016a-g). Please revise as necessary in accordance with previous correspondence and the comments herein.	Kockritz, History Programs
64	7-3	7.3 Study Area	Were the limits of the development (LOD) evaluated under the desktop/archival research for all Build Alternatives? Were ancillary facilities, such as staging areas, mitigation areas, temporary easements, included?	Shelton, Archeology
65	7-31	7.6.3 Section 4(f) Historical Sites	This list of 4(f) historic sites should include all historic properties eligible for consideration under 4(f) and other historic properties may need to be added as consultation continues. Since the identification and evaluation of historic properties is still ongoing, this section is preliminary and incomplete. THC looks forward to reviewing the full 4(f) evaluation when available.	Shelton, Archeology
66	7-36	7.6.3.1	The list of historic properties outside of the LOD, but inside the APE, should also include the Dallas Coffin Company (DA.028) and the Strain Farm Historic District (DA.194).	Kockritz, History Programs
67	7-36	7.6.3.1	For clarity, use the full resource name for DA.076a Guiberson Corporation Residence and DA.076b Guiberson Corporation Machine Shop.	Kockritz, History Programs
68	7-50	3.19.3.2	THC has not yet concurred with FRA's effect finding for the Furney Richardson School (FR.016a-g).	Kockritz, History Programs
69	7-55	DA.110b Linfield Elementary School	An official determination of eligibility must be made before a Section 4(f) determination can be appropriately presented in the EIS.	Toprac, Architecture



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Mark Wolfe
State Historic Preservation Office
Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711-2276

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Mr. Wolfe:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the Texas Historic Commission (THC) provided on February 20, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

Enclosed is FRA's response to comments received from the THC on February 20, 2018. Additionally, the Draft Programmatic Agreement (PA) is being circulated with the Final EIS (**Appendix L, Programmatic Agreement**) and will be completed through ongoing consultation among the Signatories, which includes the THC, and Consulting Parties in accordance with 36 CFR § 800. The PA addresses the continued identification, evaluation, assessment and resolution of effects to historic properties. The FRA looks forward to continued discussions with the THC on this environmental review.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

Enclosure

Table 1: Comment and Response Matrix on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
1	General	THC	<p>Please contact THC to begin consultation on the project Programmatic Agreement (PA). The PA should include: the procedure for the continued identification and evaluation of historic-age properties and archeological sites within the Area of Potential Effect (APE) as access is obtained and as the APE changes due to refining the alignment or to account for related ancillary features (staging areas, mitigation areas, temporary easements, etc.); procedures for unanticipated discoveries of potential historic properties; the assessment of effects of the project on historic properties; and, the resolution of adverse effects to historic properties.</p>	<p>Due to the size and scale of the Project, FRA in consultation with the THC determined the evaluation and assessment of effects to historic properties within the Area of Potential Effects (APE) will be completed in a phased manner in accordance with 36 CFR § 800.4(b)(2) and 5(a)(3). Development of the Programmatic Agreement (PA) for the Project is currently ongoing and the first Consulting Parties meeting was held on May 31, 2018. The Draft PA is being circulated with the Final EIS (Appendix L, Programmatic Agreement) and will be completed through ongoing consultation among the Signatories, which includes the THC, and Consulting Parties in accordance with 36 CFR § 800. The PA addresses the continued identification, evaluation, assessment and resolution of effects to historic properties.</p>
2	General	THC	<p>Approximately less than 50% of the historic-age aboveground resources within the APE have been evaluated and only 12% of the limits of disturbance have been surveyed for archeological resources. Throughout the EIS, the current status of these identification efforts should be clearly noted, and it should be stated that the analysis of the Build Alternatives relies on the best available, though necessarily incomplete, information regarding historic properties in the project APE.</p>	<p>Section 3.19.4.1, Cultural Resources Investigations, has been updated to state that additional field efforts for archeological and historic resources was conducted through March 15, 2019. The percentage of the LOD surveyed for archeological sites, to date, is approximately 27% and for historic resources it is approximately 92%.</p>

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
3	General	THC	There are several properties for which THC has not yet formally concurred with FRA's evaluation of the property's eligibility for listing in the National Register of Historic Places and/or its assessment of the project's effects. If there are properties that FRA now proposes to determine eligible for listing in the National Register, or to treat them as eligible, we request that FRA provide notice of this determination and any appropriate documentation for our review. For historic properties that the Draft EIS proposes a finding of effect that THC has not yet concurred with, the subsequent assessment of effects should be detailed in the project PA.	<p>Table 3.19-5 has been updated to reflect THC responses on Historic resources as of the Final EIS.</p> <p>Assessment of effects to historic properties is addressed in the Draft PA which will be circulated with the Final EIS (Appendix L, Programmatic Agreement) and completed through ongoing consultation among the Signatories, including the THC, and Consulting Parties in accordance with 36 CFR § 800. The PA addresses the continued identification, evaluation, assessment and resolution of effects to historic properties.</p>
4	General	THC	State laws regarding cemeteries, including chapters of the Texas Health and Safety Code, the Administrative Code, and the Penal Code, apply to all cemeteries, regardless of their ownership and not just cemeteries that are designated as a Historic Texas Cemetery or that are listed in, or eligible for listing in, the National Register of Historic Places. Please revise the Draft EIS throughout as necessary to reflect that these state laws will be adhered to. Several of the most relevant sections are identified below.	<p>Section 3.19, Cultural Resources of the Final EIS has been updated to reflect revised language indicating that adherence to state laws regarding all cemeteries is required. The language also reflects that this is applicable to all cemeteries regardless of designation including historic, designated, NRHP-listed, or NRHP-eligible cemeteries.</p>
5	General	Kockritz, History Programs	When specifically referring to historic properties and compliance with Section 106, we prefer to use "effect" rather than "impact" to match the language in 36 CFR § 800.	<p>Section 3.19.5.2, Build Alternatives Impact Assessment, FRA will continue to use "impact" in the title header for each resource, although "effect" is used in the descriptor for each resource for the NEPA analysis within the Final EIS.</p>
6	ES-26; ES.9.20, Cultural Resources	Shelton, Archeology	Revise the final paragraph to read, "...which are not usually considered eligible for listing..." Revise the last sentence of this paragraph to clarify whether "resources" here is meant to apply to all cultural resources or only cemeteries.	<p>Language has been included within the third paragraph of ES.9.18, Cultural Resources. "...which are not usually considered eligible for listing...". Language has been clarified in this paragraph referring to cemeteries.</p>

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
7	ES-26; ES.9.20, Cultural Resources	Shelton, Archeology	The APE should include all project components, not just the linear corridor. The PA should include a procedure for Section 106 consultation regarding ancillary facilities, like staging areas, mitigation areas, or temporary easements, that may be identified later.	The PA and Chapter 3.19, describe the LOD/APE including all areas subject to ground disturbing activities, including ancillary facilities, temporary easements, etc. The PA also includes Section 106 processes for changes to the APE.
8	ES-26; ES.9.20, Cultural Resources	Shelton, Archeology	Since only 12% of the Build Alternatives have been surveyed for archeology, the numbers of sites affected is misleading. This concern applies to Table 16 as well; recommend renaming it or deleting it. Also, note which of the build alternatives this initial survey encompasses, and what the average of historic resources is per mile, or per Build Alternative, to provide some sense of unanticipated discoveries.	Section 3.19.4.1, Cultural Resources Investigations , has been updated to state that additional field efforts for archeological and historic resources was conducted through March 15, 2019. The percentage of the LOD surveyed for archeological sites, to date, is approximately 27% and for historic resources it is approximately 92%.
9	ES-26, ES.9.20, Cultural Resources	Kockritz, History Programs	Recommend including definitions of the four NRHP Criteria verbatim from the National Park Service's National Register Bulletin No. 15.	Language in Section 3.19, Cultural Resources has been revised to include the four NRHP Criteria verbatim.
10	ES-26, ES.9.20, Cultural Resources	Kockritz, History Programs	Recommend using the definitions of the seven Criteria Considerations verbatim from the National Park Service's National Register Bulletin No. 15. There are some minor discrepancies, i.e.: NPS Criteria Consideration B "the surviving structure most importantly associated with a historic person or event" versus EIS " <i>the only extant</i> property associated with an important historic person or event" [emphasis added].	Language in Section 3.19, Cultural Resources has been revised to include the seven Criteria Considerations verbatim.
11	ES-27, ES.9.20, Cultural Resources	Kockritz, History Programs	Revise the first line to read, "...the Texas Historical Commission (THC), the State Historic Preservation Office (SHPO) for the State of Texas..."	This language is now located within the third paragraph, last sentence of ES.9.18, Cultural Resources . "...the Texas Historical Commission (THC), the State Historic Preservation Office for the State of Texas..." has been revised. State Historic Preservation Office is used only once in the Executive Summary.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
12	ES-27, ES.9.20, Cultural Resources	Kockritz, History Programs	Revise the third paragraph, third line, to read, "To date, FRA documented 407 sites..."	This language is no longer in the Executive Summary. This information can now be found in Section 3.19.4.1.1, Historic Resources , directly after Table 3.19-4 .
13	ES-28, ES.9.20, Cultural Resources	Kockritz, History Programs	Revise the first paragraph to read, "...continue the evaluation of, and assessment of effects to, cultural resources..."	This language is no longer in the Executive Summary. This language can now be found in Section 3.19.4.1.1, Historic Resources , directly after Table 3.19-4 .
14	ES-29, ES.9.23, Section 4(f) Resources	Kockritz, History Programs	Recommend a clearer definition and citation of 4(f), such as, "Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966 prohibits USDOT agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and water fowl refuges, or public and private historic properties, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use."	Section ES.9.21 has been updated to include the suggested language. Additionally it can be found in Section 7.2.1, Section 4(f) , of Chapter 7.0, Section 4(f) and Section 6(f) Evaluation .
15	ES-29, ES.9.23, Section 4(f) Resources	Kockritz, History Programs	Revise the first paragraph, third line, to read, "One Section 4(f) park resource..."	ES.9.21, Section 4(f)/Section 6(f) Evaluation has been reorganized to include a brief discussion of the 4(f) findings, with a complete discussion in Chapter 7.0, Section 4(f) and Section 6(f) Evaluation .
16	ES-30, ES.9.23, Section 4(f) Resources	Kockritz, History Programs	Revise the first line to read, "To date, FRA has determined that the Build Alternatives would require..."	ES.9.21, Section 4(f)/Section 6(f) Evaluation has been reorganized to include a brief discussion of the 4(f) findings, with a complete discussion in Chapter 7.0, Section 4(f) and Section 6(f) Evaluation .
17	ES-30-31, ES.10, FRA's Preferred Alternative	Kockritz, History Programs	Revise to read, "To date, FRA has determined that the Preferred Alternative..."	ES.10, FRA's Preferred Alternative . Revised language reads: "FRA, as the lead federal agency, after considering the comparative analysis of the No Build Alternative, the Build Alternatives, and Houston Terminal Station Options presented in this Final EIS and the potential impacts of the Build Alternatives, identifies Build Alternative A and the Houston Northwest Mall Terminal Station Option as the Preferred Alternative.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
18	ES-32, Table 18	Shelton, Archeology	This table represents a low percentage of the total historic properties potentially affected since large portions of the APE have not been surveyed. Please clarify what these statistics reflect.	Table 18 is now Table 17: Cultural Resources (Historic Properties and Cemeteries) Impacts by Build Alternative and Houston Terminal Station Option is comprised of the cultural resources to-date within each Build Alternative and station location. It is also stated "FRA, in consultation with the THC, determined it is appropriate to develop and implement a Programmatic Agreement (PA) for the Project because FRA will not be able to fully determine effects to historic properties prior to approving the undertaking (36 C.F.R. 800.14 (b)(1)(ii)-(iii))."
19	2-59, 2.7.2, Alternative Comparison	Kockritz, History Programs	Again, it should be noted here that the identification and evaluation of historic properties is still incomplete.	The following language has been included in Chapter 2, Section 2.7.2 Comparison of Build Alternatives A,B, and C: "As the identification and evaluation of historic properties is still incomplete, the evaluation of, and assessment of effects to, cultural resources will continue in a phased approach as provided for in 36 C.F.R. § 800.4(b)(2) and § 800.5(a)(3)."
20	3.19-1, Introduction	Kockritz, History Programs	Text Box: Minor font change to clean up.	Font changed to Calibri (body) 10.
21	3.19-1, Introduction	Kockritz, History Programs	For clarity, we encourage FRA to use the term "Historic-Age Resource" for properties that are 45 or more years of age, to differentiate between all historic-age resources that are/will be evaluated and "Historic Properties" that meet the definition at 36 CFR §800.16(l)(1).	The language reflects the language that has been included in the interim reports and PA. Therefore, we will continue to use the term historic properties so that all associated documents are consistent.
22	3.19-1, Introduction	Kockritz, History Programs	In Texas, cultural resources may also be designated as a Recorded Texas Historic Landmark (RTHL). Under 13 Tex. Admin. Code § 21.9, to receive an RTHL designation, a property must "demonstrate architectural and historical significance and architectural and historical integrity." As this requirement is substantially similar to the requirements for National Register eligibility, THC generally recommends treating RTHLs as eligible for listing in the National Register.	Section 3.19.2, Regulatory Context, State , the ten criteria governing the evaluation for RTHL designation as per 13 T.A.C § 21.9 has been added verbatim.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
23	3.19-2, NRHP Criteria Considerations	Kockritz, History Programs	Recommend using the definitions of the seven Criteria Considerations verbatim from the National Park Service's National Register Bulletin No. 15. There are some minor discrepancies, i.e.: NPS Criteria Consideration B "the surviving structure most importantly associated with a historic person or event" versus EIS "the only extant property associated with an important historic person or event"	Section 3.19.2, Regulatory Context, Federal , the seven Criteria Considerations, a-g, has been added verbatim below the four criteria (a-d) for evaluating NRHP criteria.
24	3.19-3	Kockritz, History Programs	Four Step Process Recommend revising Step 3 to read, "Assess the potential effect(s) the project..." and Step 4 to read, "Resolve any adverse effects..."	Section 3.19.2, Regulatory Context, Federal , the language for Steps 3 and 4 in the Section 106 process has been revised to read: "Assess Effect(s) the project may have..." and "Resolve Adverse Effects to historic..."
25	3.19-3, Programmatic Agreement	Kockritz, History Programs	Recommend revising this paragraph to include citation of 36 CFR § 800.14(b) which authorizes the execution of programmatic agreements for complex projects.	Section 3.19.2, Regulatory Context, Federal , the language has been revised to read: "In situations where the project is complex, or when effects on historic properties cannot be fully determined prior to approval of an undertaking a Programmatic Agreement (PA) can provide a tailored process for the development and implementation of phased identification, NRHP eligibility and effects evaluations, and treatment efforts, as applicable for a specific undertaking (36 C.F.R. § 800.14(b))."
26	3.19-5, Antiquities Code of Texas	Kockritz, History Programs	Revise the first paragraph to read, "Prior to any fieldwork on non-federal public land..."	Section 3.19.2, Regulatory Context, State , text has been revised to read: "Prior to any fieldwork on non-federal public land..."
27	3.19-5, Antiquities Code of Texas	Kockritz, History Programs	The five SAL criteria listed here (and cited at 13 Tex. Admin. Code § 26.10) are only for evaluating archeological sites. The criteria for evaluating historic buildings/structures can be found at 13 Tex. Admin. Code § 26.19.	Section 3.19.2, Regulatory Context, State , the language for RTHLs and SALs has been revised and added as recommended.
28	3.19-5, Texas Health and Safety Code	Kockritz, History Programs	The Texas Health and Safety Code regulations apply to all cemeteries, not just those designated as historic,	Section 3.19.2, Regulatory Context, State , use of the designation "historic" has been removed and throughout the document as appropriate, indicating that the Texas Health and Safety Code regulations apply to all cemeteries.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
29	3.19-7/7, Table 3.19-1	Kockritz, History Programs	Revise the organizations to read "[Name] County Historical Commission." Although THC frequently works with County Historical Commissions (CHC), they are independently established by their respective county and are not formally affiliated with THC.	Section 3.19.3.1.1, State Historic Preservation Officer and Consulting Parties, Table 3.19-1 , historical commissions has been revised to read: "[County] County Historical Commission"
30	3.19-7/7, Table 3.19-1	Kockritz, History Programs	THC recommends inviting the following additional organizations to participate as consulting parties: Preservation Dallas, City of Houston Historic Preservation Office, and Preservation Houston.	Section 3.19.3.1.1, State Historic Preservation Officer and Consulting Parties, Table 3.19-1 . Preservation Dallas was previously added as a consulting party on January 25, 2018.. The City of Houston Historic Preservation Office and Preservation Houston were added as consulting parties on May 14, 2018.were invited to be consulting parties.
31	3.19-14, 3.19.3.2.5	Kockritz, History Programs	At the end of the second paragraph, add "...interim reports and that any effects to previously unidentified historic properties will be taken into account."	Section 3.19.3.2.5, Field Survey has been revised to read: "The PA requires the results be submitted to the THC as addenda, final, and/or supplemental reports to the interim reports and any effects to previously identified historic properties will be taken into account."
32	3.19-17, Table 3.19-4	Kockritz, History Programs	Revise to combine DA.024a-b Cadiz Street Pump Station as they form a historically related complex and a single historic property.	Section 3.19.4, Affected Environment, 3.19.4.2.1, Dallas County , DA.024a and DA.024b have been combined as a Complex.
33	3.19-17, Table 3.19-4	Kockritz, History Programs	Recommend revising the resource name of DA.028 to just "Dallas Coffin Company (within Sears Complex Historic District)."	Section 3.19.4, Affected Environment, 3.19.4.2.1, Dallas County , DA.028"(within Sears Complex Historic District)" has been removed and "(Contributing Resource to Local, City of Dallas Designated Sears Complex Historic District)" has been added.
34	3.19-18, Table 3.19-4	Kockritz, History Programs	Revise DA.194 to "Strain Farm" and indicate that the property is also a designated SAL.	Section 3.19.4, Affected Environment, 3.19.4.2.1, Dallas County , DA.194 (W. A. Strain House Historic District), SAL has been added to the resource title.
35	3.19-18, Table 3.19-4	Kockritz, History Programs	Correct formatting for the Navarro County header.	Section 3.19.4, Affected Environment, Table 3.19-4 , Navarro County header in table has been corrected.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
36	3.19-19, Table 3.19-4	Kockritz, History Programs	Revise the resource name of FA.024 to "Asia."	Section 3.19.4, Affected Environment, Table 3.19-4 , FR.024 is now "Asia Cemetery".
37	3.19-20, First Paragraph	Kockritz, History Programs	It would be helpful to include these numbers of historic-age resources identified through background research, those that have thus far been field verified, and those that have been determined NR-eligible in the Executive Summary to give an idea of the status of the field survey work.	The Executive Summary has been updated and the language has been removed. The information can now be found in Section 3.19.4.1.1, Historic Resources , directly after Table 3.19-4 .
38	3.19-21, Table 3.19-5: Dallas County	Toprac, Architecture	Include the THC comments regarding DA.076a-b, the Guiberson Corporation Residence and Machine Shop, and DA.194, the Strain Farm Historic District.	Section 3.19.4.1.1, Historic Resources, Table 3.19-5 , comments on Strain Farm (DA.194) and Guiberson Corporation Residence and Machine Shop (DA.076a-b) were added to the table under THC Response.
39	3.19-21, Table 3.19-5: Ellis County	Toprac, Architecture	It would be helpful to note that THC concurred that the Geaslin Homestead (EL.020) was not eligible. The only reference to the property in the Draft EIS is in Table 3.19-4 as a previously identified resource, but its NR-eligibility is not given.	Section 3.19.4.1.1, Historic Resources , "ineligible for NRHP" has been added to the Geaslin Homestead (EL.020) in Table 3.19-4 and has been included in the eligibility determinations numbers in Table 3.19-5
40	3.19-23, Table 3.19-5: Harris County	Kockritz, History Programs	THC concurred there would be no adverse effect to the Humble Oil Station (HA.024b).	Section 3.19.4.1.1, Historic Resources , language has been added to Table 3.19-5 under the THC response to read: "...but the project will have no adverse effect" to Humble Oil Station (HA.024b).
41	3.19-46, DA.110a-b	Kockritz, History Programs	Recommend revising the header to indicate that FRA proposes to treat both properties as NR-eligible. Given the anticipated direct effects to the properties, THC continues to recommend an intensive evaluation of their eligibility for listing in the National Register.	On March 31, 2020, FRA submitted an intensive level survey report to the THC, which recommended the Smith/Kinnard Family Cemetery (DA.110a) is not eligible for listing in the NRHP and recommended the Linfield Elementary School (DA.110b) is eligible for listing in the NRHP under Criterion A for association with the Civil Rights and Desegregation Movement in Dallas County. The THC concurrence with the recommendations in a letter dated May 1, 2020. Section 3.19.4.2.1, Dallas County, Historic Resources , has been updated to reflect these determinations.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
42	3.19-74, Table 3.19-12	Toprac, Architecture	Table does not accurately reflect the number of adversely affected NR-eligible resources. For instance, Segment 1 (Dallas County) the table shows no historic properties adversely affected, but correspondence determined at least 3 (Guiberson Corporation Residence, Guiberson Corporation Machine Shop, and Honey Springs Cemetery), and as many as 6 (Smith Family Cemetery, Linfield Elementary, and the Strain Farm Historic District) pending further evaluation, would be adversely affected. Please verify these totals and revise as necessary.	Section 3.19.5, Environmental Consequences, Table 3.19-10 , the count has been revised to provide the to-date numbers of historic properties and cemeteries by Segment that would be adversely effected by the Project.
43	3.19-76, DA.023 Cadiz Street Overpass and Underpass	Kockritz, History Programs	THC has not formally concurred with FRA's finding that the proposed station would have an adverse effect; our letter of August 25, 2017, requests 30-60-90% plans in order to assess the potential effects to the Cadiz Street Overpass and Underpass.	Section 3.19.5, Environmental Consequences, 3.19.5.2.1, Segment 1 , Cadiz Street Overpass and Underpass (DA.023), The language has been revised to read: "FRA determined the Build Alternatives A, B, C, D, E and F would have an adverse effect on Resource DA.023. As per Stipulation III.A.3 in the PA developed for the Project, TCRR will engage in additional consultation with the THC at the 30-60-90 percent design stages as requested by the THC..."
44	3.19-78, DA.030 Sears HD	Kockritz, History Programs	Revise this section heading to include the Furniture Warehouse Complex (DA.031).	Section 3.19.5, Environmental Consequences, 3.19.5.2.1, Segment 1 , Sears Roebuck and Company Furniture Warehouse Complex (DA.031), resource description has been added addressing DA.031 as a contributing resource to the Sears Roebuck and Company Catalogue Merchandise Distribution Center Historic District.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
45	3.19-79, DA.056 Corinth Street Underpass and Overpass	Kockritz, History Programs	Revise the section heading to read, "Potential Indirect Adverse Effect." As noted in the paragraph below, THC previously noted the potential for indirect adverse effects to the Corinth Street Underpass and Overpass, but requested 30-60-90% plans to formally assess the effects.	Section 3.19.5, Environmental Consequences, 3,19.5.2.1, Segment 1 , Corinth Street Underpass and Overpass (DA.056), "Adverse Impact" was added to the title of the resource and the language has been revised to read: "FRA determined the Build Alternatives A, B, C, D, E and F have the potential to cause an adverse effect on Resource DA.056. As per Stipulation III.A.3 in the PA developed for the Project, TCRR will engage in additional consultation with the THC at the 30-60-90 percent design stages as requested by the THC..."
46	3.19-79, DA.072 Dallas Floodway	Kockritz, History Programs	Revise this section to note that the project will have no adverse effect to the Dallas Floodway Historic District if the Belleview Pressure Sewer will not be directly affected.	Section 3.19.5, Environmental Consequences, 3,19.5.2.1, Segment 1 , Dallas Floodway Historic District (DA.072), language has been revised to read: "... THC determined that due to the type of historic resource, some changes in the setting of the historic district must be expected and it is anticipated the construction of additional bridges across the floodway would not adversely affect the historic property if the Belleview Pressure Sewer will not be affected..."
47	3.19-81, DA.110a Smith/Kinnard Family Cemetery	Kockritz, History Programs	The Texas Health and Safety Code regulations apply to all cemeteries, not just those designated as historic.	Section 3.19.5, Environmental Consequences, 3,19.5.2.1, Segment 1 , Smith/Kinnard Family Cemetery (DA.110a), use of the designation "historic" has been removed and throughout the document as appropriate.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
48	3.19-81, DA.110a Smith Kinnard Family Cemetery and DA.110b Linfield Elementary School	Kockritz, History Programs	THC has not formally concurred with FRA's determination that DA.110a and/or DA.110b are eligible for listing in the National Register. However, we have requested further information and evaluation of these properties. Also, revise similarly to EL.016a Geaslin Cemetery below.	On March 31, 2020, FRA submitted an intensive level survey report to the THC, which recommended the Smith/Kinnard Family Cemetery (DA.110a) is not eligible for listing in the NRHP and recommended the Linfield Elementary School (DA.110b) is eligible for listing in the NRHP under Criterion A for association with the Civil Rights and Desegregation Movement in Dallas County. The THC concurrence with the recommendations in a letter dated May 1, 2020. Section 3.19.4.2.1, Dallas County, Historic Resources , has been updated to reflect these determinations. EL.016a, Geaslin Cemetery, was determined not eligible and this determination received THC concurrence in a letter dated June 13, 2017.
49	3.19-81, DA 110b Linfield Elementary School	Toprac, Architecture	THC has requested a more intensive survey and research be provided for an official determination of eligibility before reviewing and making a determination of effect.	Section 3.19.5, Environmental Consequences, 3,19.5.2.1, Segment 1 , has been updated to reflect the THC's concurrence that the Linfield School is eligible for listing in the NRHP under Criterion A, and due to the resource being demolished, the Project will have an adverse effect on the historic property. Concurrence from the THC was provided in a letter dated May 1, 2020.
50	3.19-82, DA 194 Strain Farm	Kockritz, History Programs	THC has not formally concurred with FRA's determination that the project would have no adverse effect to the Strain Farm; we have requested additional information to complete the assessment of potential effects.	Section 3.19.5, Environmental Consequences, 3,19.5.2.1, Segment 1 , W. A. Strain House Historic District (DA.194), text reads "As per Stipulation III.A.3 in the PA developed for the Project, TCRR will engage in additional consultation with the THC to provide additional photographs taken from the main house and agricultural fields looking towards the proposed maintenance yard, including photographic simulations showing the proposed development; and additional design plans for lighting, landscape and building design as requested by the THC."

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
51	3.19-82, EL.016a Geaslin Cemetery	Kockritz, History Programs	The Texas Health and Safety Code regulations apply to all cemeteries, not just those designated as historic. Revise the third line to read, "...due to the historic cemetery being..." Revise the fifth line to read, "Historic Cemeteries in Texas..." Revise the twelfth line to read, "...potential impacts to the historic cemetery..."	Section 3.19.5, Environmental Consequences, 3,19.5.2.2, Segments 2A and 2B , Geaslin Cemetery (EL.016a), use of the designation "historic" has been removed and throughout the document as appropriate.
52	3.19-83, LN.034 Nettles Cemetery	Kockritz, History Programs	Revise similarly to EL.016a Geaslin Cemetery above.	Section 3.19.5, Environmental Consequences, 3,19.5.2.3, Segment 3C , Nettles Cemetery (LN.034), use of the designation "historic" has been removed and throughout the document as appropriate.
53	3.19-83, FR.008 Cotton Gin Cemetery	Kockritz, History Programs	Revise similarly to EL.016a Geaslin Cemetery above.	Cotton Gin Cemetery is no longer within the Historic Resources APE and will not be affected by the Project. Therefore, reference to the resource has been removed from the EIS.
54	3.19-84, FR.016a-6 Furney Richardson School	Woods, Architecture	The THC has requested additional information regarding this site to make an effects determination. We have not yet received this additional information and are therefore not able to concur with FRA's determination at this time.	Section 3.19.5, Environmental Consequences, 3,19.5.2.4, Segment 4 , Furney Richardson School Historic District (FR.016a-g), text reads "As per Stipulation III.A.3 in the PA developed for the Project, TCRR will engage in additional consultation with the THC to provide additional information regarding FRA's effect determination for Site FR.016 due to the request from the THC for additional information on the potential effects of the railroad and the vibratory effects to the school during construction and operation."
55	3.19-84, LE.001a Little Flock Cemetery	Kockritz, History Programs	Revise similarly to EL.016a Geaslin Cemetery above.	Section 3.19.5, Environmental Consequences, 3,19.5.2.4, Segment 4 , Little Flock Cemetery (LE.001a), use of the designation "historic" has been removed and throughout the document as appropriate.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
56	3.19-85, MA.003 Randolph Cemetery	Kockritz, History Programs	Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Randolph Cemetery has not yet been submitted to THC.	FRA submitted an intensive level survey report for Randolph Cemetery to the THC on March 19, 2020, which recommended the cemetery is eligible for listing in the NRHP under Criterion C and Criteria and Consideration D. The THC concurrence with the recommendations in a letter dated April 2, 2020. Section 3.19.4.2.1, Dallas County, Historic Resources , has been updated to reflect these determinations.
57	3.19-85, MA.010 Ten Mile Cemetery	Kockritz, History Programs	57 3.19-85 MA.010 Ten Mile Cemetery Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Ten Mile Cemetery has not yet been submitted to THC. (Kockritz, History Programs)	Section 3.19.5, Environmental Consequences, 3.19.5.2.4, Segment 4 , Ten Mile Cemetery (MA.010), " use of the designation historic" has been removed and throughout the document as appropriate. THC concurrence was received August 23, 2019 with a determination of Ten Mile Cemetery not being eligible for inclusion in the NRHP.
58	3.19-86, GR.024 Singleton Cemetery	Kockritz, History Programs	58 3.19-86 GR.024 Singleton Cemetery Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Singleton Cemetery has not yet been submitted to THC. (Kockritz, History Programs)	GR.024 Singleton Cemetery, was determined not eligible for listing in the NRHP and this determination received THC concurrence in a letter dated July 12, 2019. . Section 3.19.4.2.1, Dallas County, Historic Resources , has been updated to reflect this determination.
59	3.19-86, GR.033 Ratliff Cemetery	Kockritz, History Programs	59 3.19-86 GR.033 Ratliff Cemetery Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Ratliff Cemetery has not yet been submitted to THC. (Kockritz, History Programs)	Section 3.19.5, Environmental Consequences, 3.19.5.2.5, Segment 5 , Ratliff Cemetery (GR.033), the use of the designation "historic" has been removed and throughout the document as appropriate. Language was revised to read: "The THC requires field verification and additional information be provided for an official determination of eligibility".
60	3.19-88, HA.212 Beth Yeshurum/Post Oak Cemetery	Kockritz, History Programs	60 3.19-88 HA.212 Beth Yeshurum/Post Oak Cemetery Revise similarly to EL.016a Geaslin Cemetery above. The NR evaluation of Beth Yeshurum/Post Oak Cemetery has not yet been submitted to THC. (Kockritz, History Programs)	Section 3.19.5, Environmental Consequences, 3.19.5.2.5, Segment 5 , Beth Yeshurun-Post Oak/Beth Cemetery (HA.212), " use of the designation historic" has been removed and throughout the document as appropriate. Language was revised to read: "The THC requires field verification and additional information be provided for an official determination of eligibility".

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
61	3.19-89, Table 3.19-13	Kockritz, History Programs	This table should be revised as necessary to reflect THC's comments.	Section 3.19.5, Environmental Consequences, Table 3.19-11 , Table 3.19-13 is now Table 3.19-11 and has been updated with all THC concurrence/comments received to date.
62	3.19-97, Post-Review Discoveries	Kockritz, History Programs	Revise the first sentence to read, "Secretary of the Interior qualified cultural resources professionals..."	The Stipulation reference to Post-Review Discoveries in Section 3.19.6, Avoidance, Minimization and Mitigation, 3.19.6.2, Programmatic Agreement , has been revised to read: "Secretary of the Interior qualified cultural resources professionals...", after the stipulation overview.
63	4-10, 4- 11, & 4-17 4.3.2.4, 4.3.3.2, & Table 4-1	Kockritz, History Programs	These sections do not accurately reflect the adverse effects to historic properties that FRA and THC have concurred on, such as the direct adverse effect to the House at 29702 Castle Road (HA.004a), or the historic properties for which the effects evaluation has not been completed, such as the Furney Richardson School (FR.016a-g). Please revise as necessary in accordance with previous correspondence and the comments herein.	Chapter 4.0, Indirect Effects and Cumulative Impacts has been reorganized to reflect a high-level overview of the impacts of the HSR. For more detailed analysis, see Section 3.19, Cultural Resources .
64	7-3, Study Area	Shelton, Archeology	Were the limits of the development (LOD) evaluated under the desktop/archival research for all Build Alternatives? Were ancillary facilities, such as staging areas, mitigation areas, temporary easements, included?	Chapter 7.0, Section 4(f) and Section 6(f) Evaluation . All known elements of the LOD (including permanent operational and the temporary construction footprints of the six Build Alternatives and Houston Terminal Station Options) were evaluated during the desktop background and literature review. Section 3.1.2.3, Introduction, Limits of Disturbance , of the Final EIS details that the LOD within the EIS includes rail infrastructure, access roads, drainage swales and ancillary facilities, staging areas, permanent relocation or alteration of existing utilities and easements, etc.

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
65	7-31, Section 4(f) Historical Sites	Shelton, Archeology	This list of 4(f) historic sites should include all historic properties eligible for consideration under 4(f) and other historic properties may need to be added as consultation continues. Since the identification and evaluation of historic properties is still ongoing, this section is preliminary and incomplete. THC looks forward to reviewing the full 4(f) evaluation when available.	Chapter 7.0, Section 4(f) and Section 6(f) Evaluation, 7.6.3 4(f) Historic Properties, Table 7-5 lists known Section 4(f) historic properties to date, which will increase as additional identification and evaluation is completed through a phased approach. Refer to response to Comment 1.
66	7-36, 7.6.3.1	Kockritz, History Programs	The list of historic properties outside of the LOD, but inside the APE, should also include the Dallas Coffin Company (DA.028) and the Strain Farm Historic District (DA.194).	Chapter 7.0, Section 4(f) and Section 6(f) Evaluation, 7.6.3 4(f) Historic Properties, Table 7-5 includes both the Dallas Coffin Company and Strain Farm Historic District, indicating they are within the historic resources APE, but outside the LOD.
67	7-36, 7.6.3.1	Kockritz, History Programs	For clarity, use the full resource name for DA.076a Guiberson Corporation Residence and DA.076b Guiberson Corporation Machine Shop.	Chapter 7.0, Section 4(f) and Section 6(f) Evaluation, 7.6.3 4(f) Historic Properties, Table 7-5 includes both the Guiberson Corporation Machine Shop (DA.076a) and the Guiberson Corporation Residence (DA.076b).
68	7-50, 3.19.3.2	Kockritz, Historic Programs	THC has not yet concurred with FRA's effect finding for the Furney Richardson School (FR.016a-g).	Section 3.19.4, Affected Environment, Table 3.19-5. Within the THC Response column for the Addendum submitted for Freestone County in July 2019, the comment states "Based on the information received, it appears the undertaking may have vibration and noise effects on the Furney Richardson School Complex. Efforts should be made to minimize these effects through shielding methods and placement of tract at a maximum feasible distance from the properties and their setting. To determine the likely effects on the historic properties, THC requests a thorough assessment of the possible effects on the Furney Richardson School Complex."

No.	SECTION/ PAGE	REVIEWER	COMMENT	RESPONSE
69	7-55, DA.110b Linfield Elementary School	Toprac, Architecture	69 7-55 DA.110b Linfield Elementary School An official determination of eligibility must be made before a Section 4(f) determination can be appropriately presented in the EIS. (Toprac, Architecture)	Chapter 7.0, Section 4(f) and Section 6(f) Evaluation, 7.6.3 4(f) Historic Properties, Table 7-5 includes Linfield Elementary School as an NRHP-eligible. The THC concurred with the NRHP-eligibility of the Linfield Elementary School in a letter dated May 1, 2020. See Section 3.19.3.2.7, Evaluation of Historic Properties , Linfield Elementary School (DA.110b) for a more detailed explanation.



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February 20, 2018

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RE: Draft Environmental Impact Statement and Section 404 Permit Applications for the Texas Central Railway, LLC Proposed Dallas to Houston High-Speed Rail Project (Dallas, Ellis, Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties)

Dear Mr. Wright, et al:

The Texas Parks and Wildlife Department (TPWD) received the December 19, 2017 notice of release of the draft Environmental Impact Statement (EIS) for the proposed Dallas to Houston High-Speed Rail Project (Project). TPWD also received separate public notices issued December 22, 2017 from the Fort Worth District and Galveston District of the U.S. Army Corps of Engineers (USACE) regarding Section 404 of the Clean Water Act permit applications for the Project (Fort Worth - SWF-2011-00483 and Galveston – SWG-2014-00412).

Texas Central Railway, LLC and its affiliates (Texas Central Railroad and Texas Central Partners) propose to construct and operate the Project, which consists of a 240-mile, for-profit, electric-powered, high-speed passenger rail system connecting Dallas and Houston. The Project would cross ten counties with an approximate 10,000-acre disturbance footprint, of which approximately 8,000 acres is permanent.

The United States Department of Transportation’s Federal Railroad Administration (FRA) is accepting comments on the draft EIS, which it prepared for environmental review under the National Environmental Policy Act.

Concurrently, the USACE Fort Worth District and USACE Galveston District will be using the EIS and other permit application information in their evaluation of a Department of Army permit and decision regarding impacts to wetlands and waters of the U.S. in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The USACE Fort Worth District and USACE Galveston District will be accepting comments on each district's respective 404 permit application. The public comment period ends February 20, 2018 for the draft EIS and the USACE permit applications.

Based on TPWD staff review of the draft EIS and Section 404 permit applications, TPWD offers specific comments, concerns, recommendations, and requests regarding the Project that can be found in Attachment A to this letter. Listed below are TPWD's principal concerns, which are more fully addressed in Attachment A:

- TPWD specifically advises against and strongly discourages the selection of Build Alternatives C and F because they cross Fort Boggy State Park (SP) and require right-of-way encroachment on Fort Boggy SP property. Although the FRA identifies Build Alternative A as the preferred alternative, the draft EIS indicates that FRA will continue to analyze the Build Alternatives through the final EIS. TPWD is concerned with the evaluation of impacts of Build Alternatives C and F on Fort Boggy SP with respect to noise, recreation, cultural resources, conversion of a Section 4(f) property, and use of state property. TPWD does not agree with FRA's preliminary Section 4(f) determination that the Project's use of Fort Boggy SP will have *de minimis* impacts on the park. Because there appears to be no condemnation authority for the taking of state-owned lands for this Project, the approval of Texas Parks and Wildlife Commission, subject to the requirements and limitation of Chapter 26 of the Texas Parks and Wildlife Code, would be necessary for the granting of any easement across Fort Boggy SP.
- The Section 404 permit applications provide inadequate information for TPWD to fully review the Project's impacts to waters of the U.S. and proposed mitigation, which is conceptual.

Please consider TPWD's concerns, comments, recommendations, and requests that have been provided to avoid or minimize adverse impacts of the Project on the recreational, cultural, fish, and wildlife resources of Texas.

If you have any questions regarding TPWD's input on the EIS, please contact Ms. Karen Hardin, Wildlife Division, at (903) 322-5001 or Karen.Hardin@tpwd.texas.gov. For questions regarding TPWD's input on issues related to Fort Boggy SP, please contact Mr. David Riskind, State Parks Division, at (512) 389-4897 or David.Riskind@tpwd.texas.gov. For questions regarding TPWD's input on the Section 404 permit application to the USACE Fort Worth District, please contact Mr. Ryan

Mr. Kevin Wright
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McGillicuddy, Inland Fisheries Division, at (512) 389-8622 or Ryan.McGillicuddy@tpwd.texas.gov. For questions regarding TPWD's input on the Section 404 permit application to the USACE Galveston District, please contact Ms. Colleen Roco, Coastal Fisheries Division, at (281) 534-0139 or Colleen.Roco@tpwd.texas.gov. Thank you.

Sincerely,



Carter Smith
Executive Director

CS:KH:dj

Attachment

cc: Ms. Karen Hardin
Mr. David Riskind
Mr. Ryan McGillicuddy
Ms. Colleen Roco

Attachment A

Texas Parks and Wildlife Department Comments

Texas Central Railway, LLC Proposed Dallas to Houston High-Speed Rail Project
Draft Environmental Impact Statement, and Section 404 Permit Applications
(Fort Worth District - SWF-2011-00483 and Galveston District – SWG-2014-00412)
Dallas, Ellis, Freestone, Grimes, Harris, Leon, Limestone, Madison, Navarro, and Waller Counties

PROJECT DESCRIPTION

Texas Central Railway, LLC (TCR) and its affiliates (Texas Central Railroad and Texas Central Partners) propose to construct and operate a 240-mile, for-profit, electric-powered, high-speed passenger rail (HSR) system connecting Dallas and Houston with a 90-minute travel time using the Japanese N700 Tokaido Shinkansen technology. The proposed Dallas to Houston High-Speed Rail Project (Project) would achieve speeds exceeding 200 miles per hour (mph) in a fully sealed corridor with dedicated northbound and southbound tracks built at-grade, on retained fill/embankment, or on elevated viaduct within a minimum 100-foot wide corridor. The corridor would not be interconnected with any other railroad systems, and the train would either travel below or above existing roadways and other infrastructure. Three stations are proposed: a 90-acre terminal in Dallas, a 60-acre terminal in Houston, and a 115-acre intermediate Brazos Valley Station in Grimes County. Associated operational and maintenance facilities would include two 100-acre trainset maintenance facilities (TMFs), seven 20-acre maintenance-of-way facilities (MOWs), eleven 11-acre traction power substations (TPSSs), nine 0.4-acre sectioning posts, and fifteen 0.4-acre sub-sectioning posts. Signal houses would be placed every 25 miles within a 0.2 to 0.8-acre footprint, and communications housing and 50-foot towers would be placed every 6 miles. The disturbance footprint of the primarily linear Project is approximately 10,000 acres, of which approximately 8,000 acres would be permanent impacts, per Table 3.6-22 of the draft Environmental Impact Statement (EIS). An estimated 60 percent of the alignment would be on viaduct, pending final design, which would allow for greater movement around and under the HSR system.

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Having jurisdiction over railroad safety, the United States Department of Transportation's (DOT) Federal Railroad Administration (FRA) may issue a Rule of Particular Applicability detailing specific safety regulations for the Project and impose requirements, conditions, waivers, or other regulatory actions to ensure safe operation of the Project. Establishing new regulations regarding HSR Project safety and potential DOT credit and financial assistance will be major federal actions for the Project that have triggered preparation of an EIS for environmental review under the National Environmental Policy Act (NEPA). FRA is the lead agency for preparation of the EIS, in cooperation with the Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Surface Transportation Board (STB), United States Army Corps of Engineers (USACE), and the United States Fish and Wildlife Service (USFWS). Following public comment on the draft EIS, FRA will prepare a final EIS and offer additional public comment opportunity, followed by issuing a Record of Decision (ROD) to document FRA's selected alternative, summarize the impacts of the selected alternative, and list required mitigation measures. Once a ROD is issued, the FRA can continue the process for establishing a final rule regarding safety regulations for the Project.

AECOM assisted FRA in the preparation of the draft EIS in compliance with NEPA to assess the potential beneficial and detrimental effects of implementing the proposed Project. FRA evaluated the following six end-to-end alignment alternatives and the No Build Alternative after conducting a public scoping and involvement program, corridor screening, engineering refinements, and alignment screening:

- Build Alternative A (Segments 1, 2A, 3A, 4, 5)
- Build Alternative B (Segments 1, 2A, 3B, 4, 5)
- Build Alternative C (Segments 1, 2A, 3C, 5)
- Build Alternative D (Segments 1, 2B, 3A, 4, 5)
- Build Alternative E (Segments 1, 2B, 3B, 4, 5)
- Build Alternative F (Segments 1, 2B, 3C, 5)

The No Build Alternative was identified as not meeting the specified Purpose and Need for the Project and only retained in the draft EIS as a basis for comparison. In identifying the preferred alternative, FRA removed Build Alternatives D, E, and F from further consideration because they would cross USACE fee property. USACE would deny these alternatives as there are viable alternatives that avoid the USACE fee property. Build Alternative C was also removed from further evaluation because it was the only alternative that would require an extra security measure of installing 45 miles of concrete barrier between the proposed rail and Interstate Highway (IH) 45 frontage roads. **FRA identified Build Alternative A as the preferred alternative** because it would have fewer permanent impacts to the socioeconomic, natural, physical, and cultural resources environment than other alternatives.

TPWD Comments and Recommendations on the DEIS

As the state agency with primary responsibility for protecting the state's fish and wildlife resources, in accordance with the authority granted by Parks and Wildlife Code §12.0011, per coordination under NEPA, and per coordination with USACE, Texas Parks and Wildlife Department (TPWD) hereby provides the following recommendations and informational comments to minimize the adverse impacts to the state's fish and wildlife resources and state parks in the routing, construction, mitigation, and operation of the proposed HSR Project. The subsequent sections of this Attachment are organized by sections in the draft EIS.

Comment: Please note that due to the size of the draft EIS document and release of the draft EIS and Clean Water Act (CWA) Section 404 permit applications on December 22, 2017, immediately prior to the holiday season, TPWD's review was as possible, given the resulting compressed timeframe for review. However, it is likely that information applicable to TPWD concerns may have been overlooked by TPWD staff.

After attending a June 2014 Agency Scoping Meeting and October 2014 Agency Workshop, TPWD provided the FRA with a copy of the April 2013 preliminary information letter that was sent to the Texas Department of Transportation (TxDOT) regarding the Texas –Oklahoma Passenger Rail Study (TOPRS). TPWD provided the TOPRS project letter to the FRA since it addresses many of the concerns and recommendations that would be common to the proposed Project on an ecoregion basis. When the scope narrowed to six route alternatives, TPWD provided additional input on the Project during the scoping period for the draft EIS by letter dated February 26, 2016. With refinement of the Build Alternatives for the draft EIS, at TPWD's request, the FRA provided a digital copy of the GIS

shapefiles of the limits of disturbance (LOD) for the six Build Alternatives to assist in TPWD's review of the Project.

Recommendation: Please review previous TPWD correspondence and consider the recommendations provided in that correspondence which remain applicable to the Project. For recommendations that may have been addressed in the draft EIS, the previous recommendations may provide greater detail than how they were reiterated or addressed in the draft EIS.

Section 2.7.2 Comparison of Build Alternatives A, B and C

After eliminating Build Alternatives D, E, and F due to statutory considerations regarding the availability of a viable alternative to crossing the existing USACE federal project at Lake Bardwell, FRA compared Build Alternatives A, B and C to identify the preferred alternative. This section of the draft EIS indicates that recreational facilities are an environmental resource with negligible differences between alternatives. TPWD disagrees and considers Build Alternative C, which crosses Fort Boggy State Park (SP), as noticeably different from Build Alternatives A and B, which are not near and do not cross Fort Boggy SP, a state-owned recreational property. This is further supported by Section 3.13.5.2.2 addressing existing land use conversion which indicates that impacts to parks and recreation areas would be more prevalent under Build Alternatives C and F.

Recommendation: TPWD recommends removing recreational facilities from the list of resources having negligible difference in identification of a preferred alternative and including recreational facilities as an evaluation criteria in Table 18 of the executive summary.

Section 3.3 Water Quality

Section 3.3.6.1 identifies water quality compliance measures (WQ-CM) that would be required for all Build Alternatives. WQ-CM#3 includes blankets and matting as one of a number of stormwater control measures that could be used to stabilize disturbed areas.

Recommendation: For soil stabilization and/or revegetation of disturbed areas, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydromulching, and/or hydroseeding rather than erosion control blankets or mats in revegetation efforts due to a reduced risk to wildlife. If erosion control blankets or mats will be used for the Project, the products should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting should be avoided. TPWD recommends the EIS include a mitigation measure for utilizing wildlife-friendly products.

Water quality mitigation measures (WQ-MM) are measures that would be implemented to minimize impacts to water quality. WQ-MM#3 indicates that seed mixes used for revegetation efforts should be approved by the U.S. Department of Agriculture to minimize the introduction of invasive species and to restore temporary construction areas to similar, or better, if feasible, preexisting conditions.

Recommendation: TPWD recommends that seed mixes in previously undisturbed areas such as native pasture and woodlands, consist of native species appropriate for the ecoregion. Areas of

existing wetland and riparian habitats should be restored with appropriate native wetland and riparian species and detailed in the Project's mitigation plan for impacts to Waters of the U.S. This would be to prevent native habitats from being converted to potentially non-native agricultural-related species, such as non-native bermudagrass (*Cynodon dactylon*) and KR bluestem (*Bothriochloa ischaemum*). Refer to TPWD's February 26, 2016 scoping letter for further details.

Recommendation: TPWD recommends that WC-MM#3 also indicate that TCR should prepare and follow a maintenance plan to monitor, treat, and control invasive species within the construction and operation right-of-ways (ROWs).

Section 3.4 Noise

Noise and vibration assessments apply primarily to how they affect people with screening distances at 1,300 feet for noise (new HSR in rural areas) and 275 feet for vibration. The Project contains no Category 1 land uses, which includes land where quiet is an essential element of their intended purpose. Land use Category 2 includes residences and buildings where people normally sleep. Project impacts to noise receivers in Category 2 include zero, moderate, and severe impacts depending on how close they are to the Project and the level of existing noise. Land use Category 3 includes primarily day-use buildings such as schools, churches, and libraries, and some parks and recreational facilities, and are termed institutional land uses. The Project only identified moderate operational noise impact on one noise receiver in Category 3, with no other Category 3 land use impacts.

Section 3.4 Noise and Fort Boggy SP Visitors and Wildlife: Although parks were identified as a sensitive land use in the study area, the summary of existing noise measurements in Table 3.4-8 does not include Fort Boggy SP as a short-term or long-term monitoring site. The noise impacts at Fort Boggy SP were not characterized in Table 3.4-12, regarding operational noise impacts for Category 2 land uses, which could include campsites at Fort Boggy SP, nor in Table 3.4-13, regarding operational noise impacts for Category 3 land uses, which includes parks. TPWD considers Fort Boggy SP as a noise sensitive location and a sensitive land use that would have 24-hour noise sensitivity for users wanting to enjoy nature. Any increase in existing noise would be considered an impact at Fort Boggy SP.

The elevation of the tracks and the deciduous and often short-statured (30 feet or less) nature of the woodlands at Fort Boggy SP exacerbate the impacts on the park's noise environment. Visitors to the park come specifically to escape from urban noise, and the frequency and loudness of the proposed HSR facility will degrade their experience. The park's Facilities Development Plan (Carman 2014) includes trails to be built within 0.25 mile of the proposed rail line, which is within the study area for noise impacts. The placement of these trails was determined due to archeological and sensitive habitat constraints as well as the park's mission to get visitors out into nature for their enjoyment.

Section 3.17 regarding recreational facilities briefly discusses noise impacts and dismisses the need for evaluation of noise impact to Fort Boggy SP because no park amenities are located within the Project's 0.25-mile study area for indirect impact to recreational facilities. Fort Boggy SP contains one overnight campsite that is within 0.25 mile of the proposed LOD as shown in Figure 1.

Studies have shown an adverse effect of increased noise levels on wildlife populations, including incremental increases caused by the enlargement of existing transportation facilities. Furthermore, these studies show that wildlife become sensitized to continued noise and that it increases levels of

stress hormones as well as interferes in their ability to communicate (e.g. bird territorial calls). The west side of Fort Boggy SP is being managed largely as a wildlife and plant conservation area allowing for limited human use (dirt path hiking trails are likely to be built, but none have been constructed at this time). The Project's 0.25-mile noise study area covers approximately 656 acres of forest and wetland habitat at the park including more than half of its marshland; an area important to breeding amphibians and birds for which acoustic pollution is especially harmful.

Recommendation: TPWD recommends an extensive noise impacts evaluation on Fort Boggy SP's visitors and wildlife in the EIS. The entire property is parkland that would allow for future trails and camping areas upon adequate funding, thus the draft EIS should assess noise impacts for any portion of the property within the study area, regardless of whether existing amenities are present in the study area. TPWD recommends assessing noise within Fort Boggy SP at the ROW of the Project, at the one-quarter mile mark from the LOD on each side of the Project alignment during winter months when deciduous trees would be in leaf-off conditions, and at the existing campsite. The evaluation should take into consideration the basin-like topography of the landscape and the potential for noise to echo across the park greater than the one-quarter mile study area distance. Noise impacts on Fort Boggy SP should also be incorporated in *Chapter 4.0 Indirect and Cumulative Impacts*.

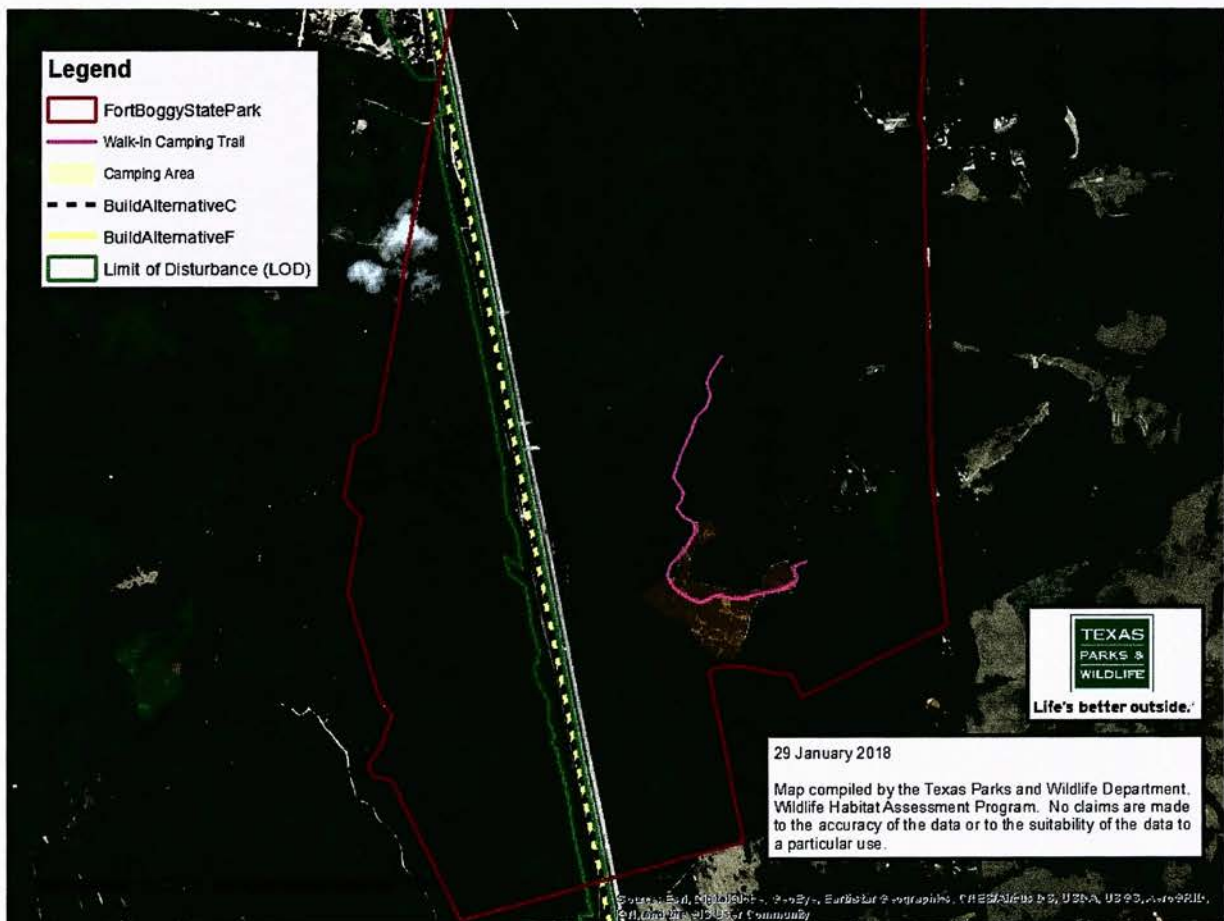


Figure 1: Fort Boggy State Park

Section 3.4 Noise/Vibration and Wildlife: Criteria for noise effects on wildlife (mammals and birds) and domestic animals (livestock and poultry) were identified as a Sound Exposure Level of 100 decibels (dBA). Appendix E indicates that the 100 dBA limit would only be exceeded within 15 feet from the tracks which is inside the HSR ROW. The draft EIS concludes no noise impacts to wildlife would occur because no animals would be this close to the tracks. The draft EIS indicates that the startle effect on wildlife would be minimized by maximizing the use of viaduct, and in most places the viaduct would be at a height that exceeds the minimum distance for startle effect impacts, which is presented as 40 feet. The draft EIS indicates noise levels would be reduced by shielding either below the viaduct or within a culvert and concludes no significant noise impacts on wildlife would occur underneath the tracks.

Although mentioned by TPWD as a concern during scoping, the draft EIS does not indicate that the culverts under IH-45 within Freestone and Leon Counties are known to support roosting and/or hibernating bats which may be impacted by construction and operation noise and vibration along Build Alternatives C and F. The Texas Natural Diversity Database (TXNDD) contains element occurrence records (EORs) for nine bat roosts in IH-45 culverts within the LOD. Associated with these bat roosts are two EORs of the Southeastern myotis bat (*Myotis austroriparius*), which is a species of greatest conservation need (SGCN) as listed on the TPWD Annotated County Lists of Rare, Threatened, and Endangered Species of Texas online application (RTEST) and identified in the Texas Conservation Action Plan (TCAP). The draft EIS does not present vibration exposure levels for wildlife, specifically bats. Vibrations and noise can cause arousal from hibernation. Disturbance to hibernating bats reduces the probability of survival because arousals and the return to euthermia depletes imperative fat reserves (Smith and Stevenson 2015). A noise disturbance effect of the Project could include bat roost abandonment (CalTrans 2016), however, TPWD is not aware of research regarding bats and noise or vibration impacts associated with existing HSR. The draft EIS Section 3.6 also indicates that the effect of train noise and vibration on wildlife, including wildlife habituation to HSR, is unclear because it has not been thoroughly studied. Because roosting and/or hibernating bats would be located near or directly underneath the HSR ROW, the noise and vibration impacts of the HSR on these wildlife resources should be fully addressed in the EIS.

The draft EIS indicates that noise impacts on wildlife would be reduced for sections on viaduct or within a culvert crossing under the Project, but it does not indicate the extent of noise reduction or the level of noise proposed under the viaduct or within a culvert under the Project. The draft EIS does not indicate vibration levels within proposed wildlife crossing culverts or how vibration levels may differ under the Project for designs at-grade, on embankment, or on viaduct.

A noise and vibration mitigation measure (NV-MM) that would be implemented to lessen the impacts of all Build Alternatives includes NV-MM#1 which indicates that during final design, TCR would conduct additional noise and vibration assessments of sensitive receivers along the preferred alternative. NV-MM#3 addresses sound barrier mitigation, but it is not applicable to noise- and vibration-sensitive wildlife, such as bats.

Recommendation: TPWD recommends the EIS identify the extent of noise reduction and the levels of noise and vibration proposed under the Project for designs at-grade, on embankment, or on viaduct. TPWD recommends further assessment of noise and vibration impacts to bats. TPWD recommends identifying existing sound and vibration levels within representative culverts along IH-45 without freight rail traffic to establish a baseline for assessing potential noise and vibration impacts to bats as a result of the Project.

Recommendation: If further analysis regarding noise and vibration impacts on bats indicates that noise or vibration levels caused by the Project could trigger disturbance, then TPWD recommends a) identifying bat roosts and hibernacula as sensitive receivers for NV-MM#1, b) developing a NV-MM specific to bats that identifies practices that will be utilized to attenuate any adverse noise and vibration impacts in known areas of roosting/hibernating bats or in culverts found to contain bats during surveys along the preferred alternative, c) documenting the noise and vibration attenuation practices as mitigation measures in the post-ROD Mitigation Monitoring Program, and d) including research of HSR noise and vibration impacts on roosting and/or hibernating bats as a NV-MM because FRA criteria adopted for effects on animals by HSR noise and vibration are considered interim until further specific research results are known.

Section 3.6 Natural Resources

Section 3.6 Protected Species: The draft EIS addresses potential Project impacts to four federal- and state-listed endangered species: Houston toad (*Bufo houstonensis*), interior least tern (*Sterna antillarum athalassos*), Navasota ladies'-tresses (*Spiranthes parksii*), and large-fruited sand-verbena (*Abronia macrocarpa*). The EIS identified that the study area contains suitable habitat for the Houston toad, Navasota ladies'-tresses, and large-fruited sand verbena based on the creation of Project-specific habitat suitability models coupling Ecological Mapping Systems of Texas (EMST) and additional data specific to each species. In consultation with USFWS, three years of presence/absence surveys for these species are being conducted in suitable habitat in areas with right-of-entry permissions. Natural resource compliance measure (NR-CM) #8 indicates that areas of potential habitat that could not be accessed for species surveys would be monitored during construction by qualified biologists approved by the USFWS with protocols for ceasing construction and contacting USFWS upon unexpected encounters of Navasota ladies'-tresses and large-fruited sand verbena. More rigorous NR-CMs are identified for the Houston toad. The draft EIS indicates that 208 acres, representing 66 percent of the potential habitat of the large-fruited sand verbena, were not accessible during presence/absence surveys. The draft EIS does not indicate the percent of potential Navasota ladies'-tresses or Houston toad habitats that were not accessible during presence/absence surveys for these species.

Recommendation: TPWD recommends the EIS identify the percent of potential habitat not accessible during presence/absence surveys for the Navasota ladies'-tresses and Houston toad.

The EIS concluded that the study area does not contain suitable habitat for the federal- and state-listed endangered Texas prairie dawn (*Hymenoxys texana*) due to an evaluation of the Project-specific habitat suitability model, TXNDD EORs, review of historic aerial photography, and field investigations for the presence of mima mounds, which are closely associated with the presence of Texas prairie dawn. The EIS does acknowledge that if mima mounds are found during any field efforts, then presence/absence surveys for the species would be conducted.

While the draft EIS recognizes the potential for the Texas prairie dawn to occur within the Harris County study area, TPWD is concerned with the draft EIS assumption that absence of mima mounds due to past agricultural modification would likely negate the presence or return of the species. According to Singhurst et al. (2014), the plant association likely to include the Texas prairie dawn persists on sandy and clay prairie landscapes with salty barren spots adjacent to or between mima mounds. Additionally, the authors note the barren spots generally hold water during wet seasons, which is suggestive of depressional wetlands. Texas prairie dawn is known to occur in locations near

all Build Alternatives including sites on Katy Prairie Conservancy land and the Addicks and Barker Reservoirs Project lands. Singhurst et al. (2014) note that the plant often occurs in association with other rare, endemic species.

Recommendation: Based on the information presented above and because the Texas prairie dawn is very difficult to identify outside the flowering season, TPWD recommends a NR-CM for TCR to consult a botanical expert with experience in detecting the Texas prairie dawn to survey the preferred route for the Texas prairie dawn prior to commencing any construction.

Recommendation: TPWD recommends that NR-CM#8 include the Texas prairie dawn in the event this species is unexpectedly encountered.

The Section 3.6.4.4.2 discussion regarding EOR for nesting/breeding populations of the federal- and state-listed endangered interior least tern (*Sterna antillarum athalassos*) indicates that no reports of nesting have been made since 2006 and that variability in potential nesting habitat caused by frequently flooded sandbars prohibits the ability to map potential habitats.

Comment: Although NR-CM#9 addresses interior least tern occurrences at lignite mining sites, the Section 3.6.4.4.2 discussion does not indicate that the two EORs from Freestone and Leon County are associated with lignite surface mining sites and that there would also be variability in the location of potential habitat in disturbed mining sites. Please note that although the TXNDD occurrences are mapped as of 2006, there is more recent nesting data from lignite mining sites that are reported to the Railroad Commission of Texas, which is the state agency with oversight of lignite mining in Texas and whose permit requires annual reporting of listed species occurrences within the mining permit area. Indicating that no reports have been made since 2006 is inaccurate.

The Project is located within an approximately 200-mile wide corridor in which 95 percent of sightings of the Aransas/Wood Buffalo flock of the federal- and state-listed endangered whooping crane (*Grus americana*) have been documented during migration. Safe access to stopover sites is critical for the migration of whooping cranes. Please note that the only wild population of the whooping crane is the Aransas/Wood Buffalo flock which contained an estimated 329 individuals in 2016, thus it is important to consider Project impacts to this rare species and its stopover habitat. However, the draft EIS indicates that the whooping crane is not evaluated further within the EIS because it does not nest in the study area and would potentially occur as a transient or migrant.

Collisions with power lines are a source of mortality for whooping cranes. During migration, whooping cranes use waste grains from cropland including barley, wheat and corn and use wetland habitats such as marshes, small ponds, lake edges, and some river habitat.

Recommendation: TPWD recommends that TCR avoid locating the Build Alternatives near areas that may provide stopover habitat for whooping cranes during migration. TPWD recommends that the Build Alternatives be evaluated for potential whooping crane migration stopover habitat. Areas of potential stopover habitat should be considered as avoidance areas for proposed routes to reduce potential collisions of this species with the catenary system and Project-related electric transmission lines. During construction and low-light conditions, TPWD recommends lowering construction cranes or other large articulating arms of equipment to avoid bird collisions. TPWD recommends a NR-CM specifying that TCR will report bird and other wildlife strikes and mortality to FRA and/or USFWS during construction and operation.

The draft EIS rules out potential occurrence in the study area of the federal- and state-listed endangered red-cockaded woodpecker (*Picoides borealis*) based on the EMST and the lack of vegetation types with park-like stands of pines which is the habitat requirement for this species. The EIS does recognize that EMST is meant for generalized guidance and that actual conditions and acreages may differ in the EMST from actual on-the-ground measurements. Because not all of Texas has been ground-truthed to verify the vegetation types in the EMST, there could be areas of suitable protected species habitat in the study area that may not have been identified using the EMST and other models. Species models come with assumptions and should not be the sole method for determining where suitable habitat occurs within the preferred alternative and should not be used in the place of a field assessment of the preferred alternative.

Recommendation: TPWD recommends a NR-CM in which the preferred alternative is fully assessed on-the-ground to ensure that all suitable habitat for the federal- and state-listed endangered red-cockaded woodpecker, whooping crane, Houston toad, interior least tern, Navasota ladies'-tresses, large-fruited sand verbena, and Texas prairie dawn have been identified and appropriately surveyed prior to construction.

Section 3.6 General Wildlife and Vegetation: The draft EIS does not include state-listed threatened plant and wildlife species or species of greatest conservation need (SGCN) in the analysis of Project impacts on protected species and only includes federally-listed species afforded protection under the Endangered Species Act. The document indicates there are 35 SGCN plant species identified by TPWD that have no regulatory protection. The draft EIS also indicates that two plant species had no potential to occur due to local population extirpation, but those plants are not named. Table 3.6-8 lists 37 protected wildlife species with potential to occur in the Project counties including state-listed wildlife. This list was narrowed to two federal- and state-listed wildlife species, mentioned above, for analysis of Project impacts on protected species. The draft EIS dismisses the need for evaluation of 14 wildlife species whose range is outside the Project area (i.e. marine species), 7 birds that would be present only during migration or as transients, and 14 state-listed wildlife species considered as having no regulatory protection with the state, other than liability for take. No portion of the draft EIS specifically considers or names approximately 12 fauna and 37 flora SGCN provided on the TPWD RTEST county lists.

Recommendation: TPWD recommends the EIS identify which rare, SGCN, and extirpated plant and wildlife species, that are listed on the TPWD RTEST county lists, were dismissed from the analysis of impacts.

With the implementation of natural resource compliance measures (NR-CM) and mitigation measures (NR-MM) identified in Section 3.6.6, the draft EIS concludes that all Build Alternatives would have no significant impacts to general wildlife and vegetation, including state-listed species and SGCN. However, the draft EIS states that all mitigation measures for general wildlife and vegetation are considered due diligence measures and do not have associated regulations or an enforcement agency because no state regulations exist for mitigation of impacts to general wildlife and vegetation.

Some of the wildlife and vegetation avoidance and minimizations measures and NR-MMs are in line with TPWD scoping recommendations including practices to maximize the use of disturbed lands, to minimize fragmentation by following existing utility and road corridors where practicable, to build on viaduct for approximately 60 percent of the route, to minimize the LOD, to utilize wildlife crossings,

to construct with wildlife-friendly trenches, and to use dark-sky friendly lighting. However, the draft EIS falls short in fully considering the Project's impacts on state-listed species, SGCN, and rare vegetation communities and in identifying mitigation measures to avoid or minimize impacts to some state-listed species and other rare natural resources.

Recommendation: TPWD recommends incorporating additional NR-MMs into the Project as discussed below.

The draft EIS indicates that impacts to state-listed species, including two federal candidate species, could be minimized and/or avoided by mobilizing qualified biologists to conduct surveys prior to and during construction activities, to ensure that the Project is constructed following the NR-MMs, to identify species encountered, and to relocate species to avoid direct mortality because the only way to comply with state laws and regulations is to avoid incidental take of state-listed species. However, none of the NR-MMs indicate that TCR should utilize a biological monitor to reduce potential impacts to general wildlife and vegetation including state-listed species, SGCN, and rare vegetation communities.

Recommendation: With the absence of the assessment of Project impacts to state-listed species and SGCN that have potential to occur in the LOD, TPWD recommends the EIS identify a NR-MM to reduce impacts to sensitive resources in which TCR utilizes a qualified and TPWD-permitted biological monitor to be present during site clearing and construction activities to monitor the LOD for state-listed species, SGCN, and other sensitive resources and to conduct TPWD-permitted wildlife relocation, when necessary.

Recommendation: TPWD recommends that NR-MM#1 for site training be expanded to specifically include state-listed species and rare SGCN potentially occurring in the Project area.

The draft EIS acknowledges the TXNDD occurrences of colonial waterbird rookeries and bald eagle nesting areas within the study area. NR-MM#2 identifies federally-listed species habitat, waterbird rookeries, bald eagle nesting areas, migratory bird nests, waters and wetlands, and riparian corridors as sensitive habitats subject to exclusion fencing, flagging, and signage to preclude impacts. Additionally, NR-CM#2 addresses surveying for bald eagle nests in compliance with the Bald and Golden Eagle Protection Act and following the National Bald Eagle Management Guidelines.

Recommendation: TPWD recommends NR-MM#2 include TXNDD EORs of state-listed and SGCN flora and rare vegetation communities as sensitive habitat areas to be flagged as avoidance areas during construction.

Of the 14 state-listed wildlife species eliminated from evaluation of protected species, the Louisiana pigtoe (*Pleurobema riddellii*), Texas heelsplitter (*Potamilus amphichaenus*), Texas pigtoe (*Fusconaia askewi*), sandbank pocketbook (*Lampsilis satura*) smooth pimpleback (*Quadrula houstonensis*), Texas fawnsfoot (*Truncilla macrodon*), creek chubsucker (*Erimyzon oblongus*), and alligator snapping turtle (*Macrochelys temminckii*) are aquatic state-listed species with suitable habitat in some waters crossed by the Project. The smooth pimpleback and Texas fawnsfoot are also federal candidate species. Based on nearby surveys, the Trinity River most likely contains state-listed mussels at its intersection with all Build Alternatives.

Where Project activities could impact aquatic resources, including state-listed species, TPWD may recommend relocating aquatic life under a TPWD permit as detailed in TPWD's scoping letter. Impacts could occur where the Project requires work within streams, such as at temporary or permanent haul roads or crossings or where dewatering activities could strand aquatic resources.

As indicated in TPWD's scoping letter, TPWD regulates take of mussels, including both native common mussels and state-listed mussels.

Recommendation: NR-MM#3 regarding aquatic resources and the potential need for presence/absence surveys for mussels should indicate that such surveys would be applicable for native common mussels and state-listed mussels and should be conducted under the authority of a TPWD permit and an associated Aquatic Resource Relocation Plan (ARRP), see *8.0 Applicable Federal, State and Local Permits and Approvals* below. ARRs also contain information regarding protocols for mussel surveys. NR-MM#3 should also indicate that coordination with the TPWD Kills and Spills Team to initiate such a permit would also apply to Project activities with potential to impact aquatic resources during stream disturbances or dewatering. See TPWD February 26, 2016 scoping letter for more details.

The draft EIS does not address the Project's potential to introduce or spread aquatic invasive species (AIS) during construction activities in inland waters.

Recommendation: For compliance with TPW Code Sections 66.007 and 66.0072 and Texas Administrative Code (TAC) Title 31, Part 2, Chapter 57, Subchapter A, TPWD recommends a NR-CM in which TCR must prepare and follow an AIS transfer prevention plan that outlines BMPs that will be used to prevent inadvertent transfer of AIS species to new areas via Project equipment and temporary fills that would enter and/or leave inland waters. Refer to TPWD February 26, 2016 scoping letter for more details.

Although the draft EIS indicates no TXNDD EORs for the state-listed threatened creek chubsucker (*Erimyzon oblongus*), the TXNDD does contain a record of the creek chubsucker (EOR 13127) within Hurricane Creek in a temporary construction area located at approximately Station HN2 369+00 within the LOD along Segment 5 for all Build Alternatives. The Appendix D Project footprint maps show that Hurricane Creek and its associated woodland and riparian corridor would be disturbed for temporary construction. Other temporary construction areas and permanent areas used for ancillary facilities throughout the Project also contain wetland, open water, and stream habitats and their associated riparian corridors. It is not clear if the Project would require full disturbance across all temporary construction areas.

Recommendation: For the protection of the state-listed threatened creek chubsucker, TPWD recommends that the temporary construction area at Station HN2 369+00 be designed to avoid disturbance to Hurricane Creek and its associated riparian corridor.

Recommendation: Because of the importance of waters and their associated vegetated buffers which are identified as sensitive habitat areas in NR-MM#2, TPWD recommends that all areas of temporary construction along the selected route be designed to avoid disturbance to wetlands, open waters, streams, and their associated vegetated buffers, to the extent feasible, for the protection of those waters as well as the wildlife that utilize those habitats. Permanent ancillary facilities such as TMFs, MOWs, TPSSs, sectioning posts, sub-sectioning posts, signal houses, communications

housing, and detention basins should be further refined during final design to avoid impacting waters of the U.S. and their associated vegetated buffers to the greatest extent practicable. Detention and retention sites should not be constructed on-channel in existing streams.

As indicated in TPWD's scoping comments, of the state-listed terrestrial species potentially occurring in the Project LOD, the threatened Texas horned lizard (*Phrynosoma cornutum*), timber rattlesnake (*Crotalus horridus*), and Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) are more at risk for being impacted by construction activities due to their limited mobility or life history requirements.

The EIS indicates the potential for the state-listed threatened Rafinesque's big-eared bat to occur within the study area due to the occurrence of bottomland hardwoods and includes NR-CM#3 specific to surveying potential tree, culvert, and bridge roost habitats for maternity colonies of Rafinesque's big-eared bat and to not disturb the colonies until pups have fledged. As indicated in scoping comments and in *Section 3.4 Noise*, bat roosts are located within culverts under IH-45 in Freestone and Leon Counties.

Recommendation: TPWD recommends the EIS identify that culverts under IH-45 would also serve as suitable habitat for the Rafinesque's big-eared bat because multiple culverts along IH-45 and within the LOD of Alternatives C and F have EORs for bat roosts including two EORs of the Southeastern myotis bat, an SGCN.

Recommendation: TPWD recommends that NR-CM#3 also include consultation with TPWD upon detection of bat roosts that will be disturbed by the Project to determine appropriate mitigation, such as construction of artificial roosts to offset the impact to bats.

Recommendation: If Build Alternative C or F is selected as the preferred alternative, TPWD recommends a NR-MM to survey the culverts along the length of the Project where the Project would follow IH-45 to identify bat roosts within the LOD. TPWD recommends NR-MMs to minimize noise and vibration impacts on bats and to conduct studies to evaluate those impacts on bats, see TPWD's NV-MM recommendations in *Section 3.4 Noise*.

Recommendation: TPWD recommends that bat roosts should be included as sensitive habitat areas covered under NR-MM#2.

NR-MM#5 and NR-MM#6 address construction trench practices to avoid trapping wildlife.

Recommendation: TPWD recommends additional NR-MMs specific to the state-listed Texas horned lizard and timber rattlesnake including site training to prohibit TCR and their contractors from intentionally killing the timber rattlesnake and other snakes, informing personnel of the dangers of handling live or dead timber rattlesnakes, identifying relocation protocols to be used by TPWD-permitted individuals for handling state-listed reptiles that will not readily leave the Project area and are in danger of impact by construction activities, and reporting encounters of state-listed species to the TXNDD. More details regarding these recommendations can be found in the TPWD February 26, 2016 scoping letter.

The draft EIS identifies NR-MM#9 to reduce barriers to wildlife movement including the installation of wildlife crossings in sections that are not built on viaduct following recommendations outlined in the wildlife crossings technical memorandum of Appendix E. The permanent wildlife crossings would

facilitate movement within a species' home range. The draft EIS indicates that the location of wildlife crossings would be determined through environmental analysis in consultation with TPWD and USFWS to identify wildlife corridors and large habitat blocks to facilitate placement of crossings. Potential locations of wildlife crossings are shown in the draft EIS *Appendix G Conceptual Engineering Plans and Details*.

Recommendation: TPWD recommends the use of wildlife crossings in areas of restricted movement across the ROW and seeks further coordination with TCR in finalizing the location of potential wildlife crossings. In addition to accommodating general wildlife resources, TPWD recommends strategic placement of wildlife crossings to accommodate the Eastern spotted skunk (*Spilogale putorius*), also known by its subspecies name in Texas as the Plains spotted skunk (*Spilogale putorius interrupta*), and the Southern crawfish frog (*Lithobates areolatus areolatus*), both SGCN. Crossings are recommended where multiple EORs of the Eastern spotted skunk and the Southern crawfish frog are located near the Project in northwest Harris County.

A large temporary construction area at the intersection of Wintergreen Trail and Lancaster Hutchins Road along Segment 1, at approximately Station DS 370+00, is directly adjacent to a recently documented rare native prairie remnant identified in the TXNDD as a Vertisol Blackland Prairie (*Schizachyrium scoparium* - *Sorghastrum nutans* - *Andropogon gerardii* - *Bifora americana* Vertisol Grassland; EOR 11919). The connection between the HSR and the Dallas South TMF would require permanent impacts within a portion of the prairie EOR where it borders Lancaster Hutchins Road. Native prairie remnants of the Northern Blackland Prairie have potential to support rare plants including the following SGCN as identified on the RTEST Dallas County lists: Texas milk vetch (*Astragalus reflexus*), Osage Plains false foxglove (*Agalinis densiflora*), Hall's prairie clover (*Dalea hallii*), and Glen Rose Yucca (*Yucca necopina*). This prairie remnant is vulnerable to loss due to development.

Recommendation: TPWD recommends TCR avoid or minimize temporary and permanent disturbances to the prairie remnant (EOR 11919) north of Station DS 370+00. TPWD strongly recommends TCR consider incorporating the prairie into the Project for permanent protection as a Project conservation area or mitigation area due to the vulnerability of the site to loss by future development. TCR may coordinate with TPWD to identify local conservation partners that could assist in proper management of the prairie property.

The Project will cross the Katy Prairie, an environmentally sensitive coastal prairie ecosystem, as discussed in the TPWD February 26, 2016 scoping letter.

Comment: Please refer to TPWD's comments and recommendations in *Section 3.7 Waters of U.S* below regarding impacts associated with the Katy Prairie.

Table 3.6-3 lists reptiles and amphibian species with potential to occur within the study area. The state-listed threatened timber rattlesnake (*Crotalus horridus*) is on the table with an indication there are only known records within three Project area counties (Dallas, Ellis and Navarro Counties). However, the TXNDD also contains EORs of the timber rattlesnake in Freestone and Leon Counties. The table does not include the Southern crawfish frog, an SGCN which has EORs in Freestone, Navarro, Harris and Waller Counties.

Recommendation: TPWD recommends Table 3.6-3 also represent known EORs from the TXNDD.

The draft EIS incorrectly references the TXNDD element occurrence records (EORs) as obtained from the TPWD county lists of protected species and species of greatest conservation need. Please note that the TXNDD is a database of known records of rare species, special features, and vegetation communities, whereas the TPWD RTEST online application provides information regarding state-listed species and species of greatest conservation need potentially occurring in each county in Texas. Both resources are separate tools managed by and obtained through the TPWD Wildlife Division's Wildlife Diversity Program in which the Wildlife Habitat Assessment Program and TXNDD staff are housed. For example, citation number 56 indicates that EORs were obtained from the county lists. Additionally, citation number 59 indicates that the TXNDD and RTEST are the same resource.

Recommendation: TPWD recommends correctly citing the TXNDD EORs and RTEST and revising the citations that are inaccurate.

Recommendation: TPWD recommends the Post-ROD Mitigation Monitoring Program identify post construction investigations that would be conducted to track, report, research, and remediate Project impacts on fish and wildlife such as collision with the catenary system, wildlife use of crossings, artificial bat roost use, and noise and vibration affects that have not yet been studied for HSR within the U.S.

Section 3.6 Habitats at Fort Boggy SP: Based on aerial review of the LOD, TPWD estimates that the proposed Project will cause the direct loss of approximately 15 acres of forested and marsh habitat at Fort Boggy SP including rare habitats for which the park has set aside for conservation including old-growth post oak (*Quercus stellata*) and sand post oak (*Quercus margaretta*) savanna, overcup oak (*Quercus lyrata*) swamp, Boggy Creek and its associated buttonbush (*Cephalanthus occidentalis*) marsh and swamp. However, *Chapter 7.0 Section 4(f) and 6(f) Evaluation* indicates that the Project would require acquisition of 67 acres of the park, thus the impacts to habitat may be greater than estimated. A Project-related detention basin is proposed in a rare habitat at Fort Boggy SP.

Comment: TPWD recommends full avoidance of habitats at Fort Boggy SP. If impacts cannot be avoided, then all impacts to park resources need to be fully mitigated, see TPWD comments for *Section 3.13 Land Use, Chapter 7.0 Section 4(f) and 6(f) Evaluation*, above and *Chapter 8.0 Applicable Federal, State and Local Permits and Approvals*, below. TPWD recommends that the Project-related detention basin proposed on Fort Boggy SP be moved to a non-forested upland area outside of the park.

Section 3.7 Waters of U.S

Due to concurrent review of the draft EIS and Section 404 permit applications, please refer to the section below titled *USACE Section 404 of the Clean Water Act Permit Applications* for TPWD input regarding impacts to Waters of the U.S for both the draft EIS and 404 permit applications.

Section 3.10 Aesthetics and Scenic Resources

The draft EIS Landscape Unit #6 Central Eastern Rural, Fairfield to Old San Antonio Road includes key viewpoint (KVP) #17, in the vicinity of Fort Boggy SP. The draft EIS indicates the viaduct would

be approximately 40 feet above grade almost to the top of the tallest trees, possibly reducing views of the park from the frontage road and rest stop. The draft EIS concludes a neutral degree of impact with slight reduction in visual quality for travelers and park users, and that the viaduct is compatible with surrounding environment. All Build Alternatives rank close to each other with regards to beneficial (all equal), adverse (all equal), and neutral (close) visual impacts.

TPWD cannot determine by the information provided in the draft EIS how the height of the viaduct relates to the height of IH-45 and the existing trees across Fort Boggy SP. A portion of Build Alternatives C and F would also cross the park in an open marsh area without tall trees to act as existing screening of the viaduct to park visitors. The draft EIS does not give an indication of whether the proposed HSR would be visible from areas within Fort Boggy SP.

Recommendation: TPWD recommends the EIS identify the heights of the viaduct relative to the existing natural and manmade environment across Fort Boggy SP and identify potential lines of sight from the park amenities to the HSR. If the HSR would be visible from existing park amenities, then TPWD recommends an aesthetics and scenic resources mitigation measure for TCR to provide natural screening in consultation with TPWD to reduce visual impacts to park users for Build Alternatives C and F.

Section 3.13 Land Use

The draft EIS indicates that the Project would require permanently converting approximately 13.7 acres of state-owned public use land at Fort Boggy SP to transportation use, where the park is crossed by Build Alternatives C and F in Leon County. Because there appears to be no condemnation authority for the taking of state-owned lands for this Project, the approval of the Texas Parks and Wildlife (TPW) Commission, subject to the requirements and limitations of Chapter 26 of the Texas Parks and Wildlife Code (Chapter 26), would be necessary for the granting of any easement across Fort Boggy SP. Section 3.13.5.2.2, regarding the environmental consequences of converting existing land uses, discusses the conversion of recreational use to transportation use at the federal property at Lake Bardwell, but does not discuss the conversion occurring at Fort Boggy SP under Build Alternatives C and F. Section 3.13.2, regarding state regulatory context, and Section 3.13.5.2.2 do not identify TCR's need to comply with Chapter 26.

The draft EIS identifies Chapter 26 in the draft EIS *Chapter 7.0 Section 4(f) and 6(f) Evaluation*, but does not address it further in the document, and the legal implications involved in crossing TPWD property are not adequately addressed. The proposed alternatives that cross Fort Boggy SP would constitute a constructive use or taking of public land used as a park, which requires compliance with Chapter 26. Chapter 26 requires that before a state agency (TPWD) can approve any project (proposed Project) that will result in the use or taking of public land designated and used as a park (Fort Boggy SP), that agency (TPWD) must provide certain notices to the public, conduct a hearing, and render a finding that there is no feasible and prudent alternative and that the Project includes all reasonable planning to minimize harm to the park. The use or taking of Fort Boggy SP would require approval from the TPW Commission for an easement with associated fees and mitigation for adverse impacts to the park. The amount of the fee and required mitigation would be determined by the TPW Commission. The Project includes four feasible and prudent alternatives to crossing Fort Boggy SP: Alternatives A, B, D, and E. However, FRA eliminated Build Alternatives D and E from further consideration in Section 2.7.2 *Comparison of Build Alternatives A, B and C*; therefore Build Alternatives A and B are feasible and prudent alternatives to crossing Fort Boggy SP. Because there

are prudent and feasible alternatives, it does not appear that the Chapter 26 standard could be met in connection with the Project's proposed use or conversion of Fort Boggy SP to transportation use.

Recommendation: TPWD recommends the draft EIS acknowledge the land use conversion at Fort Boggy SP in the sections regarding regulatory context and environmental consequences of existing land use conversion. TPWD recommends a land use compliance measure (LU-CM) for TCR to coordinate with TPWD and the TPW Commission to pursue approval and necessary agreements for the use of state-owned property associated with Fort Boggy SP in the event Build Alternative C or F is selected as the preferred alternative.

Comment: If the TPW Commission chooses to grant TCR an easement to cross TPWD property, the required process includes a public hearing at a regularly scheduled TPW Commission meeting. Coordination with TPWD and the TPW Commission regarding TPWD's Chapter 26 process needs to be initiated by TCR at least a year prior to construction.

The draft EIS includes an assessment of lands held under an Agricultural Conservation Easement created through the Agricultural Act of 2014 (also known as the Farm Bill) Agricultural Conservation Easement Program. One easement was identified within the study area and located one-half mile outside of the Project LOD, Warren Ranch/Barn Owl Woods. The draft EIS did not consider conservation easements established solely by non-profit natural resource organizations. As indicated by TPWD during scoping, land trust conservation easements protect and conserve the land's natural values such as wetlands, fertile soils, mature trees, and wildlife habitat. Fragmentation of wildlife habitat due to linear transportation projects on properties where conservation agreements serve to protect the state's natural resources now and in the future is of concern to TPWD. Lands with conservation easements protect existing wildlife habitat from future fragmentation, and TPWD recognizes that they have greater environmental integrity than comparable lands without conservation easements.

Recommendation: TPWD continues to recommend that properties protected by non-governmental conservation easements be identified in the EIS and avoided during development of the preferred alternative.

Section 3.17 Recreation

Section 3.17.3 identifies a change of use, access, visual quality, or noise as direct impacts to recreational facilities or parklands located within the LOD, and identifies indirect impacts as impacts to recreational facilities or parklands located within a study area 0.25 mile beyond the LOD to account for potential noise impacts. The draft EIS indicates construction noise would extend 40 to 630 feet from the noise source and operational noise would be less than construction noise.

Table 15 of the executive summary does not incorporate Fort Boggy SP as being impacted by any Build Alternatives including trails or parkland even though the non-federal public property is a state park that will require a change of use from state-owned land used for recreation to transportation use along Build Alternatives C and F.

Recommendation: TPWD recommends that Table 15 of the executive summary be corrected to indicate impacts to Fort Boggy SP by increasing the tally of parks impacted by one additional park for Alternatives C and F.

Comment: Table 3.17-6, regarding recreational facilities in the Leon County study area, incorrectly identifies Fort Boggy SP as owned by the USACE. This is state land under the ownership and management of TPWD. Table 3.17-6 also fails to identify cabins and hike-in campsites as site amenities. The discussion of Fort Boggy SP indicates it is located only on the east side of IH-45, when in fact it is located on both sides of IH-45. The discussion indicates Fort Boggy SP is open only for day-use; however, the park recently reinstated overnight use in campsites or in cabins.

The discussion of environmental consequences on recreational facilities identifies that operational impacts would be long-term and permanent and would represent direct changes that permanently alter the use, character, or setting of the recreational facility, such as acquisition of a portion of any recreational facility and changes in access, use, or viewshed.

The draft EIS states that Segment 3C along Build Alternatives C and F would not directly impact the recreational facilities within Fort Boggy SP even though the Build Alternatives would be on park lands and the reconstruction of the IH-45 west frontage road and the Build Alternatives would directly impact Fort Boggy SP property. The draft EIS concludes that the portion of the park impacted by the Project and frontage road reconfiguration are on undeveloped land and not accessible to park users and that 88 percent of the Project through the park would be on viaduct. The discussion also concludes that the park's recreational areas are outside the LOD for considering direct impacts and are outside the 0.25-mile study area for considering indirect impacts.

Please note that the acquisition of a portion of the Fort Boggy SP and the subsequent conversion of a portion of the Fort Boggy SP property, which is a recreational facility in its entirety, to transportation use within the LOD are direct impacts on Fort Boggy SP. Although it does not appear that the Project would impact access at the park due to the Project being primarily on viaduct, other direct impacts to Fort Boggy SP would be a change in the character of the park through a reduction in the size of vegetation communities and a potential change in viewshed. As indicated in *Section 3.10 Aesthetics and Scenic Resources*, above, the viewshed from within the park towards the proposed HSR were not adequately evaluated.

Additionally, because a Fort Boggy SP recreational trail and camping area east of IH-45 comes within 0.25 mile of the LOD, and because all areas of the park are a recreational property, the Project would have indirect impacts on the park and its visitors including temporary construction noise and permanent operational noise impacts that would degrade park visitor experiences.

Request: TPWD finds the conclusions regarding Fort Boggy SP inadequate and requests the EIS identify that the Project will have direct impacts on the park including acquisition of park property which is a recreational facility in its entirety, a change in use from recreation to transportation use, and a change in character of the vegetative setting and/or viewshed of Fort Boggy SP within the LOD. The EIS should also identify the indirect noise impacts to Fort Boggy SP. TPWD requests that the EIS identify that the Project will require compliance with TPW Code Chapter 26 and will require a Section 4(f) evaluation due to greater than *de minimis* impacts. See TPWD's input and more discussion regarding Fort Boggy SP in *Section 2.7.2 Comparison of Build Alternatives A, B and C*, *Section 3.4 Noise*, *Section 3.6 Natural Resources*, *3.10 Aesthetics and Scenic Resources Section*, *Section 3.13 Land Use*, *Chapter 7.0 Section 4(f) and 6(f) Evaluation*, and *Chapter 8.0 Applicable Federal, State and Local Permits and Approvals*.

Comment: The impacts on Fort Boggy SP should also be included in *4.0 Indirect and Cumulative Impacts*, Table 4-1.

Section 3.19 Cultural Resources

The draft EIS indicates that all Build Alternatives falling on non-federal public land, or land that is under the ownership or control of a political subdivision of the State of Texas, are subject to compliance with the Antiquities Code of Texas (Texas Natural Resources Code Title 9, Chapter 191) and require the Texas Historical Commission (THC) to review actions potentially disturbing prehistoric or historic sites within the public domain.

At Fort Boggy SP, the Project would require use of state-owned property along Build Alternatives C and F west of the existing IH-45 ROW to accommodate the HSR and reconfiguration of the IH-45 west frontage road, which appears to also be proposed as the HSR access road. Section 3.19, regarding cultural resources, does not identify Fort Boggy SP as a public property subject to the Texas Antiquities Code. In the park, there are three known archeological sites within the proposed frontage road corridor, and several more in the vicinity of a Project-related detention basin. One of the sites inside the proposed corridor has been recommended for further testing and may be significant. The other two may be an indication of something more significant nearby or deeper. The park has had multiple cultural resource surveys that have detected new records upon each subsequent survey. Historic records indicate that Fort Boggy was adjacent to a spring, and there is a spring at the north end of the proposed access road corridor. TPWD is concerned with the Project's impact in the vicinity of the spring, because the area has potential to be associated with the original location of Fort Boggy, which has never been found.

Because significant archeological sites continue to be discovered and the actual location of Fort Boggy has never been encountered, there is a potential to encounter unknown and unrecorded cultural resources, both historic and prehistoric, within the Project area in or near Fort Boggy SP.

Because the cultural resources at Fort Boggy SP have been overlooked in the draft EIS, THC may not be aware that the Project would cross state-owned land and affect its associated cultural resources. Because the FRA will not be able to fully determine the Project's effects on cultural resources prior to approving the Project, FRA and THC have decided to develop and implement a programmatic agreement for the Project to ensure the appropriate measures are taken to minimize harm for potential impacts. The draft PA will be available for public comment upon circulation of the final EIS.

Recommendation: TPWD recommends the EIS identify Fort Boggy SP as state-owned property subject to the Antiquities Code of Texas and recognize the potential for cultural resources to occur within the LOD within the park property.

Request: TPWD requests that FRA consult with TPWD to specifically address the cultural resources and assessment needs at Fort Boggy SP for inclusion in the EIS and PA.

Recommendation: If Fort Boggy SP property is utilized for any aspect of the Project, TPWD recommends a shovel test survey of the entire easement area and deep testing in locations where the potential for deeply-buried cultural remnants exist to determine appropriate mitigation measures for impacts to cultural resources at the park.

Chapter 4.0 Indirect and Cumulative Impacts

Refer to TPWD's input in *Section 3.4 Noise*, *Section 3.17 Recreation*, and *USACE Section 404 of the Clean Water Act Permit Applications*.

Chapter 7.0 Section 4(f) and 6(f) Evaluation

Section 4(f) of the USDOT Act (49 U.S.C. 303(a)) specifies that projects receiving funding from the USDOT may not support the use of a Section 4(f) property unless the agency (e.g., FRA) determines there is no feasible or prudent alternative to such use and the project includes all possible planning to minimize harm to the resource resulting from such use, or a finding can be made that the project as a whole has a *de minimis*, or minimal, impact on the Section 4(f) resource. This provision allows avoidance, minimization, mitigation, and enhancement measures to be considered in making a *de minimis* determination. For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact is one that would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

A Section 4(f) use occurs when land is permanently incorporated into a transportation facility, when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose, or when there is a constructive use of a Section 4(f) property as determined by the criteria in § 774.1.

Public parks, recreation areas, and wildlife and waterfowl refuges are protected under Section 4(f) when the property is publicly owned, the primary use is designated as a park, recreation area, or refuge by the official with jurisdiction over the resource, it is considered a significant use by the agency with jurisdiction, and it is open to the public. The study area for the Section 4(f) evaluation was identified as 0.25 mile from the LOD based on the screening distance for noise impacts.

The draft EIS indicates that Segment 3C, along Build Alternatives C and F, across Fort Boggy SP would require permanent acquisition of 67 acres (3.5 percent) of the park and that the area to be acquired is currently open space and does not contain developed recreational features. However, the draft EIS does recognize the permanent acquisition as a Section 4(f) use.

The draft EIS indicates that construction of Segment 3C would result in temporary increases in noise levels at Fort Boggy SP, and that the noise levels during HSR operation would be consistent with user expectations in the portion of the park within the LOD due to the existing IH-45 traffic noise. The draft EIS concludes that the increase in noise would not adversely affect the protected activities, features, or attributes of the property.

Comment: The discussion regarding Fort Boggy SP as an existing public park and recreation area along Segment 3C in Leon County, Table 7.2, and the assessment of the use of Fort Boggy SP should identify that the park includes overnight use and campsites.

Comment: TPWD is concerned that the draft EIS and Chapter 7 do not consider the noise effects on Fort Boggy SP visitors utilizing the trail and camping area that are within the 0.25-mile study area and that echo noise could carry farther than the one-quarter mile study area due to the topography of the area. TPWD considers any increase in noise an adverse impact on park visitor experience. Additionally, the ability of deciduous trees to buffer noise is greatly diminished during

leaf-off conditions, thus noise impacts may travel farther than the 0.25-mile study area during tree dormancy.

Chapter 7 of the draft EIS indicates that construction activities and the HSR viaduct would likely be visible from several portions of the park, but it is anticipated to be obscured by existing vegetation and IH-45 from the developed areas of the park.

Comment: TWD is concerned that the impacts to the viewshed from Fort Boggy SP were not fully investigated, and the ability for trees to obscure the viewshed would be reduced during the dormancy season, when deciduous trees lose their leaves.

TPWD agrees that access to the park would not be impacted because the height of the viaduct would allow for human and wildlife passage below the HSR. Additionally, if pursued by TPWD to develop areas west of the Project, access to the park would likely be obtained from the reconfigured west frontage road.

The draft EIS indicates that the following measures to minimize harm to Fort Boggy SP have been identified based on coordination to-date:

- Segment 3C was designed to be predominately on viaduct through Fort Boggy SP to minimize the direct impacts to resource, and
- During final design, TCR would continue to identify ways to minimize impacts to Fort Boggy SP.

These minimization measures would not eliminate the permanent conversion of Section 4(f) property. However, FRA's preliminary determination is that the use of Fort Boggy SP, including any measures to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures), would have *de minimis* impact on the property because the acquisition of property would not adversely affect the activities, features, or attributes that qualify the park for protection under Section 4(f).

The draft EIS indicates that FRA will make its Section 4(f) determination as part of the final EIS and/or ROD for the Build Alternatives, after considering public and agency comments on this draft Section 4(f) evaluation. The proposed impact and preliminary use determinations are based on coordination with the officials having jurisdiction over the respective resources, as described in Section 7.10. These officials will be notified of FRA's intent to make *de minimis* impact determinations, as applicable. Should the officials with jurisdiction concur, FRA would issue determinations of *de minimis* impacts as part of its final Section 4(f) determination in the final EIS and/or ROD.

Comment: TPWD is under the impression that this comment letter is TPWD's coordination with FRA per Section 4(f) in response to the draft EIS. Because of the concerns voiced above and in other sections of this letter, and because all measures to minimize harm to Fort Boggy SP have not been determined, TPWD cannot agree at this time with the *de minimis* determination.

Without a *de minimus* determination, the use of Fort Boggy SP could only occur if there are no feasible or prudent alternatives to crossing Fort Boggy SP property. The Project includes two other feasible and prudent alternatives, Build Alternatives A and B, as discussed in *Section 2.7.2 Comparison of Build Alternatives A, B and C*.

Recommendation: In the absence of details regarding the measures that will be implemented to minimize or mitigate harm to Fort Boggy SP, TPWD recommends that Build Alternatives C and F, which cross through Fort Boggy SP, be eliminated from consideration as preferred alternatives due to the determination of a Section 4(f) use that can be avoided with other feasible or prudent alternatives.

Additionally, visitors also utilize Fort Boggy SP for the wildlife and vegetative resources that offer passive recreation. Damage to the park's habitat, impact to cultural resources, and degradation of the visitor experience with respect to viewshed and noise would need to be fully mitigated in consultation with TPWD in order to determine if a *de minimis* impact is appropriate.

Recommendation: If FRA wishes to further assess the determination of *de minimis* use of Section 4(f) property at Fort Boggy SP, then TPWD recommends addressing the concerns of TPWD and identifying all mitigation measures in consultation with TPWD prior to seeking TPWD's concurrence with the determination. For direct use impacts to state park property, TPWD expects mitigation through acquisition of like (area, character, and conservation value) property adjacent to Fort Boggy SP that would become part of the park. TPWD recommends the implementation of noise reduction strategies to reduce noise associated with the HSR and/or to reduce existing noise on IH-45 as a way to minimize the cumulative impact of noise associated with the existing environment and the proposed Project. TPWD recommends mitigation measures to entirely avoid cultural resources at Fort Boggy SP or fully mitigate them. TPWD recommends visual screening mitigation measures to minimize impacts to park visitor viewsheds. TPWD recommends constructing auxiliary features, such as detention basins and HSR control facilities, outside of Fort Boggy SP property and outside of nearby forest used by wildlife whose home ranges overlap the park and adjacent lands. Additionally, TPWD recommends that stormwater discharges from the Project's drainage ditches and detention basins or other effluent be directed to areas away from Fort Boggy SP.

Chapter 8.0 Applicable Federal, State and Local Permits and Approvals

Comment: Table 8-1 should include:

- TPWD *Marl, Sand, Gravel, Shell or Mudshell Permit* for disturbance to state-regulated stream beds.
- TPWD *Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters* and associated Aquatic Resource Relocation Plan (ARRP) in the event that project activities within state waters necessitate the relocation of aquatic life to an area of suitable habitat outside the project footprint and to avoid TCR liability for lost resources under the authority of TPW Code Sections 12.0011 (b) (1) and 12.301.
- TPWD *Scientific Permit for Research*, which authorizes handling of state-listed terrestrial species associated with relocation, surveys, monitoring, and research.
- State approval under Chapter 26 of the Texas Parks and Wildlife Code, for Build Alternatives that cross Fort Boggy SP, regarding a change in land use from a state park to transportation use and regarding TCR's pursuit of an easement to cross Fort Boggy SP which can only be granted by the Parks and Wildlife Commission.
- State approval under the Antiquities Code of Texas (Texas Natural Resources Code Title 9, Chapter 191); Texas Administrative Code (Title 13, Chapter 26) for Build Alternatives that cross Fort Boggy SP, regarding impacts to cultural resources.

USACE SECTION 404 OF THE CLEAN WATER ACT PERMIT APPLICATIONS

Concurrently with the FRA preparation of the EIS, the USACE Fort Worth District and USACE Galveston District, which are also cooperating agencies for the Project, will be using the EIS and other permit application information in their evaluation of a Department of Army (DOA) permit and decision regarding impacts to wetlands and waters of the U.S. in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The USACE review and issuance of a permit under Section 404 is a separate federal action from FRA's determination on the safety of the system, and the DOA permits must be obtained prior to construction.

USACE-Fort Worth District 404 Permit Application # SWF-2011-00483

TPWD does not currently have sufficient information with regard to the specific location and extent of impacts necessary to evaluate the 404 permit application. Additionally, no mitigation plan was provided with the publically-available draft EIS materials. However, TPWD requested and obtained from the USACE a mitigation plan for the portion of the Project within the USACE Fort Worth District. The plan is highly conceptual in nature and lacks the detail necessary for TPWD to provide full review. The mitigation plan also includes significant discrepancies with the draft EIS related to the extent and type of impacts. For example, while Table 3.7-82 of the draft EIS indicates that Build Alternative A would result in an estimated total of 343.6 LF of impacts to perennial streams from culverts, excavation, and fill, and the mitigation plan estimates the size of potential impacts to perennial stream as 7,613 LF. A more detailed accounting of impacts and mitigation opportunities is necessary prior to permit issuance.

The mitigation plan indicates that each crossing of a Waters of the U.S. (WOTUS) would be considered a single and complete project, and that impact at these crossings totaling less than 0.1 acre (for wetlands) or 300 LF (for streams) would not be mitigated.

Recommendation: TPWD believes that unmitigated impacts for the Project's proposed single and complete crossings would represent a significant cumulative net loss to WOTUS in Texas, and that mitigation for lost functions should be provided to the greatest extent practicable.

Request: TPWD requests the opportunity to continue review of the mitigation plan and project materials related to the 404 process as they are further developed.

General Comments: Please refer to TPWD's recommendations provided in our review of the draft EIS, as they are also applicable to Section 404.

Culverts: If culverts are used at stream crossings, the crossings should be designed with the culvert(s) in the active channel area lower than those in the floodplain benches so that the flow in the channel is not overly spread out. The central/low-flow culvert(s) should be large enough to handle a 1.5 year flow without backing up water. The bottoms of these lower culverts should be set at least a foot below grade (i.e. recessed) to allow natural substrate to cover the culvert bottom and to allow for aquatic organism passage. These lower, recessed culverts should be installed in the thalweg or deepest part of the channel and be aligned with the low flow channel.

Permittee Responsible Mitigation: Permittee responsible mitigation (PRM) should be held to the same standards as mitigation banks with respect to site protection, performance standards, success criteria, financial assurances, etc. The applicant should refer to the Guidelines for Fort Worth District Mitigation Banks (Guidelines) in the development of their mitigation plan, which should be made available to the Interagency Review Team for review prior to permit issuance.

In accordance with the Guidelines, reference reaches should be identified to determine the potential ecological uplift of the proposed mitigation. Reference reaches should also be used to guide stream designs and credit calculations, and should consist of stable stream segments with measured morphological characteristics (dimension, pattern, profile, and bed material) associated with bankfull discharge.

The selection of a well-qualified consultant for stream channel mitigation design and implementation is critical for project success. A well-qualified stream consultant will have significant expertise and experience in actual stream design and implementation. Consistent with 33 CFR 332.8(d)(2)(vi) and the Guidelines, TPWD recommends that detailed qualifications include a project portfolio that demonstrates the consultant's experience in designing and implementing large-scale stream channel and riparian buffer mitigation projects. At a minimum, the portfolio should include the following for each project: name of project or bank, location (nearest city, state), client name, year initiated, size (i.e., linear feet for stream channel length; riparian buffer area in acres or riparian buffer width in feet), current status (i.e., "design", "construction", "post-construction", "monitoring year ___ of ___", or "completed/closed out") of existing projects, and "in-development" for proposed projects. TPWD also recommends the detailed qualifications demonstrate that key personnel have formal education and training in fluvial geomorphology or stream ecology.

Consistent with the Guidelines, 60 percent stream channel design plans should be required for the draft mitigation plan, and 95 percent design plans for the final mitigation plan. Additionally, as-built stream channel design plans should be required upon completion of earthwork.

Site Protection – Detailed information on the proposed easement holder should be provided for agency review in accordance with CESWF-12-MITB. Also, the draft conservation easement should be provided for agency review.

If the Project is permitted, TPWD recommends that all stream mitigation areas employ the use of specific and measurable performance standards outlined in *A Function-Based Framework for Stream Assessment & Restoration Projects - EPA 843-K-12-006*. At a minimum, the stream should meet the "Functioning" classification for the following parameters: Floodplain Connectivity (Bank Height Ratio), Entrenchment Ratio, Lateral Stability (using the Bank Erosion Hazard Index and bank pin measurements), Meander Width Ratio, Buffer Width (based on meander belt width), Bank Erosion Hazard Index, and Near-Bank Stress. A "Functioning-at-risk" classification would require repairs or adaptive management, while a "Not functioning" classification may result in a determination of project failure and a requirement that mitigation be attained by other means (such as a mitigation bank or additional off-site mitigation). Such standards are important not only for segments with a stream design component but also for riparian-only restoration projects. The use of such standards will help to demonstrate that the selected mitigation strategy is the most appropriate and effective for the site and is capable of producing stable and functioning stream segments.

Reconstructed streams should survive a minimum of two bankfull events not less than one year apart prior to the end of the monitoring period. Survival should be defined as meeting the “Functioning” classification for the aforementioned parameters. Additionally, a jurisdictional determination should be included as a success criterion and should demonstrate that all mitigation features are functioning as waters of the U.S prior to the end of the monitoring period.

TPWD recommends the sponsor utilize the following ecological performance standards as minimum success criteria for streams in addition to demonstrating stream stability and functional (TXRAM) lift:

- For tree plantings – Planting densities and survival criteria should be based upon approved reference conditions. If no reference is provided survival success will be determined by 250 stems/acre of living tree stems over two meters tall that have been rooted for 5 years.
- For herbaceous plantings – desirable native herbaceous success will be determined by a minimum of 70 percent aerial coverage after two years.
- There should be a diversity standard at the interim and final releases such as “of the eight riparian species planted, seven will persist with each of the seven constituting not less than 5 percent of the total stems.” It may be appropriate to consider the hard-mast and soft mast groups separately.
- Non-native, invasive plant species will not exceed 0 percent cover of the overstory and midstory and 1 percent cover of the herbaceous layer at the end of the monitoring period. A list of the non-native invasive plant species on the TexasInvasives.org website should be incorporated as an appendix to the site management plan. If the sponsor wishes to provide their own list, appropriate justification should be provided. Revegetation should only include the use of species native to the immediate area.

In accordance with the Guidelines, interim scores should be developed which indicate whether the Project is on an appropriate ecological lift trajectory toward the final score. Monitoring should occur until the Project attains projected TXRAM scores and all performance standards have consistently been met.

Monitoring and Long-term Management – Restored streams should be monitored for a minimum of 5 years post construction and planting, survival of two bankfull events, and until all performance standards are met. An endowment should be provided to fund long-term management of the mitigation sites. An entity should be designated as the party responsible for providing long-term management (invasive species control, fence maintenance, etc.).

Financial assurances should be developed for the short-term completion of the Project as well as for long-term maintenance. Long-term financial assurances to fund long-term management of the site, preferably in the form of a non-wasting endowment, should be provided to maintain the site in perpetuity as indicated in the Final Rule (33 CFR §332.7(d)(2)). These should be fully funded by the close of the monitoring period.

The first step of establishing the endowment is a detailed analysis of average annual costs of management activities needed to maintain and protect the Project’s stream functions and conservation values. The analysis should consist of a table that shows all of the tasks (e.g., invasive species management, monitoring, reporting, etc.); task descriptions; labor (hours); cost per unit; cost, frequency, timing or scheduling of the tasks; the total annual funding necessary for each task; and any

associated assumptions for each task required by the long-term management plan or reasonably anticipated for long-term management. Cost estimates should be based on tasks implemented by a third party in present-day dollars or equipment prices in present-day dollars.

TPWD recommends the applicant include an annualized, line item cost for perpetual legal defense of the conservation easement (CE). This line item is intended to be in addition to the agreed-upon fee between the applicant and the conservation easement holder. TPWD recommends the endowment principal be in an amount sufficient to fully provide for the financial requirements of the long-term management of the Project in accordance with the long-term management plan and the costs analyzed and identified above. The endowment principal must be large enough to generate adequate funds for annual long-term management activities after adjusting for inflation and investment fees. The applicant should select and justify an appropriate capitalization rate that will provide investment earnings to be used annually for long-term management expenditures. TPWD also recommends that any endowment fund revenues (including earnings and interest) remaining after the endowment principal is adjusted for inflation that exceed the anticipated annual management expenses of the Project be retained in the endowment fund and may be made available to fund unexpected expenses and adaptive management needs.

To ensure proper use and reporting of the funds, TPWD recommends the endowment be subject to annual independent audits and transparent reporting formats. More specifically, TPWD recommends the applicant retain the services of an organization or individual with demonstrated experience in successful investment and management of non-wasting endowments.

USACE-Galveston District 404 Permit Application # SWG-2014-00412

Draft EIS Section 3.7 Waters of the U.S. and 404 Permit Application

TPWD is concerned with the Project's impact on the Gulf Coastal Plain – Coastal Prairie Habitats and Wetlands which should be more fully addressed in Section 3.7.4, regarding the affected environment of Waller and Harris Counties, and the 404 Permit.

TPWD's February 26, 2016 scoping letter expressed concerns that the proposed alignment may further fragment coastal prairie habitat, including the Katy Prairie. Consequently, TPWD recommended the Project footprint follow U.S. Highway (US) 290 through this area to the greatest extent possible. However, review of the draft EIS and the Section 404 Public Notice (PN) issued by the USACE Galveston District, indicates a significant portion of the proposed alignment for all Build Alternatives along Segment 5 deviates from US 290 and traverses undeveloped land within the Katy Prairie in Harris and Waller Counties. Additionally, large portions of undeveloped land of the Katy Prairie in Harris County south of US 290 would be impacted by the potential placement of the Houston North TMF and temporary construction areas.

Coastal prairie historically covered approximately 6.5 million acres of Texas coastal plain and has been reduced to less than one percent of its historical range (Allain et al. 1999; USGS 2000), making it one of the rarest habitat types in Texas. Coastal prairie is considered a critically imperiled ecosystem by conservation organizations (Allain et al 1999). The Katy Prairie and other nearby grasslands support a system of freshwater wetlands within a complex micro-topography of mima mounds, depressions, ancient meander scars, and relict stream levees. The complex mosaic created by slight changes in elevation and inundation provides a diverse vegetative community that supports a range of habitat

niches for a broad selection of organisms. For example, the Katy Prairie Conservancy has recorded over 300 avian species, 110 species of mammals, amphibians, and reptiles, and more than 600 species of grasses, wildflowers, trees, vines, and shrubs on the approximately 20,000 acres of Katy Prairie that has been preserved by the organization. The Katy Prairie is designated a Global Important Bird Area by National Audubon and is vitally important for migratory birds that utilize the Central Flyway. In addition to sustaining wildlife, the wetlands of the coastal prairie serve to detain and filter the abundance of precipitation that falls on the Gulf coast. The IT has been demonstrated that for each 1 percent increase in organic matter in soil, the water-holding capacity increases 20,000 gallons per acre (Bryant 2015). Yet, evaluation of the loss of coastal palustrine emergent wetlands between the mid-1950s and the early-1990s showed a 29 percent decline, or an average annual net loss of 6,355 acres (Moulton et al. 1997). Subsequent research by Texas A&M University reported the loss of freshwater coastal prairie wetlands in Harris County alone from 1992 to 2010 was approximately 29 percent (Jacob et al. 2012). Many blame the exacerbation of impacts from recent Houston floods on the loss of these prairie and wetland habitats to development.

The proposed Project would cut across the Katy Prairie in an east-west direction on an elevated embankment. While the National Wetland Inventory (NWI) labels many of the depressional wetlands as “other”, review of historical Google Earth imagery clearly shows strong wetland signatures in the pattern of the typical prairie pothole complex. The proposed Project would intersect a number of these “other” wetlands, as well as several that the NWI does not label. Conceptual project plans provided with the Galveston District PN do not indicate the elevation of the embankment, but due to the gradual gradient of the coastal plains, slight disturbances in elevation can have a profound impact on hydrologic patterns. On coastal prairies, a significant amount of water that occurs from rainfall traverses the landscape as sheetflow, gradually joining streams and rivers that flow to the bays.

TPWD has concerns that the construction of an elevated embankment across the Katy Prairie would not only further fragment habitat and directly destroy wetlands, but also would impede the natural hydrologic flow of water across the landscape. This may have an impact on the hydrology of lands to the south, which include the Katy Prairie Conservancy (KPC), the Katy Prairie Stream Mitigation Umbrella Bank, the proposed Katy Hockley Mitigation Bank, and other conservation lands. Additionally, the collection and transport of rainwater in ditches running alongside the railway and then directly to receiving streams that are tributaries of Cypress Creek likely would impact the character of the streams, as well as lend to decreased water quality in the Cypress Creek watershed.

TPWD also is concerned that construction of the Project in an east-west direction through prairie lands will have a deleterious impact on the migrating and resident avian species that utilize the prairie wetlands, particularly since the proposed route is less than one mile from KPC land. A study completed by Garcia de la Morena et al (2017) found that bird mortality from high speed trains averaged 60.5 birds per kilometer per year along a 321.7 km route running at similar speeds and number of trips per day as the proposed Project and similarly passed through croplands and protected areas of ornithological interest.

Recommendation: TPWD continues to recommend avoidance and minimization of impacts within Coastal prairie wetlands and recommends that impacts to sheetflow hydrology be avoided by eliminating the utilization of an embankment or at-grade track through any prairie lands of Harris and Waller Counties. TPWD also recommends that compensatory mitigation be provided for direct impacts to all depressional wetlands within the coastal prairie complexes and particularly within the Katy Prairie.

Recommendation: If impacts to coastal prairie habitat are unavoidable, TPWD recommends the USACE consider the impacts to coastal prairie habitat and require TCR to provide additional mitigation in the form of PRM within the Katy Prairie complex. TPWD further recommends the applicant explore and implement design features that will minimize mortality to avian species.

For impacts to WOTUS including wetlands, the draft EIS presents compliance measures (WW-CMs) and permits that would be required for all Build Alternatives.

WW-CM#4 of the draft EIS is applicable to Section 404 individual permits and states that *“Any authorization USACE renders for the Project would be conditioned such that construction of each phase of the Project that impacts jurisdictional waters will not be allowed to occur until such time that each phase of the Project is designed, submitted for review and is subsequently approved by the USACE... The USACE will coordinate with applicable federal and state agencies, such as EPA, TCEQ, TPWD, USFWS, etc., as part of the permit process.”*

Recommendation: TPWD is concerned with the ambiguity of the above-mentioned section because without specific Project plans TPWD is unable to provide constructive comments regarding the design plans and impacts of the Project. Therefore, TPWD recommends the USACE and FRA place special conditions within the EIS and any Section 404 permits that the applicant must provide and coordinate each phase of the Project plans for proposed impacts to any Waters of the U.S. with federal and state resource agencies and the public prior to construction activities commencing.

WW-CM#5 of the draft EIS, regarding development of a mitigation plan, states that the applicant submitted a draft mitigation plan to the USACE Fort Worth and Galveston Districts as part of the July 2016 Section 404 submittal packet. The compliance measure indicates that the draft mitigation plan includes a combination of PRM efforts (onsite and/or offsite) and purchasing mitigation credits from mitigation banks. The compliance measure states that FRA will adopt the final mitigation plan for impacts to wetlands and waters the U.S. upon USACE approval.

The applicant has furnished the TPWD – Coastal Fisheries Division with the Dallas to Houston High-Speed Rail Attachment G – Form 4345, Block 23 Mitigation Plan for USACE Permit SWG-2014-00412. As stated in both the draft EIS and the mitigation plan, the applicant proposes to mitigate only permanent impacts at each single and complete crossing of a WOTUS greater than 0.1 acre (wetlands) of 300 linear feet for streams.

Request: TPWD does not agree that the 240-mile Project’s crossing over a single waterbody is a functional, complete project and requests that the applicant provide compensatory mitigation for all wetland and stream habitat impacts, including those natural features that have been altered (channelized, diked, terraced) and temporal losses.

The applicant proposes to offset impacts to wetland habitat and stream channels in the USACE Galveston District by purchasing credits from Mill Creek, Spellbottom, Katy Prairie Stream Mitigation Umbrella Bank, Greens Bayou, Houston-Conroe, Gin City, Lower Brazos and Gulf Coastal Plains Mitigation Banks, with the exclusion of 1.36 acres of potential forested impacts. Based on the USACE RIBITS database as of January 5, 2018, the Project area is not located within the primary or secondary services areas for Gin City or Gulf Coastal Plains mitigation banks. Additionally, the Waller County

and Katy Prairie (Harris County) portions of the Project site are not within the Greens Bayou or Lower Brazos Mitigation banks service areas. Currently, Mill Creek has only limited stream credits available and Spell Bottom credits are limited to forested wetlands.

Recommendation: Since the majority of the impacts within Harris and Waller Counties occur within the Gulf Coast: Coastal Prairie wetland vegetation type and there is a high potential for future cumulative impacts from the Project, TPWD recommends the applicant explore credit availability with the Katy Prairie Stream Mitigation Umbrella Bank and/or formulate a PRM plan that incorporates preservation of in-kind wetland or stream habitats within the globally significant Katy Prairie.

The applicant also proposes 1) purchasing out-of-kind wetland mitigation credits or 2) purchasing credits from a bank outside the Project's primary or secondary service area for compensatory mitigation of the 1.36 acres of forested wetland impacts within the USACE Galveston District. Forested wetlands could be considered a difficult-to-replace aquatic resource as defined in 33 CFR Part 332.2 and therefore, mitigation for forested wetland impacts should occur within the same watershed as the impacts.

Recommendation: TPWD recommends that the applicant should also not be allowed to purchase out-of-kind compensatory mitigation credits nor should they be allowed to purchase credits from a bank that does not serve the Project area for forested wetlands.

Again, TPWD is concerned by the lack of detail and conceptual nature of both the draft EIS mitigation plan and the "final" mitigation plan submitted with the application for SWG-2014-00412.

Recommendation: Because TPWD is unable to adequately review the draft mitigation plan at this time due to lack of information, TPWD recommends the USACE and FRA place special conditions within the final EIS and any Section 404 permits requiring that the applicant must provide and coordinate each phase of the Project for both proposed impacts to any Waters of the U.S. and the proposed mitigation plan for those impacts with federal and state resource agencies and the public prior to construction activities commencing. The final mitigation plan should include the calculations for the corresponding functional assessment per district (Texas Rapid Assessment Method (TXRAM) in the Fort Worth District and the Hydrogeomorphic Model (iHGM) in the Galveston District) to determine change in function and compensatory mitigation requirements associated with the impacts.

Streams are identified as a difficult-to-replace resource under the preamble and 33 CFR 332.3 (e)(3) in the Compensatory Mitigation of Losses of Aquatic Resources (73 Federal Register 19596, April 10, 2008). Ecological risk and economic risk of stream channel mitigation failure can be higher due to the difficult-to-replace nature of streams.

Recommendation: In addition to following the defined performance standards listed within EPA's Function-Based Framework for Stream Assessment & Restoration Projects, TPWD recommends the applicant implement the Galveston District's Level 1 (<500 linear feet) or Level 2 (>500 linear feet) Stream Condition Assessment Tool Standard Operating Procedures (GDSCAT SOP) to assess the current functional condition of the stream for mitigation determination. The GDSCAT assists in determining the relative potential of the stream to support and maintain a diverse community of organisms by visually assessing hydrogeomorphic and fluvial geomorphic

characteristics such as active floodplain width/depth ratios, bed elevation and floodplain storage and releases. Pre- and post-construction surveys using the appropriate Level (1 or 2) of the GDSCAT should be completed in order to determine appropriate stream credits or for developing a PRM for all stream crossings even if impacts per crossing are less than 300 linear feet.

Recommendation: If the sufficient types or amounts of wetland or stream in-kind credits are not available with the primary service area of an approved mitigation bank, TPWD recommends the applicant formulate a PRM plan within the same watershed(s) impacted, containing all the components of identified in 33 CRF §332.4(c)(2) through(c)(13) of the Mitigation Rule issued on July 10, 2008.

Recommendation: In addition, if the applicant develops a PRM plan, TPWD recommends that the applicant place a third-party, perpetual conservation easement on the proposed mitigation site in which a conservation easement should be in place within 180 days of permit issuance and be held by a qualified land trust for the purpose of conserving fish and wildlife habitat. A list of land trusts in the State of Texas can be found on the Texas Land Trust Council's website.

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U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Carter Smith
Executive Director
Texas Parks and Wildlife
4200 Smith School Road
Austin, Texas 78744-3291

Subject: **Response to Comments on the Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Dear Mr. Smith:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the Texas Parks and Wildlife Department dated February 20, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

Enclosed is FRA's response to comments received from the TPWD on February 20, 2018. Please note FRA continued coordination with TPWD on impacts to Fort Boggy State Park as detailed below. Please see FRA's February 12, 2020 "Request for Concurrence on Section 4(f) Determination for Fort Boggy State Park" letter to TPWD. FRA received TPWD's subsequent response dated March 13, 2020. As such, the Final EIS has been updated to reflect consultation with TPWD regarding the 4(f) Determination for Fort Boggy State Park.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

AGENCY COMMENT	RESPONSE
<p>As the state agency with primary responsibility for protecting the state's fish and wildlife resources, in accordance with the authority granted by Parks and Wildlife Code §12.0011, per coordination under NEPA, and per coordination with USACE, Texas Parks and Wildlife Department (TPWD) hereby provides the following recommendations and informational comments to minimize the adverse impacts to the state's fish and wildlife resources and state parks in the routing, construction, mitigation, and operation of the proposed HSR Project. The subsequent sections of this Attachment are organized by sections in the draft EIS.</p> <p>Comment: Please note that due to the size of the draft EIS document and release of the draft EIS and Clean Water Act (CWA) Section 404 permit applications on December 22, 2017, immediately prior to the holiday season, TPWD's review was as possible, given the resulting compressed timeframe for review. However, it is likely that information applicable to TPWD concerns may have been overlooked by TPWD staff.</p> <p>After attending a June 2014 Agency Scoping Meeting and October 2014 Agency Workshop, TPWD provided the FRA with a copy of the April 2013 preliminary information letter that was sent to the Texas Department of Transportation (TxDOT) regarding the Texas -Oklahoma Passenger Rail Study (TOPRS). TPWD provided the TOPRS project letter to the FRA since it addresses many of the concerns and recommendations that would be common to the proposed Project on an ecoregion basis. When the scope narrowed to six route alternatives, TPWD provided additional input on the Project during the scoping period for the draft EIS by letter dated February 26, 2016. With refinement of the Build Alternatives for the draft EIS, at TPWD's request, the FRA provided a digital copy of the GIS shapefiles of the limits of disturbance (LOD) for the six Build Alternatives to assist in TPWD's review of the Project.</p> <p>Recommendation: Please review previous TPWD correspondence and consider the recommendations provided in that correspondence which remain applicable to the Project. For recommendations that may have been addressed in the draft EIS, the previous recommendations may provide greater detail than how they were reiterated or addressed in the draft EIS.</p>	<p>Correspondence and recommendations have been reviewed and updates have been made to the Final EIS where applicable and necessary. Specifically see Section 3.6.6, Natural Ecological Systems and Protected Species, Avoidance, Minimization and Mitigation.</p>
<p>Section 2.7.2 Comparison of Build Alternatives A, Band C</p> <p>After eliminating Build Alternatives D, E, and F due to statutory considerations regarding the availability of a viable alternative to crossing the existing USACE federal project at Lake Bardwell, FRA compared Build</p>	<p>Section ES.10.2, Executive Summary, Comparison of Build Alternatives A, B and C text and the referenced table (now Table</p>

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<p>Alternatives A, Band C to identify the preferred alternative. This section of the draft EIS indicates that recreational facilities are an environmental resource with negligible differences between alternatives. TPWD disagrees and considers Build Alternative C, which crosses Fort Boggy State Park (SP), as noticeably different from Build Alternatives A and B, which are not near and do not cross Fort Boggy SP, a state-owned recreational property. This is further supported by Section 3.13.5.2.2 addressing existing land use conversion which indicates that impacts to parks and recreation areas would be more prevalent under Build Alternatives C and F.</p> <p>Recommendation: TPWD recommends removing recreational facilities from the list of resources having negligible difference in identification of a preferred alternative and including recreational facilities as an evaluation criteria in Table 18 of the executive summary.</p>	<p>19) have been updated in the Final EIS to include a comparison of recreational facilities between Build Alternatives, A, B and C.</p>
<p>Section 3.3 Water Quality</p> <p>Section 3.3.6.1 identifies water quality compliance measures (WQ-CM) that would be required for all Build Alternatives. WQ-CM#3 includes blankets and matting as one of a number of storm water control measures that could be used to stabilize disturbed areas.</p> <p>Recommendation: For soil stabilization and/or revegetation of disturbed areas, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, TPWD recommends the use of no-till drilling, hydromulching, and/or hydroseeding rather than erosion control blankets or mats in revegetation efforts due to a reduced risk to wildlife. If erosion control blankets or mats will be used for the Project, the products should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting should be avoided. TPWD recommends the EIS include a mitigation measure for utilizing wildlife-friendly products.</p> <p>Water quality mitigation measures (WQ-MM) are measures that would be implemented to minimize impacts to water quality. WQ-MM#3 indicates that seed mixes used for revegetation efforts should be approved by the U.S. Department of Agriculture to minimize the introduction of invasive species and to restore temporary</p>	<p>WQ-MM#3 has been updated in the Final EIS to state “Upon completing construction activities, TCRR shall restore temporary construction areas to at least the quality of preexisting conditions. Additionally, where feasible, seed mixes approved by U.S. Department of Agriculture shall be used to minimize the introduction of invasive species. In previously undisturbed areas, TCRR shall work with landowners to determine site-restoration and revegetation requirements appropriate for the existing land use (i.e., agriculture, pasture, woodlands). Where native seeding is proposed, TCRR shall verify that seed mixes consist of native species appropriate for the ecoregion. TCRR shall coordinate site-restoration and revegetation</p>

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<p>construction areas to similar, or better, if feasible, preexisting conditions.</p> <p>Recommendation: TPWD recommends that seed mixes in previously undisturbed areas such as native pasture and woodlands, consist of native species appropriate for the ecoregion. Areas of existing wetland and riparian habitats should be restored with appropriate native wetland and riparian species and detailed in the Project's mitigation plan for impacts to Waters of the U.S. This would be to prevent native habitats from being converted to potentially non-native agricultural-related species, such as non-native bermudagrass (<i>Cynodon dactylon</i>) and KR bluestem (<i>Bothriochloa ischaemum</i>). Refer to TPWD's February 26, 2016 scoping letter for further details.</p> <p>Recommendation: TPWD recommends that WC-MM#3 also indicate that TCR should prepare and follow a maintenance plan to monitor, treat, and control invasive species within the construction and operation right-of-ways (ROWS).</p>	<p>requirements, including the control of invasive species, in accordance with other statutory obligations (i.e., Section 404 permit, TPDES, USFWS, TPWD), landowner agreements, and local site conditions.”</p> <p>WQ-MM#7: Wildlife Friendly Control Measures states TCRR shall use soil stabilization materials and techniques that minimize entanglements to snakes and other wildlife.</p>
<p>Section 3.4 Noise</p> <p>Noise and vibration assessments apply primarily to how they affect people with screening distances at 1,300 feet for noise (new HSR in rural areas) and 275 feet for vibration. The Project contains no Category 1 land uses, which includes land where quiet is an essential element of their intended purpose. Land use Category 2 includes residences and buildings where people normally sleep. Project impacts to noise receivers in Category 2 include zero, moderate, and severe impacts depending on how close they are to the Project and the level of existing noise. Land use Category 3 includes primarily day-use buildings such as schools, churches, and libraries, and some parks and recreational facilities, and are termed institutional land uses. The Project only identified moderate operational noise impact on one noise receiver in Category 3, with no other Category 3 land use impacts.</p> <p>Section 3.4 Noise and Fort Boggy SP Visitors and Wildlife: Although parks were identified as a sensitive land use in the study area, the summary of existing noise measurements in Table 3.4-8 does not include Fort Boggy SP as a short-term or long-term monitoring site. The noise impacts at Fort Boggy SP were not characterized in Table 3.4-12, regarding operational noise impacts for Category 2 land uses, which could include campsites at Fort Boggy SP, nor in Table 3.4-13, regarding operational noise impacts for Category 3 land uses, which</p>	<p>Table 3.4-14 summarizes Operational Noise Impacts for Category 3, Institutional Land Uses. Chapter 7.0, including Section 7.7.1.4.1, Section 4(f) and Section 6(f) Evaluation, Fort Boggy State Park has also been updated to include discussion of noise and vibration impacts to Fort Boggy State Park as a result of the Project. This analysis was also included in FRA's February 12, 2020 "Request for Concurrence on Section 4(f) Determination for Fort Boggy State Park" letter to TPWD in Appendix C of the Final EIS.</p> <p>Chapter 4.0, Indirect Effects and Cumulative Impacts of the Final EIS has</p>

includes parks. TPWD considers Fort Boggy SP as a noise sensitive location and a sensitive land use that would have 24-hour noise sensitivity for users wanting to enjoy nature. Any increase in existing noise would be considered an impact at Fort Boggy SP.

The elevation of the tracks and the deciduous and often short-statured (30 feet or less) nature of the woodlands at Fort Boggy SP exacerbate the impacts on the park's noise environment. Visitors to the park come specifically to escape from urban noise, and the frequency and loudness of the proposed HSR facility will degrade their experience. The park's Facilities Development Plan (Carman 2014) includes trails to be built within 0.25 mile of the proposed rail line, which is within the study area for noise impacts. The placement of these trails was determined due to archeological and sensitive habitat constraints as well as the park's mission to get visitors out into nature for their enjoyment.

Section 3.17 regarding recreational facilities briefly discusses noise impacts and dismisses the need for evaluation of noise impact to Fort Boggy SP because no park amenities are located with the Project's 0.25-mile study area for indirect impact to recreational facilities. Fort Boggy SP contains one overnight campsite that is within 0.25 mile of the proposed LOD as shown in Figure I.

Studies have shown an adverse effect of increased noise levels on wildlife populations, including incremental increases caused by the enlargement of existing transportation facilities. Furthermore, these studies show that wildlife become sensitized to continued noise and that it increases levels of stress hormones as well as interferes in their ability to communicate (e.g. bird territorial calls). The west side of Fort Boggy SP is being managed largely as a wildlife and plant conservation area allowing for limited human use (dirt path hiking trails are likely to be built, but none have been constructed at this time). The Project's 0.25-mile noise study area covers approximately 656 acres of forest and wetland habitat at the park including more than half of its marshland; an area important to breeding amphibians and birds for which acoustic pollution is especially harmful.

Recommendation: TPWD recommends an extensive noise impacts evaluation on Fort Boggy SP's visitors and wildlife in the EIS. The entire property is parkland that would allow for future trails and camping areas upon adequate funding, thus the draft EIS should assess noise impacts for any portion of the property within the

been updated to clarify that "The direct and indirect impacts of the Project are discussed in detail in **Chapter 3.0, Affected Environment and Environmental Consequences** and **Section 4.3, Indirect Project Effects**, respectively. The cumulative impacts of the Project and other past, present, and reasonably foreseeable future projects would be similar across the six Build Alternatives and across the three Houston Terminal Station Options. Therefore, the Preferred Alternative (Build Alternative A and Houston Northwest Mall Terminal Station Option) is used as the representative for the cumulative impact analysis, with the exception of impacts to Fort Boggy State Park. The cumulative impacts would vary for Build Alternatives C and F as hunting activities at Fort Boggy would be impacted. Expansion of IH-45 in Leon County (as shown in **Table 4-7**) could further impact hunting or other recreational activities at Fort Boggy State Park. Therefore, though not the Preferred Alternative, if Build Alternative C or F were to be selected, FRA would coordinate with TPWD to identify appropriate mitigation for cumulative

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<p>study area, regardless of whether existing amenities are present in the study area. TPWD recommends assessing noise within Fort Boggy SP at the ROW of the Project, at the one-quarter mile mark from the LOD on each side of the Project alignment during winter months when deciduous trees would be in leaf-off conditions, and at the existing campsite. The evaluation should take into consideration the basin-like topography of the landscape and the potential for noise to echo across the park greater than the one-quarter mile study area distance. Noise impacts on Fort Boggy SP should also be incorporated in Chapter 4. 0 Indirect and Cumulative Impacts.</p>	<p>impacts to Fort Boggy State Park.”</p>
<p>Section 3.4 Noise/Vibration and Wildlife: Criteria for noise effects on wildlife (mammals and birds) and domestic animals (livestock and poultry) were identified as a Sound Exposure Level of 100 decibels (dBA). Appendix E indicates that the 100 dBA limit would only be exceeded within 15 feet from the tracks which is inside the HSR ROW. The draft EIS concludes no noise impacts to wildlife would occur because no 'animals would be this close to the tracks. The draft EIS indicates that the startle effect on wildlife would be minimized by maximizing the use of viaduct, and in most places the viaduct would be at a height that exceeds the minimum distance for startle effect impacts, which is presented as 40 feet. The draft EIS indicates noise levels would be reduced by shielding either below the viaduct or within a culvert and concludes no significant noise impacts on wildlife would occur underneath the tracks.</p> <p>Although mentioned by TPWD as a concern during scoping, the draft EIS does not indicate that the culverts under IH-45 within Freestone and Leon Counties are known to support roosting and/or hibernating bats which may be impacted by construction and operation noise and vibration along Build Alternatives C and F. The Texas Natural Diversity Database (TXNDD) contains element occurrence records (EORs) for nine bat roosts in IH-45 culverts within the LOD. Associated with these bat roosts are two EORs of the Southeastern myotis bat (<i>Myotis austroriparius</i>), which is a species of greatest conservation need (SGCN) as listed on the TPWD Annotated County Lists of Rare, Threatened, and Endangered Species of Texas online application (RTEST) and identified in the Texas Conservation Action Plan (TCAP). The draft EIS does not present vibration exposure levels for wildlife, specifically bats. Vibrations and noise can cause arousal from hibernation. Disturbance to hibernating bats reduces the probability of survival because arousals and the return to euthermy depletes imperative fat reserves (Smith and Stevenson 20 15). A noise disturbance effect of the Project could include bat roost</p>	<p>Compliance measure NR-CM#3: Bat Surveys has been added to the Final EIS and states “For Build Alternatives C and F, prior to construction, TCRR shall hire qualified biologists to conduct surveys of potential roost habitat for Rafinesque’s big-eared bat including, but not limited to, large hollow trees, culverts and bridges (specifically culverts and bridges associated with IH 45) for maternity colonies and existing bat roosts. If roosts are found that would be disturbed by the Project, TCRR shall notify TPWD to determine appropriate mitigation. TCRR shall not disturb the colonies until pups are volant.”</p> <p>The noise impact assessment was carried out in accordance with the methods and procedures specified in the FRA <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> guidance document.</p>

abandonment (CalTrans 2016), however, TPWD is not aware of research regarding bats and noise or vibration impacts associated with existing HSR. The draft EIS Section 3.6 also indicates that the effect of train noise and vibration on wildlife, including wildlife habituation to HSR, is unclear because it has not been thoroughly studied. Because roosting and/or hibernating bats would be located near or directly underneath the HSR ROW, the noise and vibration impacts of the HSR on these wildlife resources should be fully addressed in the EIS.

The draft EIS indicates that noise impacts on wildlife would be reduced for sections on viaduct or within a culvert crossing under the Project, but it does not indicate the extent of noise reduction or the level of noise proposed under the viaduct or within a culvert under the Project. The draft EIS does not indicate vibration levels within proposed wildlife crossing culverts or how vibration levels may differ under the Project for designs at-grade, on embankment, or on viaduct.

A noise and vibration mitigation measure (NV -MM) that would be implemented to lessen the impacts of all Build Alternatives includes NV-MM#1 which indicates that during final design, TCR would conduct additional noise and vibration assessments of sensitive receivers along the preferred alternative. NV -MM#3 addresses sound barrier mitigation, but it is not applicable to noise- and vibration-sensitive wildlife, such as bats.

Recommendation: TPWD recommends the EIS identify the extent of noise reduction and the levels of noise and vibration proposed under the Project for designs at-grade, on embankment, or on viaduct. TPWD recommends further assessment of noise and vibration impacts to bats. TPWD recommends identifying existing sound and vibration levels within representative culverts along IH-45 without freight rail traffic to establish a baseline for assessing potential noise and vibration impacts to bats as a result of the Project.

Recommendation: If further analysis regarding noise and vibration impacts on bats indicates that noise or vibration levels caused by the Project could trigger disturbance, then TPWD recommends a) identifying bat roosts and hibernacula as sensitive receivers for NV-MM#, b) developing a NV-MM specific to bats that identifies practices that will be utilized to attenuate any adverse noise and vibration impacts in known areas of roosting/hibernating bats or in culverts found to contain bats during surveys along the preferred alternative, c) documenting the noise and vibration attenuation practices as mitigation measures in the post-ROD Mitigation Monitoring Program, and d) including research of HSR noise and vibration impacts on roosting and/or

The assessment methodology, criteria for impact, and locations of impacts are contained in **Section 3.4.3.1, Noise and Vibration, Analysis Methods, Section 3.4.3.2, Noise and Vibration, Impact Criteria** and **Section 3.4.5, Noise and Vibration, Environmental Consequences**, respectively, and additional detailed information is provided in **Appendix E: Noise and Vibration Technical Memorandum**. As detailed within Section 3.4.6.2, Noise and Vibration, Mitigation Measures, specifically **NV-MM#3: Operational Noise Mitigation and Monitoring**, TCRR shall mitigate noise and vibration impacts to a level below severe. Where TCRR proposes to use sound barriers to mitigation noise impacts, TCRR shall seek input from the impacted landowners and local jurisdictions on barrier types and designs. If TCRR does not implement sound barriers, Additionally, TCRR shall develop under **NV-MM#2** a Construction Noise Control Plan.

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<p>hibernating bats as a NV-MM because FRA criteria adopted for effects on animals by HSR noise and vibration are considered interim until further specific research results are known.</p>	
<p>Section 3.6 Natural Resources</p> <p>Section 3.6 Protected Species: The draft EIS addresses potential Project impacts to four federal- and state-listed endangered species: Houston toad (<i>Bufo houstonensis</i>), interior least tern (<i>Sterna antillarum athalassos</i>), Navasota ladies' -tresses (<i>Spiranthes parksii</i>), and large-fruited sand-verbena (<i>Abronia macrocarpa</i>). The EIS identified that the study area contains suitable habitat for the Houston toad, Navasota ladies'-tresses, and large-fruited sand verbena based on the creation of Project-specific habitat suitability models coupling Ecological Mapping Systems of Texas (EMST) and additional data specific to each species. In consultation with USFWS, three years of presence/absence surveys for these species are being conducted in suitable habitat in areas with right-of-entry permissions. Natural resource compliance measure (NR-CM) #8 indicates that areas of potential habitat that could not be accessed for species surveys would be monitored during construction by qualified biologists approved by the USFWS with protocols for ceasing construction and contacting USFWS upon unexpected encounters of Navasota ladies' -tresses and large-fruited sand verbena. More rigorous NR-CMs are identified for the Houston toad. The draft EIS indicates that 208 acres, representing 66 percent of the potential habitat of the large-fruited sand verbena, were not accessible during presence/absence surveys. The draft EIS does not indicate the percent of potential Navasota ladies' -tresses or Houston toad habitats that were not accessible during presence/absence surveys for these species.</p> <p>Recommendation: TPWD recommends the EIS identify the percent of potential habitat not accessible during presence/absence surveys for the Navasota ladies' -tresses and Houston toad.</p>	<p>Section 3.6.4.4.1 Protected Plant Species and Table 3.6-8 LFSV Habitat by Segment have been updated within the Final EIS to provide survey acreage (21 acres) completed for all three years by segment for the large-fruited sand verbena.</p> <p>Section 3.6.4.4.2 Protected Wildlife Species has been updated to detail how presence/absence surveys were conducted for the Houston toad. For the Houston toad, both acoustic monitors and road surveys were conducted for three consecutive years along the preferred alternative to get a no presence determination for the species under the guidance provided by USFWS.</p> <p>Additionally, Appendix K, Agency Specific Reports, Biological Assessment has been included as part of the Final EIS to clarify that approximately 116 acres of modeled suitable habitat for the large-fruited sand verbena and 570 acres of modeled optimal and marginal habitat for the Navasota ladies'-tresses were not accessible for three years of presence/absence surveys along</p>

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	<p>the preferred alternative (specifically Segment 4). For more details regarding survey methodology, results, and mitigation please see the Biological Assessment prepared as part of Section 7 Consultation with the USFWS in Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS.</p>
<p>The Section 3.6.4.4.2 discussion regarding EOR for nesting/breeding populations of the federal- and state-listed endangered interior least tern (<i>Sterna antillarum athalassos</i>) indicates that no reports of nesting have been made since 2006 and that variability in potential nesting habitat caused by frequently flooded sandbars prohibits the ability to map potential habitats.</p> <p>Comment: Although NR-CM#9 addresses interior least tern occurrences at lignite mining sites, the Section 3.6.4.4.2 discussion does not indicate that the two EORs from Freestone and Leon County are associated with lignite surface mining sites and that there would also be variability in the location of potential habitat in disturbed mining sites. Please note that although the TXNDD occurrences are mapped as of 2006, there is more recent nesting data from lignite mining sites that are reported to the Railroad Commission of Texas, which is the state agency with oversight of lignite mining in Texas and whose permit requires annual reporting of listed species occurrences within the mining permit area. Indicating that no reports have been made since 2006 is inaccurate.</p>	<p>Mining companies have been contacted and information regarding interior least tern at those mines have been incorporated into the Biological Assessment provided to USFWS on November 14, 2019 and located in Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS. The Final EIS was updated to include information collected from the mining companies in Section 3.6.4.4.2 Protected Wildlife Species.</p>
<p>The Project is located within an approximately 200-mile wide corridor in which 95 percent of sightings of the Aransas/Wood Buffalo flock of the federal- and state-listed endangered whooping crane (<i>Grus americana</i>)</p>	<p>The LOD is not within range of this species wintering or nesting habitat. However, potential suitable stopover habitat for this</p>

have been documented during migration. Safe access to stopover sites is critical for the migration of whooping cranes. Please note that the only wild population of the whooping crane is the Aransas/Wood Buffalo flock which contained an estimated 329 individuals in 2016, thus it is important to consider Project impacts to this rare species and its stopover habitat. However, the draft EIS indicates that the whooping crane is not evaluated further within the EIS because it does not nest in the study area and would potentially occur as a transient or migrant.

Collisions with power lines are a source of mortality for whooping cranes. During migration, whooping cranes use waste grains from cropland including barley, wheat and corn and use wetland habitats such as marshes, small ponds, lake edges, and some river habitat.

Recommendation: TPWD recommends that TCR avoid locating the Build Alternatives near areas that may provide stopover habitat for whooping cranes during migration. TPWD recommends that the Build Alternatives be evaluated for potential whooping crane migration stopover habitat. Areas of potential stopover habitat should be considered as avoidance areas for proposed routes to reduce potential collisions of this species with the catenary system and Project-related electric transmission lines. During construction and low-light conditions, TPWD recommends lowering construction cranes or other large articulating arms of equipment to avoid bird collisions. TPWD recommends a NR-CM specifying that TCR will report bird and other wildlife strikes and mortality to FRA and/or USFWS during construction and operation.

species may be present in emergent wetlands and row crop habitats found within the LOD. In addition, the LOD occurs within the eastern portion of the whooping crane's 95 percent migration corridor. NWI data indicate a total of 20.15 acres of temporary impacts and 4.84 acres of permanent impacts to whooping crane potential suitable stopover habitat (emergent wetlands) for the LOD along the Preferred Alternative. Therefore, there is potential for this species to occur as a migrant/transient within suitable stopover habitat throughout the LOD. Details regarding the whooping crane, and suggested mitigation (including lowering of cranes) can be found in the Biological Assessment in **Appendix K, Agency Specific Reports, Biological Assessment** of the Final EIS and was submitted to USFWS on November 14, 2019.

NR-MM#7: Wildlife Mortality Recording Forms has been updated in the Final EIS to state that during the operation of the HSR, once a train arrives at a terminal station, TCRR will remove any debris from the front of the train. TCRR staff shall record and

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	document any obvious wildlife/bird mortality for a period of 5 years. TCRR will also record obvious wildlife mortality for OCS electrocutions for a period of 5 years after initial operation. TCRR shall make the data available to FRA or other government agencies upon request.
<p>The EIS concluded that the study area does not contain suitable habitat for the federal- and state-listed endangered Texas prairie dawn (<i>Hymenoxys texana</i>) due to an evaluation of the Project-specific habitat suitability model, TXNDD EORs, review of historic aerial photography, and field investigations for the presence of mima mounds, which are closely associated with the presence of Texas prairie dawn. The EIS does acknowledge that if mima mounds are found during any field efforts, then presence/absence surveys for the species would be conducted.</p> <p>While the draft EIS recognizes the potential for the Texas prairie dawn to occur within the Harris County study area, TPWD is concerned with the draft EIS assumption that absence of mima mounds due to past agricultural modification would likely negate the presence or return of the species. According to Singhurst et al. (2014), the plant association likely to include the Texas prairie dawn persists on sandy and clay prairie landscapes with salty barren spots adjacent to or between mima mounds. Additionally, the authors note the barren spots generally hold water during wet seasons, which is suggestive of depressional wetlands. Texas prairie dawn is known to occur in locations near all Build Alternatives including sites on Katy Prairie Conservancy land and the Addicks and Barker Reservoirs Project lands. Singhurst et al. (2014) note that the plant often occurs in association with other rare, endemic species.</p> <p>Recommendation: Based on the information presented above and because the Texas prairie dawn is very difficult to identify outside the flowering season, TPWD recommends a NR-CM for TCR to consult a botanical expert with experience in detecting the Texas prairie dawn to survey the preferred route for the Texas prairie dawn prior to commencing any construction.</p> <p>Recommendation: TPWD recommends that NR-CM#8 include the Texas prairie dawn in the event this species</p>	<p>While reviewing previous Biological Assessments and literature, as well as speaking to species experts, it was determined that the Texas prairie dawn species is highly specialized and requires mima mounds. Otherwise they are out competed by other plants. So consistent with previous Biological Assessments, FRA used current and historical aerial imagery to identify such mounds. Areas where we found the potential for the mounds had already been developed. Additionally, field crews did not detect any mima mounds.</p> <p>Avoidance and minimization measures are outlined in the Biological Assessment that was provided to USFWS on November 14, 2019 and include site training for the species and its habitat. Additionally, if the Texas prairie dawn species is unexpectedly encountered, then work will cease and USFWS will be contacted. The Biological</p>

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<p>is unexpectedly encountered.</p>	<p>Assessment can be found in Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS.</p> <p>As detailed in NR-CM#4: Section 7 Consultation and Biological Opinion, TCRR shall comply with all measures detailed within USFWS' Biological Opinion.</p>
<p>The draft EIS rules out potential occurrence in the study area of the federal- and state-listed endangered red-cockaded woodpecker (<i>Picoides borealis</i>) based on the EMST and the lack of vegetation types with park-like stands of pines which is the habitat requirement for this species. The EIS does recognize that EMST is meant for generalized guidance and that actual conditions and acreages may differ in the EMST from actual on-the-ground measurements. Because not all of Texas has been ground-truthed to verify the vegetation types in the EMST, there could be areas of suitable protected species habitat in the study area that may not have been identified using the EMST and other models. Species models come with assumptions and should not be the sole method for determining where suitable habitat occurs within the preferred alternative and should not be used in the place of a field assessment of the preferred alternative.</p> <p>Recommendation: TPWD recommends a NR-CM in which the preferred alternative is fully assessed on-the-ground to ensure that all suitable habitat for the federal- and state-listed endangered red-cockaded woodpecker, whooping crane, Houston toad, interior least tern, Navasota ladies' -tresses, large-fruited sand verbena, and Texas prairie dawn have been identified and appropriately surveyed prior to construction.</p>	<p>EMST was not the only reference used in determining potential occurrence of the red-cockaded woodpecker. Books and Ebird were also investigated. The closest occurrence is at Sam Houston National Forest, approximately 10 miles away from the Project. All federally listed species impacts are being avoided or mitigated through Section 7 consultation and will be outlined in the Biological Assessment which can be found in Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS. The BA includes avoidance and minimization efforts for the interior least tern, whooping crane, Houston toad, large-fruited sand verbena, Navasota ladies'-tresses and Texas Prairie Dawn. As detailed in NR-CM#4: Section 7 Consultation and Biological Opinion, TCRR shall comply with all measures detailed</p>

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	<p>within USFWS' BO.</p> <p>Due to the linear length of the Project and limited access to private property, compliance with Section 7 is being completed through a phased approach, as agreed upon in informal consultation with the USFWS. Parcels where access has not been granted may require additional surveys or biological monitoring for species and habitat considered in the BA once a Record of Decision (ROD) and right-of-entry (ROE) have been obtained.</p>
<p>Section 3.6 General Wildlife and Vegetation: The draft EIS does not include state-listed threatened plant and wildlife species or species of greatest conservation need (SGCN) in the analysis of Project impacts on protected species and only includes federally-listed species afforded protection under the Endangered Species Act. The document indicates there are 35 SGCN plant species identified by TPWD that have no regulatory protection. The draft EIS also indicates that two plant species had no potential to occur due to local population extirpation, but those plants are not named. Table 3.6-8 lists 37 protected wildlife species with potential to occur in the Project counties including state-listed wildlife. This list was narrowed to two federal- and state-listed wildlife species, mentioned above, for analysis of Project impacts on protected species. The draft EIS dismisses the need for evaluation of 14 wildlife species whose range is outside the Project area (i.e. marine species), 7 birds that would be present only during migration or as transients, and 14 state-listed wildlife species considered as having no regulatory protection with the state, other than liability for take. No portion of the draft EIS specifically considers or names approximately 12 fauna and 37 flora SGCN provided on the TPWD RTEST county lists.</p>	<p>Updated iPac and RTEST lists were pulled in June 2019. In Section 3.6.4.4 Protected Species, the Final EIS states that 48 species of plants and 60 species of animals were identified from the RTEST and are considered rare or SGCN. As clarified in the Final EIS, "Note that inclusion on the RTEST list does not imply that a species is known to occur in the area, but only acknowledges potential presence based on county or EOR documentation. Only those species listed as threatened or endangered by USFWS are afforded federal protection under the Endangered Species Act. Since rare species</p>

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<p>Recommendation: TPWD recommends the EIS identify which rare, SGCN, and extirpated plant and wildlife species, that are listed on the TPWD RTEST county lists, were dismissed from the analysis of impacts.</p>	<p>or SGCN have no regulatory protection with the state, they are not included in this analysis. Only those species listed as threatened or endangered by USFWS are afforded federal protection under the Endangered Species Act.”</p>
<p>With the implementation of natural resource compliance measures (NR-CM) and mitigation measures (NR-MM) identified in Section 3.6.6, the draft EIS concludes that all Build Alternatives would have no significant impacts to general wildlife and vegetation, including state-listed species and SGCN. However, the draft EIS states that all mitigation measures for general wildlife and vegetation are considered due diligence measures and do not have associated regulations or an enforcement agency because no state regulations exist for mitigation of impacts to general wildlife and vegetation.</p> <p>Some of the wildlife and vegetation avoidance and minimizations measures and NR-MMs are in line with TPWD scoping recommendations including practices to maximize the use of disturbed lands, to minimize fragmentation by following existing utility and road corridors where practicable, to build on viaduct for approximately 60 percent of the route, to minimize the LOD, to utilize wildlife crossings, to construct with wildlife-friendly trenches, and to use dark-sky friendly lighting. However, the draft EIS falls short in fully considering the Project' s impacts on state-listed species, SGCN, and rare vegetation communities and in identifying mitigation measures to avoid or minimize impacts to some state-listed species and other rare natural resources.</p> <p>Recommendation: TPWD recommends incorporating additional NR-MMs into the Project as discussed below.</p>	<p>Additional Compliance and Mitigation measures were included in Section 3.6.6 Avoidance, Minimization and Mitigation of the Final EIS and BA/BO as appropriate per recommendation. The Biological Assessment can be found in in Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS.</p> <p>These mitigation measures are also detailed below.</p>
<p>The draft EIS indicates that impacts to state-listed species, including two federal candidate species, could be minimized and/or avoided by mobilizing qualified biologists to conduct surveys prior to and during construction activities, to ensure that the Project is constructed following the NR-MMs, to identify species</p>	<p>NR-MM#1: Site Training was updated to include all protected species. Site awareness training will occur prior to and</p>

encountered, and to relocate species to avoid direct mortality because the only way to comply with state laws and regulations is to avoid incidental take of state-listed species. However, none of the NR-MMs indicate that TCR should utilize a biological monitor to reduce potential impacts to general wildlife and vegetation including state-listed species, SGCN, and rare vegetation communities.

Recommendation: With the absence of the assessment of Project impacts to state-listed species and SGCN that have potential to occur in the LOD, TPWD recommends the EIS identify a NR-MM to reduce impacts to sensitive resources in which TCR utilizes a qualified and TPWD-permitted biological monitor to be present during site clearing and construction activities to monitor the LOD for state-listed species, SGCN, and other sensitive resources and to conduct TPWD-permitted wildlife relocation, when necessary.

Recommendation: TPWD recommends that NR-MM#1 for site trammg be expanded to specifically include state-listed species and rare SGCN potentially occurring in the Project area.

The draft EIS acknowledges the TXNDD occurrences of colonial waterbird rookeries and bald eagle nesting areas within the study area. NR-MM#2 identifies federally-listed species habitat, waterbird rookeries, bald eagle nesting areas, migratory bird nests, waters and wetlands, and riparian corridors as sensitive habitats subject to exclusion fencing, flagging, and signage to preclude impacts. Additionally, NR-CM#2 addresses surveying for bald eagle nests in compliance with the Bald and Golden Eagle Protection Act and following the National Bald Eagle Management Guidelines.

Recommendation: TPWD recommends NR-MM#2 include TXNDD EORs of state-listed and SGCN flora and rare vegetation communities as sensitive habitat areas to be flagged as avoidance areas during construction.

during construction. TCRR will hire a qualified biologist to develop appropriate environmental awareness training that TCRR will administer to all site personnel before beginning work on the Project. The training will include the definition of “take” relative to protected species, the potential presence of protected species, reporting requirements, and measures to be taken to minimize impacts to the natural environment. TCRR will hire staff to train all site personnel on identification of protected species within suitable habitat before site personnel can begin work on the Project. TCRR will document training activities and retain documentation for the duration of construction and provide copies to USFWS upon request. The documentation will include names of site personnel undergoing training, names of trainers, name of qualified biologist that developed the curriculum, dates and duration of training and curriculum materials. Since rare species or SGCN have no regulatory protection with the state, they are not included in this training.

NR-MM#2: Field Delineation of Sensitive Habitat Areas was also expanded to

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	include protected species habitats and TXNDD EORs, when feasible. SGCN flora and rare vegetation communities were not included since they carry no regulatory protections.
<p>Of the 14 state-listed wildlife species eliminated from evaluation of protected species, the Louisiana pigtoe (<i>Pleurobema riddellii</i>), Texas heelsplitter (<i>Potamilus amphichaenus</i>), Texas pigtoe (<i>Fusconaia askewi</i>), sandbank pocketbook (<i>Lampsilis satura</i>) smooth pimpleback (<i>Quadrula houstonensis</i>), Texas fawnsfoot (<i>Truncilla macrodon</i>), creek chubsucker (<i>Erimyzon oblongus</i>), and alligator snapping turtle (<i>Macrochelys temminckii</i>) are aquatic state-listed species with suitable habitat in some waters crossed by the Project. The smooth pimple back and Texas fawnsfoot are also federal candidate species. Based on nearby surveys, the Trinity River most likely contains state-listed mussels at its intersection with all Build Alternatives.</p> <p>Where Project activities could impact aquatic resources, including state-listed species, TPWD may recommend relocating aquatic life under a TPWD permit as detailed in TPWD's scoping letter. Impacts could occur where the Project requires work within streams, such as at temporary or permanent haul roads or crossings or where dewatering activities could strand aquatic resources.</p> <p>As indicated in TPWD's scoping letter, TPWD regulates take of mussels, including both native common mussels and state-listed mussels.</p> <p>Recommendation: NR-MM#3 regarding aquatic resources and the potential need for presence/absence surveys for mussels should indicate that such surveys would be applicable for native common mussels and state-listed mussels and should be conducted under the authority of a TPWD permit and an associated Aquatic Resource Relocation Plan (ARRP), see 8. 0 Applicable Federal, State and Local Permits and Approvals below. ARRs also contain information regarding protocols for mussel surveys. NR-MM#3 should also indicate that coordination with the TPWD Kills and Spills Team to initiate such a permit would also apply to Project activities with potential to impact aquatic resources during stream disturbances or dewatering. See TPWD February 26, 2016 scoping letter for more details.</p>	<p>NR-MM#3: Aquatic Species was updated within the Final EIS to state "Prior to construction, TCRR shall develop an SWPPP to minimize impacts to resources, including aquatic protected species such as state- or federal-listed fish and mussel species. TCRR will coordinate with TPWD to determine whether protected mussel species presence/absence surveys are required prior to construction in streams that would be directly impacted to avoid take of individual species."</p> <p>Additionally the Texas fawnsfoot, including survey and relocation protocols has been included in the Biological Assessment as part of the Formal Section 7 Consultation. The Biological Assessment can be found in Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS.</p>

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<p>The draft EIS does not address the Project's potential to introduce or spread aquatic invasive species (AIS) during construction activities in inland waters.</p> <p>Recommendation: For compliance with TPW Code Sections 66.007 and 66.0072 and Texas Administrative Code (TAC) Title 31, Part 2, Chapter 57, Subchapter A, TPWD recommends a NR-CM in which TCR must prepare and follow an AIS transfer prevention plan that outlines BMPs that will be used to prevent inadvertent transfer of AIS species to new areas via Project equipment and temporary fills that would enter and/or leave inland waters. Refer to TPWD February 26, 2016 scoping letter for more details.</p>	<p>The Final EIS was updated to include NR-CM#5, Aquatic Invasive Species Transport as recommended. Prior to construction, TCRR shall prepare and follow an AIS transfer prevention plan that outlines BMPs that will be used to prevent inadvertent transfer of AIS species to new areas via Project equipment and temporary fills that would enter and/or leave inland waters. This measure is for compliance with TPWD Code Sections 66.007 and 66.0072 and TAC Title 31, Part 2, Chapter 57, Subchapter A.</p> <p>Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context, Texas Administrative Code, has also been updated in the Final EIS to include discussion of TPW Code.</p>
<p>Although the draft EIS indicates no TXNDD EORs for the state-listed threatened creek chubsucker (<i>Erimyzon oblongus</i>), the TXNDD does contain a record of the creek chubsucker (EOR 13127) within Hurricane Creek in a temporary construction area located at approximately Station HN2 369+00 within the LOD along Segment 5 for all Build Alternatives. The Appendix D Project footprint maps show that Hurricane Creek and its associated woodland and riparian corridor would be disturbed for temporary construction. Other temporary construction areas and permanent areas used for ancillary facilities throughout the Project also contain wetland, open water, and stream habitats and their associated riparian corridors. It is not clear if the Project would require</p>	<p>The creek chubsucker has been added to sheets 223 and 224 of the Natural Resources Mapbook in Appendix D of the Final EIS. The referenced temporary construction area in TPWD's comment is separated from Hurricane Creek to the south by an existing a BNSF rail line and</p>

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<p>full disturbance across all temporary construction areas.</p> <p>Recommendation: For the protection of the state-listed threatened creek chubsucker, TPWD recommends that the temporary construction area at Station HN2 369+00 be designed to avoid disturbance to Hurricane Creek and its associated riparian corridor.</p>	<p>yard and avoids direct disturbance of the creek.</p>
<p>Recommendation: Because of the importance of waters and their associated vegetated buffers which are identified as sensitive habitat areas in NR-MM#2, TPWD recommends that all areas of temporary construction along the selected route be designed to avoid disturbance to wetlands, open waters, streams, and their associated vegetated buffers, to the extent feasible, for the protection of those waters as well as the wildlife that utilize those habitats. Permanent ancillary facilities such as TMFs, MOWs, TPSSs, sectioning posts, subsectioning posts, signal houses, communications housing, and detention basins should be further refined during final design to avoid impacting waters of the U.S. and their associated vegetated buffers to the greatest extent practicable. Detention and retention sites should not be constructed on-channel in existing streams.</p>	<p>Details of the Project (including design, construction and operational specifications) have been considered in this EIS as proposed by TCRR. Changes to the Project, as presented in the Draft EIS, have occurred as the conceptual engineering design progressed. TCRR has continually refined the design of the Project to reduce the Project footprint, or LOD, in this EIS and avoid or minimize impacts to the socioeconomic, natural, cultural and physical environment. These engineering refinements were based on environmental and engineering surveys, stakeholder engagement, public and agency input, design development, and the findings of FRA's environmental analyses and resulted in modifications to the Project, as well as the overall Project LOD and are detailed in Chapter 2.5.4, Alternatives Considered, Engineering Refinements. Therefore, the Build Alternatives depicted in the Final EIS have evolved from the alignment</p>

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	<p>alternatives originally developed in the Draft EIS.</p> <p>These refinements resulted in a reduction of permanent impacts to waters of the US by the Preferred Alternative. For those unavoidable impact the below mitigation measures were also updated.</p> <p>NR-MM#2: Field Delineation of Sensitive Habitat Areas has been updated in the Final EIS to specifically exclude those areas permitted for discharge or fill under CWA Section 404.</p> <p>Section 3.7, Waters of the US provides mitigation measures "WW-CM#1: Avoidance and Minimization" (including placing detention off channels), WW-CM#2: Maintain Low Flow", "WW-CM#5: Waters of the U.S. Mitigation Plan", and "WW-MM#1: Compensatory Mitigation". Additionally, mitigation measure "NR-MM#4: Minimize Limits of Disturbance" also describes measures to limit disturbance to waters, wildlife, and habitat.</p>
<p>As indicated in TPWD's scoping comments, of the state-listed terrestrial species potentially occurring in the Project LOD, the threatened Texas homed lizard (<i>Phrynosoma cornutum</i>), timber rattlesnake (<i>Crotalus</i></p>	<p>Section 3.6.4.4.2 Protected Wildlife Species, of the Final EIS has been updated</p>

horridus), and Rafinesque's big-eared bat (*Corynorhinus rafinesquii*) are more at risk for being impacted by construction activities due to their limited mobility or life history requirements.

The EIS indicates the potential for the state-listed threatened Rafinesque's big-eared bat to occur within the study area due to the occurrence of bottomland hardwoods and includes NR-CM#3 specific to surveying potential tree, culvert, and bridge roost habitats for maternity colonies of Rafinesque's big-eared bat and to not disturb the colonies until pups have fledged. As indicated in scoping comments and in Section 3.4 Noise, bat roosts are located within culverts under IH-45 in Freestone and Leon Counties.

Recommendation: TPWD recommends the EIS identify that culverts under IH-45 would also serve as suitable habitat for the Rafinesque's big-eared bat because multiple culverts along IH-45 and within the LOD of Alternatives C and F have EORs for bat roosts including two EORs of the Southeastern myotis bat, an SGCN.

Recommendation: TPWD recommends that NR-CM#3 also include consultation with TPWD upon detection of bat roosts that will be disturbed by the Project to determine appropriate mitigation, such as construction of artificial roosts to offset the impact to bats.

Recommendation: If Build Alternative C or F is selected as the preferred alternative, TPWD recommends a NR-MM to survey the culverts along the length of the Project where the Project would follow IH-45 to identify bat roosts within the LOD. TPWD recommends NR-MMs to minimize noise and vibration impacts on bats and to conduct studies to evaluate those impacts on bats, see TPWD's NV-MM recommendations in Section 3.4 Noise.

Recommendation: TPWD recommends that bat roosts should be included as sensitive habitat areas covered under NR-MM#2.

NR-MM#5 and NR-MM#6 address construction trench practices to avoid trapping wildlife.

Recommendation: TPWD recommends additional NR-MMs specific to the state-listed Texas homed lizard and timber rattlesnake including site training to prohibit TCR and their contractors from intentionally killing the timber rattlesnake and other snakes, informing personnel of the dangers of handling live or dead timber rattlesnakes, identifying relocation protocols to be used by TPWD-permitted individuals for handling state-listed reptiles that will not readily leave the Project area and are in danger of impact by construction activities,

to include "Additionally, culverts under IH-45 would also serve as suitable habitat for the Rafinesque's big-eared bat because multiple culverts along IH-45 and within the LOD of Alternatives C and F have EORs for bat roosts including two EORs of the Southeastern myotis bat, a SGCN."

Compliance measure **NR-CM#3: Bat Surveys** states "For Build Alternatives C and F, prior to construction, TCRR shall hire qualified biologists to conduct surveys of potential roost habitat for Rafinesque's big-eared bat including, but not limited to, large hollow trees, culverts and bridges (specifically culverts and bridges associated with IH 45) for maternity colonies and existing bat roosts. If roosts are found that would be disturbed by the Project, TCRR shall notify TPWD to determine appropriate mitigation. TCRR shall not disturb the colonies until pups are volant." Additionally, **NR-MM#2: Field Delineation of Sensitive Habitat Areas** has been updated to include "Areas identified as bat roost sites".

NR-MM#1: Site Training was updated to include all protected species. Site

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<p>and reporting encounters of state-listed species to the TXNDD. More details regarding these recommendations can be found in the TPWD February 26, 2016 scoping letter.</p>	<p>awareness training will occur prior to and during construction. TCRR will hire a qualified biologist to develop appropriate environmental awareness training that TCRR will administer to all site personnel before beginning work on the Project. The training will include the definition of “take” relative to protected species, the potential presence of protected species, reporting requirements, and measures to be taken to minimize impacts to the natural environment. TCRR will hire staff to train all site personnel on identification of protected species within suitable habitat before site personnel can begin work on the Project. TCRR will document training activities and retain documentation for the duration of construction and provide copies to USFWS upon request. The documentation will include names of site personnel undergoing training, names of trainers, name of qualified biologist that developed the curriculum, dates and duration of training and curriculum materials.</p>
<p>The draft EIS identifies NR-MM#9 to reduce barriers to wildlife movement including the installation of wildlife crossings in sections that are not built on viaduct following recommendations outlined in the wildlife crossings technical memorandum of Appendix E. The permanent wildlife crossings would facilitate movement within a</p>	<p>Wildlife crossings have been strategically located in various habitat types to accommodate a variety of species. These</p>

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<p>species' home range. The draft EIS indicates that the location of wildlife crossings would be determined through environmental analysis in consultation with TPWD and USFWS to identify wildlife corridors and large habitat blocks to facilitate placement of crossings. Potential locations of wildlife crossings are shown in the draft EIS Appendix G Conceptual Engineering Plans and Details.</p> <p>Recommendation: TPWD recommends the use of wildlife crossings in areas of restricted movement across the ROW and seeks further coordination with TCR in finalizing the location of potential wildlife crossings. In addition to accommodating general wildlife resources, TPWD recommends strategic placement of wildlife crossings to accommodate the Eastern spotted skunk (<i>Spilogale putorius</i>), also known by its subspecies name in Texas as the Plains spotted skunk (<i>Spilogale putorius interrupta</i>), and the Southern crawfish frog (<i>Lithobates areolatus areolatus</i>), both SGCN. Crossings are recommended where multiple EORs of the Eastern spotted skunk and the Southern crawfish frog are located near the Project in northwest Harris County.</p>	<p>locations were determined in coordination with wildlife experts and Project engineers. Please see Appendix E, Wildlife Crossings Technical Memorandum of the Final EIS for detailed information regarding wildlife crossings. NR-MM#6: Wildlife Crossings has also been updated in the Final EIS to state that “Through environmental analysis, TCRR, along with TxDOT, TPWD and USFWS, will identify existing wildlife corridors and large habitat blocks to facilitate in the placement of crossings. TCRR shall determine the location, frequency, size and monitoring of wildlife crossings in coordination with wildlife agencies and landowners; through field investigations by trained biologists; and largely based on species’ biology, such as home range size, and habitat.”</p>
<p>A large temporary construction area at the intersection of Wintergreen Trail and Lancaster Hutchins Road along Segment 1, at approximately Station DS 370+00, is directly adjacent to a recently documented rare native prairie remnant identified in the TXNDD as a Vertisol Blackland Prairie (<i>Schizachyrium scoparium-Sorghastrum nutans- Andropogon gerardii- Bifora americana</i> Vertisol Grassland; EOR 11919). The connection between the HSR and the Dallas South TMF would require permanent impacts within a portion of the prairie EOR where it borders Lancaster Hutchins Road. Native prairie remnants of the Northern Blackland Prairie have potential to support rare plants including the following SGCN as identified on the RTEST Dallas County lists: Texas milk vetch (<i>Astragalus rejlexus</i>), Osage Plains false foxglove (<i>Agalinis densiflora</i>), Hall's prairie clover (<i>Dalea hallii</i>), and Glen Rose Yucca (<i>Yucca necopina</i>). This prairie remnant is vulnerable to loss due to</p>	<p>Based on maps, aerial images, property boundaries, and further investigation, 1.57 acres of EOR 11919 (Vertisol Blackland Prairie) would be permanently impacted by the Project. From aerial imagery, this impacted area appears to be an existing roadway and wooded area along the roadway but not within the preserved prairie. Additionally, this portion of the rail</p>

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<p>development.</p> <p>Recommendation: TPWD recommends TCR avoid or minimize temporary and permanent disturbances to the prairie remnant (EOR 11919) north of Station DS 370+00. TPWD strongly recommends TCR consider incorporating the prairie into the Project for permanent protection as a Project conservation area or mitigation area due to the vulnerability of the site to loss by future development. TCR may coordinate with TPWD to identify local conservation partners that could assist in proper management of the prairie property.</p>	<p>would be on viaduct. Should the EOR correspond with the property boundary then any temporary impacts would be avoided by the Project. Secondary impacts due to dust would be avoided by the mitigation measure "AQ-MM#1: Dust suppression techniques" in the Section 3.2 Air Quality of the Final EIS. Therefore, no impacts to native Vertisol Blackland Prairie EORs are anticipated.</p>
<p>The Project will cross the Katy Prairie, an environmentally sensitive coastal prairie ecosystem, as discussed in the TPWD February 26, 2016 scoping letter.</p> <p>Comment: Please refer to TPWD's comments and recommendations in Section 3. 7 Waters of US below regarding impacts associated with the Katy Prairie.</p> <p>Table 3.6-3 lists reptiles and amphibian species with potential to occur within the study area. The state-listed threatened timber rattlesnake (<i>Crotalus horridus</i>) is on the table with an indication there are only known records within three Project area counties (Dallas, Ellis and Navarro Counties). However, the TXNDD also contains EORs of the timber rattlesnake in Freestone and Leon Counties. The table does not include the Southern crawfish frog, an SGCN which has EORs in Freestone, Navarro, Harris and Waller Counties.</p> <p>Recommendation: TPWD recommends Table 3.6-3 also represent known EORs from the TXNDD.</p>	<p>Table 3.6-3 in the Final EIS has been updated to include known county occurrences of federally or state protected species provided by the TXNDD with the exception of historical records for some species where development has occurred. The Southern crawfish frog was not included because it is not federally or state listed as protected. The updated TPWD RTEST list was included in the Final EIS. The state-listed timber rattlesnake is listed for every county of the Project except Limestone County.</p>
<p>The draft EIS incorrectly references the TXNDD element occurrence records (EORs) as obtained from the TPWD county lists of protected species and species of greatest conservation need. Please note that the TXNDD is a database of known records of rare species, special features, and vegetation communities, whereas the TPWD RTEST online application provides information regarding state-listed species and species of greatest</p>	<p>Section 3.6, Natural Ecological Systems and Protected Species of the Final EIS has been updated accordingly to correct</p>

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<p>conservation need potentially occurring in each county in Texas. Both resources are separate tools managed by and obtained through the TPWD Wildlife Division's Wildlife Diversity Program in which the Wildlife Habitat Assessment Program and TXNDD staff are housed. For example, citation number 56 indicates that EORs were obtained from the county lists. Additionally, citation number 59 indicates that the TXNDD and RTEST are the same resource.</p> <p>Recommendation: TPWD recommends correctly citing the TXNDD EORs and RTEST and revising the citations that are inaccurate.</p>	<p>citations for the TXNDD EORs and RTEST.</p>
<p>Recommendation: TPWD recommends the Post-ROD Mitigation Monitoring Program identify post construction investigations that would be conducted to track, report, research, and remediate Project impacts on fish and wildlife such as collision with the catenary system, wildlife use of crossings, artificial bat roost use, and noise and vibration affects that have not yet been studied for HSR within the U.S.</p>	<p>Mitigation measures NR-MM#7: Wildlife Mortality Recording Forms has been updated to state that “during the operation of the HSR, once a train arrives at a terminal station, TCRR will remove any debris from the front of the train. TCRR staff shall record and document any obvious wildlife/bird mortality for a period of 5 years. TCRR shall also record obvious wildlife mortality for OCS electrocutions for a period of 5 years after initial operation. TCRR shall make the data available to FRA or other government agency upon request.” This mitigation measure will be implemented to investigate and remediate impacts post-construction, additional Post-ROD studies are outlined throughout the section and within the Biological Assessment which can be found in</p>

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	<p>Appendix K, Agency Specific Reports, Biological Assessment of the Final EIS. As part of NV-MM#3: Operational Noise Mitigation and Monitoring, TCRR shall mitigate noise and vibration impacts to a level below severe.</p>
<p>Section 3.6 Habitats at Fort Boggy SP: Based on aerial review of the LOD, TPWD estimates that the proposed Project will cause the direct loss of approximately 15 acres of forested and marsh habitat at Fort Boggy SP including rare habitats for which the park has set aside for conservation including old-growth post oak (<i>Quercus stellata</i>) and sand post oak (<i>Quercus margaretta</i>) savanna, overcup oak (<i>Quercus lyrata</i>) swamp, Boggy Creek and its associated buttonbush (<i>Cephalanthus occidentalis</i>) marsh and swamp. However, Chapter 7.0 Section 4(/) and 6(/) Evaluation indicates that the Project would require acquisition of 67 acres of the park, thus the impacts to habitat may be greater than estimated. A Project-related detention basin is proposed in a rare habitat at Fort Boggy SP.</p> <p>Comment: TPWD recommends full avoidance of habitats at Fort Boggy SP. If impacts cannot be avoided, then all impacts to park resources need to be fully mitigated, see TPWD comments for Section 3.13 Land Use, Chapter 7.0 Section 4(/) and 6(/) Evaluation, above and Chapter 8.0 Applicable Federal, State and Local Permits and Approvals, below. TPWD recommends that the Project-related detention basin proposed on Fort Boggy SP be moved to a non-forested upland area outside of the park.</p>	<p>Section 2.5.2, Alternatives Considered, Engineering Refinements has been updated to clarify that design modifications continued to be made by TCRR since the Draft EIS and the overall footprint of the Project was reduced by approximately 23 percent.</p> <p>Section 2.7.1, Alternatives Considered, Statutory Considerations, has been updated in the Final EIS to clarify that under Texas Parks and Wildlife Code Chapter 26, Protection of Public Parks and Recreational Lands, the Segment 3C proposed to cross state-owned land would be denied and not carried forward in the TPWD evaluation criteria as there are viable alternatives (Build Alternatives A, B, D and E) not on state property.</p> <p>LU-CM#1: Permanent ROW Agreements has been updated to clarify that “Prior to construction, TCRR shall coordinate with</p>

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	<p>TxDOT to obtain approval and necessary agreements for the use of state-owned ROW. In addition, in the event Build Alternative C or F is identified as the Preferred Alternative, TCRR shall coordinate with TPWD and the Texas Parks and Wildlife Commission to pursue approval and necessary agreements for the use of state-owned property (i.e., Fort Boggy State Park).”</p> <p>As detailed throughout Section 3.8, Floodplains, TCRR has incorporated drainage features, such as swales, culvert crossings, viaduct sections and detention basins, into the design of the Project to maintain water flow, provide natural filters for stormwater runoff and to ensure that off-site cross-drainage patterns would not be changed where practicable. Additionally, detention basins would be designed and located following FP-CM#3: Operational Floodplain Best Management Practices. The design detailed in the Final EIS has a detention basin located within Fort Boggy State Park in potential habitat for the Houston, Toad, Large-Fruited Sand Verbena and Navasota Ladies-tresses. Impacts to protected habitat shall be</p>

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	considered under the ongoing Section 7 consultation with USFWS.
<p>Section 3.7 Waters of U.S</p> <p>Due to concurrent review of the draft EIS and Section 404 permit applications, please refer to the section below titled USACE Section 404 of the Clean Water Act Permit Applications for TPWD input regarding impacts to Waters of the U.S for both the draft EIS and 404 permit applications.</p>	Comment noted.
<p>Section 3.10 Aesthetics and Scenic Resources</p> <p>The draft EIS Landscape Unit #6 Central Eastern Rural, Fairfield to Old San Antonio Road includes key viewpoint (KVP) #17, in the vicinity of Fort Boggy SP. The draft EIS indicates the viaduct would be approximately 40 feet above grade almost to the top of the tallest trees, possibly reducing views of the park from the frontage road and rest stop. The draft EIS concludes a neutral degree of impact with slight reduction in visual quality for travelers and park users, and that the viaduct is compatible with surrounding environment. All Build Alternatives rank close to each other with regards to beneficial (all equal), adverse (all equal), and neutral (close) visual impacts.</p> <p>TPWD cannot determine by the information provided in the draft EIS how the height of the viaduct relates to the height of IH-45 and the existing trees across Fort Boggy SP. A portion of Build Alternatives C and F would also cross the park in an open marsh area without tall trees to act as existing screening of the viaduct to park visitors. The draft EIS does not give an indication of whether the proposed HSR would be visible from areas within Fort Boggy SP.</p> <p>Recommendation: TPWD recommends the EIS identify the heights of the viaduct relative to the existing natural and manmade environment across Fort Boggy SP and identify potential lines of sight from the park amenities to the HSR. If the HSR would be visible from existing park amenities, then TPWD recommends an aesthetics and scenic resources mitigation measure for TCR to provide natural screening in consultation with TPWD to reduce visual impacts to park users for Build Alternatives C and F.</p>	<p>Section 7.7.1.4.1 Fort Boggy State Park of the Final EIS has been updated to discuss Project impacts to Fort Boggy State Park, including impacts on park activities related to visual impacts associated with Build Alternatives C and F. This analysis was also included in FRA’s February 12, 2020 “Request for Concurrence on Section 4(f) Determination for Fort Boggy State Park” letter to TPWD in Appendix C of the Final EIS.</p> <p>The HSR viaduct has the potential to be visible from areas of the east side of the park that are actively managed for recreational activities. The viaduct would be elevated above the existing ground approximately 40 feet to the top of the rail. This height is almost to the height of the tallest trees on the property, which would act to shield views of the viaduct from</p>

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	<p>users of the property at ground-level. The forested condition of the property dominates foreground, middleground and background views of east side park users during leaf-on as well as leaf-off seasons. The forest would remain dominant in user views during leaf-on or leaf-off conditions, although portions of the viaduct and train operations may be partially visible through the trees during leaf-off conditions. Section 3.10, Aesthetics and Scenic Resources also describes how the Project is expected to change the visual character of aesthetic and scenic resources within the Study Area, including Fort Boggy State Park, and how those changes are expected to be perceived by viewers.</p>
<p>Section 3.13 Land Use</p> <p>The draft EIS indicates that the Project would require permanently converting approximately 13.7 acres of state-owned public use land at Fort Boggy SP to transportation use, where the park is crossed by Build Alternatives C and F in Leon County. Because there appears to be no condemnation authority for the taking of state-owned lands for this Project, the approval of the Texas Parks and Wildlife (TPW) Commission, subject to the requirements and limitations of Chapter 26 of the Texas Parks and Wildlife Code (Chapter 26), would be necessary for the granting of any easement across Fort Boggy SP. Section 3.13 .5 .2.2, regarding the environmental consequences of converting existing land uses, discusses the conversion of recreational use to transportation use at the federal property at Lake Bardwell, but does not discuss the conversion occurring at Fort Boggy SP under Build Alternatives C and F. Section 3.13.2, regarding state regulatory context, and Section</p>	<p>The preferred alternative (Build Alternative A) would not impact Fort Boggy State Park. Fort Boggy State Park would be crossed (approximately 10,750 feet) by Segment 3C (Build Alternatives C and F) in Leon County. Table 3.13-19 reports the land use conversions for Fort Boggy State Park, in Leon County (Segment 3C). Refer also to Appendix D, Land Use Mapbook for maps of land use conversions at the park for</p>

3.13.5.2.2 do not identify TCR's need to comply with Chapter 26.

The draft EIS identifies Chapter 26 in the draft EIS Chapter 7.0 Section 4(/) and 6(/) Evaluation, but does not address it further in the document, and the legal implications involved in crossing TPWD property are not adequately addressed. The proposed alternatives that cross Fort Boggy SP would constitute a constructive use or taking of public land used as a park, which requires compliance with Chapter 26. Chapter 26 requires that before a state agency (TPWD) can approve any project (proposed Project) that will result in the use or taking of public land designated and used as a park (Fort Boggy SP), that agency (TPWD) must provide certain notices to the public, conduct a hearing, and render a finding that there is no feasible and prudent alternative and that the Project includes all reasonable planning to minimize harm to the park. The use or taking of Fort Boggy SP would require approval from the TPW Commission for an easement with associated fees and mitigation for adverse impacts to the park. The amount of the fee and required mitigation would be determined by the TPW Commission. The Project includes four feasible and prudent alternatives to crossing Fort Boggy SP: Alternatives A, B, D, and E. However, FRA eliminated Build Alternatives D and E from further consideration in Section 2.7.2 Comparison of Build Alternatives A, B and C; therefore Build Alternatives A and B are feasible and prudent alternatives to crossing Fort Boggy SP. Because there are prudent and feasible alternatives, it does not appear that the Chapter 26 standard could be met in connection with the Project's proposed use or conversion of Fort Boggy SP to transportation use.

Recommendation: TPWD recommends the draft EIS acknowledge the land use conversion at Fort Boggy SP in the sections regarding regulatory context and environmental consequences of existing land use conversion. TPWD recommends a land use compliance measure (LU-CM) for TCR to coordinate with TPWD and the TPW Commission to pursue approval and necessary agreements for the use of state-owned property associated with Fort Boggy SP in the event Build Alternative C or F is selected as the preferred alternative.

Comment: If the TPW Commission chooses to grant TCR an easement to cross TPWD property, the required process includes a public hearing at a regularly scheduled TPW Commission meeting. Coordination with TPWD and the TPW Commission regarding TPWD's Chapter 26 process needs to be initiated by TCR at least a year prior to construction.

Build Alternatives C and F.

Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context, Texas Administrative Code, has also been updated in the Final EIS to include discussion of TPWD permits that may be required.

Section 2.7.1, Alternatives Considered, Statutory Considerations, has been updated in the Final EIS to clarify that under Texas Parks and Wildlife Code Chapter 26, Protection of Public Parks and Recreational Lands, the Segment 3C proposed to cross state-owned land would be denied and not carried forward in the TPWD evaluation criteria as there are viable alternatives (Build Alternatives A, B, D and E) not on state property.

LU-CM#1: Permanent ROW Agreements has been updated to clarify that "Prior to construction, TCRR shall coordinate with TxDOT to obtain approval and necessary agreements for the use of state-owned ROW. In addition, in the event Build Alternative C or F is identified as the Preferred Alternative, TCRR shall coordinate with TPWD and the Texas Parks

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<p>The draft EIS includes an assessment of lands held under an Agricultural Conservation Easement created through the Agricultural Act of 2014 (also known as the Farm Bill) Agricultural Conservation Easement Program. One easement was identified within the study area and located one-half mile outside of the Project LOD, Warren Ranch/Barn Owl Woods. The draft EIS did not consider conservation easements established solely by non-profit natural resource organizations. As indicated by TPWD during scoping, land trust conservation easements protect and conserve the land's natural values such as wetlands, fertile soils, mature trees, and wildlife habitat. Fragmentation of wildlife habitat due to linear transportation projects on properties where conservation agreements serve to protect the state's natural resources now and in the future is of concern to TPWD. Lands with conservation easements protect existing wildlife habitat from future fragmentation, and TPWD recognizes that they have greater environmental integrity than comparable lands without conservation easements.</p> <p>Recommendation: TPWD continues to recommend that properties protected by non-governmental conservation easements be identified in the EIS and avoided during development of the preferred alternative.</p>	<p>and Wildlife Commission to pursue approval and necessary agreements for the use of state-owned property (i.e., Fort Boggy State Park).”</p>
<p>Section 3.17 Recreation</p> <p>Section 3.17.3 identifies a change of use, access, visual quality, or noise as direct impacts to recreational facilities or parklands located within the LOD, and identifies indirect impacts as impacts to recreational facilities or parklands located within a study area 0.25 mile beyond the LOD to account for potential noise impacts. The draft EIS indicates construction noise would extend 40 to 630 feet from the noise source and operational noise would be less than construction noise.</p> <p>Table 15 of the executive summary does not incorporate Fort Boggy SP as being impacted by any Build Alternatives including trails or parkland even though the non-federal public property is a state park that will require a change of use from state-owned land used for recreation to transportation use along Build Alternatives C and F.</p> <p>Recommendation: TPWD recommends that Table 15 of the executive summary be corrected to indicate impacts to Fort Boggy SP by increasing the tally of parks impacted by one additional park for Alternatives C and</p>	<p>Section 2.7.1, Alternatives Considered, Statutory Considerations, has been updated in the Final EIS to clarify that under Texas Parks and Wildlife Code Chapter 26, Protection of Public Parks and Recreational Lands, the Segment 3C proposed to cross state-owned land would be denied and not carried forward in the TPWD evaluation criteria as there are viable alternatives (Build Alternatives A, B, D and E) not on state property.</p> <p>Section 7.7.1.4.1 Fort Boggy State Park has been updated in the Final EIS to detail potential for Project impacts to Fort Boggy</p>

F.

Comment: Table 3.17-6, regarding recreational facilities in the Leon County study area, incorrectly identifies Fort Boggy SP as owned by the USACE. This is state land under the ownership and management of TPWD. Table 3.17-6 also fails to identify cabins and hike-in campsites as site amenities. The discussion of Fort Boggy SP indicates it is located only on the east side of I-45, when in fact it is located on both sides of I-45. The discussion indicates Fort Boggy SP is open only for day-use; however, the park recently reinstated overnight use in campsites or in cabins.

The discussion of environmental consequences on recreational facilities identifies that operational impacts would be long-term and permanent and would represent direct changes that permanently alter the use, character, or setting of the recreational facility, such as acquisition of a portion of any recreational facility and changes in access, use, or viewshed.

The draft EIS states that Segment 3C along Build Alternatives C and F would not directly impact the recreational facilities within Fort Boggy SP even though the Build Alternatives would be on park lands and the reconstruction of the I-45 west frontage road and the Build Alternatives would directly impact Fort Boggy SP property. The draft EIS concludes that the portion of the park impacted by the Project and frontage road reconfiguration are on undeveloped land and not accessible to park users and that 88 percent of the Project through the park would be on viaduct. The discussion also concludes that the park's recreational areas are outside the LOD for considering direct impacts and are outside the 0.25-mile study area for considering indirect impacts.

Please note that the acquisition of a portion of the Fort Boggy SP and the subsequent conversion of a portion of the Fort Boggy SP property, which is a recreational facility in its entirety, to transportation use within the LOD are direct impacts on Fort Boggy SP. Although it does not appear that the Project would impact access at the park due to the Project being primarily on viaduct, other direct impacts to Fort Boggy SP would be a change in the character of the park through a reduction in the size of vegetation communities and a potential change in viewshed. As indicated in Section 3.10 Aesthetics and Scenic Resources, above, the viewshed from within the park towards the proposed HSR were not adequately evaluated.

State Park, including loss of property, and impacts on park activities related to changes in access, noise, vibration and visual impacts associated with Build Alternatives C and F. This analysis was also included in FRA's February 12, 2020 "Request for Concurrence on Section 4(f) Determination for Fort Boggy State Park" letter to TPWD in **Appendix C** of the Final EIS.

Table 15 (now **Table 16**) in the **Executive Summary** has also been updated to include Fort Boggy State Park. FRA coordinated with TPWD on impacts to Fort Boggy State Park and TPWD provided updated information on park programming to better inform the Final EIS. FRA incorporated this information into **Section 3.17.5, Recreational Facilities, Environmental Consequences** to strengthen the comprehensive assessment of impacts on the resource. **Table 3.17-6** was updated to identify Fort Boggy State Park as being owned TPWD. Information in the discussion of **Section 3.17.4.5.1 Parks** was updated to include cabins and hike-in campsites and activities on both sides of I-45. Fort Boggy is only intersected on Build Alternatives C

Additionally, because a Fort Boggy SP recreational trail and camping area east of IH-45 comes within 0.25 mile of the LOD, and because all areas of the park are a recreational property, the Project would have indirect impacts on the park and its visitors including temporary construction noise and permanent operational noise impacts that would degrade park visitor experiences.

Request: TPWD finds the conclusions regarding Fort Boggy SP inadequate and requests the EIS identify that the Project will have direct impacts on the park including acquisition of park property which is a recreational facility in its entirety, a change in use from recreation to transportation use, and a change in character of the vegetative setting and/or viewshed of Fort Boggy SP within the LOD. The EIS should also identify the indirect noise impacts to Fort Boggy SP. TPWD requests that the EIS identify that the Project will require compliance with TPW Code Chapter 26 and will require a Section 4(f) evaluation due to greater than de minimis impacts. See TPWD's input and more discussion regarding Fort Boggy SP in Section 2. 7.2 Comparison of Build Alternatives A, B and C, Section 3. 4 Noise, Section 3. 6 Natural Resources, 3.10 Aesthetics and Scenic Resources Section, Section 3.13 Land Use, Chapter 7.0 Section 4(/) and 6(/) Evaluation, and Chapter 8.0 Applicable Federal, State and Local Permits and Approvals.

Comment: The impacts on Fort Boggy SP should also be included in 4.0 Indirect and Cumulative Impacts, Table 4-1.

and F, and therefore would not be impacted by the Preferred Alternative. For more information regarding impacts to Fort Boggy State Park, please see the "Request for Concurrence on Section 4(f) Determination for Fort Boggy State Park" letter to TPWD in **Appendix C** of the Final EIS.

Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context, Texas Administrative Code, has also been updated in the Final EIS to include discussion of TPWD permits that may be required.

Chapter 4.0, Indirect Effects and Cumulative Impacts of the Final EIS has been updated to clarify that "The direct and indirect impacts of the Project are discussed in detail in **Chapter 3.0, Affected Environment and Environmental Consequences** and **Section 4.3, Indirect Project Effects**, respectively. The cumulative impacts of the Project and other past, present, and reasonably foreseeable future projects would be similar across the six Build Alternatives and across the three Houston Terminal Station

AGENCY COMMENT	RESPONSE
	<p>Options. Therefore, the Preferred Alternative (Build Alternative A and Houston Northwest Mall Terminal Station Option) is used as the representative for the cumulative impact analysis, with the exception of impacts to Fort Boggy State Park. The cumulative impacts would vary for Build Alternatives C and F as hunting activities at Fort Boggy would be impacted. Expansion of IH-45 in Leon County (as shown in Table 4-7) could further impact hunting or other recreational activities at Fort Boggy State Park. Therefore, if Build Alternative C or F were to be identified as the Preferred Alternative, FRA would coordinate with TPWD to identify appropriate mitigation for cumulative impacts to Fort Boggy State Park.”</p>
<p>Section 3.19 Cultural Resources</p> <p>The draft EIS indicates that all Build Alternatives falling on non-federal public land, or land that is under the ownership or control of a political subdivision of the State of Texas, are subject to compliance with the Antiquities Code of Texas (Texas Natural Resources Code Title 9, Chapter 191) and require the Texas Historical Commission (THC) to review actions potentially disturbing prehistoric or historic sites within the public domain.</p> <p>At Fort Boggy SP, the Project would require use of state-owned property along Build Alternatives C and F west of the existing IH-45 ROW to accommodate the HSR and reconfiguration of the IH-45 west frontage road, which appears to also be proposed as the HSR access road. Section 3.19, regarding cultural resources, does not identify Fort Boggy SP as a public property subject to the Texas Antiquities Code. In the park, there are three</p>	<p>Section 3.19.2, Cultural Resources, Regulatory Context outlines the Antiquities Code of Texas (Texas Natural Resources Code Title 9, Chapter 191), as well as the Texas Administrative Code (Title 13, Part 2, Chapters 21 and 26). Fort Boggy State Park would fall under the purview of the Texas Historical Commission (THC) and all cultural resources investigations within the State Park would be conducted under the</p>

known archeological sites within the proposed frontage road corridor, and several more in the vicinity of a Project-related detention basin. One of the sites inside the proposed corridor has been recommended for further testing and may be significant. The other two may be an indication of something more significant nearby or deeper. The park has had multiple cultural resource surveys that have detected new records upon each subsequent survey. Historic records indicate that Fort Boggy was adjacent to a spring, and there is a spring at the north end of the proposed access road corridor. TPWD is concerned with the Project's impact in the vicinity of the spring, because the area has potential to be associated with the original location of Fort Boggy, which has never been found.

Because significant archeological sites continue to be discovered and the actual location of Fort Boggy has never been encountered, there is a potential to encounter unknown and unrecorded cultural resources, both historic and prehistoric, within the Project area in or near Fort Boggy SP.

Because the cultural resources at Fort Boggy SP have been overlooked in the draft EIS, THC may not be aware that the Project would cross state-owned land and affect its associated cultural resources. Because the FRA will not be able to fully determine the Project's effects on cultural resources prior to approving the Project, FRA and THC have decided to develop and implement a programmatic agreement for the Project to ensure the appropriate measures are taken to minimize harm for potential impacts. The draft PA will be available for public comment upon circulation of the final EIS.

Recommendation: TPWD recommends the EIS identify Fort Boggy SP as state-owned property subject to the Antiquities Code of Texas and recognize the potential for cultural resources to occur within the LOD within the park property.

Request: TPWD requests that FRA consult with TPWD to specifically address the cultural resources and assessment needs at Fort Boggy SP for inclusion in the EIS and PA.

Recommendation: If Fort Boggy SP property is utilized for any aspect of the Project, TPWD recommends a shovel test survey of the entire easement area and deep testing in locations where the potential for deeply-buried cultural remnants exist to determine appropriate mitigation measures for impacts to cultural resources

Antiquities Permit issued for the Project.

To date, no archeological investigations have occurred within or near Fort Boggy State Park, and all remaining investigations will be conducted through the Programmatic Agreement (PA) FRA has developed in consultation with the THC, the Advisory Council on Historic Preservation, the US Army Corps of Engineers (Fort Worth and Galveston Districts), and TCRR. As per the PA, all archeological surveys will be in accordance with Council of Texas Archeologists guidelines, which include shovel testing and deep mechanical trenching where warranted. Fort Boggy State Park would only be intersected by Build Alternatives C and F, and therefore would not be impacted by the Preferred Alternative (Build Alternative A).

AGENCY COMMENT	RESPONSE
<p>at the park.</p>	
<p>Chapter 7.0 Section 4(f) and 6(f) Evaluation</p> <p>Section 4(f) of the USDOT Act (49 U.S.C. 303(a)) specifies that projects receiving funding from the US DOT may not support the use of a Section 4(f) property unless the agency (e.g., FRA) determines there is no feasible or prudent alternative to such use and the project includes all possible planning to minimize harm to the resource resulting from such use, or a finding can be made that the project as a whole has a de minimis, or minimal, impact on the Section 4(f) resource. This provision allows avoidance, minimization, mitigation, and enhancement measures to be considered in making a de minimis determination. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that would not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).</p> <p>A Section 4(f) use occurs when land is permanently incorporated into a transportation facility, when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose, or when there is a constructive use of a Section 4(f) property as determined by the criteria in § 774.1.</p> <p>Public parks, recreation areas, and wildlife and waterfowl refuges are protected under Section 4(f) when the property is publicly owned, the primary use is designated as a park, recreation area, or refuge by the official with jurisdiction over the resource, it is considered a significant use by the agency with jurisdiction, and it is open to the public. The study area for the Section 4(f) evaluation was identified as 0.25 mile from the LOD based on the screening distance for noise impacts.</p> <p>The draft EIS indicates that Segment 3C, along Build Alternatives C and F, across Fort Boggy SP would require permanent acquisition of 67 acres (3.5 percent) of the park and that the area to be acquired is currently open space and does not contain developed recreational features. However, the draft EIS does recognize the permanent acquisition as a Section 4(f) use.</p> <p>The draft EIS indicates that construction of Segment 3C would result in temporary increases in noise levels at Fort Boggy SP, and that the noise levels during HSR operation would be consistent with user expectations in the portion of the park within the LOD due to the existing IH-45 traffic noise. The draft EIS concludes that the</p>	<p>Chapter 7.0 in the Final EIS has been updated based on the analysis conducted by FRA, as summarized previously in FRA's February 12, 2020 "Request for Concurrence on Section 4(f) Determination for Fort Boggy State Park" letter to TPWD in Appendix C of the Final EIS and to reflect TPWD's findings in the March 20, 2020 response.</p> <p>Section 2.7.1, Alternatives Considered, Statutory Considerations, has been updated in the Final EIS to clarify that under Texas Parks and Wildlife Code Chapter 26, Protection of Public Parks and Recreational Lands, the Segment 3C proposed to cross state-owned land would be denied and not carried forward in the TPWD evaluation criteria as there are viable alternatives (Build Alternatives A, B, D and E) not on state property.</p> <p>Section 7.7.1.4.1 Fort Boggy State Park has been updated in the Final EIS to detail potential for Project impacts to Fort Boggy State Park, including loss of property, and impacts on park activities related to changes in access, noise, vibration and</p>

increase in noise would not adversely affect the protected activities, features, or attributes of the property.

Comment: The discussion regarding Fort Boggy SP as an existing public park and recreation area along Segment 3C in Leon County, Table 7.2, and the assessment of the use of Fort Boggy SP should identify that the park includes overnight use and campsites.

Comment: TPWD is concerned that the draft EIS and Chapter 7 do not consider the noise effects on Fort Boggy SP visitors utilizing the trail and camping area that are within the 0.25-mile study area and that echo noise could carry farther than the one-quarter mile study area due to the topography of the area. TPWD considers any increase in noise an adverse impact on park visitor experience. Additionally, the ability of deciduous trees to buffer noise is greatly diminished during leaf-off conditions, thus noise impacts may travel farther than the 0.25-mile study area during tree dormancy.

Chapter 7 of the draft EIS indicates that construction activities and the HSR viaduct would likely be visible from several portions of the park, but it is anticipated to be obscured by existing vegetation and IH-45 from the developed areas of the park.

Comment: TWD is concerned that the impacts to the viewshed from Fort Boggy SP were not fully investigated, and the ability for trees to obscure the viewshed would be reduced during the dormancy season, when deciduous trees lose their leaves.

TPWD agrees that access to the park would not be impacted because the height of the viaduct would allow for human and wildlife passage below the HSR. Additionally, if pursued by TPWD to develop areas west of the Project, access to the park would likely be obtained from the reconfigured west frontage road.

The draft EIS indicates that the following measures to minimize harm to Fort Boggy SP have been identified based on coordination to-date:

- Segment 3C was designed to be predominately on viaduct through Fort Boggy SP to minimize the direct impacts to resource, and
- During final design, TCR would continue to identify ways to minimize impacts to Fort Boggy SP.

visual impacts associated with Build Alternatives C and F. This analysis was also included in FRA's February 12, 2020 "Request for Concurrence on Section 4(f) Determination for Fort Boggy State Park" letter to TPWD in **Appendix C** of the Final EIS.

Additionally, as requested **Table 7-2** of the Final EIS has been updated to clarify that Fort Boggy also includes overnight campsites.

Trees are not a factor in blocking noise in the noise analysis whether they be leaf on or leaf off. **Section 7.7.1.4.1 Fort Boggy State Park** does consider leaf-off viewshed and states, "The forest would remain dominant in user views during leaf-on or leaf-off conditions, although portions of the viaduct and train operations may be partially visible through the trees during leaf-off conditions."

Section 7.9, All Possible Planning to Minimize Harm, detailed that mitigation specific to Fort Boggy State Park on Build Alternatives C and F would include viaduct along most of the property to minimize the area of use and impacts. Selection of Build

These minimization measures would not eliminate the permanent conversion of Section 4(f) property. However, FRA's preliminary determination is that the use of Fort Boggy SP, including any measures to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures), would have de minimis impact on the property because the acquisition of property would not adversely affect the activities, features, or attributes that qualify the park for protection under Section 4(f).

The draft EIS indicates that FRA will make its Section 4(f) determination as part of the final EIS and/or ROD for the Build Alternatives, after considering public and agency comments on this draft Section 4(f) evaluation. The proposed impact and preliminary use determinations are based on coordination with the officials having jurisdiction over the respective resources, as described in Section 7.1 0. These officials will be notified of FRA's intent to make de minimis impact determinations, as applicable. Should the officials with jurisdiction concur, FRA would issue determinations of de minimis impacts as part of its final Section 4(f) determination in the final EIS and/or ROD.

Comment: TPWD is under the impression that this comment letter is TPWD's coordination with FRA per Section 4(f) in response to the draft EIS. Because of the concerns voiced above and in other sections of this letter, and because all measures to minimize harm to Fort Boggy SP have not been determined, TPWD cannot agree at this time with the de minimis determination.

Without a de minimus determination, the use of Fort Boggy SP could only occur if there are no feasible or prudent alternatives to crossing Fort Boggy SP property. The Project includes two other feasible and prudent alternatives, Build Alternatives A and B, as discussed in Section 2. 7.2 Comparison of Build Alternatives A, B and C.

Recommendation: In the absence of details regarding the measures that will be implemented to minimize or mitigate harm to Fort Boggy SP, TPWD recommends that Build Alternatives C and F, which cross through Fort Boggy SP, be eliminated from consideration as preferred alternatives due to the determination of a Section 4(f) use that can be avoided with other feasible or prudent alternatives.

Additionally, visitors also utilize Fort Boggy SP for the wildlife and vegetative resources that offer passive recreation. Damage to the park's habitat, impact to cultural resources, and degradation of the visitor

Alternatives C or F would require TCRR to implement commitments made to minimize harm in coordination with TPWD as well as BMPs outlined in Section 3.2, Air Quality; Section 3.4, Noise and Vibration; Section 3.6, Natural Ecological Systems and Protected Species; Section 3.8 Waters of the U.S.; and Section 3.10, Aesthetic and Scenic Resources.

On February 12, 2020, FRA sent a letter to TPWD indicating intent to make a *de minimis* impact finding for Build Alternatives C and F as described in **Section 7.12, 4(f) Conclusion**, and seeking concurrence from TPWD according to the requirements of Section 4(f). On March 13, 2020, the TPWD responded by letter to FRA disagreeing with FRA's proposed *de minimis* impact finding for Build Alternatives C and F. FRA has revised the finding to an individual use in the Final FEIS. Therefore, if Build Alternative C or F is identified as the preferred alternative, FRA must complete an individual Section 4(f) evaluation process to enable one of those alternatives to be selected as a preferred alternative.

AGENCY COMMENT	RESPONSE
<p>experience with respect to viewshed and noise would need to be fully mitigated in consultation with TPWD in order to determine if a de minimis impact is appropriate.</p> <p>Recommendation: If FRA wishes to further assess the determination of de minimis use of Section 4(f) property at Fort Boggy SP, then TPWD recommends addressing the concerns of TPWD and identifying all mitigation measures in consultation with TPWD prior to seeking TPWD's concurrence with the determination. For direct use impacts to state park property, TPWD expects mitigation through acquisition of like (area, character, and conservation value) property adjacent to Fort Boggy SP that would become part of the park. TPWD recommends the implementation of noise reduction strategies to reduce noise associated with the HSR and/or to reduce existing noise on IH-45 as a way to minimize the cumulative impact of noise associated with the existing environment and the proposed Project. TPWD recommends mitigation measures to entirely avoid cultural resources at Fort Boggy SP or fully mitigate them. TPWD recommends visual screening mitigation measures to minimize impacts to park visitor viewsheds. TPWD recommends constructing auxiliary features, such as detention basins and HSR control facilities, outside of Fort Boggy SP property and outside of nearby forest used by wildlife whose home ranges overlap the park and adjacent lands. Additionally, TPWD recommends that stormwater discharges from the Project's drainage ditches and detention basins or other effluent be directed to areas away from Fort Boggy SP.</p>	
<p>Chapter 8.0 Applicable Federal, State and Local Permits and Approvals</p> <p>Comment: Table 8-1 should include:</p> <ul style="list-style-type: none"> • TPWD Marl, Sand, Gravel, Shell or Mudshell Permit for disturbance to state-regulated stream beds. • TPWD Permit to Introduce Fish, Shellfish or Aquatic Plants into Public Waters and associated Aquatic Resource Relocation Plan (ARRP) in the event that project activities within state waters necessitate the relocation of aquatic life to an area of suitable habitat outside the project footprint and to avoid TCR liability for lost resources under the authority of TPW Code Sections 12.0011 (b) (1) and 12.301. • TPWD Scientific Permit for Research, which authorizes handling of state-listed terrestrial species associated with relocation, surveys, monitoring, and research. 	<p>Table 8-1 provides an overview of the permits, approvals and authorizations; the agency responsible for the permit and/or approval; the permit, compliance or review required; and the relevant laws and regulations. The Final EIS has been updated to clarify that the table provides an overview of permits and approvals required for major projects in Texas with a federal action; it is not intended to be an exhaustive list.</p>

AGENCY COMMENT	RESPONSE
<ul style="list-style-type: none"> • State approval under Chapter 26 of the Texas Parks and Wildlife Code, for Build Alternatives that cross Fort Boggy SP, regarding a change in land use from a state park to transportation use and regarding TCR's pursuit of an easement to cross Fort Boggy SP which can only be granted by the Parks and Wildlife Commission. • State approval under the Antiquities Code of Texas (Texas Natural Resources Code Title 9, Chapter 191); Texas Administrative Code (Title 13, Chapter 26) for Build Alternatives that cross Fort Boggy SP, regarding impacts to cultural resources. 	<p>Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context, Texas Administrative Code, has also been updated in the Final EIS to include discussion of TPWD permits that may be required.</p> <p>Section 2.7.1, Alternatives Considered, Statutory Considerations, has been updated in the Final EIS to clarify that under Texas Parks and Wildlife Code Chapter 26, Protection of Public Parks and Recreational Lands, the Segment 3C proposed to cross state-owned land would be denied and not carried forward in the TPWD evaluation criteria as there are viable alternatives (Build Alternatives A, B, D and E) not on state property.</p> <p>The Antiquities Code of Texas is discussed in Section 3.19.2, Cultural Resources, Regulatory Context, State.</p>
<p>USACE SECTION 404 OF THE CLEAN WATER ACT PERMIT APPLICATIONS</p> <p>Concurrently with the FRA preparation of the EIS, the USACE Fort Worth District and USACE Galveston District, which are also cooperating agencies for the Project, will be using the EIS and other permit application information in their evaluation of a Department of Army (DOA) permit and decision regarding impacts to wetlands and waters of the U.S. in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The USACE review and issuance of a permit under Section 404 is a separate federal</p>	<p>Section 3.7.6, Waters of The U.S., Avoidance, Minimization and Mitigation Measures states "TCRR consulted with the USACE Fort Worth and Galveston Districts to document the expected impacts, permits and mitigation needs in conjunction with</p>

action from FRA's determination on the safety of the system, and the DOA permits must be obtained prior to construction.

USACE-Fort Worth District 404 Permit Application# SWF-2011-00483

TPWD does not currently have sufficient information with regard to the specific location and extent of impacts necessary to evaluate the 404 permit application. Additionally, no mitigation plan was provided with the publically-available draft EIS materials. However, TPWD requested and obtained from the USACE a mitigation plan for the portion of the Project within the USACE Forth Worth District. The plan is highly conceptual in nature and lacks the detail necessary for TPWD to provide full review. The mitigation plan also includes significant discrepancies with the draft EIS related to the extent and type of impacts. For example, while Table 3.7-82 of the draft EIS indicates that Build Alternative A would result in an estimated total of 343.6 LF of impacts to perennial streams from culverts, excavation, and fill, and the mitigation plan estimates the size of potential impacts to perennial stream as 7,613 LF. A more detailed accounting of impacts and mitigation opportunities is necessary prior to permit issuance.

The mitigation plan indicates that each crossing of a Waters of the U.S. (WOTUS) would be considered a single and complete project, and that impact at these crossings totaling less than 0.1 acre (for wetlands) or 300 LF (for streams) would not be mitigated.

Recommendation: TPWD believes that unmitigated impacts for the Project's proposed single and complete crossings would represent a significant cumulative net loss to WOTUS in Texas, and that mitigation for lost functions should be provided to the greatest extent practicable.

Request: TPWD requests the opportunity to continue review of the mitigation plan and project materials related to the 404 process as they are further developed.

General Comments: Please refer to TPWD's recommendations provided in our review of the draft EIS, as they are also applicable to Section 404.

Culverts: If culverts are used at stream crossings, the crossings should be designed with the culvert(s) in the active channel area lower than those in the floodplain benches so that the flow in the channel is not overly

this EIS. When evaluating TCRR's application for a Clean Water Act Section 404 permit, the USACE shall evaluate the HSR system for impacts to waters of the U.S., and verify that the HSR system includes the following measures:

- Avoidance – taking steps to avoid impacts to waters of the U.S., including wetlands, where practicable
- Minimization – minimizing potential impacts to waters of the U.S., including wetlands
- Mitigation – providing compensation for unavoidable impacts through the restoration or creation of streams and wetlands

In developing the Build Alternatives, TCRR identified co-location opportunities with transportation and utility corridors to minimize impacts to wetlands and waters of the U.S. Within the Build Alternatives, 48 percent of the LOD, on average, would be located adjacent to existing road, rail or utility infrastructure. Other design features include maximizing the use of viaduct to span waters of the U.S. Approximately 55

spread out. The central/low-flow culvert(s) should be large enough to handle a 1.5 year flow without backing up water. The bottoms of these lower culverts should be set at least a foot below grade (i.e. recessed) to allow natural substrate to cover the culvert bottom and to allow for aquatic organism passage. These lower, recessed culverts should be installed in the thalweg or deepest part of the channel and be aligned with the low flow channel.

Permittee Responsible Mitigation: Permittee responsible mitigation (PRM) should be held to the same standards as mitigation banks with respect to site protection, performance standards, success criteria, financial assurances, etc. The applicant should refer to the Guidelines for Fort Worth District Mitigation Banks (Guidelines) in the development of their mitigation plan, which should be made available to the Interagency Review Team for review prior to permit issuance.

In accordance with the Guidelines, reference reaches should be identified to determine the potential ecological uplift of the proposed mitigation. Reference reaches should also be used to guide stream designs and credit calculations, and should consist of stable stream segments with measured morphological characteristics (dimension, pattern, profile, and bed material) associated with bankfull discharge.

The selection of a well-qualified consultant for stream channel mitigation design and implementation is critical for project success. A well-qualified stream consultant will have significant expertise and experience in actual stream design and implementation. Consistent with 33 CFR 332.8(d)(2)(vi) and the Guidelines, TPWD recommends that detailed qualifications include a project portfolio that demonstrates the consultant's experience in designing and implementing large-scale stream channel and riparian buffer mitigation projects. At a minimum, the portfolio should include the following for each project: name of project or bank, location (nearest city, state), client name, year initiated, size (i.e., linear feet for stream channel length; riparian buffer area in acres or riparian buffer width in feet), current status (i.e., "design", "construction", "post-construction", "monitoring year_of_", or "completed/closed out") of existing projects, and "in-development" for proposed projects. TPWD also recommends the detailed qualifications demonstrate that key personnel have formal education and training in fluvial geomorphology or stream ecology.

Consistent with the Guidelines, 60 percent stream channel design plans should be required for the draft

percent of the Project would be on viaduct to minimize impacts to waters of the U.S. Impacts to wetlands would also be avoided or minimized with pier spacing that would range from 80 to 140 feet (as noted in **Appendix F, TCRR Final Conceptual Engineering Design Report**). If the width of the regulatory floodplain is less than 110 feet, the entire span would be designed and constructed with no in channel piers and, if possible, avoid impacts to waters of the U.S. If the width of the crossing is more than 140 feet, the minimum number of piers to support the viaduct crossing would be placed within the feature. Bridges would also be used for larger crossings determined to exceed the capacity of culverts.

TCRR submitted a draft Section 408 request to the USACE Fort Worth District and Section 404 Individual Permit applications to the USACE Fort Worth and Galveston Districts, including draft mitigation plans, in July 2019. This package is under review by the USACE, concurrent with this EIS, but has not been approved. TCRR shall continue to work directly with the USACE during the preparation of final design to

mitigation plan, and 95 percent design plans for the final mitigation plan. Additionally, as-built stream channel design plans should be required upon completion of earthwork.

Site Protection- Detailed information on the proposed easement holder should be provided for agency review in accordance with CESWF-12-MITB. Also, the draft conservation easement should be provided for agency review.

If the Project is permitted, TPWD recommends that all stream mitigation areas employ the use of specific and measurable performance standards outlined in A Function-Based Framework for Stream Assessment & Restoration Projects - EPA 843-K-12-006. At a minimum, the stream should meet the "Functioning" classification for the following parameters: Floodplain Connectivity (Bank Height Ratio), Entrenchment Ratio, Lateral Stability (using the Bank Erosion Hazard Index and bank pin measurements), Meander Width Ratio, Buffer Width (based on meander belt width), Bank Erosion Hazard Index, and Near-Bank Stress. A "Functioning-at-risk" classification would require repairs or adaptive management, while a "Not functioning" classification may result in a determination of project failure and a requirement that mitigation be attained by other means (such as a mitigation bank or additional off-site mitigation). Such standards are important not only for segments with a stream design component but also for riparian-only restoration projects. The use of such standards will help to demonstrate that the selected mitigation strategy is the most appropriate and effective for the site and is capable of producing stable and functioning stream segments.

Reconstructed streams should survive a minimum of two bankfull events not less than one year apart prior to the end of the monitoring period. Survival should be defined as meeting the "Functioning" classification for the aforementioned parameters. Additionally, a jurisdictional determination should be included as a success criterion and should demonstrate that all mitigation features are functioning as waters of the U.S prior to the end of the monitoring period.

TPWD recommends the sponsor utilize the following ecological performance standards as minimum success criteria for streams in addition to demonstrating stream stability and functional (TXRAM) lift:

- For tree plantings - Planting densities and survival criteria should be based upon approved reference conditions. If no reference is provided survival success will be determined by 250 stems/acre of living tree

avoid and minimize impacts to waters of the U.S. Permits as described in **Section 3.7.6.1, Avoidance, Minimization and Mitigation Measures, Compliance Measures and Permitting**, would be obtained by TCRR prior to initiating construction."

FRA will continue to coordinate with the USACE regarding potential impacts to Waters of the U.S. As outlined in **WW-CM#4, CWA Section 404, Individual Permit in Section 3.7.6.1, Waters of the U.S, Compliance Measures and Permitting**.

As previously discussed, FRA's evaluation of potential impacts to waters of the U.S. used National Hydrography Dataset (NHD) and National Wetlands Inventory (NWI) data supplemented with fieldwork where access was granted. FRA understands that TCRR's consultant who prepared the original CWA 404/408 application and permission request used a different approach, which incorporated a desktop analysis of NHD and NWI data.

Section 3.7.3, Waters of the U.S, Methodology has been updated in the

stems over two meters tall that have been rooted for 5 years.

- For herbaceous plantings - desirable native herbaceous success will be determined by a minimum of 70 percent aerial coverage after two years.
- There should be a diversity standard at the interim and final releases such as "of the eight riparian species planted, seven will persist with each of the seven constituting not less than 5 percent of the total stems." It may be appropriate to consider the hard-mast and soft mast groups separately.
- Non-native, invasive plant species will not exceed 0 percent cover of the overstory and midstory and 1 percent cover of the herbaceous layer at the end of the monitoring period. A list of the non-native invasive plant species on the TexasInvasives.org website should be incorporated as an appendix to the site management plan. If the sponsor wishes to provide their own list, appropriate justification should be provided. Revegetation should only include the use of species native to the immediate area.

In accordance with the Guidelines, interim scores should be developed which indicate whether the Project is on an appropriate ecological lift trajectory toward the final score. Monitoring should occur until the Project attains projected TXRAM scores and all performance standards have consistently been met.

Monitoring and Long-term Management - Restored streams should be monitored for a minimum of 5 years post construction and planting, survival of two bankfull events, and until all performance standards are met. An endowment should be provided to fund long-term management of the mitigation sites. An entity should be designated as the party responsible for providing long-term management (invasive species control, fence maintenance, etc.).

Financial assurances should be developed for the short-term completion of the Project as well as for long-term maintenance. Long-term financial assurances to fund long-term management of the site, preferably in the form of a non-wasting endowment, should be provided to maintain the site in perpetuity as indicated in the Final Rule (33 CFR §332.7(d)(2)). These should be fully funded by the close of the monitoring period.

The first step of establishing the endowment is a detailed analysis of average annual costs of management activities needed to maintain and protect the Project's stream functions and conservation values. The analysis

Final EIS to state "FRA conducted surveys concurrent with the USACE and TCRR, and data collected through June 1, 2018 are presented in this EIS (**Appendix E, Waters of the U.S. Technical Memorandum**). Field assessments completed by FRA were conducted on property where access was granted, as the entire LOD was not accessible for field assessment. Approximately 42 percent of the LOD for Build Alternative A was surveyed by FRA (see **Section 3.1, Affected Environment and Environmental Consequences, Introduction**, for additional details on focused methodology on Build Alternative A for the Final EIS). The analysis for this Final EIS assumes wetlands and waterbodies within the LOD are waters of the U.S. The ongoing USACE fieldwork for the Section 404 Permit could result in a determination that some presumed waters of the U.S. are non-jurisdictional. This could result in a change in impacts to wetlands and waterbodies, and potentially result in the Final EIS identifying greater impacts to waters of the U.S. than would actually result from the Project."

AGENCY COMMENT	RESPONSE
<p>should consist of a table that shows all of the tasks (e.g., invasive species management, monitoring, reporting, etc.); task descriptions; labor (hours); cost per unit; cost, frequency, timing or scheduling of the tasks; the total annual funding necessary for each task; and any associated assumptions for each task required by the long-term management plan or reasonably anticipated for long-term management. Cost estimates should be based on tasks implemented by a third party in present-day dollars or equipment prices in present-day dollars.</p> <p>TPWD recommends the applicant include an annualized, line item cost for perpetual legal defense of the conservation easement (CE). This line item is intended to be in addition to the agreed-upon fee between the applicant and the conservation easement holder. TPWD recommends the endowment principal be in an amount sufficient to fully provide for the financial requirements of the long-term management of the Project in accordance with the long-term management plan and the costs analyzed and identified above. The endowment principal must be large enough to generate adequate funds for annual long-term management activities after adjusting for inflation and investment fees. The applicant should select and justify an appropriate capitalization rate that will provide investment earnings to be used annually for long-term management expenditures. TPWD also recommends that any endowment fund revenues (including earnings and interest) remaining after the endowment principal is adjusted for inflation that exceed the anticipated annual management expenses of the Project be retained in the endowment fund and may be made available to fund unexpected expenses and adaptive management needs.</p> <p>To ensure proper use and reporting of the funds, TPWD recommends the endowment be subject to annual independent audits and transparent reporting formats. More specifically, TPWD recommends the applicant retain the services of an organization or individual with demonstrated experience in successful investment and management of non-wasting endowments.</p>	<p>FRA has identified in WW-MM#1: Compensatory Mitigation, that as a result of WW-CM#4: CWA Section 404, Individual Permit and WW-CM#5: Waters of the U.S. Mitigation Plan, the USACE will determine the amount of compensatory mitigation that TCRR shall be required to implement. Pending approval of the mitigation plan by the USACE and prior to construction, TCRR shall purchase wetland mitigation credits (on an acreage basis) and stream mitigation credits (on a linear footage basis). If credits are unavailable, TCRR shall develop permittee responsible mitigation sites as required by the USACE. Therefore, FRA has not update the Final EIS with TPWD’s recommendations for mitigation as this is being determined by the USACE.</p>
<p>USACE-Galveston District 404 Permit Application# SWG-2014-00412</p> <p>Draft EIS Section 3.7 Waters of the U.S. and 404 Permit Application</p> <p>TPWD is concerned with the Project's impact on the Gulf Coastal Plain- Coastal Prairie Habitats and Wetlands which should be more fully addressed in Section 3.7.4, regarding the affected environment of Waller and Harris</p>	<p>The Katy Prairie Conservancy lands (also referred to as Warren Ranch Lake) are located approximately between 3,000 feet and 1,800 feet south of Segment 5 of the preferred Build Alternative A. The Project near the Katy Prairie Conservancy is located</p>

Counties, and the 404 Permit.

TPWD's February 26, 2016 scoping letter expressed concerns that the proposed alignment may further fragment coastal prairie habitat, including the Katy Prairie. Consequently, TPWD recommended the Project footprint follow U.S. Highway (US) 290 through this area to the greatest extent possible. However, review of the draft EIS and the Section 404 Public Notice (PN) issued by the USACE Galveston District, indicates a significant portion of the proposed alignment for all Build Alternatives along Segment 5 deviates from US 290 and traverses undeveloped land within the Katy Prairie in Harris and Waller Counties. Additionally, large portions of undeveloped land of the Katy Prairie in Harris County south of US 290 would be impacted by the potential placement of the Houston North TMF and temporary construction areas.

Coastal prairie historically covered approximately 6.5 million acres of Texas coastal plain and has been reduced to less than one percent of its historical range (Allain et al. 1999; USGS 2000), making it one of the rarest habitat types in Texas. Coastal prairie is considered a critically imperiled ecosystem by conservation organizations (Allain et al. 1999). The Katy Prairie and other nearby grasslands support a system of freshwater wetlands within a complex micro-topography of mima mounds, depressions, ancient meander scars, and relict stream levees. The complex mosaic created by slight changes in elevation and inundation provides a diverse vegetative community that supports a range of habitat niches for a broad selection of organisms. For example, the Katy Prairie Conservancy has recorded over 300 avian species, 110 species of mammals, amphibians, and reptiles, and more than 600 species of grasses, wildflowers, trees, vines, and shrubs on the approximately 20,000 acres of Katy Prairie that has been preserved by the organization. The Katy Prairie is designated a Global Important Bird Area by National Audubon and is vitally important for migratory birds that utilize the Central Flyway. In addition to sustaining wildlife, the wetlands of the coastal prairie serve to detain and filter the abundance of precipitation that falls on the Gulf coast. The IT has been demonstrated that for each 1 percent increase in organic matter in soil, the water-holding capacity increases 20,000 gallons per acre (Bryant 2015). Yet, evaluation of the loss of coastal palustrine emergent wetlands between the mid-1950s and the early-1990s showed a 29 percent decline, or an average annual net loss of 6,355 acres (Moulton et al. 1997). Subsequent research by Texas A&M University reported the loss of freshwater coastal prairie wetlands in Harris County alone from 1992 to 2010 was approximately 29 percent (Jacob et al. 2012). Many blame the

on embankment. Katy Prairie Conservancy lands would not be directly intersected by the Build Alternatives. For information regarding anticipated impacts to vegetation, wildlife and protected species are discussed in **Sections 3.5.4.2, 3.6.5.2.1, 3.6.5.2.2, and 3.6.5.2.3**. All of the avoidance, minimization and mitigation measures outlined in **Section 3.6.6.1 and 3.6.6.2** are for vegetation, wildlife, and protected species. Corridor segments with viaducts would be used to cross floodplains and larger water resources as well as to minimize disturbance to habitats, vegetation, and riparian areas and would be designed wide enough to conserve riparian habitats and maintain local landform. This would provide unimpeded wildlife movement. For additional information on wildlife crossings see **Appendix E, Wildlife Crossings Technical Memorandum**.

Section 3.7.6, Waters of The U.S., Avoidance, Minimization and Mitigation Measures states "TCRR consulted with the USACE Fort Worth and Galveston Districts to document the expected impacts, permits and mitigation needs in conjunction with

exacerbation of impacts from recent Houston floods on the loss of these prairie and wetland habitats to development.

The proposed Project would cut across the Katy Prairie in an east-west direction on an elevated embankment. While the National Wetland Inventory (NWI) labels many of the depressional wetlands as "other", review of historical Google Earth imagery clearly shows strong wetland signatures in the pattern of the typical prairie pothole complex. The proposed Project would intersect a number of these "other" wetlands, as well as several that the NWI does not label. Conceptual project plans provided with the Galveston District PN do not indicate the elevation of the embankment, but due to the gradual gradient of the coastal plains, slight disturbances in elevation can have a profound impact on hydrologic patterns. On coastal prairies, a significant amount of water that occurs from rainfall traverses the landscape as sheetflow, gradually joining streams and rivers that flow to the bays.

TPWD has concerns that the construction of an elevated embankment across the Katy Prairie would not only further fragment habitat and directly destroy wetlands, but also would impede the natural hydrologic flow of water across the landscape. This may have an impact on the hydrology of lands to the south, which include the Katy Prairie Conservancy (KPC), the Katy Prairie Stream Mitigation Umbrella Bank, the proposed Katy Hockley Mitigation Bank, and other conservation lands. Additionally, the collection and transport of rainwater in ditches running alongside the railway and then directly to receiving streams that are tributaries of Cypress Creek likely would impact the character of the streams, as well as lead to decreased water quality in the Cypress Creek watershed.

TPWD also is concerned that construction of the Project in an east-west direction through prairie lands will have a deleterious impact on the migrating and resident avian species that utilize the prairie wetlands, particularly since the proposed route is less than one mile from KPC land. A study completed by Garcia de la Morena et al (2017) found that bird mortality from high speed trains averaged 60.5 birds per kilometer per year along a 321.7 km route running at similar speeds and number of trips per day as the proposed Project and similarly passed through croplands and protected areas of ornithological interest.

Recommendation: TPWD continues to recommend avoidance and minimization of impacts within Coastal

this EIS. When evaluating TCRR's application for a Clean Water Act Section 404 permit, the USACE shall evaluate the HSR system for impacts to waters of the U.S., and verify that the HSR system includes the following measures:

- Avoidance – taking steps to avoid impacts to waters of the U.S., including wetlands, where practicable
- Minimization – minimizing potential impacts to waters of the U.S., including wetlands
- Mitigation – providing compensation for unavoidable impacts through the restoration or creation of streams and wetlands

In developing the Build Alternatives, TCRR identified co-location opportunities with transportation and utility corridors to minimize impacts to wetlands and waters of the U.S. Within the Build Alternatives, 48 percent of the LOD, on average, would be located adjacent to existing road, rail or utility infrastructure. Other design features include maximizing the use of viaduct to span waters of the U.S. Approximately 55 percent of the Project would be on viaduct

prairie wetlands and recommends that impacts to sheetflow hydrology be avoided by eliminating the utilization of an embankment or at-grade track through any prairie lands of Harris and Waller Counties. TPWD also recommends that compensatory mitigation be provided for direct impacts to all depressional wetlands within the coastal prairie complexes and particularly within the Katy Prairie.

Recommendation: If impacts to coastal prairie habitat are unavoidable, TPWD recommends the USACE consider the impacts to coastal prairie habitat and require TCR to provide additional mitigation in the form of PRM within the Katy Prairie complex. TPWD further recommends the applicant explore and implement design features that will minimize mortality to avian species.

For impacts to WOTUS including wetlands, the draft EIS presents compliance measures (WW-CMs) and permits that would be required for all Build Alternatives.

WW -CM#4 of the draft EIS is applicable to Section 404 individual permits and states that "Any authorization USACE renders for the Project would be conditioned such that construction of each phase of the Project that impacts jurisdictional waters will not be allowed to occur until such time that each phase of the Project is designed, submitted for review and is subsequently approved by the USACE ... The USACE will coordinate with applicable federal and state agencies, such as EPA, TCEQ, TPWD, USFWS, etc. , as part of the permit process."

Recommendation: TPWD is concerned with the ambiguity of the above-mentioned section because without specific Project plans TPWD is unable to provide constructive comments regarding the design plans and impacts of the Project. Therefore, TPWD recommends the USACE and FRA place special conditions within the EIS and any Section 404 permits that the applicant must provide and coordinate each phase of the Project plans for proposed impacts to any Waters of the U.S. with federal and state resource agencies and the public prior to construction activities commencing.

WW -CM#5 of the draft EIS, regarding development of a mitigation plan, states that the applicant submitted a draft mitigation plan to the USACE Fort Worth and Galveston Districts as part of the July 2016 Section 404 submittal packet. The compliance measure indicates that the draft mitigation plan includes a combination of PRM efforts (onsite and/or offsite) and purchasing mitigation credits from mitigation banks. The compliance measure states that FRA will adopt the final mitigation plan for impacts to wetlands and waters the U.S. upon

to minimize impacts to waters of the U.S. Impacts to wetlands would also be avoided or minimized with pier spacing that would range from 80 to 140 feet (as noted in **Appendix F, TCRR Final Conceptual Engineering Design Report**). If the width of the regulatory floodplain is less than 110 feet, the entire span would be designed and constructed with no in channel piers and, if possible, avoid impacts to waters of the U.S. If the width of the crossing is more than 140 feet, the minimum number of piers to support the viaduct crossing would be placed within the feature. Bridges would also be used for larger crossings determined to exceed the capacity of culverts.

TCRR submitted a draft Section 408 request to the USACE Fort Worth District and Section 404 Individual Permit applications to the USACE Fort Worth and Galveston Districts, including draft mitigation plans, in July 2019. This package is under review by the USACE, concurrent with this EIS, but has not been approved. TCRR shall continue to work directly with the USACE during the preparation of final design to avoid and minimize impacts to waters of

USACE approval.

The applicant has furnished the TPWD -Coastal Fisheries Division with the Dallas to Houston High-Speed Rail Attachment G- Form 4345, Block 23 Mitigation Plan for USACE Permit SWG-2014-00412. As stated in both the draft EIS and the mitigation plan, the applicant proposes to mitigate only permanent impacts at each single and complete crossing of a WOTUS greater than 0.1 acre (wetlands) of 300 linear feet for streams.

Request: TPWD does not agree that the 240-mile Project's crossing over a single waterbody is a functional, complete project and requests that the applicant provide compensatory mitigation for all wetland and stream habitat impacts, including those natural features that have been altered (channelized, diked, terraced) and temporal losses.

The applicant proposes to offset impacts to wetland habitat and stream channels in the USACE Galveston District by purchasing credits from Mill Creek, Spellbottom, Katy Prairie Stream Mitigation Umbrella Bank, Greens Bayou, Houston-Conroe, Gin City, Lower Brazos and Gulf Coastal Plains Mitigation Banks, with the exclusion of 1.36 acres of potential forested impacts. Based on the USACE RIBITS database as of January 5, 2018, the Project area is not located within the primary or secondary services areas for Gin City or Gulf Coastal Plains mitigation banks. Additionally, the Waller County and Katy Prairie (Harris County) portions of the Project site are not within the Greens Bayou or Lower Brazos Mitigation banks service areas. Currently, Mill Creek has only limited stream credits available and Spell Bottom credits are limited to forested wetlands.

Recommendation: Since the majority of the impacts within Harris and Waller Counties occur within the Gulf Coast: Coastal Prairie wetland vegetation type and there is a high potential for future cumulative impacts from the Project, TPWD recommends the applicant explore credit availability with the Katy Prairie Stream Mitigation Umbrella Bank and/or formulate a PRM plan that incorporates preservation of in-kind wetland or stream habitats within the globally significant Katy Prairie.

The applicant also proposes 1) purchasing out-of-kind wetland mitigation credits or 2) purchasing credits from a bank outside the Project's primary or secondary service area for compensatory mitigation of the 1.36 acres of forested wetland impacts within the USACE Galveston District. Forested wetlands could be considered a difficult-to-replace aquatic resource as defined in 33 CFR Part 332.2 and therefore, mitigation for forested

the U.S. Permits as described in **Section 3.7.6.1, Avoidance, Minimization and Mitigation Measures, Compliance Measures and Permitting**, would be obtained by TCRR prior to initiating construction.”

FRA will continue to coordinate with the USACE regarding potential impacts to Waters of the U.S. As outlined in **WW-CM#4, CWA Section 404, Individual Permit in Section 3.7.6.1, Waters of the U.S, Compliance Measures and Permitting**.

FRA has identified in **WW-MM#1: Compensatory Mitigation**, that as a result of **WW-CM#4: CWA Section 404, Individual Permit** and **WW-CM#5: Waters of the U.S. Mitigation Plan**, the USACE will determine the amount of compensatory mitigation that TCRR shall be required to implement. Pending approval of the mitigation plan by the USACE and prior to construction, TCRR shall purchase wetland mitigation credits (on an acreage basis) and stream mitigation credits (on a linear footage basis). If credits are unavailable, TCRR shall develop permittee responsible mitigation sites as required by the USACE.

AGENCY COMMENT	RESPONSE
<p>wetland impacts should occur within the same watershed as the impacts.</p> <p>Recommendation: TPWD recommends that the applicant should also not be allowed to purchase out-of-kind compensatory mitigation credits nor should they be allowed to purchase credits from a bank that does not serve the Project area for forested wetlands.</p> <p>Again, TPWD is concerned by the lack of detail and conceptual nature of both the draft EIS mitigation plan and the "final" mitigation plan submitted with the application for SWG-2014-00412.</p> <p>Recommendation: Because TPWD is unable to adequately review the draft mitigation plan at this time due to lack of information, TPWD recommends the USACE and FRA place special conditions within the final EIS and any Section 404 permits requiring that the applicant must provide and coordinate each phase of the Project for both proposed impacts to any Waters of the U.S. and the proposed mitigation plan for those impacts with federal and state resource agencies and the public prior to construction activities commencing. The final mitigation plan should include the calculations for the corresponding functional assessment per district (Texas Rapid Assessment Method (TXRAM) in the Fort Worth District and the Hydrogeomorphic Model (iHGM) in the Galveston District) to determine change in function and compensatory mitigation requirements associated with the impacts.</p> <p>Streams are identified as a difficult-to-replace resource under the preamble and 33 CFR 332.3 (e)(3) in the Compensatory Mitigation of Losses of Aquatic Resources (73 Federal Register 19596, April 10, 2008). Ecological risk and economic risk of stream channel mitigation failure can be higher due to the difficult-to-replace nature of streams.</p> <p>Recommendation: In addition to following the defined performance standards listed within EPA's Function-Based Framework for Stream Assessment & Restoration Projects, TPWD recommends the applicant implement the Galveston District's Level 1 (<500 linear feet) or Level 2 (>500 linear feet) Stream Condition Assessment Tool Standard Operating Procedures (GDSCA T SOP) to assess the current functional condition of the stream for mitigation determination. The GDSCA T assists in determining the relative potential of the stream to support and maintain a diverse community of organisms by visually assessing hydrogeomorphic and fluvial geomorphic characteristics such as active floodplain width/depth ratios, bed elevation and floodplain storage and releases.</p>	

AGENCY COMMENT	RESPONSE
<p>Pre- and post-construction surveys using the appropriate Level (1 or 2) of the GDSCAT should be completed in order to determine appropriate stream credits or for developing a PRM for all stream crossings even if impacts per crossing are less than 300 linear feet.</p> <p>Recommendation: If the sufficient types or amounts of wetland or stream in-kind credits are not available with the primary service area of an approved mitigation bank, TPWD recommends the applicant formulate a PRM plan within the same watershed(s) impacted, containing all the components of identified in 33 CRF §332.4(c)(2) through(c)(13) of the Mitigation Rule issued on July 10, 2008.</p> <p>Recommendation: In addition, if the applicant develops a PRM plan, TPWD recommends that the applicant place a third-party, perpetual conservation easement on the proposed mitigation site in which a conservation easement should be in place within 180 days of permit issuance and be held by a qualified land trust for the purpose of conserving fish and wildlife habitat. A list of land trusts in the State of Texas can be found on the Texas Land Trust Council's website.</p>	



TEXAS HOUSE *of* REPRESENTATIVES

Representative Cecil Bell, Jr.

District 3

January 11, 2018

Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, DC 20590

To whom it may concern:

The purpose of this email is to provide public comments on the Draft Environmental Impact Statement (EIS) for the Dallas to Houston High-Speed Rail.

It has come to the attention of my constituents and myself that the Federal Railroad Administration (FRA) determined one single preferred alternative route. This project will generationally impact Texas and Texans living and doing business along the preferred route. In fact, the tentative route goes through established economic development areas in my district including retail, commercial and residential. In addition, the route goes through historically significant archeological sites which reportedly hold the unmarked graves of confederate and union soldiers as well as several mass grave sites circa Civil War.

The route also raises environmental concerns including unavoidable impacts to waters in Waller County. Waller County is also host to at least 6 endangered species according to the Texas Parks and Wildlife Department.

It is a requirement of NEPA and imperative that businesses and landowners have the opportunity to be engaged. Furthermore, full consideration must be given to Texans and the areas impacted before a final determination is made.

Sincerely,

A handwritten signature in black ink, appearing to read "Cecil Bell, Jr.", written in a cursive style.

Cecil Bell, Jr.
State Representative for House District 3



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Cecil Bell, Jr.
Texas State Representative
District 3
P.O. Box 2910
Austin, Texas 78768-2910

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Representative Bell:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from you provided on January 11, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment 1: *It has come to the attention of my constituents and myself that the Federal Railroad Administration (FRA) determined one single preferred alternative route. This project will generationally impact Texas and Texans living and doing business along the preferred route. In fact, the tentative route goes through established economic development areas in my district including retail, commercial and residential.*

Response 1: As detailed in **Section 2.7, Alternatives Considered, Preferred Alternative**, FRA considered the comparative analysis of the No Build Alternative and the Build Alternatives A through F and the Houston Terminal Options presented in the Final EIS and subsequently identified Build Alternative A as the preferred alternative. In identifying the preferred alternative, FRA considered environmental, economic, technical, and other factors, including the alternative that would best meet the cooperating agencies' defined plans, policies

and regulations. The following in response to your concern regarding economic development and areas identified in public comments are noted below.

Waller Town Center

The Project would impact the eastern edge of the planned Waller Town Center, a 290 acre planned mixed-use retail, restaurant, entertainment, hotel and office project with an open air lifestyle center development typology. According to the developer, development is expected to begin in 2020. In 2017, the Texas Legislature created under Section 59, Article XVI, Texas Constitution, the Waller Town Center Management District. The district was created to “promote, develop, encourage, and maintain employment, commerce, transportation, housing, tourism, recreation, the arts, entertainment, economic development, safety, and the public welfare in the district.” It is not possible to fully ascertain the potential impacts to the planned development as it is still in the planning phases.

Georgetown Oaks

Georgetown Oaks is a 993 acre planned development located along US 290 at Binford and Kickapoo Roads. This site is located east of the planned Waller Town Center and west of the Daikin-Goodman headquarters. This site is a planned mixed-use development with retail, residential, medical, office, and industrial land use types. It is not possible to fully ascertain the potential impacts to the planned development as it is still in the planning phases.

Comment 2: *In addition, the route goes through historically significant archeological sites which reportedly hold the unmarked graves of confederate and union soldiers as well as several mass grave sites circa Civil War.*

Response 2: All cemeteries in Texas are protected under provisions of the Texas Health and Safety Code in Chapters 711-715; Title 13 § 2, Chapter 22, Rule 22.4(b) of the Texas Administrative Code – *Unknown and Abandoned Cemeteries*, and Rule 22.5 of the Texas Administrative Code – *Removal of Remains from an Abandoned or Unknown Cemetery*; and in Section 28.03(f) of the Penal Code of Texas which prohibits the use of cemetery property for non-cemetery purposes.

Prior to construction, TCRR must comply with Texas cemetery laws as stated in **Section 3.19.2, Cultural Resources, Regulatory Context** and **Section 3.19.6.1, Cultural Resources, Compliance Measures**, and all impacts will be addressed through consultation with the THC in order to avoid impacting cemeteries and burials to the greatest extent possible. Additional investigations such as archival research, oral interviews, and/or archeological investigations to locate unmarked grave shafts will be undertaken to verify the modern boundary is accurate relative to the area of ground disturbing activities. In addition, the Waller County Historical Commission has been invited and is recognized as a Consulting Party for cultural resources as shown on **Table 3.19-1** in the Final EIS.

Comment 3: *The route also raises environmental concerns including unavoidable impacts to waters in Waller County. Waller County is host to at least 6 endangered species according to the Texas Parks and Wildlife Departments.*

Response 3: TCRR has designed the Project in accordance with compliance measures outlined in **Section 3.7.6.1, Waters of the U.S., Compliance Measures and Permitting**. TCRR will avoid impacting waters of the U.S., including wetlands, to the maximum extent practicable. **WW-CM#1: Avoidance and Minimization** states that permanent impacts to waters of the U.S. would be limited to 0.50 acre or less at each single and complete

crossing, where practicable. **WW-CM#4: CWA Section 404, Individual Permit** states that TCRR would obtain an Individual Permit where avoiding waters of the U.S. is not practicable. TCRR is working directly with USACE through this permitting process to assess measures to mitigate impacts to waters of the U.S. as outlined in **Section 3.7.6.2, Waters of the U.S., Mitigation Measures, WW-MM#1: Compensatory Mitigation**.

All federal and state listed species with potential to occur within the Study Area were evaluated in the Final EIS, including threatened and endangered species in Waller County. Through coordination with the USFWS, it was determined that surveys would be required for three federally listed and endangered species, the Navasota ladies'-tresses, Large-fruited sand verbena, and Houston toad. Suitable habitat for these protected species was modeled along the entire Limits of Disturbance (LOD) based on habitat parameters. Impacts to endangered species will be minimized due to compliance and mitigation measures listed in **Sections 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Permitting and 3.6.6.2, Mitigation Measures, specifically NR-CM#4: Section 7 Consultation and Biological Opinion**. Avoidance and minimization measures are outlined in the Biological Assessment that was provided to USFWS on November 14, 2019. The Biological Assessment can be found in **Appendix K, Agency Specific Reports, Biological Assessment** of the Final EIS. As detailed in **NR-CM#4: Section 7 Consultation and Biological Opinion**, TCRR shall comply with all measures detailed within USFWS' Biological Opinion.

For information regarding the Endangered Species Act please see **Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context and Section 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species**.

***Comment 4:** It is a requirement of NEPA and imperative that businesses and landowners have the opportunity to be engaged. Furthermore, full consideration must be given to Texans and the areas impacted before a final determination is made.*

Response 4: The Final EIS has been prepared with public and agency involvement, which is summarized in **Chapter 9.0, Public and Agency Involvement**. FRA created a website (<https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail>) for the Project which is updated regularly. FRA published a Notice of Intent (NOI) to prepare an EIS for the Project in the Federal Register on June 25, 2014 and identified a 90 day scoping period. In response to public concerns and requests, FRA extended the scoping period an additional 108 days through January 9, 2015. FRA held 12 public scoping meetings throughout Texas for the Project, as well as two agency meetings during the scoping period, which are summarized in **Table 9-1**. The FRA received approximately 4,400 comments at the public scoping meetings and two agency coordination meetings; and through the Project website, the Project and FRA email addresses, and the U.S. mail. These comments addressed the proposed alternatives, community impacts, socioeconomic impacts, and environmental impacts, among other topics. Information from the public and agency meetings and FRA's consideration of the comments helped shape the content of the Scoping document, Corridor Alternatives Analysis and the EIS. Comment topics are summarized in **Table 9-4** of the Final EIS and all scoping comments can be found in **Appendix E of the Scoping Report**, which can be reviewed at: <https://railroads.dot.gov/elibrary/dallas-houston-high-speed-rail-eis-appendix-e-scoping-comments>.

FRA signed the Draft EIS on December 15, 2017 and EPA published a Notice of Availability (NOA) for the Project in the Federal Register on December 22, 2017 (82 FR 60723). FRA circulated the Draft EIS to affected local jurisdictions, state and federal agencies, tribes, community organizations and other interested groups, interested individuals and the public. **Appendix B, Distribution List** of the Final EIS identifies the repository locations for copies of both the Draft and Final EIS. FRA held 11 public hearings to accept agency and public comment on the contents of the document, including FRA's Preferred Alternative during the 78-day comment

period (61--day period, with 17-day extension). In response to public comments, FRA also extended invitations to all 10 impacted county judges for additional meetings. Dallas, Ellis, and Harris counties accepted these invitations. After considering comments received on the Draft EIS, FRA prepared the Final EIS and included responses to comments in Appendix H: **Response to Draft EIS Comments**. FRA also consulted with Native American Tribes in accordance with Section 106 of the National Historic Preservation Act and NEPA. This is documented in **Section 3.19.3.1.2, Cultural Resources, Federally Recognized Native American tribes** of the Final EIS and **Appendix C, Public and Agency Involvement**.

In addition to posting an electronic version of this Final EIS on the Project website (<https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail>), FRA has also distributed hard copies of this Final EIS to repository locations as detailed in **Appendix B, Distribution List**. CEQ NEPA regulations (40 C.F.R. 1506.10) require FRA to wait 30 days after the Final EIS is made available before releasing the ROD. FRA will consider all substantive comments received prior to the ROD and include them as part of the administrative record.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration



STATE OF TEXAS
HOUSE OF REPRESENTATIVES

WILL METCALF

District 16

Kevin Wright
Environmental Protection Specialist
Federal Railroad Administration

Re: Dallas to Houston HSR

Dear Mr. Wright,

I write today with concerns regarding the draft Environmental Impact Statement for the proposed high speed rail project by Texas Central between Dallas and Houston. I am opposed to this project going forward. It is not good for Texas or for the nation as a whole. Simply put, I believe the potential revenues and benefits are overstated, while the risks and potential harm have been undervalued.

First and foremost, this project has been repeatedly sold by Texas Central as economically viable and self-sustaining. Their comments to the citizens of Texas have consistently been that this project would not need taxpayer funds. I am concerned by the following line in the Executive Summary of the draft EIS, page ES-1: "Should DOT provide credit or other financial assistance, this activity would also constitute a major federal action." We need a straight answer from Texas Central whether or not they will be seeking to use taxpayer funds for this project.

Second, I noticed in the impact statement that traffic impacts were focused in the vicinity of the preferred alternative (the utility corridor) route. This fails to consider impacts in outlying areas. For example, much of the necessary construction in Grimes, Waller, and Harris Counties will require heavy construction trucks to traverse the roadways in Montgomery County, increasing our traffic, damaging our roadways, and increasing our pollution. Montgomery County is a rapid growth county. Any damage to our roads or unnecessary increase in our traffic can have outsized consequences due to our current projected growth. I think this impact statement should properly consider affects to outlying areas like Montgomery County.

I would encourage the Federal Railroad Administration to delay this project until all aspects of it can be sufficiently explored, questions answered, and concerns addressed. Thank you for your




STATE OF TEXAS
HOUSE OF REPRESENTATIVES

WILL METCALF

District 16

assistance in this matter. If your office has any questions regarding my request, please call my office at 512-463-0726.

Respectfully,



State Representative Will Metcalf

House District 16



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Will Metcalf
Texas State Representative
District 16
1835 Spirit of Texas Way, Suite 100
Conroe, Texas 77301

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Representative Metcalf:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from you received on January 24, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment 1: *I write today with concerns regarding the draft Environmental Impact Statement for the proposed high speed rail project by Texas Central between Dallas and Houston. I am opposed to this project going forward. It is not good for Texas or for the nation as a whole. Simply put, I believe the potential revenues and benefits are overstated, while the risks and potential harm have been undervalued. First and foremost, this project has been repeatedly sold by Texas Central as economically viable and self-sustaining. Their comments to the citizens of Texas have consistently been that this project would not need taxpayer funds. I am concerned by the following line in the Executive Summary of the draft EIS, page ES-1: "Should DOT provide credit or other financial assistance, this activity would also constitute a major federal action." We need a straight answer from Texas Central whether or not they will be seeing to use taxpayer funds for this project.*

Response 1: In response to public comment, AECOM, on behalf of FRA, independently evaluated the ridership inputs, assumptions, and methodology used by TCRR, which included both business and personal travel patterns as detailed in TCRR's original June 19, 2018 and updated March 25, 2019 Ridership Forecast Reports. Based on the independent evaluation, FRA determined that TCRR used a reasonable approach to conduct their ridership assessment and the outputs of the assessment are reasonable based on the methodology. Since the ridership forecast approach and outputs were deemed reasonable, the FRA continued to use, TCRR's ridership estimate (5-7M) in both the Draft EIS and Final EIS. A summary of this AECOM's review is included in **Appendix J, Miscellaneous Memoranda, Ridership Demand Forecasting Methodology Assessment.**

To date, TCRR has not submitted an application for DOT credit assistance for the Project. Should TCRR receive credit or financial assistance from DOT, additional Federal requirements attached to the provision of federal funds or financial assistance, may apply to the Project. FRA's federal action pertaining to the Project that triggers the obligation to comply with NEPA is the issuance of Rule of Particular Applicability. FRA would not be issuing any federal credit assistance for the Project. While this EIS may be used to satisfy DOT NEPA obligations that stem from providing credit assistance for the Project, any actions by DOT credit programs and related activities of the Bureau and Council on Credit and Finance, such as evaluation of loan applications and recommendations regarding assistance, are separate from FRA's federal action. Additionally, the Project is not receiving funding or financing from the state of Texas or any local public entities (municipal, county or Council of Government) funds.

Comment 2: *Second, I noticed in the impact statement that traffic impacts were focused in the vicinity of the preferred alternative (the utility corridor) route. This fails to consider impacts in outlying areas. For example, much of the necessary construction in Grimes, Waller, and Harris Counties will require heavy construction trucks to traverse the roadways in Montgomery County, increasing our traffic, damaging our roadways, and increasing our pollution. Montgomery County is a rapid growth county. Any damage to our roads or unnecessary increase in our traffic can have outsized consequences due to our current projected growth. I think this impact statement should properly consider affects to outlying areas like Montgomery County.*

Response 2: Construction will temporarily cause traffic disruption and TCRR would be required to implement mitigation measures during construction. These measures are outlined in **Section 3.11.6.2, Transportation** of the Final EIS. **TR-MM#1: Traffic Control Plan** requires that TCRR develop a Traffic Control Plan that provides for safe and efficient operation of all modes of transportation during construction, which includes agreements to repair roads damaged during construction in order to maintain adequate level of service.

Comment 3: *I would encourage the Federal Railroad Administration to delay this project until all aspects of it can be sufficiently explored, questions answered, and concerns addressed.*

Response 3: The Final EIS has been prepared with public and agency involvement, which is summarized in **Chapter 9.0, Public and Agency Involvement**. FRA created a website (<https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail>) which is updated regularly. FRA published a Notice of Intent (NOI) to prepare an EIS for the Project in the Federal Register on June 25, 2014 and identified a 90-day scoping period. In response to public concerns and requests, FRA extended the scoping period an additional 108 days through January 9, 2015. FRA held 12 public scoping meetings throughout Texas for the Project, as well as two agency meetings during the scoping period, which are summarized in **Table 9-1**. The FRA received approximately 4,400 comments at the public scoping meetings and two agency coordination meetings; and through the Project website, the Project and FRA email addresses, and the U.S. mail. These comments addressed the proposed alternatives, community impacts, socioeconomic impacts, and environmental impacts, among other topics. Information from the public and agency meetings

and FRA's consideration of the comments helped shape the content of the Scoping document, Corridor Alternatives Analysis and the EIS. Comment topics are summarized in **Table 9-4** of the Final EIS and all scoping comments can be found in **Appendix E of the Scoping Report**, which can be reviewed at: <https://railroads.dot.gov/eLibrary/dallas-houston-high-speed-rail-eis-appendix-e-scoping-comments>.

FRA signed the Draft EIS on December 15, 2017 and EPA published a Notice of Availability (NOA) for the Project in the Federal Register on December 22, 2017 (82 FR 60723). FRA circulated the Draft EIS to affected local jurisdictions, state and federal agencies, tribes, community organizations and other interested groups, interested individuals and the public. **Appendix B, Distribution List** of the Final EIS identifies the repository locations for copies of both the Draft and Final EIS. FRA held 11 public hearings to accept agency and public comment on the contents of the document, including FRA's Preferred Alternative during the 78-day comment period (61--day period, with 17-day extension). In response to public comments, FRA also extended invitations to all 10 impacted county judges for additional meetings. Dallas, Ellis, and Harris counties accepted these invitations. After considering comments received on the Draft EIS, FRA prepared the Final EIS and included responses to comments in **Appendix H: Response to Draft EIS Comments**. FRA also consulted with Native American Tribes in accordance with Section 106 of the National Historic Preservation Act and NEPA. This is documented in **Section 3.19.3.1.2, Cultural Resources, Federally Recognized Native American tribes** of the Final EIS and **Appendix C, Public and Agency Involvement**.

In addition to posting an electronic version of this Final EIS on the Project website, (FRA has also distributed hard copies of this Final EIS to repository locations as detailed in **Appendix B, Distribution List**. CEQ NEPA regulations (40 C.F.R. 1506.10) require FRA to wait 30 days after the Final EIS is made available before releasing the ROD. FRA will consider all substantive comments received prior to the ROD and include them as part of the administrative record.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions.

Sincerely,



Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration



ROBERT L. NICHOLS
STATE SENATOR

March 9, 2018

Mr. Paul Nissenbaum – paul.nissenbaum@dot.gov
Mr. Kevin Wright – kevin.wright@dot.gov
USDOT Federal Railroad Administration
1200 New Jersey Avenue SE MS-20
Washington, DC 20590

Re: Request for additional 90-day extension of comment period on draft EIS for Texas Central's proposed Dallas to Houston high-speed rail

Dear Mr. Nissenbaum,

I understand that the FRA has recently extended the public comment period to March 9, 2018. However, we do not believe this is a sufficient extension. For that reason, I am writing to you to urge an additional ninety-day (90) extension of the comment period for the pending Notice of Availability Dallas to Houston High Speed Rail draft EIS, announced in the Federal Register on December 22, 2017.

The current extended Notice of Availability allows a comment period with a drop-dead date of March 9, 2018. Meanwhile, the U.S. Army Corps of Engineers has published Public Notice for two wetlands permit applications under Section 404 of the Clean Water Act for this same project, with an even more truncated deadline for public comments. These simultaneous, short comment periods, which commenced during the holidays, allow insufficient time for meaningful public participation.

Moreover, the process has been so confusing that full public participation has been nearly impossible. First, the FRA's office was closed during the recent government shutdown. Second, on December 22, 2017, AECOM, the environmental contractor, distributed a notice of availability of the draft EIS. The notice listed the locations and time for public hearings in each of the ten impacted counties. The January issue of On Track, the Dallas to Houston High-Speed Rail newsletter, lists changes in venue for public hearings in Madison and Grimes County. It also corrected the address of the hearing in Limestone County. On January 17, 2018, a notice was published in the Madisonville Meteor listing only the change to the Madison County venue. None of these changes were reflected on the list of public hearings on the Federal Railroad Administration's website until after January 19.

Additionally, several members of the public have received a notice of delivery failure when attempting to submit their comments via email to the address listed on Federal Railroad Administration's website for public comments, DallasHoustonHSR@urs.com. The issues relating to the submission of public comments are not limited to the comments submitted via email—the online form for submitting comments has also rejected comments.

A project of this magnitude will permanently impact Texas and the livelihood of its citizens and landowners. And since there has never been a high-speed rail project in the United States, understanding its vast environmental impacts will be a difficult and time-consuming task. Accordingly, I urge the FRA to allow an additional ninety-day extension of the comment period to June 7, 2018 on this critically important EIS.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert L. Nichols". The signature is written in a cursive, flowing style.

Robert L. Nichols
State Senator, District 3



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Robert L. Nichols
Texas State Senator
District 3
P.O. Box 12068
Austin, Texas 78711

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Senator Nichols:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from you provided on March 9, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment 1: *I understand that FRA has recently extended the public comment period to March 9, 2018. However, we do not believe this is a sufficient extension. For that reason, I am writing to you to urge an additional ninety-day (90) extension of the comment period for the pending Notice of Availability Dallas to Houston High Speed Rail draft EIS, announced in the Federal Register on December 22, 2017. The current extended Notice of Availability allows a comment period with a drop-dead date of March 9, 2018. Meanwhile the U.S. Army Corps of Engineers has published Public Notice for two wetlands permit applications under Section 404 of the Clean Water Act for this same project, with even more truncated deadline for public comments. These simultaneous short comment periods, which commenced during the holidays, allow insufficient time for meaningful public participation.*

Response 1: Pursuant to 40 CFR 1506.10(b), (c), and (d), the minimum required comment period for a Draft EIS is 45 days. FRA published the Notice of Availability for the Draft EIS in the Federal Register (82 FR 60723) on December 22, 2017 with a public comment period end date of February 20, 2018 (61 days). Based on multiple requests from the public, FRA subsequently approved an extension of the public comment period to March 9, 2018, which allowed an additional 17 days for public comment. FRA announced the extension of the public comment period at the public hearings, on the FRA website, and in an amended Federal Register Notice (83 FR 8073) dated February 20, 2018 and published on February 23, 2018. In total, FRA provided 78 days for public review and comment.

Comment 2: *Moreover, the process has been so confusing that full public participation has been nearly impossible. First the FRA's office was closed during the recent government shutdown. Second, on December 22, 2017, AECOM, the environmental contractor, distributed a notice of availability of the draft EIS. The notice listed the locations and time for public hearings in each of the ten impacted counties. The January issue of On Track, the Dallas to Houston High-Speed Rail newsletter, lists changes in venue for public hearings in Madison and Grimes Counties. It also corrected the address of the hearing in Limestone County. On January 17, 2018, a notice was published in the Madisonville Meteor listing only the change to the Madison County venue. None of these changes were reflected on the list of public hearings on the Federal Railroad Administration's website until after January 19.*

Additionally, several members of the public have received a notice of delivery failure when attempting to submit their comments via email to the address listed on Federal Railroad Administration's website for public comments, DallasHoustonHSR@urs.com. The issues relating to the submission of public comments are not limited to the comments submitted via email—the online form for submitting comments has also rejected comments.

Response 2: On December 22, 2017, EPA published in the Federal Register (82 FR 60723), a Notice of Availability announcing the availability of the Dallas to Houston High-Speed Rail Draft EIS for public comment. FRA also made the Draft EIS available on its website (currently available at: <https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail-draft>) beginning on December 22, 2017. FRA published information about the Public Hearings in 27 different newspapers throughout the Project area with at least one advertisement each of the 10 counties traversed by the Project. FRA sent announcements to all adjacent property owners and all individuals who had asked to be included on the Project mailing list. FRA published information about the public hearings on the Project website. A description of the notification procedure used by FRA to inform the public and stakeholders of the Public Hearings can be found in **Chapter 9.0, Public and Agency Involvement** of the Final EIS with supporting documentation in **Appendix C, Public and Agency Involvement. Appendix B, Distribution List** of the Final EIS identifies the repository locations for copies of both the Draft and Final EIS.

FRA presented the same information at all 11 public hearings for the Project. All 11 public hearings were open to the public. The public could attend one or multiple public hearings and did not need to attend a public hearing in the county in which they reside or own property.

FRA attempted to schedule the public hearings at venues with the capacity to accommodate 300 to 400 people. Due to winter holiday break, tentative dates and locations were placed on hold. One venue, Madisonville ISD, was not able to accommodate the finalized date, so another venue (Truman Kimbro Convention Center) with similar capacity was booked for the Madisonville Public Hearing on February 5, 2018.

FRA received several requests to host an additional public hearing in Harris County, specifically within the City of Houston. FRA initially hosted one hearing in Harris County on February 5, 2018 in Cypress. In response to the requests for an additional Harris County hearing, FRA hosted a second hearing within the City of Houston on March 5, 2018, in proximity to the Houston Terminal Station Options outlined in the Draft EIS.

As required by NEPA, FRA published an amended Notice of Availability in the Federal Register on February 23, 2018 announcing the extension of the public comment period for the Draft EIS. FRA ran advertisements in 25 newspapers in every county in the Project area starting on February 25, 2018 to advertise the second hearing in Harris County, and sent Public Hearing announcements to all adjacent property owners, Project stakeholders, and all individuals who had asked to be included on the project mailing list. In addition, FRA published a Public Hearing notice on the Project website. A description of the notification procedures used by FRA to inform the public and stakeholders of the Public Hearings can be found in **Chapter 9.0, Public and Agency Involvement** of the Final EIS with supporting documentation in **Appendix C, Public and Agency Involvement**.

For approximately 48 hours during the public comment period, the FRA website generated a non-delivery message in response to emails with yahoo.com or aol.com addresses. As soon as this problem was brought to FRA's attention, the problem was remedied. However, this brief issue did not affect other comment tools available to interested parties. These tools included sending an email directly to FRA staff or the project email (DallasHoustonHSR@urs.com), or sending a letter to FRA.

In addition to posting an electronic version of this Final EIS on the Project website (<https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail>), FRA has also distributed hard copies of this Final EIS to repository locations as detailed in **Appendix B, Distribution List**. CEQ NEPA regulations (40 C.F.R. 1506.10) require FRA to wait 30 days after the Final EIS is made available before releasing the ROD. FRA will consider all substantive comments received prior to the ROD and include them as part of the administrative record.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 if you have any additional questions or concerns.

Sincerely,



Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration



SYLVIA R. GARCIA
STATE SENATOR
DISTRICT 6

Dear Mr. Wright,

I am writing to express my strong support for the Texas Bullet Train project and believe the Federal Railroad Administration should continue to move forward with this project. We are honored to be considered for one of the first high-speed rails in the country and know that there is a large need for this technology in Texas. It is a safe, convenient, and clean alternative to flying and driving that the large constituency of this region would love to utilize.

I have read through the Draft Environmental Impact Statement and am so glad this project is on track. Some highlights that I believe will be particularly beneficial to Texans, especially those living in or near the four counties specified in the route:

- ❖ It will bring more jobs to the area during construction and operation logistics of the rail.
- ❖ It promises to rely entirely on private funding, so the public is able to benefit without carrying the burden of heavy taxes.
- ❖ It will interconnect the economies of Texas's two largest cities.
- ❖ It will increase efficient travel, thereby decreasing traffic congestion and road fatalities.
- ❖ It will decrease overall vehicle miles traveled and, thus, overall emissions

As both a resident and State Senator from Houston and East Harris County, I am very pleased with the thought that went into choosing a terminal in Houston. Northwest Mall is at the intersection of two of our largest highways, so it will be easily accessible to passengers and is even close to our METRO Northwest Transit Center for travel throughout the greater Houston area. More importantly, adding a railway there will have minimal negative environmental and community effects.

Anyone who feels concerned about a potential "government bailout" for this privately funded project should rest assured that the legislature passed two bills this session that would prevent that scenario, should any funding complications arise in the future.

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HOUSTON, TEXAS 77029
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(713) 923-7575

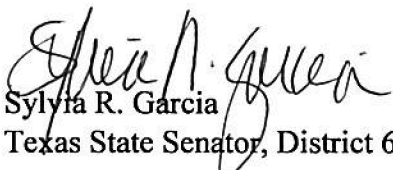
sylvia.garcia@senate.texas.gov

- ❖ SB 977 prohibits any appropriation related to planning, construction, maintenance, or operation of a high-speed rail project operated by a private entity. To enforce this, this bill requires impacted agencies to submit any expense reports related to high-speed rail expenses.
- ❖ SB 975 requires high speed rail operated by a private entity to absorb all financial responsibility for law enforcement officers needed to make the ridership safe. The company would consult with DPS, the legislature, and the appropriate agencies to plan, organize, and implement necessary precautions for safe entry, exit, and passage of all passengers.

There are still some issues left to resolve, particularly those of sensitive environmental features and the acquisition of land. It is important to me and the people of Texas that sensitive features, such as waterways, aquifers, wetlands, etc., are not damaged in the process of the railway's construction. Some proposed solutions are to use soil erosion prevention mechanisms, consistent runoff rates, and not allow contamination to reach ground water in any case.

After reading the Draft Environmental Impact Statement, I feel confident that we can bring this innovative technology to Texas while respecting Texas lands and boosting the economy.

Sincerely,


Sylvia R. Garcia
Texas State Senator, District 6



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Sylvia R. Garcia
Texas State Senator
District 6
8799 North Loop East Freeway, Suite 240
Houston, Texas 77029

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Senator Garcia:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from you provided on March 8, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment:

There are still some issues left to resolve, particularly those of sensitive environmental features and the acquisition of land. It is important to me and the people of Texas that sensitive features, such as waterways, aquifers, wetlands, etc., are not damaged in the process of the railway's construction.

Response:

Sensitive environmental features. TCRR will avoid impacting waters of the U.S., including wetlands, to the maximum extent practicable. Approximately 55 percent of the Project would be constructed on viaduct (elevated) which allows for free movement of water and minimizes impacts to streams (including spring-fed streams), ponds, special aquatic sites, wetlands, springs, and seeps. In the areas along the route that would be on embankment, culverts would be constructed to allow for movement of water. **Section 3.7.6.1, Waters of the U.S., Compliance Measures and Permitting, WW-CM#2:** Maintain Low Flow states that TCRR will design

and construct water crossings to maintain low flow and/or minimize stream relocations. **Section 3.8.6.1, Floodplains, Compliance Measures** outlines compliance measures to minimize disruption to floodplains. Information regarding stream crossings including viaduct and culvert design is outlined in **Appendix F: TCRR Final Conceptual Engineering Design Report, Section 13.5**.

Measures to mitigate impacts to water quality are outlined in **Section 3.3.6.2, Water Quality, Mitigation Measures** and **Section 3.8.6.1, Floodplains, Compliance Measures**, and include: **WQ-MM#1: Maintenance and Inspection of Temporary Erosion and Sediment Controls, WQ-MM#3: Site-restoration and Revegetation, and WQ-MM#6: Total Suspended Solids/Stormwater Runoff Control (Permanent), and FP-CM#2: Construction Floodplain Best Management Practices**. TCRR has designed and would construct stormwater facilities to avoid overburdening existing drainage infrastructure and to comply with applicable federal, state and local regulations. TCRR has designed and would construct detention ponds to compensate for increases in impervious cover, slow stormwater runoff, reduce flood risk and water contamination. **Section 3.8.5.2.3, Floodplains, Hydrology** and **Appendix F: TCRR Final Conceptual Engineering Design Report, Section 13** discuss the detention pond criteria.

Acquisition of land. FRA is not participating in the land acquisition process for the Dallas to Houston HSR Project. TCRR is responsible for negotiating with impacted landowners and municipalities along the length of the 240-mile route to obtain temporary access and acquire land necessary for construction and operation of the Project in accordance with applicable Texas law. TCRR shall develop a relocation mitigation plan as detailed in **Section 3.13.6.2, Land Use, Mitigation Measures, LU-MM#3: Acquisition and Relocation Mitigation Plan**.

TCRR would negotiate all parcel acquisition resulting from the Project with the affected landowner. TCRR shall negotiate these management needs on a case-by-case basis with the affected landowners and shall incorporate the outcome of negotiations into the written agreements with the affected landowners. The Final EIS analysis is based on negotiated prices would reflecting the fair market value of displaced residences and/or businesses, allowing for investment in new or similar areas outside the LOD.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

Michael Johnsen



Supervisory Environmental Protection Specialist
Federal Railroad Administration

2.3 Local Agency, Municipality, or Official

- City of Dallas
- City of Houston
- Dallas County, John Wiley Price
- Dallas County, Public Works
- Gulf Coast Rail District
- Harris County Engineering Department
- Metropolitan Transit Authority of Harris County (METRO)
- North Central Texas Council of Governments (NCTCOG), Regional Transportation Council (RTC)
- Town of Andersen
- Waller Economic Development Corp.
- Sheriffs Coalition (Ellis, Freestone, Grimes, Leon, Limestone, Madison, Navarro, Waller Counties)

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City of Dallas

The City of Dallas has worked closely with Texas Central Partners and is pleased with the amount of effort and expertise that has taken place. The City recognizes more work needs to be done to ensure the rail alignment minimizes impact to Dallas residents and we will continue to work alongside Texas Central Partners to achieve this feat.

City of Dallas - Department	Comment	DEIS Section and/or Page #
DWU	As per Appendix G, the typical distance from pipe to Viaduct pier is 5 ft. We need a horizontal separation of at least 10 ft. Also, (not shown on this document) we need at least 18 ft. of vertical clearance from ground line to bottom of structure/bridge as per WW Collections.	Appendix G/ Section 1-5
DWU	As per document 1 (DEIS_MAIN TEXT page 3.9-5), there are 15 wastewater mains and 2 water mains 18" diameter and larger within the study area. From research and using the GIS layer provided to us by Freese & Nichols, there are 27 wastewater mains and 5 water mains 18" diameter and larger within the study area. There is a total of 57 ww mains and 29 water mains (6" and larger) within the study area. (Or a total of 30 ww mains and 19 water mains 6" and larger actually crossing the proposed HSR alignment.) See spreadsheet attached for a summary of utilities in conflict.	DEIS_MAIN TEXT/ page 3.9-5
Park and Recreation Department	High Speed Rail will go by several existing or proposed Park and Recreation Facilities, the main issue would be the sound of the passing trains, which may be 4 times per hour, when the train is running at peak capacity. The rail line will be close to Honey Springs Cemetery, the Skyline Trail and J.J. Lemon Park.	General Comment
Planning and Urban Design	<p>a. Proposed street alignments must introduce a walkable grid of streets that integrate into the larger neighborhood, as well as clearly set up the creation of future development sites;</p> <p>b. In our opinion, Belleview Street needs to curve down with the natural fall in the land in order to get down and under the UPRR. It is shown as a straight road to Riverfront, which would be highly difficult or impossible to build from an engineering perspective and still allow for walkable development along Belleview</p>	Appendix D/ Sheet 1 of 536

City of Dallas - Department	Comment	DEIS Section and/or Page #
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Planning and Urban Design	<p>a. Station and circulation plan cannot be evaluated in the absence of a larger urban design vision for the neighborhood. Station proposal should be represented as a “phase one” of a clearly articulated future neighborhood development scenario;</p> <p>b. Any required barriers and fencing must incorporate high quality materials appropriate to the adjacent context;</p> <p>c. Does not integrate station with public space to maximize potential as an iconic destination or to integrate it seamlessly with the surrounding community;</p> <p>d. Opportunity to engage the city with a signature station face that becomes an attraction regardless of transit (think of Denver’s Union Station for example).</p>	Appendix D/ Sheet 1 of 536
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City of Dallas - Department	Comment	DEIS Section and/or Page #
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<p>Planning and Urban Design</p>	<p>a. The parking structures and streets preclude any mixed-use development from occurring adjacent to the station;</p> <p>b. The parking structure shown on the Matthew Southwest-owned property south of the UPRR presents a monolithic, impenetrable super-block. Additional streets should be provided through the parking structure to allow for increased pedestrian and vehicular connectivity while also creating better development blocks;</p> <p>c. The proposed streets are designed as highly auto-oriented with turning movement geographies such as free-right turns and the U-turn to the south of the station that will produce an un-walkable pedestrian environment adjacent the station. Intersections should be designed to be as narrow as possible while also ideally meeting as close to ninety-degrees wherever possible to accommodate walkable mixed-use development around the station. Overall, the arrangement of one-way streets and their geometries may support an “airport like” station but do not support a walkable environment;</p> <p>d. The proposed streets are all shown to be very wide (4+ lanes each). They should be designed to be as narrow as possible, with as few lanes as required, while also accommodating wide, comfortable, and safe bike and pedestrian facilities;</p> <p>e. The street adjacent to the Meanders should be a maximum of 2 lanes to allow for quality development adjacent to the water feature.</p>	<p>Appendix D/ Sheet 1 of 536</p>
<p>Planning and Urban Design</p>	<p>a. While the extension of Canton Street to Austin adds connectivity to the station and surrounding area, the configuration shown in the Project Footprint for the Canton/ Lamar intersection favors high-speed vehicular movements and not a balance that also welcomes pedestrians, bikes and meaningful development and open space opportunities.</p>	<p>Appendix D/ Sheet 1 of 536</p>

City of Dallas - Department	Comment	DEIS Section and/or Page #
Planning and Urban Design	<p>a. The provision of pedestrian bridges across the UP Railroad is a positive element. The vertical circulation shown for these pedestrian bridges, especially the one near Canton/ Lamar are less than ideal and should account for iconic placemaking and plaza opportunities adjacent to them;</p> <p>b. Connectivity to the Cedars and future Southside neighborhoods is limited;</p> <p>c. To cross the vast rail infrastructure, pedestrian bridges will need to be integrated with development destinations otherwise they will be sterile, un-safe and un-used.</p>	Appendix D/ Sheet 1 of 536
Planning and Urban Design	<p>Lot E should not just be a parking destination but should be integrated into Downtown as a viable and contributing mixed-use or office district as well.</p>	Appendix D/ Sheet 1 of 536
Planning and Urban Design	<p>The 360 Plan and Perkins + Will development, parking, and block pattern concepts should be better incorporated into the Project Footprint plan for the EIS.</p>	Appendix D/ Sheet 1 of 536
Planning and Urban Design	<p>a. The Cadiz/Lamar intersection is currently a precarious and complicated one that can cause substantial traffic during peak periods due to the seven roads that intersect there. Increased traffic will put even greater strain on this complicated intersection, and it should be included in the scope to help produce a better design outcome concurrently with construction of the station.</p>	Appendix D/ Sheet 1 of 536

City of Dallas - Department	Comment	DEIS Section and/or Page #
Planning and Urban Design	<ul style="list-style-type: none"> a. Station ground floor needs to locate active uses along all street frontages; b. Any required barriers and fencing must incorporate high quality materials appropriate to the adjacent context; c. Does not integrate station with public space to maximize potential as an iconic destination or to integrate it seamlessly with the surrounding community; d. Opportunity to engage the city with a signature station face that becomes an attraction regardless of transit (think of Denver’s Union Station for example). 	Appendix D/ Sheet 1 of 536
Planning and Urban Design	<ul style="list-style-type: none"> a. Austin Street will be substantially impacted by the adjacent parking structure and the traffic that will need to be accommodated. The street should be included as part of the scope and should be planned to be reconstructed as a two-lane street plus on-street parking with adequate pedestrian facilities on each side. 	Appendix D/ Sheet 1 of 536
Planning and Urban Design	<ul style="list-style-type: none"> a. There is no indication for the provision of a multi-purpose trail along the HSR alignment as has been indicated would be done as part of construction of this project. 	Appendix D/ Sheet 1 of 536
Planning and Urban Design	<ul style="list-style-type: none"> a. The rail alignment will cross a number of City-owned street right-of-ways. The ability to add wide, safe and well-lit pedestrian and bike accommodations along these streets should not be negatively impacted by the rail structure. 	Appendix D/ Sheet 1 of 536
Planning and Urban Design	<ul style="list-style-type: none"> a. Seamless connectivity and integration of all transportation modes - DART Light Rail station at convention center, TRE, potential new D2 Light Rail Station(s), Bus stops, bike facilities and walkability should be key components (ability to solve first/last mile without a car). 	Appendix D/ Sheet 1 of 536

City of Dallas - Department	Comment	DEIS Section and/or Page #
Planning and Urban Design	<p>a. Structured parking needs to be designed with ground floor active uses along Austin Street, Bellevue Street, and each of the streets facing the station, the meanders at a minimum;</p> <p>b. Structured parking should be constructed in such a manner that it can be repurposed for other uses in the future as technological advances shift car ownership and driving habits;</p> <p>c. Parking management is critical if the area around the station is to be successful as a “place” and not just a self-serving station;</p> <p>d. Consider “shared” parking solutions.</p>	Appendix D/ Sheet 1 of 536
Transportation	Reference is made indicating there would be no operational impacts during extreme weather. This is followed by a statement that indicates the probability is low. These two statement seem to be in conflict. Please clarify.	ES9.17 on page ES-24
Transportation	Reference is made to impacts to the Honey Springs Cemetery. Please clarify the impacts to families during a funeral or burial service.	ES9.18 on page ES-24
Transportation	Reference is made to USACE owned property. This is likely referring to City owned property within the Trinity River and within the Dallas Flood Control project that is, however, under USACE jurisdiction.	ES.10 on page ES-30
Transportation	Reference is made in the center of the first paragraph about denial by USACE. Please clarify that this only refers to Segment 2 and not also Segment 1.	ES.10 on page ES-30
Transportation	Reference is made to the potential for least tern. Please clarify that no sightings were noted and no nests were found within the project site.	3.6.4.4.2 on page 3.6-41 2nd paragraph
Transportation	Reference is made to several potential threatened species (mussels) within the Trinity River. Please clarify that none were found within the project site.	3.6.4.4.2 on page 3.6-47 and 3.6-48
Transportation	Reference is made to projects under the 408 review process which include "future levees". However, we have recently confirmed that the 408 process is limited to floodway structures that are already built. Therefore future levees and future sumps would not be included here.	3.7.4.1.2 on page 3.7-6 & WW-CM#6 on page 3.7-50

City of Dallas - Department	Comment	DEIS Section and/or Page #
Transportation	Reference is made to 408 review process. In the case of Dallas, we have recently confirmed that the 408 review will be performed by the Fort Worth District only. Review by the Division or by HQ will not be performed.	WW-CM#6 on page 3.7-50
Transportation	NOTE for City Staff: The applicable Compliance measures and Mitigation measures should be included in future City agreements with TCP. These should also be verified during plan reviews	3.6.6.1 on 3.6-67; 3.6.6.2 on 3.6-68; & 3.7.6.1 on 3.7-48; 3.7.6.2 on 3.7-51
Transportation	Please add and consider the City of Dallas Thoroughfare Plan and the City of Dallas CBD and Vehicular Plan and the City of Dallas Complete Streets Manual. These can be found at: http://dallascityhall.com/departments/transportation/Pages/MobilityPlanning.aspx	Table 3.11-1 on 3.11-2
Transportation	Please add and consider these two crossings to Table 3.11-5: Youngblood - Commercial Collector - 4 lanes & Witt - Commercial Collector - 4 lanes	Table 3.11-5 on 3.11-9, 10
Transportation	Please remove the following streets from Table 3.11-7 as these are not designated as bike routes: Cedardale, Illinois, JJ Lemmon, JJ Lemmon, Ledbetter, Pennsylvania, Unnamed SE3, Wheatland, Youngblood, Cleveland, Al Lipscomb, and Grand Avenue Connection.	Table 3.11-7 on 3.11-14, 15
Transportation	Reference is made to constructing dual left turn lanes, right turn lanes, and dual right turn lanes at several intersections near the Dallas HSR Terminal site. The City has recently improved these streets to conform to our complete street standards. Please provide additional clarification on impacts to intersections on Riverfront, Lamar, Commerce, and Cadiz streets.	Table 3.11-39 on 3.11-38

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	Figure 2/Figure 2-26 - While the discussion provides a good introduction to the Location Corridor Analyses process, and subsequent project segments used to develop the Build Alternatives, the following discussions relate to "Alternatives A through F"; it would be helpful to provide a map in the Executive Summary that shows the Build Alternatives as discussed in the DEIS. Additionally, if Alternative A is the preferred Alternative, then Figure 2-27 should also be included in the Executive Summary	ES.6; ES-6
Trinity Watershed Management	Air Quality - the discussion as presented may not reflect a complete analyses. The discussion references off-site power generation such that there would be no impacts, but does not provide related location information to allow assessment of that input. One may expect both discussions of relative traffic impacts/ air quality of the vehicles driving to each of the stations; additionally, I would expect some degree of mixing from the HSR operation. Neither is discussed in the Executive Summary. Additionally, it may not be appropriate to reference expected Nox VOC and CO emissions to be reduced over time because of anticipated improvements to car emissions between 2024 and 2040.	ES.9.3; ES-9
Trinity Watershed Management	Water Quality - It may be helpful to expand this section to identify existing water quality impairments within the "9 watersheds" that the project alternatives cross. It would be helpful to identify the nine affected watersheds. Some but not all water quality impairments (Total maximum daily loads (TMDLs), have defined best management practices set forth in formal Implementation Plan(s), approved by the TCEQ that would be required to be incorporated into this project to reduce/ mitigate potential impacts. Additionally, most discussion of water quality impairment is provided relative to anticipated pollutant loading, rather than in lineal feet of channel impacted. It should be noted that some, but not all TMDLs have to potential to be impacted by this project. As is - it is very difficult to identify whether one alignment/alternative has or doesn't have impacts/benefits over the others, relative to water quality.	ES.9.4; ES-10
Trinity Watershed Management	Water Quality - It may be helpful to expand this section to identify numbers of impacted groundwater wells per alternative.	ES.9.4; ES-10

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	Water Quality - this mentions retention basins, however, there is no information on where they may be used, or a summary of this type of feature associated with each build alternative	ES.9.4; ES-10
Trinity Watershed Management	Table 2 - is not referenced in the text, and contains information requested in the above comments; All tables/graphics should be appropriately referenced in the text. I would note that the table references Impaired Water bodies by the 303(d) list - however, there is no summary discussion provided for context to what these data mean.	ES.9.4; ES-10
Trinity Watershed Management	Noise and Vibration - Table 3: needs to be referenced, and context for what is "moderate" and what is a "severe" impact needs to be added	ES.9.5; ES-11
Trinity Watershed Management	Hazardous Materials and Solid Waste: for local planning purposes, an estimate of increased waste management requirements for terminals and rail maintenance facilities may be helpful to the local governments/waste management entities. While the document indicates the Build Alternatives are "not expected to exceed capacity of existing landfills", landfill capacity versus anticipated waste generation is a concern, and many cities are pushing towards "zero waste policies". This should be discussed for both construction related demolition and debris removal, as well as future operations.	ES 9.6; ES-12
Trinity Watershed Management	Natural Ecological Systems and Protected Species - This discussion indicates that 'the terminal options in Dallas and Harris County would not impact protected species habitat due to their developed urban environments'. That said; the Dallas station location is adjacent to a sump area, and constructed wetlands that provide potential habitat to several Protected Species that may have been omitted from these analyses	ES 9.7; ES-13

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	<p>Table 4 lists only three protected species, none of which occur in Dallas County. A review of the Final EIS for the Dallas Floodway adjacent to the proposed station location and northern segment indicates 17 species (not including plants); The Texas Parks and Wildlife searchable database includes 34 Federal and state species listed in Dallas County alone. (https://tpwd.texas.gov/gis/rtest/). This section needs to be appropriately updated. One of the critical elements that we have had to address in project implementation near Waters of the State is appropriate identification, and mitigation of impacts to freshwater mussel species. I would also note that this summary is not consistent with the information provided in Section 3.6.4.4.2</p>	ES 9.7; ES-13
Trinity Watershed Management	<p>Waters of the United States: There is no mention of the project impacts to the Upper and Lower Chain of Wetlands; while these are man-made wetlands; they are part of a Federal project and were designed to mitigate other project impacts, as well as to provide flood storage and habitat functions .</p>	ES 9.8; ES-14
Trinity Watershed Management	<p>Waters of the United States: There is no mention of the project impacts relative to hydrologic and hydraulic analyses, and the need for local permitting (CDC) because of the Trinity River ROD; impacts to valley storage and flood elevations need to be discussed; please also add an explanation of why the permanent impacts are greater than the temporary impacts - this is counter intuitive.</p>	ES 9.8/9.9; ES-14,15
Trinity Watershed Management	<p>There is no discussion of potential impacts to public utilities; The work around the Central Wastewater Treatment Facility, and local lines in that area, as well as the Station Zone need to be discussed</p>	ES 9.10; ES-17

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	Utilities and Energy: we note significant power requirements for facility operation (anticipated to be > 25% of future statewide energy expansion); we offer concerns relative to this increase in an area that has an existing significant potential hourly peak load associated with major infrastructure (water/wastewater and stormwater) pump stations in the same portion of the grid in Dallas. Impacts to the existing grid/power users should be quantified, particularly in/near the terminal stations. In addition, we encourage coordination with major local users concerning future power demands to ensure optimal system function	ES 9.10; ES-17
Trinity Watershed Management	Table 9 includes information on impacted oil and gas wells - ; there is no reference to this table in the text, and there is no discussion of this potential impact in the discussion provided.	ES 9.10; ES-16
Trinity Watershed Management	Table 10 - The table references landscape units - it would be helpful to have a map of where these units may be located; additionally, this table is not referenced in the text.	ES 9.11; ES-18
Trinity Watershed Management	May be helpful to provide results of Station-Zone Analyses here.	ES 9.12; ES-19
Trinity Watershed Management	Development of jobs data relative to numbers of jobs, rather than a global "fractional increase of one-half percent of existing employment base" may be more helpful in understanding potential positive impacts of the project. This may be helpful to offsetting potential Environmental Justice implications associated with impacts to LeForge and LeMay neighborhoods, Wilmer Hutchins High School, churches and historic cemeteries	ES 9.15; ES-22
Trinity Watershed Management	Table 14: please add a key to what the scores shown for Community cohesion, Children's Health and Safety, and Community Facilities mean. Also - there is a single, and a triple asterisk used, without any clarifying information.	ES 9.15; ES-23
Trinity Watershed Management	Electromagnetic Fields: this discussion reflects analyses of no impacts to riders, but does not discuss potential impacts of electromagnetism to stationary receptors along the route. This may reflect a greater exposure scenario.	ES 9.16; ES-23

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	<p>Environmental Justice: The discussion as provided indicates that the Location of Disturbance (LOD) potentially impacts 68 of 132 (52%) of identified EJ block groups; there is a discussion of temporary construction zones that impacts 29 percent of temporary construction zones, and 24 percent of total acreage of temporary construction areas. There is no similar discussion of permanent impacts. With the other impact tables indicating a much larger area of permanent than temporary impacts, the discussion of permanent impacts to environmental justice concerns needs to be included, particularly in light of other identified community, school and historic cemetery impacts in these same areas. When over 1/2 of the identified EJ blocks are potentially impacted by the project, the statement indicating "impacts would not affect EJ communities in a disproportionately high and adverse manner" may not reflect local concerns.</p>	ES 9.19; ES-25
Trinity Watershed Management	<p>Section 4(f)/ Section 6(f): We are concerned about the finding of no Adverse Impacts to the Dallas Floodway Historic District, because the proposed mitigation would render the impacts to be found to be a de minimis impact. However, there is no discussion of what those impacts or mitigation measures might be. This text also indicates that the Texas Historic Commission must concur with the finding concerning the effects of the Build Alternatives on the Dallas Floodway Historic District. I would note that as the Operator of the Dallas Floodway, the City would also need to concur with these findings. We note that the Trinity River Greenbelt is located outside of the LOD, and therefore there were no associated Section 6(f) property conversion identified.</p>	ES 9.23; ES-30
Trinity Watershed Management	<p>FRA's Preferred Alternative: First sentence needs to be clarified: the USACE does not own the property in Dallas County; the City of Dallas owns the property for the Dallas Floodway and Dallas Floodway Extension; the USACE has worked as a partner with the City of Dallas to construct a federally-owned project along the Dallas Floodway and Floodway extension. A Section 408 authorization is required from the USACE for this part of the project because there are potential impacts to a Federal Project.</p>	ES 10; ES-30

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	Table 18 needs to provide a complete summary of impacts for each of the build alternatives	ES 10; ES-30,32
Trinity Watershed Management	The Initial Alternatives discussion may need a mention of common alignments such as Dallas/Grimes/Walker County alignment, and NW Houston(black lines)	2.5.1 on page 2-21
Trinity Watershed Management	Was Threatened and Endangered Species included in the Level II screening? If so, please add it to this table.	2.5.1.2 on 2-25
Trinity Watershed Management	Figure 2-19: Please explain the significance of the small intersection areas shown as part of the Dallas Terminal that are located away from the main station location shown on the map	2.5.2.1/2.5.2.2 on 2-27 - 2-29
Trinity Watershed Management	It should be noted that the Trinity Parkway is no longer a project that requires consideration for the High Speed Rail Project. The project was cancelled by the Dallas City Council in August 2017.	2.5.4 on 2-41
Trinity Watershed Management	The discussion on regulatory authority needs to include that under Clean Water Act Section 402, local responsibility and authority for compliance may be delegated through appropriate an TPDES Permit to a local Municipal Separate Storm Sewer System (MS4) operator such as the City of Dallas. Also construction sites that disturb less than an acre also need to be permitted if they are located within 1/4 mile of other construction work; this situation is called a common plan of development. The MS4 discussion is provided under a separate discussion, however, the local authority is delegated out of the Clean Water Act, and Texas Water Code	3.3.2 on 3.3-1 - 3.3-4
Trinity Watershed Management	Table 3.3-4 This table looks low with respect to number of wells within study area, particularly considering numbers of private wells.	3.3.4.2.1 on 3.3-16
Trinity Watershed Management	MSDs: I would note that the potential Environmental Risks associated with MSDs were not included in the summary Section on Hazardous Materials and Solid Waste within the Executive Summary	3.3.4.2.3 on 3.3-17

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	<p>The text indicates that "because of the potential discharge of pollutants to surface water, a TPDES Permit, issued by the TCEQ would be required to comply with Clean Water Act Section 402". Because of the length of this project, and the multiple adjacent jurisdictions with separate MS4 Permit compliance responsibilities for inspecting TPDES TXR15000 Construction General Permitted projects under CWA Section 402, it is anticipated that the TCEQ may issue an Individual Permit, or depending on the project scheduling may permit the project as a phased project disturbance under the TPDES Construction General Permit. We suggest appropriate clarification from the state as to how they anticipate handling this project. Should it be under the TXR15000, it would be helpful to address how subsequent permit compliance would need to be coordinated among these jurisdictions. It would be helpful to address how that coordination for inspections, SWPPP reviews and compliance enforcement is anticipated to occur. This discussion should be clarified to reflect that copies of the permit coverage, Large Site Construction Notice and Notice of Intent, and SWPPP are to be provided to the local affected MS4(s) in addition to the TCEQ prior to initiating construction.</p>	3.3.5.1/3.3.6.1/3.3.6.2
Trinity Watershed Management	<p>The text indicates that "because of the potential discharge of pollutants to surface water, a TPDES Permit, issued by the TCEQ would be required to comply with Clean Water Act Section 402". Additionally, the constructed facilities, that is both the line, as a linear transportation feature permitted under the MS4 Program, and the maintenance facilities, may require permanent facility permitting under the Multi-Sector General Permit for Industrial SIP Codes.</p>	3.3.5.1/3.3.6.1/3.3.6.2
Trinity Watershed Management	<p>It should be noted that more-frequent inspections may occur to address any non-conforming site conditions until the site is in compliance with the SWPPP and applicable permit requirements.</p>	3.3.6.1 on 3.3-29
Trinity Watershed Management	<p>The SWPPP is required to identify all potential sources of pollution, including chemical handling and storage, and petroleum handling and storage. There are no mitigation measures identified to address this portion of the surface water quality mitigation measures.</p>	3.3.6.2 on 3.3-29

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	Table 3.3.9 includes a line item for Reservoir/Dam Crossings, where there are no impacts, but does not include impacts to the Dallas levee system, where there are impacts.	3.3.7 on 3.3-31
Trinity Watershed Management	Please include a reference to the appropriate Dallas Noise Ordinance	3.4.2 on 3.4-4
Trinity Watershed Management	It would be helpful to get a summary of the estimated waste produced to compare with affected landfill capacity. The text in Section 3.5.3.2 references that this estimate was made, however, the bottom line number is not provided in the main text, or the executive summary. Table 3.5-3 provides a summary of existing landfill capacity, and an estimate of waste accepted in 2014 - however, this does not provide a meaningful understanding of waste-related impacts that one would get from a comparison of anticipated waste generated versus existing landfill capacity. Although there are estimates in Section Table 3.5.6, it would be helpful to compare waste generated with local capacity	3.5.3.2/3.5.4.2
Trinity Watershed Management	The text indicates that based upon a 4-year schedule, that the waste generated per year is less than 1 percent of the 2014 Average Annual waste disposal rate. The challenge to this assumption is that typically, the demolition is done all at once early in the project schedule, rather than spread out over the life of the project.	3.5.6 on 3.5-61
Trinity Watershed Management	Operational Impacts re: Hazardous Materials: I would note that the HSR maintenance facilities would likely be required to permit under the TPDES Multi-Sector General Permit (Industrial) and would need a Site-specific SWPPP and Spill Prevention Control and Counter Measure Plan.	3.5.5.2.2 on 3.5-62
Trinity Watershed Management	HM-MM#2 Hazardous Materials Management/HM-MM#3 Previously Unidentified Hazardous Materials Plan/HM-MM#4: Waste Management: We concur with these measures, but want to clarify that these documents should be appended to the Project SWPPP.	3.5.5.2 on 3.5-63
Trinity Watershed Management	The statements under the paragraph labelled Texas Administrative Code may not be correct, relative to no Texas Codes requiring protection of State-listed species. We have had to perform Aquatic Relocation Efforts under a State-approved Aquatic Relocation Plan, and certified biologists relative to State-listed species. Please clarify.	3.6.2 on 3.6-4

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	There are some concerns relative to the evaluation performed for the impacts to Natural Ecological Systems and Protected species. We have TSE lists from other programmatic EIS efforts on the LOD, and from the referenced TWDB database for Dallas County that show 15-35 potential affected species; none of which were included in the summary analyses for this project. While these species are detailed later in the section, they have been omitted in the overall analyses. The last sentence of the last paragraph on the page indicates "these results, based on the stated limitations of the TXNDD, do not mean that there is an absence of other endangered, threatened, or rare species and should not be used for presence/absence determinations." However, this is precisely what has been done.	3.6.3 on 3.6-5
Trinity Watershed Management	The information presented in this section concerning impacts to Federal and Texas' protected species, and habitat impacts has not been completely/accurately summarized in the Executive Summary.	3.6.4.4
Trinity Watershed Management	The statement at the end of this segment indicates that because Dallas, Ellis, Navarro and Limestone counties do not have potential habitat mapped within the study boundaries, the acreage of impacts to federally listed species is zero. This may or may not be true. It may be more accurate to indicate that it is not possible to quantify this ratio.	3.6.5.2.3 on 3.6-64
Trinity Watershed Management	Table 3.6-21: Texas Parks and Wildlife Department study is ongoing through 2019	3.6.5.2.3
Trinity Watershed Management	NR-MM3: Aquatic Relocation efforts need to be Texas Parks and Wildlife approved.	3.6.6.2
Trinity Watershed Management	Regarding section 401 of the Clean Water Act, please clarify which tier applies to project	3.7.2 on 3.7-1
Trinity Watershed Management	Please add a reference to Texas Parks and Wildlife Code, Chapter 90 relative to access to freshwater areas, as it applies to work within waters of the State	3.7.2 on 3.7-2
Trinity Watershed Management	The definition of floodplain may not be consistent with current federal regulations	3.7.3 on 3.7-3

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	Definition used for wetlands makes no reference to hydric soils, which are critical to the federal wetlands classification	3.7.3 on 3.7-5
Trinity Watershed Management	The headwaters of the Trinity River are located in North Texas, about three miles south of the Texas-Oklahoma border, rather than as defined in the DEI indicating that the basin starts "northwest of Dallas at the confluence of the Elm and West Forks of the Trinity River". This would be the start of the main Stem of the Trinity River. This mis-definition is used in several places in this document.	3.7.4.1.1/3.8.4.3.2
Trinity Watershed Management	The list of notable streams does not include notable streams such as White Rock Creek, Five Mile Creek, Prairie Creek.	3.7.4.1.1 on 3.7-6
Trinity Watershed Management	Clarification on the information below table 3.7-3 specifically regarding the acreage of the Study Area in the floodplain	3.7.4.1.1 on 3.7-6
Trinity Watershed Management	The definition of the USACE projects in the Dallas area is very convoluted.	3.7.4.1.2 on 3.7-6
Trinity Watershed Management	The concern relative to hydric soils relates to wetlands delineation; this is not addressed in either the wetlands, nor the hydric soils discussion	3.7.4.1.3 on 3.7-6
Trinity Watershed Management	Notation on the "width of the crossing is more than 140 feet, the minimum number of piers required to support the viaduct crossing would be placed within the feature." We note that this statement may not be consistent with the supporting engineering drawings that show a much tighter pier spacing	3.7.6 on 3.7-48
Trinity Watershed Management	Regulatory Context: this section references the HUD floodplain maps; it should be noted the FEMA floodplain mapping are used for regulatory purposes in Dallas County	3.8.2 on 3.8-1
Trinity Watershed Management	Note that Executive Order 13690 was pulled by subsequent Executive Order in 2017	3.8.2 on 3.8.3
Trinity Watershed Management	Table 3.8-2: Please correct the reference for the Dallas Floodplain Regulator: It should be the City of Dallas - Trinity Watershed Management Department	3.8.2 on 3.8-6

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	Table 3.8-2: The Table references the Trinity River Corridor Development Certificate under Dallas; it should be noted that this is a regional program coordinated by the North Central Texas Council of Governments and the USACE	3.8.2 on 3.8-6
Trinity Watershed Management	The description of Dallas Flood policy is not correct; Additionally, it is the NCTCOG that coordinates the Trinity River CDC process	3.8.2 on 3.8-6
Trinity Watershed Management	There is no discussion provided concerning the City of Dallas "no-rise" policy concerning post-project water surface elevations; additionally, there are similar requirements relative to impacts to valley storage; these two elements are as important or more so than the discussion of finish floor elevation that was provided.	3.8.2 on 3.8.6
Trinity Watershed Management	Table 3.8-3 - It should be noted the City of Dallas Drainage Criteria Manual is currently under revision; the information provided will likely change prior to project implementation	3.8.2 on 3.8.7
Trinity Watershed Management	Maintenance agreements concerning local retention basins may be required, if the adjacent jurisdiction is to provide such maintenance; the party responsible for this maintenance needs to be defined	3.8.5.2.3 on 3.8-27
Trinity Watershed Management	And Table 3.8-9: There is a statement that "Segments 1, 2A and 2B are not included in Table 3.8-9 because the soils in this portion of the floodplain study area are not highly erosive." This is not true for Segment 1, and adequate provisions for scour and erosion protection should be included into the project planning	3.8.5.2.4 on 3.8-27
Trinity Watershed Management	Tables 3.9-1 and 3.8-11 are not consistent with respect to numbers of impacted utilities; additionally, the discussion of mitigative measures addresses electrical, water and wastewater utilities; there are several large diameter storm sewers potentially impacted by the project that will also need to be mitigated as a part of the design.	3.9.4
Trinity Watershed Management	EU-CM#1 the development Impact report needs to also address impacted drainage infrastructure	3.9.6.1
Trinity Watershed Management	EU-MM#2 the mitigation efforts may also need to address impacted drainage infrastructure	3.9.6.2

City of Dallas - Department	Comment	DEIS Section and/or Page #
Trinity Watershed Management	EU-MM#+E63:E725: Electric Utility Provider Coordination: We concur with this mitigative measure; we have concerns about existing loads to the grid in the vicinity of the Dallas Station Location	3.9.6.2

U.S. Department
of Transportation

**Federal Railroad
Administration**

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May 22, 2020

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**Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Dear Mr. Duebner:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the City of Dallas dated March 8, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

Enclosed is FRA's response to comments received from the City of Dallas on March 8, 2018.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen". The signature is fluid and cursive, with the first name "Michael" being more prominent than the last name "Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
DWU	As per Appendix G, the typical distance from pipe to Viaduct pier is 5 ft. We need a horizontal separation of at least 10 ft. Also, (not shown on this document) we need at least 18 ft. of vertical clearance from ground line to bottom of structure/bridge as per WW Collections.	Appendix G/ Section 1-5	<p>As noted in Appendix F, TCRR Final Conceptual Engineering Design Report, coordination between TCRR is ongoing with Dallas Water Utilities to fully understand sewer infrastructure that may be impacted.</p> <p>Details of the Project (including design, construction and operational specifications) have been considered in this EIS as proposed by TCRR. Changes to the Project, as presented in the Draft EIS, have occurred as the conceptual engineering design progressed. TCRR has continually refined the design of the Project to reduce the Project footprint, or LOD and avoid or minimize impacts to the socioeconomic, natural, cultural and physical environment. These engineering refinements were based on environmental and engineering surveys, stakeholder engagement, public and agency input, design development, and the findings of FRA’s environmental analyses and resulted in modifications to the Project, as well as the overall Project LOD and are detailed in Chapter 2.5.4, Alternatives Considered, Engineering Refinements. Therefore, the Build Alternatives depicted in the Final EIS have evolved from the alignment alternatives originally developed in the Draft EIS.</p> <p>City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
DWU	As per document 1 (DEIS_MAIN TEXT page 3.9-5), there are 15 wastewater mains and 2 water mains 18" diameter and larger within the study area. From research and using the GIS layer provided to us by	DEIS_MAIN TEXT/ page 3.9-5	Details of the Project (including design, construction and operational specifications) have been considered in this EIS as proposed by TCRR. Changes to the Project, as presented in the Draft EIS, have occurred as the conceptual engineering

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	<p>Freese & Nichols, there are 27 wastewater mains and 5 water mains 18" diameter and larger within the study area.</p> <p>There is a total of 57 ww mains and 29 water mains (6" and larger) within the study area. (Or a total of 30 ww mains and 19 water mains 6" and larger actually crossing the proposed HSR alignment.) See spreadsheet attached for a summary of utilities in conflict.</p>		<p>design progressed. TCRR has continually refined the design of the Project to reduce the Project footprint, or LOD, in this EIS and avoid or minimize impacts to the socioeconomic, natural, cultural and physical environment. These engineering refinements were based on environmental and engineering surveys, stakeholder engagement, public and agency input, design development, and the findings of FRA's environmental analyses and resulted in modifications to the Project, as well as the overall Project LOD and are detailed in Chapter 2.5.4, Alternatives Considered, Engineering Refinements. Therefore, the Build Alternatives depicted in the Final EIS have evolved from the alignment alternatives originally developed in the Draft EIS.</p> <p>As noted in Appendix F, TCRR Final Conceptual Engineering Design Report, coordination between TCRR is ongoing with Dallas Water Utilities to fully understand sewer infrastructure that may be impacted.</p> <p>City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
Park and Recreation Department	High Speed Rail will go by several existing or proposed Park and Recreation Facilities, the main issue would be the sound of the passing trains, which may be 4 times per hour, when the train is running at peak capacity. The rail line will be close to Honey Springs Cemetery, the Skyline Trail and J.J. Lemon Park.	General Comment	The noise impact assessment was carried out in accordance with the methods and procedures specified in the FRA <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> guidance document. The assessment methodology, criteria for impact, and locations of impacts are contained in Section 3.4.3.1, Noise and Vibration, Analysis Methods, Section 3.4.3.2, Noise and Vibration, Impact Criteria and Section 3.4.5, Noise and Vibration,

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			<p>Environmental Consequences, respectively, and additional detailed information is provided in Appendix E: Noise and Vibration Technical Memorandum.</p> <p>An impact assessment for Honey Springs Cemetery has been updated in the Final EIS in Section 3.19.5.2, Cultural Resources, Environmental Consequences, Build Alternatives Impact Assessment.</p> <p>Skyline Trail is not located in the Study Area. J.J. Lemmon park is an approximately 19.7-acre community park that is partially located within the Study Area, but not in the LOD, and approximately 1,000 feet west of the LOD. There are no potential noise impacts identified at these locations.</p>
Planning and Urban Design	<p>a. Proposed street alignments must introduce a walkable grid of streets that integrate into the larger neighborhood, as well as clearly set up the creation of future development sites;</p> <p>b. In our opinion, Belleview Street needs to curve down with the natural fall in the land in order to get down and under the UPRR. It is shown as a straight road to Riverfront, which would be highly difficult or impossible to build from an engineering perspective and still allow for walkable development along Belleview</p>	Appendix D/ Sheet 1 of 536	As required by TR-MM#2: Intersection Improvements , prior to construction and operation, TCRR will perform a full traffic impact analysis (TIA) that complies with the City of Dallas and/or TxDOT TIA guidelines as applicable. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process. TCRR shall implement intersection improvements as required by the applicable TIA process.
Planning and Urban Design	a. Station and circulation plan cannot be evaluated in the absence of a larger urban design vision for the neighborhood. Station proposal should be represented as a "phase one" of a clearly articulated future neighborhood development scenario;	Appendix D/ Sheet 1 of 536	City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.

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	<p>b. Any required barriers and fencing must incorporate high quality materials appropriate to the adjacent context;</p> <p>c. Does not integrate station with public space to maximize potential as an iconic destination or to integrate it seamlessly with the surrounding community;</p> <p>d. Opportunity to engage the city with a signature station face that becomes an attraction regardless of transit (think of Denver's Union Station for example).</p>		
Planning and Urban Design	<p>a. The parking structures and streets preclude any mixed-use development from occurring adjacent to the station;</p> <p>b. The parking structure shown on the Matthew Southwest-owned property south of the UPRR presents a monolithic, impenetrable super-block. Additional streets should be provided through the parking structure to allow for increased pedestrian and vehicular connectivity while also creating better development blocks;</p> <p>c. The proposed streets are designed as highly auto-oriented with turning movement geographies such as free-right turns and the U-turn to the south of the station that will produce an un-walkable pedestrian environment adjacent the station. Intersections should be designed to be as narrow as possible while also ideally meeting as close to ninety-degrees wherever possible to accommodate walkable mixed-use development around the station. Overall, the arrangement of one-way streets and their geometries</p>	Appendix D/ Sheet 1 of 536	<p>Details of the Project (including design, construction and operational specifications) have been considered in this EIS as proposed by TCRR. Changes to the Project, as presented in the Draft EIS, have occurred as the conceptual engineering design progressed. TCRR has continually refined the design of the Project to reduce the Project footprint, or LOD, in this EIS and avoid or minimize impacts to the socioeconomic, natural, cultural and physical environment. These engineering refinements were based on environmental and engineering surveys, stakeholder engagement, public and agency input, design development, and the findings of FRA's environmental analyses and resulted in modifications to the Project, as well as the overall Project LOD and are detailed in Chapter 2.5.4, Alternatives Considered, Engineering Refinements. Therefore, the Build Alternatives depicted in the Final EIS have evolved from the alignment alternatives originally developed in the Draft EIS.</p> <p>City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact</p>

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	<p>may support an "airport like" station but do not support a walkable environment;</p> <p>d. The proposed streets are all shown to be very wide (4+ lanes each). They should be designed to be as narrow as possible, with as few lanes as required, while also accommodating wide, comfortable, and safe bike and pedestrian facilities;</p> <p>e. The street adjacent to the Meanders should be a maximum of 2 lanes to allow for quality development adjacent to the water feature.</p>		<p>Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p> <p>As required by TR-MM#2: Intersection Improvements, TCRR shall perform a full traffic impact analysis (TIA) that complies with City of Dallas and/or TxDOT TIA guidelines. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process.</p>
Planning and Urban Design	<p>a. While the extension of Canton Street to Austin adds connectivity to the station and surrounding area, the configuration shown in the Project Footprint for the Canton/ Lamar intersection favors high-speed vehicular movements and not a balance that also welcomes pedestrians, bikes and meaningful development and open space opportunities.</p>	Appendix D/ Sheet 1 of 536	<p>As required by TR-MM#2: Intersection Improvements, TCRR shall perform a full traffic impact analysis (TIA) that complies with City of Dallas and/or TxDOT TIA guidelines. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process.</p>
Planning and Urban Design	<p>a. The provision of pedestrian bridges across the UP Railroad is a positive element. The vertical circulation shown for these pedestrian bridges, especially the one near Canton/ Lamar are less than ideal and should account for iconic placemaking and plaza opportunities adjacent to them;</p> <p>b. Connectivity to the Cedars and future Southside neighborhoods is limited;</p> <p>c. To cross the vast rail infrastructure, pedestrian bridges will need to be integrated with development destinations otherwise they will be sterile, un-safe and un-used.</p>	Appendix D/ Sheet 1 of 536	<p>Refer to 3.11.5.2.1, Dallas County, Transportation for a review of proposed pedestrian facilities in and around the Dallas Terminal Station.</p> <p>Additionally, the Project is on viaduct through the majority of Dallas County and through the city of Dallas itself. The Project is on viaduct for approximately 10 miles from the Dallas Terminal Station to south of IH-20. Viaduct infrastructure will allow movement under the Project.</p> <p>City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by</p>

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			phone at 214.254.4781.
Planning and Urban Design	Lot E should not just be a parking destination but should be integrated into Downtown as a viable and contributing mixed-use or office district as well.	Appendix D/ Sheet 1 of 536	<p>An overview of the Dallas Terminal station in the Final EIS is located in Section 2.5.2.2, Alternatives Considered, Dallas Terminal Station. Additional details are located in Appendix F, TCRR Final Conceptual Engineering Design Report and Appendix G, TCRR Final Conceptual Engineering Plans and Details. Parking at Lot E is identified as potential parking.</p> <p>Further coordination is needed as design progresses between the City and TCRR to integrate the HSR plans with the planned City project for Lot E.</p>
Planning and Urban Design	The 360 Plan and Perkins+ Will development, parking, and block pattern concepts should be better incorporated into the Project Footprint plan for the EIS.	Appendix D/ Sheet 1 of 536	<p>The Downtown Dallas 360 Plan (updated in 2017) was reviewed as a guiding framework document for the area.</p> <p>The Perkins + Will development near this area, The Epic high-rise development in Deep Ellum, is located approximately 1.5 miles northeast from the Dallas Terminal Station.</p>
Planning and Urban Design	a. The Cadiz/Lamar intersection is currently a precarious and complicated one that can cause substantial traffic during peak periods due to the seven roads that intersect there. Increased traffic will put even greater strain on this complicated intersection, and it should be included in the scope to help produce a better design outcome concurrently with construction of the station.	Appendix D/ Sheet 1 of 536	<p>As required by TR-MM#2: Intersection Improvements, prior to construction and operation, TCRR will perform a full traffic impact analysis (TIA) that complies with the City of Dallas and/or TxDOT TIA guidelines as applicable. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process. TCRR shall implement intersection improvements as required by the applicable TIA process.</p> <p>As discussed in 3.11 Transportation, specifically 3.11.4 Affected Environment, the Cadiz Street/Lamar Street intersection as proposed in the Final EIS would have one right-turn bay added to southwest bound traffic and a right-turn bay added for southeast bound traffic. Refer to Table 3.11-</p>

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			<p>39: Dallas Terminal Intersection Design Modifications.</p> <p>Table 3.11-: Dallas Terminal Impacts 2040 LOS (Delay in Seconds per Vehicle) shows that the current AM/PM LOS at this intersection is below acceptable TxDOT standards (LOS D or higher). The modified condition shows a slight improvement over current conditions for the AM northbound movement.</p>
Planning and Urban Design	<p>a. Station ground floor needs to locate active uses along all street frontages;</p> <p>b. Any required barriers and fencing must incorporate high quality materials appropriate to the adjacent context;</p> <p>c. Does not integrate station with public space to maximize potential as an iconic destination or to integrate it seamlessly with the surrounding community;</p> <p>d. Opportunity to engage the city with a signature station face that becomes an attraction regardless of transit (think of Denver's Union Station for example).</p>	Appendix D/ Sheet 1 of 536	<p>Details of the Project (including design, construction and operational specifications) have been considered in this EIS as proposed by TCRR. Changes to the Project, as presented in the Draft EIS, have occurred as the conceptual engineering design progressed. TCRR has continually refined the design of the Project to reduce the Project footprint, or LOD, in this EIS and avoid or minimize impacts to the socioeconomic, natural, cultural and physical environment. These engineering refinements were based on environmental and engineering surveys, stakeholder engagement, public and agency input, design development, and the findings of FRA's environmental analyses and resulted in modifications to the Project, as well as the overall Project LOD and are detailed in Chapter 2.5.4, Alternatives Considered, Engineering Refinements.</p> <p>Therefore, the Build Alternatives depicted in the Final EIS have evolved from the alignment alternatives originally developed in the Draft EIS.</p> <p>City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
Planning and	a. Austin Street will be substantially impacted by the adjacent parking structure and the traffic that will	Appendix D/	As required by TR-MM#2: Intersection Improvements , prior to construction and operation, TCRR will perform a full traffic

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Urban Design	need to be accommodated. The street should be included as part of the scope and should be planned to be reconstructed as a two-lane street plus on-street parking with adequate pedestrian facilities on each side.	Sheet 1 of 536	impact analysis (TIA) that complies with the City of Dallas and/or TxDOT TIA guidelines as applicable. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process. TCRR shall implement intersection improvements as required by the applicable TIA process.
Planning and Urban Design	a. There is no indication for the provision of a multi-purpose trail along the HSR alignment as has been indicated would be done as part of construction of this project.	Appendix D/ Sheet 1 of 536	City of Dallas comments have been provided to TCRR for review and consideration as in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781. Refer to 3.11.5.2.1, Dallas County, Transportation for a review of proposed pedestrian facilities in and around the Dallas Terminal Station.
Planning and Urban Design	a. The rail alignment will cross a number of City-owned street right-of-ways. The ability to add wide, safe and well-lit pedestrian and bike accommodations along these streets should not be negatively impacted by the rail structure.	Appendix D/ Sheet 1 of 536	During final design, TCRR shall coordinate with the appropriate jurisdictions in regard to roadway crossings and the placement of the viaduct piers. Additionally, crossings would meet TxDOT standards which would provide a minimum vertical clearance of 16.5 feet. City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781
Planning and Urban Design	a. Seamless connectivity and integration of all transportation modes - DART Light Rail station at convention center, TRE, potential new D2 Light Rail Station(s), Bus stops, bike facilities and walkability	Appendix D/ Sheet 1 of 536	As noted in TR-MM#3: Transit Coordination , prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction

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	should be key components (ability to solve first/last mile without a car).		schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.
Planning and Urban Design	<p>a. Structured parking needs to be designed with ground floor active uses along Austin Street, Belleview Street, and each of the streets facing the station, the meanders at a minimum;</p> <p>b. Structured parking should be constructed in such a manner that it can be re-purposed for other uses in the future as technological advances shift car ownership and driving habits;</p> <p>c. Parking management is critical if the area around the station is to be successful as a "place" and not just a self-serving station;</p> <p>d. Consider "shared" parking solutions.</p>	Appendix D/ Sheet 1 of 536	<p>Revisions to the Dallas Terminal Station were made between the release of the Draft EIS and the Final EIS. Refer to Appendix F – TCRR Conceptual Engineering Design and Constructability Reports for conceptual site plans for the Dallas Terminal Station, including parking facilities.</p> <p>City of Dallas comments have been provided to TCRR for review and consideration in the design process. For further coordination with TCRR regarding design plans, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
Transportation	Reference is made indicating there would be no operational impacts during extreme weather. This is followed by a statement that indicates the probability is low. These two statements seem to be in conflict. Please clarify.	ES9.17 on page ES-24	Text has been updated in the Final EIS to clarify extreme weather. HSR may be affected by extreme weather events such as tornados or straight-line winds between Dallas and Houston as described in Sections 2.2.1, Alternatives Considered, Technology, and 3.16.5.2, Safety and Security, Build Alternatives
Transportation	Reference is made to impacts to the Honey Springs Cemetery. Please clarify the impacts to families during a funeral or burial service.	ES9.18 on page ES-24	In accordance with Section 106 of the National Historic Preservation Act and pursuant to 36 C.F.R. § 800.4(b)(2) and 5(a)(3), the FRA, TCRR, Texas Historical Commission (THC), and other Signatories are developing and will execute a Programmatic Agreement (PA) for the project. Through the Section 106 process, FRA in consultation with THC has determined the Honey Springs Cemetery is eligible for listing in the National Register of Historic Places and the project will

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			<p>have an adverse effect on the property. The PA outlines a comprehensive methodology to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. This process is discussed in Section 3.19.6.2, Programmatic Agreement and the Draft PA is included as Attachment L, Programmatic Agreement.</p> <p>While there would be no direct impact to Honey Springs, as detailed in Section 3.19.5.2.1, Cultural Resources, Segment 1, based on preliminary plans, as well as a comparison of a current view and simulated view of the location, the construction and operation of the HSR system would change the viewshed and obstruct the serene setting (see Section 3.10 Aesthetic and Scenic Resources, Figures 3.10-40 and 3.10-41). Due to the visual obstruction, the Build Alternatives A, B, C, D, E and F would affect the historic resource's integrity of design, setting, feeling and association. FRA, in consultation with the THC, determined the Project would have an adverse effect on Resource DA.082.</p>
Transportation	Reference is made to USACE owned property. This is likely referring to City owned property within the Trinity River and within the Dallas Flood Control project that is, however, under USACE jurisdiction.	ES.10 on page ES-30	<p>In consultation with the USACE, Section 3.7 of the Final EIS, Waters of the U.S. includes the following mitigation measure:</p> <p>WW-CM#6: Section 408 Permission. TCRR shall prepare a Section 408 request to the USACE to alter USACE Projects (the Dallas Floodway–East Dallas Levee Trinity Left Bank, Dallas Floodway Extension– Upper/lower Chain of Wetlands, Dallas Floodway Extension–Central Wastewater Treatment Plant Trinity Right Bank and Dallas Floodway Extension–Future Lamar Levee in Dallas County and Bardwell Lake in Ellis County), as needed depending on the Build Alternatives and as determined by the USACE. All Build Alternatives (A through F) would require Section 408 permission from the USACE Fort Worth District for the Dallas Floodway. Build Alternatives D, E</p>

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			<p>and F would require Section 408 permission from the USACE Fort Worth District for Bardwell Lake. A separate 408 submittal led by the utility owners would be required for two overhead electric crossing adjacent to the 408 boundary. For additional information see Section 3.7.5.2.1, Environmental Consequences, Dallas County and Section 3.7.5.2.2, Environmental Consequences, Ellis County. Impacts to streams, wetlands and waterbodies that occur within the USACE Projects are detailed in Appendix E, Impacts to USACE Projects Technical Memorandum.</p>
Transportation	Reference is made in the center of the first paragraph about denial by USACE. Please clarify that this only refers to Segment 2 and not also Segment 1.	ES.10 on page ES-30	<p>As stated in the Final EIS, Segment 1 is common to all Build Alternatives—proceeding south from the Dallas Terminal Station all Build Alternatives must cross the Trinity River. Either Segment 2A or 2B, located in Ellis County, would be selected for all Build Alternatives. While both would cross the Lake Bardwell flowage easement, Segment 2B would cross fee land and would require Section 408 authorization. Further coordination with USACE determined that per the USACE National Non-Recreation Outgrant Policy, the segment proposed to cross fee land would be denied and not carried forward in the USACE evaluation criteria as there is a viable alternative not on federal property. This would result in the removal of Build Alternatives D, E and F, which include Segment 2B, from further consideration.</p>
Transportation	Reference is made to the potential for least tern. Please clarify that no sightings were noted and no nests were found within the project site.	3.6.4.4.2 on page 3.6-41 2nd paragraph	<p>As detailed in Section 3.6, Natural Ecological Systems and Protected Species, the interior least tern, if present, would be anticipated to frequent the streams and waterbodies within the Study Area that contain sand flats, sand and gravel bars or beaches. While the least tern has been noted in the Study Area (outside of the LOD), impacts to the interior least tern and whooping crane are not presented due to the variability</p>

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			<p>of the species habitat. FRA anticipates that the Project may affect, but are not likely to adversely affect, the Houston toad, interior least tern, and Whooping crane based on the results of presence/absence species surveys and the implementation of various avoidance and mitigation measures described in Section 3.6.6, Natural Ecological Systems and Protected Species, Avoidance, Minimization and Mitigation, and NR-CM#4: Section 7 Consultation and Biological Opinion.</p>
Transportation	Reference is made to several potential threatened species (mussels) within the Trinity River. Please clarify that none were found within the project site.	3.6.4.4.2 on page 3.6-47 and 3.6-48	<p>Section 3.6, Natural Ecological Systems and Protected Species, includes the Texas fawnsfoot, a species of freshwater mussel. The presumptive range of the Texas fawnsfoot within the Trinity River Basin that is crossed by the Action Area is limited to Dallas, Ellis, and Navarro counties. While sandy substrates are present within perennial streams within the Action Area; there is no potential for this species to occur since the only major river crossed by the Project is in Dallas County where the species is not known to occur. The Project does not cross any other large or major river stems such as the Navasota or Brazos Rivers. Therefore, there is no potential for this species to occur within the Study</p> <p>The smooth pimpleback, a species of freshwater mussel, is a state-listed threatened species. It is found in the Colorado, Brazos and San Jacinto River drainage basins on substrates consisting of mixed mud, sand and fine gravel. The Study Area is located within the smooth pimpleback's distribution range. The TXNDD search did not report any EORs for this species within or immediately surrounding the Study Area. The EOR record nearest in location was from the Navasota River and is approximately 1,210 miles away from the Study Area but is within the Navasota River in Northern Grimes County. However, due to the presence of substrates consisting of mixed mud, sand and fine gravel within water resources</p>

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			<p>located throughout the Study Area, there is potential for this species to occur within the Study Area.</p> <p>Therefore under NR-MM#3: Aquatic Species. Prior to construction, TCRR shall develop an SWPPP to minimize impacts to resources, including aquatic protected species such as state- or federal-listed fish and mussel species. TCRR will coordinate with TPWD to determine whether protected mussel species presence/absence surveys are required prior to construction in streams that would be directly impacted to avoid take of individual species.</p>
Transportation	Reference is made to projects under the 408 review process which include "future levees". However, we have recently confirmed that the 408 process is limited to floodway structures that are already built. Therefore future levees and future sumps would not be included here.	3.7.4.1.2 on page 3.7-6 & WW-CM#6 on page 3.7-50	<p>USACE Projects detailed in Section 3.7.4.1.2, Waters of the U.S., USACE Projects and Appendix E, Impacts to USACE Projects Technical Memorandum have been prepared in cooperation with the USACE, Fort Worth and Galveston Districts.</p> <p>Appendix E, Impacts to USACE Projects Technical Memorandum includes all impacted USACE Projects (including the Dallas Floodway Extension–Future Lamar Levee in Dallas County).</p>
Transportation	Reference is made to 408 review process. In the case of Dallas, we have recently confirmed that the 408 review will be performed by the Fort Worth District only. Review by the Division or by HQ will not be performed.	WW-CM#6 on page 3.7-50	Comment Noted
Transportation	NOTE for City Staff: The applicable Compliance measures and Mitigation measures should be included in future City agreements with TCP. These should also be verified during plan reviews	3.6.6.2 on 3.6-68; & 3.7.6.1 on 3.7-48;	Comment noted.

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		3.7.6.2 on 3.7-51	
Transportation	Please add and consider the City of Dallas Thoroughfare Plan and the City of Dallas CBD and Vehicular Plan and the City of Dallas Complete Streets Manual. These can be found at: http://dallascityhall.com/departments/transportation/Pages/MobilityPlanning.aspx	Table 3.11-1 on 3.11-2	Table 3.11-1: Regional and Local Transportation Plans and Policies considers larger policy guiding documents. In less populated counties, like Ellis, the thoroughfare plan also provides policy guidance. The Dallas Master Thoroughfare/CBD Plan has been added to Table 3.11-1 .
Transportation	Please add and consider these two crossings to Table 3.11-5: Youngblood - Commercial Collector - 4 lanes & Witt - Commercial Collector - 4 lanes	Table 3.11-5 on 3.11-9, 10	Youngblood Road is not included in the Final EIS as it does not intersect with the Project. Witt Road can be found in Table 3.11-5: Affected Roadways in Dallas County . The Project is on viaduct at this location. Witt Road will not be re-routed or re-aligned.
Transportation	Please remove the following streets from Table 3.11-7 as these are not designated as bike routes: Cedardale, Illinois, JJ Lemmon, JJ Lemmon, Ledbetter, Pennsylvania, Unnamed SE3, Wheatland, Youngblood, Cleveland, Al Lipscomb, and Grand Avenue Connection.	Table 3.11-7 on 3.11-14, 15	The bike routes mentioned in this comment have been removed for Table 3.11-7: On-Road Pedestrian and Bicycle Facilities in Dallas County . City of Dallas shapefile data was used (https://gis.dallascityhall.com/shapefileDownload.aspx). The site was checked on 4.24.2020 and the data is still from Feb 2017, the same as in the Draft EIS
Transportation	Reference is made to constructing dual left turn lanes, right turn lanes, and dual right turn lanes at several intersections near the Dallas HSR Terminal site. The City has recently improved these streets to conform to our complete street standards. Please provide additional clarification on impacts to intersections on Riverfront, Lamar, Commerce, and Cadiz streets.	Table 3.11-39 on 3.11-38	As required by TR-MM#2: Intersection Improvements , prior to construction and operation, TCRR will perform a full traffic impact analysis (TIA) that complies with the City of Dallas and/or TxDOT TIA guidelines as applicable. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process.

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			<p>TCRR shall implement intersection improvements as required by the applicable TIA process.</p> <p>Traffic delays are expected to increase around the Dallas Terminal Station in both the No Build and Build Scenarios. As reported in Table 3.11-6, all of the 28 intersections around the Dallas Terminal Station are currently experiencing an acceptable LOS (i.e., LOS D or better). Table 3.11-40 lists the 2040 peak period intersection conditions under the No Build, Project and modified conditions. A list of the LOS impacts on Riverfront, Lamar, Commerce and Cadiz Streets can be found in Table 3.11-40.</p> <p>Refer to Appendix F: TCRR Conceptual Engineering Design Report and Appendix G: TCRR Conceptual Engineering Plan and Details for updates to design in the Final EIS.</p>
Trinity Watershed Management	Figure 2/Figure 2-26 - While the discussion provides a good introduction to the Location Corridor Analyses process, and subsequent project segments used to develop the Build Alternatives, the following discussions relate to "Alternatives A through F"; it would be helpful to provide a map in the Executive Summary that shows the Build Alternatives as discussed in the DEIS. Additionally, if Alternative A is the preferred Alternative, then Figure 2-27 should also be included in the Executive Summary	ES.6; ES-6	Maps of the Build Alternatives are included in the Executive Summary in the Final EIS. See Figure 2: Build Alternatives Advanced to EIS, by Segment
Trinity Watershed Management	Air Quality - the discussion as presented may not reflect a complete analyses. The discussion references off-site power generation such that there would be no impacts, but does not provide related location information to allow assessment of that input. One may expect both discussions of relative traffic	ES.9.3; ES-9	The air quality analysis discusses power generation in Section 3.2.3.2 Operational Emissions Methodology . Since there is no certain set of power plants designated or dedicated to providing electricity to the Project, and power generation and distribution are interconnected statewide and primarily controlled by ERCOT. Therefore, emissions from power

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
	<p>impacts/ air quality of the vehicles driving to each of the stations; additionally, I would expect some degree of mixing from the HSR operation. Neither is discussed in the Executive Summary. Additionally, it may not be appropriate to reference expected Nox voe and CO emissions to be reduced over time because of anticipated improvements to car emissions between 2024 and 2040.</p>		<p>supplied to the Project were determined using ERCOT data. Vehicle emission estimates were derived based on MOVES2014b vehicle emissions factors within the specific nonattainment area. Vehicle emissions represent emission reductions since vehicles would be removed from Project area roadways between Dallas and Houston and these emission reductions would be much greater within a NAA than localized emissions increases within the vicinity of a station. Finally, emissions estimates for future years are based on emission factors for 2026 (not 2024) and 2040 specific to the NAA. Anticipated improvements to vehicle engine technology are incorporated into future emission factors.</p>
Trinity Watershed Management	<p>Water Quality - It may be helpful to expand this section to identify existing water quality impairments within the "9 watersheds" that the project alternatives cross. It would be helpful to identify the nine affected watersheds. Some but not all water quality impairments (Total maximum daily loads (TMDLs), have defined best management practices set forth in formal Implementation Plan(s), approved by the TCEQ that would be required to be incorporated into this project to reduce/ mitigate potential impacts. Additionally, most discussion of water quality impairment is provided relative to anticipated pollutant loading, rather than in lineal feet of channel impacted. It should be noted that some, but not all TM DIs have to potential to be impacted by this project. As is - it is very difficult to identify whether one alignment/alternative has or doesn't have impacts/benefits over the others, relative to water quality.</p>	ES.9.4; ES-10	<p>Table ES-3 includes a summary the length of all impaired Waterbodies and those impacts to impaired waterbodies with TMDLs by Build Alternative. For further detail refer to Section 3.3.5.1, Water Quality, Environmental Consequences, Build Alternative.</p>

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
Trinity Watershed Management	Water Quality - It may be helpful to expand this section to identify numbers of impacted groundwater wells per alternative.	ES.9.4; ES-10	The number of groundwater wells that may be impacted by each alternative is provided in Section 3.3 Water Quality, Table 3.3-8.
Trinity Watershed Management	Water Quality - this mentions retention basins, however, there is no information on where they may be used, or a summary of this type of feature associated with each build alternative	ES.9.4; ES-10	Locations of detention/retention basins will be determined during and incorporated into final design; therefore, locations for each build alternative are not known at this time. They will be placed adjacent to the railway in coordination with access roadway and rail-side conveyances. Refer to Section 3.8 Floodplains for further detail regarding floodplains. FP-CM#3: Operational Floodplain Best Management Practices. During final design, TCRR shall incorporate permanent floodplain controls that may include swales, vegetative strips and soil stabilization measures in combination with detention ponds to reduce peak flow rates in compliance with current applicable floodplain permit requirements.
Trinity Watershed Management	Table 2 - is not referenced in the text, and contains information requested in the above comments; All tables/graphics should be appropriately referenced in the text. I would note that the table references Impaired Water bodies by the 303(d) list – However, there is no summary discussion provided for context to what these data mean.	ES.9.4; ES-10	Table references have been updated in the Final EIS.
Trinity Watershed Management	Noise and Vibration - Table 3: needs to reference, and context for what is "moderate" and what is a "severe" impact needs to be added	ES.9.5; ES-11	Refer to Section 3.4.3.2.3, Noise and Vibration, Operational Noise Impact Criteria , for more details about noise impact criteria for severe and moderate impacts. This information has also been added to the Table 4 in the Executive Summary .
Trinity	Hazardous Materials and Solid Waste: for local planning purposes, an estimate of increased waste	ES 9.6; ES-12	The estimated amount of solid waste that would be generated

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Watershed Management	management requirements for terminals and rail maintenance facilities may be helpful to the local governments/waste management entities. While the document indicates the Build Alternatives are "not expected to exceed capacity of existing landfills", landfill capacity versus anticipated waste generation is a concern, and many cities are pushing towards "zero waste policies". This should be discussed for both construction related demolition and debris removal, as well as future operations.		from demolition activities and from future operation of the HSR System is provided in Section 3.5.5, Environmental Consequences, Hazardous Materials.
Trinity Watershed Management	Natural Ecological Systems and Protected Species - This discussion indicates that 'the terminal options in Dallas and Harris County would not impact protected species habitat due to their developed urban environments". That said; the Dallas station location is adjacent to a sump area, and constructed wetlands that provide potential habitat to several Protected Species that may have been omitted from these analyses	ES 9.7; ES-13	Section 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species , has been updated to specifically include 2 protected plant species, 48 SGCN plant species, 38 protected wildlife species and 60 SGCN wildlife species included in the assessment of the Final EIS. All species have been considered for impacts by the Project, including the Dallas Terminal Station, and have been included in Appendix K, Biological Assessment.
Trinity Watershed Management	Table 4 lists only three protected species, none of which occur in Dallas County. A review of the Final EIS for the Dallas Floodway adjacent to the proposed station location and northern segment indicates 17 species (not including plants); The Texas Parks and Wildlife searchable database includes 34 Federal and state species listed in Dallas County alone. (https://tpwd.texas.gov/gis/rtest/). This section needs to be appropriately updated. One of the critical elements that we have had to address in project implementation near Waters of the State is appropriate identification, and mitigation of impacts to freshwater mussel species. I would also note that this summary is not consistent with the information	ES 9.7; ES-13	All federal and state listed species with potential to occur within the Study Area were evaluated in the Final EIS. Section 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species , has been updated to specifically include 2 protected plant species, 48 SGCN plant species, 38 protected wildlife species and 60 SGCN wildlife species included in the assessment of the Final EIS. Through coordination with the USFWS, it was determined that surveys would be required for three federally listed and endangered species, the Navasota ladies'-tresses, Large-fruited sand verbena, and Houston toad. Suitable habitat for these protected species was modeled along the entire Limits of Disturbance (LOD) based on habitat parameters. The

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	provided in Section 3.6.4.4.2		models were field verified where access was provided. Information regarding the habitat modeling and parameters used can be found in Section 3.6.3, Natural Ecological Systems and Protected Species, Methodology . Additionally, coordination with species experts and USFWS related to species surveys has been ongoing. Based on the habitat modeling, three-years of surveys for the endangered Navasota ladies'-tresses, Large-fruited sand verbena, and Houston toad were conducted on parcels where access was granted starting in Fall 2016 through Spring 2019. Four individual Navasota ladies'-tresses were observed in 2017 and 26 individuals were observed in 2018. No Houston toads or large-fruited sand verbena were observed during surveys. Impacts to endangered species will be minimized due to compliance and mitigation measures listed in Sections 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Permitting and 3.6.6.2, Mitigation Measures , specifically NR-CM#4: Section 7 Consultation and Biological Opinion . For information regarding the Endangered Species Act please see Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context and Section 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species .
Trinity Watershed Management	Waters of the United States: There is no mention of the project impacts to the Upper and Lower Chain of Wetlands; while these are man-made wetlands; they are part of a Federal project and were designed to mitigate other project impacts, as well as to provide flood storage and habitat functions.	ES 9.8; ES-14	ES.9.6 in the Final EIS states that all Build Alternatives would impact USACE federally authorized civil works projects (USACE Projects) and require Section 408 authorization from the USACE. Segment 1 would cross the Trinity River and the associated USACE levee system. Segment 2A would cross a Lake Bardwell flowage easement. Segment 2B would cross both the Lake Bardwell flowage easement and the USACE

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
			<p>Project associated with Lake Bardwell, requiring a Section 408 authorization from USACE. Impacts to streams, wetlands and waterbodies that occur within the USACE Projects are detailed in Appendix E, Impacts to USACE Projects Technical Memorandum.</p> <p>Appendix E, Impacts to USACE Projects Technical Memorandum includes all impacted USACE Projects (the Dallas Floodway–East Dallas Levee Trinity Left Bank, Dallas Floodway Extension– Upper/lower Chain of Wetlands, Dallas Floodway Extension–Central Wastewater Treatment Plant Trinity Right Bank and Dallas Floodway Extension–Future Lamar Levee in Dallas County and Bardwell Lake in Ellis County),</p>
Trinity Watershed Management	Waters of the United States: There is no mention of the project impacts relative to hydrologic and hydraulic analyses, and the need for local permitting (CDC) because of the Trinity River ROD; impacts to valley storage and flood elevations need to be discussed; please also add an explanation of why the permanent impacts are greater than the temporary impacts - this is counter intuitive.	ES 9.8/9.9; ES-14,15	The Trinity River CDC is included in Section 3.8, Floodplains . Discussions of flood elevations, etc. are discussed in Section 3.8, Floodplains . The Permanent and Temporary impacts have been updated in the Final EIS in Section 3.8.5.2, Floodplains, Environmental Consequences, Build Alternatives based on the anticipated impacts of the Project.
Trinity Watershed Management	There is no discussion of potential impacts to public utilities; The work around the Central Wastewater Treatment Facility, and local lines in that area, as well as the Station Zone need to be discussed	ES 9.10; ES-17	Impacts to public utilities, including water and wastewater, are discussed in Section 3.9, Utilities and Energy . Impacts to wastewater capacity and, specifically, the Central Wastewater Treatment Facility, are also discussed in Section 3.9, Utilities and Energy .
Trinity Watershed Management	Utilities and Energy: we note significant power requirements for facility operation (anticipated to be > 25% of future statewide energy expansion); we offer concerns relative to this increase in an area that has an existing significant potential hourly peak load	ES 9.10; ES-17	As indicated in Section 3.9.5.2.2, Utilities and Energy, Energy , the daily HSR power consumption of 1,457.2 MWh would represent 0.30 percent of the net added capacity of 489,840 MWh of daily generation that ERCOT expects to be developed in the state through the year 2029. Therefore, future HSR

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	associated with major infrastructure (water/wastewater and stormwater) pump stations in the same portion of the grid in Dallas. Impacts to the existing grid/power users should be quantified, particularly in/near the terminal stations. In addition, we encourage coordination with major local users concerning future power demands to ensure optimal system function		demand would not jeopardize future power needs. Also as outlined in Section 3.9.5.2.2, Utilities and Energy, Energy , TCRR would have to coordinate with and plan the HSR demand with power service providers, and this demand would have to be known and planned for within ERCOT. HSR power supply would be subject to these utilities' operational and power restoration procedures, which consider all connected uses.
Trinity Watershed Management	Table 9 includes information on impacted oil and gas wells - ; there is no reference to this table in the text, and there is no discussion of this potential impact in the discussion provided.	ES 9.10; ES-16	Please refer to Section 3.9, Utilities and Energy , for a detailed discussion of potential impacts to oil and gas wells. Table reference has been added to the text in the Final EIS.
Trinity Watershed Management	Table 10 - The table references landscape units - it would be helpful to have a map of where these units may be located; additionally, this table is not referenced in the text.	ES 9.11; ES-18	Maps can be found in Section 3.10, Environment and Environmental Consequences, Aesthetics and Scenic Resources
Trinity Watershed Management	May be helpful to provide results of Station-Zone Analyses here.	ES 9.12; ES-19	Socioeconomic impacts of the Dallas Terminal Station area are included in 3.14.5.2.3, Socioeconomic and Community Facilities, Economic Impacts .
Trinity Watershed Management	Development of jobs data relative to numbers of jobs, rather than a global "fractional increase of one-half percent of existing employment base" may be more helpful in understanding potential positive impacts of the project. This may be helpful to offsetting potential Environmental Justice implications associated with impacts to LeForge and LeMay neighborhoods, Wilmer Hutchins High School, churches and historic cemeteries	ES 9.15; ES-22	The Executive Summary and Section 3.14, Socioeconomics and Community Facilities have been updated to clarify that the net increase in HSR jobs was compared to the existing job base in each Economic Analysis Area to determine whether these would be large or small job gains for these economies. Table 3.14-20 summarizes the county, location, and estimated volume of new HSR jobs created. The majority of new HSR jobs would be located in Dallas County or Harris County, at the urban stations and TMFs. Direct employment and earnings growth (as a percentage of existing employment and earnings, respectively) would be highest for the Intermediate Counties

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			Economic Analysis Area with 0.2% and 2.2% growth, respectively. However, all Economic Analysis Areas would experience a growth in earnings.
Trinity Watershed Management	Table 14: please add a key to what the scores shown for Community cohesion, Children's Health and Safety, and Community Facilities mean. Also - there is a single, and a triple asterisk used, without any clarifying information.	ES 9.15; ES-23	The numbers refer to the number of impacts and are not used for scoring. Text has been updated in ES.9.13 Socioeconomics and Community Facilities to define the asterisks.
Trinity Watershed Management	Electromagnetic Fields: this discussion reflects analyses of no impacts to riders, but does not discuss potential impacts of electromagnetism to stationary receptors along the route. This may reflect a greater exposure scenario.	ES 9.16; ES-23	<p>A discussion of stationary receptors along the route is included in the Final EIS in the following locations along the route, as summarized below:</p> <p>Section 3.15.4, Methodology, Electromagnetic Fields, addresses stationary receptors: "The inverse square law applies to EMF. The inverse-square law means that EMF levels would substantially decrease with increased distance from the source. Therefore, for the purposes of this analysis, the EMF Study Area is defined as 500 feet from the centerline of the HSR track. Beyond this distance, the EMF would be below background levels."</p> <p>Section 3.15.5.2, Build Alternatives, addresses stationary receptors, including construction impacts, operational impacts, radio and television interference, cardiac pacemakers, and sensitive receptors.</p>
Trinity Watershed Management	Environmental Justice: The discussion as provided indicates that the Location of Disturbance (LOO) potentially impacts 68 of 132 (52%) of identified EJ block groups; there is a discussion of temporary construction zones that impacts 29 percent of temporary construction zones, and 24 percent of total acreage of temporary construction areas. There is no	ES 9.19; ES-25	The EIS has been updated to further identify and mitigate both temporary and permanent potential impacts at a local level. As discussed in Section 3.18.3.6 Environmental Justice, Outreach, FRA held listening sessions within potentially impacted neighborhoods throughout the Project corridor. Feedback from residents was carefully considered when developing neighborhood specific mitigation measures for

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	<p>similar discussion of permanent impacts. With the other impact tables indicating a much larger area of permanent than temporary impacts, the discussion of permanent impacts to environmental justice concerns needs to be included, particularly in light of other identified community, school and historic cemetery impacts in these same areas. When over 1/2 of the identified EJ blocks are potentially impacted by the project, the statement indicating "impacts would not affect EJ communities in a disproportionately high and adverse manner" may not reflect local concerns.</p>		<p>potential impacts, as discussed in Section 3.18.6.1, Environmental Justice, Mitigation Measures.</p>
Trinity Watershed Management	<p>Section 4(f)/ Section 6(f): We are concerned about the finding of no Adverse Impacts to the Dallas Floodway Historic District, because the proposed mitigation would render the impacts to be found to be a de minimis impact. However, there is no discussion of what those impacts or mitigation measures might be. This text also indicates that the Texas Historic Commission must concur with the finding concerning the effects of the Build Alternatives on the Dallas Floodway Historic District. I would note that as the Operator of the Dallas Floodway, the City would also need to concur with these findings. We note that the Trinity River Greenbelt is located outside of the LOO, and therefore there were no associated Section 6(f) property conversion identified.</p>	ES 9.23; ES-30	<p>Section 7.9 4(f) Evaluation, All Planning to Minimize Harm was updated in the Final EIS to state that the Project would not impact the Dallas Floodway Historic District. The Project was modified to be on viaduct in this location and span the property, resulting in no permanent incorporation of the property into the transportation use.</p>
Trinity Watershed Management	<p>FRA's Preferred Alternative: First sentence needs to be clarified: the USACE does not own the property in Dallas County; the City of Dallas owns the property for the Dallas Floodway and Dallas Floodway Extension; the USACE has worked as a partner with the City of Dallas to construct a federally-owned</p>	ES 10; ES-30	<p>Section 3.7 of the Final EIS, Waters of the U.S. includes the following mitigation measure:</p> <p>WW-CM#6: Section 408 Permission. TCRR shall prepare a Section 408 request to the USACE to alter USACE Projects (the Dallas Floodway–East Dallas Levee Trinity Left Bank, Dallas</p>

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	project along the Dallas Floodway and Floodway extension. A Section 408 authorization is required from the USACE for this part of the project because there are potential impacts to a Federal Project.		Floodway Extension– Upper/lower Chain of Wetlands, Dallas Floodway Extension–Central Wastewater Treatment Plant Trinity Right Bank and Dallas Floodway Extension–Future Lamar Levee in Dallas County and Bardwell Lake in Ellis County), as needed depending on the Build Alternatives and as determined by the USACE. All Build Alternatives (A through F) would require Section 408 permission from the USACE Fort Worth District for the Dallas Floodway. Build Alternatives D, E and F would require Section 408 permission from the USACE Fort Worth District for Bardwell Lake. A separate 408 submittal led by the utility owners would be required for two overhead electric crossing adjacent to the 408 boundary. For additional information see Section 3.7.5.2.1, Environmental Consequences, Dallas County and Section 3.7.5.2.2, Environmental Consequences, Ellis County . Impacts to streams, wetlands and waterbodies that occur within the USACE Projects are detailed in Appendix E, Impacts to USACE Projects Technical Memorandum .
Trinity Watershed Management	Table 18 needs to provide a complete summary of impacts for each of the build alternatives	ES 10; ES-30,32	Table 19 in the Executive Summary has been updated and text has been provided in ES.10.2 to clarify the comparison of the Build Alternatives.
Trinity Watershed Management	The Initial Alternatives discussion may need a mention of common alignments such as Dallas/Grimes/Walker County alignment, and NW Houston(black lines)	2.5.1 on page 2-21	Common segments are not detailed as there were no alignment alternatives assessed, and they are are discussed in Section 2.5.1.2, Initial Alignment Alternatives, Level II Screening .
Trinity Watershed Management	Was Threatened and Endangered Species included in the Level II screening? If so, please add it to this table.	2.5.1.2 on 2-25	As detailed in Section 2.5.1.2, Alternatives Considered, Level II Screening , the Level II screening assessed the remaining alignment alternatives within specific geographic groups and used a desktop level evaluation of environmental, physical, and socioeconomic criteria and other factors (as detailed in Table 2-2 of the EIS) to further refine the number of

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			alternative alignments. The ecology component included review of the mapped Texas Natural Diversity Database (TXNDD) Element occurrences of protected species (included threatened and endangered species) impacted by the alignment alternatives.
Trinity Watershed Management	Figure 2-19: Please explain the significance of the small intersection areas shown as part of the Dallas Terminal that are located away from the main station location shown on the map	2.5.2.1/2.5.2.2 on 2-27 - 2-29	Those are proposed intersection improvements. As noted in 3.11, Transportation , FRA assessed potential modifications that were developed by TCRR to mitigate the LOS impacts of the Project. However, actual improvements will be coordinated with the City of Dallas and TxDOT. TCRR will perform a full traffic impact analysis (TIA) that complies with City of Dallas TIA guidelines. TxDOT and the City of Dallas where applicable will ultimately determine the necessary intersection improvements to mitigate LOS impacts.
Trinity Watershed Management	It should be noted that the Trinity Parkway is no longer a project that requires consideration for the High Speed Rail Project. The project was cancelled by the Dallas City Council in August 2017	2.5.4 on 2-41	Chapter 2.5.4.1, Alternatives Considered, Engineering Refinements between Drafts and Final EIS, preferred Alternative Refinement has been updated to note the termination of the project. This project has been removed from Table 3.11-8: Planned Transportation Projects in Dallas County .
Trinity Watershed Management	The discussion on regulatory authority needs to include that under Clean Water Act Section 402, local responsibility and authority for compliance may be delegated through appropriate an TPDES Permit to a local Municipal Separate Storm Sewer System (MS4) operator such as the City of Dallas. Also construction sites that disturb less than an acre also need to be permitted if they are located within 1/4 mile of other construction work; this situation is called a common plan of development. The MS4 discussion is provided	3.3.2 on 3.3-1 - 3.3-4	This clarification has been added to Section 3.3.2, Water Quality, Regulatory Context of the Final EIS.

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	under a separate discussion, however, the local authority is delegated out of the Clean Water Act, and Texas Water Code		
Trinity Watershed Management	Table 3.3-4 This table looks low with respect to number of wells within study area, particularly considering numbers of private wells.	3.3.4.2.1 on 3.3-16	As detailed within Section 3.3.4, Water Quality, Methodology , wells in the Final EIS are based on a desktop review of publicly available data (e.g. TWDB, TCEQ, or EPA). As discussed in Section 3.3.6, Water Quality, Avoidance, Minimization and Mitigation , TCRR shall identify and coordinate all well plugging and abandoning or relocations (drilling) with TCEQ as stated in Section 3.3.6.2, WQ-CM#4. Prior to construction, the entire preferred alternative would be surveyed to determine necessary well modifications and new well locations. No public water systems are being closed and any private wells to be plugged and abandoned or relocated would be coordinated with the well owner. Plugging and abandoning and/or relocating wells to be impacted eliminates a possible conduit of pollution to groundwater during construction minimizing/avoiding groundwater impacts.
Trinity Watershed Management	MSDs: I would note that the potential Environmental Risks associated with MSDs were not included in the summary Section on Hazardous Materials and Solid Waste within the Executive Summary	3.3.4.2.3 on 3.3-17	MSDs are discussed in detail within Section 3.3.4.2.3, Water Quality, MSD . Since MSDs are state designations to restrict contaminated groundwater usages, the consequences are the same as those discussed in Section 3.5.5, Hazardous Materials and Solid Waste, Environmental Consequences .
Trinity Watershed Management	The text indicates that "because of the potential discharge of pollutants to surface water, a TPDES Permit, issued by the TCEQ would be required to comply with Clean Water Act Section 402". Because of the length of this project, and the multiple adjacent jurisdictions with separate MS4 Permit compliance responsibilities for inspecting TPDES TXR15000	3.3.5.1/3.3.6.1 /3.3.6.2	Section 3.3.6.1 of the Final EIS, Water Quality, Compliance Measures clarifies that one or multiple permits may be required, as shown below. WQ-CM#2: TPDES General Construction Permit (TXR150000) and Multi-Sector General Permit (TXR050000) . Prior to construction, TCRR shall prepare a SWPPP for the Project or for each construction segment and submit a Notice of Intent

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	<p>Construction General Permitted projects under CWA Section 402, it is anticipated that the TCEQ may issue an Individual Permit, or depending on the project scheduling may permit the project as a phased project disturbance under the TPDES Construction General Permit. We suggest appropriate clarification from the state as to how they anticipate handling this project. Should it be under the TXR15000, it would be helpful to address how subsequent permit compliance would need to be coordinated among these jurisdictions. It would be helpful to address how that coordination for inspections, SWPPP reviews and compliance enforcement is anticipated to occur. This discussion should be clarified to reflect that copies of the permit coverage, Large Site Construction Notice and Notice of Intent, and SWPPP are to be provided to the local affected MS4(s) in addition to the TCEQ prior to initiating construction.</p>		<p>to the TCEQ (with the appropriate fees) to obtain coverage under the CGP. Before starting construction, TCRR shall ensure a copy of the Site Notice is posted at the construction site and the notice will remain posted until construction is completed. Activities conducted during construction must adhere to CGP permit requirements.</p> <p>TCRR shall obtain authorization under the Multi-Sector General Permit (TXR050000) to discharge stormwater from the TMFs during operation of the Project. TCRR shall monitor contaminant levels in stormwater discharges annually as set forth in the permit. These results will be maintained on site with the SWPPP.</p> <p>Compliance and inspection will be outlined in the TPDES permit(s).</p>
Trinity Watershed Management	<p>The text indicates that "because of the potential discharge of pollutants to surface water, a TPDES Permit, issued by the TCEQ would be required to comply with Clean Water Act Section 402". Additionally, the constructed facilities, that is both the line, as a linear transportation feature permitted under the MS4 Program, and the maintenance facilities, may require permanent facility permitting under the Multi-Sector General Permit for Industrial SIP Codes.</p>	3.3.5.1/3.3.6.1 /3.3.6.2	<p>Section 3.3, Water Quality has been updated to include the requirement for TPDES Industrial General Permit for the maintenance facilities, including the addition on WQ-CM#2 TPDES General Construction Permit (TXR150000) and Multi-Sector General Permit (TXR050000) and WQ-CM#4: Compliance with MS4 Requirements.</p>
Trinity Watershed Management	<p>It should be noted that more-frequent inspections may occur to address any non-conforming site conditions until the site is in compliance with the SWPPP and applicable permit requirements.</p>	3.3.6.1 on 3.3-29	<p>All components and requirements of the SWPPP would be complied with as part of WQ-CM#3 and determined through coordination with TCEQ.</p>

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Trinity Watershed Management	The SWPPP is required to identify all potential sources of pollution, including chemical handling and storage, and petroleum handling and storage. There are no mitigation measures identified to address this portion of the surface water quality mitigation measures.	3.3.6.2 on 3.3-29	WQ-CM#3 addressed the preparation of a SWPPP. All components and requirements of the SWPPP would be complied with as part of this compliance measure. Additional discussions regarding chemical handling and storage, and petroleum handling and storage are discussed in Section 3.5, Hazardous Materials .
Trinity Watershed Management	Table 3.3.9 includes a line item for Reservoir/Dam Crossings, where there are no impacts, but does not include impacts to the Dallas levee system, where there are impacts.	3.3.7 on 3.3-31	The project does not cross an open reservoir. Reservoir/Dam Crossings are referring to large reservoir systems such as NRCS sites. The Dallas levee system is included in the 408 properties discussion in Section 3.7, Waters of the U.S. Appendix E, Impacts to USACE Projects Technical Memorandum includes all impacted USACE Projects (the Dallas Floodway–East Dallas Levee Trinity Left Bank, Dallas Floodway Extension– Upper/lower Chain of Wetlands, Dallas Floodway Extension–Central Wastewater Treatment Plant Trinity Right Bank and Dallas Floodway Extension–Future Lamar Levee in Dallas County and Bardwell Lake in Ellis County),
Trinity Watershed Management	Please include a reference to the appropriate Dallas Noise Ordinance	3.4.2 on 3.4-4	A review of Ordinance No. 19455 has been added to 3.4.2, Noise and Vibration, Regulatory Context .
Trinity Watershed Management	It would be helpful to get a summary of the estimated waste produced to compare with affected landfill capacity. The text in Section 3.5.3.2 references that this estimate was made, however, the bottom line number is not provided in the main text, or the executive summary. Table 3.5-3 provides a summary of existing landfill capacity, and an estimate of waste accepted in 2014 - however, this does not provide a meaningful understanding of waste-related impacts that one would get from a comparison of anticipated	3.5.3.2/3.5.4.2	An estimate of the amount of solid waste that would be generated is provided in Section 3.5.5.2.1, Hazardous Waste and Solid Waste, Construction Impacts and Section 3.5.5.2.2 Operational Impacts .

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
	waste generated versus existing landfill capacity. Although there are estimates in Section Table 3.5.6, it would be helpful to compare waste generated with local capacity		
Trinity Watershed Management	The text indicates that based upon a 4-year schedule, that the waste generated per year is less than 1 percent of the 2014 Average Annual waste disposal rate. The challenge to this assumption is that typically, the demolition is done all at once early in the project schedule, rather than spread out over the life of the project.	3.5.6 on 3.5-61	The schedule is provided in Appendix F, TCRR Final Constructability Report and notes construction occurring over a 3-4 year timeframe. It is reasonable to assume that demolition would also occur over this same timeframe as TCRR acquires property. At the time of this Final EIS the Project schedule has not been defined to a level to identify when these potential activities would specifically occur within surveyed areas. While the length of the 240 mile Project would not be actively under construction at the same time (or the entire 3-4 year timeframe) it is assumed that construction of the Project would proceed so that multiple areas of the Project are under construction at the same time by different crews.
Trinity Watershed Management	Operational Impacts re: Hazardous Materials: I would note that the HSR maintenance facilities would likely be required to permit under the TPDES Multi-Sector General Permit (Industrial) and would need a Site-specific SWPPP and Spill Prevention Control and Counter Measure Plan.	3.5.5.2.2 on 3.5-62	The requirement to develop a SPCC Plan is discussed in 3.5.6.2 Mitigation Measures HM-MM#2 . The requirement to get coverage under the TPDES MSGP (Industrial) is discussed in Section 3.3, Water Quality
Trinity Watershed Management	HM-MM#2 Hazardous Materials Management/HM-MM#3 Previously Unidentified Hazardous Materials Plan/HM-MM#4: Waste Management: We concur with these measures, but want to clarify that these documents should be appended to the Project SWPPP.	3.5.5.2 on 3.5-63	These plans (hazardous materials management plan, contingency plan, and waste management plan) can be stand-alone documents or can be appended to the SWPPP by TCRR.
Trinity Watershed Management	The statements under the paragraph labelled Texas Administrative Code may not be correct, relative to no Texas Codes requiring protection of State-listed species. We have had to perform Aquatic Relocation	3.6.2 on 3.6-4	Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context has been update to clarify that under Texas Administrative Code "TPWD Code Sections

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
	Efforts under a State-approved Aquatic Relocation Plan, and certified biologists relative to State-listed species. Please clarify.		66.007 and 66.0072 and TAC Title 31, Part 2, Chapter 57, Subchapter A, give TPWD the authority to develop a list of exotic, harmful or potentially harmful fish, shellfish and aquatic plants that may not be possessed, transported or introduced into public waters except as authorized by permit issued by TPWD. Possession or transfer of controlled Aquatic Invasive Species (AIS) including the eggs, seeds, or fragments of living or dead individuals, is punishable as a Class C Misdemeanor (with a fine up to \$500), with elevated fines for repeated violations.” Additionally, NR-CM#5: Aquatic Invasive Species (AIS) Transport , has been added to the Final EIS and states that prior to construction, TCRR shall prepare and follow an AIS transfer prevention plan that outlines BMPs that will be used to prevent inadvertent transfer of AIS species to new areas via Project equipment and temporary fills that would enter and/or leave inland waters. This measure is for compliance with TPWD Code Sections 66.007 and 66.0072 and TAC Title 31, Part 2, Chapter 57, Subchapter A.
Trinity Watershed Management	There are some concerns relative to the evaluation performed for the impacts to Natural Ecological Systems and Protected species. We have TSE lists from other programmatic EIS efforts on the LOO, and from the referenced TWDB database for Dallas County that show 15-35 potential affected species; none of which were included in the summary analyses for this project. While these species are detailed later in the section, they have been omitted in the overall analyses. The last sentence of the last paragraph on the page indicates "these results, based on the stated limitations of the TXNDD, do not mean that there is an absence of other endangered, threatened, or rare	3.6.3 on 3.6-5	All federal and state listed species with potential to occur within the Study Area were evaluated in the Final EIS. Through coordination with the USFWS, it was determined that surveys would be required for three federally listed and endangered species, the Navasota ladies'-tresses, Large-fruited sand verbena, and Houston toad. Suitable habitat for these protected species was modeled along the entire Limits of Disturbance (LOD) based on habitat parameters. The models were field verified where access was provided. Information regarding the habitat modeling and parameters used can be found in Section 3.6.3, Natural Ecological Systems and Protected Species, Methodology . Additionally, coordination with species experts and USFWS related to species surveys

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
	species and should not be used for presence/absence determinations." However, this is precisely what has been done.		<p>has been ongoing. Based on the habitat modeling, three-years of surveys for the endangered Navasota ladies'-tresses, Large-fruited sand verbena, and Houston toad were conducted on parcels where access was granted starting in Fall 2016 through Spring 2019. Four individual Navasota ladies'-tresses were observed in 2017 and 26 individuals were observed in 2018. No Houston toads or large-fruited sand verbena were observed during surveys. Impacts to endangered species will be minimized due to compliance and mitigation measures listed in Sections 3.6.6.1, Natural Ecological Systems and Protected Species, Compliance Measures and Permitting and 3.6.6.2, Mitigation Measures, specifically NR-CM#4: Section 7 Consultation and Biological Opinion. For information regarding the Endangered Species Act please see Section 3.6.2, Natural Ecological Systems and Protected Species, Regulatory Context and Section 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species.</p> <p>Additionally, Section 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species, has been updated to specifically include the 2 protected plant species, 48 SGCN plant species, 38 protected wildlife species and 60 SGCN wildlife species included in the assessment of the Final EIS.</p>
Trinity Watershed Management	The information presented in this section concerning impacts to Federal and Texas' protected species, and habitat impacts has not been completely/accurately summarized in the Executive Summary.	3.6.4.4	<p>Section ES.9.5, Natural Ecological Systems and Protected Species has been updated in the Final EIS to summarize the 2 protected plant species, 48 SGCN plant species, 38 protected wildlife species and 60 SGCN wildlife species included in the assessment of Sections 3.6.4.4, Natural Ecological Systems and Protected Species, Protected Species and 3.6.5.2.3 Natural Ecological Systems and Protected Species, Protected Species.</p>
Trinity	The statement at the end of this segment indicates	3.6.5.2.3 on	This statement has been removed from the Final EIS and

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
Watershed Management	that because Dallas, Ellis, Navarro and Limestone counties do not have potential habitat mapped within the study boundaries, the acreage of impacts to federally listed species is zero. This may or may not be true. It may be more accurate to indicate that it is not possible to quantify this ratio.	3.6-64	Table 3.6-22 (previously numbered 3.6-21) has been retitled “Modeled Habitat of Federally Endangered Species within the Study Area”
Trinity Watershed Management	Table 3.6-21: Texas Parks and Wildlife Department study is ongoing through 2019	3.6.5.2.3	Data used in this table was based on information obtained from TPWD (dated 2014) and modeled in 2017. Table 3.6-22 (previously numbered 3.6-21) has been retitled “Modeled Habitat of Federally Endangered Species within the Study Area”. Therefore, no change has been incorporated based on year.
Trinity Watershed Management	NR-MM3: Aquatic Relocation efforts need to be Texas Parks and Wildlife approved.	3.6.6.2	NR-CM#5 (previously numbered NR-CM#3): Aquatic Invasive Species (AIS) Transport , has been added to the Final EIS and states that prior to construction, TCRR shall prepare and follow an AIS transfer prevention plan that outlines BMPs that will be used to prevent inadvertent transfer of AIS species to new areas via Project equipment and temporary fills that would enter and/or leave inland waters. This measure is for compliance with TPWD Code Sections 66.007 and 66.0072 and TAC Title 31, Part 2, Chapter 57, Subchapter A and would be part of any issued TPWD permits.
Trinity Watershed Management	Regarding section 401 of the Clean Water Act, please clarify which tier applies to project	3.7.2 on 3.7-1	As detailed in WQ-CM#1: Section 401 Water Quality Certification . Prior to construction and concurrent with the Section 404 process described in Section 3.7, Waters of the U.S. , TCRR shall complete a Tier II Certification Questionnaire and Alternatives Analysis Checklist for review by TCEQ to obtain a Section 401 Water Quality Certification. TCEQ may request additional information from TCRR.

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
Trinity Watershed Management	Please add a reference to Texas Parks and Wildlife Code, Chapter 90 relative to access to freshwater areas, as it applies to work within waters of the State	3.7.2 on 3.7-2	Chapter 90 appears to only apply to the operation of motor vehicles in protected freshwater areas. The project is not anticipated to conduct this activity. For work within state owned waters, the sand and marl permit would authorize the work. In addition, any additional requirements would be determined during coordination with the General Land Office.
Trinity Watershed Management	The definition of floodplain may not be consistent with current federal regulations	3.7.3 on 3.7-3	Per FEMA website updated 3/20/2019, the definition included in this section is accurate.
Trinity Watershed Management	Definition used for wetlands makes no reference to hydric soils, which are critical to the federal wetlands classification	3.7.3 on 3.7-5	Hydric soils are mentioned as a technical parameter for wetland determination in Section 3.7.3, Waters of the US, Methodology.
Trinity Watershed Management	The headwaters of the Trinity River are located in North Texas, about three miles south of the Texas-Oklahoma border, rather than as defined in the DEi indicating that the basin starts "northwest of Dallas at the confluence of the Elm and West Forks of the Trinity River". This would be the start of the main Stem of the Trinity River. This mis-definition is used in several places in this document.	3.7.4.1.1/3.8.4 .3.2	Text within Section 3.7.4.1.1, Waters of the U.S., Water Resources has been updated to state that this basin begins in North Texas approximately three miles south of the Texas-Oklahoma border, and from the confluence of the Trinity River with its Elm and West Forks near Dallas, flows south to Trinity Bay.
Trinity Watershed Management	The list of notable streams does not include notable streams such as White Rock Creek, Five Mile Creek, Prairie Creek.	3.7.4.1.1 on 3.7-6	Notable streams have been updated in the Final EIS based on the most recent design and include those streams that have the largest linear feet within the LOD. For a complete list of impacts, including the referenced creeks, see Appendix E, Waters of the U.S. Technical Memorandum.
Trinity Watershed Management	Clarification on the information below table 3.7-3 specifically regarding the acreage of the Study Area in the floodplain	3.7.4.1.1 on 3.7-6	This Section states that based on the FEMA FIRMs and Digital FIRMs, approximately 80 acres of the Study Area in Dallas County are located within a 500-year floodplain (Zone X –

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
			shaded) and approximately 203 acres are located within a 100-year floodplain (Zones A and AE). Additional information regarding overall impacts to the floodplain are included in Section 3.8, Floodplains.
Trinity Watershed Management	The definition of the USACE projects in the Dallas area is very convoluted.	3.7.4.1.2 on 3.7-6	USACE Projects detailed in Section 3.7.4.1.2, Waters of the U.S., USACE Projects and Appendix E, Impacts to USACE Projects Technical Memorandum have been prepared in cooperation with the USACE, Fort Worth and Galveston Districts.
Trinity Watershed Management	The concern relative to hydric soils relates to wetlands delineation; this is not addressed in either the wetlands, nor the hydric soils discussion	3.7.4.1.3 on 3.7-6	This is mentioned in Section 3.7.3, Methodology, Waters of the U.S. , stating "Hydric soils are a technical parameter for wetland determination and may indicate the presence of wetlands"
Trinity Watershed Management	Notation on the "width of the crossing is more than 140 feet, the minimum number of piers required to support the viaduct crossing would be placed within the feature." We note that this statement may not be consistent with the supporting engineering drawings that show a much tighter pier spacing	3.7.6 on 3.7-48	This section states that pier spacing ranges from 80 to 140 feet with a typical spacing of 110 feet. The statement called out in the comment is referring to sections of the LOD where crossings are more than 140 feet wide and would require piers to be placed wider as necessary to span the crossing.
Trinity Watershed Management	Regulatory Context: this section references the HUD floodplain maps; it should be noted the FEMA floodplain mapping are used for regulatory purposes in Dallas County	3.8.2 on 3.8-1	It states in Section 3.8.2, Regulatory Context, Floodplains "FRA's updated <i>Procedures for Considering Environmental Impacts</i> states that this EIS shall assess impacts of the Project on floodplains. ¹ The FRA procedure requires acknowledgment in NEPA documents that a proposed action would occur within a base floodplain, defined as the limits of a floodplain determined by using the Department of Housing and Urban Development (HUD) floodplain maps or best available data. An EIS is required to discuss alternatives located in the base

¹ FRA, "Procedures for Considering Environmental Impacts," 64 Federal Register 28545, May 26, 1999, as updated in 78 Federal Register 2713 (January 14, 2013).

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
			<p>floodplain, risks associated with the Project, impacts on natural and beneficial floodplain values and the adequacy of the proposed methods to minimize harm.”</p> <p>The extent and depth of flooding are important features of FIRM under the National Flood Insurance Program. A FIRM generally shows an area’s base flood elevations, flood zones that describe types of flooding and floodplain boundaries. FEMA FIRM and Digital Flood Insurance Rate Map (DFIRM) data were used to identify flood zones and the amount of floodplain in the floodplain Study Area, with exception of Freestone and Madison Counties because FEMA digital floodplain data were not readily available. Flood Hazard Boundary Maps from HUD were digitized for Freestone County (1978) and Madison County (1991).</p>
Trinity Watershed Management	Note that Executive Order 13690 was pulled by subsequent Executive Order in 2017	3.8.2 on 3.8.3	This Executive Order has been removed from the Final EIS.
Trinity Watershed Management	Table 3.8-2: Please correct the reference for the Dallas Floodplain Regulator: It should be the City of Dallas - Trinity Watershed Management Department	3.8.2 on 3.8-6	Table 3.8-2: Floodplain Regulators has been updated accordingly in the Final EIS.
Trinity Watershed Management	Table 3.8-2: The Table references the Trinity River Corridor Development Certificate under Dallas; it should be noted that this is a regional program coordinated by the North Central Texas Council of Governments and the USACE	3.8.2 on 3.8-6	Table 3.8-2: Floodplain Regulators has been updated accordingly in the Final EIS.
Trinity Watershed Management	The description of Dallas Flood policy is not correct; Additionally, it is the NCTCOG that coordinates the Trinity River CDC process	3.8.2 on 3.8-6	The description of Dallas Flood policy has been updated in 3.8.2, Regulatory Context, Floodplains.

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
Trinity Watershed Management	There is no discussion provided concerning the City of Dallas "no-rise" policy concerning post-project water surface elevations; additionally, there are similar requirements relative to impacts to valley storage; these two elements are as important or more so than the discussion of finish floor elevation that was provided.	3.8.2 on 3.8.6	<p>Section 3.8.2 of the Final EIS, Regulatory Context, Floodplains has been updated to state:</p> <p>“Fill elevations within the 1 percent annual exceedance probability floodplain, often referred to as the 100-year floodplain, in the City of Dallas must be placed no more than 5 feet above the design flood elevation, except where necessary to match the existing elevation of the adjacent property as determined by the Trinity Watershed Management Department. First floor elevations must be constructed at least 3 feet above the design flood elevation. In addition, no loss of valley storage, the stream’s ability to store water as it moves downstream, is permitted along a stream with a drainage area of three square miles or more and for streams with a drainage area of between 130 acres and 3 square miles valley storage losses may not exceed 15 percent. For streams with drainage areas of less than 130 acres, loss of valley storage is not limited. Specifically, fill elevations and first floor elevations within the 100-year floodplain of the main stem of the Trinity River in Dallas must be constructed at a minimum of 1 foot above the design flood and encroachment into the floodway is prohibited unless FEMA issues a Conditional Letter of Map Revision.”</p>
Trinity Watershed Management	Table 3.8-3 - It should be noted the City of Dallas Drainage Criteria Manual is currently under revision; the information provided will likely change prior to project implementation	3.8.2 on 3.8.7	The Final EIS clarifies that Table 3.8-3 lists local drainage criteria manuals applicable to the Project and a general description of requirements. Counties and cities may periodically update drainage criterial manuals; TCRR would consult the current version of the manual during final design.
Trinity Watershed Management	Maintenance agreements concerning local retention basins may be required, if the adjacent jurisdiction is to provide such maintenance; the party responsible for this maintenance needs to be defined	3.8.5.2.3 on 3.8-27	TCRR would be responsible for the maintenance and safe operations of its trains, right-of-way, system and ancillary facilities, including retention basins as well as all associated

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
			costs.
Trinity Watershed Management	And Table 3.8-9: There is a statement that "Segments 1, 2A and 2B are not included in Table 3.8-9 because the soils in this portion of the floodplain study area are not highly erosive." This is not true for Segment 1, and adequate provisions for scour and erosion protection should be included into the project planning	3.8.5.2.4 on 3.8-27	Based on NRCS data for erosion potential, Segments 1, 2A, and 2B within the LOD do not contain soils that would be considered highly erodible.
Trinity Watershed Management	Tables 3.9-1 and 3.8-11 are not consistent with respect to numbers of impacted utilities; additionally, the discussion of mitigative measures addresses electrical, water and wastewater utilities; there are several large diameter storm sewers potentially impacted by the project that will also need to be mitigated as a part of the design.	3.9.4	<p>Tables 3.9-1 and 3.9-2 in Section 3.9, Utilities and Energy, summarize (by county) the total number of utilities crossed by or running parallel to the Project. Various subsequent tables in this section detail the number and impact to each type of utility (electric, water, oil and gas etc.) by county. These are also depicted within Appendix D, Mineral and Utility Resources Mapbook. TCRR has also provided an initial list of utilities by individual line that would be crossed and require relocation, elevation or protection in place, in Appendix F, TCRR Final Conceptual Engineering Design Report.</p> <p>As described in Section 3.9.6, Utilities and Energy, Avoidance, Minimization and Mitigation, mitigation measures EU-MM#1: Identification of Utilities, EU-MM#2: Relocation of Major Utilities, and EU-MM#3: Protection and Encasement of Major Utilities require TCRR to perform below ground utility exploration to verify exact locations and depths of known subsurface utilities and resolve conflicts with each major utility provider, including relocation or protection of existing utilities.</p> <p>As detailed in Section 3.9.3.1, Utilities and Energy, Data Collection, TCRR considered major utilities, including storm drains, in the design. Major Utilities are included in EU-MM#2:</p>

DEPARTMENT	AGENCY COMMENT	LOCATION IN DEIS	PROPOSED RESPONSE
			Relocation of Major Utilities, and EU-MM#3: Protection and Encasement of Major Utilities. Those minor utilities would be mitigated by EU-MM#4, Relocation of Minor Utilities.
Trinity Watershed Management	EU-CM#I the development impact report needs to also address impacted drainage infrastructure	3.9.6.1	As detailed in Section 3.9.3.1, Utilities and Energy, Data Collection , TCRR considered major utilities, including storm drains, in the design. Major Utilities are included in EU-MM#2: Relocation of Major Utilities, and EU-MM#3: Protection and Encasement of Major Utilities. Those minor utilities would be mitigated by EU-MM#4, Relocation of Minor Utilities.
Trinity Watershed Management	EU-MM#2 the mitigation efforts may also need to address impacted drainage infrastructure	3.9.6.2	As detailed in Section 3.9.3.1, Utilities and Energy, Data Collection , TCRR considered major utilities, including storm drains, in the design. Major Utilities are included in EU-MM#2: Relocation of Major Utilities, and EU-MM#3: Protection and Encasement of Major Utilities. Those minor utilities would be mitigated by EU-MM#4, Relocation of Minor Utilities.
Trinity Watershed Management	EU-MM#+E63:E725: Electric Utility Provider Coordination: We concur with this mitigative measure; we have concerns about existing loads to the grid in the vicinity of the Dallas Station Location	3.9.6.2	Comment noted.



CITY OF HOUSTON

Sylvester Turner

Mayor

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March 9, 2018

Kevin Wright
Environmental Protection Specialist
Federal Railroad Administration
1200 New Jersey Avenue SE, MS-20
Washington, D.C. 20590
Via On-line form at <https://www.fra.dot.gov/Page/P0779>

Re: DEIS for Dallas to Houston High Speed Rail Project

Dear Mr. Wright:

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) for the proposed Dallas to Houston High Speed Rail project (the Project). Growth in the Houston and Dallas regions continues to increase the need for safe, convenient and environmentally sound transportation alternatives between the two cities. While we applaud the Project's potential to provide significant mobility, economic and environmental benefits, the City of Houston's Planning and Development Department and Houston Public Works request that the environmental study of the Project further consider the issues described below.

1. The Project sponsor, Texas Central Partners (TCP), has entered into the attached Memorandum of Understanding (MOU) with the City of Houston, represented by Mayor Sylvester Turner. This MOU establishes expectations of TCP through the implementation of the Project. The City expects that TCP will satisfy all expectations established through the MOU, subject to further development of more formal definitive agreements between the two parties.
2. The City of Houston's Major Thoroughfare and Freeway Plan (MTFP) is not referenced in the DEIS and appropriate considerations were not included in the DEIS for proposed future roadways. These proposed roads have been planned in some cases for decades and will be vital to serve the fast-growing northwest part of the Houston region. A rail line that is constructed either at-grade or on an embankment will force the local community to construct grade separations across the Project, placing an undue burden on the local stakeholders and increasing the potential that these roadway connections will never be built. Also, once the rail is operational, roadway grade separation construction could disrupt rail service. Forcing these important roadways to end at the tracks would severely negatively impact mobility in this area. The City recommends elevating the rail at least until it crosses north of 290 near Hockley, Texas, and further recommends dedication of roadway right-of-way across the rail line to accommodate planned roadways. This would extend the elevated rail line to close to the edge of the City's extra-territorial jurisdiction (ETJ).

The following proposed roads would be impacted by a rail line on an embankment: Castle Road, Betka Road, Kickapoo Road, Baethe Road, Kermier Road, Warren Ranch Road, Unnamed Road, Mound Road, Katy Hockley Road, Mason Road, Louetta Road, and Mueschke Road.

Council Members: Brenda Stardig Jerry Davis Ellen R. Cohen Dwight A. Boykins Dave Martin Steve Le Greg Travis Karla Cisneros
Robert Gallegos Mike Laster Larry V. Green Mike Knox David W. Robinson Michael Kubosh Amanda Edwards Jack Christie
Controller: Chris B. Brown

For reference, the most recently adopted MTFP can be downloaded at <http://www.houstontx.gov/planning/transportation/MTFP.html>.

3. The City considers a multi-modal system of transportation critical to serve the long-term mobility needs of Houston, and strong transit connections to the rail terminus are vital to achieving such a system. The City has learned from Texas Central Partners (TCP) that the former Northwest Mall site has been selected as the rail terminus location. Without strong integration of local transit into the rail terminus, accessing the site will generate significant vehicle trips and contribute to roadway congestion. The DEIS should examine how to minimize and mitigate this congestion, including integrating the terminus into local high-capacity transit. Access to and from the rail terminus should not be predicated on use of single occupant vehicles. This integration is consistent with the MOU between TCP and the City as well as the DEIS comments on the Project by the Houston Metropolitan Transit Authority of Harris County (METRO), which are attached for reference.
4. The DEIS trip generation analysis states “that in the morning and evening peak hours, the number of ground transportation vehicles arriving and departing the station would be 1415 vehicles/hr (each direction) for Dallas and 1381 vehicles/hr (each direction) for Houston. These numbers were based on the mode splits noted in the previous section, the trip distributions from the TCRR ridership and revenue report, and the following key assumptions:
Non-passenger related travel: Non-passenger travel generates no peak hour trips
Practicable Capacity: Each train operates at 95% of full capacity.”

It is unclear how, if all trains are operating at 95% capacity and the Houston shuttle bus share is lower, there are fewer roadway trips generated in Houston than Dallas. This analysis raises questions about the reliability of the modeling used.

5. The DEIS trip distribution shown in Figure 14 of Appendix F indicates that more than 50% of the trips will converge at IH-610 and IH-10 to approach the terminal. This location is already the most congested roadway segment in the state of Texas. The mitigation proposed for local roads in the area estimates that the Level of Service (LOS) can be improved to LOS E. However, the proposed mitigation does not seem to consider the planned and funded bus rapid transit (BRT) line that will be approaching the Old Katy Road/Post Oak intersection. Nor does it consider extension of that bus rapid transit line to the high speed rail terminal. Additional traffic mitigation must be developed and consideration should be given to extension of the bus rapid transit service to the high speed rail terminal.
6. The Project creates a need for transportation connections to major employment centers in Houston, including the Central Business District and Uptown. The DEIS should evaluate and identify, in coordination with Houston METRO and the City of Houston, appropriate transit facilities necessary to make these connections. In addition to the above-referenced BRT line which connects to Uptown, a reliable high capacity transit connection to downtown is essential. The trip distribution shows over 20% of trips heading east towards downtown.
7. The City requires the preservation of six lanes of transportation capacity along Hempstead Road. The City is willing to accept that up to two of these six lanes may be utilized for high capacity commuter transit. The DEIS should reflect this limitation.
8. The City of Houston’s Bike Plan is not referenced in the DEIS. The Bike Plan was adopted by Houston City Council in March 2017 and describes a significant portion of the City’s multi-modal mobility strategy. The DEIS should reference the Bike Plan and ensure bike crossings are feasible at all intersections with the Project.

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March 9, 2018

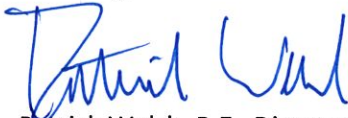
City of Houston Comments on DEIS for High Speed Rail

The following existing/proposed bike facilities will intersect with the proposed Project: Antoine Drive, Long Point Road, N Post Oak Road, Centerpoint Trail Corridor at Hempstead, Kempwood Drive, Clay Road, S Pinemont Drive, Blalock Road, Windfern Off Street Connection, Drainage Corridor, Mangum Road, W 18th Street and Hempstead Drive.

For the reference, the adopted Houston Bike Plan can be downloaded at <http://houstonbikeplan.org/documents/>.

We look forward to a substantially revised environmental document for this very important project.

Sincerely,



Patrick Walsh, P.E., Director
Planning and Development Department



Carol Haddock, P.E., Director
Houston Public Works

Cc: Andy Icken, Chief Development Officer



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Sylvester Turner
Mayor
City of Houston, Texas
P.O. Box 1562
Houston, Texas 77251-1562

**Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Dear Mayor Turner:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the City of Houston provided on March 9, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael A. Hensler".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

AGENCY COMMENT	PROPOSED RESPONSE
<p>The Project sponsor, Texas Central Partners (TCP), has entered into the attached Memorandum of Understanding (MOU) with the City of Houston, represented by Mayor Sylvester Turner. This MOU establishes expectations of TCP through the implementation of the Project. The City expects that TCP will satisfy all expectations established through the MOU, subject to further development of more formal definitive agreements between the two parties.</p>	<p>Comment noted.</p>
<p>The City of Houston’s Major Thoroughfare and Freeway Plan (MTFP) is not referenced in the DEIS and appropriate considerations were not included in the DEIS for proposed future roadways. These proposed roads have been planned in some cases for decades and will be vital to serve the fast-growing northwest part of the Houston region. A rail line that is constructed either at—grade or on an embankment will force the local community to construct grade separations across the Project, placing an undue burden on the local stakeholders and increasing the potential that these roadway connections will never be built. Also, once the rail is operational, roadway grade separation construction could disrupt rail service. Forcing these important roadways to end at the tracks would severely negatively impact mobility in this area. The City recommends elevating the rail at least until it crosses north of 290 near Hockley, Texas, and further recommends dedication of roadway right-of-way across the rail line to accommodate planned roadways. This would extend the elevated rail line to close to the edge of the City's extra-territorial jurisdiction (ETJ).</p> <p>The following proposed roads would be impacted by a rail line on an embankment: Castle Road, Betka Road, Kickapoo Road, Baethe Road, Kermier Road, Warren Ranch Road, Unnamed Road, Mound Road, Katy Hockley Road, Mason Road, Louetta Road, and Mueschke Road.</p> <p>For reference, the most recently adopted MTFP can be downloaded at http://www.houstontx.gov/planning/transportation/MTFP.html.</p>	<p>Table 3.11-1 of the Final EIS has been updated to include the Houston Major Thoroughfare and Freeway Plan.</p> <p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements, the Project has been updated. Approximately 93% of the Project is now on viaduct in Harris County. For a list of the proposed roadway modifications in Harris County refer to Tables 3.11-31 and 3.11-51 of the Final EIS which describes roadway modifications in Harris County.</p>

The City considers a multi-modal system of transportation critical to serve the long-term mobility needs of Houston, and strong transit connections to the rail terminus are vital to achieving such a system. The City has learned from Texas Central Partners (TCP) that the former Northwest Mall site has been selected as the rail terminus location. Without strong integration of local transit into the rail terminus, accessing the site will generate significant vehicle trips and contribute to roadway congestion. The DEIS should examine how to minimize and mitigate this congestion, including integrating the terminus into local high-capacity transit. Access to and from the rail terminus should not be predicated on use of single occupant vehicles. This integration is consistent with the MOU between TCP and the City as well as the DEIS comments on the Project by the Houston Metropolitan Transit Authority of Harris County (METRO), which are attached for reference.

FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR. TCRR is not responsible for methods in which passengers will arrive at the stations. However, FRA is requiring TCRR to coordinate directly with transit agencies (including METRO) for connections to and from the Houston Terminal Station as outlined in **Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures**. Additionally, the HSR stations are designed to accommodate connections to existing local public transportation in Dallas and Houston, and shared ride options, private vehicles and rental cars at all stations. Station details are located in **Appendix F, TCRR Final Conceptual Engineering Design Report and Appendix G, TCRR Final Conceptual Engineering Plans and Details**.

As required by **TR-MM#2: Intersection Improvements**, TCRR shall perform a full traffic impact analysis (TIA) that complies with City of Houston and/or TxDOT TIA guidelines. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process

<p>The DEIS trip generation analysis states "that in the morning and evening peak hours, the number of ground transportation vehicles arriving and departing the station would be 1415 vehicles/hr (each direction) for Dallas and 1381 vehicles/hr (each direction) for Houston. These numbers were based on the mode splits noted in the previous section, the trip distributions from the TCRR ridership and revenue report, and the following key assumptions:</p> <p>Non-passenger related travel: Non-passenger travel generates no peak hour trips Practicable Capacity: Each train operates at 95% of full capacity."</p> <p>It is unclear how, if all trains are operating at 95% capacity and the Houston shuttle bus share is lower, there are fewer roadway trips generated in Houston than Dallas. This analysis raises questions about the reliability of the modeling used.</p>	<p>FRA has relied on TCRR's conceptual design and ridership estimates as described in Appendix F, TCRR Final Conceptual Engineering Design Report in preparing the EIS. In response to public comment, AECOM, on behalf of FRA, independently evaluated the ridership inputs, assumptions, and methodology used by TCRR, which included both business and personal travel patterns as detailed in TCRR's original June 19, 2018 and updated March 25, 2019 Ridership Forecast Reports. Based on the independent evaluation, FRA determined that TCRR used a reasonable approach to conduct their ridership assessment and the outputs of the assessment are reasonable based on the methodology. Since the ridership forecast approach and outputs were deemed reasonable, the FRA continued to use, TCRR's ridership estimate in both the Draft EIS and Final EIS. A summary of AECOM's review is included in Appendix J, Miscellaneous Memoranda, Ridership Demand Forecasting Methodology Assessment.</p>
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The DEIS trip distribution shown in Figure 14 of Appendix F indicates that more than 50% of the trips will converge at IH—610 and IH—IO to approach the terminal. This location is already the most congested roadway segment in the state of Texas. The mitigation proposed for local roads in the area estimates that the Level of Service (LOS) can be improved to LOS E. However, the proposed mitigation does not seem to consider the planned and funded bus rapid transit (BRT) line that will be approaching the Old Katy Road/Post Oak intersection. Nor does it consider extension of that bus rapid transit line to the high speed rail terminal. Additional traffic mitigation must be developed and consideration should be given to extension of the bus rapid transit service to the high speed rail terminal.

FRA assessed potential intersection modifications to mitigate the traffic impacts of the Houston Terminal Station as shown on **Table 3.11-53** of the Final EIS. However, TxDOT and the City of Houston will ultimately decide on intersection improvements to mitigate traffic impacts. TCRR will perform a full traffic impact analysis (TIA) that complies with City of Houston TIA guidelines.

As required by **TR-MM#2: Intersection Improvements**, TCRR shall perform a full traffic impact analysis (TIA) that complies with City of Houston and/or TxDOT TIA guidelines. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process.

FRA is requiring TCRR to coordinate directly with transit agencies (including METRO) for connections to and from the Houston Terminal Station as outlined in **Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures**.

The Project creates a need for transportation connections to major employment centers in Houston, including the Central Business District and Uptown. The DEIS should evaluate and identify, in coordination with Houston METRO and the City of Houston, appropriate transit facilities necessary to make these connections. In addition to the above-referenced BRT line which connects to Uptown, a reliable high capacity transit connection to downtown is essential. The trip distribution shows over 20% of trips heading east towards downtown.

As documented within **Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports** and **Appendix G, TCRR Final Conceptual Engineering Plans and Details** and TCR's August 21, 2019 STB filing, TCRR would provide and manage integrated ticketing and transfer service between the Houston Terminal Station and Amtrak's existing station near downtown Houston. Connections would include operation of air-conditioned, rubber tire electric buses capable of transporting passengers and luggage. Vehicles are anticipated to be similar to the Proterra Catalyst 35 all-electric bus, the EMOSS MB16 all-electric mini bus or other commercially available electric vehicles. The transfer service would operate over existing roads approximately 7.4 miles (one-way) between Houston's Amtrak Station and the HSR Terminal utilizing IH-45, IH-10, and IH-610 (refer to **Figure 3.11-6 of the Final EIS**). TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement to give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket.

Ultimately TCRR is not responsible for methods in which passengers will arrive at the stations. Potential riders may travel to and from the stations by walking, biking, driving and parking a personal vehicle, hiring a shared car (Uber, Lyft for example) or cab and being dropped off, being dropped off by another driver/private vehicle, or connecting via existing public transportation options.

FRA is requiring TCRR to coordinate directly with transit agencies (including METRO) for connections to and from the proposed Houston Terminal Station. Additionally, the HSR stations are designed to accommodate connections to existing local public transportation in Dallas and Houston, and shared ride options, private vehicles and rental cars at all stations. Station details are located in **Appendix F, TCRR Final Conceptual**

AGENCY COMMENT	PROPOSED RESPONSE
<p>The City requires the preservation of six lanes of transportation capacity along Hempstead Road. The City is willing to accept that up to two of these six lanes may be utilized for high capacity commuter transit. The DEIS should reflect this limitation.</p>	<p>Engineering Design Report and Appendix G, TCRR Final Conceptual Engineering Plans and Details.</p> <p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements, the alignment configuration and profile elevation of Segment 5 adjacent to Hempstead Road in Houston were revised to account for the US 290/Hempstead managed lanes project and planned improvements to Hempstead Road as defined through ongoing coordination with TxDOT and City of Houston.</p> <p>As a result, the Project would be on viaduct along Hempstead Road in Houston. The elevated rail line will be constructed to allow future expansion of roadways described in the state and local transportation plans.</p>
<p>The City of Houston’s Bike Plan is not referenced in the DEIS. The Bike Plan was adopted by Houston City Council in March 2017 and describes a significant portion of the City’s multi-modal mobility strategy. The DEIS should reference the Bike Plan and ensure bike crossings are feasible at all intersections with the Project.</p> <p>The following existing/proposed bike facilities will intersect with the proposed Project: Antoine Drive, Long Point Road, N Post Oak Road, Centerpoint Trail Corridor at Hempstead, Kempwood Drive, Clay Road, S Pinemont Drive, Blalock Road, Windfern Off Street Connection, Drainage Corridor, Mangum Road, W 18th Street and Hempstead Drive.</p> <p>For the reference, the adopted Houston Bike Plan can be downloaded at http://houstonbikeplan.Org/documents/.</p>	<p>Section 3.17.4.8.2 of the Final EIS, Recreation, Trails has been updated to reference the 2017 Houston Bike Plan and Section 3.17.4.2.7, Houston Terminal Station Area includes an assessment of impacts to trails in the 2017 Houston Bike Plan.</p>

OFFICE OF COMMISSIONER
DISTRICT NO. 3



JOHN WILEY PRICE

March 7, 2018

Kevin Wright
Environmental Protection Specialist
Federal Railroad Administration
1200 New Jersey Avenue SE, MS-20
Washington, D.C. 20590

Mr. Wright,

I am writing this letter in reference to the Draft Environmental Impact Statement that was released by the Federal Railroad Administration (FRA) for the Dallas to Houston High-Speed Rail project. While I am an advocate for this project and this type of technology being implemented in the State of Texas and in the district which I represent, I am not in favor of the proposed Train Maintenance Facility located north of Pleasant Run Rd.

The construction of this proposed train maintenance facility and the connecting at grade rail spur will result in the reconstruction of the federally funded improvements that are currently being designed by Dallas County for this section of Pleasant Run Rd. Since 2014 Dallas County and the Cities of Lancaster and Wilmer have been working towards improving Pleasant Run Rd from Lancaster-Hutchins Rd to Millers Ferry Rd. The roadway will be improved from a two lane undivided rural section to a four lane divided section with a 12' trail along the south side. Since this project has federal funds we are limited by time constraints on when construction must begin, therefore not allowing this project to be constructed in unison with the High-Speed Rail. Dallas County's Pleasant Run Rd project is expected to be complete in 2020. Therefore, a High Speed Rail Maintenance Facility at this location will prolong construction in this area and cause disruptions to anticipated economic development resulting from the improved Pleasant Run Road.

As Commissioner of District 3, which includes the City of Lancaster and Wilmer, I am committed to providing and assisting with major infrastructure improvements to the southern sector which will enhance economic development. Therefore, this project needs to facilitate this effort as an enhancement to proposed projects in the region. With the maintenance facility negatively impacting the Pleasant Run project in the Southern Dallas County Inland Port area we request that this facility be relocated and that continued partnerships exist to further improve the area.

Sincerely,



John Wiley Price
Dallas County Commissioner
District 3

cc: Alberta Blair, P.E., Director of Public Works, Dallas County
Antoinette Bacchus, P.E., Assistant Director of Transportation & Planning, Dallas County
Jonathan Toffer, P.E., Assistant Director of Program Engineering & Management, Dallas County

U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

John Wiley Price
Dallas County Commissioner
District 3
411 Elm Street, 2nd Floor
Dallas, Texas 75202

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Commissioner Price:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from you provided on January 11, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment 1: *While I am an advocate for this project and thus type of technology being implemented in the State of Texas and in district which I represent, I am not in favor of the proposed Train Maintenance Facility located north of Pleasant Run Road. The construction of this proposed train maintenance facility and the connecting at grade rail spur will result in the reconstruction of the federal funded improvements that are currently being designed by Dallas County for this section of Pleasant Run Rd.....Dallas County's Pleasant Run Rd project is expected to be complete in 2020....*

Response 1: The Draft EIS outlined that approximately 2,700 feet of Pleasant Run Road would be reconstructed over the Project. However, TCRR refined the concept design between the release of the Draft EIS and the Final EIS, and the Project will now be on viaduct at this location. Additionally, the Preferred Alternative, Build Alternative A, does not include a train maintenance of way facility near Pleasant Run Road. The maintenance of way facility in the Final EIS would be located approximately 4.1 miles north of Pleasant

Run Road, near the intersection of IH-45 and IH-20. Updated Project maps can be found in **Appendix G: TCRR Conceptual Engineering Plans and Details**.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

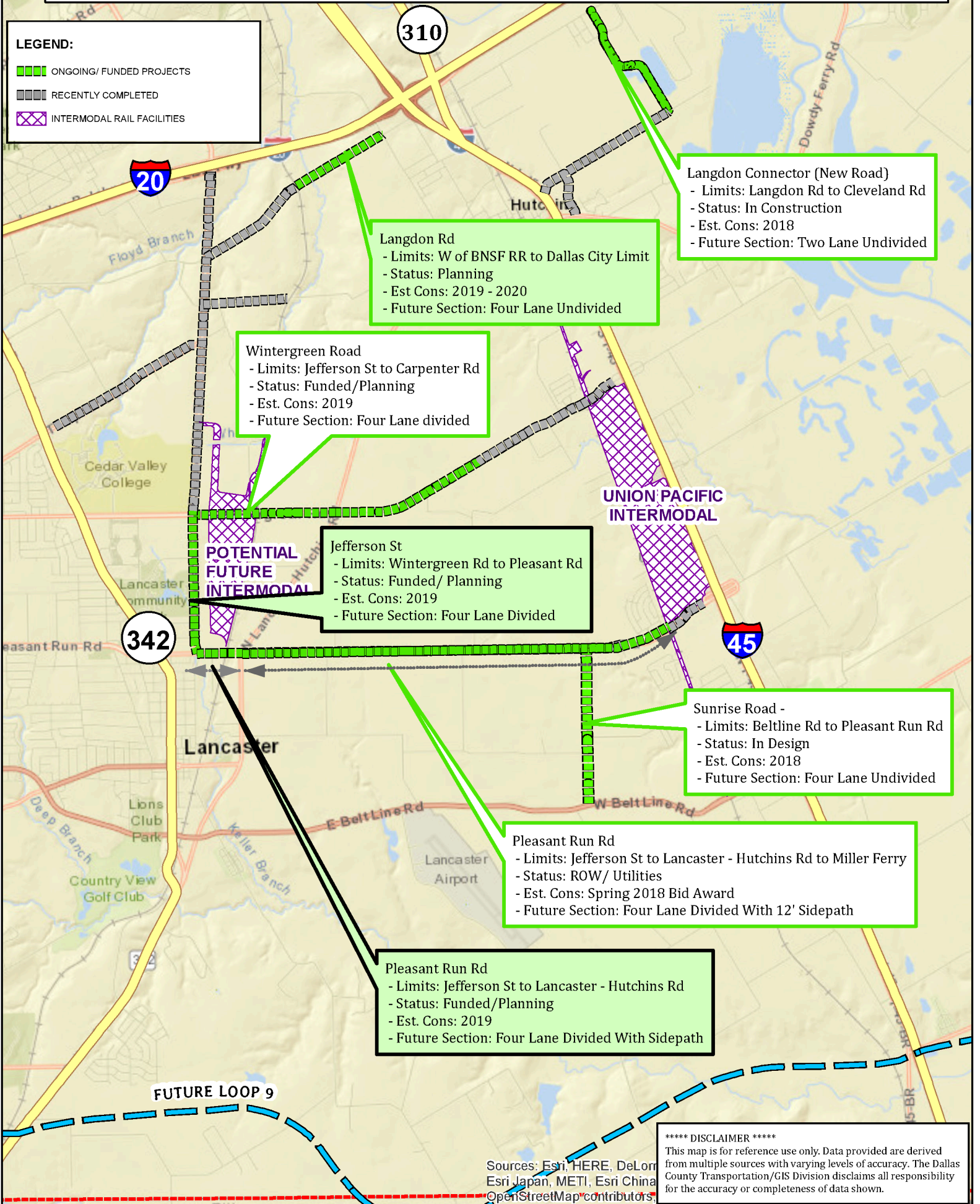
Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

Dallas County

Dallas County Public Works continues to stay up to date on the status of Texas Central's High Speed Rail through project partnering efforts and public meeting attendance. As an agency that implements many transportation infrastructure projects throughout Dallas County we would like to use this opportunity to provide information on future roadway improvements, in the vicinity of the proposed High Speed Rail alignment, that will be occurring between now and the completion of the High Speed Rail project. Attached is a detailed map showing the location of seven future roadway construction or reconstruction projects, with Dallas County participation, that are slated to begin construction between years 2018 to 2020. The area highlighted by this map is located in Southeast Dallas County between Interstate 20 and the Dallas/Ellis County line and between State Highway 342 and east of Interstate 45. Please see the map for further details about each project. Be advised that the attached map is not comprehensive. This map doesn't show infrastructure improvement projects that may be implemented by other entities prior to or during the timeframe of the projected HSR construction. Therefore coordination is strongly recommended with other entities and property owners in this area. For any further questions on these projects you can contact our Senior Transportation Planner Micah Baker at Micah.Baker@dallascounty.org or 214-653-7465; and/or our Transportation Planner Minesha Reese at Minesha.Reese@dallascounty.org or 214-653-6961.

CURRENT DALLAS COUNTY INFRASTRUCTURE PROJECTS IN THE INLAND PORT AREA NEAR FUTURE HIGH SPEED RAIL ALIGNMENT

- LEGEND:**
- ONGOING/ FUNDED PROJECTS
 - ▒▒▒▒ RECENTLY COMPLETED
 - ▒▒▒▒ INTERMODAL RAIL FACILITIES



Langdon Rd
 - Limits: W of BNSF RR to Dallas City Limit
 - Status: Planning
 - Est Cons: 2019 - 2020
 - Future Section: Four Lane Undivided

Langdon Connector (New Road)
 - Limits: Langdon Rd to Cleveland Rd
 - Status: In Construction
 - Est. Cons: 2018
 - Future Section: Two Lane Undivided

Wintergreen Road
 - Limits: Jefferson St to Carpenter Rd
 - Status: Funded/Planning
 - Est. Cons: 2019
 - Future Section: Four Lane divided

Jefferson St
 - Limits: Wintergreen Rd to Pleasant Rd
 - Status: Funded/ Planning
 - Est. Cons: 2019
 - Future Section: Four Lane Divided

**UNION PACIFIC
INTERMODAL**

**POTENTIAL
FUTURE
INTERMODAL**

Sunrise Road -
 - Limits: Beltline Rd to Pleasant Run Rd
 - Status: In Design
 - Est. Cons: 2018
 - Future Section: Four Lane Undivided

Pleasant Run Rd
 - Limits: Jefferson St to Lancaster - Hutchins Rd to Miller Ferry
 - Status: ROW/ Utilities
 - Est. Cons: Spring 2018 Bid Award
 - Future Section: Four Lane Divided With 12' Sidewalk

Pleasant Run Rd
 - Limits: Jefferson St to Lancaster - Hutchins Rd
 - Status: Funded/Planning
 - Est. Cons: 2019
 - Future Section: Four Lane Divided With Sidewalk

***** DISCLAIMER *****
 This map is for reference use only. Data provided are derived from multiple sources with varying levels of accuracy. The Dallas County Transportation/GIS Division disclaims all responsibility for the accuracy or completeness of data shown.

Sources: Esri, HERE, DeLorme, Esri Japan, METI, Esri China, OpenStreetMap contributors.



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Micah Baker
Senior Transportation Planner
Dallas County Public Works
411 Elm St #4
Dallas, Texas 75202

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Mr. Baker:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from you provided on February 9, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment: *Dallas County Public Works continues to stay up to date on the status of Texas Central's High Speed Rail through project partnering efforts and public meeting attendance. As an agency that implements many transportation infrastructure projects throughout Dallas County we would like to use this opportunity to provide information on future roadway improvements, in the vicinity of the proposed High Speed Rail alignment: that will be occurring between now and the completion of the High Speed Rail project Attached is a detailed map showing the location of seven future roadway construction or reconstruction projects: with Dallas County participation, that are slated to begin construction between years 2018 to 2020. The area highlighted by this map is located in Southeast Dallas County between Interstate 20 and the Dallas Ellis County line and between State Highway 342 and east of Interstate 45. Please see the map for further details about each project. Be advised that the attached map is not comprehensive. This map doesn't show infrastructure Improvement projects that may be implemented by other entities prior to or during the timeframe of the projected HSR construction. Therefore coordination is strongly recommended with other entities and property*

owners in this area. For any further questions on these projects you can contact our Senior Transportation Planner Micah Baker at Micah.Baker@dallascounty.org or 214-653-7465 and/or our Transportation Planner Minesha Reese at MineshaReese@dallascounty.org or 214-653-6961.

Response: The Project would cross Langdon Road, Wintergreen Road and Pleasant Run Road as depicted in the provided map with Dallas County participation projects. The Project would be on viaduct over these roads. As in most infrastructure projects, construction will temporarily cause traffic disruption and TCRR would be required to implement mitigation measures during construction. These measures are outlined in **Section 3.11.6.2, Transportation, Avoidance, Minimization and Mitigation, Mitigation Measures**, including **TR-MM#1: Traffic Control Plan**. Additionally, **TR-CM#2: Roadway Access Permit** requires TCRR to coordinate with TxDOT and local municipalities jurisdictions to obtain the authorization to construct access driveways on road ROWs. **TR-CM#3: Road Closure Permit** requires TCRR to coordinate with TxDOT and the local municipalities to obtain authorization for the Temporary Closure of State ROW (Incorporated/Unincorporated). The TxDOT District Engineer shall review closure requests of state roads, while the county would review local roads. Updated Project maps can be found in **Appendix G: TCRR Conceptual Engineering Plans and Details**.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,



Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration



March 6, 2018

Mr. Ronald Batory
Administrator
Federal Railroad Administration
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Dear Administrator Batory:

The Gulf Coast Rail District (GCRD) was created by the City of Houston, Harris County, Fort Bend County, Galveston County, Montgomery County and Waller County pursuant to Chapter 171, Texas Transportation Code. GCRD is a political subdivision of the State of Texas. The GCRD was established in 2007 to work with public and private partners to develop and implement a systematic approach to improving the regional rail network for the benefit of the region's residents and economy. As such, the Gulf Coast Rail District offers the following comments on the Dallas to Houston High Speed Rail Draft Environmental Impact Statement (DEIS).

Since 2007, the Gulf Coast Rail District has completed two analyses of commuter rail feasibility in the US 290/Hempstead corridor where Texas Central Partners (TCP) proposes to construct high speed rail infrastructure in Harris County and Houston. These studies were undertaken with federal funds allocated by the metropolitan planning organization, H-GAC (Houston-Galveston Area Council). The studies are listed below and are available on the GCRD website, www.gcrd.net/hempstead.htm.

- Conceptual Engineering for Hempstead Commuter Rail (February 2012)
- Regional Commuter Rail Feasibility Study – An Assessment of Right-of-Way, Track Alignment, and CBD Access (February 2015)

Neither of these studies is referenced in Table 3.11-1 of the (DEIS), Regional and Local Transportation Plans and Policies. Table 3.11-1 does reference the H-GAC 2040 Regional Transportation Plan which shows commuter rail in the US 290/Hempstead corridor.

There are several key findings from these GCRD studies that are applicable to the DEIS.

1. It is feasible to construct and operate commuter rail in the right-of-way adjacent to the UPRR rail line along US 290/Hempstead Highway.
2. It is feasible, albeit expensive, to construct a passenger rail connection to the Central Business District. The 2012 study concluded that the IH-10 west corridor

between IH-610 and IH-45 is a feasible route for that connection which minimizes residential impacts.

In an effort to coordinate the planning efforts of the Gulf Coast Rail District and Texas Central Partners, a Memorandum of Understanding (MOU) was executed in December 2016 (attached). The MOU clearly states the following.

“Be it hereby resolved that Texas Central, in addition, will:

1. Support the construction and operation by GCRD of commuter rail below Texas Central’s high-speed rail train infrastructure and the extension of the commuter rail service to downtown Houston.
2. Upon identification of a Houston passenger station site, develop designs that accommodate connectivity of the Houston station with the proposed US 290/Hempstead Corridor Commuter Rail Project, Uptown bus rapid transit and future high-capacity transit connections to downtown Houston and other major activity centers.”

The Gulf Coast Rail District understands the high speed rail project’s accelerated timeline. The GCRD has not had adequate financial resources to undertake a parallel planning process. However, **the Gulf Coast Rail District believes it is vital for mobility in the Houston-Harris County-Waller County region that the right-of-way below the high speed rail infrastructure remain available for future high capacity transit. Towards that end, it is imperative that the high speed train operate on structure through all of Harris County to the Waller County line so as not to preclude development of the high capacity transit improvement deemed necessary for regional mobility in the H-GAC 2040 Regional Transportation Plan.**

Two additional items related to the GCRD studies must also be noted.

1. Ridership analyses completed by the Gulf Coast Rail District indicate that ridership TRIPLES with a direct commuter rail connection to the Central Business District (Conceptual Engineering for Hempstead Commuter Rail (February 2012). This is a strong indicator of the need for enhanced access to downtown. **The proposed high speed rail line will benefit from a direct connection to downtown and should be a partner in its development.**
2. The Texas Rail Plan 2016 Update includes a summary of analyses led by the Texas Department of Transportation (TxDOT) to develop an intercity passenger rail connection between Houston and Austin. In the Houston region, the TxDOT analyses have focused on connections to the corridor GCRD has studied for commuter rail which is also the right-of-way proposed for TCP high speed rail infrastructure. **The potential for an intercity passenger rail connection to Austin significantly enhances the value of the US 290/Hempstead right-of-way for Houston region mobility. Right-of-way below the high speed rail infrastructure must be available for such future development.**

In short, an elevated high speed rail structure provides the opportunity to maximize mobility benefits with incorporation of the Houston region's planned high capacity transit improvements for the corridor operating below it. Such use of the right-of-way in tandem with development of a high capacity transit connection to the central business district can serve as a feeder/distribution system to the high speed rail line from which Texas Central Partners stands to benefit. These high capacity transit components should be included in the final environmental impact statement (FEIS) as items in which Texas Central should be a financial partner to mitigate congestion impacts at the Houston terminal and address benefits to be realized from such connectivity.

Finally, during review of these comments in a regularly, scheduled public meeting governed by the Open Meetings Act, several comments were received from the public regarding frustration with the Federal Railroad Association (FRA) environmental impact statement process and the limited opportunities for communication within it. Waller County Judge Duhon, a Gulf Coast Rail District board member, emphasized and reiterated those public comments. Many on the Gulf Coast Rail District Board of Directors share Judge Duhon's concerns regarding communication challenges associated with the NEPA process.

Respectfully,



Bert Keller
Chairman

CC: Mr. Tim Keith, President, Texas Central Partners



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Bert Keller
Chairman
Gulf Coast Rail District
6922 Katy Road
Houston, Texas 77024

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Mr. Keller:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

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A review and response of comments/questions raised in your letter can be found below.

Comment 1: *Since 2007, the Gulf Coast Rail District has completed two analyses of commuter rail feasibility in the US 290/Hempstead corridor where Texas Central Partners 9TCP) proposed to construct high speed rail infrastructure in Harris County and Houston. These studies were undertaken with federal funds allocated by the metropolitan planning organization H_GAC (Houston-Galveston Area Council). The studies are listed below and are available on the GCRD website (www.gcrd.net/hempstead.htm).*

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Neither of these studies is referenced in Table 3.11-1 of the (DEIS), Regional and Local Transportation Plans and Policies. Table 3.11-1 does reference the H-GAC 2050 Regional Transportation Plan which shows commuter rail

in the US 290/Hempstead corridor.

There are several key findings from these GCRD studies that are applicable to the DEIS.

1. It is feasible to construct and operate commuter rail in the right-of-way adjacent to the UPRR rail line along US 290/Hempstead Highway.
2. It is feasible, albeit expensive, to construct a passenger rail connection to the Central Business District. The 2012 study concluded that the IH-10 west corridor between IH-610 and IH-45 is a feasible routes for that connection which minimizes residential impacts.

Response 1: The description of the H-GAC 2040 Regional Transportation Plan in **Table 3.11-1** of the Final EIS has been updated to include the following statement “A commuter rail line along US 290/Hempstead Highway is noted in the plan.” A description of the project is also included in **Table 3.11-35**. Additionally, as detailed in **Section 2.5.4, Alternatives Considered, Engineering Refinements**, the alignment configuration and profile elevation of Segment 5 adjacent to Hempstead Road in Houston were revised to account for the US 290/Hempstead managed lanes project and planned improvements to Hempstead Road as defined through ongoing coordination with TxDOT and City of Houston. The Project is proposed to be constructed on viaduct at Fry Road.

Comment 2: In an effort to coordinate the planning efforts of the Gulf Coast Rail District and Texas Central Partners, a Memorandum of Understanding (MOU) was executed in December 2016 (attached). The MOU clearly states the following.

“Be it hereby resolved that Texas Central, in addition, will:

1. Support the construction and operation by GCRD of commuter rail below Texas Central’s high-speed rail train infrastructure and the extension of the commuter rail service to downtown Houston.
2. Upon identification of a Houston passenger station site, develop designs that accommodate connectivity of the Houston station with the proposed US 290/Hempstead Corridor Commuter Rail Project, Uptown bus rapid transit and future high-capacity transit connections to downtown Houston and other major activity centers.”

The Gulf Coast Rail District understands the high speed rail project’s accelerated timeline. The GCRD has not had adequate financial resources to undertake a parallel planning process. However, **the Gulf Coast Rail District believes it is vital for mobility in the Houston-Harris County-Waller County region that the right-of-way below the high speed rail infrastructure remain available for future high capacity transit. Towards that end, it is imperative that the high speed train operate on structure through all of Harris County to the Waller County line so as not to preclude development of the high capacity transit improvement deemed necessary for regional mobility in the H-GAC 2040 Regional Transportation Plan.**

Response 2: In Harris County, specifically, approximately 93% of the Project is on viaduct. The elevated rail line will be constructed to allow future expansion of roadways described in the state and local transportation plans.

Comment 3: Ridership analysis completed by the Gulf Coast Rail District indicate that ridership TRIPLES with a direct commuter rail connection to the Central Business District (Conceptual Engineering for Hempstead Commuted Rail (February 2012). This is a strong indicator of the need for enhanced access to downtown. **The proposed high speed rail line will benefit from a direct connection to downtown and should be a partner in its development.**

Response 3: FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR. As documented within **Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports** and **Appendix G, TCRR Final Conceptual Engineering Plans and Details** and TCR's August 21, 2019 STB filing, TCRR would provide and manage integrated ticketing and transfer service between the Houston Terminal Station and Amtrak's existing station near downtown Houston. Connections would include operation of air-conditioned, rubber tire electric buses capable of transporting passengers and luggage. Vehicles are anticipated to be similar to the Proterra Catalyst 35 all-electric bus, the EMOSS MB16 all-electric mini bus or other commercially available electric vehicles. The transfer service would operate over existing roads approximately 7.4 miles (one-way) between Houston's Amtrak Station and the HSR Terminal utilizing IH-45, IH-10, and IH-610 (refer to **Figure 3.11-6 of the Final EIS**). TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement to give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket.

Ultimately, TCRR is not responsible for methods by which passengers will arrive at the stations. However, FRA is requiring TCRR to coordinate directly with transit agencies (including METRO) for connections to and from the proposed Station sites. In addition to the Amtrak connection, HSR riders may travel to and from the stations by walking, biking, driving and parking a personal vehicle, hiring a shared car (Uber, Lyft for example) or cab, being dropped off by another driver/private vehicle, or connecting via existing public transportation options.

Comment 4: *The Texas Rail Plan 2016 Update includes a summary of analyses led by the Texas Department of Transportation (TxDOT) to develop an intercity passenger rail connection between Houston and Austin. In the Houston region, the TxDOT analyses have focused on connection to the corridor GCRD has studied for commuter rail which is also the right-of-way proposed for TCP high speed rail infrastructure. **The potential for an intercity passenger rail connection to Austin significantly enhances the value of the US 290/Hempstead right-of-way for Houston region mobility. Right-of-way below the high speed rail infrastructure must be available for such future development.***

Response 4: As noted throughout **Chapter 3.11 of the Final EIS, Transportation**, FRA reviewed state and local transportation plans and the Project would not preclude any planned transportation improvements. In Harris County, specifically, approximately 93% of the Project is on viaduct. The elevated rail line will be constructed to allow future expansion of roadways described in the state and local transportation plans.

Comment 5: *In short, an elevated high speed rail structure provides the opportunity to maximize mobility benefits with incorporation of the Houston region's planned high capacity transit improvements for the corridor operating below it. Such use of the right-of-way in tandem with development of a high capacity transit connection to the central business district can serve as a feeder/distribution system to the high speed rail line from which Texas Central Partners stands to benefit. These high capacity transit components should be included in the final environmental impact statement (FEIS) as items in which Texas Central should be a financial partner to mitigate congestion impacts at the Houston terminal and address benefits to be realized from such connectivity.*

Response 5: As mentioned above, approximately 93% of the Project is on viaduct in Harris County. FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR, which is based on the N700-Series Tokaido Shinkansen technology. The high capacity transit components mentioned in Comment 5 are independent projects that would undergo a separate environmental clearance or NEPA process, if applicable. To mitigate potential impacts from the Houston Terminal Station, FRA is requiring the

following, as outlined in **Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures:TR-MM#3: Transit Coordination**. Prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.

***Comment 6:** Finally, during review of these comments in a regularly, scheduled public meeting governed by the Open Meetings Act, several comments were received from the public regarding frustration with the Federal Railroad Association (FRA) environmental impact statement process and the limited opportunities for communication within it. Waller County Judge Duhon, a Gulf Coast Rail District board member, emphasized and reiterated those public comments. Many on the Gulf Coast Rail District Board of Directors share Judge Duhon's concerns regarding communication challenges associated with the NEPA process.*

Response 6: The Final EIS has been prepared with public and agency involvement, which is summarized in **Chapter 9.0, Public and Agency Involvement**. FRA created a website (<https://railroads.dot.gov/current-environmental-reviews/dallas-houston-high-speed-rail/dallas-houston-high-speed-rail>) for the Project which is updated regularly. FRA published a Notice of Intent (NOI) to prepare an EIS for the Project in the Federal Register on June 25, 2014 and identified a 90 day scoping period. In response to public concerns and requests, FRA extended the scoping period an additional 108 days through January 9, 2015. FRA held 12 public scoping meetings throughout Texas for the Project, as well as two agency meetings during the scoping period, which are summarized in **Table 9-1**. The FRA received approximately 4,400 comments at the public scoping meetings and two agency coordination meetings; and through the Project website, the Project and FRA email addresses, and the U.S. mail. These comments addressed the proposed alternatives, community impacts, socioeconomic impacts, and environmental impacts, among other topics. Information from the public and agency meetings and FRA's consideration of the comments helped shape the content of the Scoping document, Corridor Alternatives Analysis and the EIS. Comment topics are summarized in **Table 9-4** of the Final EIS and all scoping comments can be found in **Appendix E of the Scoping Report**, which can be reviewed at: <https://railroads.dot.gov/elibrary/dallas-houston-high-speed-rail-eis-appendix-e-scoping-comments>.

FRA signed the Draft EIS on December 15, 2017 and EPA published a Notice of Availability (NOA) for the Project in the Federal Register on December 22, 2017 (82 FR 60723). FRA circulated the Draft EIS to affected local jurisdictions, state and federal agencies, tribes, community organizations and other interested groups, interested individuals and the public. **Appendix B, Distribution List** of the Final EIS identifies the repository locations for copies of both the Draft and Final EIS. FRA held 11 public hearings to accept agency and public comment on the contents of the document, including FRA's Preferred Alternative during the 78-day comment period (61-day period, with 17-day extension). In response to public comments, FRA also extended invitations to all 10 impacted county judges for additional meetings. Dallas, Ellis, and Harris counties accepted these invitations. After considering comments received on the Draft EIS, FRA prepared the Final EIS and included responses to comments in **Appendix H: Response to Draft EIS Comments**. FRA also consulted with Native American Tribes in accordance with Section 106 of the National Historic Preservation Act and NEPA. This is documented in **Section 3.19.3.1.2, Cultural Resources, Federally Recognized Native American tribes** of the Final EIS and **Appendix C, Public and Agency Involvement**.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen". The signature is fluid and cursive, with the first name "Michael" being more prominent than the last name "Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

HARRIS COUNTY
ENGINEERING DEPARTMENT

1001 Preston, 7th Floor
Houston, Texas 77002
(713) 755-5370

March 9, 2018

Federal Railroad Administration
1200 New Jersey Ave. SE, MS-20
Washington, D.C. 20590
Attention: Kevin Wright
Environmental Protection Specialist

SUBJECT: Dallas-to-Houston High Speed Rail Project
Comments to the *DEIS*

Gentlemen:

The Harris County Engineering Department has reviewed the *Draft Environmental Impact Statement (DEIS)* and prepared the following comments for your review, consideration and action.

The scope of our review was within the context of our regulatory authority applicable outside of incorporated municipalities. Thus our comments are focused on proposed construction features between the Houston city limits line near Beltway 8 and the Waller-Harris county line at Spring Creek.

The most significant issues we identified are rooted in the *DEIS's* omission of the *2017 Houston Major Thoroughfare and Freeway Plan (MTFP)* from the list of references the Federal Railroad Administration used in preparing the *DEIS*. The City of Houston has adopted this plan and an associated map under authority of Texas state law and Chapter 42 of its city ordinances. The *MTFP* ensures public and private development activities in the city and its extraterritorial jurisdiction result in the orderly development of a roadway network. In turn, Harris County has adopted roadway construction regulations that are complementary to the *MTFP*.

Not fully considering *MTFP* roadway designations has resulted in FRA significantly underestimating the transportation impacts of this project in northwest Harris County.

Those impacts are particularly acute in areas between Fry Road and Business U.S. 290 where the track structure is proposed to be built on a ground-level embankment for several miles. Some eighteen (18) designated thoroughfares cross the proposed route in this segment.

We firmly believe - and will require through exercise of our regulatory authority in unincorporated Harris County – that the proposed design should be modified to accommodate a thoroughfare layout consistent with the *MFTP* maps and Harris County specifications and regulations. This is not a unique or special request. We require the same of all public and private developers.

Since the release of the *DEIS*, we have corresponded with the City of Houston, Texas Central Railway and TCR's engineering consultant Arup on several occasions. Multiple options were explored for accommodating both the *MFTP*'s designated thoroughfares as well as several other planned streets previously approved by the Houston City Planning Commission.

At our most recent meeting, TCR proposed a revision to the design that would eliminate at-grade track construction between Fry Road and Business U.S. 290, by moving the track to an elevated viaduct structure. The Harris County Engineering Department supports this change.

A fully-elevated track profile will largely eliminate complications and public expense associated with current and future roadways bridging over the track. Other benefits include a greatly simplified private property access plan, fewer land holdings being functionally split and a more orderly and complete development of a street network as development occurs. In short, several miles of "wall" created by the rail embankments will no longer create significant transportation impacts within a large portion of northwest Harris County.

We understand that one roadway overpass may remain, at Castle Road near the Waller County line. The following changes to the design shown in the *DEIS* will be required for compliance with the minimum *MFTP* widths specified in Houston's ordinances and the roadway requirements within Harris County's regulations. (Note that these changes serve to illustrate the benefits of eliminating future overhead roadway overpasses in the Fry Road to Business U.S. 290 segment described above.)

- The nominal ROW width for a major thoroughfare is 100 feet, plus additional width as needed to accommodate embankments and access roads. Sixty (60) feet appears to have been used in the design.
- The design of the roadway profile must accommodate a 45 mph design speed.
- A two lane bridge as shown must either be expanded to a four-lane cross-section or built in a location offset from the Castle Road center line.
- Sidewalks are required on the bridge.
- The cross-section of the bridge structure(s) must accommodate a safe transition to a future divided thoroughfare built to the east and west of the overpass.

The result of these requirements is the footprint of the proposed construction is not accurately shown in the *DEIS* drawings. It will need to be wider in the north-south direction and longer in the east-west direction.

We also note one significant transportation impact that will not be fully addressed by a change to viaduct construction south of the Business U.S. 290 crossing. By necessity, the proposed trainset maintenance facility footprint must be located at grade. As shown in the *DEIS*, this ground-level site will impact current and future roadways regardless of the elevation of the mainline track structures. To reduce these impacts, either the trainset maintenance facility design should be modified or the maintenance facility should be relocated.

An attachment to this letter provides a listing of other comments for your consideration.

We appreciate that the Federal Railroad Administration and Texas Central Railroad have provided us with multiple opportunities to participate in *DEIS* agency and public review. Should you have a need for additional information or if you require a clarification of Harris County's comments, please contact me.

Sincerely,



Loyd Smith, P.E.
Assistant County Engineer

Attachment

Cc:
John R. Blount, P.E., LEED AP
County Engineer

**Additional Comments
Harris County Engineering Department
March 9, 2018**

- Page ES-22: Here and at other locations in the *DEIS*, the mention of Harris County's Cypress Top historical site/park is handled inconsistently. (Example: Section ES9.23)
- The City of Jersey Village has regulatory jurisdiction for a short segment of the proposed route near Jones Road. This is noted in some locations in the *DEIS*, but omitted in others. (Example: Section 3.5.2)
- Section 3.8.2:
 - The Harris County Flood Control District is incorrectly identified as floodplain regulator in unincorporated areas of Harris County. It is the Harris County Engineering Department. The Flood Control District does have applicable design criteria, however.
 - Footnote 97 should be updated to indicate the latest update to the Harris County floodplain regulations (December 2017)
- Section 3.11, Transportation: Table 3.11-1 omits the *Houston Major Thoroughfare and Freeway Plan*, applicable over essentially the entire length of the proposal route within Harris County.
- Section 3.13.6, LU-CM#3, Permanent ROW agreements: This compliance measure mentions obtaining approval and necessary agreements for the use of state-owned ROW. The same issue exists with Harris County and other local road authorities.
- Various drawings refer to a freeboard clearance between the track structure and a regulatory base flood elevation at a stream crossing. Bridges for proposed access roads must also meet or exceed applicable freeboard requirements established by local jurisdictions.
- Various drawings refer to "public roads" constructed parallel to the track alignment. If these roads are to be maintained by Harris County, numerous construction and procedural requirements exist in our regulations. On the other hand, a privately-maintained, shared-access roadway not open to the general public would be considered a driveway. A driveway has relatively few County requirements for construction. Clarify.
- The proposed access roads intersecting Telge Road, West Road and other divided roadways show a new median cut on the public roadway. This will not be acceptable so close to the UP railroad at-grade railroad crossings and the U.S. 290 traffic signals.
- Water and sewer utility installations at the MOW and TMF sites will require various permits and approvals. Although the specific requirements may not be known at this time, consider noting the need for such permits in the *DEIS*.

Locations where the proposed track alignment crosses TxDOT-maintained roadways include Barker-Cypress Road. The north-south Barker-Cypress Road bridge structure over UPRR and U.S. 290 is state-maintained, not county-maintained. Update the *DEIS* tables as needed to note the crossing at this location requires TxDOT approval.



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Loyd Smith, P.E.
Assistant County Engineer
Harris County Engineering Department
1001 Preston Street, 7th Floor
Houston, Texas 77002

**Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Dear Mr. Smith:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the Harris County Engineering Department provided on March 9, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter is attached.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen". The signature is fluid and cursive, with the first name "Michael" being more prominent than the last name "Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

AGENCY COMMENT	PROPOSED RESPONSE
<p>The most significant issues we identified are rooted in the DEIS's omission of the 2017 Houston Major Thoroughfare and Freeway Plan (MTFP) from the list of references the Federal Railroad Administration used in preparing the DEIS. The City of Houston has adopted this plan and an associated map under authority of Texas state law and Chapter 42 of its city ordinances.....Not full considering MTFP roadway designations has resulted in FRA significantly underestimating the transportation impacts of this project in northwest Harris County. Those impacts are particularly acute in areas between Fry Road and Business U.S. 290 where the track structure is proposed to be built on ground-level embankment for several miles.At our most recent meeting, TCR proposed a revision to the design that would eliminate at-grade track construction between Fry Road and Business U.S. 290, by moving the track to an elevated viaduct structure. The Harris County Engineering Department supports this change. A fully-elevated track profile will largely eliminate complications and public expense associated with current and future roadways bridging over the track....</p>	<p>Table 3.11-1 of the Final EIS has been updated to include the Houston Major Thoroughfare and Freeway Plan.</p> <p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements, the alignment configuration and profile elevation of Segment 5 adjacent to Hempstead Road in Houston were revised to account for the US 290/Hempstead managed lanes project and planned improvements to Hempstead Road as defined through ongoing coordination with TxDOT and City of Houston. The Project is proposed to be constructed on viaduct at Fry Road.</p>
<p>We understand that one roadway overpass may remain, at Castle Road near the Waller County line. The following changes to the design shown in the DEIS will be required for compliance with the minimum MTFP widths specified in Houston's ordinances and the roadway requirements within Harris County's regulations.</p> <ul style="list-style-type: none"> •The nominal ROW width for a major thoroughfare is 100 feet, plus additional width as needed to accommodate embankments and access roads. Sixty (60) feet appears to have been used in the design. •The design of the roadway profile must accommodate a 45 mph design speed. •A two lane bridge as shown must either be expanded to a four-lane cross-section or built in a location offset from the Castle Road center line. •Sidewalks are required on the bridge. •The cross-section of the bridge structure(s) must accommodate a safe transition to a future divided thoroughfare built to the east and west of the overpass. 	<p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements, the Project is now on viaduct at this location and Castle Road would not be permanently modified.</p>
<p>Page ES-22: Here and at other locations in the DEIS, the mention of Harris County's Cypress Top historical site/park is handled inconsistently. (Example: Section ES9.23)</p>	<p>The Final EIS has been updated to clarify impacts to this resource. The Cypress Top Historic Park consists of nine (9) historic resources, many of which were moved from their original location to the Park after their historical period of significance. Of the nine, FRA and the Texas Historical Commission (THC) determined that the 1956 Humble Oil Gas Station (Resource HA.024b,</p>

AGENCY COMMENT	PROPOSED RESPONSE
	<p>in Section 3.19.4.2.10 of the Final EIS, Cultural Resources, Harris County) is eligible for the National Register of Historic Places (NRHP) while the remaining eight historic resources are not. FRA, in consultation with the THC, determined the Build Alternatives A, B, C, D, E and F would have no adverse effect on Resource HA.024b.</p>
<p>The City of Jersey Village has regulatory jurisdiction for a short segment of the proposed route near Jones Road. This is noted in some locations in the DEIS, but omitted in others. (Example: Section 3.5.2)</p>	<p>Mitigation measure MM#2: Hazardous Materials Management, has been updated in the Final EIS to include local regulations. Prior to construction, TCRR shall prepare a Hazardous Materials Management Plan to ensure that the handling, use, storage and disposal of hazardous materials would be in accordance with applicable federal, state and local regulations during construction and operation activities. TCRR shall require its construction contractor and any other entities handling hazardous materials during construction and operation activities to adhere to the Hazardous Materials Management Plan. TCRR shall obtain all required local and state permits for installation and operation of fuel/oil storage tanks before installing them. Fuel/oil storage tanks are likely to be installed initially during the construction period and then during the operation period for fueling and maintenance activities at the TMFs and MOW facilities. TCRR shall develop a Spill Prevention, Control, and Countermeasure (SPCC) Plan for fuel and oil storage tanks/drums if there is an aggregate aboveground capacity greater than 1,320 gallons or a completely buried storage capacity of greater than 42,000 gallons and there is a reasonable expectation of oil discharge into waters of the U.S., should a spill occur. The PST requirements are enforced by TCEQ. TCRR shall</p>

AGENCY COMMENT	PROPOSED RESPONSE
	provide a copy of the Hazardous Materials Management Plan to FRA.
<p>Section 3.8.2:</p> <ul style="list-style-type: none"> The Harris County Flood Control District is incorrectly identified as floodplain regulator in unincorporated areas of Harris County. It is the Harris County Engineering Department. The Flood Control District does have applicable design criteria, however. Footnote 97 should be updated to indicate the latest update to the Harris County floodplain regulations (December 2017) 	<p>Section 3.8.2 of the Final EIS, Floodplains has been updated to include these recommendations.</p>
<p>Section 3.11, Transportation: Table 3.11-1 omits the Houston Major Thoroughfare and Freeway Plan, applicable over essentially the entire length of the proposal route within Harris County.</p>	<p>Table 3.11-1 of the Final EIS has been updated to include the Houston Major Thoroughfare and Freeway Plan.</p>
<p>Section 3.13.6, LU-CM#3, Permanent ROW agreements: This compliance measure mentions obtaining approval and necessary agreements for the use of state-owned ROW. The same issue exists with Harris County and other local road authorities.</p>	<p>Comment noted. Compliance measure TR-CM#2: Roadway Access Permit in Section 3.11 of the Final EIS, Transportation, discusses approvals from local jurisdictions.</p>
<p>Various drawings refer to "public roads" constructed parallel to the track alignment. If these roads are to be maintained by Harris County, numerous construction and procedural requirements exist in our regulations. On the other hand, a privately-maintained, shared-access roadway not open to the general public would be considered a driveway. A driveway has relatively few County requirements for construction. Clarify.</p>	<p>TCRR would maintain private roads within their ROW. As detailed in Section 1.5.3 General HSR Program Refinements and Optimizations, TCRR Final Conceptual Engineering Design and Constructability Reports (Appendix F), TCRR shall also develop shared access roads to provide for maintenance, emergency response access and private property access with corresponding reduction in the number of new public roads to decrease burden on roadway authorities. Shared access roads would be constructed and maintained by TCRR but would be open for public access. TCRR would coordinate design details, ownership, and maintenance responsibilities for these roads with the appropriate local, municipal, county, state, or federal authority during the final</p> <p>TCRR will pay for the construction of new and/or modified roadway segments required as part of the implementation of the Dallas to Houston HSR project, for both private and public roads. design</p>

AGENCY COMMENT	PROPOSED RESPONSE
	and construction phase.
<p>The proposed access roads intersecting Telge Road, West Road and other divided roadways show a new median cut on the public roadway. This will not be acceptable so close to the UP railroad at grade railroad crossings and the U.S. 290 traffic signals.</p>	<p>As detailed in Section 2.5.4, Alternatives Considered, Engineering Refinements, the alignment configuration and profile elevation of Segment 5 adjacent to Hempstead Road in Houston were revised to account for the US 290/Hempstead managed lanes project and planned improvements to Hempstead Road as defined through ongoing coordination with TxDOT and City of Houston.</p> <p>As a result, the referenced access roads are no longer part of the Project. Refer to Appendix G: TCRR Conceptual Engineering Plans and Details (Volume 2).</p>
<p>Water and sewer utility installations at the MOW and TMF sites will require various permits and approvals. Although the specific requirements may not be known at this time, consider noting the need for such permits in the DEIS.</p>	<p>These permits and approvals are included in the Final EIS (Section 3.9.6.1 Utilities and Energy, Compliance Measures).</p>
<p>Locations where the proposed track alignment crosses TxDOT maintained roadways include Barker Cypress Road. The north south Barker Cypress Road bridge structure over UPRR and U.S. 290 is state maintained, not county maintained. Update the DEIS tables as needed to note the crossing at this location requires TxDOT approval.</p>	<p>Table 3.11-31 of the Final EIS identifies Barker Cypress Road as a major arterial. The table does not identify road ownership.</p>



Mission Statement

"Provide safe, clean, reliable, accessible and friendly public transportation services to our region."

Board of Directors

Carrin F. Patman
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(Ram)

Christof Spieler

President & Chief Executive Officer

Thomas C. Lambert

March 7, 2018

Mr. Kevin Wright
Federal Railroad Administration
1200 New Jersey Ave. SE, MS-20
Washington, D.C. 20590

Subject: Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

Dear Mr. Wright:

The Metropolitan Transit Authority of Harris County (METRO) appreciates the opportunity to review and provide comments on the Dallas to Houston High Speed Rail Draft Environmental Impact Statement (HSR DEIS) published by the Federal Railroad Administration (FRA) and Texas Central Partners (TCP). METRO has a vested interest in working with you to improve mobility in the Greater Houston region, especially through rail and bus service.

METRO is in the process of developing **METRONext**, a long-range plan to identify the transit services and projects METRO will carry forward for the next 20 years. Connecting METRO's facilities and services to the High-Speed Rail (HSR) terminal station in Houston is very important. The Northwest Transit Center (NWTC) at the junction of the Katy Freeway (I-10 W) and the West Loop N Freeway (I-610) is a critical transit hub for west and northwest Houston, as well as a link to the HSR.

We are currently in the process of expanding the NWTC to accommodate increased bus service and the Uptown Bus Rapid Transit (BRT) project that will connect the NWTC to the Galleria area. We are also examining the opportunities to connect to the Northwest Mall site, which is the primary candidate for the terminal station. It is vital that TCP coordinate with METRO on how this connection can be made.

METRO staff has reviewed the HSR DEIS and associated conceptual drawings with respect to current and future transit operations. While the proposed HSR offers opportunities for increased intercity mobility, there are some concerns with the potential impacts that the HSR could have on METRO's local operations and long-term connectivity. A matrix is attached with specific comments; however, below are the primary concerns.

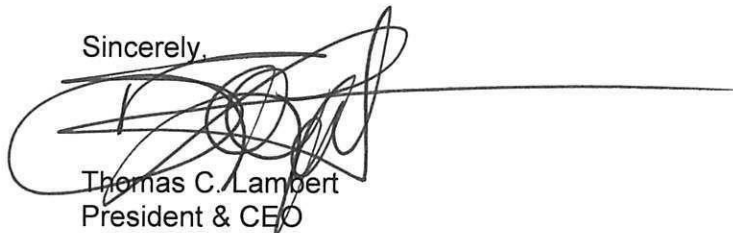
1. The short-term impacts of HSR construction on transit operations and the long-term impacts of the proposed project need to be addressed more fully. The effects of the project on bus stops and bus routes, especially during construction, should be identified along with proposed mitigation measures, as applicable.
2. The proposed terminal station location in Houston is of utmost importance to METRO. We recommend a summary table be prepared that compares the major impacts associated with each location to provide a clear understanding of the issues associated with them.

3. It is imperative that METRO be an integral partner in the assessment and design of the terminal station to ensure both current and proposed transit service can be integrated into the design of the station to enhance convenience and connectivity for all passengers. The HSR DEIS must commit to providing connections to transit and ensure the financial commitment to enable these necessary connections. METRO anticipates serious challenges in crossing an active freight rail line at Hempstead Road.
4. An efficient high capacity transit connection to downtown is necessary to mitigate anticipated impacts to the local freeways and roadway system and provide seamless transit connectivity for HSR passengers. Currently, the document does not address how this important integration with METRO's services will be made. Connecting downtown, the City's largest activity center, should be addressed by proposing design and financial participation concepts.
5. METRO requests further discussion and collaboration for the HSR endeavor in accordance with the attached *Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project*, dated August 17, 2017. This document prescribes coordination among stakeholders to address issues including transit connectivity. It also addresses potentially accommodating rail transit within the same foot print.

This project will substantively impact METRO's transit operations and overall traffic patterns in the area. The FRA and TCP must work closely with METRO to minimize disruptions to our operations, both during and after construction, and to commit to incorporating transit connections to both the NWTC and Downtown.

METRO appreciates the opportunity to provide input on the project and wishes to be an integral partner in the design and function of this groundbreaking venture. Dallas to Houston High Speed Rail has the potential to enhance mobility in the Houston region. METRO looks forward to a constructive collaboration on this project to enhance access and mobility for all modes of travel. Feel free to contact me at 713-615-6409 if you have any questions or wish to discuss METRO's concerns.

Sincerely,



Thomas C. Lambert
President & CEO

cc: Thomas Jasien, Deputy CEO /METRO
Roberto Treviño, P.E., EVP, Planning, Engineering & Construction/ METRO
Clint Harbert, AICP, Vice President, System Planning /METRO
Patrick Walsh, P.E., Director, Planning and Development /City of Houston
Andy Icken, Chief Development Officer /City of Houston

Attachments (2)

DEIS comments

Page	Line/ Feature	Text	Comment
General			METRO requests stakeholder coordination as stated in the <i>Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project</i> , dated August 17, 2017.
General		Sections 3.5-3.8	Maps of affected areas/features embedded in the text would aid the reader.
2-6		Section 2.2.2	Regardless of the preferred location, METRO requests the Houston terminal include an envelope that could accommodate future station and extensions for commuter rail, light rail, or Bus Rapid Transit (BRT) service; and a financial commitment to provide transit connections. METRO requests at least 6 bus bays within the vicinity of the terminal.
2-31		Sec. 2.5.2.3	A commitment obliging TCP to an express connection to Downtown, the largest employment center in the region, needs to be addressed and included within the DEIS.
3.7	Water Impacts	General	The DEIS does not discuss impacts or acknowledge the presence of multiple Harris County Flood Control District drainage channels throughout the study area. The discussion needs more detail to ensure drainage on METRO properties would not be adversely impacted by the project.
3.9-11	Table 3.9-2	Parallel Utilities – Only the NWTC site is shown to have parallel utility lines	The other two terminal sites in Houston may also have parallel utilities, especially along Hempstead Road.
	Sec. 3-11	General	-There is no mention of pedestrian access or connections. - At-grade sidewalks should be included at all overpasses to allow pedestrian movement across the HSR right of way (ROW).
3.11-3	Table 3.11-1	Regional and Local Transportation Plans and Policies	There is no mention of METRO Solutions or METRO’s long-range plans or policies to serve the HSR station. Coordination with current and previous METRO plans needs to be included: -METRO requests an envelope along Hempstead Road that would accommodate commuter services such as LRT, Commuter Rail Transit (CRT), or BRT in accordance with the <i>Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project</i> . -Service enhancements within and adjacent to the HSR terminal alternatives are an important part of METRONext and accommodations need to be included in the station design.

3.11-33	Table 3.11-33	Table of Transit routes served by NWTC incomplete	<p>-NWTC currently serves 16 routes but only 12 are listed in the DEIS. For example, Route 84 and Park and Ride (P&R) routes are not included. METRO has an interactive map located at https://www.ridemetro.org/Pages/SystemMap.aspx that can aid in ensuring all potential METRO impacts are addressed and discussed.</p> <p>-The DEIS should discuss short-term and long-term impacts to METRO bus stops, shelters, and other facilities.</p> <p>-In addition to the proposed station alternatives, there are numerous METRO routes along the proposed HSR alignment that are not discussed within the DEIS nor are potential temporary or permanent impacts. These impacts should be captured and mitigation identified in the DEIS.</p> <p>-Northwest Transit Center (NWTC) operations need to be maintained during construction. Describe anticipated construction phasing and/or scheduling and impacts to METRO services and facilities.</p>
3.11-35	Table 3.11-35	List of Planned Transportation Projects in Harris County	<ul style="list-style-type: none"> - Include the Uptown BRT project within the list. - There is no mention of METRO Solutions but it should be discussed within the DEIS. - Various METRO studies have identified a need for future commuter service along Hempstead Road, including the W. Little York P&R, and should be mentioned within the DEIS.
3.11-72	Last paragraph	"...lack of high-capacity transit network in the vicinity of the stations."	<ul style="list-style-type: none"> - NWTC has 16 bus routes with future LRT and BRT connections. - The NW Mall location has no defined projects, except commuter rail by others. - The greater transit connectivity that can be offered at the NWTC should provide a higher percentage of transit access to HSR in accordance with the <i>Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project</i>. - Both sites are the same in Tables 3.11-55 and 58.
3.11-73	First full paragraph	Project would require one-third of the parking lot at the West Little York P&R for two TPSS	<p>-Have other alternatives been considered? METRO requests all potential impacts to be specified, depicted through mapping, and discussed in more detail. This facility is planned to be converted into a Transit Center in the future.</p> <p>-Loss of parking will need to be mitigated. The mitigation in Sec. TR-MM#7 on page 3.11-75 provides no insight.</p> <p>-TCP needs to coordinate with METRO.</p>

3.11-73	First full paragraph, last line	"....coordination with FCA would be required."	Replace "FCA" with "FTA."
3.11-76	Table 3.11-62	Traffic Impact at Houston Terminal Sites	<ul style="list-style-type: none"> - METRO believes there will be both short and long-term impacts to its services. There needs to be more data in the summary table (e.g. the number of impacted intersections should include LOS, modifications required, access, etc.) - What is the primary access to the NWTC for each of the alternatives? How will Old Katy Road and North Post Oak Road be impacted? - NWTC operations need to be maintained during construction. - Short and long-term impacts to parallel and crossing bus routes need to be addressed within the DEIS.
3.12-4	Sec. 3.12.5.2.3	Houston Terminal Station parking options - Station needs approx. 6,500	<ul style="list-style-type: none"> - Terminal station located by the NWTC would eliminate 250 METRO parking spaces. Discuss the parking impacts and mitigation options. - Visual and traffic impacts of parking structure are needed.
3.17-10	Table 3.17-8	Harris County proposed Bike trails in the study area	<p>Were the City of Houston or Bike Houston plans consulted? Numerous bikeways cross or parallel Hempstead Rd. These can be found at: https://www.houstonbikeways.org/maps</p>
4-5	Sec. 4.3.1.3	Indirect effects at Houston Terminal locations	<p>The NWTC site would not discourage less development than the industrial site. Section 4(f) impacts associated with the Industrial Site automatically removes it from further consideration since there are alternatives without 4(f) impacts. In addition, hazardous materials related mitigation (e.g. clean up) for the Industrial Site would be more of a hindrance for future development.</p>
4-25	Table 4-3	Uptown LRT extension 0.5 miles to Hempstead Intermodal Terminal	<ul style="list-style-type: none"> -LRT is shown as a future extension beyond Hempstead in METRO Solutions. -The Uptown BRT is currently under construction and needs to be discussed in the DEIS. -The 2040 RTP shows the extension from Uptown as High Capacity Transit (HCT). -Accommodations to connect to the transit network need to be committed to in the DEIS.

Conceptual Drawings

Drawing No. CVL-HN	Feature	Comment
01121	HSR alignment south of UPRR by W. Little York P&R.	The DEIS states one-third of W. Little York P&R parking will be displaced by TPSS but it is not shown on drawing. Include all impacts on the exhibit.

01121 - 01142	Alignment west of W. Little York is south of UPRR.	HSR alignment occupies space south of UPRR that was to be included within the 50' high capacity transit reserve that TxDOT was to acquire for METRO or Gulf Coast Rail District (GCRD) to operate a HOV or CRT.
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Station Footprint drawings

Drawing No.		
519 of 536	Alignment at W. Little York	Does not show TPSS impact described in DEIS on page 3.11-73. The drawing should be revised accordingly.



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Mr. Thomas C. Lambert
President & CEO
Metropolitan Transit Authority of Harris County, Texas
1900 Main Street
Houston, Texas 77208-1429

Subject: **Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement**

Dear Mr. Lambert:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from Metro provided on March 7, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found attached.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

AGENCY COMMENT	RESPONSE
<p>The short-term impacts of HSR construction on transit operations and the long-term impacts of the proposed project need to be addressed more fully. The effects of the project on bus stops and bus routes, especially during construction, should be identified along with proposed mitigation measures, as applicable.</p>	<p>Table 3.11-33 of the Final EIS inventories METRO transit routes near the Houston Terminal Stations. TCRR continues to coordinate with stakeholders in Houston regarding multimodal connections at the Houston Terminal Station as the design progresses. It is reasonable to anticipate that Houston METRO would adjust bus service to provide better access to the Houston Terminal Station. FRA is requiring TCRR to coordinate with METRO on the temporary construction impacts and permanent impacts as outlined in Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures. The mitigation measures include:</p> <p>TR-MM#3: Transit Coordination. Prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.</p> <p>TR-MM#1: Traffic Control Plan. Prior to construction, TCRR shall develop a traffic control plan that details the sequence of construction, the detour plan temporary signing, and striping of pavement marking, among other things. The traffic control plan shall also include provisions for safe and efficient operation of all modes of transportation during construction. Under state and local laws, TCRR shall acquire the appropriate permits/easements from TxDOT (state) and/or local municipalities prior to construction, including all current ordinances, including those that have been put into place between the release of the Draft EIS and the Final EIS. There are three main permits/easements that TCRR would be required to obtain: freight and transit crossing easements, roadway access permits and road closure permits. TCRR shall communicate traffic control measures, including reroutes and temporary closures, with the public, local officials and the media prior to and during construction activities. TCRR shall be responsible for maintaining access to all businesses and residences throughout construction with appropriate signage directing drivers to access points.</p>
<p>The proposed terminal station location in Houston is of utmost importance to METRO. We recommend a summary table be prepared that compares the major impacts associated with each location in order to provide a clear understanding of the issues associated with them.</p>	<p>Table 2-15 in Section 2.7.3, Alternatives Considered, 2.7.3, Alternatives Considered, Comparison of Houston Terminal Station Option Alternatives, compares the three alternative locations for the Houston Terminal Station. Based on the analysis contained in the Final EIS, FRA identified the Northwest Mall Terminal Station Option as the preferred Houston Terminal Station Option. The individual sections of Chapter 3 of the Final EIS also include more detailed</p>

AGENCY COMMENT	RESPONSE
<p>It is imperative that METRO be an integral partner in the assessment and design of the terminal station to ensure both current and proposed transit service can be integrated into the design of the station to enhance convenience and connectivity for all passengers. The HSR DEIS must commit to providing connections to transit and ensure the financial commitment to enable these necessary connections. METRO anticipates serious challenges in crossing an active freight rail line at Hempstead Road.</p>	<p>analysis and comparative tables of the three station options. Section 3.11.5.2.10 of the Final EIS, Environmental Consequences, Harris County, includes tables showing traffic and roadway impacts for the Houston Terminal Station Options.</p> <p>FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR, which is based on the N700-Series Tokaido Shinkansen technology. To mitigate potential impacts from the Houston Terminal Station, FRA is requiring the following, as outlined in Section 3.11.6.2, Transportation, Mitigation Measures:TR-MM#3: Transit Coordination. Prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.</p> <p>Ultimately, TCRR is not responsible for methods in which passengers will arrive at the stations. However, FRA is requiring TCRR to coordinate directly with transit agencies (including METRO) for connections to and from the proposed Station sites. In addition to the Amtrak connection, HSR riders may travel to and from the stations by walking, biking, driving and parking a personal vehicle, hiring a shared car (Uber, Lyft for example) or cab and being dropped off, being dropped off by another driver/private vehicle, or connecting via existing public transportation options.</p> <p>Station details are located in Appendix F, TCRR Final Conceptual Engineering Design Report and Appendix G, TCRR Final Conceptual Engineering Plans and Details.</p>
<p>An efficient high capacity transit connection to downtown is necessary to mitigate anticipated impacts to the local freeways and roadway system and provide seamless transit connectivity for HSR passengers. Currently, the document does not address how this important integration with METRO's services will be made. Connecting downtown, the City's largest activity center, should be addressed by proposing design and financial participation concepts.</p>	<p>FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR. As documented within Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports and Appendix G, TCRR Final Conceptual Engineering Plans and Details and TCR's August 21, 2019 STB filing, TCRR would provide and manage integrated ticketing and transfer service between the Houston Terminal Station and Amtrak's existing station near downtown Houston. Connections would include operation of air-conditioned, rubber tire electric buses capable of transporting passengers and luggage. Vehicles are anticipated to be similar to the Proterra Catalyst 35 all-electric bus, the EMOSS MB16 all-electric mini bus or other commercially available electric vehicles. The transfer service would operate over existing roads approximately 7.4 miles (one-way) between Houston's Amtrak Station and the HSR Terminal</p>

AGENCY COMMENT	RESPONSE
	utilizing IH-45, IH-10, and IH-610 (refer to Figure 3.11-6 of the Final EIS). TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement to give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket.
<p>METRO requests further discussion and collaboration for the HSR endeavor in accordance with the attached Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project, dated August 17, 2017. This document prescribes coordination among stakeholders to address issues including transit connectivity. It also addresses potentially accommodating rail transit within the same footprint.</p> <p>General</p> <p>METRO requests stakeholder coordination as stated in the <i>Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project</i>, dated August 17, 2018.</p>	<p>On June 5, 2018, AECOM, on behalf of FRA, facilitated a meeting between Houston Metro (METRO) and TCRR to discuss plans and projects at the Northwest Transit Center, in the Hempstead Corridor and in the general SH 290 area in Houston. As noted in TR-MM#3: Transit Coordination, TCRR shall coordinate directly with transit agencies prior to construction.</p>
<p>General Sections 3.5-3.8</p> <p>Maps of affected areas/features embedded in the text would aid the reader.</p>	<p>Maps of the entire project area are included in Appendix D, Mapbooks.</p>
<p>2-6 Section 2.2.2</p> <p>Regardless of the preferred location, METRO requests the Houston terminal include an envelope that could accommodate future station and extensions for commuter rail, light rail, or Bus Rapid Transit (BRT) service; and a financial commitment to provide transit connections. METRO requests at least 6 bus bays within the vicinity of the terminal.</p>	<p>TCRR has incorporated an ‘envelope’ for future connections in their concept plans for the Houston Terminal Station, as shown in Appendix F: TCRR Conceptual Engineering Design Report.</p>
<p>2-31 Sec. 2.5.2.3</p> <p>A commitment obliging TCP to an express connection to Downtown, the largest employment center in the region, needs to be addressed and included within the DEIS.</p>	<p>FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR. As documented within Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports and Appendix G, TCRR Final Conceptual Engineering Plans and Details and TCR's August 21, 2019 STB filing, TCRR would provide and manage integrated ticketing and transfer service between the Houston Terminal Station and Amtrak's existing station near downtown Houston. Connections would include operation of air-conditioned, rubber tire electric buses capable of transporting passengers and luggage. Vehicles are anticipated to be similar to the Proterra Catalyst 35 all-electric bus, the EMOSS MB16 all-electric mini bus or other commercially available electric</p>

AGENCY COMMENT	RESPONSE
	<p>vehicles. The transfer service would operate over existing roads approximately 7.4 miles (one-way) between Houston’s Amtrak Station and the HSR Terminal utilizing IH-45, IH-10, and IH-610 (refer to Figure 3.11-6 of the Final EIS). TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement to give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket.</p>
<p>3.7 Water Impacts General</p> <p>The DEIS does not discuss impacts or acknowledge the presence of multiple Harris County Flood Control District drainage channels throughout the study area. The discussion needs more detail to ensure drainage on METRO properties would not be adversely impacted by the project.</p>	<p>Approximately 93% of the Project is on viaduct in Harris County. Section 3.7.6.1, Waters of the U.S., Compliance Measures and Permitting, WW-CM#2: Maintain Low Flow states that TCRR will design and construct water crossings to maintain low flow and/or minimize stream relocations. Section 3.8.6.1, Floodplains, Compliance Measures outlines compliance measures to minimize disruption to floodplains. Information regarding stream crossings including viaduct and culvert design is outlined in Appendix F: TCRR Final Conceptual Engineering Design Report, Section 13.5.</p>
<p>3.9-11 Table 3.9-2 Parallel Utilities - Only the NWTC site is shown to have parallel utility lines</p> <p>The other two terminal sites in Houston may also have parallel utilities, especially along Hempstead Road.</p>	<p>Table 3.9-2 in Section 3.9.4.1 of the Final EIS has been updated to include City of Houston parallel utility lines for the Industrial Site Terminal Option, including two stormwater, one wastewater, and two water lines. No parallel utility lines were identified for the Northwest Mall Terminal Option.</p>
<p>Sec. 3-11 General</p> <ul style="list-style-type: none"> -There is no mention of pedestrian access or connections. - At-grade sidewalks should be included at all overpasses to allow pedestrian movement across the HSR right of way (ROW). 	<p>Design details, ownership, and maintenance responsibilities for these roads would be closely coordinated with the appropriate Project stakeholders during more advanced design, which could include at-grade sidewalks on overpasses, depending on the local requirements.</p> <p>No existing on-road pedestrian facilities would be permanently impacted by the project.</p> <p>Refer to Appendix F: TCRR Conceptual Engineering Design Report for conceptual plans for the station areas, which include pedestrian bridges and/or crossings.</p>
<p>3.11-3 Table 3.11-1 Regional and Local Transportation Plans and Policies</p> <p>There is no mention of METRO Solutions or METRO’s long-range plans or policies to serve the HSR station. Coordination with current and previous METRO plans needs to be included:</p> <ul style="list-style-type: none"> -METRO requests an envelope along Hempstead Road that would accommodate commuter services such as LRT, Commuter Rail Transit 	<p>Table 3.11 of the Final EIS includes a description of METRONext. FRA is requiring TCRR to coordinate directly with transit agencies (including METRO) for connections to and from the Houston Terminal Station as outlined in Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures. Additionally, the HSR stations are designed to accommodate connections to existing local public transportation in Dallas and Houston, and shared ride options, private vehicles and rental cars at all stations. Station details are located in Appendix F, TCRR</p>

AGENCY COMMENT	RESPONSE
<p>(CRT), or BRT in accordance with the Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project.</p> <p>-Service enhancements within and adjacent to the HSR terminal alternatives are an important part of METRONext and accommodations need to be included in the station design.</p>	<p>Final Conceptual Engineering Design Report and Appendix G, TCRR Final Conceptual Engineering Plans and Details.</p>
<p>3.11-33 Table 3.11-33 Table of Transit routes served by NWTC incomplete</p> <p>-NWTC currently serves 16 routes but only 12 are listed in the DEIS. For example, Route 84 and Park and Ride (P&R) routes are not included. METRO has an interactive map located at http://www.ridemetro.org/Pages/SystemMa12.as12x that can aid in ensuring all potential METRO impacts are addressed and discussed.</p> <p>-The DEIS should discuss short-term and long-term impacts to METRO bus stops, shelters, and other facilities.</p> <p>-In addition to the proposed station alternatives, there are numerous METRO routes along the proposed HSR alignment that are not discussed within the DEIS nor are potential temporary or permanent impacts. These impacts should be captured and mitigation identified in the DEIS.</p> <p>-Northwest Transit Center (NWTC) operations need to be maintained during construction. Describe anticipated construction phasing and/or scheduling and impacts to METRO services and facilities.</p>	<p>There are 12 bus routes that serve the North West Transit Center according to the METRO Trip mobile app as of April 2020. As stated in Section 3.11.5.2.10 of the Final EIS, Transportation, Harris County, the Houston Terminal Station Options would be expected to experience 2 percent non-motorized access due to the lack of a high-capacity transit network in the vicinity of the stations.</p> <p>Table 3.11-33 of the Final EIS inventories METRO transit routes near the Houston Terminal Stations. TCRR continues to coordinate with stakeholders in Houston regarding multimodal connections at the Houston Terminal Station as the design progresses. It is reasonable to anticipate that Houston METRO would adjust bus service to provide better access to the Houston Terminal Station. FRA is requiring TCRR to coordinate with METRO on the temporary construction impacts and permanent impacts as outlined in Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures. The mitigation measures include:</p> <p>TR-MM#3: Transit Coordination. Prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.</p> <p>TR-MM#1: Traffic Control Plan. Prior to construction, TCRR shall develop a traffic control plan that details the sequence of construction, the detour plan temporary signing, and striping of pavement marking, among other things. The traffic control plan shall also include provisions for safe and efficient operation of all modes of transportation during construction. Under state and local laws, TCRR shall acquire the appropriate permits/easements from TxDOT (state) and/or local municipalities prior to construction, including all current ordinances, including those that have been put into place between the release of the Draft EIS and the Final EIS. There are three main permits/easements that TCRR would be required to obtain: freight and transit crossing easements, roadway access permits and road closure permits. TCRR shall communicate traffic control measures, including reroutes and temporary closures, with the public, local</p>

AGENCY COMMENT	RESPONSE
	officials and the media prior to and during construction activities. TCRR shall be responsible for maintaining access to all businesses and residences throughout construction with appropriate signage directing drivers to access points.
<p>3.11-35 Table 3.11-35 List of Planned Transportation Projects in Harris County</p> <ul style="list-style-type: none"> - Include the Uptown BRT project within the list. - There is no mention of METRO Solutions but it should be discussed within the DEIS. - Various METRO studies have identified a need for future commuter service along Hempstead Road, including the W. Little York P&R, and should be mentioned within the DEIS. 	<p>The Final EIS has been revised to include the Uptown BRT project in Table 3.11-35.</p> <p>Table 3.11-1 of the Final EIS includes a description of the METRONext ballot proposition. The Final EIS describes projects in formally adopted plans, such as the 2040 RTP, rather than projects described in referendums such as METRONext or METRO Solutions. The commuter service along Hempstead Road is not adopted in a formal plan. In addition, this commuter bus service would not change the impact analysis for the HSR Project.</p>
<p>3.11-72 Last paragraph " ... lack of high-capacity transit network in the vicinity of the stations."</p> <ul style="list-style-type: none"> - NWTC has 16 bus routes with future LRT and BRT connections. - The NW Mall location has no defined projects, except commuter rail by others. - The greater transit connectivity that can be offered at the NWTC should provide a higher percentage of transit access to HSR in accordance with the Memorandum of Understanding Regarding the Texas Central High-Speed Passenger Rail Project. - Both sites are the same in Tables 3.11-55 and 58. 	<p>FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR. As documented within Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports and Appendix G, TCRR Final Conceptual Engineering Plans and Details and TCR's August 21, 2019 STB filing, TCRR would provide and manage integrated ticketing and transfer service between the Houston Terminal Station and Amtrak's existing station near downtown Houston. Connections would include operation of air-conditioned, rubber tire electric buses capable of transporting passengers and luggage. Vehicles are anticipated to be similar to the Proterra Catalyst 35 all-electric bus, the EMOSS MB16 all-electric mini bus or other commercially available electric vehicles. The transfer service would operate over existing roads approximately 7.4 miles (one-way) between Houston's Amtrak Station and the HSR Terminal utilizing IH-45, IH-10, and IH-610 (refer to Figure 3.11-6 of the Final EIS). TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement to give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket.</p>
<p>3.11-73 First full paragraph Project would require one-third of the parking lot at the West Little York P&R for two TPSS</p> <ul style="list-style-type: none"> -Have other alternatives been considered? METRO requests all potential impacts to be specified, depicted through mapping, and discussed in more detail. This facility is planned to be converted into a Transit Center in the future. 	<p>The Traction Power Substations at this location have been removed as a result of design refinements made between the release of the Draft EIS and the Final EIS.</p> <p>The Build Alternatives, however, would impact a portion of the West Little York Park-and-Ride located in the southeast quadrant of the 190 Beltway interchange. This facility serves four peak-hour bus routes. The Project would take a small portion of the southeastern edge of the parking lot for temporary construction.</p>

AGENCY COMMENT	RESPONSE
<p>-Loss of parking will need to be mitigated. The mitigation in Sec. TR-MM#7 on page 3.11-75 provides no insight.</p> <p>-TCP needs to coordinate with METRO.</p>	<p>Approximately 10 parking spaces would be impacted. Coordination with METRO would be required to determine the adverse effects of the partial taking and mitigation, if needed. Additionally, if the Park-and-Ride was funded with federal funds, coordination with FTA would be required.</p>
<p>3.11-73 First full paragraph, last line</p> <p>"...coordination with FCA would be required."</p> <p>- Replace "FCA" with "FTA."</p>	<p>This text has been updated. "Additionally, if the Park-and-Ride was funded with federal funds, coordination with FTA would be required."</p>
<p>3.11-76 Table 3.11-62 Traffic Impact at Houston Terminal Sites</p> <p>- METRO believes there will be both short and long-term impacts to its services. There needs to be more data in the summary table (e.g. the number of impacted intersections should include LOS, modifications required, access, etc.)</p> <p>- What is the primary access to the NWTC for each of the alternatives? How will Old Katy Road and North Post Oak Road be impacted?</p> <p>- NWTC operations need to be maintained during construction.</p> <p>- Short and long-term impacts to parallel and crossing bus routes need to be addressed within the DEIS.</p>	<p>There are 12 bus routes that serve the Northwest Transit Center according to the METRO Trip mobile app as of April 2020. As stated in Section 3.11.5.2.10 of the Final EIS, Transportation, Harris County, the Houston Terminal Station Options would be expected to experience 2 percent non-motorized access (bike or pedestrian traffic via bike lanes, bike routes and multi-use paths or trails) due to the lack of a high-capacity transit network in the vicinity of the stations. As summarized in Appendix J, Ridership Memo, a ridership and revenue forecast was conducted by TCRR.</p> <p>Table 3.11-33 of the Final EIS inventories METRO transit routes near the Houston Terminal Stations. TCRR continues to coordinate with stakeholders in Houston regarding multimodal connections at the Houston Terminal Station as the design progresses. It is reasonable to anticipate that Houston METRO would adjust bus service to provide better access to the Houston Terminal Station. FRA is requiring TCRR to coordinate with METRO on the temporary construction impacts and permanent impacts as outlined in Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures. The mitigation measures include:</p> <p>TR-MM#2: Intersection Improvements, TCRR shall perform a full traffic impact analysis (TIA) that complies with City of Houston and/or TxDOT TIA guidelines. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process.</p> <p>TR-MM#3: Transit Coordination. Prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.</p> <p>TR-MM#1: Traffic Control Plan. Prior to construction, TCRR shall develop a traffic</p>

AGENCY COMMENT	RESPONSE
	<p>control plan that details the sequence of construction, the detour plan temporary signing, and striping of pavement marking, among other things. The traffic control plan shall also include provisions for safe and efficient operation of all modes of transportation during construction. Under state and local laws, TCRR shall acquire the appropriate permits/easements from TxDOT (state) and/or local municipalities prior to construction, including all current ordinances, including those that have been put into place between the release of the Draft EIS and the Final EIS. There are three main permits/easements that TCRR would be required to obtain: freight and transit crossing easements, roadway access permits and road closure permits. TCRR shall communicate traffic control measures, including reroutes and temporary closures, with the public, local officials and the media prior to and during construction activities. TCRR shall be responsible for maintaining access to all businesses and residences throughout construction with appropriate signage directing drivers to access points.</p>
<p>3.12-4 Sec. 3.12.5.2.3 Houston Terminal Station parking options – Station needs approx. 6,500</p> <ul style="list-style-type: none"> - Terminal station located by the NWTC would eliminate 250 METRO parking spaces. Discuss the parking impacts and mitigation options. - Visual and traffic impacts of parking structure are needed. 	<p>Section 3.10.5.2.15, Aesthetics and Visual Resources, includes an assessment of visual impacts. Figures 3.10-99 to 3.10-112 show examples of the stations and parking structures for the Houston Terminal Station Options. Note that the images are conceptual and the overall station design may change during final design. Section 3.11.5.2.10 of the Final EIS, Environmental Consequences, Harris County, includes tables showing traffic and roadway impacts for the Houston Terminal Station Options. Additionally, based on the analysis contained in the Final EIS, FRA identified the Northwest Mall Terminal Station Option as the preferred Houston Terminal Station Option.</p>
<p>3.17-10 Table 3.17-8 Harris County proposed Bike trails in the study area</p> <p>Were the City of Houston or Bike Houston plans consulted? Numerous bikeways cross or parallel Hempstead Rd. These can be found at: https://www.Houstonbikeways.org/maps</p>	<p>Table 3.17-8 of the Final EIS has been updated to include facilities from the 2017 Houston Bike Plan.</p>
<p>4-5 Sec. 4.3.1.3 Indirect effects at Houston Terminal locations</p> <p>The NWTC site would not discourage less development than the industrial site. Section 4(f) impacts associated with the Industrial Site automatically removes it from further consideration since there are alternatives without 4(f) impacts. In addition, hazardous materials related mitigation (e.g. clean up) for the Industrial Site would be more of a hindrance for future development.</p>	<p>Section 2.7.3 Alternatives Considered, Comparison of Houston Terminal Station Option Alternatives, describes the referenced use of Section 4(f) resources and states that FRA identified the Northwest Mall Terminal Station Option as the preferred Houston Terminal Station Option.</p> <p>Section 4.3.1.3, Indirect Effects and Cumulative Impacts, Houston Terminal Station, states that due to their similar design and proximity, anticipated development or the effects of the development among the Houston Terminal Station Options are anticipated to be comparable.</p>
<p>4-25 Table 4-3 Uptown LRT extension 0.5 miles to Hempstead</p>	<p>Table 4-8 of the Final EIS has been updated to discuss the Uptown BRT project.</p>

AGENCY COMMENT	RESPONSE
<p>Intermodal Terminal</p> <p>-LRT is shown as a future extension beyond Hempstead in METRO Solutions.</p> <p>-The Uptown BRT is currently under construction and needs to be discussed in the DEIS.</p> <p>-The 2040 RTP shows the extension from Uptown as High Capacity Transit (HCT).</p> <p>-Accommodations to connect to the transit network need to be committed to in the DEIS.</p>	<p>The Final EIS references projects in the formally adopted H-GAC 2040 RTP rather than projects described in public referendums. Table 4-7 has been updated to show the Uptown-Galleria Extension as high capacity transit as shown in the H-GAC 2040 RTP.</p> <p>FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR. As documented within Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports and Appendix G, TCRR Final Conceptual Engineering Plans and Details and TCR's August 21, 2019 STB filing, TCRR would provide and manage integrated ticketing and transfer service between the Houston Terminal Station and Amtrak's existing station near downtown Houston. Connections would include operation of air-conditioned, rubber tire electric buses capable of transporting passengers and luggage. Vehicles are anticipated to be similar to the Proterra Catalyst 35 all-electric bus, the EMOSS MB16 all-electric mini bus or other commercially available electric vehicles. The transfer service would operate over existing roads approximately 7.4 miles (one-way) between Houston's Amtrak Station and the HSR Terminal utilizing IH-45, IH-10, and IH-610 (refer to Figure 3.11-6 of the Final EIS). TCRR and Amtrak entered into a Voluntary Coordination Agreement and then executed a Reservation and Ticketing Agreement to give interstate passengers the ability to travel on, and transfer between, both TCRR and Amtrak systems on a single through ticket.</p>
<p>CONCEPTUAL DRAWINGS</p> <p>01121 HSR alignment south of UPRR by W. Little York P&R.</p> <p>The DEIS states one-third of W. Little York P&R parking will be displaced by TPSS but it is not shown on drawing. Include all impacts on the exhibit.</p>	<p>The Traction Power Substations at this location have been removed as a result of design refinements made between the release of the Draft EIS and the Final EIS. The West Little York P&R property would not be affected by the Project.</p> <p>The Build Alternatives, however, would impact a portion of the West Little York Park-and-Ride located in the southeast quadrant of the 190 Beltway interchange. This facility serves four peak-hour bus routes. The Project would take a small portion of the southeastern edge of the parking lot for temporary construction. Approximately 10 parking spaces would be impacted. Coordination with METRO would be required to determine the adverse effects of the partial taking and mitigation, if needed. Additionally, if the Park-and-Ride was funded with federal funds, coordination with FTA would be required.</p>
<p>01121 - 01142 Alignment west of W. Little York is south of UPRR.</p> <p>HSR alignment occupies space south of UPRR that was to be included within the 50' high capacity transit reserve that TxDOT was to acquire for METRO or Gulf Coast Rail District (GCRD) to operate a HOV or CRT.</p>	<p>In Harris County, specifically, approximately 93% of the Project is on viaduct. The elevated rail line will be constructed to allow future expansion of roadways described in the state and local transportation plans.</p> <p>To mitigate potential impacts from the Houston Terminal Station, FRA is</p>

AGENCY COMMENT	RESPONSE
	<p>requiring the following, as outlined in Section 3.11.6.2 of the Final EIS, Transportation, Mitigation Measures:TR-MM#3: Transit Coordination. Prior to construction, TCRR shall coordinate directly with all transit agencies (DART, METRO, CTS, HOTRTD, Brazos Transit District and Colorado Valley Transit) to manage construction schedules to correspond with freight and transit operations. TCRR shall also coordinate directly with all transit agencies for connections to and from the proposed Station sites, including scheduling and facility improvements/design.</p> <p>TR-CM#1: Freight and Transit Crossing Easements. Prior to construction, TCRR shall coordinate directly with freight railroad operators (BNSF, UPRR, TUEX and TEXU) and the transit agencies (DART) to obtain crossing easements, determine safety requirements during construction, and manage construction schedules to correspond with freight and transit operations.</p>
<p>STATION FOOTPRINT DRAWINGS</p> <p>519 of 536 Alignment at W. Little York</p> <p>Does not show TPSS impact described in DEIS on page 3.11- 73. The drawing should be revised accordingly.</p>	<p>The Traction Power Substations at this location have been removed as a result of design refinements made between the release of the Draft EIS and the Final EIS.</p>



The Transportation Policy Body for the North Central Texas Council of Governments
(Metropolitan Planning Organization for the Dallas-Fort Worth Region)

March 5, 2018

Mr. Kevin Wright
Environmental Protection Specialist
Federal Railroad Administration
1200 New Jersey Avenue SE, MS-20
Washington, DC 20590

Dear Mr. Wright:

Congratulations on achieving this milestone in the development of high-speed passenger rail in Texas. The North Central Texas Council of Governments (NCTCOG) supports implementing a high-speed passenger rail service between Dallas and Houston. Connectivity to other planned high-speed passenger rail services and other transit modes within the Dallas-Fort Worth region will be important to the success of a high-speed rail system. As such, NCTCOG supports the design of a station in Dallas that is flexible regarding the connection to the planned high-speed rail service from Fort Worth to Dallas and Dallas Area Rapid Transit light rail.

NCTCOG staff has reviewed the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement (DEIS) dated December 2017 and offer the enclosed comments. The proposed Dallas to Houston High-Speed Rail line is consistent with Mobility 2040: The Metropolitan Transportation Plan for North Central Texas.

I strongly encourage continued development of high-speed passenger rail service in Texas. NCTCOG staff will continue to provide any information or services necessary to support this effort in the Dallas-Fort Worth region.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Morris", is written over a white background.

Michael Morris, P.E.
Director of Transportation

SW:cg
Enclosure

cc: Kevin Feldt, Program Manager, NCTCOG
Sandy Wesch, P.E., AICP, Project Engineer, NCTCOG

**NCTCOG Comments on the December Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Comment	Location
1. The Dallas to Houston DEIS and supporting drawings in Appendices A thru F describe the project from Dallas to Houston. The engineering drawings are inconsistent with this description and show the project from Houston to Dallas. This compounds the complexity of the project and the review of the document.	
2. In the list of acronyms, DFW is listed as meaning Dallas Fort Worth Airport. However, within the document DFW is used as meaning Dallas-Fort Worth (see page 1-2).	Page xxvii
3. Suggest including a table in the executive summary (such as Table 2-13) to more clearly identify the eight segments included in each build alternative.	Executive Summary, Page ES-4, last paragraph
4. Suggest adding a reference to the website with the alignment alternatives report.	Executive Summary, Page ES-4
5. Please clarify the source of the SO ₂ increase. The document states that the trains will cause a reduction.	Executive Summary, Page ES-9, 4 th paragraph
6. The no build is only mentioned in this one statement in addressing MSATs. Because this is not discussed in the previous paragraphs, suggest remove for consistency.	Executive Summary, Page ES-10, 1 st paragraph
7. Suggest deleting the statement that terminal impacts will not impact species habitat because of their urban environments. The Least Interior Tern is known to nest in urban environments in Dallas-Fort Worth as well as other species. Being urban does not preclude impacts to species habitat.	Executive Summary, Page ES-13, 2 nd paragraph
8. It is not clear what the difference is between "Structure Displacements (within LOD)" and "Estimated Total Structure Acquisitions*." Also, what does the asterisk after "Estimated Total Structure Acquisitions" denote?	Executive Summary, Page ES-21, Table 12
9. What do the asterisks behind "Economic Impacts" and "Children's Health and Safety" denote?	Executive Summary, Page ES-23, Table 14
10. Explaining the types of eligibility of a historic resource seems too detailed for an executive summary. Suggest just discussing the results.	Executive Summary, Page ES-26
11. Suggest revising the text. The Preferred Alternative (one alternative) is discussed along with the three Build Alternatives without the preferred being identified. If all three build alternatives would result in the same impacts, suggest referring to them as such (build alternatives) or identify the Preferred Alternative first in the section instead of at the end.	Executive Summary, Section ES.10, Pages ES-30-31
12. The Texas Triangle is identified as Dallas-Houston-Austin in Figure 1-1 and page 1-7. However, on page 1-11, the Texas Triangle is identified as Dallas-Houston-San Antonio. Please clarify.	Section 1.2.2.3, Pages 1-7 and 1-11
13. NO _x is not a criteria pollutant; it is a precursor to ozone. NO ₂ is the specific criteria pollutant listed in the Clean Air Act (CAA). Please revise.	Section 3.2.1, Page 3.2-1, 2 nd paragraph
14. Suggest adding a table explaining which counties are nonattainment for ozone and which areas of a county are nonattainment for SO ₂ .	Section 3.2.1, Page 3.2-1, 3 rd paragraph
15. Update the penultimate sentence; October 1, 2017 has passed and nonattainment designations were not made.	Section 3.2.1, Page 3.2-1, 3 rd paragraph

NCTCOG Comments on the December Dallas to Houston High-Speed Rail Draft Environmental Impact Statement	
Comment	Location
16. The CAA did identify 188 HAPS, but the current list is 187. Suggest clarifying this in the text.	Section 3.2.2 Page 3.2-4, 1 st paragraph
17. The first version of MOVES2014a was released on November 4, 2015. With this release, the EPA requires NONROAD modeling to be done with MOVES2014a non-road component. Previous to this release, the NONROAD2008 model could be used to calculate non-road emissions. It is unclear when the emissions were calculated; however, the terminology should be consistent with the EPA model requirements. https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100NNR0.txt (see pg. 2, 3rd question.)	Section 3.2.3.1.2, Page 3.2-5 1 st paragraph
18. Second sentence is difficult to understand. Suggest rephrasing as "As shown, the only air quality study area counties which are nonattainment for the 2008 8-hour O ₃ standard are the counties associated with the terminating ends of the Build Alternatives."	Section 3.2.4.1, Page 3.2-17, 3 rd paragraph
19. Considering moving this table to the beginning of Section 3.2.	Section 3.2.4.1, Page 3.2-18, Table 3.2-5
20. Suggest listing the dates of the ozone season, which are January 1 - December 31 for Houston and March 1 - November 30 for Dallas-Fort Worth.	Section 3.2.4.2, Page 3.2-19, 1 st paragraph
21. The document indicates that buses serving the stations will be fueled by a mixture of diesel and natural gas. However, DART will be piloting use of electric buses in 2018. Suggest rephrasing to acknowledge the possibility of other fuel types in the future.	Section 3.2.5.2.5, Page 3.2-29, 2 nd paragraph
22. Recommend expanding Mitigation Measure #AQ-MM#5 to include a requirement that TCP and its construction contractor utilize equipment that complies with EPA Tier 4 final emissions standards when possible. A similar commitment to use the latest available construction equipment is mentioned in the first paragraph of page 3.2-29 with reference to minimizing MSAT emissions. NCTCOG recommends that TCP include contract language that requires use of such equipment. Sample contract language is available from NCTCOG at www.nctcog.org/construction , which also addresses requirements to minimize idling (AQ-MM#5) and utilize TxLED-compliant fuel (AQ-MC#1).	Section 3.2.6.2, Page 3.2-35
23. Suggest removing table notes for Category 5 and 5b because neither of these are used in the main table.	Section 3.3.4.1.6, Page 3.3-12, Table 3.3-2
24. Discussions of most of the major and minor aquifers include a description of the current health status (declining, etc.). However, no description is provided for the Trinity, Woodbine, Nacatoch, and Yegua Jackson. Add for consistency.	Section 3.3.4.2.1, Pages 3.3-14-16
25. For clarity, suggest converting the table notes to text/bullets.	Section 3.5.3.1, Page 3.5-5, Table 3.5-1
26. The Least Interior Tern have been known to nest on flat gravel rooftops in industrial areas in Dallas County. Because the proposed Dallas Station location is in an industrial area near the Trinity River, this species needs to be discussed (and investigated if it has not).	Section 3.6.4.4.2, Page 3.6-45 1 st paragraph

**NCTCOG Comments on the December Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Comment	Location
27. Suggest the amount of construction energy should be calculated using the BTU content of diesel and the narrative updated accordingly. The document indicates the amount of construction phase energy consumption was estimated by multiplying the gallons of fuel consumption by the BTU content of a gallon of gasoline. Typically, the heavy trucks and construction equipment are diesel-powered, not gasoline-powered. Recommend re-assessing the methodology to more comprehensively incorporate the vehicle and equipment inventory and activity rates used for the air quality analysis. Recommend that the fuel usage should be calculated using the total number of working hours or miles and the estimates of energy consumption for construction equipment default values found in the Air Quality Technical Memorandum from Appendix E, to be consistent with the approach to estimating pollutant emissions.	Section 3.9.3.2, Page 3.9-4
28. Suggest replacing this graph with the more recent 2015 data, which is now available on EIA (https://www.eia.gov/state/?sid=TX#tabs-3).	Section 3.9.4.2.1, Page 3.9-21, Figure 3.9-5
29. The document does not mention additional operations water demand associated with additional power generation, which is particularly water-intensive. Suggest that some acknowledgement and discussion of this water demand be added.	Section 3.9.5.2.1, Page 3.9-28 6 th paragraph
30. The document does not mention additional operations wastewater generation associated with additional power generation, which is particularly water-intensive and generates substantial volumes of wastewater. Suggest that some acknowledgement and discussion of this impact be added.	Section 3.9.5.2.1, Page 3.9-30, 3 rd paragraph
31. There seems to be a missing explanation/table, or detail which could be added to Table 3.9-19, that summarizes key inputs for HSR operation energy consumed in a manner similar to the detail provided for HSR construction energy and the passenger vehicle travel energy. In addition, net energy saved should be calculated by subtracting both the HSR operation energy consumption and the HSR construction energy consumption from the passenger vehicle travel energy. As currently published, HSR construction energy is not factored into the net calculation.	Section 3.9.5.2.3, Pages 3.9-35 - 36
32. The "Notes: BTU-British" appears to be incomplete.	Section 3.9.5.2.3, Page 3.9-36, Table 3.9-19
33. In addition to water saving devices, recommend broadening mitigation measures EU-MM#7 to include energy-saving strategies (e.g., light-emitting diode lighting and other strategies consistent with energy efficient buildings, such as those listed by EnergyStar, LEED, or Better Buildings programs) that would help minimize power needs at the facilities during operations. Alternatively, an additional mitigation measure specific to energy efficiency could be added.	Section 3.9.6.2, Page 3.9-38
34. What does the asterisk on the number of lanes denote for Illinois Avenue?	Section 3.11.4.1.2, Table 3.11-5
35. It appears that traffic volumes were taken while IH 30/IH 35E (Horseshoe Project), Riverfront Boulevard, and Cadiz Street were under construction. If so, these counts may be skewed because of traffic seeking alternate routes.	Section 3.11.4.1.3, Page 3.11-11
36. Future plans to widen Pleasant Run Road will include an off-street trail. The relocated road must include a four-lane bridge with a trail.	Section 3.11.4.1.7, Page 3.11-15, Table 3.11-7
37. There are future plans to widen both Pleasant Run Road and Wintergreen Road from two to four lanes. Future plans for N. Lancaster Hutchins Road will expand the facility from two to six lanes. Sufficient clearance must be provided for the roadway and sidewalks.	Section 3.11.4.1.7, Page 3.11-15, Table 3.11-8

**NCTCOG Comments on the December Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Comment	Location
38. Delete Trinity Parkway	Section 3.11.4.1.7, Page 3.11-15 Table 3.11-8
39. For Loop 9, the project should not be classified as a freeway. The initial six lanes to be built by 2035 are frontage roads only but include a wide median for future mainlanes which may or may not be tolled.	Section 3.11.4.1.7, Page 3.11-15, Table 3.11-8
40. Please add the planned widening of SH 34 from two to four lanes. The shoulders will accommodate bicycles.	Section 3.11.4.2.6, Page 3.11-17, Table 3.11-11
41. The proposed design has Belt Line Road and Pleasant Run Road going over the HSR in South Dallas. This area has and will have more freight-oriented developments built which will have a large number of trucks traveling through the area. The design of the overpasses need to provide appropriate horizontal and vertical geometry for an intermodal area.	Section 3.11.5.2.1, Page 3.11-38, Table 3.11-37
42. The document should include a discussion on the impacts to bicycle and pedestrian movements around the Dallas station. Per the DEIS, 19 percent of access to the Dallas Terminal Station option would occur via non-motorized modes. Some of the intersection recommendations could impact bicycles and pedestrians by increasing the width of already large intersections and/or reducing sidewalk widths.	Section 3.11.5.2.1, Page 3.11-38, Table 3.11-39
43. Not sure if the proposed intersection improvements are possible at Lamar Street/Cadiz Street because of the grades and the historic eligibility of the Cadiz underpass.	Section 3.11.5.2.1, Page 3.11-38, Table 3.11-39
44. Need to consider all modes, not just motor vehicles. The closure of sidewalks and bicycle facilities (if applicable) should also be coordinated with local governments, DART, local businesses, and property owners.	Section 3.11.6.2, Page 3.11-74, TR-MM#1
45. The "Notes" do not consistently list all acronyms/abbreviations.	Section 3.15.4.1.1, Page 3.15-7, Tables 3.15-4 and 3.15-5
46. The city of Dallas has recently completed The Cedars Planning Study. Additionally, HSR is under study between Dallas and Fort Worth. Recommend adding these studies to the discussion and address how HSR would impact these plan.	Section 4.3.1.1, Page 4-4
47. Passenger rail stations can induce growth. This area could experience gentrification due to the current nature of the existing development and should be addressed.	Section 4.3.2.2.2, Page 4-8, 4 th paragraph
48. Because the Dallas Station location is adjacent and near the original location of the Trinity River, numerous wetlands and other low areas are adjacent to and around the proposed station. Any additional growth from the station could result in impacts and should be discussed.	Section 4.3.2.3.2, Page 4-9
49. Recommend rewording the first sentence. There are no areas in Dallas or Harris counties in nonattainment; the whole county is in nonattainment.	Section 4.4.6.1, Page 4-27, 1 st paragraph
50. Recommend adding a statement that the USACE requires mitigation greater than 1:1 for impacts, further helping the overall health of Waters of the US.	Section 4.4.7.3 Page 4-32, 6 th paragraph
51. The list of temporary impacts from construction equipment and construction activities should include increases in air pollutant emissions.	Section 5.2, Page 5-1 4 th bullet

**NCTCOG Comments on the December Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Comment	Location
52. The tables inventorying non-road engines for construction emissions estimates appear to assume use of Tier 3 equipment exclusively. While Tier 3 is a good emissions standard, NCTCOG suggests that TCP strive to employ Tier 4 interim and/or Tier 4 final equipment to the greatest extent possible, as equipment meeting these EPA standards has been available across all horsepower classes for several years.	Appendix E Technical Memorandum: Air Quality 12-15 n/a
53. E. Belt Line Road future plans expands from two to four lanes. Relocated road must include a four-lane bridge. All bridges should include sidewalks. The design of the overpasses need to provide appropriate horizontal and vertical geometry for an intermodal area.	Appendix G Segment 2-8 Dwg 01905
54. Pleasant Run Road future plans expands from two to four lanes with an off-street trail. Relocated road must include a four-lane bridge with trail. The design of the overpasses need to provide appropriate horizontal and vertical geometry for an intermodal area.	Appendix G Segment 2-8 Dwg 01906
55. Wintergreen Road future plans expands from two to four lanes. Sufficient clearance must be provided for the roadway and sidewalks.	Appendix G Segment 2-8 Dwg 01907
56. N. Lancaster Hutchins Road future plans expands from two to six lanes. Sufficient clearance must be provided for the roadway and sidewalks.	Appendix G Segment 2-8 Dwg 01907



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Michael Morris, P.E.
Director of Transportation
North Central Texas Council of Governments
P.O. Box 5888
Arlington, Texas 76005-5888

**Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Dear Mr. Morris:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 15, 2017, the FRA released the Draft EIS for review. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the NCTCOG provided on March 5, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

Enclosed is FRA's response to comments received from the NCTCOG on March 5, 2018.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen". The signature is fluid and cursive, with the first name "Michael" being more legible than the last name "Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

AGENCY COMMENT	PROPOSED RESPONSE
<p>1- The Dallas to Houston DEIS and supporting drawings in Appendices A thru F describe the project from Dallas to Houston. The engineering drawings are inconsistent with this description and show the project from Houston to Dallas. This compounds the complexity of the project and the review of the document.</p>	<p>FRA prepared the Final EIS and corresponding Mapbooks in Appendix D from Dallas to Houston. While the documents provided in Appendix F and G from TCRR were prepared Houston to Dallas, the entire project footprint and components are depicted in FRA's Mapbooks in Appendix D.</p>
<p>2- In the list of acronyms, DFW is listed as meaning Dallas Fort Worth Airport. However, within the document DFW is used as meaning Dallas-Fort Worth (see page 1-2).</p>	<p>The applicable sentence has been updated to show that DFW is an acronym for the Dallas-Fort Worth region and not the airport. The list of acronyms has also been updated to include the DFW region.</p>
<p>3- Suggest including a table in the executive summary (such as Table 2-13) to more clearly identify the eight segments included in each build alternative.</p>	<p>Table 2: Build Alternatives A-F in the Executive Summary of the Final EIS identifies the segments included in each Build Alternative.</p>
<p>4- Suggest adding a reference to the website with the alignment alternatives report. Executive Summary, Page ES-4</p>	<p>Text has been added to ES.4 Alternatives Analysis: "FRA's <i>Dallas to Houston High Speed Rail Project, Alignment Alternatives Analysis Report</i>, is available on the FRA Project website: https://railroads.fra.dot.gov/elibrary/dallas-houston-high-speed-rail-project-alignment-alternatives-analysis-report."</p>
<p>5- Please clarify the source of the SO₂ increase. The document states that the trains will cause a reduction. Executive Summary, Page ES-9, 4th paragraph</p>	<p>The source of SO₂ increase is the power plants that would provide electricity to the train, which is greater than the reduction in SO₂ from the reduction in Vehicle Miles Travelled and automobile emissions. Because power plants in Texas include coal in the mix, they produce proportionally more SO₂ than cars that use gasoline with negligible sulfur content. Therefore, removing cars off the road due to HSR usage does little to reduce SO₂ to offset the power plant production of SO₂, even though the fraction of electric power producing SO₂ decreases in the future. Refer to Section 3.2.5, Air Quality, Environmental Consequences.</p> <p>In addition, there would be an increase of SO₂ emissions during the construction period along the alignment resulting from fuel combustion emissions from off-road construction equipment and on-road vehicles.</p>
<p>6- The no build is only mentioned in this one statement in addressing MSATs. Because this is not discussed in the previous paragraphs, suggest remove for consistency. Executive Summary, Page ES-10, 1st paragraph</p>	<p>Refer to updated text in ES.5 Changes incorporated in the Final EIS since Draft EIS</p> <p>.</p>
<p>7- Suggest deleting the statement that terminal impacts will not impact species habitat because of their urban environments. The Least Interior Term is known to</p>	<p>Text has been updated to state "Impacts to the interior least tern and whooping crane are not presented in Table ES-6 due to the variability of</p>

AGENCY COMMENT	PROPOSED RESPONSE
<p>next in urban environments in Dallas-Fort Worth as well as other species. Being urban does not preclude impacts to species habitats. Executive Summary, Page ES-13, 2nd paragraph.</p>	<p>the species habitat within the Study Area. A detailed assessment of the least tern is included in the Biological Assessment which can be found in Appendix K, Agency Specific Reports, Biological Assessment. The Biological Opinion and incidental take statement will be issued by USFWS and attached to the Record of Decision.</p>
<p>8- It is not clear what the difference is between "Structure Displacements (within LOD)" and "Estimated Total Structure Acquisitions*." Also, what does the asterisk after "Estimated Total Structure Acquisitions" denote? Executive Summary, Page ES-21, Table 12</p>	<p>This asterisk signifies that the estimated total structure acquisitions includes both primary and secondary structures. A footnote has been added to clarify.</p>
<p>9- What do the asterisks behind "Economic Impacts" and "Children's Health and Safety" denote? Executive Summary, Page ES-23, Table 14</p>	<p>Asterisks denoted the expected timeframe for the identified impacts. All economic impacts include the total of one-time construction impacts plus 17 years of operating impacts from 2023 to 2040. Children's health and safety impacts (See Section 3.14.5.2.4) are the result of temporary construction effects. These impacts will no longer occur once construction has ended.</p>
<p>10- Explaining the types of eligibility of a historic resource seems too detailed for an executive summary. Suggest just discussing the results. Executive Summary, Page ES-26</p>	<p>Refer to updated text in ES 9.18 Cultural Resources in the Final EIS.</p>
<p>11- Suggest revising the text. The Preferred Alternative (one alternative) is discussed along with the three Build Alternatives without the preferred being identified. If all three build alternatives would result in the same impacts, suggest referring to them as such {build alternatives} or identify the Preferred Alternative first in the section instead of at the end. Executive Summary, Section ES. 10, Pages ES-30-31</p>	<p>The text in ES.10 FRA's Preferred Alternative has been revised and now includes: "FRA identified Build Alternative A as the Preferred Alternative in the Draft EIS published December 22, 2017."</p>
<p>12- The Texas Triangle is identified as Dallas-Houston-Austin in Figure 1-1 and page 1-7. However, on page 1-11, the Texas Triangle is identified as Dallas-Houston- San Antonio. Please clarify.</p>	<p>Figure 1.1: Texas Triangle has been updated in the Final EIS to include San Antonio.</p>
<p>13- NOx is not a criteria pollutant; it is a precursor to ozone. NO₂ is the specific criteria pollutant listed in the Clean Air Act (CAA). Please revise. Section 3.2.1, Page 3.2-1, 2nd paragraph</p>	<p>Text has been revised in Section 3.2.1, Air Quality, Introduction of the Final EIS. NOx has been revised to NO₂</p>
<p>14- Suggest adding a table explaining which counties are nonattainment for ozone and which areas of a county are nonattainment for SO₂. Section 3.2.1, Page 3.2-1, 3rd paragraph</p>	<p>Table 3.2-5: Current Attainment Status by County of the Final EIS provides this information.</p>

AGENCY COMMENT	PROPOSED RESPONSE
15- Update the penultimate sentence; October 1, 2017 has passed and nonattainment designations were not made. Section 3.2.1, Page 3.2-1, 3rd paragraph	Text in Section 3.2.1, Air Quality, Introduction of the Final EIS has been revised to state “the ozone NAAQS was revised in 2015, with nonattainment designations effective August 3, 2018.”
16- The CAA did identify 188 HAPS, but the current list is 187. Suggest clarifying this in the text. Section 3.2.2, Page 3.2-4, 1st paragraph	The text in 3.2.2, Regulatory Context of the Final EIS has been updated to state, “The Clean Air Act identified 188 air toxics labeled hazardous air pollutants, of which the EPA identified a group of 21 MSATs and further identified a subset of nine priority MSATs.:
17- The first version of MOVES2014a was released on November 4, 2015. With this release, the EPA requires NONROAD modeling to be done with MOVES2014a non-road component. Previous to this release, the NONROAD2008 model could be used to calculate non-road emissions. It is unclear when the emissions were calculated; however, the terminology should be consistent with the EPA model requirements. https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100NNRO.txt (see pg. 2, 3rd question.) Section 3.2.3.1.2, Page 3.2-5, 1st paragraph	All emissions have been calculated using the MOVES2014b emissions model. References to the NONROAD2008 and MOVES2014a models have been removed
18- Second sentence is difficult to understand. Suggest rephrasing as "As shown, the only air quality study area counties which are nonattainment for the 2008 8-hour Q3 standard are the counties associated with the terminating ends of the Build Alternatives." Section 3.2.4.1, Page 3.2-17, 3rd paragraph	Section 3.2.4.1, Air Quality, Regional Air Quality of the Final EIS has been updated with the following text: “As shown, the only air quality study area counties which are nonattainment for either the 2008 or 2015 8-hour O ₃ standard are Dallas and Harris counties associated with the terminating ends of the Build Alternatives.”
19- Considering moving this table to the beginning of Section 3.2. Table 3.2-5.	Due to citing specific figures from this table and the section specifically covering existing conditions of achieving air quality standards, it has been left in its current location.
20- Suggest listing the dates of the ozone season, which are January 1 - December 31 for Houston and March 1 - November 30 for Dallas-Fort Worth. Section 3.2.4.2, Page 3.2-19, 1st paragraph	The ozone season in Texas as defined by TCEQ is stated at the end of the 2 nd paragraph and cited in the report. Therefore, no change were made.
21- The document indicates that buses serving the stations will be fueled by a mixture of diesel and natural gas. However, DART will be piloting use of electric buses in 2018. Suggest rephrasing to acknowledge the possibility of other fuel types in the future. Section 3.2.5.2.5, Page 3.2-29, 2nd paragraph	Text has been added to Section 3.2.5.2 of the Final EIS to indicate potential for electric and other alternative fuel types in the future for DART.
22- Recommend expanding Mitigation Measure #AQ-MM#5 to include a requirement that TCP and its construction contractor utilize equipment that complies with EPA Tier 4 final emissions standards when possible. A similar commitment to use the latest available construction equipment is mentioned in the first paragraph of page 3.2-29 with reference to minimizing MSAT emissions.	The emissions analysis using MOVES2014b was calculated based on a default mix of engine standards. Use of any specific engine performance Tier standard is not required. Therefore, no changes were made.

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<p>NCTCOG recommends that TCP include contract language that requires use of such equipment. Sample contract language is available from NCTCOG at www.nctcog.org/construction, which also addresses requirements to minimize idling (AQ-MM#5) and utilize TxLED-compliant fuel (AQ-MC#1). Section 3.2.6.2, Page 3.2-35</p>	
<p>23- Suggest removing table notes for Category 5 and Sb because neither of these are used in the main table. Page 3.3-12, Table 3.3-2</p>	<p>Updates have been made as recommended in the Final EIS to Table 3.3-2.</p>
<p>24- Discussions of most of the major and minor aquifers include a description of the current health status (declining, etc.). However, no description is provided for the Trinity, Woodbine, Nacatoch, and Yegua Jackson. Add for consistency. Pages 3.3-14-16</p>	<p>Updates have been made to the text in 3.3.4, Water Quality, Affected Environment of the Final EIS.</p>
<p>25- For clarity, suggest converting the table notes to text/bullets. Table 3.5-1</p>	<p>Notes have been included in Table 3.5-1 in the Final FEIS.</p>
<p>26- The Least Interior Tern have been known to nest on flat gravel rooftops in industrial areas in Dallas County. Because the proposed Dallas Station location is in an industrial area near the Trinity River, this species needs to be discussed (and investigated if it has not). Page 3.6-45, 1st paragraph.</p>	<p>An assessment of the least tern is included in the Biological Assessment which can be found in Appendix K, Agency Specific Reports, Biological Assessment. The Biological Opinion and incidental take statement will be issued by USFWS and attached to the Record of Decision.</p>
<p>27- Suggest the amount of construction energy should be calculated using the BTU content of diesel and the narrative updated accordingly. The document indicates the amount of construction phase energy consumption was estimated by multiplying the gallons of fuel consumption by the BTU content of a gallon of gasoline. Typically, the heavy trucks and construction equipment are diesel-powered, not gasoline-powered. Recommend re-assessing the methodology to more comprehensively incorporate the vehicle and equipment inventory and activity rates used for the air quality analysis. Recommend that the fuel usage should be calculated using the total number of working hours or miles and the estimates of energy consumption for construction equipment default values found in the Air Quality Technical Memorandum from Appendix E, to be consistent with the approach to estimating pollutant emissions. Page 3.9-4</p>	<p>Construction energy (fuel) was determined based on specific schedule and equipment data estimated by TCRR (see Appendix F, TCRR Final Conceptual Engineering Design Report). This assessment used gasoline as it included both construction equipment and on and off-road vehicles during the construction and delivery of construction materials. These data were used to estimate the anticipated construction energy consumption based on total equipment working hours from the air quality analysis in Section 3.2, Air Quality.</p>
<p>28- Suggest replacing this graph with the more recent 2015 data, which is now available on EIA (https://www.eia.gov/statel?sid=TX#tabs-3). Figure 3.9-5</p>	<p>Figure 3.9-5 in the Final EIS was updated with data from 2018.</p>
<p>29- The document does not mention additional operations water demand associated with additional power generation, which is particularly water-intensive. Suggest that some acknowledgement and discussion of this water demand be added. Page 3.9-28, 6th paragraph</p>	<p>Section 3.9.5.2.2, Utilities and Energy, Energy of the Final EIS describes where the electricity would come from (the statewide grid), the power consumption involved, and the anticipated impacts to the electrical power supply considering the HSR operation power demand and</p>

AGENCY COMMENT	PROPOSED RESPONSE
	<p>statewide long-term power capacity planning. The large majority of the statewide grid is managed by the Electric Reliability Council of Texas (ERCOT). As the principle manager of the grid, ERCOT must forecast and provide for short-term and long-term growth power demand, while considering many factors such as planned industrial, commercial and residential uses, and future population growth in general. ERCOT must also identify the necessary added generation capacity to meet this need, plus a reserve margin (e.g., a contingency amount of generation capacity above the projected peak demand).</p>
<p>30- The document does not mention additional operations wastewater generation associated with additional power generation, which is particularly water-intensive and generates substantial volumes of wastewater. Suggest that some acknowledgement and discussion of this impact be added. Page 3.9-30, 3rd paragraph</p>	<p>Section 3.9.5.2.2, Utilities and Energy, Energy describes where the electricity would come from (the statewide grid), the power consumption involved, and the anticipated impacts to the electrical power supply considering the HSR operation power demand and statewide long-term power capacity planning. No new power generation is being developed to specifically provide power for the HSR. Utility providers and ERCOT would account for the estimated HSR power demand in planning for the future statewide power supply. If utility providers develop additional power generation in the future to meet statewide power demand, designs for new power generation facilities would be developed by the utility and approved through their standard regulatory and environmental review processes. Water usage and wastewater generation associated with such facilities, which varies depending on the type of facility (i.e., gas-fired, wind power, etc.), would be evaluated through those review processes.</p>
<p>31- There seems to be a missing explanation/table, or detail which could be added to Table 3.9-19, that summarizes key inputs for HSR operation energy consumed in a manner similar to the detail provided for HSR construction energy and the passenger vehicle travel energy. In addition, net energy saved should be calculated by subtracting both the HSR operation energy consumption and the HSR construction energy consumption from the passenger vehicle travel energy. As currently published, HSR construction energy is not factored into the net calculation. Pages 3.9-35-36</p>	<p>As stated at the end of Section 3.9.5.2.3, Utilities and Energy, Fuel, the fuel consumption savings estimated for the Project by reducing passenger vehicle travel would be approximately 37.4 million gallons of gasoline, or 4,285,420 MMBTUs, annually. By comparison, the annual operation of the HSR would consume approximately 1,554,571 MMBTUs, resulting in a net savings in energy of 2,730,849 MMBTUs. Because the Project would save more energy annually (2,730,849 MMBTUs) than it would take to construct the HSR system (58,043 MMBTUs one-time expenditure), the long-term impact on energy consumption would be beneficial.</p>
<p>32- The "Notes: BTU-British" appears to be incomplete. Table 3.9-19</p>	<p>This note has been revised to read "MMBTU – Millions of British Thermal Units"</p>

AGENCY COMMENT	PROPOSED RESPONSE
<p>33- In addition to water saving devices, recommend broadening mitigation measures EU-MM#7 to include energy-saving strategies (e.g., light-emitting diode lighting and other strategies consistent with energy efficient buildings, such as those listed by EnergyStar, LEED, or Better Buildings programs) that would help minimize power needs at the facilities during operations. Alternatively, an additional mitigation measure specific to energy efficiency could be added. Page 3.9-38</p>	<p>A discussion of TCRR’s proposed Low Impact Development (LID) design approach for the HSR system has been added to Section 3.9.6, Utilities and Energy. Also refer to Appendix F: TCRR Final Conceptual Engineering Design Report (Section 3.14.2.4, Basis of Design) for details of Low Impact Development.</p>
<p>34- What does the asterisk on the number of lanes denote for Illinois Avenue? Table 3.11-5</p>	<p>This asterisk signifies that the left turn lanes were included in the lane counts. A note has been added to Table 3.11-5: Roadway Crossings in Dallas County.</p>
<p>35- It appears that traffic volumes were taken while IH 30/IH 35E (Horseshoe Project), Riverfront Boulevard, and Cadiz Street were under construction. If so, these counts may be skewed because of traffic seeking alternate routes. Page 3.11-11</p>	<p>Although the Horseshoe Project was in the first half of construction at the time of the counts, access through the freeways and to Riverfront Boulevard and Cadiz Street were maintained at the time of traffic counts.</p>
<p>36- Future plans to widen Pleasant Run Road will include an off-street trail. The relocated road must include a four-lane bridge with a trail.</p>	<p>As presented in Table 3.11-5 of the Final EIS, Pleasant Run Road would not be relocated. Refer to Appendix D, Mapbooks, Project Footprint Page 17. The Project is on viaduct (rail over road) at this location.</p>
<p>37- There are future plans to widen both Pleasant Run Road and Wintergreen Road from two to four lanes. Future plans for N. Lancaster Hutchins Road will expand the facility from two to six lanes. Sufficient clearance must be provided for the roadway and sidewalks. Table 3.11-8</p>	<p>As presented in Table 3.11-5 of the Final EIS, these roads would not be relocated. Refer to Appendix D, Mapbooks, Project Footprint Pages 15 through 17. The Project is on viaduct (rail over road) at these locations.</p>
<p>38- Delete Trinity Parkway. Table 3.11-8</p>	<p>Trinity Parkway has been removed from Table 3.11-8: Planned Transportation Projects in Dallas County. The plan was rejected by the Dallas City Council in August 2017</p>
<p>39- For Loop 9, the project should not be classified as a freeway. The initial six lanes to be built by 2035 are frontage roads only but include a wide median for future mainlanes which may or may not be tolled. Table 3.11-8</p>	<p>Table 3.11-8: Planned Transportation Projects in Dallas County has been updated in the Final EIS to reflect this change. Loop 9 is now classified as a State Highway</p>
<p>40- Please add the planned widening of SH 34 from two to four lanes. The shoulders will accommodate bicycles. Table 3.11-11</p>	<p>The project will cross SH 34 on viaduct. Planned widening was not found within the Study Area.</p> <p>Within the county there is an active widening of SH 34 to connect north to Greenville, TX.</p> <p>No new transportation capacity improvements or modifications are</p>

AGENCY COMMENT	PROPOSED RESPONSE
	proposed and therefore SH 34 is not included in Table 3.11-11 .
<p>41- The proposed design has Belt Line Road and Pleasant Run Road going over the HSR in South Dallas. This area has and will have more freight-oriented developments built which will have a large number of trucks traveling through the area. The design of the overpasses need to provide appropriate horizontal and vertical geometry for an Intermodal area. Table 3.11-37</p>	<p>Since the release of the Draft EIS, TCRR continued making refinements to the preferred alternative and re-evaluated roadway crossings to minimize the modification to existing roadway infrastructure, as discussed in Section 3.11.5, Transportation. As a result, the Project would now be on viaduct (rail over road) at the crossings of both Belt Line Road and Pleasant Run Road. Most crossings required by the Project would be rail over road. All rail over road crossings for public roads would meet TxDOT vertical clearance standards at a minimum (16.5 feet). In some instances, the vertical clearance would be as high as 22 feet to accommodate the movement of heavy equipment.</p>
<p>42- The document should include a discussion on the impacts to bicycle and pedestrian movements around the Dallas station. Per the DEIS, 19 percent of access to the Dallas Terminal Station option would occur via non-motorized modes. Some of the intersection recommendations could impact bicycles and pedestrians by increasing the width of already large intersections and/or reducing sidewalk widths. Table 3.11-39</p>	<p>Discussions of impacts to non-motorized modes have been included in 3.11.4, Environmental Consequences, Transportation of the Final EIS.</p>
<p>43- Not sure if the proposed intersection improvements are possible at Lamar Street/Cadiz Street because of the grades and the historic eligibility of the Cadiz underpass. Table 3.11-39</p>	<p>As discussed in 3.11 Transportation, specifically 3.11.4 Affected Environment, the Cadiz Street/Lamar Street intersection would have one right-turn bay added to southwest bound traffic and a right-turn bay added for southeast bound traffic. Refer to Table 3.11-39: Dallas Terminal Intersection Design Modifications.</p> <p>Table 3.11-40: Dallas Terminal Impacts 2040 LOS (Delay in Seconds per Vehicle) shows that the current AM/PM LOS at this intersection is below acceptable TxDOT standards (below D). The modified shows a slight improvement over current conditions for the AM northbound movement.</p> <p>As required by TR-MM#2: Intersection Improvements, prior to construction and operation, TCRR will perform a full traffic impact analysis (TIA) that complies with the City of Dallas and/or TxDOT TIA guidelines as applicable. A list of intersections that may need to be improved based on preliminary traffic analysis and design is included in this section; however, the actual location and extent of intersection improvements will be subject to the TIA process. TCRR shall implement intersection improvements as required by the applicable TIA process.</p>

AGENCY COMMENT	PROPOSED RESPONSE
<p>44- Need to consider all modes, not just motor vehicles. The closure of sidewalks and bicycle facilities (if applicable) should also be coordinated with local governments, DART, local businesses, and property owners. Page 3.11-74, TR-MM#1</p>	<p>Discussions of impacts to non-motorized modes have been included in 3.11.4, Environmental Consequences, Transportation of the Final EIS.</p>
<p>45- The "Notes" do not consistently list all acronyms/abbreviations. Tables 3.15-4 and 3.15-5</p>	<p>Notes have been updated in Tables 3.15-4, 3.15-5 and 3.15-6 in the Final EIS to include all acronyms and abbreviations consistently. There is also a table at the beginning of Section 3.15.1, Electromagnetic Fields, Introduction with unit definitions and conversions.</p>
<p>46- The city of Dallas has recently completed The Cedars Planning Study. Additionally, HSR is under study between Dallas and Fort Worth. Recommend adding these studies to the discussion and address how HSR would impact these plan.</p>	<p>Discussion of The Cedars Planning Study and the NCTCOG High-Speed Transportation Service project have been added to Chapter 4.0, Indirect Effects and Cumulative Impacts.</p>
<p>47- Passenger rail stations can induce growth. This area could experience gentrification due to the current nature of the existing development and should be addressed.</p>	<p>Project-induced development is discussed in 4.2.2.1, Indirect and Cumulative Impacts of the Final EIS. Induced growth around the proposed stations is discussed in 4.3.1, Project-influenced Development Effects and Effects Related to Project-influenced Development Analysis.</p>
<p>48- Because the Dallas Station location is adjacent and near the original location of the Trinity River, numerous wetlands and other low areas are adjacent to and around the proposed station. Any additional growth from the station could result in impacts and should be discussed. Section 4.4.6.1, Page 4-9</p>	<p>Section 4.3.1.1.1, Indirect Effects and Cumulative Impacts, The Dallas Terminal Station, Land Use of the Final EIS states that development in the Dallas Terminal Station Area is being planned and is reasonably foreseeable with or without the Dallas High Speed Rail Terminal Station. However, the Project, including the Dallas Terminal Station would accelerate this development.</p> <p>The Dallas 360 Plan referring to Transit oriented Development in downtown Dallas states “In order to maximize the benefit of such a neighborhood for the city and in order to create a neighborhood that maximizes the livability and transit-oriented nature desired, it is important to establish a development framework that can guide development in an appropriate way, regardless of the final outcome of high speed rail.”</p> <p>In addition, Section 4.4.4.4 Indirect Effects and Cumulative Impacts, Waters of the U.S. of the Final EIS states that there is a potential for cumulative impacts to waters of the U.S., including a reduction in the function and quality downstream, of nearby wetlands, and potential degradation of riparian habitat.</p>

AGENCY COMMENT	PROPOSED RESPONSE
49- Recommend rewording the first sentence. There are no areas in Dallas or Harris counties in nonattainment; the whole county is in nonattainment. Section 4.4.6.1, Page 4-27, 1 st paragraph	This text has been revised as recommended in Chapter 4, Indirect and Cumulative Impacts, Section 4.4.4.1, Air Quality of the Final EIS.
50- Recommend adding a statement that the USAGE requires mitigation greater than 1: 1 for impacts, further helping the overall health of Waters of the US. Section 4.4.7.3 Page 4-32, 6 th paragraph	Section 4.4.5.4, Indirect Effects and Cumulative Impacts, Waters of the U.S. of the Final EIS has been updated to clarify that mitigation would be required for permanent impacts exceeding district thresholds, 0.1 acre or 300 linear feet of waters of the U.S. at each single and complete crossing.
51- The list of temporary impacts from construction equipment and construction activities should include increases in air pollutant emissions. Page 5-1, 4th bullet	The text in Chapter 5.16, Relationship Between Local Short-Term Uses of the Human Environment and the Maintenance and Enhancement of Long-Term Productivity of the Final EIS has been updated to read, "Temporary increases in local and regional emissions of particulate matter (fugitive dust) and pollutant emissions from fuel combustion (diesel PM, CO, CO2, NOx, VOCs, and sulfur compounds)."
52- The tables inventorying non-road engines for construction emissions estimates appear to assume use of Tier 3 equipment exclusively. While Tier 3 is a good emissions standard, NCTCOG suggests that TCP strive to employ Tier 4 interim and/or Tier 4 final equipment to the greatest extent possible, as equipment meeting these EPA standards has been available across all horsepower classes for several years.	References to the use of specific tiered engine performance standards have been removed from the report based on the use of the MOVES2014b emissions model that incorporates national default input data for the nonattainment counties. The default data is based on a mix of engine performance standards.
53- E. Belt Line Road future plans expands from two to four lanes. Relocated road must include a four-lane bridge. All bridges should include sidewalks. The design of the overpasses needs to provide appropriate horizontal and vertical geometry for an intermodal area. Appendix G	Since the release of the Draft EIS, TCRR continued making refinements to the preferred alternative and re-evaluated roadway crossings to minimize the modification to existing roadway infrastructure, as discussed in Section 3.11.5, Transportation . As a result, the Project would now be on viaduct (rail over road) at the crossing of Belt Line Road. Most crossings required by the Project would be rail over road. All rail over road crossings for public roads would meet TxDOT vertical clearance standards at a minimum (16.5 feet). In some instances, the vertical clearance would be as high as 22 feet to accommodate the movement of heavy equipment.
54- Pleasant Run Road future plans expands from two to four lanes with an off-street trail. Relocated road must include a four-lane bridge with trail. The design of the overpasses need to provide appropriate horizontal and vertical geometry for an intermodal area. Appendix G	Since the release of the Draft EIS, TCRR continued making refinements to the preferred alternative and re-evaluated roadway crossings to minimize the modification to existing roadway infrastructure, as discussed in Section 3.11.5, Transportation . As a result, the Project would now be on viaduct (rail over road) at the crossing of Pleasant Run

AGENCY COMMENT	PROPOSED RESPONSE
	<p>Road. Most crossings required by the Project would be rail over road. All rail over road crossings for public roads would meet TxDOT vertical clearance standards at a minimum (16.5 feet). In some instances, the vertical clearance would be as high as 22 feet to accommodate the movement of heavy equipment.</p>
<p>55- Wintergreen Road future plans expands from two to four lanes. Sufficient clearance must be provided for the roadway and sidewalks. Appendix G</p>	<p>Since the release of the Draft EIS, TCRR continued making refinements to the preferred alternative and re-evaluated roadway crossings to minimize the modification to existing roadway infrastructure, as discussed in Section 3.11.5, Transportation. As a result, the Project would now be on viaduct (rail over road) at the crossing of Wintergreen Road. Most crossings required by the Project would be rail over road. All rail over road crossings for public roads would meet TxDOT vertical clearance standards at a minimum (16.5 feet). In some instances, the vertical clearance would be as high as 22 feet to accommodate the movement of heavy equipment.</p>
<p>56- N. Lancaster Hutchins Road future plans expands from two to six lanes. Sufficient clearance must be provided for the roadway and sidewalks. Appendix G</p>	<p>Since the release of the Draft EIS, TCRR continued making refinements to the preferred alternative and re-evaluated roadway crossings to minimize the modification to existing roadway infrastructure, as discussed in Section 3.11.5, Transportation. As a result, the Project would now be on viaduct (rail over road) at the crossing of Lancaster Hutchins Road. Most crossings required by the Project would be rail over road. All rail over road crossings for public roads would meet TxDOT vertical clearance standards at a minimum (16.5 feet). In some instances, the vertical clearance would be as high as 22 feet to accommodate the movement of heavy equipment.</p>



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March 9, 2018

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United States Department of Transportation
Federal Railroad Administration
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Washington, DC 20590
Re: Dallas to Houston High-Speed Rail Draft Environmental Impact Statement

The Town of Anderson, Texas (hereafter referred to as ‘The Town’) appreciates the opportunity to submit a public comment regarding the Proposed Central Texas High Speed Rail Project. While this Project may be supported by some, The Town previously and unanimously resolved against this project and continues to do so at the time of the submission of this Public Comment. The reasons for opposition are numerous and are summarized as: concerns regarding land use laws and customs in the State of Texas; the disruption of farming and ranching operations; flood plain concerns; the disruption of public highways; a lack of authority in the Federal Agency in drafting this Draft Environmental Impact Statement; a lack of authority in the Texas Central Railroad and Texas Central Partners (hereafter collectively referred to as ‘TC’) to engage in the project; the fact that there is a least disruptive route for this project, yet the route promoted is highly disruptive; that the technology proposed to be used in this project is a retired technology and is no longer in use by any rail system

in this country, let alone the world; and that there is a potential that the project could be abandoned after construction has begun.

Land Use Concerns

While some sovereigns in the United States have taken a favorable view upon Kelo v. City of New London, 545 U.S. 469 (2005) and have built projects around the decision, the State of Texas has taken a very unfavorable view of said decision. The State of Texas has placed clear and convincing restrictions on eminent domain use to prevent a taking of property for a private purpose in the Texas Constitution. Tex. Const. Art. 1 Sec. 17. Thusly, this project unless it is of a nature of public purpose shall not have the ability to begin unless the property is privately owned by the TC.

Disruption to Agricultural Operations

Furthermore, The Town opposes this project due to the disruption to the vital farm and ranch land in Grimes County, Texas. It is well known that this project will cut off or split access to lands that are used in agriculture; forever changing the landscape of agricultural operations in the County.

Flood Plain Concerns

As it is well known in the State of Texas and the Federal Emergency Management Agency (FEMA), Grimes County Texas including Anderson, Texas have experienced flooding losses due to the Storms of April and May 2016 as well as Hurricane Harvey in 2017. Such a system can have a long lasting or permanent effect on flood plains and can cause new issues to arise if and when another major or named storm becomes active in the Anderson, Grimes County, Texas area. When taking into consideration the effects of the major and named storms as of late and the risks to the current flood plains and any that have been newly discovered or created, the risks involved are far too great for The Town to support such a project.

Disruption of Public Highways

In order for this project to be completed, the construction will undoubtedly disrupt the normal flow of traffic upon the public highways of Grimes County, Texas. Such disruption shall occur upon Texas Highways 105 and 30 as well as numerous Texas Farm to Market Roads. Such highways are important roadways for intercounty

transit and commerce. Disruption of these roadways shall have a negative effect both commercially as well as socially. Texas Highway 105 is an important commercial route that connects many agricultural concerns in Grimes County to the market places of the Houston Metro area. Texas Highway 30 is a major artery that connects many students and their families to Sam Houston State University.

Furthermore, the Town has grave concerns that such disruption will also cause disruption or delay in the execution of emergency management duties of the Sheriff's office and ambulance system that serve the potentially affects areas.

Lack of Authority for Study

On July, 18, 2016, the Surface Transportation Board issued a ruling on this very matter of an Environmental Impact Statement. Tex. Cen. RR, FD 36025 (Surface Trans. Board July 18, 2016). Such ruling indicated that the Federal Government was without jurisdiction to issue such a statement as the project was confined solely within the of the State of Texas, the Federal Government could not become involved in this project. By the facts laid out in the Statement no routes have been added that would connect this project to municipality in another state. Federal Railroad Administration, Dallas to Houston High-Speed Rail: Draft Environmental Impact Statement Dallas to Houston High-Speed Rail: Draft Environmental Impact Statement, at ES-4 - ES-6 (2017). As such, this project remains solely confined to the State of Texas and likewise, the Federal Government cannot find an enclave in which it may operate with regard to this project. Thusly, this Environmental Impact Statement should not progress to a final Statement from the Draft state in which it currently occupies. It would be intellectually dishonest to state on July 18, 2016 that the Federal Government has no jurisdiction to exercise in this project and then on December 22, 2017 to state that it does have jurisdiction.

Lack of Authority for Project (absent private sale of each parcel of land)

As stated previously, in the State of Texas private property shall not be subject to a taking as enumerated in the United States Constitution and the Texas Constitution without just compensation. See Generally U.S. Const. amend. V and Tex. Const. Art. 1 Sec. 17. Furthermore, no taking shall occur for the benefit of a private party. Thusly, a party seeking to take in the State of Texas shall only do so for a public purpose such as a roadway, park, or public project, not for a private purpose. As such, the only party that may engage in a taking

are governmental entities such as the State of Texas, Counties, Cities, Towns, or Authorities (i.e. Port Authorities). Likewise, the County of Grimes adopted regulation forbidding any permits to be issued absent authority to exercise eminent domain powers. Resolution Regarding Eminent Domain, Grimes County Comm. Ct. (Aug. 6, 2016). Such a regulation does not apply to a company that owns private property. Also, the Grimes County Commissioners Court adopted a resolution rejecting any notions of closing or abandoning any county rights of way. Motion Regarding HSR, Grimes County Comm. Ct. (Feb. 14, 2018).

The Central Texas High Speed Rail Project is run by a private company, TC, with a corporate structure and shareholders with a private commercial purpose. Thusly, the TC is not a State, County, Municipality Agency or Authority. As such, it lacks any ability to exercise eminent domain powers and may not engage in a taking. Furthermore, the State of Texas has made clear in a court ruling that without proper authority actions that would impair county-maintained rights of way shall not be allowed. Grimes County vs. Tex. Cen. Part., LLC and Pacheco Koch Consult. Eng., Inc, 33,725 (506TH Dist Ct., Grimes Co.). Unless the TC has obtained each parcel of land in which the route shall traverse, it may not begin construction of such project. Because the TC shall not be able to obtain any municipal roadways. Grimes County roads, nor State Highways, this project may not begin as a private entity cannot exercise eminent domain powers nor may it construct any building, wall or bridge disrupting or crossing over them without permission or authority to do so. With the Grimes County regulation in place TC shall not be able to obtain permission let alone a permit to begin any construction activities.

Least Disruptive Route (I45 Corridor)

The proposed route through Grimes County Texas is not the least disruptive route option available to the project and the TC. The proposed route through Grimes County will result in loss of land and create traffic disruption through closures of Texas Highways and Farm to Market Roads as well as numerous County Roads.

However, the proposed route that would run parallel to Interstate 45 is the least disruptive as the route is already well established and has an overpass and underpass system that can be utilized by the project and the TC. Furthermore, by utilizing a route congruent with the Interstate system, the Federal Government may act, as

the Interstate System was created through Federal funding and the Federal Government continues to oversee and fund Interstate projects.

Likewise, all necessary easements generally exist along this route as a result of those created in the construction of Interstate 45.

The route that TC wishes to utilize will require a large amount of infrastructure development to power the rail system. Such infrastructure already exists along the I45 Corridor route by way of the requirements of the Interstate System.

Thusly, this (the I45 Corridor Route) continues to constitute the least disruptive to the way of life of the Texas affected by this project as well as the easements necessary to construct.

Rail Technology

The rail and train technology proposed to be utilized by the project and the TC are retired. Thusly, neither are in use by any system in this Country or any other in the world. This poses a challenge in maintenance of the system, trains, and associated cars. Because the technology to be utilized is retired, the availability of parts for repair could be either difficult to locate or manufacture in the event of a breakage or wear and tear related damage. Breakage as well as wear and tear are normal in the lifespan of machinery and support systems. Hence, it would be stand to reason that such damages are going to occur. Thusly, in the event that such damages occur assurances must be available to ensure that operation of the rail system will not be hindered due to wear and tear or breakage.

If this technology was not retired and thus was in use by another system or company some solace would be granted to the residents of the areas served. However, without such use, it creates an unease that is not easily quelled. As such, a retired rail system and machinery give another good cause to oppose this project.

Potential for Cancellation of the Project After Construction has Begun

This project is not unlike a High Speed Rail Project in California. Such project has begun and families livelihoods we forever changed due to the taking of family farm lands for the project. At this very moment, the project has encountered cost overruns in excess of 4.6 billion dollars and as reported in the Los Angeles Times, the project is in danger of being abandoned. Ralph Vartabedian, California bullet train cost surges by \$2.8

billion: ‘Worst-case scenario has happened’, L.A. Times, January 16, 2018. If this project is allowed to begin and the “worst-case scenario” occurs, countless lives will be negatively affected for an abandoned project that should have never begun in the first place.

Closing

The Town respectfully requests that the U.S. Department of Transportation and more specifically the Federal Railroad Administration make clear that it has no authority to act in this project as no state lines are crossed and as such interstate commerce is not affected unless the I45 Corridor Route is utilized. Further, the Town also requests that the Federal Railroad Administration cease any further work on Environmental Impact Statements and any other documents or studies related to this project as it has been clearly and concisely stated that absent the use of the I45 Corridor Route, the Federal Government has no interest in this project as it is solely a State of Texas issue.

Likewise, the Town respectfully restates that it is opposed to this project and will continue to be as it does not see viability or necessity of the project.

Sincerely,
/s/ Michael R. Casaretto
Town Attorney
Town of Anderson, Texas
On Behalf of the Board of Aldermen
for The Town of Anderson, Texas



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Michael R. Casaretto
Town Attorney
Town of Anderson, Texas
415 Hill Street
Anderson, Texas 77830

**Subject: Response to Comments on the Dallas to Houston High-Speed Rail Draft
Environmental Impact Statement**

Dear Mr. Casaretto:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the Town of Anderson provided on March 9, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen". The signature is fluid and cursive, with the first name "Michael" being more prominent than the last name "Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

AGENCY COMMENT	PROPOSED RESPONSE
<p>The Town of Anderson, Texas (hereafter referred to as 'The Town') appreciates the opportunity to submit a public comment regarding the Proposed Central Texas High Speed Rail Project. While this Project may be supported by some, The Town previously and unanimously resolved against this project and continues to do so at the time of the submission of this Public Comment. The reasons for opposition are numerous and are summarized as: concerns regarding land use laws and customs in the State of Texas; the disruption of farming and ranching operations; flood plain concerns; the disruption of public highways; a lack of authority in the Federal Agency in drafting this Draft Environmental Impact Statement; a lack of authority in the Texas Central Railroad and Texas Central Partners (hereafter collectively referred to as 'TC') to engage in the project; the fact that there is a least disruptive route for this project, yet the route promoted is highly disruptive; that the technology proposed to be used in this project is a retired technology and is no longer in use by any rail system in this country, let alone the world; and that there is a potential that the project could be abandoned after construction has begun.</p>	<p>Comment noted. See below for detailed responses.</p>
<p>Land Use Concerns</p> <p>While some sovereigns in the United States have taken a favorable view upon <i>Kelo v. City of New London</i>, 545 U.S. 469 (2005) and have built projects around the decision, the State of Texas has taken a very unfavorable view of said decision. The State of Texas has placed clear and convincing restrictions on eminent domain use to prevent a taking of property for a private purpose in the Texas Constitution. Tex. Const. Art. 1 Sec. 17. Thusly, this project unless it is of a nature of public purpose shall not have the ability to begin unless the property is privately owned by the TC.</p>	<p>Under state (Texas Administrative Code (TAC) § 21 and 10 TAC § Chapter 2206, Subchapter E) and federal authorities, some private companies in industries like oil and gas, railroads, telecommunications and utilities are authorized to acquire land through eminent domain. As the private entity proposing the Dallas to Houston HSR Project, TCRR is responsible for all land acquisition for the Project. FRA is not participating in the land acquisition process for the Dallas to Houston HSR Project, nor do the USDOT or FRA have the ability to grant eminent domain authority to another entity. Any determinations regarding TCRR's authority to exercise eminent domain are independent of FRA's rulemaking activity and the NEPA analysis conducted by FRA.</p>

AGENCY COMMENT	PROPOSED RESPONSE
<p>Disruption to Agricultural Operations</p> <p>Furthermore, The Town opposes this project due to the disruption to the vital farm and ranch land in Grimes County, Texas. It is well known that this project will cut off or split access to lands that are used in agriculture; forever changing the landscape of agricultural operations in the County.</p>	<p>TCRR identified co-location opportunities with transportation and utility corridors to minimize impacts to parcel and structure acquisition and land use conversion. Within the six end-to-end Build Alternatives, 48 percent of the LOD, on average, would be located adjacent to existing road, rail or utility infrastructure.</p> <p>As noted in 3.13.6.2, Land Use, TCRR would implement mitigation to lessen the impact of the Project on grazing lands and livestock management. TCRR shall negotiate with landowners to provide adequate access (crossings) or compensation for land that is severed. TCRR will negotiate mitigation on a case-by-case basis with the affected landowners and shall incorporate the outcome of negotiations into the written agreements with the affected landowners, as outlined in LU-MM#2: Agriculture and Livestock Management.</p> <p>As noted in Table 3.13-5: 2017 Agricultural Statistics, the contribution of the 10 counties to the agricultural production of Texas as a whole, while substantial, is small in comparison to the remainder of the state. Additionally, due to the relatively small percentage of county land impacted by the Project, the total market share of Texas livestock directly impacted by the Project would be significantly less than 2 percent.</p> <p>Grimes County's top crop was forage and top livestock was beef cows.</p>

Flood Plain Concerns

As it is well known in the State of Texas and the Federal Emergency Management Agency (FEMA), Grimes County Texas including Anderson, Texas have experienced flooding losses due to the Storms of April and May 2016 as well as Hurricane Harvey in 2017. Such a system can have a long lasting or permanent effect on flood plains and can cause new issues to arise if and when another major or named storm becomes active in the Anderson, Grimes County, Texas area. When taking into consideration the effects of the major and named storms as of late and the risks to the current flood plains and any that have been newly discovered or created, the risks involved are far too great for The Town to support such a project.

As stated in **Section 3.8.5.2, Floodplains, Build Alternatives** and based on the conceptual design of the Project, all identified FEMA floodplain crossings would be fully spanned with viaduct (bridge type structure) and include a minimum of three feet of freeboard above the base flood elevation or the modeled water surface elevation. This allows for free movement of water in those areas and would avoid and/or minimize floodplain impacts.

Prior to construction, the TCRR will survey the entire Project area to determine base flood elevations and conduct a hydrologic model analysis. TCRR is working with federal, state and local agencies during the design process to ensure compliance with all federal, state and local laws, regulations, and policies through avoidance, minimization, and mitigation measures including floodplain development permits for the placement of viaduct piers as stated in **Section 3.8.6.1 of the Final EIS, Floodplains, Compliance Measures**.

The documentation of existing weather related hazards in Section 3.16, Safety and Security has been updated to reflect more recent data from the National Oceanic Atmospheric Association (NOAA). Data associated with Hurricane Harvey, which occurred in August and September of 2017, was not available during preparation of the Draft EIS but is included in the Final EIS analysis of potential weather hazards in Section 3.16.4, Safety and Security, Affected Environment.

Compliance measure **SS-CM#4, Perform Hazard Analysis** (see **Section 3.16.6, Safety and Security** of the Final EIS) requires TCRR to perform a Hazard Analysis to identify and rank, according to severity, potential hazards and unintended events that may lead to an accident. The Hazard Analysis methodology and assessment criteria require FRA approval and must demonstrate that hazards would be sufficiently controlled. Based on the results of the Hazard assessment, TCRR must also identify appropriate hazard controls, such as ideal locations for early detection and warning systems and additional prevention measures. TCRR must implement any monitoring, systems, design features, operational procedures or training identified by the Hazard Analysis prior to passenger service operations.

Disruption of Public Highways

In order for this project to be completed, the construction will undoubtedly disrupt the normal flow of traffic upon the public highways of Grimes County, Texas. Such disruption shall occur upon Texas Highways 105 and 30 as well as numerous Texas Farm to Market Roads. Such highways are important roadways for intercounty transit and commerce. Disruption of these roadways shall have a negative effect both commercially as well as socially. Texas Highway 105 is an important commercial route that connects many agricultural concerns in Grimes County to the market places of the Houston Metro area. Texas Highway 30 is a major artery that connects many students and their families to Sam Houston State University.

The project is fully-enclosed, or a “closed system”, meaning that the corridor is independent from other train operations and that there are no at-grade crossings. With no at-grade crossing, cars would not have to wait for a train to pass and then drive over the tracks to the other side of the system. As there would be no fencing when on viaduct, the Project would allow for movement underneath the rail.

As detailed in **TR-MM#1: Traffic Control Plan**, prior to construction, TCRR shall develop a traffic control plan that details the sequence of construction, the detour plan temporary signing, and striping of pavement marking, among other things. The traffic control plan shall also include provisions for safe and efficient operation of all modes of transportation during construction. Under state and local laws, TCRR shall acquire the appropriate permits/easements from TxDOT (state) and/or local municipalities prior to construction, including all current ordinances, including those that have been put into place between the release of the Draft EIS and the Final EIS. There are three main permits/easements that TCRR would be required to obtain: freight and transit crossing easements, roadway access permits and road closure permits. TCRR shall communicate traffic control measures, including reroutes and temporary closures, with the public, local officials and the media prior to and during construction activities. TCRR shall be responsible for maintaining access to all businesses and residences throughout construction with appropriate signage directing drivers to access points.

Refer to **TR-CM#1: Freight and Transit Crossing Easements**, **TR-CM#2: Roadway Access Permit** and **TR-CM #3: Road Closure Permit** in **Section 3.11.6.1, Transportation, Compliance Measures** for permitting requirements.

For more information about traffic control measures to be used during construction, see **TR-MM#1: Traffic Control Plan** in **Section 3.11.6.2, Transportation, Mitigation Measures**. As in most infrastructure projects, construction would temporarily cause traffic disruption. Prior to construction TCRR shall coordinate with TxDOT and local municipalities to obtain both roadway access permits and road closure permits, as discussed in **TR-CM#2: Roadway Access Permit** and **TR-CM#3: Road Closure Permit**. Increases in traffic volumes due to construction vehicles reroutes/patterns would be identified as part of obtaining the roadway access permits and road closure permits.

AGENCY COMMENT	PROPOSED RESPONSE
<p>Furthermore, the Town has grave concerns that such disruption will also cause disruption or delay in the execution of emergency management duties of the Sheriff's office and ambulance system that serve the potentially affects areas.</p>	<p>TCRR must coordinate any reconstruction or rerouting of public roads with TxDOT or the appropriate local jurisdiction through the Road Closure Permit process described in Section 3.11.6, TR-CM#3, Inspection, Testing, and Maintenance. In addition to the Road Closure Permit process, TR-MM#1, Traffic Control Plan requires TCRR to develop a traffic control plan or multiple plans establishing procedures for temporary road closures including emergency access, traffic management, and construction site safety. Each traffic control plan must include provisions for safe and efficient operation of all modes of transportation, including both motorists and pedestrians. Precautions that consider the safety of construction workers and inspection personnel shall also be included. The traffic control plan must be coordinated with the appropriate jurisdiction and potentially affected emergency responders to avoid any appreciable negative impact to emergency response times. Section 3.16.6, Safety and Security, SS-MM#1, Model Construction Impacts on Emergency Response Times requires TCRR to evaluate these traffic control plans using Computer Assisted Dispatch software to determine the baseline and affected response times within a jurisdiction. This modeling would capture final design modifications and would be shared with each jurisdiction, prior to any construction activity, in order to facilitate coordination.</p>

AGENCY COMMENT	PROPOSED RESPONSE
<p>Furthermore, the Town has grave concerns that such disruption will also cause disruption or delay in the execution of emergency management duties of the Sheriff's office and ambulance system that serve the potentially affects areas (CONTINUED).</p>	<p>Section 3.16.5.2.2 of the Final EIS, Safety and Security Build Alternatives, also includes a geographic analysis of the potential effects on response times during construction based on the number of roadway modifications and available alternate routes. This information is presented in Tables 3.16-17 and 3.16-18 indicating a high, medium, low, or localized potential for effects on response times. These are not quantitative measurements of impacts, but rather qualitative assessments meant to identify areas for heightened coordination between TCRR and the governing authorities. See Section 3.16.3, Safety and Security, Methodology, for an explanation of how risks were classified. The determination of specific measured travel time impacts cannot occur until the duration, extent, and timing of each planned roadway modification has been developed through the Road Closure Permit process. In all cases, closures during construction would be short-term until the permanent road crossing is constructed.</p> <p>Local jurisdictions would have review and permitting authority over TCRR's Traffic Control Plans for any required Road Closure Permits and, through this process, would require TCRR to demonstrate sufficient mitigation of any adverse impacts to emergency response times during the construction phase. In addition to any local standards, which would be developed through further coordination, Section 3.16.6, Safety and Security, SS-MM#1, Model Construction Impacts on Emergency Response Times also requires modification of construction plans if they result in an average response time increase of ten percent or more.</p>

<p>Lack of Authority for Study</p> <p>On July, 18, 2016, the Surface Transportation Board issued a ruling on this very matter of an Environmental Impact Statement. Tex. Cen. RR, FD 36025 (Surface Trans. Board July 18, 2016). Such ruling indicated that the Federal Government was without jurisdiction to issue such a statement as the project was confined solely within the of the State of Texas, the Federal Government could not become involved in this project. By the facts laid out in the Statement no routes have been added that would connect this project to municipality in another state. Federal Railroad Administration, Dallas to Houston High-Speed Rail: Draft Environmental Impact Statement Dallas to Houston High-Speed Rail: Draft Environmental Impact Statement, at ES-4 - ES-6 (2017). As such, this project remains solely confined to the State of Texas and likewise, the Federal Government cannot find an enclave in which it may operate with regard to this project. Thusly, this Environmental Impact Statement should not progress to a final Statement from the Draft state in which it currently occupies. It would be intellectually dishonest to state on July 18, 2016 that the Federal Government has no jurisdiction to exercise in this project and then on December 22, 2017 to state that it does have jurisdiction.</p>	<p>As stated in Chapter 1.0, Introduction, FRA has jurisdiction over every area of railroad safety and is authorized to prescribe regulations and issue orders as necessary for railroad safety (49 U.S.C. Chs. 20101 et seq.; 49 Code of Federal Regulations (C.F.R.) C.F.R. Chs 1.89, Parts 200-299). Current FRA regulations do not adequately address the safety concerns and operational characteristics of the project’s proposed system. Therefore, FRA has proposed minimum Federal safety standards through a Rule of Particular Applicability (RPA)(regulations that apply to a specific railroad or a specific type of operation), to ensure the Project is operated safely. This regulatory action constitutes a major federal action and triggers the environmental review under NEPA.</p> <p>Refer to Chapter 1.1.3.3, Introduction, Surface Transportation Board, for details regarding the status of TCRR’s petition.</p>
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Lack of Authority for Project (absent private sale of each parcel of land)

As stated previously, in the State of Texas private property shall not be subject to a taking as enumerated in the United States Constitution and the Texas Constitution without just compensation. See Generally U.S. Const. amend. V and Tex. Const. Art. 1 Sec. 17. Furthermore, no taking shall occur for the benefit of a private party. Thusly, a party seeking to take in the State of Texas shall only do so for a public purpose such as a roadway, park, or public project, not for a private purpose. As such, the only party that may engage in a taking are governmental entities such as the State of Texas, Counties, Cities, Towns, or Authorities (i.e. Port Authorities). Likewise, the County of Grimes adopted regulation forbidding any permits to be issued absent authority to exercise eminent domain powers. Resolution Regarding Eminent Domain, Grimes County Comm. Ct. (Aug. 6, 2016). Such a regulation does not apply to a company that owns private property. Also, the Grimes County Commissioners Court adopted a resolution rejecting any notions of closing or abandoning any county rights of way. Motion Regarding HSR, Grimes County Comm. Ct. (Feb. 14, 2018).

The Central Texas High Speed Rail Project is run by a private company, TC, with a corporate structure and shareholders with a private commercial purpose. Thusly, the TC is not a State, County, Municipality Agency or Authority. As such, it lacks any ability to exercise eminent domain powers and may not engage in a taking. Furthermore, the State of Texas has made clear in a court ruling that without proper authority actions that would impair county-maintained rights of way shall not be allowed. Grimes County vs. Tex. Cen. Part., LLC and Pacheco Koch Consult. Eng., Inc, 33,725 (506TH Dist Ct., Grimes Co.). Unless the TC has obtained each parcel of land in which the route shall traverse, it may not begin construction of such project. Because the TC shall not be able to obtain any municipal roadways. Grimes County roads, nor State Highways, this project may not begin as a private entity cannot exercise eminent domain powers nor may it construct any building, wall or bridge disrupting or crossing over them without permission or authority to do so. With the Grimes County regulation in place TC shall not be able to obtain permission let alone a permit to begin any construction activities.

Under state (Texas Administrative Code (TAC) § 21 and 10 TAC § Chapter 2206, Subchapter E) and federal authorities, some private companies in industries like oil and gas, railroads, telecommunications and utilities are authorized to acquire land through eminent domain. As the private entity proposing the Dallas to Houston HSR Project, TCRR is responsible for all land acquisition for the Project. FRA is not participating in the land acquisition process for the Dallas to Houston HSR Project, nor do the USDOT or FRA have the ability to grant eminent domain authority to another entity. Any determinations regarding TCRR's authority to exercise eminent domain are independent of FRA's rulemaking activity and the NEPA analysis conducted by FRA.

Least Disruptive Route (I45 Corridor)

The proposed route through Grimes County Texas is not the least disruptive route option available to the project and the TC. The proposed route through Grimes County will result in loss of land and create traffic disruption through closures of Texas Highways and Farm to Market Roads as well as numerous County Roads.

However, the proposed route that would run parallel to Interstate 45 is the least disruptive as the route is already well established and has an overpass and underpass system that can be utilized by the project and the TC. Furthermore, by utilizing a route congruent with the Interstate system, the Federal Government may act, as the Interstate System was created through Federal funding and the Federal Government continues to oversee and fund Interstate projects.

Likewise, all necessary easements generally exist along this route as a result of those created in the construction of Interstate 45.

The route that TC wishes to utilize will require a large amount of infrastructure development to power the rail system. Such infrastructure already exists along the I45 Corridor route by way of the requirements of the Interstate System.

Thusly, this (the I45 Corridor Route) continues to constitute the least disruptive to the way of life of the Texas affected by this project as well as the easements necessary to construct.

The IH-45 Corridor was thoroughly evaluated by FRA in the HSR Corridor Alternatives Analysis Technical Report, dated August 10, 2015, and the HSR Alignment Alternatives Analysis Report, dated November 6, 2015. These reports compared four potential corridors (BNSF, IH-45, UPRR and Utility) and identified the preferred corridor as the Utility Corridor to be carried forward for additional study and analysis in the EIS.

As discussed in **Section 2.4.3, Alternatives Considered, Corridor Screening Methodology of the EIS**, FRA eliminated the IH-45 Corridor because sufficient right-of-way (ROW) does not exist throughout the entirety of the interstate corridor and would result in greater direct impacts to residential and commercial properties. Also, the IH-45 corridor was the only corridor alternative that would directly impact the Sam Houston National Forest, resulting in impacts to recreation resources and managed habitat. The physical characteristics of the highway ROW would not be suitable for HSR operations due to the existing curvature. Eliminating the curves to safely reach the train operating speeds, would result in greater direct impacts to residential and commercial properties. Roadway interchanges would require extensive reconstruction above or below the HSR tracks and would result in increased direct impacts to residential and commercial properties. Therefore, the IH-45 Corridor was not identified by FRA as the preferred corridor.

FRA also determined that portions of the IH-45 Corridor should be retained for further investigation in the Final EIS if constraints arose along the Utility Corridor. Portions of the IH-45 Corridor were included in Build Alternatives C and F. As discussed in **Section 2.7.1, Alternatives Considered, Statutory Considerations**, Build Alternative F was removed as an option by FRA due to Segment 2B's impacts to Lake Bardwell fee land. Per USACE's National Non-Recreation Outgrant Policy, Segment 2B would not be carried forward in the USACE's Section 408 authorization evaluation, as there is a viable alternative not on federal property. Additionally, Alternative C was not identified as the preferred alternative due to the introduction of 45 miles of adjacent rail and highway frontage roads which would require a safety barrier to prohibit vehicular drivers from impacting the track infrastructure.

AGENCY COMMENT	PROPOSED RESPONSE
<p>Rail Technology</p> <p>The rail and train technology proposed to be utilized by the project and the TC are retired. Thusly, neither are in use by any system in this Country or any other in the world. This poses a challenge in maintenance of the system, trains, and associated cars. Because the technology to be utilized is retired, the availability of parts for repair could be either difficult to locate or manufacture in the event of a breakage or wear and tear related damage. Breakage as well as wear and tear are normal in the lifespan of machinery and support systems. Hence, it would be stand to reason that such damages are going to occur. Thusly, in the event that such damages occur assurances must be available to ensure that operation of the rail system will not be hindered due to wear and tear or breakage.</p> <p>If this technology was not retired and thus was in use by another system or company some solace would be granted to the residents of the areas served. However, without such use, it creates an unease that is not easily quelled. As such, a retired rail system and machinery give another good cause to oppose this project.</p>	<p>FRA evaluated the Project as proposed by TCRR, which is based on the Japanese N700-Series Tokaido Shinkansen technology. TCRR proposed this technology that would best fulfill their operational objective, as detailed in Section 1.2.1.2, Introduction, TCRR Objectives.</p> <p>The Shinkansen technology has been continually updated since it was first put into service more than 50 years ago. The initial generation was the 0 Series of Shinkansen. The N700-Series, currently proposed for this Project was first put into service in 1999 and continues to undergo updates and improvements. As described in the Final EIS, the technology proposed in the U.S. would be based on the Tokaido Shinkansen HSR system with minimal modifications.</p>
<p>Potential for Cancelation of the Project After Construction has Begun</p> <p>This project is not unlike a High Speed Rail Project in California. Such project has begun and families livelihoods we forever changed due to the taking of family farm lands for the project. At this very moment, the project has encountered cost overruns in excess of 4.6 billion dollars and as reported in the Los Angeles Times, the project is in danger of being abandoned. Ralph Vartabedian, California bullet train cost surges by \$2.8 billion: 'Worst-case scenario has happened', L.A. Times, January 16, 2018. If this project is allowed to begin and the "worst-case scenario" occurs, countless lives will be negatively affected for an abandoned project that should have never begun in the first place.</p>	<p>As detailed throughout Section 1.2.1, Purpose, the purpose of the privately proposed Project is to provide the public with reliable and safe high-speed passenger rail transportation between Dallas and Houston.</p> <p>FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR, which is based on the N700-Series Tokaido Shinkansen technology. FRA did not evaluate TCRR's corporate structure, the economic or political feasibility of the Project, or Japanese financial contribution to or involvement in the Project because it is not necessary to inform the environmental analysis.</p>

AGENCY COMMENT	PROPOSED RESPONSE
<p>Closing</p> <p>The Town respectfully requests that the U.S. Department of Transportation and more specifically the Federal Railroad Administration make clear that it has no authority to act in this project as no state lines are crossed and as such interstate commerce is not affected unless the I45 Corridor Route is utilized. Further, the Town also requests that the Federal Railroad Administration cease any further work on Environmental Impact Statements and any other documents or studies related to this project as it has been clearly and concisely stated that absent the use of the I45 Corridor Route, the Federal Government has no interest in this project as it is solely a State of Texas issue.</p> <p>Likewise, the Town respectfully restates that it is opposed to this project and will continue to be as it does not see viability or necessity of the project.</p>	<p>As stated in Chapter 1.0, Introduction, FRA has jurisdiction over every area of railroad safety and is authorized to prescribe regulations and issue orders as necessary for railroad safety (49 U.S.C. Chs. 20101 et seq.; 49 Code of Federal Regulations (C.F.R.) C.F.R. Chs 1.89, Parts 200-299). Current FRA regulations do not adequately address the safety concerns and operational characteristics of the project’s proposed system. Therefore, FRA has proposed minimum Federal safety standards through a Rule of Particular Applicability (RPA)(regulations that apply to a specific railroad or a specific type of operation), to ensure the Project is operated safely. This regulatory action constitutes a major federal action and triggers the environmental review under NEPA.</p>



February 18, 2018

Mr. Kevin Wright
Federal Railroad Administration
1200 New Jersey Ave. SE, MS-20
Washington, D.C. 20590

Mr. Wright,

We agree with the concerns expressed in the public hearing on February 6, 2018 at Waller High School relative to the lack of financial feasibility of this project, concerns that it would end up on the back of taxpayers due to federal loans, and that it would have a permanent detrimental effect on agricultural land that in many cases has been in family hands for many years.

In addition, the City of Waller specifically has concerns about the rail line effect on a major commercial development – The Waller Town Center (WTC) which has been planned for several years. The City had the state legislature create a municipal management district in 2015 as part of our preparation and strategic planning. The WTC will be a 460 acre development with a projected \$280,000,000 of retail, hotel, entertainment, medical, and housing.

As you can imagine, this is a very important project to the City of Waller, and the developers are talking each year to retailers at the Texas and national conferences of the International Conference of Shopping Centers about the timing of the project groundbreaking.

The planned route of the HSR runs right through the middle of this planned development. The City Council passed a resolution on January 25, 2016 (attached) in which the City raised the issue of the HC-4 path creating an economic impact concern for the EIS. The detrimental effect on this development has been reported twice to the FRA through the TxDOT coordination meetings with the Waller County Sub-Regional Planning Commission in Feb 2016 and May 2017.

This concern was not addressed in the DEIS of December 2017. The City of Waller believes that the NEPA process for this DEIS is flawed because of ignoring these important city plans and should result in a solution of No-Build.

Sincerely,

A handwritten signature in black ink, appearing to read 'John Isom', written in a cursive style.

John Isom, Director
City of Waller Economic Development Corp.

RESOLUTION 2016-06

Texas Central Railway High Speed Rail Project

WHEREAS, the Texas Central Railway, LLC, is proposing to construct and operate a high speed bullet train from Dallas to Houston; and

WHEREAS, the Federal Railroad Administration Alignment Alternatives Analysis Report of November 6, 2015 selected route labeled HC-4 as the single route through Waller County and northwest Harris County to be evaluated for the Environmental Impact Statement (EIS); and

WHEREAS, Route HC-4 was not made available for public comment before being selected in the FRA report thereby failing the requirement for public scoping of the project; and

WHEREAS, Route HC-4 (shown in Exhibit A attached) travels through the extra territorial jurisdiction of the City of Waller and splits the property that has been planned for several years for the Waller Town Center, thereby jeopardizing a project which is predicted to provide over \$200,000,000 of investment in retail, entertainment, commercial, lodging, medical, and residential development; and

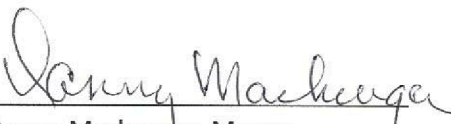
WHEREAS, the train will travel non-stop through Waller County and the City of Waller, thereby providing no ongoing economic value to the City; and

WHEREAS, the train would negatively impact property values and development opportunities in the City of Waller; therefore

BE IT RESOLVED, that the City Council of the City of Waller, Texas does not believe that this project as currently planned is in the best interests of the City and therefore opposes any routing of the project that negatively impacts property values and development opportunities for cities and counties along its route.

Signed this 25th day of January, 2016

APPROVED:



Danny Marburger, Mayor

ATTEST:



Cynthia Ward, TRMC, City Secretary



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 22, 2020

Mr. John Isom
Director
Waller Economic Development Corp.
1018 Saunders Street
Waller, Texas 77484

Subject: **Response to Comments on the Dallas to Houston High-Speed Rail Draft Environmental Impact Statement**

Dear Mr. Isom:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018), including written comments from the Waller Economic Development Corp. provided on February 18, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. Responses to all public and agency comments are included in the Final EIS in Appendix H.

A review and response of comments/questions raised in your letter can be found below.

Comment 1: *We agree with the concerns expressed in the public hearing on February 6, 2018 at Waller High School relative to the lack of financial feasibility of this project, concerns that it would end up on the back of taxpayers due to federal loans, and that it would have a permanent detrimental effect on agricultural land that in many cases has been in family hands for many years.*

Response 1:

Financial feasibility. FRA's regulatory obligation is to conduct an independent evaluation of the Project as proposed by TCRR, which is based on the N700-Series Tokaido Shinkansen technology. NEPA does not require FRA to evaluate TCRR's economic or political feasibility of the Project. FRA determined that economic viability is an objective of TCRR, not a component of FRA's Project Purpose. Therefore, FRA did not include economic viability in the Project Purpose defined in **Section 1.2.1, Introduction, Purpose**. As detailed throughout **Section**

1.2.1, Purpose, the purpose of the privately proposed Project is to provide the public with reliable and safe high-speed passenger rail transportation between Dallas and Houston.

Federal loans. The Dallas to Houston HSR Project is a privately financed project. To date, TCRR has not submitted an application for DOT credit assistance for the Project. Should TCRR receive credit or financial assistance from DOT, additional Federal requirements attached to the provision of federal funds or financial assistance, may apply to the Project. FRA's federal action pertaining to the Project that triggers the obligation to comply with NEPA is the issuance of Rule of Particular Applicability. While this EIS may be used to satisfy DOT NEPA obligations that stem from providing credit assistance for the Project, any actions by DOT credit programs and related activities of the Bureau and Council on Credit and Finance, such as evaluation of loan applications and recommendations regarding assistance, are separate from FRA's federal action. Additionally, the Project is not receiving funding or financing from the state of Texas or any local public entities (municipal, county or Council of Government) funds.

Agricultural land. Chapter 3.13, Land Use provides an overview of potential impacts to agricultural lands within the Project's Study Area. As outlined in **Section 3.13.5, Land Use, Environmental Consequences** the Project would temporarily affect between approximately 1,931 acres (Build Alternative C) and 2,176 acres (Build Alternative D) of agricultural land. Between 5,076 acres (Build Alternative F) and 5,376 acres (Build Alternative B) of agricultural land would be permanently affected.

The Project includes avoidance, minimization, and mitigation measures to reduce impacts on agriculture. In developing the Build Alternatives, TCRR identified colocation opportunities with transportation and utility corridors to minimize impacts to parcel and structure acquisition and land use conversion. Approximately 55% of the Project is on viaduct (elevated structure), which would allow passage under the tracks for livestock and agricultural-related used, such as tractors and trailers.

TCRR would consult with landowners regarding those areas that would be temporarily and permanently disturbed with regard to crop and/or livestock production. TCRR's negotiations could result in fragmented fields (i.e., remnant parcels) being absorbed by adjacent landowners or compensation for remnant parcels. TCRR negotiations with landowners would also include either compensation for impacts to livestock or mitigation to assist the landowner in managing livestock on the remaining property, such as access to water resources, additional fencing, underpasses and/or gates for overall herd movement. TCRR would coordinate with landowners to relocate livestock during the construction period. TCRR would complete agreements with landowners prior to the start of construction.

Comment 2: *In addition, the City of Waller specifically has concerns about the rail line effect on a major commercial development-The Waller Town Center (WTC) which has been planned for several years. The City had the state legislature create a municipal management district in 2015 as part of our preparation and strategic planning. The WTC will be a 460 acre development with a projected \$280,000,000 of retail, hotel, entertainment, medical, and housing.*

As you can imagine, this is a very important project to the City of Waller, and the developers are talking each year to retailers at the Texas and national conferences of the International Conference of Shopping Centers about the timing of the project groundbreaking.

The planned route of the HSR runs right through the middle of this planned development. The City Council passed a resolution on January 25, 2016 (attached) in which the City raised the issue of the HC-4 path creating an economic impact concern for the EIS. The detrimental effect on this development has been reported twice to the FRA through the TxDOT coordination meetings with the Waller County Sub-Regional Planning Commission

in Feb 2016 and May 2017.

This concern was not addressed in the DEIS of December 2017. The City of Waller believes that the NEPA process for this DEIS is flawed because of ignoring these important city plans and should result in a solution of No-Build.

Response 2: The preferred alternative is located between several planned developments and existing economic centers near Waller, including the Waller Town Center, Georgetown Oaks, and the Daikin/Goodman manufacturing facility. The preferred alternative is on viaduct through this area, allowing local jurisdictions to expand existing infrastructure more easily and helping to preserve the economic development potential of the area. Specific impacts to each are described below.

Waller Town Center

According to the Waller Town Center project brochure on the project website (<https://www.cullinanproperties.com/wp-content/uploads/2015/09/Waller-Flyer-Oct-19.pdf>), the Waller Town Center is a 290 acre planned mixed-use retail, restaurant, entertainment, hotel and office project with an open air lifestyle center development typology. The Project would impact the eastern edge of this planned development. The Project would be on viaduct near the entire development site, which would allow for new roads and for travel under the Project. According to the developer, development is expected to begin in 2020.

In 2017, the Texas Legislature created under Section 59, Article XVI, Texas Constitution, the Waller Town Center Management District. The district was created to “promote, develop, encourage, and maintain employment, commerce, transportation, housing, tourism, recreation, the arts, entertainment, economic development, safety, and the public welfare in the district.” The most recent publicly available site plan, however, does not show roads in the development traveling toward the Project. US 290 and FM 2920 in this area are not being modified by the Project (the Project is road under rail at these intersections). The Project would be on viaduct near the entire development site, which would allow for new roads and for travel under the Project.

It is not possible to fully ascertain the potential impacts to the planned development as it is still in the planning phases.

Georgetown Oaks

This is a 993 acre planned development located along US 290 at Binford and Kickapoo Roads. This site is located east of the planned Waller Town Center and west of the Daikin-Goodman headquarters. The Project is currently aligned to travel between Binford and Kickapoo Roads and would directly impact this development location. The Project is on viaduct through this area and would cross FM 2920 (Waller-Tomball Road) and US 290 on viaduct. This site is a planned mixed-use development with retail, residential, medical, office, and industrial land use types. It is not possible to fully ascertain the potential impacts to the planned development as it is still in the planning phases. The property is currently vacant fields/farmland.

Daikin-Goodman manufacturing facility

This facility is located approximately ¼ mile outside of the Project LOD. As noted in **Section 3.13.3, Land Use, Methodology**, the Project’s Study Area for land use conversion was a quarter-mile from the track centerlines and therefore the facility is located outside of the Project Study Area. Roads to the facility would also not be affected because the Project is on viaduct (or road under rail). FM 2920, US 290, Hempstead Highway and Old Washington Road would all be crossed by the Project and would not be rebuilt or rerouted. See Table 3.11-31, for a list of all the roads that will be crossed by viaduct in the area. The facility is located between Kickapoo Road and Kermier Road. Both roads would not be directly impacted by the Project. The Project does not cross

or interact with these roads.

Local jurisdictions could extend infrastructure more easily under viaduct, helping to preserve the economic development potential of this area, including planned developments such as Waller Town Center. No adverse economic impact is expected as a result of the Project. Rather, a net positive economic impact would occur as a result of significant capital investment during the Project's construction and increased state and local tax revenues resulting from TCRR's assets and operations. Economic impacts associated with the project are detailed in **Section 3.14.5.2.3, Socioeconomics and Community Facilities, Economic Impacts.**

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns.

Sincerely,

A handwritten signature in blue ink, appearing to read "Michael Johnsen".

Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

March 28, 2018

Dear Mr. Kevin Wright,

Upon conferring with Sheriff Glenn Smith of Waller County, Sheriff Elmer Tanner of Navarro County, Sheriff Travis Neeley of Madison County, Sheriff Dennis Wilson of Limestone County, Sheriff Kevin Ellis of Leon County, Sheriff Jeremy Shipley of Freestone County, and Sheriff Charles Edge of Ellis County of our Sheriffs Coalition, we are unable to meet with Texas Central until a time when the company can provide updated information that is consistent with our County policies. As you are aware, resolutions have been passed by each of our County Commissioners Courts confirming that no rerouting or realignment of public roads within our jurisdictions is allowable. Clearly, this presents a conflict between your project and our County; thus, we have two requests at this time from Texas Central:

- 1) Texas Central needs to provide each County and our Offices with the updated plan(s) for the proposed Dallas Houston HSR that clearly memorializes that no rerouting or realignment of public roads within our jurisdictions is proposed. Then, we can, both individually and collectively, review your proposals for consistency with our policies to ensure no disruption to public safety and security within our jurisdictions and verify your plans are compliant with County policy.
- 2) Texas Central needs to undertake a detailed and thorough evaluation of current response times to ensure the project has a net zero or positive impact on response times for first responders in each area. As we have stated before, any increase in response times due to this proposed HSR project is unacceptable.

Once we have this information and have had ample time to review, we would be obliged to meet with Texas Central's head of safety and security, as well as the most appropriate and knowledgeable representative from the Federal Railroad Administration, Texas Department of Transportation and Texas Department of Public Safety. As we have stated publicly, this meeting shall be conducted with a court reporter present and must include substantive coordination, along with concrete proposals, not just promises of additional equipment and training.

Additionally, I was made aware of comments you provided to members of the media following our March 1 news conference. Please provide the requested supporting data:

From Texas Central's "statement" to the media:

"There are very specific state and federal statutes that describe Texas Central's requirements for safety and security and we are working to ensure we meet or exceed those requirements."

Please provide those state and federal statutes to our Offices so we can have shared understanding about the requirements. "49 CFR 239.191(a)(5)" does not produce any statutes related to public safety or security.

"POTENTIAL RESPONSE TIME IMPROVEMENTS: In the DEIS, the FRA said many of the modifications the project will make along the 240-mile route "represent a potential improvement for emergency response."

Please provide the assumptions and data used to support this statement.

Finally, we feel compelled to reiterate that trespassing will not be tolerated in our jurisdictions. Please inform all your consultants and contractors that they must obtain express written permission from every land owner, including the County Commissioners Courts, *prior* to entry onto private property or performing surveys on County lands as applicable. To be clear, it is our belief, Texas Central does not qualify as a railroad and does not have the right to force entry. Warnings in this regard have been issued, and we will have zero tolerance going forward. Thank you in advance for your cooperation.

cc: David Hagy
Texas Central Partners

Sincerely,

Sheriff Don Sowell, Grimes County

(on behalf of Sheriff Glenn Smith of Waller County, Sheriff Elmer Tanner of Navarro County, Sheriff Travis Neeley of Madison County, Sheriff Dennis Wilson of Limestone County, Sheriff Kevin Ellis of Leon County, Sheriff Jeremy Shipley of Freestone County, and Sheriff Charles Edge of Ellis County)



GRIMES COUNTY SHERIFF'S OFFICE

Sheriff Donald G. Sowell
382 FM 149 West, Anderson, Texas 77830
Email: don.sowell@grimescountytexas.gov
Website: www.grimescountysos.org

October 28, 2019

Kevin Wright
Federal Railroad Administration
1200 New Jersey Ave. SE MS-20
Washington, D.C. 20590

Dear Mr. Wright,

We, the County Sheriffs representing the eight counties between Dallas and Harris impacted by the Texas Central's proposed Dallas Houston high-speed rail project (Project), write to express our continued concerns regarding both Texas Central and its Project. In early 2017, we formed this Sheriffs Coalition based on our shared concerns regarding the Project and its impacts, and our shared experiences dealing with Texas Central in our communities. On repeated occasions, we have requested critical public safety information from Texas Central. To date, our requests have been denied or ignored, save for some pictures of the high-speed train in Japan.

Our primary concerns regarding the Project involve emergency response, public safety, and the quality of life of our constituents. Texas Central has provided very little information to us or our County emergency management officials. As a result, we have been unable to assess what we need to do from a county perspective to be prepared to quickly and effectively respond to emergencies during construction and operation of the Project, in the event the Project actually moves forward to those phases. Given that Texas Central and its representatives have stated publicly that construction will begin in late 2019 or early 2020, we must bring some of our preliminary concerns and questions to your attention now.

Emergency Response Concerns:

- **Increase in emergency response (ER) times.**
- **ER by local EMS, VFDs, and law enforcement in the event of life-threatening situations related to the construction, commissioning and, in particular, operation of the Project.**
- **Changes or impediments to public school access in emergency situations.**

24 Hour Dispatch
936-873-2151

Jail
936-873-6439

Records
936-873-6442

Fax
936-873-2010

Prior to the release of the Draft Environmental Impacts Statement (DEIS), Texas Central provided no data any EMS, law enforcement, or VFDs regarding ER times. Nor did Texas Central engage in any discussion with any EMS, law enforcement, or VFDs regarding ER times. Current DEIS ER information is not quantitative. Rather, it is qualitative at best, as it is not based on modeling of the actual predicted construction activities in the impacted area.

The DEIS accepts up to a 10% increase to ER times without requiring Texas Central to mitigate this increase or take any mitigating action. As it stands, our Counties must simply accept this level of increase in ER times. Additionally, for increases above 10%, the DEIS states Local Service Organizations will be responsible for mitigating those increases to an acceptable level (DEIS Pg. 3.16-24: local jurisdictions would be expected to ensure no adverse impacts to emergency response times during the construction phase). Not only could these ER time delays cause lives to be lost, the local communities (not Texas Central) have been tasked with attempting to mitigate the delays and the potential harm flowing from them. For *any* increase in ER times, Texas Central should be responsible for the increase and mitigation necessary to return ER times to current levels.

As reported from a meeting of local VFDs (to which we were not invited), a TCR Vice President, engineer, and regulatory representative, all were unable to identify what rescues might be necessary or what type of disaster scenarios the Counties must be prepare for along the Project's route. Likewise, these representatives were unable to produce or discuss any results of any application of a Risk Management System to determine those potential disaster scenarios developed by the use of qualified Risk Assessment Engineers. In fact, Texas Central did not even bring to the meeting a list of potential Like Type Equipment used in Japan for similar operations. Finally, there was no clear description of how the VFD personnel would be able to get up on top of any berm or viaduct. Instead, the representatives merely stated that there would be pre-described emergency staging areas established.

Preliminary Questions:

Emergency Response Times

1. The DEIS states that detailed modeling of ER times would be completed prior to construction and that local ER Jurisdictions would have review and permitting authority of construction plans as they relate to ER times. Since construction may start by the end of 2019, when can we expect to receive the detailed modeling? When will that process begin, how will it work, and what involvement will law enforcement have in creating those plans? Since the release of the new Project alignment on Texas Central's website, has there been any updated modeling of ER times? Please provide. If not, why not?
2. What is meant by the following statement in the DEIS: "Impacts to Emergency Response Times Would Not be Anticipated to be Significant"?
3. For increase in ER times below 10%, will Texas Central provide financial and manpower resources to local emergency management for mitigation?

4. Will Texas Central accept responsibility for mitigation of *any* increase in ER times by proposing changes in design, construction, commissioning, work or other plans of activity? If so, will Texas Central present those proposals to local EMS, Law Enforcement, and VFDs to discuss joint mitigation steps to return the ER times to current (or better) levels prior to start of construction? For example, Emergency Services District 200 will have access cut off of from 25 roads.
5. Have detailed flood studies been conducted? New construction and berms will further increase flooding risks which will negatively impact emergency response times. If so, please provide.

Emergency Response Planning

1. Does Texas Central possess an Emergency Response Plan for construction and commissioning phases? If so, please provide.
2. Does Texas Central have an Emergency Response during operations training Plan for *all* emergency personnel? If so, please provide.
3. Has Texas Central implemented a full risk management system for the Project during construction, commissioning, and operations? If so, please provide.
4. Has Texas Central performed risk assessments of qualified disaster scenarios for potential emergency situations, including traffic flow modeling relating to Leon HS, Montgomery HS and High Point Elementary?
5. Did Texas Central consider the presence of public schools in selecting the preferred route?
6. Does Texas Central possess a "Rescue at Heights" plan as a part of its ER plan with respect to the construction and commissioning phase of the Project? If so, please provide.
7. Does Texas Central possess drawings showing the location of each emergency staging area and its connection to existing roads? If so, please provide.
8. Can Texas Central explain how emergency personnel will access the top of Project from the ground level of either a viaduct or berm-supported section of track? If so, please provide.
9. Has Texas Central incorporated air rescues into its the ER plan? If so, will Texas Central bare all costs associated with the use or standby of the necessary equipment?
10. Will "tracked" emergency equipment, including "Rescue at Heights" equipment, be provided to ER teams in order to access areas of the track not near any road access or staging areas?

11. Texas Central claimed in their Surface Transportation Board exemption petition that “check in and security procedures would be far less time-consuming than at busy airports.” Please provide details regarding this check-in process, as well as all security measures planned for operation of the Project.

Coordination with Local Emergency Management

1. If TCR plans on construction start by the end of 2019 or early 2020 as it has reported to the public and media, these Emergency Response Plans, certainly for construction, should be completed at this point. Will TCR supply the Coalition with a copy of those ER plans ASAP and provide a schedule for reviewing it with the local ERS groups? If so, please provide.
2. Would TCR be able and willing to provide the Coalition with not only a list of meetings with dates and names, but also the lessons learned or modifications made in your plans as a result of formal input from any School Districts, EMS, Law Enforcement, or VFDs prior to the DEIS release?
3. Does TCR have a clear understanding of the numbers of current personnel and skill levels, as well as types and numbers of current equipment levels, at each County VFD that could be directly impacted by the HSR? If so, please provide.
4. How will firefighting personnel and equipment access property on BOTH sides in the event of grass/brush fires?
5. Has TCR provided any EMS or VFD organizations with a list of required emergency response equipment and personnel? If so, please provide.
6. Has TCR implemented full Risk Assessments using Qualified Risk Engineers to determine potential Disaster or Emergency situations that would require preparation and action by any County Emergency personnel (including for Construction, Commissioning phases, and in particular, Operations)?
7. How many training days per VFD or other Emergency Response personnel will be required per year for preparation of these emergency situations?
8. Will TCR pay for all emergency personnel training including mitigation costs for missing personnel due to the training?
9. Will TCR pay for storage facilities, maintenance and all other costs including insurance for the full life of any equipment provided to the Counties for specific use on the HSR?

10. Will County emergency personnel be paid for by TCR as a result of any activity required by specifically operations of the HSR?
11. In accordance with the FRA DEIS, Emergency Districts have proclaimed additional fire departments will be necessary should the HSR be built. Who is expected to pay for these additional stations and resources that will be necessary?
12. How will Landowners be compensated for use or damage of their land specifically due to the need to access areas not accessible by a road by emergency equipment and personnel?
13. Is TCR aware of the Atmos Energy Turbine Compression Station in Waller County? Is TCR aware of accidental releases of natural gas in close proximity to the planned HSR route which is being powered by electricity?

There have been occasional brownouts/blackouts in the impacted areas. Being that further strains will be placed on our power supplies, can you provide any such studies showing that the increased power consumption will not burden our current systems which will negatively impact our emergency response teams and facilities?

Public Safety Concerns:

- **Impacts to Public Safety as a result of realigned County Roads and/or public road lane changes during HSR Construction or operation of construction sites.**
- **Targeted locations along HSR Project that will experience increased crime.**

It is important to determine and understand benchmarks suitable to demonstrate what can be expected regarding new crime in local areas where, due to the rural nature, probable types of crime related to HSR activities are now relatively non-existent. The huge influx of new but transient residents for construction and operation of the HSR and stations will normally bring new challenges associated with crime in the rural communities. For reference, the DART station in Dallas has already limited their open hours due to crime and loitering, and the area of Houston's Amtrak station is known for drug and prostitution related crimes.

Preliminary Questions:

Realignment of Roads

1. While the DEIS is in conflict with County regulation regarding realignment of roads and not permissible at this time, should there need to be road or lane closures to accommodate construction activities, what is the timeline for coordination to ensure public safety is priority?

Increased Crime

1. Could you explain, in a quantitative manner based on similar norms vs. qualitative currently shown in the DEIS, what level of increases in crime can be expected by law enforcement for the mid-stop

location, construction sites, and HSR construction areas due to the influx of large numbers of construction workers and others wanting to take advantage of the short term but substantial increase in local populations for our Counties? If so, please provide.

2. Could you provide other Project Benchmarks as examples of similar projects and the resulting increases in crime?
3. What type of security will be present at construction sites? If so, please provide.
4. Will there be a Texas Central Railroad Police with jurisdiction over the tracks and stations?
5. Does TCR have a list of areas or responsibilities for which they will want support from County or Local Law Enforcement or Emergency Responders? If so, please provide, as well as an estimate of additional law enforcement personnel that might be needed.

Quality of Life Concerns:

- **Trespassing of private property by agents associated with HSR Project.**
- **Threats, intimidation and harassment of private property owners.**

In 2016, the Sheriffs' received numerous reports of surveyors and/or land agents associated with the HSR project Illegally trespassing on private property. In order to better respond to reports of trespass, the Sheriffs Coalition requested a list of properties TCR had permission to access so valuable time did not get wasted responding to a property on which permission had been given. That request was denied by TCR.

Additionally, there have been reports of harassment of landowners by land agents and paper servers related to lawsuits for access to survey.

Preliminary Questions:

Trespass

1. Will TCR provide to the Sheriffs Coalition a listing of all "Surveyor Permission Forms" approved by landowners for further use should trespassing reports surface again during the future construction and commissioning phases of this project? If so, please provide.
2. Did TCR perform an independent investigation of activities related to reports of trespass on private property? If so, please provide copies of such.


Harassment of Landowners

1. The Sheriffs Coalition had a meeting with Drayton McLane and Carlos Aguilar of Texas Central in early 2019. The Sheriffs Coalition shared with them reports from our citizens regarding the harassing actions of TCR agents and employees. Mr. McLane clarified to Aguilar that harassment of landowners should not be happening. We are still hearing reports of company representatives are harassing landowners, despite the direction from the top to ensure it doesn't happen. Please provide documentation of corrective actions or communications provided to employees or agents.

Because the County Sheriffs have not been involved in, coordinated with or provided with requested information regarding the proposed Dallas Houston HSR project, the above questions are simply a starting place for what we know will be a lengthy process of information sharing and review, should this project ever come to fruition, to ensure the safety of our citizens.

Given the public claims of HSR construction beginning by end of 2019, we respectfully expect responses to these questions by November 15, 2019.

Sincerely,



Sheriff Don Sowell
Grimes County

(Representing all Sheriffs Coalition members)

Sheriff Charles Edge
Ellis County

Sheriff Dennis Wilson
Limestone County

Sheriff Elmer Tanner
Navarro County

Sheriff Jeremy Shipley
Freestone County

Sheriff Travis Neely
Madison County

Sheriff Glenn Smith
Waller Count

Sheriff Kevin Ellis
Leon County



U.S. Department
of Transportation

**Federal Railroad
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

May 17, 2020

Sheriff Donald G. Sowell
Grimes County Sheriff's Office
382 FM 149 West
Anderson, Texas 77830

Subject: Response to Comments on the Dallas to Houston High-Speed Rail Project and Draft Environmental Impact Statement

Dear Sheriff Sowell:

The Federal Railroad Administration (FRA) has prepared an Environmental Impact Statement (EIS) to evaluate the potential human and natural environmental impacts of the proposed Dallas to Houston High-Speed Rail Project (Project). Texas Central Railroad, LLC (TCRR) proposes to construct and operate a private, for-profit, high-speed passenger rail system that would connect Dallas and Houston in approximately 90 minutes. The proposed high-speed rail system, approximately 240 miles in length, would be constructed between two terminus locations: Downtown Dallas and northwest of downtown Houston in the area near the intersection of U.S. Highway 290/Interstate Highway 610.

On December 22, 2017, the FRA released the Draft EIS for review and comment. FRA received approximately 25,000 comments during the public comment period (December 22, 2017 to March 9, 2018). The Sheriff's Coalition, including Sheriff Don Sowell of Grimes County, Sheriff Glenn Smith of Waller County, Sheriff Elmer Tanner of Navarro County, Sheriff Travis Neely of Madison County, Sheriff Dennis Wilson of Limestone County, Sheriff Kevin Ellis of Leon County, Sheriff Charles Edge of Ellis County and Sheriff Jeremy Shipley of Freestone County provided written comments on March 28, 2018. The Final EIS incorporates updated Project information and environmental analysis, while also addressing comments received on the Draft EIS. A review and response to the Sheriffs Coalition's comments/questions provided on March 28, 2018 can be found below. Responses to all public and agency comments are included in the Final EIS in Appendix H.

In addition to the March 28, 2018 letter referenced above, the Sheriff's Coalition also provided additional comments in a letter received on October 28, 2019. **Table 1** included as an attachment to this letter includes FRA's responses to the numbered comments provided in the Sheriff's Coalition letter received on October 28, 2019 and includes a summary of updates included in the Final EIS. Please note that two responses below to the March 28, 2018 letter, refer to FRA's responses to comments provided in the Sheriff's Coalition letter received on October 28, 2019 in **Table 1** attached. Those responses included a summary of updates documented in the Final EIS.

Comment 1: *Texas Central needs to provide each County and our Offices with the updated plan(s) for the proposed Dallas Houston HSR that clearly memorializes that no rerouting or realignment of public roads within*

our jurisdictions is proposed. Then, we can, both individually and collectively, review your proposals for consistency with our policies to ensure no disruption to public safety and security within our jurisdictions and verify your plans are compliant with County policy.

Response 1: In response to public comments, FRA extended invitations to all 10 impacted county judges for additional meetings. Dallas, Ellis, and Harris counties accepted these invitations. Since the release of the Draft EIS, TCRR continued making refinements to the preferred alternative and re-evaluated roadway crossings to minimize the modification to existing roadway infrastructure as noted in **Section 3.11.5, Transportation, Environmental Consequences**.

The construction of the Project may result in changes to existing roadways in order for those roads to go under or over the track, but no public roads will be permanently closed. A public road that interacts with the Project can be modified in the following ways:

- Road under railway—There are two conditions where this configuration would occur: (1) the road would be depressed (below grade) beneath the railway; or (2) the road would remain at-grade while the railway would be elevated (viaduct)
- Road over railway—Either the road would be elevated to go over the railway or the road would remain at-grade and the railway would be depressed
- Relocation—Existing road would be relocated to avoid conflict with the railway
- Road Adjustment —Existing road would be realigned to avoid conflict with the railway
- Reroute—Road approaching from one or both sides of the railway, would be rerouted on new access roads (maintained by TCRR) to an alternate, nearby crossing

Design details and plans have been included in **Appendix F, TCRR Final Conceptual Engineering Design Report** and **Appendix G, TCRR Final Conceptual Engineering Plans and Details**

Comment 2: *Texas Central needs to undertake a detailed and thorough evaluation of current response times to ensure the project has a net zero or positive impact on response times for first responders in each area. As we have stated before, any increase in response times due to this proposed HSR project is unacceptable.*

Response 2: Refer to FRA’s responses to Emergency Response Comments 1, 2, and 4 in the attached table in response to the letter dated October 28, 2019.

Comment 3: *There are very specific state and federal statutes that describe Texas Central’s requirements for safety and security and we are working to ensure we meet or exceed those requirements.” Please provide those state and federal statutes to our Offices so we can have shared understanding about the requirements. “49 CFR 239.191(a)(5)” does not produce any statutes related to public safety or security.*

Response 3: As detailed in in Final EIS **Chapter 1, Introduction**, FRA has broad authority to prescribe regulations and issue orders, as necessary, for every area of railroad safety (49 U.S.C. § 20101 et seq.; 49 C.F.R. § 1.89, Parts 200-299). FRA’s existing regulations do not adequately address the safety concerns and operational characteristics of the HSR system proposed by TCRR. Therefore, FRA has proposed minimum Federal safety standards through an Rule of Particular Applicability (RPA) (regulations that apply to a specific railroad or a specific type of operation), to ensure the TCRR’s proposed system is operated safely.

To establish such minimum safety requirements for the Project, TCRR petitioned FRA for an RPA, a

regulation that applies to its specific railroad operation. On March 10, 2020, FRA published a Notice of Proposed Rulemaking (NPRM), proposing a set of minimum Federal safety standards to enable effective safety oversight of the operation of TCRR's HSR system within the United States (see 85 Fed. Reg. 14036 [March 10, 2020]). Further details regarding FRA's rulemaking process can be found in **Chapter 1.1.2.1, Introduction, Rule of Particular Applicability**

Federal and state statutes applicable to the safe and secure operation of the project are documented in the FEIS in **Section 3.16.2, Regulatory Context**. At a Federal level, transportation security is overseen by the TSA. TSA administrative rules for rail transportation security are codified under 49 C.F.R. part 1580. Railroad Safety statutes overseen by FRA are codified at 49 C.F.R. parts 200-299.

To prevent incidents and ensure reliable operations, 49 CFR part 270 requires a formalized System Safety Program (see **Section 3.16.6, Safety and Security, Avoidance, Minimization and Mitigation, SS-CM#2: System Safety Program**). Additionally, TCRR will be required to have a program for system inspection, testing, and maintenance (see **Section 3.16.6, Safety and Security, Avoidance, Minimization and Mitigation, SS-CM#3: Inspection, Testing and Maintenance**). Together, these programs would cover all aspects of day-to-day system safety, inspection, testing, and maintenance. These programs would be developed by TCRR prior to system operation and would be implemented by TCRR and overseen by FRA during system operation.

Comment 4: *"POTENTIAL RESPONSE TIME IMPROVEMENTS: In the DEIS, the FRA said many of the modifications the project will make along the 240-mile route "represent a potential improvement for emergency response." Please provide the assumptions and data used to support this statement.*

Response 4: Refer to FRA's responses in the attached table in response to the letter dated October 28, 2019 to Comment Number, Emergency Response Times 2.

Thank you for your interest in the Dallas to Houston High-Speed Rail Project. Please contact Kevin Wright at kevin.wright@dot.gov or 202-493-0845 should you have any additional questions or concerns. For further detail regarding construction schedule updates and details, requested plans, TCRR meetings or further coordination with TCRR, please contact Travis Kelley via e-mail at TKelly@texascentral.com or 214-254-4781.

Sincerely,



Michael Johnsen
Supervisory Environmental Protection Specialist
Federal Railroad Administration

Enclosure

Cc:

Sheriff Glenn Smith of Waller County
Sheriff Elmer Tanner of Navarro County
Sheriff Travis Neely of Madison County
Sheriff Dennis Wilson of Limestone County

Sheriff Kevin Ellis of Leon County
Sheriff Charles Edge of Ellis County
Sheriff Jeremy Shipley of Freestone County

Table 1. Comment and Response Matrix for October 28, 2019 Sheriff’s Coalition Letter

COMMENT NUMBER	COMMENT	RESPONSE
<p>Emergency Response Times 1</p>	<p>The DEIS states that detailed modeling of ER times would be completed prior to construction and that local ER Jurisdictions would have review and permitting authority of construction plans as they relate to ER times. Since construction may start by the end of 2019, when can we expect to receive the detailed modeling? When will that process begin, how will it work, and what involvement will law enforcement have in creating those plans? Since release of the Project alignment on Texas Central's website, has there been any updated modeling of ER times? Please provide. If not, why not?</p>	<p>TCRR must coordinate any reconstruction or rerouting of public roads with TxDOT or the appropriate local jurisdiction through the Road Closure Permit process described in Section 3.11.6.1, Transportation, Compliance Measures, TR-CM#3: Road Closure Permit. TR-MM#1: Traffic Control Plan requires TCRR to develop a traffic control plan establishing procedures for temporary road closures including emergency access, traffic management, and construction site safety. TCRR must coordinate the traffic control plan with the appropriate jurisdiction and potentially affected emergency responders to minimize any appreciable negative impact to emergency response times. In Section 3.16.6.2, Safety and Security, Mitigation Measures, SS-MM#1: Model Construction Impacts on Emergency Response Times requires TCRR to evaluate these traffic control plans using Computer Assisted Dispatch software to determine the baseline and affected response times within a jurisdiction. This modeling will capture final design modifications and would be shared with each jurisdiction, prior to any construction activity, in order to facilitate coordination. The determination of specific measured travel time impacts cannot occur until the duration, extent, and timing of each planned roadway modification has been developed through the Road Closure Permit process. In all cases, closures during construction would be short-term until the permanent road crossing is constructed. Local jurisdictions would have review and permitting authority over TCRR's Traffic Control Plans for any required Road Closure Permits and, through this process, would require TCRR to demonstrate sufficient mitigation of any adverse impacts to emergency response times during the construction phase. In addition to any local standards, which would be developed through further coordination, SS-MM#1: Model Construction Impacts on Emergency Response Times also requires modification of construction plans if they result in an average response time increase of 10 percent or more.</p> <p>The 5-year construction schedule detailed by TCRR is included in the Final EIS at Appendix F, TCRR Final Conceptual Engineering Design Report. For the purposes of the analysis in the Final EIS, Project mobilization was assumed to occur from January 2020 to March 2020. Regional building demolition and land grubbing for the embankment, elevated (viaduct), and retained-fill segments were anticipated to begin in March 2020 and conclude in December 2021. The major construction activities were anticipated to occur between 2020 and 2024, with construction of the TMFs, MOWs, and stations completed during 2022 and 2024. Project demobilization would occur from September 2024 to December 2024. The years in the schedule are considered representative for the purpose of the Final EIS analysis as detailed in the Summary Schedule Appendix F, TCRR Final Conceptual Engineering Design Report. Calculated construction activities would be valid over any 5-year construction timeframe. Construction activities may occur on a rolling basis from county to county, but no construction would start until the appropriate permits and authorizations are in place.</p> <p>The geographic analysis of the potential effects on response times during construction in Section 3.16.5, Safety and Security, Environmental Consequences, of the Final EIS has been updated to reflect TCRR's updated project alignment. However, these are not quantitative measurements of impacts, but rather qualitative assessments meant to identify areas for heightened coordination between TCRR and the governing authorities. See Section 3.16.3, Safety and Security, Methodology, for an explanation of how risks were classified. The determination of specific measured travel time impacts cannot occur until the duration, extent, and timing of each planned roadway modification has been developed through the</p>

		Road Closure Permit process. In all cases, closures during construction would be short-term until the permanent road crossing is constructed.
Emergency Response Times 2	What is meant by the following statement in the DEIS: "Impacts to Emergency Response Times Would Not be Anticipated to be Significant"?	This language has been removed from the FEIS. FRA is not making a determination as to the significance of particular changes in emergency response times. A geographic analysis of emergency service facilities and jurisdictional boundaries was used to determine emergency services providers with jurisdiction within the Study Area. This information, in conjunction with a database of local roadway impacts, was used to determine potential effects on response time or emergency management, as detailed in Section 3.16.3.2.3, Safety and Security, Methodology, Assessment, Emergency Services .. TCRR will be required to calculate changes in emergency response times through the process as described in SS-MM#1: SS-MM#1: Model Construction Impacts on Emergency Response Times .
Emergency Response Times 3	For increase in ER times below 10%, will Texas Central provide financial and manpower resources to local emergency management for mitigation?	<p>The ten percent standard described in Section 3.16.6.2, Safety and Security, Mitigation Measures is a minimum requirement set forth in the EIS in the event that local permitting authorities do not set a more rigorous standard. In all cases, TCRR will be required to coordinate with local authorities prior to Project construction in order to obtain permits to modify or provide new access to any public right of way. (See Section 3.11, Transportation, TR-CM#2: Roadway Access Permit and TR-CM#3: Road Closure Permit.) Language in the FEIS has been modified to clarify that local jurisdictions' role in mitigating impact to response times is through their road access and road closure permitting authority. TCRR would be responsible for developing construction plans and schedules that comply with local standards.</p> <p>Irrespective of modeled emergency response times, TCRR proposes to establish and maintain a private security department to monitor safety and security of the HSR system, as well as coordinate with local city and county law enforcement. Additionally, as described in SS-CM#1: Emergency Preparedness Plan, TCRR would provide training resources for all on-line emergency responders who could reasonably be expected to respond during an emergency situation.</p> <p>As described in Section 3.16.5.2.3, Socioeconomics and Community Facilities, Economic Impacts some additional revenue for local jurisdictions is expected to occur as a result of TCRR's capital investment and property tax increment.</p>
Emergency Response Times 4	Will Texas Central accept responsibility for mitigation of any increase in ER times by proposing changes in design, construction, commissioning, work or other plans of activity? If so, will Texas Central present those proposals to local EMS, Law Enforcement, and VFDs to discuss joint mitigation steps to return the ER times to current (or better) levels prior to start of construction? For example, Emergency Services District 200 will have access cut off from 25 roads.	<p>See response to comment Emergency Response Times 1</p> <p>The proposed Project is entirely grade separated and would not result in any delays to cross traffic associated with waiting for an HSR vehicle to pass before crossing a track. The potential for impact to emergency response times due to modified road networks at or near crossing locations is dependent on the type and nature of each crossing modification. As detailed in Section 3.11.5, Transportation, Build Alternatives, approximately 55 percent of the Project would be constructed on rail viaduct, minimizing permanent impacts to public roads. All crossings are either 'rail over the roadway' or 'roadway over rail'. Approximately 83 percent of the public road crossings on the Preferred Alternative would not include re-routing of the existing public road for the Preferred Alternative. Modifications to these public roadways due to vertical changes would not impact travel or emergency response time after construction is complete. Therefore access would not be "cut-off". In many locations, the Project would add new access roads that run parallel to the alignment, enhancing access to remote properties and improving emergency response times.</p>

		<p>The Final EIS incorporates several design modifications intended to minimize impacts to local communities. A full set of updated engineering plans, including proposed modifications of public ROW and new access roads, will be available in Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports of the Final EIS. As a result of these design modifications, the overall footprint of the Project evaluated was reduced by approximately 23 percent. TCRR is in the process of developing detailed construction plans, which cannot be finalized until after FRA publishes the Final Rule. Mitigation measures identified in the EIS require TCRR to engage in ongoing communication regarding TCRR's construction plans as detailed in Section 3.11, Transportation, TR-MM#1: Traffic Control Plan and Section 3.16, Safety and Security iSS-MM#1: Model Construction Impacts on Emergency Response Times.</p>
Emergency Response Times 5	<p>Have detailed flood studies been conducted? New construction and berms will further increase flooding risks which will negatively impact emergency response times. If so, please provide.</p>	<p>As detailed within Section 3.8.3.1 Floodplains, Floodplains, preliminary determinations for floodplains were made based on FEMA floodplain data. As part of FP-CM#1: Floodplain Development Permit, the Preferred Alternative will be surveyed prior to construction to determine base flood elevations and conduct a hydrologic model analysis.</p> <p>TCRR is working with federal, state and local agencies during the design process to ensure compliance with federal, state and local laws, regulations, and policies through avoidance, minimization, and mitigation measures including floodplain development permits for the placement of viaduct piers as stated in Section 3.8.6.1, Floodplains, Compliance Measures. As detailed within this section, natural events such as hurricanes (i.e., Hurricane Harvey in August 2017) that cause flooding may result in floodplain boundary changes; therefore, TCRR shall monitor FEMA mapped floodplain boundaries during final design to ensure design components comply with local floodplain regulations.</p>
Emergency Response Planning 1	<p>Does Texas Central possess an Emergency Response Plan for construction and commissioning phases? If so, please provide.</p>	<p>Safety during the construction phase will be regulated by state and local construction ordinances, as well as Section 3.11 Transportation, TR-MM#1: Traffic Control Plan, TR-MM#2: Intersection Improvements, Section 3.16 Safety and Security, SS-MM#1: Model Construction Impacts on Emergency Response Times, and the collection of mitigation measures identified in Section 3.5.6.2, Hazardous Materials, Mitigation Measures.</p>
Emergency Response Planning 2	<p>Does Texas Central have an Emergency Response during operations training Plan for all emergency personnel? If so, please provide.</p>	<p>TCRR's emergency response training will be developed and communicated prior to service operations, as described in the Final EIS in Section 3.16, Safety and Security, SS-CM#1: Emergency Preparedness Plan.</p>
Emergency Response Planning 3	<p>Has Texas Central implemented a full risk management system for the Project during construction, commissioning, and operations? If so, please provide.</p>	<p>As described in Section 3.16.6, Safety and Security, SS-CM#4, Perform Hazard Analysis, TCRR must prepare a Hazard Analysis that identifies potential hazards that may lead to an accident, ranks the identified accidental events according to their severity, and identifies required hazard controls and follow-up actions. The hazard analysis may include items such as extreme storm, flood, wildfire, or earthquake; falling debris or projectiles; intrusion of animals or trespassers; high temperature system performance; proximity of HAZMAT and utility distribution sites; and structural damage. The hazard analysis is required under 49 C.F.R. part 270 and must be in place prior to passenger operations. It will be the responsibility of TCRR to demonstrate the hazard management program adequately addresses potential risks. Safety during the construction phase will be regulated by state and local construction ordinances, as well as Section 3.11 Transportation, TR-MM#1: Traffic Control Plan, TR-MM#2: Intersection Improvements, Section 3.16, SS-MM#1: Model Construction Impacts on Emergency</p>

		Response Times , and the mitigation measures identified in Section 3.5.6.2, Hazardous Materials, Mitigation Measures .
Emergency Response Planning 4	Has Texas Central performed risk assessments of qualified disaster scenarios for potential emergency situations, including traffic flow modeling relating to Leon HS, Montgomery HS and High Point Elementary?	<p>Prior to operations, TCRR shall prepare a System Security Plan (See SS-CM#8: System Security Plan) that would document processes for mitigating and/or eliminating security threats, vulnerabilities, and other identified risks.</p> <p>To date, Synchro traffic modeling for the Build Alternatives has been conducted by FRA at proposed station areas only, as described in Section 3.11.3.7, Transportation, Station Area Analysis. Operation of the Project is not expected to induce uncharacteristic traffic volumes outside these areas. TCRR will evaluate potential impacts of construction as described in Section 3.16 Safety and Security, SS-MM#1: Model Construction Impacts on Emergency Response Times.</p>
Emergency Response Planning 5	Did Texas Central consider the presence of public schools in selecting the preferred route.	FRA identified Build Alternative A as the preferred alternative. Build Alternative A has been refined to minimize impacts across all environmental assessment categories described in the Final EIS. Impacts to schools and other community facilities as well as mitigation strategies are documented in Section 3.14.5.2.4, Socioeconomics and Community Facilities, Impacts to Children’s Health and Safety .
Emergency Response Planning 6	Does Texas Central possess a “Rescue at Heights” plan as a part of its ER plan with respect to the construction and commissioning phase of the Project? If so, please provide.	TCRR’s Emergency Preparedness Plan, as required under 49 C.F.R. part 239, applies to the Project’s revenue passenger operations. Safety during the construction phase will be regulated by state and local construction ordinances as well as Section 3.11 Transportation, TR-MM#1: Traffic Control Plan, TR-MM#2: Intersection Improvements, Section 3.16 Safety and Security, SS-MM#1: Model Construction Impacts on Emergency Response Times , and the collection of mitigation measures identified in Section 3.5.6.2, Hazardous Materials, Mitigation Measures .
Emergency Response Planning 7	Does Texas Central possess drawings showing the location of each emergency staging area and its connection to existing roads? If so, please provide.	Emergency access to trainsets would be provided at station areas, maintenance facilities, and Emergency Response and Maintenance Staging Areas (ERMSA). On average, ERMSAs are spaced at 2 to 3 mile intervals, as documented in Section 3.16.5.2, Safety and Security, Build Alternatives , Table 3.16-20 of the Final EIS. The specific location of each planned ERMSA is shown in Appendix G, TCRR Final Conceptual Engineering Plans and Details, Volume 2 . Each ERMSA accommodates six ambulances, two fire trucks, and passenger staging areas. Design options are available in Appendix G, TCRR Final Conceptual Engineering Design Report, Drawings Volume 3 .
Emergency Response Planning 8	Can Texas Central explain how emergency personnel will access the top of Project from the ground level of either a viaduct or berm-supported section of track? If so, please provide.	<p>Emergency access to passengers on board the HSR trainset would be provided at Emergency Response and Maintenance Staging Areas (ERMSA), which would each include either stair towers for access to viaduct, retained fill, and retained cut sections or a stairwell for access to embankment or cut sections. Each ERMSA includes space to stage six ambulances and two fire trucks. Additional design data for ERMSA facilities are available in Appendix G, TCRR Final Conceptual Engineering Plans and Details, Volume 3. On average, ERMSAs would be spaced at 2- to 3-mile intervals, with a maximum distance of 3.5 miles between staging areas, for all Build Alternatives. At operating speeds, the train would pass an ERMSA approximately every minute. Planned locations for ERMSAs are available in Appendix G, TCRR Final Conceptual Engineering Plans and Details, Volume 2.</p> <p>As described in Section 3.16.6, Safety and Security, SS-CM#1: Emergency Preparedness Plan, TCRR must develop an Emergency Preparedness Plan prior to operations in compliance with 49 CFR part 239. The Emergency Preparedness Plan shall include, among other components, procedures regarding elevated structures and/or electrified territories, an inventory of available emergency equipment, and a program</p>

		for communication and training for online emergency responder who could reasonably be expected to respond during an emergency situation. This program shall include participation in emergency simulations and distribution of TCRR's Emergency Preparedness Plan to emergency responders.
Emergency Response Planning 9	Has Texas Central incorporated air rescues into its ER plan? If so, will Texas Central bare all costs associated with the use or standby of the necessary equipment.	TCRR's emergency preparedness plan will be developed, conditionally approved by FRA, and communicated prior to service operations, as described in Section 3.16 Safety and Security, SS-CM#1, Emergency Preparedness Plan . As such, details regarding air rescues are not yet known.
Emergency Response Planning 10	Will "tracked" emergency equipment, including "Rescue at Heights" equipment, be provided to ER teams in order to access areas of the track not near any road access or staging areas?	<p>Any specialized equipment required for the safe operation of the project (to be specified and inventoried through TCRR's Emergency Preparedness Plan) would be maintained by TCRR. Purchase and ownership agreements for any additional equipment not subject to federal regulation or required for the safe operation of the Project, would be privately negotiated by TCRR and the applicable local jurisdiction.</p> <p>The Project is designed to include a combination of shared access roads (described in Section 3.14.5.2, Transportation, Build Alternatives) and MOW access paths that would provide access to the HSR ROW from the public roadway network. As detailed on the typical sections in Appendix G, TCRR Final Conceptual Engineering Plans and Details, Volume 1, the MOW access paths would include a ten-foot allowance which would be cleared, graded and maintained by TCRR to allow for inspection, maintenance, and emergency response access.</p> <p>Emergency response access to passengers on board the HSR trainset would be provided at Emergency Response and Maintenance Staging Areas (ERMSA), which would each include either stair towers for access to viaduct, retained fill, and retained cut sections, or a stairwell for access to embankment or cut sections. Each ERMSA includes space to stage six ambulances and two fire trucks. Additional design data for ERMSA facilities are available in Appendix G, TCRR Final Conceptual Engineering Plans and Details, Volume 3. On average, ERMSAs would be spaced at 2- to 3-mile intervals, with a maximum distance of 3.5 miles between staging areas, for all Build Alternatives. At operating speeds, the train would pass an ERMSA approximately every minute. Planned locations for ERMSAs are available in Appendix G, TCRR Final Conceptual Engineering Plans and Details, Volume 2.</p>
Emergency Response Planning 11	Texas Central claimed in their Surface Transportation Board exemption petition that "check in and security procedures would be far less time-consuming than at busy airports." Please provide details regarding this check-in process, as well as all security measures planned for operation of the Project.	Prior to operations, TCRR shall prepare a System Security Plan (see Section 3.16 Safety and Security, SS-CM#8: System Security Plan) that would document processes for mitigating and/or eliminating security threats, vulnerabilities, and risks identified through TCRR's Hazard Analysis (see Section 3.16 Safety and Security, SS-CM#4: Perform Hazard Analysis). TCRR has verified that entry to the trains will require passengers to present a valid ticket for travel. Passenger screening techniques will be developed through TCRR's System Security Plan but may include a variety of active and passive screening techniques, such as bag checks or video surveillance. Additional passenger and employee screening procedures developed through the System Security Plan must be compliant with applicable state and federal regulations, including Texas Senate Bill 975 and the Transportation Security Administration's RAILPAX-04-01 and RAILPAX-04-02. The check in process is not part of FRA's environmental review or safety oversight role and questions regarding that process should be directed to Texas Central.
Coordination with Local Emergency	If TCR plans on construction start by the end of 2019 or early 2020 as it has reported to the public and media, these Emergency Response	<p>See response to comment Emergency Response Times 1 regarding construction schedule.</p> <p>TCRR's Emergency Preparedness Plan, as required under 49 C.F.R. 239, only applies to Project operations. TCRR's emergency response plan will be developed and communicated prior to service</p>

<p>Management 1</p>	<p>Plans, certainly for construction, should be completed at this point. Will TCR supply the Coalition with a copy of those ER plans ASAP and provide a schedule for reviewing it with the local ERS groups? If so, please provide.</p>	<p>operations, as described in Section 3.16 Safety and Security, SS-CM#1, Emergency Preparedness Plan. No construction would start until permits and authorization are in place. Construction plans would be in place prior to construction and safety plans would be in place prior to testing and operation.</p>
<p>Coordination with Local Emergency Management 2</p>	<p>Would TCR be able and willing to provide the Coalition with not only a list of meetings with dates and names, but also the lessons learned or modification made in your plans as a result of formal input from any School Districts, EMS, Law Enforcement, or VFDs prior to the DEIS release?</p>	<p>Separate from FRA’s outreach under 40 C.F.R. 1501.7, TCRR also conducted public outreach throughout the Project development with various stakeholders, including federal, state and local agencies, elected officials, landowners and other interested parties. A summary of these activities is included in Appendix I, TCRR Plans and Public Outreach. Additional questions regarding correspondence should be directed to TCRR. Please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
<p>Coordination with Local Emergency Management 3</p>	<p>Does TCR have a clear understanding of the numbers of current personnel and skill levels as well as types and numbers of current equipment levels, at each County VFD that could be directly impacted by the HSR? If so, please provide.</p>	<p>As required under 49 C.F.R. 239, and as described in SS-CM#1: Emergency Preparedness Plan, TCRR must coordinate with on-line emergency responders who could reasonably be expected to respond during an emergency situation to distribute its Emergency Preparedness Plan and to provide training. Information regarding available local resources and capabilities can continue to be shared throughout development of the Emergency Preparedness Plan and training events.</p> <p>Questions regarding personnel and equipment should be directed to TCRR. Please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
<p>Coordination with Local Emergency Management 4</p>	<p>How will firefighting personnel and equipment access property on BOTH sides in the event of grass/brush fires?</p>	<p>The potential for wildfires within the Project Study Area, including an assessment of the relative frequency and severity of recent wildfire events, has been added to the Final EIS in Section 3.16.4, Safety and Security, Affected Environment. The Project includes over 20 feet of gravel fill where on berm and over 24 feet of cleared area between adjacent vegetation where on viaduct, which would limit the spread of wildfire across the operational corridor. TCRR’s required Emergency Preparedness Plan (see Section 3.16.6, Safety and Security, SS-CM#1, Emergency Preparedness Plan) would specify procedures for communication with emergency responders and a coordination plan for providing emergency access across the operational corridor. The information developed for this plan, such as procedures for emergency responders to access the HSR ROW or communication protocols, could be leveraged in the event of an emergency adjacent to the ROW.</p> <p>Approximately 55 percent of the Project would be constructed on a rail viaduct, minimizing permanent impacts to public roads. All crossings are ‘rail over the roadway’ or ‘roadway over rail’. Approximately 83 percent of the public road crossings would not include re-routing of the existing public road for the Preferred Alternative. Crossings would meet TXDOT vertical clearance standards over public roads, which would allow free passage of emergency vehicles and would not present a barrier in the event of emergency wildfire management. Where a viaduct is used to provide land owner egress on private roads or agricultural passages, clearance and width requirements would be subject to negotiations with affected property owners but would typically allow for passage of farm equipment and emergency vehicles. The Emergency Preparedness Plan shall address emergency response needs and capabilities along the corridor and identify safe evacuation routes, as well as procedures for emergency access to locations adjacent to the operational corridor. In many areas, access roads will be provided adjacent to the alignment. Locations where emergency vehicles can cross the operational corridor, either on public</p>

		roads or underneath sections of viaduct, will be identified and communicated with emergency responders through dissemination of the Emergency Preparedness Plan and the plan's training programs.
Coordination with Local Emergency Management 5	Has TCR provided any EMS or VFD organizations with a list of required emergency response equipment and personnel? If so, please provide.	TCRR will document an inventory of the emergency equipment to be maintained by TCRR on vehicles in compliance with 49 C.F.R. § 239.101 regarding Emergency Preparedness Plan requirements. TCRR has no authority regarding the equipment purchases or personnel decisions of local emergency responders. Questions regarding any supplemental information provided by TCRR should be directed to TCRR. Please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.
Coordination with Local Emergency Management 6	Has TCR implemented full Risk Assessments using Qualified Risk Engineers to determine potential Disaster or Emergency situations that would require preparation and action by any County Emergency personnel (including for Construction, Commissioning phases, and in particular, Operations)?	See response to comment Emergency Response Planning 3 Federally required safety planning documents and assessments, including TCRR's System Safety Program, Hazard Analysis, and Emergency Preparedness Plans are required prior to operation of the Project. Project Construction must be in compliance with local ordinances.
Coordination with Local Emergency Management 7	How many training days per VFD or other Emergency Response personnel will be required per year for preparation of these emergency situations?	As described in Section 3.16 Safety and Security, SS-CM#1: Emergency Preparedness Plan , TCRR must make Emergency Preparedness training available for all on-line emergency responders who could reasonably be expected to respond during an emergency situation the involving HSR system. However, TCRR has no authority to set requirements regarding participation or number of days in attendance. Local emergency responders have autonomy in deciding the number of staff and hours available for TCRR emergency preparedness training events.
Coordination with Local Emergency Management 8	Will TCR pay for all emergency personnel training including mitigation costs for missing personnel due to the training.	Costs associated with hosting emergency preparedness training (see Section 3.16 Safety and Security, SS-CM#1: Emergency Preparedness Plan), as well as the costs of any distributed training materials will be the responsibility of TCRR. Details regarding any supplemental agreements, payments, or contract for services outside the NEPA process are subject to private negotiations and should be directed to TCRR. Please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.
rdination with Local Emergency Management 9	Will TCR pay for storage facilities, maintenance and all other costs including insurance for the full life of any equipment provided to the Counties for specific use on the HSR?	See response to comment Emergency Response Planning 10 TCRR is required to document an inventory of the emergency equipment to be owned and maintained by TCRR on vehicles in compliance with 49 C.F.R. § 239.101. TCRR has no authority regarding the purchase, storage, maintenance, or insurance of equipment owned by local emergency responders.
Coordination with Local Emergency Management 10	Will County emergency personnel be paid for by TCR as a result of any activity required by specifically operations of the HSR?	Costs associated with hosting emergency preparedness training (see Section 3.16 Safety and Security, SS-CM#1: Emergency Preparedness Plan), as well as the costs of any distributed training materials will be the responsibility of TCRR. Emergency response in the event of passenger medical emergency is not expected to exceed the No-Build condition, in which similar medical emergencies would occur for those traveling on I-45 instead of the Project. Details regarding any supplemental agreements, payments, or contract for services outside the NEPA process are subject are to private negotiations and should be directed to TCRR.
Coordination	In accordance with the FRA DEIS, Emergency	The assessment of safety impacts, in both the Draft and Final EIS, do not assume any additional fire

<p>with Local Emergency Management 11</p>	<p>Districts have proclaimed additional fire departments will be necessary should the HSR be built. Who is expected to pay for these additional stations and resources that will be necessary?</p>	<p>departments would be required as a result of the Project. The proposed Project is entirely grade separated and would not result in any delays to cross traffic associated with waiting for an HSR vehicle to pass before crossing a track. As detailed in Section 3.11.5, Transportation, Build Alternatives, approximately 55 percent of the Project would be constructed on rail viaduct, minimizing permanent impacts to public roads. All crossings are ‘rail over the roadway’ or ‘roadway over rail’. Approximately 83 percent of the public road crossings would not include re-routing of the existing public road for the Preferred Alternative. The entire length of the Project would be accessible through either existing infrastructure, new shared access road, or MOW access path. As a result of mitigated response time impacts and because TCRR will coordinate with local emergency responders to identify capabilities and coordination procedures in the event of an emergency, no new emergency facilities are expected to be needed as a result of the Project.</p>
<p>Coordination with Local Emergency Management 12</p>	<p>How will Landowners be compensated for use or damage of their land specifically due to the need to access areas not accessible by a road by emergency equipment and personnel?</p>	<p>All Emergency Response and Maintenance Staging areas would be accessible by road. The Project is designed to include a combination of shared access roads (described in Section 3.14.5.2, Transportation, Build Alternatives) and MOW access paths that would connect all points along the HSR ROW to the public roadway network. As detailed on the typical sections in Appendix G, TCRR Final Conceptual Engineering Plans and Details, Volume 1, the MOW access paths would include a ten-foot allowance which would be cleared, graded and maintained by TCRR to allow for inspection, maintenance, and emergency access.</p>
<p>Coordination with Local Emergency Management 13</p>	<p>Is TCR aware of the Atmos Energy Turbine Compression Station in Waller County? Is TCR aware of accidental releases of natural gas in close proximity to the planned HSR route which is being powered by electricity?</p> <p>There have been occasional brownouts/blackouts in the impacted area. Being that further strains will be placed on our power supplies, can you provide any such studies showing that the increased power consumption will not burden our current systems which will negatively impact our emergency response teams and facilities?</p>	<p>All natural gas utility providers, including Atmos Energy, are required to operate compressor stations in accordance with operational safety regulations, including regulations issued by Pipeline and Hazardous Materials Safety Administration (PHMSA), and would have to schedule and consider ignition sources during their operational safety tests. Appendix F, TCRR Final Conceptual Engineering Design Report, Section 4.1, Safety Regulations discusses safety regulations that would be followed for the Project. The Project will be designed and constructed based on PHMSA requirements for where there are pipeline crossings and interactions with pipeline facilities.</p> <p>The referenced compressor station in Waller County is located approximately 615 feet west of the rail centerline and approximately 515 feet from the LOD and therefore will not be impacted by the Project. While not specifically discussed in the Section 3.9, Utilities and Energy, as it is located outside of the Study Area, it can be seen in Appendix D, Mineral Utility Resources Mapbook (page 233). As stated in Section 3.4.5.2.1, Noise and Vibration, Construction Noise and Vibration Impacts, the potential for construction vibration impact could extend up to 500 feet for Category 1 (high-sensitivity) receivers. The potential for sparking associated with the electrical catenary system is described in Appendix F, TCRR Final Conceptual Engineering Design Report, Section 7.2.3 Overhead Catenary System (OCS), which states that the two pantographs in a trainset would be electrically connected to reduce sparking from the gap between the wire and pantograph. .</p> <p>Because the HSR would draw from the existing power grid via connections at each Traction Power Substation (TPSS) to common 138 kilovolt transmission lines along the Project, the system would be incapable of being a selective and/or sole recipient of power during brownouts. To do so would require disconnecting or switching off every other non-HSR connection and powering these major transmission lines exclusively for the HSR. As detailed within Appendix F, TCRR Final Conceptual Engineering Design Report of the Final EIS, the points and alignments of these connections would ultimately be determined</p>

		<p>by the utility owner, and designs developed by the utility would be approved through their standard regulatory and environmental review processes. HSR power supply would be subject to these utilities' operational and power restoration procedures, which consider all connected uses. Power grids and the HSR are not designed, built, or operated to selectively allow powering HSR operation and not accounting for other connected loads.</p> <p>Section 3.9.5.2.2, Utilities and Energy, Energy describes where the electricity would come from (the statewide grid), the power consumption involved, and the anticipated impacts to the electrical power supply considering the HSR operation power demand and statewide long term power capacity planning. The large majority of the statewide grid is managed by the Electric Reliability Council of Texas (ERCOT). As the principle manager of the grid, ERCOT must forecast and provide for short-term and long-term growth power demand, while considering many factors such as planned industrial, commercial and residential uses, and future population growth in general. ERCOT must also identify the necessary added generation capacity to meet this need, plus a reserve margin above that (e.g., a contingency amount of generation capacity above the projected peak demand).</p> <p>As indicated in the Final EIS, the longer term planning reserve margin is 13.75 percent of added capacity, and the HSR peak power demand (which real average operation would be less), would constitute only 0.3 percent of that margin. Therefore, future HSR demand would not jeopardize future power needs. Also as outlined in Section 3.9.5.2.2, Utilities and Energy, Energy, TCRR would have to coordinate with and plan the HSR demand with power service providers, and this demand would have to be known and planned for within ERCOT, to complete development reviews prior to construction to more accurately determine the electricity needs of the HSR. Therefore, ERCOT is able to account for the estimated HSR power demand in planning for the future statewide power supply. In addition, utility providers would coordinate electricity demand with ERCOT, as appropriate.</p>
<p>Realignment of Roads 1</p>	<p>While the DEIS is in conflict with County regulation regarding realignment of roads and not permissible at this time, should there need to be road or lane closures to accommodate construction activities, what is the timeline for coordination to ensure public safety is priority?</p>	<p>TCRR must coordinate with local authorities to obtain construction permits and permits must be in place before construction can begin. A summary of the permits, approvals, and authorizations; the agency responsible for the permit and/or approval; the permit, compliance, or review required; and the relevant laws and regulations is included in Chapter 8.0, Applicable Federal State and Local Permits, Table 8-1. Prior to construction, TCRR will negotiate parcel acquisition with affected property owners and must work directly with permitting agencies and local jurisdictions to obtain necessary permits for the acquisition of property and necessary construction and operation permits. While further information about permitting/approvals process is summarized in Chapter 8.0, Applicable Federal, State and Local Permits and Approvals of the EIS, these actions are separate from FRA's NEPA analysis.</p>
<p>Increased Crime 1 & 2</p>	<p>Could you explain, in a quantitative manner based on similar norms vs. qualitative currently shown in the DEIS, what level of increases in crime can be expected by law enforcement for the mid-stop location, construction sites, and HSR construction areas due to the influx of large numbers of construction workers and others wanting to take advantage of the short term but substantial increase in local populations for</p>	<p>Because the HSR system is a closed system, the FEIS evaluates the potential for security impacts to passengers, employees or others based on the existing crime rates around station areas where passengers would be able to get on and off the train. Crime rates in the City of Dallas were used to determine conditions at the Dallas Terminal Station, and rates for the City of Houston were used for the three Houston Terminal Station Options. The proposed location for the Brazos Valley Intermediate Station, the City of Roans Prairie, was not included in the FBI's database; therefore, crime rates for Grimes County are used as a proxy for this community. Due to the proposed security measures for the HSR system (see Section 3.16.5.2.6, Safety and Security, Impacts to Security) and ticketing requirements, the HSR would be less suitable, compared to existing modes of transportation, for those</p>

	<p>our counties?</p> <p>Could you provide other Project Benchmarks as examples of similar projects and the resulting increases in crime?</p>	<p>engaged in criminal activity.</p> <p>Construction of the HSR would be of a similar nature to other linear infrastructure projects, such as a utility corridor or highway expansion and would be conducted in accordance with local construction permitting requirements, including any applicable construction site security requirements. The economic assessment in Section 3.16.5.2.3, Safety and Security, Socioeconomics and Community Facilities, Economic Impacts, finds that the expected increase in jobs related to the Project's capital investment includes both construction personnel as well as job growth in supporting industries within the economic assessment area. The expected job growth would include many non-specialized positions, does not exceed existing unemployment rates, and could be largely filled by currently unemployed or underemployed persons living in the study area. Several studies demonstrate a positive correlation between criminal activity and poverty and/or unemployment (Ajimotokin, Haskins, Wade, 2015, The Effects of Unemployment on Crime Rates in the U.S.). Other studies have found lower rates of criminal recidivism among previous offenders when their release coincides with increases in construction and manufacturing employment opportunities. (Yang, 2016, Local Labor Markets and Criminal Recidivism). This research indicates that additional employment and earnings generated by construction and operation of the HSR would be more likely to reduce local crime rates than to increase them.</p>
Increased Crime 3	<p>What type of security will be present at construction sites? If so, please provide.</p>	<p>TCRR's construction sites will meet applicable local permitting requirements, including any related to construction site security. Site security is outside the scope of FRA's environmental review and regulatory oversight. Additional questions should be deferred to TCRR. Please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
Increased Crime 4	<p>Will there be a Texas Central Railroad Police with jurisdiction over tracks and stations?</p>	<p>TCRR has proposed to establish and maintain a private security department to monitor safety and security. Questions regarding that department's jurisdictional authority or plans for coordination with local law enforcement agencies should be directed to Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781..</p>
Increased Crime 5	<p>Does TCR have a list of areas or responsibilities for which they will want support from County or Local Law Enforcement or Emergency Responders? If so, please provide, as well as an estimate of additional law enforcement personnel that might be needed.</p>	<p>As described in Section 3.16.6, Safety and Security, Compliance Measures, SS-CM#1, TCRR will provide Emergency Preparedness training for all on-line emergency responders who could reasonably be expected to respond during an emergency situation involving the HSR system. However, TCRR has no authority to set requirements regarding participation or number of days in attendance. Local emergency responders have autonomy in deciding the number of staff and hours available for TCRR emergency preparedness training events. Costs associated with hosting emergency preparedness training, as well as the costs of any distributed materials will be the responsibility of TCRR.</p> <p>For requested detail from TCRR please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>
Trespass 1	<p>Will TCR provide to the Sheriffs Coalition a listing of all "Surveyor Permission Forms" approved by landowners for further use should trespassing reports surface again during the future construction and commissioning phases of this project? If so, please provide.</p>	<p>For requested detail regarding TCRR forms please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.</p>

Trespass 2	Did TCR perform an independent investigation of activities related to reports of trespass on private property? If so, please provide copies of such.	Field surveys completed by FRA were conducted only on property where access was granted. In the event that a representative of FRA inadvertently accessed property for which entry had been denied (or recently changed), or where there was a miscommunication or misunderstanding of property boundaries, the representative left the property as soon as access (or lack of) was questioned FRA has not used the data obtained from inadvertent survey on any property where access had not been obtained. For further detail regarding investigations performed by TCRR, please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.
Harassment of Landowners 1	The Sheriffs Coalition had a meeting with Drayton McLane and Carlos Aguilar of Texas Central in early 2019. The Sheriffs Coalition shared with them reports from our citizens regarding the harassing actions of TCR agents and employees. Mr. McLane clarified to Aguilar that harassment of landowners should not be happening. We are still hearing reports of company representatives are harassing landowners, despite the direction from the top to ensure it doesn't happen. Please provide documentation of corrective actions or communication provided to employees or agents.	For further detail regarding communication with TCRR please contact Travis Kelley via e-mail at TKelly@texascentral.com or by phone at 214.254.4781.

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3. FORM LETTERS

As stated in **Section 1.2.2, Duplicate Comments**, FRA received many similar comments from multiple commenters. Additionally, FRA received seven form letters that were word-for-word copies of the same statement. These form letters were reprinted and signed, or duplicated and submitted by multiple individuals. FRA has noted these comments and summarized the seven form letters in **Table H-5**. A copy of each form letter is included, with a table listing the individuals who submitted and/or signed the form letter.

Table H-5: Summary of Form Letters		
General Topic	Overall Summary	Submissions
Preferred Route Letter	This email offered support for Build Alternative A (the Preferred Alternative)	339
Northwest Mall Terminal Station Option Letter	This email offered support for the Project, and specifically, the commenters supported the Houston Northwest Mall Terminal Station Option	240
Students Support Letter	This email offered support for the Project	67
Business Support Letter	This email offered support for the Project, with a focus on high-tech industry	59
Oppose Postcard	Postcard expressed opposition to the Project, especially in Madison County, Texas and requested that the Project not be built in the county	168
Support Form Letter	This email offered support for the Project	3,254
	TOTAL	4,127

3.1 Preferred Route Letter

Table H-6 lists the 339 individuals that submitted an email offering support for Build Alternative A (the Preferred Alternative). The letter included the following statement: *“I am writing to express my strong support for the environmentally friendly Texas Bullet Train and I urge the Federal Railroad Administration to move forward with its timely review and approval. The Texas Bullet Train has a minimal physical footprint and significantly lower emissions per passenger mile than automobiles or airplanes, which will help to efficiently relieve stress on the environment. The recent release of the Draft Environmental Impact Statement backs up this conclusion with data and projections.”* The email also called out statements from the Draft EIS that the commenter agreed with and supported. A copy of the email message is in **Figure H-4**.

Dear Officials,

I am writing to express my strong support for the environmentally friendly Texas Bullet Train and I urge the Federal Railroad Administration to move forward with its timely review and approval.

The Texas Bullet Train has a minimal physical footprint and significantly lower emissions per passenger mile than automobiles or airplanes, which will help to efficiently relieve stress on the environment. The recent release of the Draft Environmental Impact Statement backs up this conclusion with data and projections.

Here are a few of the reasons I support the Train:

- “The train would remove 14,630 vehicles per day on I-45 between Houston and Dallas.” - DEIS Section 3.2.3.2.1
- “By reducing vehicle travel, the train would save 81.5 million gallons of gasoline.” - DEIS Section 3.9.5.2.3
- “Zero noise impacts would occur from station activities.” - DEIS Section 3.4.5.2.2

The DEIS goes on to say that the electric train will lead to net reductions of nitrogen oxides, volatile organic compounds and greenhouse gas emissions, which is especially important since 4 of the counties it will serve are already air quality non-attainment status.

Specifically, I would like to express my support for the FRA’s preferred route as it is 52% adjacent to existing infrastructure, according to Section 2.5.4 of the DEIS, which will certainly help to reduce the impact of the train on the environment and private property along the route.

For these reasons and many more, I urge you to expedite the review process for the Texas Bullet Train – a much needed project that will help keep Texas clean and green for future generations. It’s good for Texas!

Figure H-4: Example Preferred Route Support Email

Table H-6: List of Individuals who Submitted and/or Signed the Preferred Route Letter

Last Name	First Name	Date Submitted	Submission Type
Abalos	Richard	2/22/2018	Email
Adkins	Audie	3/1/2018	Email
Aimer	Donald	3/7/2018	Email
Algranatti	Oscar	3/2/2018	Email
Allen	Edward	3/8/2018	Email
Allen	Edward	2/22/2018	Email
Anderson	Eric	2/24/2018	Email
Arnold	Nancy	3/8/2018	Email
Ashby	Doug	2/15/2018	Email
Ashby	Doug	2/15/2018	Email
Ashby	Doug	2/15/2018	Email
Ashby	Douglas	2/26/2018	Email
Avera	Donald	2/16/2018	Email
Balfour	Ellen	3/7/2018	Email
Ballard	Deborah	3/7/2018	Email
Barbera	Donald	3/2/2018	Email
Barnes	Dean	3/3/2018	Email
Barrientos	Emilio	2/26/2018	Email
Barron	Diana	3/8/2018	Email

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Last Name	First Name	Date Submitted	Submission Type
Bart	Emil	3/7/2018	Email
Beckwith	Shane	3/2/2018	Email
Bedgood	Donald	3/7/2018	Email
Bernal	Rudy	3/3/2018	Email
Boone	Chris	2/22/2018	Email
Bowne	Donald	3/1/2018	Email
Bradley	Baronda	2/24/2018	Email
Brookhart	Scott	2/23/2018	Email
Brown	Deborah	2/25/2018	Email
Burgess	Paralee	3/7/2018	Email
Butler	Edward	3/8/2018	Email
Butler	Edward	2/15/2018	Email
Butts-Gehring	Eran	2/28/2018	Email
Calixto	Edson	2/26/2018	Email
Campbell	Elissa	3/8/2018	Email
Celis	Edwin	3/8/2018	Email
Chabolla	Martin	2/23/2018	Email
Chaganti	Lakshmi	3/8/2018	Email
Chattaway	Elizabeth	3/8/2018	Email
Chattaway	Elizabeth	2/19/2018	Email
Clark	Denis	3/7/2018	Email
Clark	Denis	2/16/2018	Email
Clement	Cameron	3/3/2018	Email
Cobb	Eben	3/7/2018	Email
Cole	Dewayne	3/7/2018	Email
Coleman	Donna	3/8/2018	Email
Collins	Delores	2/15/2018	Email
Cook	Kenneth	3/1/2018	Email
Cortina	Eugenio	2/17/2018	Email
Cox	Donovan	3/4/2018	Email
Darst	Gary	3/2/2018	Email
David	Deborah	2/16/2018	Email
Davila	Hector	2/27/2018	Email
Davis	Doug	3/5/2018	Email
de Swardt	Ettienne	2/17/2018	Email
Dement	Ellen	3/1/2018	Email
Deshpande	Amit	3/3/2018	Email
Dippel	Dustin	3/8/2018	Email
Dorf	Diane	3/8/2018	Email
Dorf	Diane	2/15/2018	Email
Dornfest	Dennis	3/7/2018	Email
Dow	Bob	2/28/2018	Email
Drake	Elizabeth	3/7/2018	Email
Duffy	Erin	2/24/2018	Email
Duncan	Stephen	2/22/2018	Email
Duplantis	Donnie	2/26/2018	Email

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Last Name	First Name	Date Submitted	Submission Type
Ecklund	Dedra	3/7/2018	Email
Ehrlich	Denise	2/26/2018	Email
Ehrlich	Denise	2/15/2018	Email
Eilers	Ellen	3/8/2018	Email
Eldridge	Duane	3/6/2018	Email
Elvira	Esiquio	3/8/2018	Email
Emmons	Deea	2/26/2018	Email
English	Eric	2/16/2018	Email
Everest	Deena	3/8/2018	Email
Fajardo	Eduardo	2/26/2018	Email
Fayemiwo	Ed D.	2/24/2018	Email
Feronti	Eugene	3/7/2018	Email
Feronti	Eugene	2/15/2018	Email
Feronti	Eugene	2/15/2018	Email
Finch	Dennis	2/16/2018	Email
Fish	Douglas	3/2/2018	Email
Flynn-White	Dresdene	3/8/2018	Email
Ford	Zachary	3/8/2018	Email
Frerich	John	2/24/2018	Email
Friend	Mark	2/24/2018	Email
Ganson	Diane	2/21/2018	Email
Garcia	Emmanuel	3/4/2018	Email
Garvin	Diane	3/6/2018	Email
Garza	Wenceslao	2/24/2018	Email
Garza	Eric	3/8/2018	Email
Gay	Donald	3/8/2018	Email
Gay	Donald	2/26/2018	Email
Gebhardt	Esther	3/8/2018	Email
Geisler	Eric	3/8/2018	Email
Gilbert	Kevin	3/2/2018	Email
Glass	Diane	2/26/2018	Email
Gonzalez	Emilio	3/2/2018	Email
Gonzalez	Eric	3/8/2018	Email
Gonzalez	Eric	2/15/2018	Email
Goode	Jay	3/1/2018	Email
Grady	Richard	3/1/2018	Email
Greco	Lisa	3/8/2018	Email
Greer	Sylvia	2/26/2018	Email
Grindstaff	Elizabeth	3/7/2018	Email
Grindstaff	Elizabeth	3/4/2018	Email
Guerra	Dennis	2/15/2018	Email
Gutierrez	Ezequiel	2/15/2018	Email
Guyton	Elizabeth	2/26/2018	Email
Haehn	Kristine	3/8/2018	Email
Haines	Doris	3/7/2018	Email
Hall	Debrah	2/26/2018	Email

Table H-6: List of Individuals who Submitted and/or Signed the Preferred Route Letter

Last Name	First Name	Date Submitted	Submission Type
Harrison	Edward	3/8/2018	Email
Hartgrove	Erin	3/4/2018	Email
Hartley	John	3/8/2018	Email
Hartung	Douglas	3/4/2018	Email
Haughton	Lori	3/1/2018	Email
Henning	Dennis	3/7/2018	Email
Holland	Erin	2/15/2018	Email
Hope	Dylan	3/2/2018	Email
Hord	Douglas	3/7/2018	Email
Hord	Douglas	2/15/2018	Email
Howard	Eric	2/15/2018	Email
Hruska	Eva	3/4/2018	Email
Hummel	Don	3/1/2018	Email
Hummel	Donald	2/15/2018	Email
Hunt	Zac	3/8/2018	Email
Hutcheson	David	3/5/2018	Email
Ibarra	George	3/8/2018	Email
Jacob	Denny	3/8/2018	Email
Jacob	Denny	2/15/2018	Email
Johnson	Doug	2/16/2018	Email
Jones	Edward	2/27/2018	Email
Jones	Ed	2/15/2018	Email
Keith	Edwin	2/26/2018	Email
Keller	Virginia	2/25/2018	Email
Kelly	Erin	2/26/2018	Email
Keutzer	Denae	3/7/2018	Email
Kimme	Emili	2/26/2018	Email
Kirchhofer	Emma	2/26/2018	Email
Koppu	Ranjith	3/1/2018	Email
Krenek	Edward	3/8/2018	Email
LaMendola	Eve	3/8/2018	Email
LaMendola	Eve	2/15/2018	Email
Le Bel	Zander	3/3/2018	Email
Leal	David	3/3/2018	Email
Lebowitz	Constance	2/25/2018	Email
Lee	Dwayne	2/26/2018	Email
Lee-Roden	Deborah	2/25/2018	Email
Leidy	Don	3/7/2018	Email
Lial	Tonka	2/22/2018	Email
Liucci	Dolores	2/15/2018	Email
Liucci	Dolores	3/8/2018	Email
Lodge	David	2/15/2018	Email
Loggins	DJ	3/7/2018	Email
Long	David	2/18/2018	Email
Loving	Dennis	3/3/2018	Email
Lutz	David	2/26/2018	Email

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Last Name	First Name	Date Submitted	Submission Type
Lutz	David	2/15/2018	Email
Madrid	Manuel	2/28/2018	Email
Malhotra	Sandeep	3/8/2018	Email
Marmor	Marci	2/25/2018	Email
Marshall	Douglas	3/8/2018	Email
Marter	Dawn	2/15/2018	Email
Martin	Bryan	3/8/2018	Email
Masterson	Ellen	3/2/2018	Email
McGinnis	Duncan	2/28/2018	Email
McPherson	Robbie	3/1/2018	Email
McPherson	Dustin	2/15/2018	Email
Mears	Edward	3/7/2018	Email
Menze	Erika	3/2/2018	Email
Metcalf	Elaine	2/19/2018	Email
Metting	Elizabeth	2/26/2018	Email
Miller	Eva	3/8/2018	Email
Molina	Sal	2/28/2018	Email
Montelongo	Enrique	2/16/2018	Email
Moore	Dianne	3/8/2018	Email
Moore	Dianne	2/15/2018	Email
Moran	Diane	3/8/2018	Email
Moran	Diane	3/4/2018	Email
Moreno	Elizabeth	3/8/2018	Email
Morzhueva	Katya	3/1/2018	Email
Murray	Kathryn	2/26/2018	Email
Myers	Ernest	3/7/2018	Email
Nanni	Devin	3/7/2018	Email
Nelson	David	2/26/2018	Email
Nervo	Alex	3/2/2018	Email
Norris	Delores	3/7/2018	Email
Norris	Delores	3/5/2018	Email
Norris	Delores	2/28/2018	Email
Olin	David	3/8/2018	Email
Olin	David	2/15/2018	Email
Olmo	Carlos	3/8/2018	Email
Opheim	David	3/7/2018	Email
Opheim	David	2/26/2018	Email
Ortiz	Estanislao	3/4/2018	Email
Pacheco	Donnetta	3/8/2018	Email
Palacios	Johnny	3/2/2018	Email
Palacios	Maria	2/22/2018	Email
Parrish	David	3/7/2018	Email
Patel	Shailesh	2/22/2018	Email
Patterson	Erin	2/18/2018	Email
Pawloski	Doug	3/4/2018	Email
Pena	Cindy	3/1/2018	Email

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Last Name	First Name	Date Submitted	Submission Type
Perez	Ernesto	3/8/2018	Email
Perry	Ed	2/28/2018	Email
Perry	David	3/2/2018	Email
Perry	David	3/1/2018	Email
Petrik	Sonja	3/8/2018	Email
Philapavage	Dennis	3/7/2018	Email
Philapavage	Dennis	2/26/2018	Email
Philapavage	Dennis	2/16/2018	Email
Phillips	Erik	3/8/2018	Email
Pizarro	Diane	3/3/2018	Email
Poff	Devin	3/8/2018	Email
Porter	Linda	3/8/2018	Email
Porter	Diane	3/8/2018	Email
Powell	Elizabeth	2/21/2018	Email
Price	Brandon	3/8/2018	Email
Pritchard	Dean	3/8/2018	Email
Radtke	Rob	3/8/2018	Email
Reece	Doug	3/8/2018	Email
Reeves	Eddie	3/8/2018	Email
Reid	Brandon	2/28/2018	Email
Rene	Patrick	3/4/2018	Email
Rhima	Diana	3/8/2018	Email
Roberson	Eric	3/4/2018	Email
Roberson	Eric	2/26/2018	Email
Roberts	Bill	2/23/2018	Email
Roberts	David	3/8/2018	Email
Roberts	David	2/15/2018	Email
Robinson	Deidre	3/8/2018	Email
Robison	David	2/26/2018	Email
Robledo	Diana	3/7/2018	Email
Rodriguez	John	3/1/2018	Email
Rodriguez	Ernesto	3/4/2018	Email
Rodriguez	David	3/8/2018	Email
Rodriguez	David	2/26/2018	Email
Rojo	David L	2/15/2018	Email
Roman	Emily	3/7/2018	Email
Roman	Emily	2/16/2018	Email
Sachs	Dawn	2/26/2018	Email
Sales	Deborah	2/15/2018	Email
Sanderson	Dixie	3/8/2018	Email
Sanderson	Dixie	2/17/2018	Email
Sands	Elizabeth	3/7/2018	Email
Sappington	Linsey	2/24/2018	Email
Schleiss	Duncan	3/3/2018	Email
Schooler	Elizabeth	3/8/2018	Email
Schooler	Elizabeth	2/15/2018	Email

Table H-6: List of Individuals who Submitted and/or Signed the Preferred Route Letter

Last Name	First Name	Date Submitted	Submission Type
Schroeder	Erich	3/4/2018	Email
Schulter	Diane	3/8/2018	Email
Sequoyah	Annastacia	3/8/2018	Email
Shannon	David	2/26/2018	Email
Sherman	Doyle	3/8/2018	Email
Shields	Eva	3/8/2018	Email
Siano	Christian	3/4/2018	Email
Siebeneich	Eric	3/8/2018	Email
Sloan	Ellen	3/7/2018	Email
Sloan	Ellen	2/15/2018	Email
Slott-Sowell	Deanna	2/28/2018	Email
Slott-Sowell	Deanna	2/16/2018	Email
Smith	Sheila	3/3/2018	Email
Smith	Terri	3/2/2018	Email
Smith	Kason	3/1/2018	Email
Smith	Donna	2/15/2018	Email
Smith	Dusti	3/8/2018	Email
Snow	Stuart	2/25/2018	Email
Sothcott	Edward	2/26/2018	Email
Sowell	Derek	3/8/2018	Email
Spalding	Dawn	3/1/2018	Email
Stephenson	David	3/8/2018	Email
Stephenson	David	3/7/2018	Email
Stephenson	David	2/26/2018	Email
Stephenson	David	2/15/2018	Email
Stewart	Donald	2/28/2018	Email
Stewart	Donald	3/8/2018	Email
Stewart	Donald	2/15/2018	Email
Stillwell	Dennis	3/7/2018	Email
Stillwell	Dennis	2/15/2018	Email
Stratton	DeAnna	3/8/2018	Email
Summers	Jen	3/1/2018	Email
Tapia	Eduardo	3/5/2018	Email
Tayyari	David	2/15/2018	Email
Tetzel	Therese	3/3/2018	Email
Thomas	Deandre	3/7/2018	Email
Thomas	Deandre	2/26/2018	Email
Thomas	Derrick	2/15/2018	Email
Thompson	David	2/26/2018	Email
Tilotta	Mark	3/8/2018	Email
Tindle	Nick	3/3/2018	Email
tri	Douglas	2/27/2018	Email
Trivilino	Donna	2/15/2018	Email
Tucci	Lauren	2/25/2018	Email
Tuthill	David	3/7/2018	Email
Tuthill	David	2/26/2018	Email

Table H-6: List of Individuals who Submitted and/or Signed the Preferred Route Letter

Last Name	First Name	Date Submitted	Submission Type
Upchurch	Steven	3/3/2018	Email
Valek	Diane	2/26/2018	Email
Van Wyk	Engela	3/8/2018	Email
Vang	Dawn	3/2/2018	Email
Varnado	Eric	3/8/2018	Email
Varnado	Eric	2/15/2018	Email
Vega	Eliseo	3/8/2018	Email
Webb	Douglas	2/15/2018	Email
Werkema	Erin	3/8/2018	Email
Westenhauser	Deirdre	3/8/2018	Email
Westgate	Ph.D.	2/28/2018	Email
White	Eddie	2/19/2018	Email
White	Dawson	3/2/2018	Email
Wilcox	David	2/26/2018	Email
Wilcox	David	2/26/2018	Email
Wilcox	David	2/15/2018	Email
Wiley	Drew	2/26/2018	Email
Williams	Jessica	2/28/2018	Email
Williams	Erica	2/26/2018	Email
Williams	Erik	2/15/2018	Email
Williams	David	3/4/2018	Email
Williams	Day	2/15/2018	Email
Williams	Denishea	2/16/2018	Email
Williams	Debbie	2/26/2018	Email
Williams	Debbie	2/18/2018	Email
Wilson	Jim	3/1/2018	Email
Wilson	Douglas	3/3/2018	Email
Windham	Diann	3/7/2018	Email
Windham	Diann	2/15/2018	Email
Winfield	Dorothy	3/7/2018	Email
Winner	David	3/8/2018	Email
Winner	David	2/26/2018	Email
Wittekind	Dennis	2/26/2018	Email
Wolfe	Erin	3/7/2018	Email
Wong	Keith	3/4/2018	Email
Woodward	Douglas	3/7/2018	Email
Woodward	Douglas	2/26/2018	Email
Word	David	3/7/2018	Email
Word	David	2/26/2018	Email
Wyar	Donnie	2/26/2018	Email
Yurkiewicz	Bekka	3/3/2018	Email
Zwernemann	Ken	3/1/2018	Email
	Anonymous	3/2/2018	Email
	Anonymous	3/4/2018	Email

3.2 Northwest Mall Terminal Station Option Letter

Table H-7 lists the 240 individuals that submitted an email offering support for the Project, and specifically, the commenters supported the Houston Northwest Mall Terminal Station Option. A copy of the email message is in **Figure H-5**.

Dear Officials,

As a resident of Greater Houston, I am writing to express my strong support for the proposed Northwest Mall passenger station location of the Texas Bullet Train and urge the Federal Railroad Administration to move forward with its timely review and approval.

Texas needs new and innovative ways to help alleviate the growing strain on the state's existing infrastructure – and this project does exactly that. The recent release of the Draft Environmental Impact Statement (DEIS) confirms this conclusion with detailed data and projections.

For instance, the DEIS outlines multiple options for the Houston station, which is expected to have a major economic impact, spurring an increase in property values within a half-mile of the terminal. I fully support the proposed Northwest Mall location, which is conveniently located in a high-growth area near the intersection of two major highways in northwest Houston. This location is closer to downtown than either Hobby or George Bush airports. It is also closer to Jersey Village, Katy and the Energy Corridor, among other population and cultural locations in Houston.

For these reasons and many more, I urge you to expedite the review process for the Texas Bullet Train – a much needed project that will help reduce road congestion in Houston, improve our economy and create new jobs for Houstonians. It's good for Texas!

Figure H-5: Example Northwest Mall Terminal Station Option Letter Support Email

Table H-7: List of Individuals who Submitted and/or Signed the Northwest Mall Terminal Station Option Letter			
Last Name	First Name	Date Submitted	Submission Type
Abasolo	Luis	2/21/2018	Email
Ademosu	Valarie	2/23/2018	Email
Aguilar	Bryan	2/21/2018	Email
Alicea	Gilberto	2/23/2018	Email
Allen	Rob	2/21/2018	Email
Alonso	James	2/21/2018	Email
Alvarado	Cynthia	2/24/2018	Email
Ambler	Price	2/22/2018	Email
Anderson	Jerri	2/21/2018	Email
Andrew	Bob	2/25/2018	Email
Arango	Humberto	2/25/2018	Email
Armour	Karen	2/21/2018	Email
Ashby	Doug	2/22/2018	Email
Ashby	Doug	2/22/2018	Email
Avera	Donald	2/23/2018	Email
Avera	Donald	2/21/2018	Email
Awan	Abdul	2/21/2018	Email
Balderas	Blanca	2/21/2018	Email

Table H-7: List of Individuals who Submitted and/or Signed the Northwest Mall Terminal Station Option Letter

Last Name	First Name	Date Submitted	Submission Type
Balderrama	Kevin	2/21/2018	Email
Barratt	Richard	2/22/2018	Email
Batra	Aakash	2/22/2018	Email
Batson	Lane	2/21/2018	Email
Bauman	Richard	2/21/2018	Email
Beard	Luke	2/21/2018	Email
Beesley	Michael	2/21/2018	Email
Behzadi	Alireza	2/22/2018	Email
Bennett	Lindley	2/21/2018	Email
Bennett	Marietta	2/21/2018	Email
Berry	Janis	2/21/2018	Email
Bingham	David	2/21/2018	Email
Blackwell	Steven	2/21/2018	Email
Bobjack	Steven	2/21/2018	Email
Boyce	Michael	2/22/2018	Email
Breckbill	Jeremy	2/24/2018	Email
Brough	Louise	2/24/2018	Email
Brown	Jim	3/7/2018	Email
Cardoni	Lorie	2/21/2018	Email
Carias	Jesus	2/21/2018	Email
Carter	Minnie	2/24/2018	Email
Chavez	Adaline	2/21/2018	Email
Chávez	Stephen	2/22/2018	Email
Cherry	Latonya	2/22/2018	Email
Clark	Karen	2/21/2018	Email
Clark	Glenn	2/21/2018	Email
Concepcion	Ronald	2/22/2018	Email
Conner	Michael	2/21/2018	Email
Cordova	Marcos	2/22/2018	Email
Cortarelli	Daniel	2/25/2018	Email
Cosgrove	Larry	2/21/2018	Email
Cullins	John	2/21/2018	Email
Dalrymple	Kevin	2/21/2018	Email
Damodaran	Raj	2/21/2018	Email
Dang	Weiwei	2/21/2018	Email
de Anda	Carlos	3/5/2018	Email
De León	Ian	2/24/2018	Email
de Swardt	Ettienne	2/22/2018	Email
Deal	Matthew	2/21/2018	Email
Delesbore	Paul	2/25/2018	Email
Dennis	John	2/21/2018	Email
deSpain	Forrest	2/22/2018	Email
Dornfest	Dennis	2/21/2018	Email
Douglas	Jere	2/25/2018	Email
Duff	Carolyn	2/21/2018	Email
Duhart	Cynthia	2/21/2018	Email

Table H-7: List of Individuals who Submitted and/or Signed the Northwest Mall Terminal Station Option Letter

Last Name	First Name	Date Submitted	Submission Type
Dykes	Al	2/22/2018	Email
Easter	Greg	2/21/2018	Email
Ehrlich	Michael	2/21/2018	Email
Ehrlich	Denise	2/21/2018	Email
Eisenbeiss	Richard	2/22/2018	Email
Elkins	Ron	2/24/2018	Email
Ellerkamp	Mollie	2/25/2018	Email
Elliott	Kathy	2/21/2018	Email
Espinoza	Rene	2/21/2018	Email
Etienne	Glenn	2/21/2018	Email
Everest	Deena	2/21/2018	Email
Fernandez	Antonio	2/25/2018	Email
Fiallos	Retardo	2/21/2018	Email
Filipovich	Karina	2/21/2018	Email
Fjetland	Michale	2/21/2018	Email
Forbus	Arthur	2/21/2018	Email
Foreman	Gary	2/23/2018	Email
Frankowski	James	3/4/2018	Email
Frilot	Jeffery	2/21/2018	Email
Gabbiani	Fabrizio	2/21/2018	Email
Gage	William	2/22/2018	Email
Ganter	Garland	2/22/2018	Email
Garcia	Jerry	2/21/2018	Email
Garner	Cathleen	2/21/2018	Email
Gatson	Amos	2/22/2018	Email
German	Elizabeth	2/21/2018	Email
Gligorova	Marija	2/21/2018	Email
Godwin	Keith	2/21/2018	Email
Gonzalez	Elijah	2/22/2018	Email
Gordillo	Greg	2/24/2018	Email
Gordillo	Greg	2/22/2018	Email
Gosa	Danna	2/27/2018	Email
Granger	Desmond	2/23/2018	Email
Greeme	Terence	2/21/2018	Email
Greer-Brumbaugh	Jeannette	2/21/2018	Email
Gutierrez	Ezequiel	2/23/2018	Email
Gutierrez	David	2/21/2018	Email
Gutierrez	David	2/21/2018	Email
Hall	Geoffrey	2/21/2018	Email
Harbour	Bronwen	2/23/2018	Email
Harmon	Timothy	3/4/2018	Email
Harris-Rice	Martha	2/21/2018	Email
Hatchett	Crystal	2/21/2018	Email
Hayes	Jim	2/21/2018	Email
Henderson	Marian	2/21/2018	Email
Hickey	Robert	2/21/2018	Email

Table H-7: List of Individuals who Submitted and/or Signed the Northwest Mall Terminal Station Option Letter

Last Name	First Name	Date Submitted	Submission Type
Higgs	Leonard	2/22/2018	Email
Hight	Casey	2/21/2018	Email
Hoag	John	2/21/2018	Email
Hoecherl	Karen	2/21/2018	Email
Holmes	Rod	2/27/2018	Email
Hord	Douglas	2/22/2018	Email
Houghton	Andrew	2/22/2018	Email
Hubbard	James	2/21/2018	Email
Hunt	Tamarra	2/21/2018	Email
Hurst	Donald	2/22/2018	Email
Huzinec	Chris	2/24/2018	Email
Ibrahim	Mohammad	2/21/2018	Email
Jasso	Joshua	2/21/2018	Email
Jobe	William	2/21/2018	Email
Johnson	Bonita	2/22/2018	Email
Johnson	Todd	2/22/2018	Email
Johnson	Bobby	2/21/2018	Email
Jones	Ed	2/21/2018	Email
Kelly	Shawn	2/21/2018	Email
King	Karen	2/22/2018	Email
Kleiderer	Patricia	2/24/2018	Email
Koeninger	George	2/22/2018	Email
Kucinkas	Dennis	2/22/2018	Email
Kwan	Nathan	2/21/2018	Email
Lawhon	Tom	2/21/2018	Email
Leger	Byron	2/21/2018	Email
Levine	Larry	2/21/2018	Email
Levy	Avishai	2/21/2018	Email
Lopez	Danny	2/22/2018	Email
Mann	Christopher	2/21/2018	Email
Max	Alisa	2/21/2018	Email
McElroy	Frank	2/22/2018	Email
McKerlie	Mitchell	2/21/2018	Email
Mehta	Pooja	2/21/2018	Email
Mehta	Jaideep	2/21/2018	Email
Mehta	Meena	2/21/2018	Email
Meintjes	Theo	2/21/2018	Email
Miles	Jay	2/25/2018	Email
Mills	Erika	2/21/2018	Email
Mingus	Ken	2/23/2018	Email
Montgomery	Adrienne	2/21/2018	Email
Moreland	Scott	2/23/2018	Email
Muir	Alexander	2/21/2018	Email
Nguyen	Van	2/22/2018	Email
Oakley	Carol	2/21/2018	Email
Ogden	Walker	2/22/2018	Email

Table H-7: List of Individuals who Submitted and/or Signed the Northwest Mall Terminal Station Option Letter

Last Name	First Name	Date Submitted	Submission Type
okrah	Andrew	2/22/2018	Email
Osborne	Jim	2/21/2018	Email
Owens	Robin	2/22/2018	Email
Palacios	Cristian	2/21/2018	Email
Paranhos	Diego	2/21/2018	Email
Parisot	Marie	2/22/2018	Email
Paschal	William	2/21/2018	Email
Patel	Dakshesh	2/22/2018	Email
Pegram	Alphonso	2/21/2018	Email
Pham	Son	2/21/2018	Email
Phillips	Justin	2/23/2018	Email
Pollard	Gale	2/23/2018	Email
Pollard	Gale	2/22/2018	Email
Pollard	Gale	2/22/2018	Email
Pollard	Gale	2/22/2018	Email
Pollard	Gale	2/22/2018	Email
Postali	Clovis	2/21/2018	Email
Proctor	Spencer	2/21/2018	Email
Quiros	Antonio	2/22/2018	Email
Ramirez	Noah	2/21/2018	Email
Richardson	Toni	2/22/2018	Email
Rivas	Rene	2/21/2018	Email
Robinson	Spurgeon	2/22/2018	Email
Rodriguez	John	2/22/2018	Email
Roland	Montemayor	2/23/2018	Email
Romero-Gaugh	Mario	2/21/2018	Email
Rothell	Benjamin	2/21/2018	Email
Rutherford	Sharon	2/22/2018	Email
Salas	Rudy	2/21/2018	Email
Salmeron	Mr	2/21/2018	Email
Sanchelli	Chuck	2/22/2018	Email
Scheiner	Jim	2/26/2018	Email
Scheiner	James	2/21/2018	Email
Schiesler	Arwen	2/21/2018	Email
Schmidt	John	2/28/2018	Email
Schneider	Andrew	2/21/2018	Email
Scott	Emilie	2/21/2018	Email
Singleary	Patricia	2/21/2018	Email
Smith	Sam	2/22/2018	Email
Smith	Stephen	2/21/2018	Email
Smith-Grant	Bruce	2/21/2018	Email
Spampinato	Byron	2/21/2018	Email
Srebro	Richard	2/21/2018	Email
Stapleton	Kent	2/22/2018	Email
Stephenson	David	2/21/2018	Email
Stillwell	Dennis	2/21/2018	Email

Table H-7: List of Individuals who Submitted and/or Signed the Northwest Mall Terminal Station Option Letter

Last Name	First Name	Date Submitted	Submission Type
Storo	Albert	2/21/2018	Email
Strothkamp	Sheila	2/22/2018	Email
Sutton	Robert	2/21/2018	Email
Switzer	Jason	2/21/2018	Email
Tack	John	2/22/2018	Email
Talley	John	2/22/2018	Email
Taylor	Steven	2/21/2018	Email
Tentoni	Manuela	2/21/2018	Email
Thomas	Derrick	2/21/2018	Email
Tilton	Frances	2/21/2018	Email
Todd	Milton	2/21/2018	Email
Tucker	Joe	3/4/2018	Email
Utukuri	Malathi	2/26/2018	Email
Van Cleve	Liz	2/21/2018	Email
Van Dusen	Glenn	2/21/2018	Email
VanElswyk	Abram	2/25/2018	Email
Visiolo	Robert	2/21/2018	Email
Vrana	Keith	2/21/2018	Email
Waldrop	William	2/21/2018	Email
Wang	Peter	2/25/2018	Email
Ward	Jason	2/21/2018	Email
Wathen	Alexander	2/25/2018	Email
Weaver	Crystal	2/21/2018	Email
Webb	Ron	2/21/2018	Email
Weiss	Jeffrey	2/23/2018	Email
Whelan	Spencer	2/22/2018	Email
Wigington	Norman	2/22/2018	Email
Willaims	Mark	2/21/2018	Email
Williams	Ursula	2/22/2018	Email
Williams	Susan	2/21/2018	Email
Wilson	Ricly	2/21/2018	Email
Windham	Dianne	2/21/2018	Email
Winstead	Timothy	2/21/2018	Email
Wisdom	Jeff	3/7/2018	Email
Wu	Michael	2/22/2018	Email
Yandell	Robert	2/21/2018	Email
Young	Berton	2/21/2018	Email
Yuen	Josiah	2/21/2018	Email

3.3 Students Support Letter

Table H-8 lists the 67 individuals that submitted an email offering support for the Project, and specifically, the commenters thought the Project was a “transformational transportation project that will be a driver for the educational sector and universities all over Texas – bringing students, parents, educators and educational systems closer than ever before.” A copy of the email message is in **Figure H-6**.

Dear Officials,

I am writing to express my strong support for the Texas Bullet Train project and urge the Federal Railroad Administration to move forward with the timely review and approval of the project.

It is a transformational transportation project that will be a driver for the educational sector and universities all over Texas – bringing students, parents, educators and educational systems closer than ever before.

For students like me, it's a real game changer. For the first time in history, students in North Texas, Greater Houston and the Brazos Valley will have a fast, convenient and SAFE way to travel between the three regions – whether they're on their way home for the weekend, going to a football game, going back to school, or searching for employment. Plus, the fact that the project itself is projected to create 10,000 jobs per year during construction and another 1,500 once in operations, is a big win for us students and the future of the region!

The Bullet Train will also will utilize the world's safest mass transportation technology, the Shinkansen system, which has had zero crashes or fatalities in 53 years of operation in Japan. Juxtapose that safety record with that of I-45 between Houston and North Texas and you'll see why this such an important improvement – that stretch of I-45 is recognized as the second most dangerous highway in America.

In all, more than 50 campuses in North Texas, the Brazos Valley and Greater Houston will have affordable access to a fast, clean and safe transportation alternative when traveling amongst the regions.

The development of this new industry in the Lone Star State is a huge opportunity for students and we can't wait until we can build it and ride it.

It's good for Texas!

Figure H-6: Example Students Support Letter

Table H-8: List of Individuals who Submitted and/or Signed the Students Support Letter			
Last Name	First Name	Date Submitted	Submission Type
Anonymous	Anonymous	3/19/2018	Email
Adamcik	Tyler	2/25/2018	Email
Alvarado	Olivia	2/17/2018	Email
Amaya-Rodriguez	Simon	3/20/2018	Email
Ashraf	Sruthi	2/22/2018	Email
Baumann	Isaak	3/21/2018	Email
Bell	Matthew	3/20/2018	Email
Bennett	William	2/17/2018	Email
Butler	Jake	2/17/2018	Email
Campbell	Julia	2/22/2018	Email
Cardona	Tony	2/17/2018	Email
Castillo	Jordan	3/20/2018	Email
Centofanti	Jay	2/25/2018	Email
cheeney	Nathan	3/19/2018	Email
Cherrio	Ivonne	3/20/2018	Email
Covarrubias	Luis	2/22/2018	Email
Craig	Josh	2/18/2018	Email
Cross	Deon	3/18/2018	Email

Table H-8: List of Individuals who Submitted and/or Signed the Students Support Letter

Last Name	First Name	Date Submitted	Submission Type
DeFriend	Carlos	2/23/2018	Email
Deleon	Anthony	2/18/2018	Email
Fell	Jason	2/18/2018	Email
Figliola	Kindle	2/25/2018	Email
follow	L	3/18/2018	Email
Gazda	Daniel	2/18/2018	Email
Gonzales	Ivan	2/22/2018	Email
Gutierrez	Jesus	3/19/2018	Email
Hajhamdan	Dana	2/22/2018	Email
Harper	Savannah	2/20/2018	Email
Hernandez	Alan	3/21/2018	Email
Hillard	Ben	2/18/2018	Email
Hooper	Sam	3/20/2018	Email
Hooper	Sam	2/18/2018	Email
Howard	Antwanette	2/26/2018	Email
Hull	Brad	2/21/2018	Email
Irwin	Nathan	2/18/2018	Email
Jha	Kartikeya	2/22/2018	Email
Liberations	Dave's	2/22/2018	Email
Littlejohn	Garrett	2/26/2018	Email
Melesio	Jason	2/17/2018	Email
Menon	Avi	2/23/2018	Email
Morgan	Trey	2/18/2018	Email
Nervo	Aelx	2/19/2018	Email
Nunez	Meli	2/20/2018	Email
Outley	Bro	2/17/2018	Email
Pechacek	Joshua	2/22/2018	Email
Pena	James	2/25/2018	Email
Perez	Raymond	2/26/2018	Email
Phan	Hoang	2/22/2018	Email
Price	Maria	3/21/2018	Email
Rios	Ismael	2/18/2018	Email
Roiter	Nathan	2/17/2018	Email
SEETHAPATHI	ASHWIN	2/19/2018	Email
Shafer	Zachary	2/17/2018	Email
Smart	Joses	2/17/2018	Email
Spencer	Dwight	2/25/2018	Email
Stewart	Reid	2/21/2018	Email
Stibbe	Jayson	2/22/2018	Email
Stone	Jason	2/26/2018	Email
Thomas	Rohen	2/22/2018	Email
Tong	Grayson	2/21/2018	Email
Tyler	Jonathan	2/18/2018	Email
Valdez	Otto	2/26/2018	Email
Wang	Rosetta	2/17/2018	Email
Welch	Robert	2/22/2018	Email

Table H-8: List of Individuals who Submitted and/or Signed the Students Support Letter			
Last Name	First Name	Date Submitted	Submission Type
Wellington	Chinedu	2/26/2018	Email
William	Jay	2/25/2018	Email
Wlazlo	Patrick	2/20/2018	Email

3.4 Business Support Letter

Table H-9 lists the 59 individuals that submitted an email offering support for the Project, with a focus on high-tech industry, stating, “Texas is the perfect place to plant the seed to grow this new high-tech industry in the United States. The new high-speed economy created by this project will be a game changer for workers, vendors, contractors and other companies and small businesses all along the route. The fact that it is fully investor-owned means it will provide a great benefit for not only passengers, but all taxpayers.” A copy of the email message is in **Figure H-7**.

Dear Officials,

As a business person who is in the industry, I am excited about working on the Texas Bullet Train and urge the Federal Railroad Administration to move forward with its review and approval.

Texas is the perfect place to plant the seed to grow this new high-tech industry in the United States. The new high-speed economy created by this project will be a game changer for workers, vendors, contractors and other companies and small businesses all along the route. The fact that it is fully investor-owned means it will provide a great benefit for not only passengers, but all taxpayers.

The Draft Environmental Impact Statement (DEIS) confirms this conclusion with detailed data and projections. For instance, it states that the Train will create more than 10,000 direct jobs per year during construction and about 1,500 jobs permanently when operational -- at least 25% of which will be in rural counties along the route. It will contribute more than \$2.5 billion in taxes over its first 25 years to counties along the route and increase property assessment values within a half-mile of the proposed stations by between \$71.4 million and \$161.1 million.

We want more travel options between Texas’ two economic hubs and this project fills delivers and gives all travelers the freedom to choose a safer, more reliable and cleaner way to move across Texas.

I welcome this new innovative industry and I urge the FRA to expedite its review and approval – because it’s good for business, good for the economy and good for Texas.

Figure H-7: Example Business Support Letter

Table H-9: List of Individuals who Submitted and/or Signed the Business Support Letter			
First Name	Last Name	Date Submitted	Submission Type
Tammy	Anderson	3/7/2018	Email
Meredith	Bastian	3/9/2018	Email
Jeremiah	Bastian	3/7/2018	Email
Richard	Bean	3/9/2018	Email
Richard	Bean	3/7/2018	Email

Table H-9: List of Individuals who Submitted and/or Signed the Business Support Letter

First Name	Last Name	Date Submitted	Submission Type
Richard	Bean	3/7/2018	Email
Haiden	Bick	3/6/2018	Email
Halle	Bick	3/6/2018	Email
Dave	Brown	3/9/2018	Email
Marty	Brown	3/5/2018	Email
Erin	Browning	3/5/2018	Email
Martin	Burrell	3/5/2018	Email
Velma	Buzo	3/5/2018	Email
Teresa	Coligan	3/6/2018	Email
Eric	DeBorde	3/6/2018	Email
Meredith	DeBorde	3/6/2018	Email
Harold	Diaz	3/8/2018	Email
Kerrie	Dwyer	3/6/2018	Email
Stephen	Evans	3/9/2018	Email
Omar	Fernandez	3/8/2018	Email
Rhiannon	Friedman	3/5/2018	Email
Yuriko	Fukuda	3/9/2018	Email
Curtis	Garrison	3/9/2018	Email
Laura	Himmelhaver	3/9/2018	Email
Nathan	Kemp	3/7/2018	Email
Nicole	Kennedy	3/6/2018	Email
Roger	Kienast	3/7/2018	Email
Jan	Kish	3/9/2018	Email
Coleen	Lawrence	3/7/2018	Email
Carter	Malouf	3/9/2018	Email
Shelby	Maloy	3/7/2018	Email
Laramie	Martin	3/8/2018	Email
Robert	Martin	3/6/2018	Email
Roger	Menzel	3/9/2018	Email
Elaine	Metcalf	3/8/2018	Email
Kimberly	Miller	3/9/2018	Email
Delia	Mizwa	3/9/2018	Email
Clarice	Moise	3/6/2018	Email
Johnathan	Nicol	3/6/2018	Email
Kimberly	Owen	3/8/2018	Email
James	Pace	3/6/2018	Email
Mary	Poss	3/9/2018	Email
Amy	Roots	3/7/2018	Email
Richanell	Ruiz	3/6/2018	Email
Perry	Ruthven	3/7/2018	Email
Nick	Shumate	3/8/2018	Email
Danny	Smedley	3/6/2018	Email
Sheryl	Starnes	3/6/2018	Email
Glenn	Starnes	3/6/2018	Email
Sergio	Swain	3/7/2018	Email
Rusty	Thompson	3/7/2018	Email

Table H-9: List of Individuals who Submitted and/or Signed the Business Support Letter

First Name	Last Name	Date Submitted	Submission Type
Dusty	Thompson	3/7/2018	Email
Kori	Thompson	3/7/2018	Email
Ryan	Turton	3/8/2018	Email
Dwayna	Tyler	3/5/2018	Email
Jelks	Ward	3/9/2018	Email
Gayla	Wigley	3/7/2018	Email
Chuck	Wright	3/9/2018	Email
Kevin	Yung	3/6/2018	Email

3.5 Oppose Postcard

Table H-10 lists the 168 individuals that submitted a postcard expressing opposition to the Project, especially in Madison County, Texas. The postcards specifically requested that the Project not be built in the county. A copy of the postcard is in Figure H-8.



Figure H-8: Example Oppose Postcard

Table H-10: List of Individuals who Submitted an Opposition Postcard			
Last Name	First Name	Date Submitted	Submission Type
Adams	Randy	3/4/2018	Letter
Adams	Cheryl	3/4/2018	Letter
Adrion	Pat	2/28/2018	Letter
Alford	Chris	3/1/2018	Letter
Andrews	Amanda	NA	Letter
Andrews	Clay	NA	Letter
Atkinson	Diana	2/28/2018	Letter
Baker	Tracy L.	2/28/2018	Letter
Baker	Mrs. Meta	2/28/2018	Letter
Bart	Don	2/26/2018	Letter
Becker	Carol	3/7/2018	Letter
Becker	David	3/9/2018	Letter
Bennett	Mark	2/27/2018	Letter
Bennett	Melissa	2/28/2018	Letter
Bennett	Bo	2/26/2018	Letter
Berry	William	2/26/2018	Letter
Betts	Kent	3/8/2018	Letter
Betts	Travis	3/8/2018	Letter
Bishop	Mike	2/25/2018	Letter
Brown	James	3/4/2018	Letter
Brummett	Daniel	2/26/2018	Letter
Burson	T.	3/3/2018	Letter
Cannon	Carl	2/25/2018	Letter
Carroll	Jodi	2/28/2018	Letter
Cole	Dave A.	3/4/2018	Letter
Cole	Helen	3/6/2018	Letter
Cole	Sam	2/25/2018	Letter
Colled	Thomas	2/25/2018	Letter
Colwell	Donnie E.	2/11/2018	Letter
Cotwell	Ann	2/27/2018	Letter
Crocker	Michael	3/4/2018	Letter
Cunningham	Elmo	3/4/2018	Letter
Dartez	Mia	3/7/2018	Letter
Dawkins	John T.	3/1/2018	Letter
Dawkins	John T.	3/2/2018	Letter
Dawkins	Mary	3/1/2018	Letter
Dean	Dale	3/9/2018	Letter
Delesandri	David	NA	Letter
Dorman	Maggie	3/8/2018	Letter
Dorman	Jo	3/8/2018	Letter
Driskell	Ricky	2/25/2018	Letter
Earp	Rick & Nancy	3/4/2018	Letter
Earp	Rick & Nancy	2/27/2018	Letter
Earp	Rick & Nancy	2/27/2018	Letter
Ellis	Heidi	2/25/2018	Letter
Ellis Sr.	Kenneth R.	2/25/2018	Letter
Enloe	Kelly	3/9/2018	Letter
Enloe	Darby	3/9/2018	Letter

Table H-10: List of Individuals who Submitted an Opposition Postcard			
Last Name	First Name	Date Submitted	Submission Type
Erp	Rick & Nancy	3/4/2018	Letter
Fivesl	Bonnie	2/28/2018	Letter
Fogle	Richard	3/4/2018	Letter
Fogle	Christy	2/11/2018	Letter
Gafford	Lindsey	3/1/2018	Letter
Gannaway	Andrea	3/1/2018	Letter
Gilbert	J.E.	2/27/2018	Letter
Gilbert	Betty	2/27/2018	Letter
Grima	Larry	2/26/2018	Letter
Hartnett	Elizabeth	2/28/2018	Letter
Hartzfield	George	2/26/2018	Letter
Hayt	Paul	3/1/2018	Letter
Hendrix	Bonne	2/27/2018	Letter
Hightower	Mary	3/3/2018	Letter
Hooper	Ford	3/4/2018	Letter
Hooper	Frances	3/4/2018	Letter
Hoyt	Jay	3/1/2018	Letter
Huffine	Herchel	2/26/2018	Letter
Hunter	Billy	2/27/2018	Letter
Ison-Huff	Billie	3/1/2018	Letter
Jaster	George	2/27/2018	Letter
Jaster	Sally	2/27/2018	Letter
Jeffries	Renee	NA	Letter
Jeffries	Kaleen	NA	Letter
Jeffries	Lynn	NA	Letter
Johnson	Marcia L.	2/27/2018	Letter
Jones	Jo Ann	2/27/2018	Letter
Joyner	Toni	2/26/2018	Letter
Joyner	Thad	2/26/2018	Letter
Karb	Glynn	NA	Letter
Kelly	Clara	3/4/2018	Letter
Kelso	Linda	2/25/2018	Letter
Key	Billie W.	3/4/2018	Letter
L	Ray Lee	2/25/2018	Letter
Lagravier	Edna	3/4/2018	Letter
Lagravier	Edward L.	3/4/2018	Letter
Lane	Craig & Karen	2/25/2018	Letter
Laneyorel	Pamela	3/1/2018	Letter
Long	Alison	2/27/2018	Letter
Long	Michael	2/27/2018	Letter
Long	Clarence	2/26/2018	Letter
Long	Barbara	2/26/2018	Letter
Longoria	Sonja	3/1/2018	Letter
M	Bill	3/6/2018	Letter
Madoll	Jim	2/27/2018	Letter
Madoll	Ruby	2/27/2018	Letter
Martinez	Rosy	2/27/2018	Letter
Mathis	Sara	3/1/2018	Letter

Table H-10: List of Individuals who Submitted an Opposition Postcard			
Last Name	First Name	Date Submitted	Submission Type
McBee	Greg	3/7/2018	Letter
McDaniel	C.E. "Butch"	2/26/2018	Letter
Mcvey	Holly	2/27/2018	Letter
Mcvey	Bill	2/27/2018	Letter
Missildine	Kevin	2/27/2018	Letter
Missildine	Tiffany	2/27/2018	Letter
Mizell	Perry	2/27/2018	Letter
Mizell	Suzette	3/1/2018	Letter
Moore	Donnie	3/4/2018	Letter
Moore	Tamara	2/26/2018	Letter
Morris	Cort	2/11/2018	Letter
Mosgou	SH	2/26/2018	Letter
Nauis	Norman	2/25/2018	Letter
Nauis	Twanne	2/25/2018	Letter
Neeley	Travis	2/26/2018	Letter
Nickerson	Ronnie	3/1/2018	Letter
Norwood	Jeff	3/8/2018	Letter
Perdomo	Norman J.	3/1/2018	Letter
Phillips	Carol	3/4/2018	Letter
Phillips	Jason	3/5/2018	Letter
Phillips	Paige	2/11/2018	Letter
Poe	Trae & Ann	3/4/2018	Letter
Reding	Billie	2/25/2018	Letter
Reno	James	3/1/2018	Letter
Reno	Brenda S.	3/1/2018	Letter
Resendez	Serena	2/11/2018	Letter
Roush	Jodie	2/11/2018	Letter
S	Sue	3/8/2018	Letter
Savage	Kassie C.	3/4/2018	Letter
Schrader	Janice	3/4/2018	Letter
Schrader	William	3/4/2018	Letter
Sikordski	Laney	2/27/2018	Letter
Singletary	Danny	NA	Letter
Singletary	Joyce	NA	Letter
Sloan	Jim	3/3/2018	Letter
Smith	Keith	3/8/2018	Letter
Smith	Jewel	NA	Letter
Smith	Laney	3/8/2018	Letter
Standley	Duane	3/4/2018	Letter
Stanford	Donnie	3/1/2018	Letter
Stanford	Lanell	3/1/2018	Letter
Stanford	Dustin	3/1/2018	Letter
Stanford	Ronnie	2/26/2018	Letter
Stark	Clint	NA	Letter
Starns	Cindy	3/6/2018	Letter
Stewart	Warner & Mary	3/4/2018	Letter
Story	Kevin & Marsha	2/27/2018	Letter
Strawthr	Betty	2/27/2018	Letter

Table H-10: List of Individuals who Submitted an Opposition Postcard			
Last Name	First Name	Date Submitted	Submission Type
T	Charles D	2/25/2018	Letter
Thorp	Roger	2/28/2018	Letter
Tucker	Donna LB	2/27/2018	Letter
Tucker	Tommy	3/4/2018	Letter
Unteneno	Burney	2/27/2018	Letter
Walker	Calvin	2/26/2018	Letter
Walker	S.K.	3/4/2018	Letter
Walker	C.N.	3/5/2018	Letter
Walker	Sandra	2/26/2018	Letter
Waseman	Carl	2/25/2018	Letter
Weath	James	2/27/2018	Letter
Weathers	Judy	2/27/2018	Letter
Wells	Lana	2/27/2018	Letter
Wells	Lindy	2/11/2018	Letter
Wenthers II	James	2/25/2018	Letter
Westmoreland	Richard P.	2/27/2018	Letter
Wilcox	Charles N.	2/25/2018	Letter
Williams	Jennifer	2/28/2018	Letter
Williams	Dollie	2/26/2018	Letter
Wiseman	Wendy	NA	Letter
Wiseman	Carl	2/26/2018	Letter
Wiseman	Wesley	NA	Letter
Wright	Sarah H.	2/28/2018	Letter
	D	2/27/2018	Letter

3.6 Support Form Letter

Table H-11 lists the 3,254 individuals that submitted an email offering support for the Project, noting, “It is a transformational transportation project that will connect the two economic hubs of Texas, Houston and North Texas, with one stop in the Brazos Valley, while respecting Texas lands and providing a safe, convenient and clean alternative to flying and driving. The recent release of the Draft Environmental Impact Statement (DEIS) confirms this conclusion with detailed data and projections.”

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
.olvera	Camilo	3/2/2018	Email
Abalos	Richard	3/8/2018	Email
Abalos	Richard	2/27/2018	Email
Abasolo	Danny	3/2/2018	Email
Abasolo	Danny	2/27/2018	Email
Abasolo	Luis	2/21/2018	Email
Abasolo	Luis	3/8/2018	Email
Abasolo	Luis	3/8/2018	Email
Abasolo	Luis	2/27/2018	Email
Abasolo	Luis	2/27/2018	Email
Abbott	John	2/16/2018	Email
Abdelrazig	Yasir	2/20/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Abraham	Brian	3/9/2018	Email
Abraham	Brian	2/27/2018	Email
Abraham	Soman	3/8/2018	Email
Acevedo	Hector	2/23/2018	Email
Acosta	Kevin	3/9/2018	Email
Adame	Roy	3/9/2018	Email
Adame	Roy	2/18/2018	Email
Adamik	Wayne	2/27/2018	Email
Adams	Jeff	2/27/2018	Email
Adams	Jeff	2/16/2018	Email
Adams	John	2/27/2018	Email
Adams	Kenneth	3/9/2018	Email
Ademosu	Valarie	2/23/2018	Email
Adkins	Audie	3/9/2018	Email
Adkins	Audie	2/16/2018	Email
aguilar	Bryan	2/16/2018	Email
aguilar	Bryan	2/21/2018	Email
Aguilera	Jesus	3/9/2018	Email
Ahmad	Tufail	3/9/2018	Email
Ahmad	Tufail	3/5/2018	Email
Aimer	Donald	3/8/2018	Email
Ainsworth	Jacqui	3/5/2018	Email
Akeboshi	Kazuhiro	2/27/2018	Email
Akerson	Thomas	3/1/2018	Email
Akhtari	Mani	2/16/2018	Email
Akshintala	Ananth	3/8/2018	Email
Akshinthala	Sreenivasan	3/8/2018	Email
Akshinthala	Sreenivasan	3/8/2018	Email
Alani	Ahmed	3/9/2018	Email
Alba	Chris	3/5/2018	Email
Alba	Chris	2/17/2018	Email
Albert	Wendy	2/16/2018	Email
Aldan	David	3/9/2018	Email
Alexander	Frank	2/19/2018	Email
Alexander	Jeff	2/27/2018	Email
Alexander	Skip	3/9/2018	Email
Alford	Vicki	3/9/2018	Email
Alford	Vicki	3/8/2018	Email
Alford	Victoria	2/27/2018	Email
Alicea	Gilberto	2/23/2018	Email
Allen	Jordan	2/16/2018	Email
Allen	Larry	3/9/2018	Email
Allen	Meghan	2/27/2018	Email
Allen	Rob	2/21/2018	Email
Allen	Roy	2/16/2018	Email
Allen	Travis	3/9/2018	Email
Allen	Edward	3/9/2018	Email
Allen	Edward	2/23/2018	Email
Alley	Nigel	3/5/2018	Email
Allison	Leigh	3/9/2018	Email
Allison	Leigh	3/5/2018	Email
Almaquer	Raymundo	3/1/2018	Email
Alonso	James	2/21/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter

LastName	FirstName	Date Submitted	Submission Type
Alonso	James	3/8/2018	Email
Alonso	James	2/27/2018	Email
Alonzo	Tim	2/17/2018	Email
Alquezar	Marta	3/5/2018	Email
Alsabea	Hasan	3/8/2018	Email
Alsabea	Hasan	2/27/2018	Email
Altieri	Frank	3/3/2018	Email
Alvarado	Cynthia	2/24/2018	Email
Alvarado	Rosa	2/16/2018	Email
Alvarez	Carlos	3/8/2018	Email
Alvarez	MARY	3/9/2018	Email
Alvarez	MARY	3/8/2018	Email
Aman	Steve	2/27/2018	Email
Ambler	Price	2/22/2018	Email
Ambler	Price	3/8/2018	Email
Ambler	Price	2/27/2018	Email
Ambler	Price	2/16/2018	Email
Amy	Matthew	2/27/2018	Email
Anderson	Jerri	2/21/2018	Email
Anderson	Jeremiah	3/6/2018	Email
Anderson	Justin	2/19/2018	Email
Anderson	Mark	2/26/2018	Email
Anderson	Onzo	2/16/2018	Email
Anderson	Eric	2/25/2018	Email
Andreotti	Andrew	3/5/2018	Email
Andrew	Bob	2/25/2018	Email
Andrews	John	3/9/2018	Email
Andrews	Keith	3/9/2018	Email
Andrews	Keith	3/8/2018	Email
Andrews	Keith	2/16/2018	Email
Andrus	Michael	2/16/2018	Email
Andrus	Mike	2/27/2018	Email
Anonymous	Anonymous	2/28/2018	
Anonymous	Anonymous	3/5/2018	
Anshasi	Bader	2/23/2018	Email
Anyigbo	Samantha	3/9/2018	Email
Aplin	Justin	2/27/2018	Email
Apodaca	Jacob	2/16/2018	Email
Aponte	Tyler	3/9/2018	Email
Apple	Joshua	3/2/2018	Email
Appunni	Srimanikandhan	2/16/2018	Email
Arango	Humberto	2/25/2018	Email
Arango	Humberto	3/9/2018	Email
Arango	Humberto	3/5/2018	Email
Arenas	Fabio	2/16/2018	Email
Arenstein	Cortney	3/9/2018	Email
Arfsten	Bruce	3/2/2018	Email
Arif	Carmen	3/9/2018	Email
Arif	Carmen	2/16/2018	Email
armour	Jon	3/9/2018	Email
Armour	Karen	2/21/2018	Email
Armour	Karen	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Arnold	Carrie	2/26/2018	Email
Arora	Sue	3/8/2018	Email
Arrieta	Romeo	3/8/2018	Email
Arrieta	Romeo	2/27/2018	Email
Arrieta	Romeo	2/16/2018	Email
Arrington	Wayne	2/22/2018	Email
Asan	Syed	3/9/2018	Email
Asan	Syed	2/16/2018	Email
Ash	David	2/27/2018	Email
Ashby	Doug	2/22/2018	Email
Ashby	Doug	2/22/2018	Email
Ashby	Doug	2/16/2018	Email
Ashby	Doug	2/16/2018	Email
Ashby	Douglas	2/27/2018	Email
Ashton	Alyssa	3/8/2018	Email
Atchley	David	2/27/2018	Email
Atkinson	Billie	2/27/2018	Email
Attas	Jessica	3/9/2018	Email
Attas	Jessica	3/1/2018	Email
Austin	Mark	3/9/2018	Email
Avendanio	Annalyne	3/9/2018	Email
Avendanio	Annalyne	2/16/2018	Email
Avera	Donald	2/23/2018	Email
Avera	Donald	2/21/2018	Email
Avera	Donald	2/17/2018	Email
Avila	Laura	3/9/2018	Email
Aviles	Oliver	2/27/2018	Email
Awan	Abdul	2/21/2018	Email
Aymerich	Giancarlo	3/2/2018	Email
Azizli	Nihad	3/8/2018	Email
Azizli	Nihad	3/5/2018	Email
Babbitt	Robert	3/8/2018	Email
Bacchus	Antoinette	3/9/2018	Email
Bacchus	Antoinette	2/18/2018	Email
Backus	Craig	3/5/2018	Email
Bacon	Bruce	2/20/2018	Email
Bahena	Jesus	2/27/2018	Email
Bailey	Joe	2/27/2018	Email
Bailey	Lee	3/7/2018	Email
Bain	Bradley	3/8/2018	Email
Bain	Bradley	3/2/2018	Email
Baines	Jack	2/16/2018	Email
Baker	Carrie	2/16/2018	Email
Baker	William	3/5/2018	Email
Baldassari	Laura	3/9/2018	Email
Balderas	BLANCA	2/21/2018	Email
Balderrama	Kevin	2/21/2018	Email
Baldivia	Judy	3/9/2018	Email
Bale	George	3/5/2018	Email
Balfour	Ellen	3/8/2018	Email
Ball	John	3/9/2018	Email
ball	Jonathan	3/6/2018	Email
Ball	Maurice	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Ball	Maurice	2/16/2018	Email
Ballard	Deborah	3/8/2018	Email
Ballbach	Becky	3/9/2018	Email
Ballbach	David	3/9/2018	Email
Banchs	Yolanda	2/18/2018	Email
Bandaru	Ravi	3/8/2018	Email
Banks	Dana	3/8/2018	Email
Banks	Dana	2/16/2018	Email
Bannaga	Mohammed	2/16/2018	Email
Barber	Janet	3/9/2018	Email
Barber	Jeannan	2/16/2018	Email
Barber	John	3/8/2018	Email
Barber	John	2/27/2018	Email
Barber	John	2/16/2018	Email
Barber	Michael	2/27/2018	Email
Barlett	Keith	2/16/2018	Email
Barnes	Barbara	3/8/2018	Email
Barnes	Barbara	2/27/2018	Email
Barnes	Steve	2/16/2018	Email
Barnes	Dean	3/4/2018	Email
barnett	Jayne	3/9/2018	Email
Barnett	Nora	3/8/2018	Email
Barnum	Daniel	3/8/2018	Email
Barrat	Richard	2/22/2018	Email
BARRETT	MICHAEL	3/8/2018	Email
Barrientos	Emilio	2/27/2018	Email
Barrilleaux	Carl	3/9/2018	Email
Barrios	Vanessa	2/27/2018	Email
Barron	Diana	3/9/2018	Email
Barsch	Ian	2/20/2018	Email
Bart	Emil	3/8/2018	Email
Bartholome	David	3/9/2018	Email
Bartholome	David	2/27/2018	Email
Bartolini	Mario	3/5/2018	Email
Bartolotta	Joan	3/4/2018	Email
Bartolotta	Laura	3/4/2018	Email
Bartolotta	Michael	3/4/2018	Email
Batchelor	Frances	3/9/2018	Email
Bates	Jonathan	3/9/2018	Email
Bates	Travis	3/3/2018	Email
Batra	Aakash	2/22/2018	Email
Batra	Sumeet	2/27/2018	Email
Batson	Lane	2/21/2018	Email
Bauer-Buis	John	2/19/2018	Email
Baugh	Kyle	3/8/2018	Email
Bauman	Bill	3/8/2018	Email
Bauman	Bill	2/16/2018	Email
Bauman	Richard	2/21/2018	Email
Bauman	Richard	2/27/2018	Email
Bauman	Richard	2/21/2018	Email
Baumann	Isaak	3/9/2018	Email
Baumbach	Allen	3/8/2018	Email
Baxley	Katherine	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Bayne	Jill	2/16/2018	Email
Bazan	Sherri	3/9/2018	Email
Bazan	Sherri	2/16/2018	Email
Beall	Francey	3/9/2018	Email
Beam	Jonathan	2/16/2018	Email
Bean	Margaret	2/17/2018	Email
Bean	Richard	3/9/2018	Email
Bean	Richard	3/9/2018	Email
Bean	Richard	3/8/2018	Email
Bean	Richard	3/8/2018	Email
Bean	Richard	3/2/2018	Email
Bean	Richard	2/16/2018	Email
Beard	Jerry	3/9/2018	Email
Beard	Jerry	2/27/2018	Email
Beard	Kenny	2/16/2018	Email
Beard	Luke	2/21/2018	Email
Beaton	Robert	3/5/2018	Email
Beattie	Graeme	3/3/2018	Email
Beck	Joshua	2/16/2018	Email
Bedgood	Donald	3/8/2018	Email
Beene	Tina	3/8/2018	Email
Beesley	Michael	2/21/2018	Email
Beesley	Michael	2/16/2018	Email
Behzadi	Alireza	2/27/2018	Email
Behzadi	Alireza	2/22/2018	Email
Bell	Dave	3/5/2018	Email
Bell	David	3/8/2018	Email
Bell	James	2/27/2018	Email
Bell	Ofay	3/8/2018	Email
Bell	Ofay	3/2/2018	Email
Benavides	Marco	3/6/2018	Email
Benitez	Adela	3/9/2018	Email
Benmanssour	Abdeslem	2/17/2018	Email
Benners	David	2/17/2018	Email
Bennett	Gregory	2/16/2018	Email
Bennett	John	3/9/2018	Email
Bennett	Jon	2/27/2018	Email
Bennett	Katherine	2/27/2018	Email
Bennett	Lindley	2/21/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	3/8/2018	Email
Bennett	Lindley	2/28/2018	Email
Bennett	Lindley	2/16/2018	Email
Bennett	Marietta	2/21/2018	Email
Bennett	Marietta	3/9/2018	Email
Bennett	Will	3/8/2018	Email
Bennett	Will	3/2/2018	Email
Bennett	Will	2/21/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Benoit	Jason	3/9/2018	Email
Benoit	Jason	2/27/2018	Email
Bentley	Richard	3/1/2018	Email
Benzion	David	3/8/2018	Email
Beranek	Stephanie	3/9/2018	Email
Berklene	Linda	3/9/2018	Email
Bernabo	Keith	3/9/2018	Email
Bernabo	keith	2/16/2018	Email
Berndt	Daniel	2/27/2018	Email
Bernhardt	Lara	3/8/2018	Email
Berry	Al	2/16/2018	Email
Berry	Janis	2/21/2018	Email
Bertrand	Ann	3/4/2018	Email
Besse	Daniel	3/2/2018	Email
Betts	R	3/8/2018	Email
Bevans	Robert	3/9/2018	Email
Bey	Afiah	3/9/2018	Email
Bezawada	Naveen	3/9/2018	Email
Bhattacharya	Rakesh	3/8/2018	Email
Bhimireddy	Pratap	3/5/2018	Email
Bick	John	3/2/2018	Email
Bickham	Sean	3/2/2018	Email
Biediger	George	2/19/2018	Email
Biegler	Spencer	2/27/2018	Email
Biel	Charles	3/8/2018	Email
Biel	Charles	2/27/2018	Email
Bierd	James	3/8/2018	Email
Bierd	James	2/27/2018	Email
BIGGERS	LORRAINE	2/16/2018	Email
Bilbrey	Keith	2/16/2018	Email
Bindler	Dasha	3/9/2018	Email
Bindler	Dasha	2/16/2018	Email
Bingham	David	2/21/2018	Email
Bingham	Howard	3/2/2018	Email
Bird	Brandi	3/2/2018	Email
BIRDWELL	JAMES	3/9/2018	Email
Birdwell	James	3/5/2018	Email
Birkinshaw	Jerold	3/9/2018	Email
Birkinshaw	Jerold	3/9/2018	Email
Birkinshaw	Jerold	2/16/2018	Email
Bishop	Paul	3/4/2018	Email
Biss	Liz	3/7/2018	Email
Bixby	Pamela	3/9/2018	Email
Black	Juli	3/9/2018	Email
Black	Shaunna	2/28/2018	Email
Black	Shaunna	3/8/2018	Email
Blackman	Ralph	3/9/2018	Email
Blackman	Ralph	3/5/2018	Email
Blackman	Ralph	3/2/2018	Email
Blackman	Ralph	2/27/2018	Email
Blackman	Ralph	2/16/2018	Email
Blackwell	Steven	2/21/2018	Email
Blahing	Blah	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter

LastName	FirstName	Date Submitted	Submission Type
Blair	Valli	2/27/2018	Email
Blaje	Jan	2/16/2018	Email
Blake	Jan	3/9/2018	Email
Blanchard	Joseph	2/16/2018	Email
Blanco	Richard	2/27/2018	Email
Blanton	Carole	3/9/2018	Email
Blanton	Carole	2/18/2018	Email
Blok	Niels	2/16/2018	Email
Bloodgood	John	2/27/2018	Email
Blumberg	Daniel	2/19/2018	Email
BOBJAK	STEVEN	2/21/2018	Email
Bobowski	Richard	3/8/2018	Email
Boehmer	Guy	2/16/2018	Email
Boercker	Bradley	3/9/2018	Email
Boggs	Lisa	2/27/2018	Email
Bohn	Steven	3/8/2018	Email
Bohn	Steven	2/27/2018	Email
Boland	Joe	2/16/2018	Email
Boland	Michael	2/16/2018	Email
Boldt	Mary	3/8/2018	Email
Bollinger	George	3/8/2018	Email
Bollinger	George	2/27/2018	Email
Bollinger	George	2/16/2018	Email
Bolt	Lelia	3/1/2018	Email
Bommarito	Clem	3/9/2018	Email
Bonow	Tom	2/28/2018	Email
Bortnyck	Michael	2/28/2018	Email
Bosquez	Mario	2/16/2018	Email
Bossin	Meredith	2/27/2018	Email
boudewijn	Frank	3/9/2018	Email
Boudreaux	Glen	3/8/2018	Email
Boudreaux	Glen	2/27/2018	Email
Boukitin	Catherine	3/5/2018	Email
Boulden	Bob	3/8/2018	Email
Bourgeois	Robert	3/9/2018	Email
Bourne	Charlyne	2/27/2018	Email
Bowman	Shauna	3/8/2018	Email
Bowne	Donald	3/2/2018	Email
Bowyer	Roberta	2/27/2018	Email
Bowyer	Roberta	2/26/2018	Email
Boyce	Michael	2/22/2018	Email
Boyd	Jason	3/2/2018	Email
Boyette	Chad	3/5/2018	Email
Boyette	Sue	3/6/2018	Email
Bradley	Sakenia	3/9/2018	Email
Bradshaw	Allen	3/8/2018	Email
Bramante	Michael	3/4/2018	Email
Bramanti	Matt	3/5/2018	Email
Brandt	Steven	3/9/2018	Email
Brandt	Steven	3/5/2018	Email
Brandt	Steven	2/16/2018	Email
Bratu	Cristian	3/8/2018	Email
Bratu	Cristian	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Breaux	Karen	3/9/2018	Email
Breckbill	Jeremy	2/24/2018	Email
Brewer	Glen	3/9/2018	Email
Brewer	Marcus	2/18/2018	Email
Briant	Granville	3/9/2018	Email
Briggs	Julian	3/1/2018	Email
Bright	LaToya	2/16/2018	Email
Brisson	Noel	2/27/2018	Email
Brittain	Scott	3/9/2018	Email
Brock	Jamie	2/16/2018	Email
Brooks	J	2/16/2018	Email
Brooks	Joshua	3/9/2018	Email
Brooks	Melissa	3/8/2018	Email
Brooks	Melissa	2/27/2018	Email
Brough	Louise	2/24/2018	Email
Broughall	Stephen	3/3/2018	Email
Broussard	Thomas	2/17/2018	Email
Browder	Bramlette	2/19/2018	Email
Brown	Dahlia	3/8/2018	Email
Brown	Dave	3/4/2018	Email
Brown	Dave	2/27/2018	Email
Brown	David	2/19/2018	Email
Brown	Gary	2/27/2018	Email
Brown	Gary	2/16/2018	Email
Brown	Jim	3/7/2018	Email
Brown	Jan	3/8/2018	Email
Brown	Jan	2/27/2018	Email
Brown	John	3/8/2018	Email
Brown	John	2/16/2018	Email
Brown	Kelli	2/16/2018	Email
Brown	LaKesha	2/21/2018	Email
Brown	Mario	2/20/2018	Email
Brown	Martha	3/9/2018	Email
Brown	Marty	2/27/2018	Email
Brown	Michael	3/9/2018	Email
Brown	Michael	2/27/2018	Email
Brown	Michael	2/16/2018	Email
Brown	Nancy	2/27/2018	Email
Brown	Nancy	3/8/2018	Email
Brown	Paulette	3/9/2018	Email
Brown	Paulette	2/16/2018	Email
Brown	Robert	2/28/2018	Email
Brown	Robert	2/17/2018	Email
Brown	Robin	3/8/2018	Email
Brown	Suzanne	2/19/2018	Email
Brown	Suzanne	2/19/2018	Email
Brown	Veronic	3/4/2018	Email
Brown	William	2/16/2018	Email
Brown	Deborah	2/26/2018	Email
Brumbaugh	Dan	3/9/2018	Email
Brumbaugh	Dan	2/27/2018	Email
Bruner	Joe	3/9/2018	Email
Brunner	Thomas	3/4/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Brunner	Tom	3/9/2018	Email
Bryngelson	Andrew	3/2/2018	Email
Buchanan	Lynda	3/9/2018	Email
Buchanan	Lynda	2/16/2018	Email
Buchold	Greg	3/6/2018	Email
Buckley	Keith	3/9/2018	Email
Bull	Matt	3/9/2018	Email
Bumbaugh	Zachary	3/9/2018	Email
Bundy	Stephen	3/8/2018	Email
Bundy	Zach	3/9/2018	Email
Burchel	Jon	2/21/2018	Email
Burchel	Jonathan	3/9/2018	Email
Burchel	Jonathan	3/8/2018	Email
Burk	Jefferson	3/9/2018	Email
Burk	Jefferson	2/16/2018	Email
Burke	Carol	3/9/2018	Email
Burnett	Melony	2/16/2018	Email
Burns	Julia	3/5/2018	Email
Burns	Michael	2/28/2018	Email
Burns	Richard	3/9/2018	Email
Burns	Richard	2/28/2018	Email
Burns	Ryan	2/28/2018	Email
Burns	Whitney	3/9/2018	Email
Burns	Whitney	2/27/2018	Email
Burris	Joe	2/17/2018	Email
Burton	Ryan	2/27/2018	Email
Bush	Jesse	3/9/2018	Email
Butcher	Jeffery	3/9/2018	Email
Butcher	Jeffery	3/8/2018	Email
Butcher	Jeffery	2/27/2018	Email
Butcher	Jeffery	2/17/2018	Email
Butler	Kathy	2/27/2018	Email
Butler	Phillip	2/27/2018	Email
Butler	Edward	3/9/2018	Email
Butler	Edward	2/16/2018	Email
Butts-Gehring	Eran	3/1/2018	Email
Buyak	Frank	3/8/2018	Email
Buyince	Yvette	2/28/2018	Email
Byron	Trish	2/22/2018	Email
Caldwell	Cartier	2/27/2018	Email
Calixto	Edson	2/27/2018	Email
Calk	Carl	2/18/2018	Email
Callahan	Keith	3/9/2018	Email
Callahan	Keith	2/16/2018	Email
Callison	Glenn	2/19/2018	Email
Calzada	Daniel	3/3/2018	Email
Cameron	Brian	3/8/2018	Email
Cameron	Heather	2/20/2018	Email
Campbell	Christopher	2/16/2018	Email
Campbell	Stevie	2/17/2018	Email
Campbell	Theresa	3/8/2018	Email
Campbell	Theresa	2/25/2018	Email
Campbell	William	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Campbell	Elissa	3/9/2018	Email
Cann	Dakota	2/22/2018	Email
Cantu	Joel	2/16/2018	Email
Carabias-Rush	Sara	3/8/2018	Email
Carabias-Rush	Sarah	2/22/2018	Email
Cardenas	Louis	2/27/2018	Email
Cardona	Terri	3/8/2018	Email
Cardoni	Lorie	2/21/2018	Email
Cardoni	Lorie	2/16/2018	Email
Carias	Jesus	2/21/2018	Email
Carlock	Gaylord	2/27/2018	Email
Carlson	Cristine	3/9/2018	Email
Carlson	John	3/8/2018	Email
Carlson	John	2/22/2018	Email
Carmona	Zechariah	3/6/2018	Email
Carnes	Chase	2/16/2018	Email
Carpenter	Kay	3/9/2018	Email
Carrico	William	2/27/2018	Email
Carrillo	Nicolette	3/8/2018	Email
Carrillo	Nicolette	2/17/2018	Email
Carroll	Richard	3/8/2018	Email
Carroll	Richard	2/27/2018	Email
Carter	Minnie	2/24/2018	Email
Cartwright	Katchie	2/21/2018	Email
Cartwright	Katharine	3/3/2018	Email
Carvajal	Patricia	3/9/2018	Email
Carvajal	Patricia	3/6/2018	Email
Cassano	Kara	3/8/2018	Email
Cassano	Kara	2/16/2018	Email
Cassidy	Terence	3/8/2018	Email
Cassisy	Terence	2/16/2018	Email
Castellanos	Stephanie	3/6/2018	Email
Castillo	Hancer	3/8/2018	Email
Castillo	Sergio	3/6/2018	Email
Cates	Patrick	3/8/2018	Email
Cates	Patrick	3/2/2018	Email
Catrett	Mary	2/16/2018	Email
Caudill	Mary	3/9/2018	Email
Caudillo	Sylvia	3/9/2018	Email
Cauley	Irma	3/9/2018	Email
Cayce	Walter	3/2/2018	Email
Cazares	Bryan	3/9/2018	Email
Celis	Edwin	3/9/2018	Email
Celone	Jonathan	3/5/2018	Email
Cepeda	Martha	3/1/2018	Email
chalker	Andy	3/9/2018	Email
chalker	Andy	3/3/2018	Email
Chan	Amelia	3/8/2018	Email
Chandler	Gail	2/18/2018	Email
Chandler	Jim	3/9/2018	Email
Chandler	Jim	3/8/2018	Email
Chandler	Jim	2/27/2018	Email
Chandler	Jim	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Chandra	Ashton	3/1/2018	Email
Chase	Randall	2/16/2018	Email
Chattaway	Elizabeth	3/9/2018	Email
Chattaway	Elizabeth	2/20/2018	Email
chaveleh	kamran	2/16/2018	Email
Chavez	Adaline	2/21/2018	Email
Chavez	Maria	2/27/2018	Email
Chavez	Stephen	2/22/2018	Email
cheavers	Joseph	3/8/2018	Email
Cheaney	Nathan	3/9/2018	Email
Chen	Lu	3/9/2018	Email
Chenausky	Michael	2/16/2018	Email
Cherian	Jose	2/27/2018	Email
CHERRY	LATONYA	2/22/2018	Email
Chess	Lorenzo	3/7/2018	Email
Chin	Klaude	2/21/2018	Email
Chisum	Gary	2/27/2018	Email
Churchwell	Chayne	2/16/2018	Email
Clampitt	Judy	3/9/2018	Email
Clampitt	Rich	3/9/2018	Email
Clanton	Greg	2/27/2018	Email
Clark	Cody	3/9/2018	Email
Clark	Glenn	2/21/2018	Email
Clark	Howard	3/4/2018	Email
Clark	Karen	2/21/2018	Email
Clark	Larry	2/24/2018	Email
Clark	Denis	3/8/2018	Email
Clark	Denis	2/17/2018	Email
Clark	Howard	3/9/2018	Email
Clarke	Harold	3/8/2018	Email
Clarke	Harold	2/16/2018	Email
Clement	Hayes	3/6/2018	Email
Clevenger	Beverly	3/9/2018	Email
Cline	Ali	3/9/2018	Email
Clingerman	Kent	3/8/2018	Email
Clingerman	Kent	2/16/2018	Email
CLU	Jeffrey	3/9/2018	Email
Cobb	Eben	3/8/2018	Email
Coburn	Loretta	2/27/2018	Email
Coe	Janet	2/16/2018	Email
Coggeshall	Lon	3/7/2018	Email
Cohaila	Yatiri	2/20/2018	Email
Cole	Dewayne	3/8/2018	Email
Coleman	Bill	3/9/2018	Email
Coley	Charlotte	2/16/2018	Email
Collier	Brenda	3/9/2018	Email
Collier	Brenda	2/16/2018	Email
Collier	Jenny	2/16/2018	Email
Collins	Angela	3/9/2018	Email
Collins	Barbara	3/4/2018	Email
Collins	Benton	2/24/2018	Email
Collins	David	2/21/2018	Email
Collins	Tim	2/17/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Collins	Delores	2/16/2018	Email
Colombe	Chris	3/8/2018	Email
Colombe	Chris	2/16/2018	Email
Comis	Maria	2/17/2018	Email
Conaway	Terri	3/9/2018	Email
Concepcion	Ronald	2/22/2018	Email
Conley	Sean	3/9/2018	Email
Conn	Jef	3/6/2018	Email
Conner	Michael	2/21/2018	Email
Conner	Michael	2/16/2018	Email
Conrad	Roxanne	2/27/2018	Email
Conrad	Walter	3/9/2018	Email
Converse	RobRoy	3/9/2018	Email
Cook	David	3/9/2018	Email
Cook-Carter	Brian	2/16/2018	Email
Cooke	Vanessa	3/9/2018	Email
Cooksey	Andrea	2/18/2018	Email
Cooper	Angelo	3/5/2018	Email
Cooper	Jay	2/21/2018	Email
Cooper	Roy	2/27/2018	Email
Corazao	Lynn	2/16/2018	Email
Corbin	David	3/8/2018	Email
Cordova	Marcos	2/22/2018	Email
Corn	Hugh	2/27/2018	Email
Corn	Hugh	2/17/2018	Email
Corn	Hugh	3/9/2018	Email
Cornell	Steve	3/8/2018	Email
Cornfield	Michael	2/26/2018	Email
Corona	Ruben	3/4/2018	Email
Corral	Ivan	3/4/2018	Email
Cortez	Zoilo	3/8/2018	Email
Cortez	Crescente	2/16/2018	Email
Cortez	George	3/3/2018	Email
Cortopassi	Adolfo	3/9/2018	Email
Corttarelli	Daniel	2/25/2018	Email
COSGROVE	LARRY	2/21/2018	Email
COSGROVE	LARRY	3/8/2018	Email
COSGROVE	LARRY	2/16/2018	Email
Cossyphas	Leonidas	3/8/2018	Email
Cotter	Victoria	3/8/2018	Email
Cotton	William	2/16/2018	Email
Cottrell	Will	3/3/2018	Email
Couchman	Robert	2/19/2018	Email
Courtney	Cassi	3/5/2018	Email
Covo	Hector	3/9/2018	Email
Cowan	Jeffery	3/3/2018	Email
Cowart	Steven	3/9/2018	Email
Cowart	Steven	3/8/2018	Email
Cowart	Steven	2/27/2018	Email
Cowle	Rebecca	2/27/2018	Email
Cowle	Todd	2/27/2018	Email
Cox	Leah	3/9/2018	Email
Cox	Leah	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Cox	Patricia	3/2/2018	Email
Cox	Sharon	3/9/2018	Email
Cox	Sharon	2/17/2018	Email
Cox	Donovan	3/5/2018	Email
Crabb	Jordan	3/9/2018	Email
Craig	Kevin	2/17/2018	Email
Craig	Laura	3/5/2018	Email
Crawford	Dan	2/27/2018	Email
Crawford	Dan	2/17/2018	Email
Crawford	Kendra	3/9/2018	Email
Creighton	Steffane	2/16/2018	Email
Croft	Geri	3/8/2018	Email
Croizet	Charlie	2/24/2018	Email
Croizet	Charlie	2/22/2018	Email
Crosby	Norma	2/20/2018	Email
Crosson	Stephen	3/7/2018	Email
Crouch	Kevin	3/9/2018	Email
Crowell	Craig	3/3/2018	Email
Crozier	Chad	2/16/2018	Email
Cruz	Gloria	3/8/2018	Email
Cryer	James	2/27/2018	Email
Cuadrado	Roberto	3/9/2018	Email
Cuccia	Joseph	3/8/2018	Email
Cuellar	Rafael	3/9/2018	Email
Cuellar	Rafael	3/8/2018	Email
Cuellar	Rafael	2/27/2018	Email
Cuellar	Rafael	2/16/2018	Email
Cullins	John	2/21/2018	Email
Cullins	John	2/21/2018	Email
CULTON	KATHERINE	2/27/2018	Email
Cumming	Stephen	3/9/2018	Email
Cumming	Stephen	3/9/2018	Email
Cummings	Steve	2/27/2018	Email
Cung	Bo	3/6/2018	Email
Cunningham	Carol	3/9/2018	Email
Cunningham	Ray	2/27/2018	Email
Cunyus	Dan	3/9/2018	Email
Cunyus	Dan	3/8/2018	Email
Curran	Ty	2/17/2018	Email
Curtis	John	2/25/2018	Email
Czupak	Marika	3/7/2018	Email
D	J	3/3/2018	Email
Dailey	David	3/9/2018	Email
Dalrymple	Kevin	2/21/2018	Email
Dalrymple	Kevin	3/9/2018	Email
Damodaran	Raj	2/21/2018	Email
Damodaran	Raj	3/9/2018	Email
Dancer	Aaron	2/27/2018	Email
Dandridge	Bill	3/1/2018	Email
Dang	Lucy	2/22/2018	Email
Dang	Weiwei	2/21/2018	Email
Daniel	Mary	3/2/2018	Email
Darmstadter	Tom	3/8/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Darmstadter	Tom	2/25/2018	Email
Davenport	Kenneth	3/9/2018	Email
David	Deborah	2/17/2018	Email
Davidoff	Steven	3/9/2018	Email
Davidoff	Steven	2/26/2018	Email
Davis	Andrea	3/9/2018	Email
Davis	Antuan	3/1/2018	Email
Davis	Brandon	2/16/2018	Email
Davis	Jeff	2/27/2018	Email
Davis	Lorenzo	3/5/2018	Email
Davis	Matt	2/16/2018	Email
Davis	Robert	2/16/2018	Email
Davis	Ron	2/16/2018	Email
Davis	Timothy	3/8/2018	Email
Davis	Timothy	2/27/2018	Email
Davis	Doug	3/6/2018	Email
Dawson	Kendra	3/5/2018	Email
Dayer	Callie	3/4/2018	Email
De Alejandro	Sandra	2/17/2018	Email
de Anda	Carlos	3/5/2018	Email
De Leon'	Ian	2/24/2018	Email
De Moya	Sarah	2/27/2018	Email
de Noyelles	John	3/9/2018	Email
de Noyelles	John	3/7/2018	Email
de Swardt	Ettienne	2/22/2018	Email
deal	matthew	2/21/2018	Email
Deal	Matthew	3/9/2018	Email
Deboisblanc	Anna	2/16/2018	Email
DeBruin	James	3/8/2018	Email
Debruin	James	2/16/2018	Email
DeFoe	Steve	2/28/2018	Email
Degregorio	Rick	2/16/2018	Email
DeLaCerde	Tyler	2/16/2018	Email
Delesbore	Paul	2/25/2018	Email
Delgado	Luis	3/8/2018	Email
Delgado	Victor	3/8/2018	Email
Deliganis	Thomas	3/9/2018	Email
Dell'Antonia	Jon	2/19/2018	Email
Demarais	Brian	3/9/2018	Email
Demars	Mary	3/2/2018	Email
Demars	Richard	3/5/2018	Email
Dement	Ellen	3/2/2018	Email
Dempsey	Joe	2/27/2018	Email
Dennis	John	2/21/2018	Email
Dennis	John	3/9/2018	Email
Dennis	John	3/9/2018	Email
Dennis	John	2/27/2018	Email
Dennis	John	2/19/2018	Email
Desaulnier	Christine	2/26/2018	Email
Desen	Darwin	3/8/2018	Email
Deslatte	David	2/16/2018	Email
deSpain	Forrest	3/9/2018	Email
deSpain	Forrest	2/22/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Detweiler	Rosemary	2/17/2018	Email
Devers	Jeffrey	2/27/2018	Email
DeVore	Chris	3/9/2018	Email
DeVore	Chris	3/8/2018	Email
DeVore	Chris	2/28/2018	Email
Dew	Phillip	2/27/2018	Email
Diaz	Aureliano	3/5/2018	Email
Diaz	Laura	3/1/2018	Email
Diaz	Roland	3/9/2018	Email
Diaz	Roland	3/9/2018	Email
Dickey	Barbara	2/16/2018	Email
Dickey	Maurice	3/9/2018	Email
Dickey	Maurine	2/19/2018	Email
Dickey	Maurine	2/18/2018	Email
Dickson	Tom	2/27/2018	Email
Dickson	Tom	2/16/2018	Email
DiCristofano	Anthony	2/24/2018	Email
Dietert	Lindsey	3/8/2018	Email
Dike	Chidi	3/9/2018	Email
Dike	Chidi	2/28/2018	Email
Dike	Chidi	2/20/2018	Email
Dike	Chidi	2/16/2018	Email
Dinkel	Mark	3/8/2018	Email
Diosdado	Patricia	3/9/2018	Email
Dixon	Laura	2/25/2018	Email
Diyashev	Iskander	3/9/2018	Email
Dmello	Anthony	2/27/2018	Email
Dodd	Corey	2/27/2018	Email
Doddon	Greg	3/9/2018	Email
Dodson	Stacy	3/9/2018	Email
Doerre	Larry	3/8/2018	Email
Doerre	Larry	2/17/2018	Email
Dohem	Carol	3/9/2018	Email
Dohem	Carol	2/27/2018	Email
Dohem	Carol	2/16/2018	Email
Doll	Alissa	3/8/2018	Email
Doll	Alissa	3/1/2018	Email
Donellan	James	3/9/2018	Email
Donellan	James	2/19/2018	Email
Donop	Perry	2/26/2018	Email
Donop	Perry	2/17/2018	Email
Dorf	Diane	3/9/2018	Email
Dorf	Diane	2/16/2018	Email
Dornfest	Dennis	2/21/2018	Email
Dornfest	Dennis	3/8/2018	Email
Dorsch	Chris	3/9/2018	Email
Doud	Stacey	3/4/2018	Email
Douglas	Jere	2/25/2018	Email
Douglas	William	3/1/2018	Email
Dowda	Ron	3/8/2018	Email
Downer	William	3/9/2018	Email
Downie	Hunter	2/22/2018	Email
Downs	Brittini	3/5/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Drake	Barton	2/16/2018	Email
Drake	Barton	2/16/2018	Email
Drake	Gerald	3/8/2018	Email
Drake	Raymond	2/19/2018	Email
Drake	Elizabeth	3/8/2018	Email
Drouillard	Aubrey	3/8/2018	Email
Droz	Lori	2/27/2018	Email
Drummond	Krystal	3/9/2018	Email
DuBois	James	2/27/2018	Email
Dudding	Janet	2/18/2018	Email
Duff	Carolyn	3/9/2018	Email
Duff	Carolyn	2/21/2018	Email
Duhart	Cynthia	3/8/2018	Email
Duhart	Cynthia	2/21/2018	Email
Duhart	Cynthia	2/21/2018	Email
Duhon	Rene	3/9/2018	Email
Duke	Leslie	3/9/2018	Email
Duke	Nathan	3/8/2018	Email
Duke	Nathan	2/16/2018	Email
Duncan	Stephen	3/9/2018	Email
Dunn	Scott	3/8/2018	Email
Dunne	Ian	2/28/2018	Email
Duplantis	Donnie	2/27/2018	Email
Durham	David	3/9/2018	Email
Durrenberger	Robert	3/8/2018	Email
Dutschmann	John	2/16/2018	Email
Dutton	Mark	2/20/2018	Email
Dutton	Melanie	2/20/2018	Email
Duty	Laura	3/8/2018	Email
Duty	Laura	2/27/2018	Email
Duty	Randall	3/8/2018	Email
Dykes	Al	2/22/2018	Email
Dzvetero	Rushwell	3/5/2018	Email
Earley	Cameron	2/27/2018	Email
earley	john	3/8/2018	Email
Easter	Greg	2/16/2018	Email
Easter	Greg	2/21/2018	Email
Eaton	Roumell	3/6/2018	Email
Echols	Aaron	3/8/2018	Email
Ecklund	Dedra	3/8/2018	Email
Eddy	Phil	2/27/2018	Email
Edmonson	Robert	2/27/2018	Email
Edulakanti	Thirumal	3/9/2018	Email
Edwards	Bryce	2/18/2018	Email
Edwards	Daphne	3/9/2018	Email
Edwards	La	2/27/2018	Email
Ehrlich	Denise	2/21/2018	Email
Ehrlich	Michael	2/21/2018	Email
Ehrlich	Michael	3/9/2018	Email
Ehrlich	Denise	2/27/2018	Email
Ehrlich	Denise	2/16/2018	Email
Eichel	Susan	3/3/2018	Email
Eilers	Ellen	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Eisenbeiss	Richard	2/22/2018	Email
Ekstrom	Kathleen	3/9/2018	Email
Ekstrom	Kathleen	3/9/2018	Email
Ekstrom	Kathleen	2/27/2018	Email
Ekstrom	Kathleen	2/16/2018	Email
Elder	James	3/9/2018	Email
Eldridge	Duane	3/7/2018	Email
Elizabeth	McGilvray	2/16/2018	Email
Elizabeth	Shannan	3/5/2018	Email
Elkins	Jack	3/9/2018	Email
Elkins	Jack	3/9/2018	Email
Elkins	Jack	2/20/2018	Email
Elkins	Ron	2/24/2018	Email
Elkins	Ronald	3/8/2018	Email
elkurd	Akram	3/9/2018	Email
Ellerkamp	Mollie	2/25/2018	Email
Elliott	Jason	3/7/2018	Email
Elliott	Kathy	2/21/2018	Email
Elliott	Kathleen	3/9/2018	Email
Elliott	Marcedalia	3/6/2018	Email
Ellis	Tom	2/16/2018	Email
Elrod	Sandy	2/16/2018	Email
EMBRY	DAVID	3/8/2018	Email
Embry	David	3/2/2018	Email
Emery	Keith	2/18/2018	Email
Emmons	Deea	2/27/2018	Email
Enaohwo	Kohwo	3/9/2018	Email
Enaohwo	Kohwo	2/16/2018	Email
Engel	Megan	3/9/2018	Email
English	Eric	2/17/2018	Email
Enzler	Matt	3/8/2018	Email
Erickson	Anna	3/8/2018	Email
Erickson	Anna	2/27/2018	Email
Ervin	Dallas	3/8/2018	Email
Ervin	Dallas	2/17/2018	Email
Ervin	Dallas	2/16/2018	Email
Erwin	Mark	2/16/2018	Email
Eshem	Alexis	3/9/2018	Email
Eshem	Alexis	2/17/2018	Email
Esparza	Simon	3/3/2018	Email
Espinoza	Alejandro	3/9/2018	Email
Espinoza	Rene	2/21/2018	Email
Esquivel	Michael	3/9/2018	Email
Esquivel	Michael	3/8/2018	Email
Esquivel	Michael	2/27/2018	Email
Esquivel	Michael	2/16/2018	Email
Essenburg	Austin	3/8/2018	Email
Estes	Steve	3/9/2018	Email
Estes	Steve	2/16/2018	Email
Estis	Brenda	2/16/2018	Email
Estrada	Omar	3/9/2018	Email
Estrada	Omar	3/8/2018	Email
Etienne	Glenn	2/21/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Evans	Sandra	2/16/2018	Email
Evans	Stephen	2/16/2018	Email
Everest	Deena	2/21/2018	Email
Everest	Deena	3/9/2018	Email
Everett	Mark	3/6/2018	Email
Fairchild	James	3/8/2018	Email
Fairchild	James	2/16/2018	Email
Fajardo	Eduardo	2/27/2018	Email
Fanks	David	2/27/2018	Email
Faour	Joud	3/2/2018	Email
Farias	Joe	3/8/2018	Email
Farias	Roy	2/27/2018	Email
Farmer	James	3/9/2018	Email
Farra	John	3/9/2018	Email
Fava	Sheryl	3/9/2018	Email
Fawcett	Ian	3/9/2018	Email
Fayemiwo	Ed D.	2/25/2018	Email
Fears	Christopher	3/9/2018	Email
Fears	Christopher	2/16/2018	Email
Feist	LeRoy	3/8/2018	Email
Feist	LeRoy	2/28/2018	Email
Feist	LeRoy	2/17/2018	Email
Fell	Jason	2/27/2018	Email
Fellows	Ferrell	3/9/2018	Email
Fernandez	Antonio	2/25/2018	Email
Fernandez	Nune	2/16/2018	Email
Fernandez	Omar	3/8/2018	Email
Feronti	Gene	2/27/2018	Email
Ferry	David	2/28/2018	Email
Fesperman	William	2/16/2018	Email
Fetzer	Nelda	3/8/2018	Email
Fetzer	Neda	2/16/2018	Email
Fiallos	Gerardo	2/16/2018	Email
Fiallos	Retardo	2/21/2018	Email
Fidler	Marinell	2/16/2018	Email
Filipovich	Karina	2/21/2018	Email
Finamore	Peter	3/2/2018	Email
Finch	Dennis	2/17/2018	Email
Fine	Brenda	3/8/2018	Email
Fine	Glen	3/8/2018	Email
Fine	Glen	3/5/2018	Email
Fink	Ron	2/27/2018	Email
Fish	Jeffrey	2/27/2018	Email
Fish	Douglas	3/3/2018	Email
Fitzgibbons	Colin	3/8/2018	Email
Fjetland	Michael	2/21/2018	Email
Fleming	Jim	3/8/2018	Email
Fletcher	Melissa	2/27/2018	Email
Fletcher	Winnie	2/27/2018	Email
Fleury	Peter	3/9/2018	Email
Fleury	Peter	2/27/2018	Email
Flick	Daniel	3/8/2018	Email
Flick	Daniel	2/27/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Flick	Daniel	2/16/2018	Email
Flook	Tyler	2/16/2018	Email
Flores	Aaron	3/1/2018	Email
Flores	Christian	2/27/2018	Email
Flores	Christian	2/16/2018	Email
Flores	David	2/16/2018	Email
Flores	Michael	2/27/2018	Email
Flores	Michael	2/27/2018	Email
Flores	Sylvia	3/4/2018	Email
Floyd	Shelly	3/8/2018	Email
Flynn-White	Dresdene	3/9/2018	Email
Foltz	Justin	3/9/2018	Email
Forbus	Arthur	3/9/2018	Email
Forbus	Arthur	2/27/2018	Email
Forbus	Arthur	2/21/2018	Email
Fordan	Richard	3/5/2018	Email
Fordan	Richard	2/19/2018	Email
Foreman	Gary	2/23/2018	Email
Forrest	Larry	2/27/2018	Email
Foster	Stephen	3/9/2018	Email
Foster	William	3/8/2018	Email
Foster	William	3/1/2018	Email
fowler	Andrew	3/2/2018	Email
Fowler	Sam	3/4/2018	Email
Fowler	Taylor	3/5/2018	Email
Fox	Leslie	2/17/2018	Email
Fox	Leslie	3/9/2018	Email
Frank	Russ	2/16/2018	Email
Frankek	Andrew	3/9/2018	Email
Frankel	Andrew	3/8/2018	Email
Frankel	Andrew	2/16/2018	Email
Frankowski	James	3/4/2018	Email
Frankowski	James	3/9/2018	Email
Frankowski	James	2/6/2018	Email
Franks	David	3/9/2018	Email
Franks	David	2/17/2018	Email
Franks	Robert	3/9/2018	Email
Frederick	Lori	2/19/2018	Email
Frederick	Marilyn	2/16/2018	Email
Fredi	Jonathan	2/19/2018	Email
French	B	3/8/2018	Email
Fretwell	Patsy	2/27/2018	Email
Friedman	Brad	3/9/2018	Email
Friedman	Brad	2/17/2018	Email
Frillot	Jeffery	2/21/2018	Email
Frilot	Jeff	2/16/2018	Email
Fronczek	Paul	2/27/2018	Email
Frye	Robin	2/27/2018	Email
Frye	Robin	2/20/2018	Email
Fulghum	Dan	3/9/2018	Email
Fuller	Mitchell	3/9/2018	Email
Funez	Karen	3/9/2018	Email
Fung	Kelly	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Gabbiani	Fabrizio	2/17/2018	Email
Gabbiani	Fabrizio	2/21/2018	Email
Gage	William	2/22/2018	Email
Gage	William	2/27/2018	Email
Gajera	Prashant	3/6/2018	Email
Gallagher	Margaret	3/9/2018	Email
Gallardo	Bryan	3/6/2018	Email
Gamboa	Cristian	3/9/2018	Email
Gamboa	Cristian	2/16/2018	Email
Gann	Clayton	3/9/2018	Email
Ganson	Robert	3/8/2018	Email
Ganson	Robert	2/16/2018	Email
Ganson	Diane	2/22/2018	Email
Ganter	Garland	2/22/2018	Email
Gantt	Carmen	3/9/2018	Email
Garay	Angel	3/9/2018	Email
Garbarino	Steven	3/9/2018	Email
Garbarino	Steven	2/27/2018	Email
Garcia	Alonzo	2/18/2018	Email
Garcia	Cesar	2/27/2018	Email
Garcia	Christopher	3/8/2018	Email
garcia	Fabian	3/9/2018	Email
garcia	Gus	2/16/2018	Email
Garcia	Jerry	2/21/2018	Email
Garcia	Jose	3/8/2018	Email
Garcia	Jose	2/27/2018	Email
Garcia	Josephine	3/8/2018	Email
Garcia	Josephine	2/27/2018	Email
Garcia	Lillianne	2/16/2018	Email
Garcia	Nora	2/16/2018	Email
Garcia	Pedro	3/6/2018	Email
Garcia	Ricardo	3/5/2018	Email
Garcia	Sammy	3/8/2018	Email
Garcia	Sylvia	3/8/2018	Email
Garcia	Wayne	3/9/2018	Email
Garcia	Wayne	2/16/2018	Email
Garcia	Emmanuel	3/5/2018	Email
Gardner	Brian	3/9/2018	Email
Garner	Cathleen	3/9/2018	Email
Garner	Cathleen	2/27/2018	Email
Garner	Cathleen	2/21/2018	Email
Garner	David	3/8/2018	Email
Garner	David	2/16/2018	Email
Garner	James	3/8/2018	Email
Garrett	Ben	3/9/2018	Email
Garrett	Ben	2/16/2018	Email
Garrett	Randy	3/8/2018	Email
Garrison	Curtis	3/9/2018	Email
Garvey	Charles	2/17/2018	Email
Gary	Bartlett	3/9/2018	Email
Garza	Leslie	3/7/2018	Email
Garza	Storme	2/20/2018	Email
Garza	Eric	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Gaspard	Jacques	2/27/2018	Email
Gates	Bill	3/8/2018	Email
Gates	Bill	2/27/2018	Email
Gatson	Amos	2/22/2018	Email
Gay	William	2/27/2018	Email
Gay	Donald	3/9/2018	Email
Gay	Donald	2/27/2018	Email
Gaytan	Felix	3/9/2018	Email
Geiger	Tara	3/9/2018	Email
Geisler	Brett	2/27/2018	Email
Geisler	Eric	3/9/2018	Email
Gentile	Joseph	3/2/2018	Email
Gentry	Reed	3/8/2018	Email
Gentry	Reed	2/27/2018	Email
Gerga	Nicholas	3/2/2018	Email
German	Elizabeth	2/21/2018	Email
Geske	Matthew	2/27/2018	Email
Geyer	David	2/27/2018	Email
Gholizdeh	Neda	2/16/2018	Email
Gibb	Chris	2/16/2018	Email
Gibbons	Kimberley	2/16/2018	Email
Gibbons	Mary Chris	3/4/2018	Email
Gibson	Julia	3/9/2018	Email
Giesler	Monica	2/27/2018	Email
Gilardi	Benjamin	2/27/2018	Email
Gilbert	Jeff	3/9/2018	Email
Gilbert	Jeff	3/8/2018	Email
Giles	James	3/9/2018	Email
Giles	Jim	2/27/2018	Email
Gilligan	Dan	2/21/2018	Email
Gilmore	Ashley	3/8/2018	Email
Gilmore	Renee	3/9/2018	Email
Gini	Pablo	3/5/2018	Email
Giordano	Matthew	3/9/2018	Email
Giordano	Matthew	2/16/2018	Email
Giovanetti	Tom	3/3/2018	Email
Gips	Lilia	3/8/2018	Email
Gist	Mark	2/21/2018	Email
Gladstone	Lori	2/16/2018	Email
Glass	David	3/8/2018	Email
Glass	Diane	2/27/2018	Email
Glasscock	Daivd	3/9/2018	Email
Glassmoyer	Susan	3/9/2018	Email
Gleason	Blake	2/27/2018	Email
Gleason	Sherry	2/16/2018	Email
Gligorova	Marija	2/21/2018	Email
Gligorova	Marija	3/9/2018	Email
Gligorova	Marija	2/16/2018	Email
Glover	Kiah	3/8/2018	Email
Godwin	Keith	2/21/2018	Email
Goldberg	Larry	2/16/2018	Email
Goldberg	Lawrence	3/9/2018	Email
Goldin	Casey	2/22/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Goldstein	Leah	3/9/2018	Email
gomez	jorge	2/18/2018	Email
gomez	Jose	3/2/2018	Email
Gonzales	Brenda	3/9/2018	Email
Gonzales	Brenda	3/8/2018	Email
Gonzales	Mike	2/18/2018	Email
Gonzales	Noelle	2/27/2018	Email
Gonzales	Oscar	3/9/2018	Email
Gonzales	Shirley	3/9/2018	Email
Gonzalez	Cheryl	3/9/2018	Email
Gonzalez	Elijah	2/22/2018	Email
Gonzalez	Hector	2/16/2018	Email
Gonzalez	Jose	3/7/2018	Email
Gonzalez	Luciano	2/27/2018	Email
Gonzalez	Emilio	3/3/2018	Email
Gonzalez	Eric	3/9/2018	Email
Gonzalez	Eric	2/16/2018	Email
Goode	Natasha	3/5/2018	Email
goodfriend	gary	2/27/2018	Email
Goostree	Thomas	3/9/2018	Email
Gordillo	Greg	3/9/2018	Email
Gordillo	Greg	2/24/2018	Email
Gordillo	Greg	2/22/2018	Email
Gordon	Michael	3/8/2018	Email
Gornet	David	2/22/2018	Email
Gosa	Danna	2/27/2018	Email
Goulet	justin	3/3/2018	Email
Grady	Richard	3/8/2018	Email
Graf	Karl	2/27/2018	Email
Graham	Janice	2/16/2018	Email
Graham	Lauren	3/9/2018	Email
Grainer	PE	2/27/2018	Email
Grainger	Steven	3/9/2018	Email
Grainger	Steven	2/16/2018	Email
Granger	Desmond	2/23/2018	Email
Graves	Nathanie	3/4/2018	Email
Graves	Zach	3/8/2018	Email
Green	louis	2/27/2018	Email
Green	Louis	2/16/2018	Email
Green	Mike	3/8/2018	Email
Green	Wilbert	3/9/2018	Email
Greenan	John	3/5/2018	Email
Greenan	Lorena	3/7/2018	Email
Greene	Terence	2/21/2018	Email
Greene	Terence	3/9/2018	Email
Greene	Terence	3/8/2018	Email
Greene	Terence	2/16/2018	Email
Greenshield	William	3/9/2018	Email
Greenwell	Brad	3/3/2018	Email
Greer-Brumbaugh	Jeannette	2/21/2018	Email
Greer-Brumbaugh	Jeannette	2/27/2018	Email
Gregory	Dalton	3/9/2018	Email
Grein	David	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Gremm	Judye	3/4/2018	Email
Grieve	Shane	3/6/2018	Email
Griffin	Jim	3/9/2018	Email
Griggs	Martin	2/18/2018	Email
Grimes	Adrian	3/9/2018	Email
Grimwood	Kathryn	3/9/2018	Email
Grindstaff	Elizabeth	3/8/2018	Email
Grindstaff	Elizabeth	3/5/2018	Email
Griswold	Charles	3/9/2018	Email
Griswold	Charles	3/8/2018	Email
Griswold	Charles	2/16/2018	Email
Groom	Thomas	3/4/2018	Email
Grubbs	David	3/4/2018	Email
Gruffat	Jean	2/16/2018	Email
Guerra	Dennis	2/16/2018	Email
Guerrero	David	3/1/2018	Email
guerrero	Leonides	3/7/2018	Email
Guest	Kim	3/9/2018	Email
Guest	Kimberly	2/19/2018	Email
Guevara	Andrew	2/27/2018	Email
Guillen	Timothy	2/16/2018	Email
gunn	Frank	3/9/2018	Email
gunn	Frank	3/8/2018	Email
Gunter	Dana	3/9/2018	Email
Gutierrez	David	2/21/2018	Email
Gutierrez	David	2/21/2018	Email
Gutierrez	Daniel	3/8/2018	Email
Gutierrez	Ezequiel	2/23/2018	Email
Gutierrez	Ray	3/9/2018	Email
Gutierrez	Violeta	2/27/2018	Email
Guyette	Rachel	3/3/2018	Email
Guyton	Elizabeth	2/27/2018	Email
GUZMAN	JESUS	3/8/2018	Email
Guzman	Sergio	3/2/2018	Email
Haase	Stephanie	3/9/2018	Email
Hacas	Linda	2/16/2018	Email
Hagan	Cynthia	3/9/2018	Email
Hagan	Cynthia	2/16/2018	Email
Hagwood	Jamie	2/27/2018	Email
Hagwood	Jamie	2/18/2018	Email
Hagwood	Sheri	3/8/2018	Email
Haight	Richard	3/8/2018	Email
Haight	Richard	2/16/2018	Email
Haile	Howard	3/9/2018	Email
Haile	Howard	3/9/2018	Email
Haile	Howard	3/9/2018	Email
Haile	Howard	3/8/2018	Email
Haines	Matthew	3/8/2018	Email
Haines	Doris	3/8/2018	Email
Hajduk	Michael	2/27/2018	Email
Hajek	Anton	3/8/2018	Email
Hajek	Anton	2/27/2018	Email
Hale	Jonathan	3/7/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Hale	Jonathan	2/20/2018	Email
Haley	Alicia	2/27/2018	Email
Haley	Alicia	2/27/2018	Email
Haliburton	John	3/6/2018	Email
Hall	Capleton	3/3/2018	Email
Hall	Daniel	3/3/2018	Email
Hall	Geoffrey	2/21/2018	Email
Hall	Lott	2/16/2018	Email
Hall	Rebecca	3/8/2018	Email
Hall	Sandra	2/9/2018	Email
Hall	Debrah	2/27/2018	Email
Hamburg	Zack	3/9/2018	Email
Hamburg	Zack	3/5/2018	Email
Hamilton	Mike	3/9/2018	Email
Hamilton	Samuel	3/9/2018	Email
Hammock	John	3/8/2018	Email
Hammock	John	2/27/2018	Email
Hampton	John	2/27/2018	Email
Hancock	James	2/16/2018	Email
Hankey	Brian	3/8/2018	Email
Hanley	Joseph	2/22/2018	Email
Hanna	Kevin	3/6/2018	Email
Hannon	William	3/6/2018	Email
Hannon	William	3/3/2018	Email
Harbour	Bronwen	2/23/2018	Email
Hardin	William	2/16/2018	Email
Harding	Ryan	2/16/2018	Email
Hardwick	Randall	3/9/2018	Email
Hardwick	Randall	3/6/2018	Email
Hargrove	Christina	2/16/2018	Email
Harlan	Leslie	3/9/2018	Email
Harmon	Lauren	3/4/2018	Email
Harmon	Timothy	3/4/2018	Email
Harn	Hayden	3/8/2018	Email
Harper	Andrew	2/27/2018	Email
Harper	Andrew	2/20/2018	Email
Harper	Thomas	2/16/2018	Email
Harrigton	Megan	2/26/2018	Email
harris	Judy	3/9/2018	Email
HARRIS	JUDY	2/21/2018	Email
Harris	Luther	2/16/2018	Email
Harris	Rhonda	2/16/2018	Email
Harris	Staney	2/16/2018	Email
Harrison	Edward	3/9/2018	Email
Harris-Rice	Martha	2/21/2018	Email
Harris-Rice	Martha	3/9/2018	Email
Harris-Rice	Martha	2/16/2018	Email
Harscher	Frank	3/9/2018	Email
Hart	Carol	2/16/2018	Email
Hart	Michael	3/8/2018	Email
Hartman	Richard	3/9/2018	Email
Hartung	Douglas	3/5/2018	Email
Hasan	Muhammad	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Hasan	Muhammad	2/16/2018	Email
Haskell	Andrew	2/27/2018	Email
Hatchett	Chrystal	2/21/2018	Email
Hathcock	Judy	3/9/2018	Email
Hatten	Nathaniel	3/3/2018	Email
Haun	Allison	2/27/2018	Email
Haveman	Suzanne	2/27/2018	Email
Hawkins	D	2/19/2018	Email
Hawley	Becky	3/9/2018	Email
Haworth	Julie	3/9/2018	Email
Hayden	Rachel	2/16/2018	Email
Hayes	Jim	2/21/2018	Email
Haynes	Janes	3/9/2018	Email
Haynie	Blair	3/8/2018	Email
Hays	Mark	3/9/2018	Email
Hays	Mark	2/27/2018	Email
Head	Cliff	3/9/2018	Email
Heffernan	Jeremy	3/3/2018	Email
Heikkila	Shannon	2/19/2018	Email
Heil	Maryann	3/5/2018	Email
Heinz	Jo	2/19/2018	Email
Held	Heather	3/9/2018	Email
Held	Meredith	3/9/2018	Email
Held	Meredith	2/16/2018	Email
Heller	Monica	3/9/2018	Email
Helm	Chase	2/16/2018	Email
Henderson	Brenda	3/9/2018	Email
Henderson	Marian	2/21/2018	Email
HENDERSON	MARIAN	2/27/2018	Email
Henderson	Tammy	2/16/2018	Email
Henke	Beth	3/8/2018	Email
Hennessy	Tracy	2/16/2018	Email
Henning	Dennis	3/8/2018	Email
Henry	Jeff	2/19/2018	Email
Herd	Charles	2/27/2018	Email
Heredia	Rebecca	2/27/2018	Email
Herman	Jenny	3/9/2018	Email
hernandez	Antonio	3/5/2018	Email
Hernandez	Guillermo	3/9/2018	Email
Hernandez	Jaime	3/8/2018	Email
Hernandez	Jimmy	3/9/2018	Email
Hernandez	Jimmy	2/16/2018	Email
Hernandez	Pedro	3/9/2018	Email
Hernandez	Pedro	3/8/2018	Email
Herrera	Juan	2/27/2018	Email
Herrera	Luis	2/16/2018	Email
Hess	Gary	3/9/2018	Email
Hess	Gary	3/5/2018	Email
Heuchert	Mark	2/27/2018	Email
heyne	Fred	3/8/2018	Email
Heyne	Monica	3/1/2018	Email
Hice	Robert	3/1/2018	Email
Hickerson	Sander	2/27/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Hickey	Robert	2/21/2018	Email
Hickey	Robert	3/9/2018	Email
Hicks	Robert	2/22/2018	Email
Higgs	Leonard	2/22/2018	Email
Higgs	Leonard	3/1/2018	Email
Hight	Casey	3/8/2018	Email
Hight	Casey	2/21/2018	Email
Hilburn	Terry	3/8/2018	Email
Hildbrandt	Heathr	3/8/2018	Email
Hill	Marcus	3/8/2018	Email
Hill	Rod	3/9/2018	Email
Hill	Rod	2/21/2018	Email
Hillegeist	Bruce	2/19/2018	Email
Hinch	Crystal	3/9/2018	Email
Hinch	Crystal	2/16/2018	Email
Hinchliffe	Sundee	3/9/2018	Email
Hinds	Jenny	3/4/2018	Email
Hinkley	Sara	3/8/2018	Email
Hinostroza	Aaron	3/9/2018	Email
Hoag	John	2/21/2018	Email
Hoecherl	Karen	2/21/2018	Email
Hoff	Daniel	2/20/2018	Email
Hoffman	Hayden	2/27/2018	Email
Hoffman	Robert	3/8/2018	Email
Hoffmann	Alan	3/9/2018	Email
Hojel	Richard	2/19/2018	Email
Hoke	Greg	2/16/2018	Email
Hoke	Gregory	3/8/2018	Email
Hoke	John	2/27/2018	Email
Holcomb	Joi	3/4/2018	Email
Holifield	Charles	2/27/2018	Email
Holland	Keith	3/9/2018	Email
Hollas	Brad	3/8/2018	Email
Hollins	Wilton	2/27/2018	Email
Hollins	Wilton	2/16/2018	Email
Hollman	Mary	2/18/2018	Email
Holmes	Harold	2/27/2018	Email
Holmes	Rod	2/27/2018	Email
Holmes	Rod	3/9/2018	Email
Holmes	Stephen	3/9/2018	Email
Holmes	Stephen	2/16/2018	Email
Holzwarth	Carl	3/9/2018	Email
Honore	Michael	2/16/2018	Email
Hood	Frank	2/16/2018	Email
Hooper	Sam	3/5/2018	Email
Hoover	Savanna	2/27/2018	Email
Hope	Dylan	3/3/2018	Email
Hopkins	Troy	3/8/2018	Email
Hopkins	Troy	2/21/2018	Email
Hopson	Ryan	3/9/2018	Email
Hord	Douglas	2/22/2018	Email
Hord	Douglas	3/8/2018	Email
Hord	Douglas	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Horn	Tyler	3/6/2018	Email
Horton	Gary	3/9/2018	Email
Horvath	Kathleen	3/7/2018	Email
Hossain	Syeed	3/5/2018	Email
Hotz	Matthew	3/8/2018	Email
Houghton	Andrew	2/27/2018	Email
Houghton	Andrew	2/16/2018	Email
Houghton	Andrew	2/22/2018	Email
Houghton	Kimberly	2/27/2018	Email
Houston	Blanca	3/9/2018	Email
Howard	Eric	2/16/2018	Email
Howe	Lori	3/9/2018	Email
Howley	Suzanne	2/27/2018	Email
Hoyt	Austin	2/27/2018	Email
Hoyt	Austin	2/16/2018	Email
Hoyt	Felicity	3/9/2018	Email
Hoyt	Felicity	2/16/2018	Email
Hoyt	Michael	3/2/2018	Email
Hoyt	Michael	2/19/2018	Email
Hoyt	Misty	3/9/2018	Email
Hoyt	Misty	2/17/2018	Email
Hubbard	James	2/21/2018	Email
Huckaby	Gary	3/8/2018	Email
Huckaby	Gary	2/27/2018	Email
Huckaby	Gary	2/16/2018	Email
Hudson	James	3/9/2018	Email
Hudson	Scott	2/28/2018	Email
Hudson	Warren	3/2/2018	Email
Huerta	Jonathan	3/9/2018	Email
Huerta	Jonathan	3/4/2018	Email
Huey	Jimmy	3/9/2018	Email
Huey	Jimmy	3/8/2018	Email
Huey	Jimmy	2/27/2018	Email
Huffines	Ray	3/8/2018	Email
Huffines	Ray	2/16/2018	Email
Hugelen	Kiersten	2/16/2018	Email
Hughes	LaKeesh	3/9/2018	Email
Hughes	LaKeesh	2/27/2018	Email
Hughes	Ryan	3/2/2018	Email
Hughley	Stephen	2/16/2018	Email
Hull	Darryl	2/27/2018	Email
Hull	Jessie	2/16/2018	Email
Hullings	Greg	2/27/2018	Email
Hullings	Greg	2/16/2018	Email
Hume	William	3/7/2018	Email
Hummel	Don	3/2/2018	Email
Hummel	Donald	2/16/2018	Email
Hunda	Rais	3/3/2018	Email
Hungentobler	Jacob	2/28/2018	Email
Hunsicker	Scott	3/6/2018	Email
Hunt	Sean	2/16/2018	Email
HUNT	TAMARRA	2/21/2018	Email
Hunter	Hadley	2/28/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Hurst	Donald	2/22/2018	Email
Huston	Corey	2/27/2018	Email
Hutcheson	Randall	3/9/2018	Email
Hutcheson	Randall	3/1/2018	Email
Hutcheson	David	3/6/2018	Email
Hutchings	kathy	3/8/2018	Email
Hutchinson	Paul	3/9/2018	Email
Hutchinson	Paul	2/28/2018	Email
Hutchinson	Paul	2/16/2018	Email
Hutto	Robert	3/9/2018	Email
Huynh	Thanh	3/8/2018	Email
Huzarevich	Walter	3/8/2018	Email
Huzinec	Chris	2/24/2018	Email
Hyde	Ben	2/27/2018	Email
Ibrahim	Mohammad	2/21/2018	Email
Infante	Corrina	3/9/2018	Email
Invaco	Michael	2/16/2018	Email
Irby	Chelsea	3/8/2018	Email
Irby	Clayton	2/16/2018	Email
Ireland	Matthew	3/2/2018	Email
Irving	Michelle	3/9/2018	Email
Isbell	Andrew	2/25/2018	Email
Isensee	Clarence	3/9/2018	Email
Islam	Sohrab	3/8/2018	Email
Ivanov	Ivan	3/9/2018	Email
Jack	Mel	2/16/2018	Email
Jack	Mel	2/27/2018	Email
jackson	Claude	3/3/2018	Email
Jackson	George	2/27/2018	Email
Jackson	George	2/16/2018	Email
Jackson	Mabrie	2/16/2018	Email
Jackson	Shelli	3/9/2018	Email
Jackson	Shelli	2/27/2018	Email
Jackson	Shelli	2/16/2018	Email
Jackson	Sherry	3/9/2018	Email
Jackson	Steve	3/4/2018	Email
Jackson	Teresa	3/4/2018	Email
Jacob	Jerin	3/9/2018	Email
Jacob	Denny	3/9/2018	Email
Jacob	Denny	2/16/2018	Email
Jacobs	Karen	3/8/2018	Email
Jaeger	Michel	2/28/2018	Email
Jaikumar	Puttu	3/8/2018	Email
James	Lenny	3/9/2018	Email
James	Max	3/9/2018	Email
James	Max	2/26/2018	Email
janco	Howard	3/9/2018	Email
Jansonius	John	3/9/2018	Email
Jansonius	John	2/21/2018	Email
Jarmon	Amelia	3/4/2018	Email
Jasso	Joshua	2/21/2018	Email
Jasso	Joshua	2/17/2018	Email
Javelli	John	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Jean	James	3/9/2018	Email
Jen	Jeffrey	3/5/2018	Email
Jenista	George	3/8/2018	Email
Jenista	George	2/27/2018	Email
Jenista	George	2/17/2018	Email
Jenkins	Alistair	3/9/2018	Email
Jenkins	Davi	3/1/2018	Email
Jennings	Thomas	3/3/2018	Email
Jewell	Anthony	3/8/2018	Email
Jewell	Anthony	2/27/2018	Email
Jewell	Charles	3/8/2018	Email
Jhaveri	Satyen	2/27/2018	Email
Jobe	William	2/21/2018	Email
Jacobs	Karen	2/27/2018	Email
Joerger	Carl	2/27/2018	Email
John	Telfryn	2/27/2018	Email
John	Joseph	3/7/2018	Email
Johns	Brian	2/27/2018	Email
Johnson	Adam	2/16/2018	Email
Johnson	Andrew	2/16/2018	Email
Johnson	Anna	2/20/2018	Email
Johnson	Becky	3/5/2018	Email
Johnson	Bobby	3/9/2018	Email
Johnson	Bobby	2/16/2018	Email
Johnson	Bonita	2/16/2018	Email
Johnson	Bria	2/16/2018	Email
Johnson	Bonita	2/22/2018	Email
Johnson	Bobby	2/21/2018	Email
Johnson	Jason	2/16/2018	Email
Johnson	Johnnie's	2/16/2018	Email
Johnson	Karen	2/19/2018	Email
Johnson	Karlanette	2/16/2018	Email
Johnson	Kim	2/16/2018	Email
Johnson	Kimberly	3/8/2018	Email
Johnson	Nicole	3/8/2018	Email
Johnson	Patricia	3/9/2018	Email
Johnson	Roderick	3/9/2018	Email
Johnson	Roderick	2/16/2018	Email
Johnson	Seth	2/27/2018	Email
Johnson	Todd	2/22/2018	Email
Johnson	Doug	2/17/2018	Email
Johnson-Weeks	Amber	2/22/2018	Email
Johnston	Christopher	3/9/2018	Email
Johnston	Christopher	2/27/2018	Email
Johnston	Robert	2/28/2018	Email
Joiner	Paricia	3/8/2018	Email
jolly	Amy	2/16/2018	Email
Jolly	Jamee	2/19/2018	Email
Jones	Ed	2/21/2018	Email
Jones	Jared	3/1/2018	Email
Jones	Jessica	3/9/2018	Email
Jones	Jessica	2/16/2018	Email
Jones	Katrina	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Jones	Katrina	2/16/2018	Email
Jones	Marilyn	3/9/2018	Email
Jones	Michael	3/9/2018	Email
Jones	Michael	2/27/2018	Email
Jones	Sarah	2/27/2018	Email
Jones	Shawn	2/16/2018	Email
Jones	Taylor	2/16/2018	Email
Jones	Ed	2/16/2018	Email
Jones	Edward	2/28/2018	Email
Jordan	Casey	3/9/2018	Email
Joseph	Santhosh	3/9/2018	Email
Joseph	Suresh	3/9/2018	Email
Joseph	Thomas	3/9/2018	Email
Joseph	Thomas	3/4/2018	Email
Joseph	Thomas	2/17/2018	Email
Joy	Christy	3/6/2018	Email
Juarez	Adrian	2/16/2018	Email
Juban	Christopher	3/8/2018	Email
Judith	Ashley	3/8/2018	Email
Juengling	Mark	3/5/2018	Email
Juengling	Mark	3/6/2018	Email
Juhasz	Andrew	3/8/2018	Email
Jullien	Jeanne	3/8/2018	Email
Jurrens	Melissa	3/4/2018	Email
Justice	Brennan	3/8/2018	Email
JUSTIS	Scott	2/17/2018	Email
Kadankodeputhenveedu	Revathy	3/9/2018	Email
Kadankodeputhenveedu	Revathy	3/9/2018	Email
Kahle	Scott	3/9/2018	Email
Kallman	Patricia	3/9/2018	Email
Kallman	Patricia	2/16/2018	Email
kama	Ketan	3/9/2018	Email
Kammerer	Scott	2/27/2018	Email
Kamp	Kellye	3/9/2018	Email
Karimi	Shamss	2/16/2018	Email
Katreddi	Srinivas	2/17/2018	Email
Kattchee	Phillip	3/5/2018	Email
Kaulitzke	Michelle	3/2/2018	Email
Kay	Natasha	2/28/2018	Email
Keever	Carmon	2/16/2018	Email
Keith	Mary	3/9/2018	Email
Keith	Mary	3/8/2018	Email
Keith	Mary	2/27/2018	Email
Keith	Edwin	2/27/2018	Email
Kelch	Panette	2/16/2018	Email
Keller	Jared	2/19/2018	Email
Kellermam	Wendy	2/22/2018	Email
Kelley	Jeffrey	3/2/2018	Email
Kelly	Dan	2/27/2018	Email
Kelly	Gary	3/8/2018	Email
KELLY	KAREN	3/9/2018	Email
Kelly	Matt	2/16/2018	Email
Kelly	Patricia	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Kelly	Quincy	3/9/2018	Email
Kelly	Shawn	2/21/2018	Email
Kelly	Shawn	3/9/2018	Email
Kelly	Shawn	2/16/2018	Email
Kelsh	Sandy	2/21/2018	Email
Kennedy	Brent	3/8/2018	Email
Kennedy	Kevin	2/19/2018	Email
Kennedy	Patrick	2/27/2018	Email
Kennedy	Patrick	2/16/2018	Email
Kennedy	Robert	3/9/2018	Email
Kennedy	Robert	3/9/2018	Email
Kennedy	Robert	3/9/2018	Email
Kennedy	Robert	3/9/2018	Email
Kennedy	Robert	3/9/2018	Email
Kennedy	Robert	3/9/2018	Email
Kennedy	Robert	3/9/2018	Email
Kenny	Marcus	3/7/2018	Email
Kent	Robert	2/21/2018	Email
Kentner	Kevin	3/4/2018	Email
Kenyon	Cynthia	2/19/2018	Email
Kerber	Robert	2/27/2018	Email
Kerr	Oliver	3/9/2018	Email
Kesani	Rakesh	3/9/2018	Email
Keshet	Dan	2/25/2018	Email
Keutzer	Denae	3/8/2018	Email
Khan	Farhan	3/9/2018	Email
Khan	Shayan	3/4/2018	Email
Kidwiler	Andrew	3/9/2018	Email
Kilgore	Ashley	3/4/2018	Email
Killian	Nick	2/18/2018	Email
Killion	Tyler	3/1/2018	Email
Kim	Kevin	3/9/2018	Email
Kim	Kevin	3/5/2018	Email
Kimble	Ryan	3/9/2018	Email
Kimbler	Jack	2/21/2018	Email
Kimme	Emili	2/27/2018	Email
King	Christopher	2/27/2018	Email
King	John	3/1/2018	Email
King	Karen	2/22/2018	Email
King	Karen	3/9/2018	Email
King	Karen	2/16/2018	Email
Kinney	Jonathan	3/9/2018	Email
Kinney	Jonathan	3/1/2018	Email
Kinsey	Shama	3/9/2018	Email
Kirchhofer	Emma	2/27/2018	Email
Kirk	Max	3/9/2018	Email
Kish	Jan	2/19/2018	Email
Kittle	Kim	3/8/2018	Email
Klaus	Kurt	3/9/2018	Email
Kleiderer	Patricia	2/24/2018	Email
Kleiderer	Patricia	3/8/2018	Email
Klein	Sam	3/4/2018	Email
Kleiner	David	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Klempay	Mark	2/27/2018	Email
Knapik	Jane	3/8/2018	Email
Kniep	William	3/3/2018	Email
Knight	John	3/8/2018	Email
knight	Robert	2/16/2018	Email
Knobbe	Stephen	3/8/2018	Email
Knoblock	Taylor	3/8/2018	Email
Knuston	JK	2/20/2018	Email
koch	Julian	3/9/2018	Email
koch	Julian	2/16/2018	Email
koen	Gary	2/27/2018	Email
koen	Gary	2/21/2018	Email
Koen	Rebecca	2/21/2018	Email
Koeninger	George	2/22/2018	Email
Kofstad	Caroline	3/8/2018	Email
Kofstad	Caroline	2/27/2018	Email
Kofstad	Caroline	2/19/2018	Email
Kokes	Kevin	2/16/2018	Email
Kolasinski	Sheryl	3/9/2018	Email
Koloini	Jessica	2/16/2018	Email
Korab	Calvin	3/3/2018	Email
Kostman	Cincha	3/8/2018	Email
Kowalczyk	George	3/4/2018	Email
Kowalczyk	George	2/16/2018	Email
kp	Revathy	2/16/2018	Email
Kramb	Linda	2/27/2018	Email
Kramer	Scott	3/9/2018	Email
Kramer	Susan	3/8/2018	Email
Krause	jacob	2/27/2018	Email
Kremen	Irina	3/5/2018	Email
Krenek	Edward	3/9/2018	Email
Kreusel	Andrew	2/27/2018	Email
Kroll	Charles	2/16/2018	Email
Kruger	Noah	3/8/2018	Email
Kruger	Noah	2/16/2018	Email
Kucinkas	Dennis	2/22/2018	Email
Kukla	Mark	2/16/2018	Email
Kupetz	Serge	2/16/2018	Email
Kurka	Terence	3/3/2018	Email
Kurt	Karen	3/9/2018	Email
Kuten	Samantha	2/28/2018	Email
Kwan	Joseph	3/4/2018	Email
Kwan	Nathan	2/21/2018	Email
Kwan	Nathan	3/9/2018	Email
Kwan	Nathan	2/27/2018	Email
Kwan	Nathan	2/16/2018	Email
Labay	Patrick	2/16/2018	Email
Labyer	Cristina	2/16/2018	Email
Lacari	Mark	2/21/2018	Email
Lackey	Kenzie	3/9/2018	Email
Laforest	Hansary	3/3/2018	Email
Lagow	Jeff	2/16/2018	Email
lairson	Mark	3/8/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
lairson	Mark	2/27/2018	Email
lairson	Mark	2/16/2018	Email
Lamb	Miranda	2/16/2018	Email
Lambert	Jason	2/16/2018	Email
Lambert	Joan	3/3/2018	Email
Lambert-Guesnard	Lucy	2/27/2018	Email
Lambert-Guesnard	Lucy	2/16/2018	Email
Landis	Renae	2/16/2018	Email
Landry	Charlene	3/9/2018	Email
Landry	Morgan	3/9/2018	Email
Lane	Bobby	3/8/2018	Email
Lane	Bobby	2/27/2018	Email
Lane	Bobby	2/22/2018	Email
Langley	Belinda	2/16/2018	Email
Lantier	Lawrence	2/16/2018	Email
LaPointe	Kyle	2/22/2018	Email
LaPointe	Scott	3/8/2018	Email
LaPointe	Scott	2/27/2018	Email
LaPointe	Scott	2/16/2018	Email
Lara	Joe	3/9/2018	Email
Laughton	Stuart	3/8/2018	Email
Laughton	Stuart	3/3/2018	Email
LaVigne	Laura	3/9/2018	Email
LaVigne	Laura	2/27/2018	Email
Lawhon	Thomas	3/8/2018	Email
Lawless	Jack	3/9/2018	Email
Lawless	Jack	2/16/2018	Email
Lawton	Tom	2/21/2018	Email
Lazarus	Harrison	3/6/2018	Email
Lazcano	Alfonso	2/18/2018	Email
Le	Truong	2/16/2018	Email
Leach	Brock	3/9/2018	Email
leach	Jr	2/17/2018	Email
Leal	Jesus	3/8/2018	Email
Leal	JESUS	3/3/2018	Email
Leal	Manuel G	3/9/2018	Email
Leal	David	3/4/2018	Email
LeBlanc	Matthew	3/9/2018	Email
LeBlanc	Matthew	2/28/2018	Email
LeBlanc	Matthew	2/22/2018	Email
Lebowitz	Constance	3/9/2018	Email
Lebowitz	Constance	3/6/2018	Email
Lebowitz	Constance	2/16/2018	Email
Lechon	Sharon	3/9/2018	Email
Lee	Shirley	3/9/2018	Email
Lee	Dwayne	2/27/2018	Email
Leehr	Jonathan	2/27/2018	Email
Lee-Roden	Deborah	2/26/2018	Email
Lefebvre	Michael	3/3/2018	Email
Lefferd	Wayne	3/9/2018	Email
Lefferts	Marshall	2/21/2018	Email
Leftwich	Mazie	2/19/2018	Email
Legeay	Odile	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Leger	Byron	2/21/2018	Email
LeGrue	Giles	3/9/2018	Email
LeGrue	Giles	2/16/2018	Email
Leidy	Don	3/8/2018	Email
Lemp	Jacquelyn	2/16/2018	Email
Lemp	Pamela	2/17/2018	Email
Leon	Christian	3/9/2018	Email
Lessmann	Juan	3/1/2018	Email
Lester	Oran	3/9/2018	Email
Levatino	Steven	3/9/2018	Email
Leverett	Mark	2/27/2018	Email
LEVINE	LARRY	2/21/2018	Email
Levy	Avishai	2/21/2018	Email
Levy	Steven	2/27/2018	Email
Lewis	Barney	3/3/2018	Email
Lewis	Blair	3/1/2018	Email
Lewis	Gale	2/27/2018	Email
Lewis	Marty	3/8/2018	Email
Leyva	Lupe	3/5/2018	Email
LiBretto	John	3/8/2018	Email
LiBretto	John	2/27/2018	Email
LiBretto	John	2/16/2018	Email
Licon	Jesus	2/27/2018	Email
Liczkowski	Voitek	2/27/2018	Email
Light	Nathan	3/1/2018	Email
Lillie	Freddie	2/16/2018	Email
Lily	Christian	3/6/2018	Email
Lim	Kimheang	3/9/2018	Email
limon	Juan	3/9/2018	Email
Lin	Richard	3/8/2018	Email
Lin	Richard	2/18/2018	Email
Lindley	Charles	2/27/2018	Email
Lindsay	Jeremy	2/16/2018	Email
Linn	Brian	3/8/2018	Email
Lister	Paul	2/27/2018	Email
Lister	Paul	2/16/2018	Email
Little	Stormi	3/9/2018	Email
Liucci	Dolores	3/9/2018	Email
Liucci	Dolores	2/16/2018	Email
Livingston	Joe	3/9/2018	Email
Lloyd	Scott	3/9/2018	Email
Lodge	David	2/16/2018	Email
Logan	Catherine	3/9/2018	Email
Loggins	DJ	3/8/2018	Email
Lollar	Shelby	3/9/2018	Email
Lomboy	Ryback	2/16/2018	Email
Long	Briggs	2/27/2018	Email
LONG	HUNTER	3/9/2018	Email
LONG	Hunter	2/16/2018	Email
Long	David	2/19/2018	Email
Long	Briggs	3/8/2018	Email
longridge	Alan	3/6/2018	Email
Lonon	Teolinda	3/5/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Lopez	Danny	2/22/2018	Email
Lopez	Danny	2/27/2018	Email
Lopez	Fernando	2/27/2018	Email
Lopez	Justin	3/5/2018	Email
Lopez	Marco	3/8/2018	Email
Lorena	Bernado	3/8/2018	Email
Loteryman	Tristan	2/16/2018	Email
Loutchanioff	Michel	3/4/2018	Email
Love	Bonita	3/8/2018	Email
Loving	Cathleen	2/27/2018	Email
Loving	Dennis	3/4/2018	Email
Lowe	James	3/5/2018	Email
Lowe	Kary	2/27/2018	Email
Lowe	Kris	3/8/2018	Email
Lozada	Agustin	3/1/2018	Email
Lozano	Aaron	3/3/2018	Email
Lozano	Aaron	3/1/2018	Email
Lu	Phuong	3/6/2018	Email
Lu	Po-Chu	3/9/2018	Email
Lucas	Keith	3/9/2018	Email
Lucas	Ronald	3/8/2018	Email
Luce	Kevin	2/27/2018	Email
Luckey	Ryan	3/1/2018	Email
Luebeck	Ken	3/9/2018	Email
Lugo	Chicky	3/9/2018	Email
Lugo	Christine	3/9/2018	Email
Lutz	Ken	2/16/2018	Email
Lutz	David	2/27/2018	Email
Lutz	David	2/16/2018	Email
Luzania	Travis	2/27/2018	Email
Lynch	Freddie	3/9/2018	Email
Lynch	Kolan	2/21/2018	Email
Lynch	Marilyn	3/9/2018	Email
Lynch	Stanford	2/19/2018	Email
LYNES	Kryisia	3/8/2018	Email
Lynes	Kryisia	2/17/2018	Email
Lynn	Rick	3/4/2018	Email
Maberry	Kay	2/21/2018	Email
Macedo	Aide	3/9/2018	Email
Mackenzie	Alfred	3/8/2018	Email
Maddox	Andrew	2/17/2018	Email
Maddox	Jacob	3/8/2018	Email
Madison	Kyle	2/27/2018	Email
Madison	Kyle	2/16/2018	Email
Maese	Shannon	3/9/2018	Email
Magallanes	Irene	3/9/2018	Email
Magallanes	Irene	3/2/2018	Email
Mahmood	Akeel	2/16/2018	Email
Malik	Saeed H	2/17/2018	Email
Malm---PE	Marvin	2/27/2018	Email
Malone	Rob	2/16/2018	Email
Maloney	Harvey	3/9/2018	Email
Malouf	Carter	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Malouf	Carter	3/9/2018	Email
Malouf	Carter	2/19/2018	Email
Malouf	Carter	2/19/2018	Email
Malouf	Carter	2/16/2018	Email
Malouf	Jill	3/2/2018	Email
Malvern	Kevin	3/8/2018	Email
MaMaster	Marlin	3/9/2018	Email
Manaster	Rex	3/9/2018	Email
Manetta	Betty	3/8/2018	Email
Mangum	Walker	2/16/2018	Email
Mann	Christopher	2/21/2018	Email
Manning	Nicki	3/8/2018	Email
Manuel	Roshan	2/27/2018	Email
Marcus	Jarod	3/8/2018	Email
Margolies	Paul	2/27/2018	Email
Margolis	Kevin	2/28/2018	Email
Marmon	Stephen	3/8/2018	Email
Marmor	Marcella	3/9/2018	Email
Marquez	Noel	3/1/2018	Email
Marsh	Charles	2/16/2018	Email
Marshall	Darin	3/8/2018	Email
Marshall	Darin	3/3/2018	Email
Marshall	Darin	2/18/2018	Email
Marshall	Susie	2/27/2018	Email
Marshall	Douglas	3/9/2018	Email
Martelo	Jairo	3/9/2018	Email
Marter	Dawn	2/16/2018	Email
Martin	Aaron	3/1/2018	Email
Martin	Hunter	3/7/2018	Email
Martin	Liam	3/8/2018	Email
Martin	Reginald	3/1/2018	Email
Martin	Robert	3/2/2018	Email
Martin	Robert	2/27/2018	Email
Martin	Will	3/8/2018	Email
Martin	Will	2/27/2018	Email
Martin	Laramie	2/20/2018	Email
Martinek	Bernard	2/27/2018	Email
Martinek	Bernard	2/16/2018	Email
Martinez	Carmen	2/21/2018	Email
Martinez	Fabian	3/9/2018	Email
Martinez	Joshua	3/9/2018	Email
Martinez	Joshua	3/7/2018	Email
Martinez	Kimberly	3/6/2018	Email
Martinez	Miguel	3/9/2018	Email
Martinez	Norma	3/7/2018	Email
Martinez	Rick	3/8/2018	Email
Martinson	Mercedes	2/16/2018	Email
Mason	Willis	3/5/2018	Email
Mason	Willis	3/3/2018	Email
Mason	Willis	2/16/2018	Email
Mass	Curtis	3/3/2018	Email
Mass	Curtis	3/3/2018	Email
Mass	Curtis	2/24/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Massey	Rachel	2/19/2018	Email
Masters	Skip	3/9/2018	Email
Masterson	Conrad	2/18/2018	Email
Masterson	Ellen	3/3/2018	Email
mata	Carlos	3/2/2018	Email
Mathis	James	3/9/2018	Email
Matteucci	Brian	3/8/2018	Email
Matthews	John	3/9/2018	Email
Matthews	John	3/6/2018	Email
Matute	Nelson	3/2/2018	Email
Max	Alisa	2/21/2018	Email
MAYS	JAMES	2/27/2018	Email
McAfee	Jan	2/27/2018	Email
McAfee	Jan	2/25/2018	Email
McAuliffe	Daniel	3/8/2018	Email
McAuliffe	Daniel	3/8/2018	Email
McCall	Autumn	3/9/2018	Email
McCall	Brandon	3/8/2018	Email
McCall	Carly	2/20/2018	Email
McCall	Victor	3/9/2018	Email
McCann	Frank	3/9/2018	Email
McCarter	Louis	2/27/2018	Email
McCartney	Shauna	2/27/2018	Email
McClellan	George	3/9/2018	Email
McClellan	George	3/8/2018	Email
McClellan	George	2/27/2018	Email
McClellan	George	2/16/2018	Email
McCowan	Curtistene	3/9/2018	Email
McCoy	Louise	3/9/2018	Email
McCoy	Tommy	2/16/2018	Email
McCuien	Sascha	3/2/2018	Email
McCuien	Sascha	2/16/2018	Email
Mcdaniel	Lance	2/17/2018	Email
Mcdaniel	Renee	3/4/2018	Email
McDermott	Jenn	3/9/2018	Email
McDonald	Eugenia	2/27/2018	Email
McElfresh	Mike	3/9/2018	Email
McElligott	Joseph	2/16/2018	Email
McElroy	Frank	2/22/2018	Email
McEwan	Tanner	2/22/2018	Email
McFarland	Grady	2/27/2018	Email
McFarland	Grdy	2/19/2018	Email
McFatter	Joe	3/9/2018	Email
McFatter	Joe	3/8/2018	Email
McGee	Colleen	3/5/2018	Email
McGinness	Teryn	3/9/2018	Email
Mcgough	Martin	2/27/2018	Email
McGuyer	Nicole	3/8/2018	Email
McGuyer	Nicole	2/27/2018	Email
Mchugh	Kelly	3/9/2018	Email
McIntosh	Todd	3/9/2018	Email
McIntyre	Jill	3/8/2018	Email
McKeever	MARY	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
McKenzie	Maxfield	2/16/2018	Email
McKerlie	Mitchell	2/21/2018	Email
McKerlie	Mitchell	3/8/2018	Email
McKinnon	Advocate	3/3/2018	Email
McLaughlin	Thomas	2/27/2018	Email
McManus	Paul	3/8/2018	Email
McManus	Paul	3/1/2018	Email
McNally	Michael	2/27/2018	Email
McPherson	Dustin	2/16/2018	Email
McTigue	Patrick	2/16/2018	Email
MD	Bijas	2/25/2018	Email
Meadows	Michael	3/8/2018	Email
meal	Susan	3/9/2018	Email
MEARS	Heather	2/27/2018	Email
Mears	Edward	3/8/2018	Email
Mecker	Hans	3/8/2018	Email
Mecker	Hans	2/27/2018	Email
Mecker	Hans	2/16/2018	Email
Mehta	Ishan	3/8/2018	Email
Mehta	Ishan	2/17/2018	Email
Mehta	Jaideep	2/21/2018	Email
Mehta	Jaideep	2/16/2018	Email
Mehta	Meena	2/21/2018	Email
Mehta	Meena	2/27/2018	Email
Mehta	Meena	2/16/2018	Email
Mehta	Pooja	2/21/2018	Email
Mehta	Pooja	3/8/2018	Email
Mehta	Pooja	2/27/2018	Email
Mehta	Pooja	2/16/2018	Email
Mehta	Rishaan	2/27/2018	Email
Mei	Xiaodong	3/7/2018	Email
Meintjes	Theo	2/21/2018	Email
Meintjes	Theo	3/9/2018	Email
Meintjes	Theo	2/16/2018	Email
Mejia	Sergio	3/8/2018	Email
Mellen	Barkley	3/8/2018	Email
Mellen	Barkley	3/2/2018	Email
Mendy	Nalasi	3/9/2018	Email
Menezes	Melvin	3/3/2018	Email
Menon	Angith	3/8/2018	Email
Menses	Gabriel	3/8/2018	Email
Merkle	Lance	3/9/2018	Email
Merkle	Lance	2/16/2018	Email
Merrick	Ronald	3/9/2018	Email
Merrick	Ronald	2/20/2018	Email
Merritt	Melinda	2/26/2018	Email
Messier	Luc	3/9/2018	Email
Messier	Luc	2/16/2018	Email
Metcalf	Elaine	2/20/2018	Email
Metting	Elizabeth	2/27/2018	Email
Mewshaw	Mark	2/16/2018	Email
MEYER	JEFF	2/27/2018	Email
Meyer	Kyle	2/17/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Meyrat	Richard	3/9/2018	Email
Meyrat	Richard	2/27/2018	Email
Michiels	Paul	3/9/2018	Email
Middleton	Mark	2/27/2018	Email
Mihalopoulos	Frank	3/8/2018	Email
Milam	John	3/8/2018	Email
Milam	John	2/16/2018	Email
Milbery	John	3/8/2018	Email
Miles	Jay	2/25/2018	Email
Millemon	Kyle	2/27/2018	Email
Miller	Aaron	2/27/2018	Email
Miller	Bruce	2/16/2018	Email
Miller	Gerald	2/17/2018	Email
Miller	Jennifer	3/9/2018	Email
Miller	Jennifer	2/16/2018	Email
Miller	Lewis	3/8/2018	Email
Miller	Lewis	2/16/2018	Email
Miller	Loulia	3/9/2018	Email
Miller	Michael	3/8/2018	Email
Miller	Reshu	2/27/2018	Email
Miller	Sata	2/22/2018	Email
Miller	Steve	3/5/2018	Email
Mills	Erika	2/21/2018	Email
Mingus	Ken	2/23/2018	Email
Mingus	Ken	3/1/2018	Email
Mingus	Ken	2/17/2018	Email
Misko	Betty	3/9/2018	Email
Mitchell	Daniel	2/27/2018	Email
Mitchell	Lyndsay	2/27/2018	Email
Mitchell	William	2/27/2018	Email
Mitchell	William	2/16/2018	Email
Moczugemba	Stephen	3/9/2018	Email
Moczugemba	Stephen	2/21/2018	Email
Mogford	Justin	2/27/2018	Email
Mohan	Muru	3/1/2018	Email
Molho	Issac	2/16/2018	Email
Molloy	Martin	3/8/2018	Email
Moltz	Raymond	3/8/2018	Email
Mongonia	Nathaneel	2/16/2018	Email
Monjaras	Jonathan	3/3/2018	Email
Monroe	Homer	3/8/2018	Email
MONSON	KENNETH	2/27/2018	Email
Monson	Kenny	2/16/2018	Email
Montague	Daniel	3/9/2018	Email
Montano	James	3/5/2018	Email
Montelongo	Enrique	2/17/2018	Email
Montenegro	Gustavo	2/16/2018	Email
Montgomery	Jeff	3/8/2018	Email
Montgomery	Adrienne	2/16/2018	Email
Montgomery	Adrienne	2/21/2018	Email
Moody	Charles	2/27/2018	Email
Mooney	Mayor	3/8/2018	Email
Moore	Anna	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Moore	Franklin	3/9/2018	Email
Moore	James	3/3/2018	Email
Moore	Joel	3/5/2018	Email
Moore	Kelcie	3/8/2018	Email
Moore	Mario	3/8/2018	Email
Moore	Mary	3/8/2018	Email
Moore	Mary	2/16/2018	Email
Moore	Mary	2/16/2018	Email
Moore	Melissa	3/9/2018	Email
Moore	Philip	3/8/2018	Email
Moore	Robert	3/8/2018	Email
Moore	Robert	2/27/2018	Email
Moore	Robert	2/27/2018	Email
Moore	Dianne	3/9/2018	Email
Moore	Dianne	2/16/2018	Email
Mooreland	Scott	2/23/2018	Email
Morales	Juan	3/9/2018	Email
Morales	Roberto	2/21/2018	Email
Moran	Diane	3/5/2018	Email
Morehead	Margaret	3/9/2018	Email
Moreland	Leighton	3/5/2018	Email
Moreland	Scott	2/16/2018	Email
Moreno	Ithza	2/16/2018	Email
Moreno	John	2/19/2018	Email
Moreno	Elizabeth	3/9/2018	Email
Morgan	Jesse	3/9/2018	Email
Morgan	Justin	2/17/2018	Email
Morin	Jason	3/9/2018	Email
Morin	Jason	3/8/2018	Email
Morin	Jason	2/16/2018	Email
Morlan	Alan	3/8/2018	Email
Morlan	Alan	3/5/2018	Email
Morlan	Alan	2/27/2018	Email
Morley	Phil	3/8/2018	Email
Morley	Richard J	3/8/2018	Email
Morris	Ron	3/9/2018	Email
Morris	Ronald	2/16/2018	Email
Morris	Fred	3/5/2018	Email
Morrison	Ashlyn	2/16/2018	Email
MORRISON	MIKE	3/9/2018	Email
Morrison	Wesley	2/27/2018	Email
Morrison	Wesley	2/16/2018	Email
Morse	Meroe	2/16/2018	Email
Morton	Susans	2/16/2018	Email
Moseley	Jeff	3/1/2018	Email
Moss	Marvin	2/27/2018	Email
Motltz	Raymond	2/17/2018	Email
Moya	Cesar	3/2/2018	Email
Moya	Rick	2/21/2018	Email
Moyes	Josh	3/9/2018	Email
Muir	Alexander	2/21/2018	Email
Munden	Charleds	2/27/2018	Email
Munoz	Jose	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Munsell	Chris	3/9/2018	Email
Munsell	Chris	2/17/2018	Email
Murcia	Alejandro	3/4/2018	Email
Muri	Paul	3/5/2018	Email
Murray	Michelle	3/9/2018	Email
Murugesan	Raja	3/9/2018	Email
Musser	John	3/9/2018	Email
Muston	Tommy	3/8/2018	Email
Myers	Brandon	2/16/2018	Email
NA	James II	3/9/2018	Email
NA		2/25/2018	Email
NA	Johnnie's	2/27/2018	Email
NA	Mr. Salmeron	2/21/2018	Email
NA	Mr. Salmeron	2/27/2018	Email
NA	Mr. Salmeron	2/16/2018	Email
NA	Mr schneider	2/27/2018	Email
Naderi	Kevin	3/9/2018	Email
Nagi	Navi	2/27/2018	Email
Nakayama	Masazumi	3/8/2018	Email
Nanni	Devin	3/8/2018	Email
Narayan	Sanjay	2/19/2018	Email
Narrow	Chelsea	3/5/2018	Email
Nasiry	Mohammad	3/7/2018	Email
naylor	geneva	2/16/2018	Email
Nazarali	Muslim	3/2/2018	Email
Neal	James	3/8/2018	Email
Neal	James	2/27/2018	Email
Neal	James	2/16/2018	Email
Neff	John	2/28/2018	Email
Nelson	Chris	3/5/2018	Email
Nelson	Christopher	2/16/2018	Email
Nelson	Ryan	2/16/2018	Email
Nelson	David	2/27/2018	Email
Nepper	Joshua	2/20/2018	Email
Nervo	Alex	3/9/2018	Email
Newberry	Neena	3/8/2018	Email
Newberry	Neena	2/27/2018	Email
Newhouse	Lucious	2/27/2018	Email
Nguyen	Phuonganh	2/28/2018	Email
Nguyen	Tom	3/8/2018	Email
NGUYEN	VAN	2/22/2018	Email
Nguyen	Van	3/9/2018	Email
Nickle	Zachary	2/27/2018	Email
Nicol	Jonathan	3/8/2018	Email
Niemeyer	Greg	3/8/2018	Email
Niemeyer	Greg	2/16/2018	Email
nilson	Rivon	3/9/2018	Email
Nilson	Rivon	2/16/2018	Email
nina	Santiago	2/28/2018	Email
Nini	Mark	2/22/2018	Email
Niraghatam	Krishna	3/8/2018	Email
Nissen	Scott	2/27/2018	Email
Nitschke	Brad	2/27/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Nivarth	Lakshminarasamma	2/7/2018	Email
Nnadi	John	3/9/2018	Email
Noack	Stephen	3/8/2018	Email
Noack	Stephen	2/16/2018	Email
Nocher	Anne	3/9/2018	Email
Nolan	Jake	3/9/2018	Email
Nolan	Starshine	2/16/2018	Email
Nolan	Tess	3/9/2018	Email
Nolen	Crissy	2/16/2018	Email
Nonken	Norman	2/16/2018	Email
Norman	Britney	3/8/2018	Email
Norman	Marven	2/27/2018	Email
Norrgard	BA	3/5/2018	Email
Norrie	Jake	3/5/2018	Email
Norrie	Jake	3/2/2018	Email
Norris	Gina	2/27/2018	Email
Norris	Gina	2/16/2018	Email
Norris	Delores	3/8/2018	Email
Norris	Delores	3/6/2018	Email
Norris	Delores	3/1/2018	Email
Northcut	John	3/8/2018	Email
Northcutt	Ryan	2/27/2018	Email
Nowak	Sarah	3/9/2018	Email
Nunez	Melissa	3/9/2018	Email
Nunn	Jerry	3/9/2018	Email
Nunn	Jerry	3/8/2018	Email
Nunnelley	Cynthia	2/16/2018	Email
o	Albert	2/28/2018	Email
oakley	Carol	2/21/2018	Email
Oatman-Stanford	Hunter	2/16/2018	Email
Ochoa	Israel	3/6/2018	Email
O'Connor	Kevin	2/16/2018	Email
Ogden	Walker	2/22/2018	Email
okrah	Andrew	2/22/2018	Email
Olaes	Terry	3/9/2018	Email
OldShield	Katheryn	3/9/2018	Email
OldShield	Katheryn	2/27/2018	Email
OldShield	Katheryn	2/16/2018	Email
Oldums	Barbara	3/9/2018	Email
Oldums	Barbara	2/28/2018	Email
Olin	David	3/9/2018	Email
Olin	David	2/16/2018	Email
Oliver	Monica	3/9/2018	Email
Oliver	Monica	3/8/2018	Email
Oliver	Sara	3/5/2018	Email
Oliver	Steve	3/9/2018	Email
Oliver	Steve	2/27/2018	Email
Oliver	Steve	2/16/2018	Email
Oliver	Tom	3/9/2018	Email
Oliver	Tom	3/8/2018	Email
Olmos	Hector	3/3/2018	Email
Olson	Mark	2/21/2018	Email
Oluwi	Ayo	2/17/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Onda	Tosh	2/27/2018	Email
Oneill	Tom	3/8/2018	Email
Oneill	Tom	2/27/2018	Email
Opgenorth	Ryan	3/8/2018	Email
Opheim	David	3/8/2018	Email
Opheim	David	2/27/2018	Email
Ortiz	George	3/8/2018	Email
Ortiz	Jose	3/9/2018	Email
Ortiz	Taylor	3/8/2018	Email
Ortiz	Tracey	3/9/2018	Email
Ortiz	Tracey	3/9/2018	Email
Ortiz	Tracey	3/8/2018	Email
Osborne	Jim	2/21/2018	Email
Ostroff	Katherine	3/8/2018	Email
Otero	Luis	2/24/2018	Email
Ott	Jan	3/5/2018	Email
Ottmer	Troy	2/16/2018	Email
Owen	Karen	3/5/2018	Email
Owen	Kimberly	2/20/2018	Email
Owens	Robin	2/22/2018	Email
Owens	Samuel	3/9/2018	Email
Owens	Samuel	3/6/2018	Email
P.	Kucinskas	2/19/2018	Email
Pacheco	Robert	3/5/2018	Email
Pacheco	Steward	2/16/2018	Email
Pacheco	Donnetta	3/9/2018	Email
Page	Paula	2/16/2018	Email
Pagel	Kristoffer	2/16/2018	Email
Paggi	Randy	3/8/2018	Email
Paggi	Randy	2/27/2018	Email
Paggi	Randy	2/17/2018	Email
Paggi	Randy	3/4/2018	Email
Palacio	Cesar	2/27/2018	Email
Palacios	Christain	2/21/2018	Email
Palmerin	Yazmin	3/9/2018	Email
Papanikolaou	Tomi	2/17/2018	Email
Paradise	Mitch	3/7/2018	Email
Paranhos	Diego	2/21/2018	Email
Paris	Brian	3/9/2018	Email
Paris	Brian	3/8/2018	Email
Paris	Brian	2/27/2018	Email
Parisot	Marie	2/22/2018	Email
Parisot	Paul	3/8/2018	Email
Parker	Bruce	3/9/2018	Email
Parker	Bruce	2/27/2018	Email
Parker	Bruce	2/16/2018	Email
Parker	Daniel	2/27/2018	Email
Parkhomenko	Konstantin	2/27/2018	Email
Parks	Boyd	2/27/2018	Email
Parks	Jerry	3/8/2018	Email
Parrish	Susans	3/9/2018	Email
Parrish	David	3/8/2018	Email
Parsons	Amie	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Parsons	Geoffrey	2/27/2018	Email
Pascarella	Mary	2/19/2018	Email
Paschal	William	2/21/2018	Email
Pass	Joseph	3/9/2018	Email
Pass	Joseph	2/17/2018	Email
Patel	Chintan	3/8/2018	Email
Patel	Chintan	2/27/2018	Email
Patel	Chintan	2/20/2018	Email
Patel	Dakshesh	2/22/2018	Email
Patel	Dakshesh	2/16/2018	Email
Patridge	Kayden	3/6/2018	Email
Patronella	Melissa	3/9/2018	Email
Patterson	Gerald	2/19/2018	Email
Patterson	Jerry	3/3/2018	Email
Paul	Ajit	2/16/2018	Email
Paul	Benjamin	2/28/2018	Email
Paulus	John	2/22/2018	Email
Pavelka	Mike	3/8/2018	Email
Pawloski	Doug	3/5/2018	Email
PE	Sam	3/8/2018	Email
Peacock	Barbara	3/9/2018	Email
Peake	Jimmy	3/9/2018	Email
Peake	Jimmy	2/19/2018	Email
Peake	Jimmy	2/17/2018	Email
Pearcy	Ruth	2/25/2018	Email
Pegram	Alphonso	2/21/2018	Email
Pekarik	Mary	2/16/2018	Email
Pelletier	Bertrand	3/8/2018	Email
Pena	Albert	3/8/2018	Email
Pena	Javier	3/6/2018	Email
Pena	Mark	3/9/2018	Email
Pena	Mark	3/1/2018	Email
Pena	Patricia	3/9/2018	Email
Pena	Patricia	2/16/2018	Email
Pepe	Michael	3/8/2018	Email
Pepe	Michael	3/5/2018	Email
Perdue	Tim	2/17/2018	Email
Perez	Brenda	3/9/2018	Email
Perez	Gabriel	3/3/2018	Email
Perez	Peter	3/9/2018	Email
Perez	Peter	2/16/2018	Email
Perez	Raymond	3/8/2018	Email
Perez	Raymond	2/27/2018	Email
Perez	Zoriel	2/28/2018	Email
Perk	Robert	3/9/2018	Email
Perkes	Greg	2/16/2018	Email
Perozo	Teolinda	3/9/2018	Email
Perozo	Teolinda	3/8/2018	Email
Perozo	Teolinda	3/2/2018	Email
Perozo	Teolinda	2/28/2018	Email
Perozo	Teolinda	2/17/2018	Email
Perry	Craig	2/19/2018	Email
Perry	Maria	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Perry	Sheila	3/9/2018	Email
Perry	David	3/3/2018	Email
Perry	David	3/2/2018	Email
Peters	Shawn	3/2/2018	Email
Peterson	Curtis	2/17/2018	Email
Pham	Ton	3/9/2018	Email
Pham	Son	2/21/2018	Email
PHD	Norm	2/16/2018	Email
PHD	Norm	2/16/2018	Email
PhD	Otis	3/8/2018	Email
PHD	Otis	2/20/2018	Email
Phelps	Cyndi	3/7/2018	Email
Phelps	Richard	2/27/2018	Email
Phelps	Richard	2/16/2018	Email
Philapavage	Dennis	3/8/2018	Email
Philapavage	Dennis	2/27/2018	Email
Philapavage	Dennis	2/17/2018	Email
Philips	Bryan	2/27/2018	Email
Philips	Bryan	2/16/2018	Email
Philips	Renee	2/27/2018	Email
Philips	Bryan	3/9/2018	Email
philipson	alex	2/27/2018	Email
Phillips	Alex	2/17/2018	Email
Phillips	Dan	3/9/2018	Email
Phillips	Daniel	2/16/2018	Email
Phillips	Justin	2/23/2018	Email
Phillipus	Donna	2/27/2018	Email
Phillips	Amanda	2/16/2018	Email
Pickering	Julie	3/9/2018	Email
Pilgrim	Michael	2/19/2018	Email
Pimentel	Rose	3/9/2018	Email
Pineda	Francisca	3/9/2018	Email
Pineda	Francisca	2/27/2018	Email
Pineda	Juan	3/8/2018	Email
Pineda	Juan	2/17/2018	Email
Pineda	Whitney	2/17/2018	Email
Pinkerton	Gary	3/9/2018	Email
Pinson	Gary	3/9/2018	Email
Pipitone	Tracy	3/8/2018	Email
Pizarro	Diane	3/4/2018	Email
Pizzitola	Julie	2/24/2018	Email
Plata	Mayra	3/5/2018	Email
Plata	Justin	3/6/2018	Email
Platt	Robert	3/9/2018	Email
Platt	Robert	2/27/2018	Email
Poe	Travis	3/8/2018	Email
Poff	Devin	3/9/2018	Email
Pogue	Ronald	3/8/2018	Email
Pollard	Gale	3/9/2018	Email
Pollard	Gale	3/1/2018	Email
Pollard	Gale	2/28/2018	Email
Pollard	Gale	2/27/2018	Email
Pollard	Gale	2/17/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Pollard	Gale	2/23/2018	Email
Pollard	Gale	2/22/2018	Email
Pollard	Gale	2/22/2018	Email
Pollard	Gale	2/22/2018	Email
Pollard	Gale	2/22/2018	Email
Pollock	Phillip	3/9/2018	Email
Porter	Greg	3/9/2018	Email
Porter	Diane	3/9/2018	Email
Post	Barry	3/3/2018	Email
Postali	Clovis	2/21/2018	Email
Potts	James	3/8/2018	Email
Pouraghabagher	Reza	3/9/2018	Email
Powell	Kyle	2/27/2018	Email
Powell	Elizabeth	2/22/2018	Email
Powers	Gray	3/8/2018	Email
Powers	Gray	2/16/2018	Email
Poythress	Brandon	3/3/2018	Email
Prabhu	Kieran	2/18/2018	Email
Presley	Scott	3/9/2018	Email
Price	Jessie	3/9/2018	Email
Price	Jessie	2/27/2018	Email
Price	Kimberly	2/18/2018	Email
Price	Maria	2/27/2018	Email
Price	Realtor	3/9/2018	Email
Price	Teresa	3/8/2018	Email
Prieto	Christian	3/9/2018	Email
Prieto	Christian	2/28/2018	Email
Prieto	Christian	2/16/2018	Email
Prince	Adrainne	2/27/2018	Email
Pringle	Glenn	3/9/2018	Email
Pringle	Glenn	2/16/2018	Email
Pringle	Linda	2/27/2018	Email
Prisock	Kerry	3/9/2018	Email
Pritchard	Holly	3/9/2018	Email
Pritchard	Holly	2/16/2018	Email
Pritchard	Dean	3/9/2018	Email
Procter	James	3/3/2018	Email
Proctor	Spencer	2/21/2018	Email
Proctor	Spencer	3/9/2018	Email
Provolt	Gary	2/19/2018	Email
Pruitt	Jarrell	3/8/2018	Email
Pruitt	Jarrell	2/27/2018	Email
Pruitt	Jarrell	2/16/2018	Email
Pruneda	Jessica	2/16/2018	Email
Pryor	Olga	2/22/2018	Email
Pugh	Dan	2/27/2018	Email
Pulford	Schuyler	2/16/2018	Email
Pulis	Joshua	2/18/2018	Email
Purser	Benjamin	3/8/2018	Email
Pye	Theresa	3/9/2018	Email
Queen-Sutherland	Christa	2/27/2018	Email
Quinn	Carmody	3/9/2018	Email
Quinn	Carmody	3/1/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Quinney	Lester	3/9/2018	Email
Quinney	Lester	2/16/2018	Email
Quiros	Antonio	2/27/2018	Email
Quiros	Antonio	2/22/2018	Email
R	Wilkinson	2/16/2018	Email
RAINS	kyle	2/28/2018	Email
Ramirez	Henry	3/8/2018	Email
Ramirez	Noah	2/21/2018	Email
Ramirez	Robert	3/8/2018	Email
Ramirez	Robert	2/27/2018	Email
Ramirez	Tomas	3/6/2018	Email
Randall	Phillip	3/9/2018	Email
Rangel	Karina	3/8/2018	Email
Rangel	Marilyn	3/5/2018	Email
Ranger	Brett	3/8/2018	Email
Rank	Amanda	3/9/2018	Email
Rash	Robert	3/9/2018	Email
Rashid	Fariha	2/27/2018	Email
Rasmus	Robert	2/19/2018	Email
Rasmussen	Shawna	2/27/2018	Email
Rasmussen	Shawna	2/16/2018	Email
Ratman	Vicki	2/27/2018	Email
Ratray	Charles	3/8/2018	Email
Rauhauser	Laura	2/16/2018	Email
Rawlins	Paula	3/9/2018	Email
Rawson	Allisha	3/9/2018	Email
Ray	Trenton	3/6/2018	Email
Raymond	Colton	2/16/2018	Email
Reagan	Shawn	3/8/2018	Email
Reale	Thomas	3/9/2018	Email
redpath	mayo	2/27/2018	Email
Redwine	Bobby	3/8/2018	Email
Redwine	Bobby	2/27/2018	Email
Redwine	Bobby	2/16/2018	Email
Reece	Doug	3/9/2018	Email
Reed	Casey	3/6/2018	Email
Reed	Casey	2/16/2018	Email
Reed	Jaeidah	3/9/2018	Email
Reed	James	3/8/2018	Email
Reed	James	2/27/2018	Email
Reed	Suzette	2/17/2018	Email
Reeder	Jones	3/9/2018	Email
Reeder	Jones	3/5/2018	Email
Reeder	Katie	2/20/2018	Email
REESE	JILL	3/2/2018	Email
Reeves	Alex	2/27/2018	Email
Reeves	Eddie	3/9/2018	Email
register	Christian	2/27/2018	Email
Register	Scott	2/16/2018	Email
Regmi	Kshitij	3/5/2018	Email
Rehman	Khaleel	2/27/2018	Email
Reid	Ann	2/27/2018	Email
Reilly	Jacqueline	3/8/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Rene	Patrick	3/9/2018	Email
Renfro	George	3/5/2018	Email
Rewerts	Shawn	3/8/2018	Email
Rewerts	Shawn	2/16/2018	Email
Reyath	Sajjaat	2/27/2018	Email
Reyes	Alex	3/2/2018	Email
Reyes	Oscar	2/16/2018	Email
Reyes	Vicente	3/4/2018	Email
Reynolds	Andrew	2/27/2018	Email
Reynolds	Michael	3/9/2018	Email
Reynolds	Michael	2/27/2018	Email
Reynolds	Michael	2/16/2018	Email
Rhima	Diana	3/9/2018	Email
Rhodes	James	2/16/2018	Email
Rhodes	Joshua	3/9/2018	Email
Rhone	Lewis	3/9/2018	Email
Richards	Jessica	3/4/2018	Email
Richards	Lila	3/9/2018	Email
Richards	Rae	3/8/2018	Email
Richards	Rene	2/27/2018	Email
Richardson	Gloria	3/9/2018	Email
Richardson	Gloria	2/27/2018	Email
Richardson	Gloria	2/23/2018	Email
Richardson	Toni	2/22/2018	Email
Richie	Margie	2/16/2018	Email
Riddell	Steve	2/16/2018	Email
rider	Bobbie	3/9/2018	Email
Rieger	Tom	2/27/2018	Email
Riley	James	2/16/2018	Email
Rincon	Cesar	3/8/2018	Email
Ring	Brenda	3/9/2018	Email
Ringold	Rick	3/9/2018	Email
Rios	Armando	3/8/2018	Email
Ritchie	Jennifer	3/4/2018	Email
Ritter	Joshua	2/16/2018	Email
Ritter	Lisa	2/16/2018	Email
Ritter	Steven	2/28/2018	Email
Ritter	William	3/8/2018	Email
Ritter	William	2/27/2018	Email
Ritter	William	2/16/2018	Email
Rivas	Ana	3/9/2018	Email
Rivas	Gabriel	3/9/2018	Email
Rivas	Gabriel	3/8/2018	Email
Rivas	Rene	2/21/2018	Email
Rivera	Joel	3/6/2018	Email
Rivera	Rob	2/18/2018	Email
Rivera	Rob	2/18/2018	Email
Rivers	Chris	3/5/2018	Email
Roark	Blake	3/9/2018	Email
Robbins	Linda	3/8/2018	Email
Roberson	Eric	3/5/2018	Email
Roberson	Eric	2/27/2018	Email
Roberts	Leland	3/8/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Roberts	Leland	2/16/2018	Email
Roberts	Michael	2/17/2018	Email
Roberts	David	3/9/2018	Email
Roberts	David	2/16/2018	Email
robertson	Mark	3/9/2018	Email
Robertson	Mark	2/27/2018	Email
Robertson	Paul	3/4/2018	Email
Robertson	William	3/9/2018	Email
Robinson	Caswell	3/8/2018	Email
Robinson	Caswell	2/19/2018	Email
Robinson	Joey	3/5/2018	Email
Robinson	Margaret	2/28/2018	Email
Robinson	Melissa	3/9/2018	Email
Robinson	Olayinka	2/21/2018	Email
Robinson	Reid	2/20/2018	Email
Robinson	Spurgeon	2/22/2018	Email
Robinson	Sara	2/16/2018	Email
Robinson	Sarah	2/20/2018	Email
Robinson	Stephen	2/27/2018	Email
Robinson	Torrence	2/18/2018	Email
Robinson	Yvette	3/9/2018	Email
Robinson	Yvette	3/9/2018	Email
Robinson	Yvette	3/9/2018	Email
Robinson	Yvette	3/9/2018	Email
Robinson	Yvette	2/16/2018	Email
Robinson	Deidre	3/9/2018	Email
Robison	David	2/27/2018	Email
Robledo	Diana	3/8/2018	Email
Rockow	Amanda	3/8/2018	Email
Rodgers	Sean	2/27/2018	Email
Rodrigue	Jerry	2/16/2018	Email
Rodriguez	Aaron	2/27/2018	Email
Rodriguez	Daniel	2/20/2018	Email
Rodriguez	Gerardo	3/9/2018	Email
Rodriguez	H.R.	3/9/2018	Email
Rodriguez	Ivan	3/8/2018	Email
Rodriguez	John	2/22/2018	Email
Rodriguez	Jessica	3/9/2018	Email
Rodriguez	Jessica	2/18/2018	Email
Rodriguez	Joe	2/16/2018	Email
Rodriguez	Mark	3/6/2018	Email
Rodriguez	Raul	3/3/2018	Email
Rodriguez	Robert	2/27/2018	Email
Rodriguez	Theresa	3/8/2018	Email
Rodriguez	Uriel	3/8/2018	Email
Rodriguez	Uriel	2/27/2018	Email
Rodriguez	Uriel	2/16/2018	Email
Rodriguez	David	3/9/2018	Email
Rodriguez	David	2/27/2018	Email
Roeth	Richard	2/21/2018	Email
Rogers	Charles	3/9/2018	Email
Rogers	Charles	2/16/2018	Email
Rogers	Colleen	2/27/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Rogers	George	3/8/2018	Email
Rogers	Jeanette	2/27/2018	Email
Rogers	Tim	3/5/2018	Email
Roiter	Nathan	3/9/2018	Email
Rojas	David	3/8/2018	Email
Rojo	David L	2/16/2018	Email
Roland	Montemayor	2/23/2018	Email
Rollins	Kathryn	3/9/2018	Email
Roman	Jaime	3/9/2018	Email
Roman	Josh	2/28/2018	Email
Roman	Josh	2/16/2018	Email
Roman	Emily	3/8/2018	Email
Roman	Emily	2/17/2018	Email
Romero	Mario	2/27/2018	Email
Romero-Gaugh	Mario	2/21/2018	Email
Roque	Manuel	3/9/2018	Email
Rosario	Joel	3/8/2018	Email
Rose	Charlie	3/1/2018	Email
Rose	Shirley	2/21/2018	Email
Rose	Charlie	2/27/2018	Email
Rosende	Carlos	3/8/2018	Email
Rosende	Carlos	2/27/2018	Email
Rosende	Carlos	2/27/2018	Email
Rosenhagen	Grant	2/28/2018	Email
Rosenheim	Nathanael	2/17/2018	Email
Roskar	Veljko	3/1/2018	Email
Roth	Blake	3/2/2018	Email
Rothell	Benjamin	2/27/2018	Email
Rothell	Benjamin	2/21/2018	Email
Rouse	Jerome	3/9/2018	Email
Roy	Girish	3/8/2018	Email
Roy	Michael	2/25/2018	Email
Rozell	Darrell	3/5/2018	Email
Rub	Brenda	2/16/2018	Email
Rubens	Paul	2/27/2018	Email
Rubens	Paul	2/16/2018	Email
Rubenstein	Alex	3/9/2018	Email
Rubenstein	Brenda	3/8/2018	Email
Rubenstein	Brenda	2/27/2018	Email
Rubinson	Adam	2/19/2018	Email
Rubio	Jesica	2/27/2018	Email
Rudledge	Mark	2/27/2018	Email
Ruiz	Jose	2/16/2018	Email
RUIZ	RITA	3/8/2018	Email
Ruiz	Thomas	3/4/2018	Email
Rulli	Lisa	3/7/2018	Email
Runco	Susan	3/9/2018	Email
Runyan	Trish	3/4/2018	Email
Rush	Ken	3/8/2018	Email
Rush	Ken	2/17/2018	Email
Rushton	Vicki	2/27/2018	Email
Rushton	Vicki	2/16/2018	Email
Russ	Sam	2/17/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Russell	Kendall	2/27/2018	Email
Russo	Michael	2/21/2018	Email
Rutherford	Sharon	2/22/2018	Email
Rutherford	Sharon	3/8/2018	Email
Rutherford	Sharon	2/27/2018	Email
Ruzicka	Joe	3/2/2018	Email
Ryan	Laura	3/9/2018	Email
rynearson	Richard	2/27/2018	Email
Sablich	Randolph	3/8/2018	Email
Sablich	Randolph	2/27/2018	Email
Sablich	Randolph	2/16/2018	Email
Sachs	Dawn	2/27/2018	Email
SACK	CHARLES	2/16/2018	Email
Sainz	Octavio	2/22/2018	Email
Saito	Mitsuru	3/9/2018	Email
Sakamoto	Ricky	2/16/2018	Email
Sakowitz	Sam	3/9/2018	Email
Sakowitz	Sam	3/8/2018	Email
Sakowitz	Sam	2/16/2018	Email
Salas	Rudy	2/21/2018	Email
Salas	Victor	2/18/2018	Email
Salazar	Steve	3/9/2018	Email
Sales	Deborah	2/16/2018	Email
Salge	Valentina	3/8/2018	Email
Salick	Anne	2/27/2018	Email
Salinas	Barbara	3/9/2018	Email
Salmeron	Joseph	3/8/2018	Email
Salmeron-Serrano	Marie	2/17/2018	Email
Saman	Khalil	2/19/2018	Email
Sampsel	Ronald	2/27/2018	Email
Sanchelli	Chuck	2/22/2018	Email
Sanchez	Ian	3/9/2018	Email
Sanchez	Jackie	3/9/2018	Email
Sanchez	Natalie	3/9/2018	Email
Sandel	Brian	2/27/2018	Email
sanders	allen	2/16/2018	Email
Sanderson	Dixie	3/9/2018	Email
Sanderson	Dixie	2/18/2018	Email
Sandhu	Aneil	3/9/2018	Email
SANDHU	AYUB	3/8/2018	Email
Sandoval	Roger	3/8/2018	Email
Sands	Thomas	3/9/2018	Email
Sands	Elizabeth	3/8/2018	Email
Sankuratri	Geetha	3/8/2018	Email
Sankuratri	Geetha	3/8/2018	Email
Sanstrom	Pam	2/22/2018	Email
Santaniello	Jordan	3/7/2018	Email
Santeliz	Luis	2/27/2018	Email
Santos	Jocelyn	3/5/2018	Email
Santos	maria	3/7/2018	Email
Saraswat	Hemant	3/8/2018	Email
Sarno	Rob	3/5/2018	Email
Sasser	Michael	2/17/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Sauermann	Roland	2/28/2018	Email
Saul	Danetta	3/9/2018	Email
Saul	Danetta	3/8/2018	Email
Saul	Danetta	2/16/2018	Email
Sauls	Terry	2/27/2018	Email
Scanlan	Sandra	3/9/2018	Email
Schank	Randall	2/16/2018	Email
Scheblein	Adam	2/27/2018	Email
Scheiner	Jim	2/26/2018	Email
Scheiner	James	2/21/2018	Email
Scheurer	Katherine	3/9/2018	Email
Schiesler	Arwen	2/21/2018	Email
Schleiss	Duncan	3/4/2018	Email
Schlosser	Rodney	3/8/2018	Email
Schmidt	John	2/28/2018	Email
Schmidt	Keri	3/8/2018	Email
Schmidt	Keri	2/27/2018	Email
Schnauffer	Betty	3/8/2018	Email
Schneider	Andrew	2/21/2018	Email
Schneider	James	3/4/2018	Email
Schneider	Ross	3/8/2018	Email
Schoenekase	Steve	3/8/2018	Email
Schooler	Thomas	2/27/2018	Email
Schooler	Thomas	2/20/2018	Email
Schooler	Elizabeth	3/9/2018	Email
Schooler	Elizabeth	2/16/2018	Email
Schroeder	Karl	2/16/2018	Email
Schroeder	William	3/9/2018	Email
Schroeder	William	2/16/2018	Email
Schulter	Diane	3/9/2018	Email
Schutts	Philip	3/9/2018	Email
schwartz	Charles	3/6/2018	Email
Schwartz	Jessica	2/27/2018	Email
Scofield	Hal	3/9/2018	Email
Scofield	Paula	3/9/2018	Email
Scofield	Paula	2/16/2018	Email
scott	emilie	2/21/2018	Email
Scott	James	3/6/2018	Email
Scott	James	2/27/2018	Email
Scouler	Angus	3/5/2018	Email
Seabolt	Caitlyn	3/9/2018	Email
Seaborne	John	3/3/2018	Email
Seal	Jon	2/20/2018	Email
SEETHAPATHI	ASHWIN	3/8/2018	Email
SEETHAPATHI	ASHWIN	2/27/2018	Email
Seidel	Lee	2/16/2018	Email
Seitzler	Bill	2/27/2018	Email
Self	James	3/9/2018	Email
Sellers	Todd	3/5/2018	Email
Sells	Greg	3/9/2018	Email
Sells	Greg	2/27/2018	Email
Sells	Greg	2/17/2018	Email
Selman	Briana	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Sepeda	Julian	2/21/2018	Email
Session	Chandler	3/9/2018	Email
Sevener	Austin	2/27/2018	Email
Sewell	Tami	2/19/2018	Email
Shabay	Wendy	2/16/2018	Email
Shafer	Samantha	3/5/2018	Email
Shafer	Zachary	3/8/2018	Email
Shah	Julie	3/9/2018	Email
Shah	Julie	2/28/2018	Email
shah	Sanjiv	2/16/2018	Email
Shah	Tejas	3/1/2018	Email
Shaikh	RizwN	2/16/2018	Email
Shakya	Bibek	3/9/2018	Email
Shaleen	Carl	3/8/2018	Email
Shanahan	Ric	2/16/2018	Email
Shannon	David	2/27/2018	Email
Shao	Henry	2/16/2018	Email
Shaw	Alex	3/9/2018	Email
Shaw	Susan	3/9/2018	Email
Sheikhaburkar	Ali	2/16/2018	Email
Shenberger	Ronald	3/8/2018	Email
Shepard	Lissa	3/2/2018	Email
shepherd	Garrett	2/27/2018	Email
Sherman	Doyle	3/9/2018	Email
Sherrod	Heather	2/27/2018	Email
Shields	Brad	3/9/2018	Email
Shiple	Robert	2/16/2018	Email
Sholars	Kent	2/16/2018	Email
Shope	Lenora	2/16/2018	Email
Shorter	Christopher	2/18/2018	Email
Shultz	Daniel	2/27/2018	Email
Shultz	Daniel	2/16/2018	Email
Shumate	Nick	3/8/2018	Email
Shyamsunder	Rakshith	3/9/2018	Email
Sidoff	Steven	3/9/2018	Email
Sidoff	Steven	2/16/2018	Email
Siebeneich	Eric	3/9/2018	Email
Sifuentes	Mikaela	3/8/2018	Email
Sigle	Leonard	3/5/2018	Email
Sigle	Leonard	2/16/2018	Email
Sikand	Jassi	2/27/2018	Email
Sikes	Mark	2/27/2018	Email
Sikes	Mark	2/16/2018	Email
Silva	Juan	3/9/2018	Email
Simmer	Lindsey	3/6/2018	Email
Simon	Bert	3/9/2018	Email
Simon	Bert	2/16/2018	Email
Simon	Ginger	3/9/2018	Email
Simon	Ginger	2/28/2018	Email
Sinches	Billie	3/3/2018	Email
Singer	Jimmy	2/16/2018	Email
Singh	Harsimranjeet	3/2/2018	Email
Singletary	Patricia	2/21/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Singletery	Patricia	3/9/2018	Email
Singletery	Patricia	3/8/2018	Email
Singleton	A	3/8/2018	Email
Skaggs	Jeffrey	3/9/2018	Email
Skidmore	Daniel	3/2/2018	Email
Skinner	Kenneth	3/2/2018	Email
Slagel	Gary	3/9/2018	Email
Slagel	Gary	2/17/2018	Email
Sloan	Ellen	3/8/2018	Email
Sloan	Ellen	2/16/2018	Email
Slott-Sowell	Deanna	3/1/2018	Email
Slott-Sowell	Deanna	2/17/2018	Email
Small	Julie	3/9/2018	Email
Small	Julie	2/16/2018	Email
Smelcer	Timothy	3/9/2018	Email
Smith	Albert	2/24/2018	Email
Smith	Albert	2/16/2018	Email
Smith	Allen	3/9/2018	Email
Smith	Brian	3/5/2018	Email
Smith	Carole	2/17/2018	Email
smith	Christopher	3/9/2018	Email
smith	Christopher	2/27/2018	Email
Smith	Jay	3/8/2018	Email
Smith	Jay	2/16/2018	Email
Smith	Jennifer	3/5/2018	Email
Smith	John-Michael	3/9/2018	Email
Smith	John-Michael	2/16/2018	Email
Smith	Jordan	3/9/2018	Email
Smith	Kevin	3/9/2018	Email
Smith	Kevin	3/8/2018	Email
Smith	Kevin	3/2/2018	Email
Smith	Kevin	2/16/2018	Email
Smith	Lamar	3/8/2018	Email
Smith	Max	2/27/2018	Email
Smith	Morgan	3/9/2018	Email
Smith	Rebecca	3/9/2018	Email
Smith	Sam	2/22/2018	Email
Smith	Stephen	2/21/2018	Email
Smith	Sheila	3/2/2018	Email
Smith	Sherry	3/9/2018	Email
Smith	Donna	2/16/2018	Email
Smith	Dusti	3/9/2018	Email
SMITH-GRANT	BRUCE	3/9/2018	Email
SMITH-GRANT	BRUCE	2/21/2018	Email
Smth	Jay	2/27/2018	Email
Snellgrove	Robert	3/9/2018	Email
Snellgrove	Robert	2/16/2018	Email
Snow	Stuart	2/21/2018	Email
Snow	Stuart	2/21/2018	Email
Snyder	Colton	3/9/2018	Email
Snyder	Colton	2/21/2018	Email
Snyder	Tristan	3/8/2018	Email
Sobey	Christopher	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter

LastName	FirstName	Date Submitted	Submission Type
Solano	Bianca	3/6/2018	Email
Soleja	Sameer	3/9/2018	Email
Soliz	Omar	3/3/2018	Email
Solomon	Cynthia	3/4/2018	Email
Somoano	Francis	2/16/2018	Email
Sora	Bruce	3/9/2018	Email
Sorensen	Alton	3/8/2018	Email
Sorensen	Alton	3/5/2018	Email
Sotelo	Gilbert	3/7/2018	Email
Sothcott	Edward	2/27/2018	Email
Sowell	Derek	3/9/2018	Email
Spalding	Dawn	3/2/2018	Email
Spamer	Craig	3/8/2018	Email
Spampinato	Byron	3/9/2018	Email
Spampinato	Byron	3/1/2018	Email
Spampinato	Byron	2/21/2018	Email
Sparks	Russell	2/20/2018	Email
Sparks	Swift	2/27/2018	Email
Sparks	Swift	2/16/2018	Email
Spears	Troy	3/8/2018	Email
Speck	Ra	3/8/2018	Email
Speck	Ra	2/27/2018	Email
Speir	Harold	2/16/2018	Email
Spencer	Gene	3/9/2018	Email
Spindler	Jake	3/5/2018	Email
Spivey	Marti	3/9/2018	Email
Spradley	Jon	3/6/2018	Email
Sprankle	Samantha	2/27/2018	Email
Sprenger	Steven	3/9/2018	Email
Sprenger	Steven	2/16/2018	Email
Srebro	Richard	2/21/2018	Email
Srebro	Richard	3/8/2018	Email
Srebro	Richard	2/27/2018	Email
Srebro	Richard	2/16/2018	Email
Staben	Teresa	3/9/2018	Email
Staf	Lynlee	3/9/2018	Email
Stamport	Sam	3/9/2018	Email
Stangland	Christopher	3/2/2018	Email
Stanley	Kevin	2/16/2018	Email
Stanley	Michelle	3/9/2018	Email
Stanley	Wesley	2/20/2018	Email
Stapleton	Kent	2/22/2018	Email
Starnes	Glenn	3/9/2018	Email
Starr-Kusler	Jan	3/5/2018	Email
Stecker	Wayne	3/5/2018	Email
Stefonsky	Johnny	3/6/2018	Email
Steger	Mark	2/22/2018	Email
Steger	Shirley	2/16/2018	Email
Steiger	Craig	3/3/2018	Email
Stell	Jan	2/16/2018	Email
Stenger	John	3/9/2018	Email
Stephens	Nicholas	2/27/2018	Email
Stephens	Shawn	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Stephens	Shawn	3/8/2018	Email
Stephens	Shawn	2/27/2018	Email
Stephenson	David	2/21/2018	Email
Stephenson	David	3/9/2018	Email
Stephenson	David	3/8/2018	Email
Stephenson	David	2/27/2018	Email
Stephenson	David	2/16/2018	Email
Stevens	John	3/4/2018	Email
Stevens	Robert	2/19/2018	Email
Stevens	Shelley	2/27/2018	Email
Stevenson	John	2/16/2018	Email
Stewart	Cortney	3/9/2018	Email
Stewart	Jenifer	2/28/2018	Email
Stewart	Lloyd	3/9/2018	Email
Stewart	Loren	3/1/2018	Email
Stewart	Loren	2/27/2018	Email
Stewart	Donald	3/9/2018	Email
Stewart	Donald	3/1/2018	Email
Stewart	Donald	2/16/2018	Email
Stillwell	Dennis	2/21/2018	Email
Stillwell	Dennis	3/8/2018	Email
Stillwell	Dennis	2/16/2018	Email
Stock	Viveca	2/28/2018	Email
Stokes	Kevin	3/4/2018	Email
Stokes	Shantha	3/9/2018	Email
Stoll	Tim	2/16/2018	Email
Stone	Barbara	3/9/2018	Email
Stone	Melissa	3/8/2018	Email
Stone	Melissa	2/27/2018	Email
Storo	Albert	2/21/2018	Email
Story	Jason	2/18/2018	Email
Stoy	Daniel	3/5/2018	Email
Stratton	DeAnna	3/9/2018	Email
Strauss	Brian	2/27/2018	Email
Strawther	Tom	3/9/2018	Email
Strength	Chandler	2/27/2018	Email
Strickland	Warren	2/27/2018	Email
Strines	J	3/9/2018	Email
Stroffolino	Joseph	2/19/2018	Email
Strothkamp	Sheila	2/22/2018	Email
Stubbs	Matthew	3/8/2018	Email
Stubbs	Matthew	3/6/2018	Email
Stvan	Jeffrey	3/9/2018	Email
Suhm	Vic	3/9/2018	Email
Suhm	Vic	2/27/2018	Email
Suljic	Maida	3/8/2018	Email
Suljic	Nermin	3/8/2018	Email
Sullivan	Andrew	3/2/2018	Email
Sullivan	Jerry	2/27/2018	Email
Sullivan	Jerry	2/16/2018	Email
Sullivan	Lorie	3/9/2018	Email
Sultana	Ruma	3/7/2018	Email
Sundaram	Siva	2/27/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Super	Katherine	2/27/2018	Email
Sutton	Chandra	3/9/2018	Email
Sutton	Chandra	2/16/2018	Email
Sutton	Christopher	3/1/2018	Email
Sutton	Cody	3/9/2018	Email
Sutton	Otis	3/8/2018	Email
Sutton	Otis	2/16/2018	Email
Sutton	Richard	2/21/2018	Email
Sutton	Robert	3/8/2018	Email
Sutton	Robert	2/27/2018	Email
Sutton	Robert	2/16/2018	Email
Suwan	Somchat	3/8/2018	Email
Swaney	Mary	2/27/2018	Email
Swiesciak-Maddox	Andrey	3/9/2018	Email
Switzer	Grant	3/8/2018	Email
Switzer	Jason	2/21/2018	Email
Switzer	Jason	3/9/2018	Email
Syed	Sameer	3/9/2018	Email
Syed	Zonara	3/6/2018	Email
T	KRIS	2/27/2018	Email
Tabatabai	Ryan	2/16/2018	Email
Tabor	Mary	3/5/2018	Email
Tack	John	2/22/2018	Email
Talamas	Tony	3/8/2018	Email
Talamas	Tony	3/8/2018	Email
Taleb	Mohammed	3/9/2018	Email
Talley	Charles	3/8/2018	Email
Talley	Charles	3/7/2018	Email
Talley	John	2/22/2018	Email
Tally	Craig	2/27/2018	Email
Tamayo	Manuel	2/20/2018	Email
Tamilselvan	Gowthami	2/28/2018	Email
Tan	Simon	3/8/2018	Email
Tanel	Thomas	2/27/2018	Email
Tankersley	Paul	3/5/2018	Email
Tapia	Eduardo	3/6/2018	Email
Tarver	Rick	3/9/2018	Email
Tawney	Jakob	3/3/2018	Email
Tawney	Jakob	2/24/2018	Email
Taylor	Chad	2/16/2018	Email
Taylor	Marc	2/27/2018	Email
Taylor	Mike	3/9/2018	Email
Taylor	Nell	3/9/2018	Email
Taylor	Nell	2/27/2018	Email
Taylor	Paul	2/16/2018	Email
Taylor	Reynolds	2/27/2018	Email
taylor	steven	2/21/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/8/2018	Email
Taylor	Steven	3/7/2018	Email
Taylor	Steven	3/6/2018	Email
Taylor	Steven	3/5/2018	Email
Taylor	Steven	3/5/2018	Email
Taylor	Steven	3/5/2018	Email
Taylor	Steven	3/5/2018	Email
Taylor	Steven	3/5/2018	Email
Taylor	Steven	3/5/2018	Email
Taylor	Steven	3/1/2018	Email
Taylor	Steven	2/27/2018	Email
Taylor	Steven	2/27/2018	Email
Taylor	Steven	2/16/2018	Email
Tayyari	David	2/16/2018	Email
Teague	Gena	2/16/2018	Email
Teague	Jenna	2/27/2018	Email
Teal	Roy	2/20/2018	Email
Temple	Lynda	3/9/2018	Email
Tentoni	Manuela	2/21/2018	Email
Terechine	Pavel	2/27/2018	Email
Terrone	Vincent	2/16/2018	Email
Terry	John	3/8/2018	Email
Terry	Sara	2/16/2018	Email
Terry	Sheila	3/9/2018	Email
Thelitz	Cathy	3/9/2018	Email
Tholking	Kurt	2/16/2018	Email
Thomas	Amanda	3/9/2018	Email
Thomas	Amanda	2/16/2018	Email
Thomas	Brent	3/9/2018	Email
Thomas	Brent	2/16/2018	Email
THOMAS	DERRICK	2/21/2018	Email
Thomas	Jonathan	2/27/2018	Email
Thomas	Jonathan	2/17/2018	Email
Thomas	Kris	3/8/2018	Email
Thomas	Kris	2/16/2018	Email
Thomas	Ruiz	3/9/2018	Email
Thomas	Deandre	3/8/2018	Email
Thomas	Deandre	2/27/2018	Email
Thomas	Derrick	2/16/2018	Email
THOMPSON	CARL	3/8/2018	Email
Thompson	Clay	3/9/2018	Email
Thompson	Jennifer	3/6/2018	Email
Thompson	Jere	3/8/2018	Email
Thompson	Laurie	3/9/2018	Email
Thompson	Rebecca	2/28/2018	Email
Thompson	Seth	2/16/2018	Email
Thompson	Zachary	3/8/2018	Email
Thompson	David	2/27/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Thomson	John	3/8/2018	Email
Thomson	John	2/27/2018	Email
Thornhill	Annie	3/8/2018	Email
Thornhill	Annie	2/20/2018	Email
Tielkemeijer	Bert	3/9/2018	Email
Tilley	James	3/8/2018	Email
Tilton	Frances	2/21/2018	Email
Tindle	Nicholas	3/9/2018	Email
Tinkham	Peter	3/5/2018	Email
Tinkham	Scott	3/9/2018	Email
Tinklam	Sandra	3/8/2018	Email
Tinklam	Sandra	3/2/2018	Email
Tizon	Ricardo	2/16/2018	Email
Toal	James	2/21/2018	Email
Todd	Milton	2/21/2018	Email
Todd	Stephanie	3/9/2018	Email
Tolentino	Martin	3/3/2018	Email
Tomlinson	Howard	3/9/2018	Email
Tomlinsons	Paula	2/27/2018	Email
Tonzalez	Imelda	3/9/2018	Email
Tootle	Lindsey	3/9/2018	Email
Tootle	Lindsey	2/16/2018	Email
Topolski	Thomas	3/8/2018	Email
Torres	Angela	3/9/2018	Email
Torres	Tomas	3/5/2018	Email
Townsend	Scott	3/8/2018	Email
Townsend	Scott	2/16/2018	Email
Trahan	Stephen	3/9/2018	Email
Trahan	Stephen	2/16/2018	Email
Trail	Kristi	3/9/2018	Email
Trail	Kristi	2/16/2018	Email
Tramonte	Jason	2/28/2018	Email
Tran	Henry	3/9/2018	Email
Tran	Tam	2/20/2018	Email
Trantham	Bert	3/9/2018	Email
TREADAWAY	Logan	3/8/2018	Email
Trevino	Ramon	3/9/2018	Email
Trevino	Ramon	3/4/2018	Email
Trigg	Yolanda	3/9/2018	Email
Trine	Steven	2/27/2018	Email
Triplett	Mary	3/8/2018	Email
Trivilino	Donna	2/16/2018	Email
Trout	Kyle	2/28/2018	Email
Troyer	Russell	3/8/2018	Email
Troyer	Russell	2/16/2018	Email
Truitt	Mike	3/8/2018	Email
Truitt	Rebecca	3/9/2018	Email
Trzcinski	Lynette	3/9/2018	Email
Trzcinski	Lynette	2/28/2018	Email
Tsai	Kenneth	2/19/2018	Email
Tseng	Jessica	3/9/2018	Email
Tu	James	3/3/2018	Email
TUCKER	JOE	2/28/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Turner	Michael	2/26/2018	Email
Turner	Traviss	2/21/2018	Email
Turney	Paul	3/8/2018	Email
Tuthill	David	3/8/2018	Email
Tuthill	David	2/27/2018	Email
Tuttle	Forest	3/9/2018	Email
Tuveng	Beth	3/9/2018	Email
Udwin	Trevor	3/7/2018	Email
Umana	Ana	3/9/2018	Email
Underhill	Kiersten	2/27/2018	Email
Upchurch	Chandler	3/3/2018	Email
Upchurch	Steven	3/9/2018	Email
Upchurch	Steven	3/9/2018	Email
Upchurch	Steven	3/8/2018	Email
Urquhart	Alun	2/27/2018	Email
Utukuri	Malathi	2/26/2018	Email
Valek	Diane	2/27/2018	Email
Valencia	Guillermo	3/6/2018	Email
valerio	Jose	3/1/2018	Email
Valero	Letti	3/1/2018	Email
Valesquez	Kevin	3/6/2018	Email
Valle-Henderson	Park	2/16/2018	Email
Van Cleve	Liz	2/21/2018	Email
Van Cleve	Liz	2/16/2018	Email
Van Dusen	Glenn	2/27/2018	Email
Van Dusen	Glenn	2/16/2018	Email
VAN DUSEN	GLENN	2/21/2018	Email
Van Dyke	Robert	2/23/2018	Email
Van Dyke	Robert	3/9/2018	Email
VAN LOH	JERRY	2/27/2018	Email
Van Wart	Gina	3/9/2018	Email
Van Wyk	Engela	3/9/2018	Email
Vanderbeek	Amanda	3/5/2018	Email
VanElswyk	Abram	2/25/2018	Email
Vang	Dawn	3/3/2018	Email
Vantrease	Marisa	3/9/2018	Email
Vantrease	Marisa	3/9/2018	Email
Vantrease	Marisa	2/16/2018	Email
Vargas	Oz	3/5/2018	Email
Vargas	Robert	3/4/2018	Email
Varma	Monika	2/27/2018	Email
Varnado	Eric	3/9/2018	Email
Varnado	Eric	2/16/2018	Email
VARUGHESE	CHARLY	2/16/2018	Email
vaspar	Gaspar	2/16/2018	Email
Vaucher	A	3/4/2018	Email
Vaucher	A	3/3/2018	Email
Vaughn-Hebert	Melanie	3/9/2018	Email
Vazquez	Antonio	3/9/2018	Email
Vazquez	Javier	3/6/2018	Email
Vazquez	Linda	2/27/2018	Email
Vazquez	Louis	3/1/2018	Email
Vazquez	Maria	3/3/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Veasey	Tonya	2/21/2018	Email
Vega	Eliseo	3/9/2018	Email
velasquez	francisco	2/17/2018	Email
Velazquez	Victor	2/20/2018	Email
Velle	Christopher	3/9/2018	Email
Vestal	Tim	3/8/2018	Email
Vestal	Tim	3/2/2018	Email
Vesterby	Marlene	3/9/2018	Email
Vickers	Robert	3/8/2018	Email
Vickers	Robert	2/27/2018	Email
Videla	Ramon	3/9/2018	Email
Viera	Roberto	2/27/2018	Email
villanueva	Jose	3/2/2018	Email
Villarroel	Marcos	3/9/2018	Email
Vinson	Penelope	2/27/2018	Email
Vinson	Penelope	2/16/2018	Email
Visioli	Bob	2/27/2018	Email
Visioli	Robert	2/21/2018	Email
Vlasin	Leslie	3/9/2018	Email
Vo	Johnny	3/7/2018	Email
Voelker	Paul	3/8/2018	Email
Voigt	Alicia	2/24/2018	Email
Vonage	Miller	2/17/2018	Email
Voosen	Preston	3/4/2018	Email
Vornkahl	Marilyn	3/9/2018	Email
Vosdoganes	Michael	2/27/2018	Email
Vrana	Keith	2/21/2018	Email
Vrana	Keith	2/27/2018	Email
Vu	John	2/28/2018	Email
Vuskov	Sarah	3/8/2018	Email
Wabommor	Irene	2/28/2018	Email
Waggoner	Clinton	3/8/2018	Email
Waggoner	Clinton	2/27/2018	Email
Wagoner	John	2/16/2018	Email
Waldrop	Jim	3/8/2018	Email
Waldrop	William	2/21/2018	Email
Waldrop	William	3/8/2018	Email
Waldrop	William	2/27/2018	Email
Waldrop	William	2/16/2018	Email
Walker	Lance	2/20/2018	Email
Walker	Mark	2/27/2018	Email
Walker	Thea	2/27/2018	Email
Walker	Thea	2/16/2018	Email
Walker	Toby	3/3/2018	Email
Wall	Charles	3/8/2018	Email
Wallace	Chris	2/19/2018	Email
Wallace	T	3/5/2018	Email
Wallace	Trish	2/18/2018	Email
Walpole	James	2/16/2018	Email
Walter	Fred	3/9/2018	Email
Walter	Julia	2/27/2018	Email
Walter	Kelli	2/18/2018	Email
Walters	Kristin	3/9/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Walton	Kimberly	2/19/2018	Email
Wang	Peter	2/25/2018	Email
Ward	Jason	2/21/2018	Email
Ward	Oscar	3/8/2018	Email
Warner	Timothy	3/8/2018	Email
Washington	Michael	3/9/2018	Email
Washington	Michael	3/3/2018	Email
Washington	Rod	3/7/2018	Email
Waters	Wilfred	3/9/2018	Email
Waters	Wilfred	3/8/2018	Email
Wathen	Alexander	2/25/2018	Email
Watkins	Michael	3/9/2018	Email
Watkins	Ross	3/8/2018	Email
Watkins	Sam	3/8/2018	Email
Watkins	Sam	2/16/2018	Email
Watson	Cedric	3/9/2018	Email
Watson	Floyd	3/8/2018	Email
Watson	Floyd	2/27/2018	Email
Watson	Floyd	2/16/2018	Email
Weaver	Crystal	2/21/2018	Email
Weaver	Rick	3/8/2018	Email
Weaver	Rick	2/16/2018	Email
webb	Chris	2/27/2018	Email
Webb	Ron	2/21/2018	Email
Webb	Ron	2/27/2018	Email
Webb	Ron	2/16/2018	Email
Webb	Douglas	2/16/2018	Email
Weber	Llaura	2/20/2018	Email
Webster	Tony	3/8/2018	Email
Weeks	Kay	3/9/2018	Email
Weirich	John	3/9/2018	Email
Weirich	Rebekah	3/9/2018	Email
Weirich	Rebekah	3/8/2018	Email
Weiss	Charlotte	3/8/2018	Email
WEISS	JEFFREY	2/23/2018	Email
Wellington	Chinedu	3/8/2018	Email
WENZEL	GREGORY	2/28/2018	Email
Were	Bob	3/8/2018	Email
Werken	George	3/8/2018	Email
Werken	George	2/28/2018	Email
West	Alicia	2/27/2018	Email
West	Craig	3/9/2018	Email
West	Dan	3/9/2018	Email
Westenhauser	Deirdre	3/9/2018	Email
Wheeler	Jack	2/16/2018	Email
Whelan	Ron	3/9/2018	Email
Whelan	Spencer	2/22/2018	Email
Whelan	Sarah	3/9/2018	Email
Whelan	Sarah	2/27/2018	Email
Whelan	Sarah	2/27/2018	Email
Whelan	Sarah	2/17/2018	Email
Whelan	Spencer	2/22/2018	Email
Whelan	Spencer	2/19/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter

LastName	FirstName	Date Submitted	Submission Type
White	Rick	2/28/2018	Email
White	Sandra	2/27/2018	Email
White	Spencer	2/27/2018	Email
White	Taylor	3/8/2018	Email
White	Dawson	3/3/2018	Email
White	Eddie	2/20/2018	Email
White	Gordon	2/26/2018	Email
White	Martin	2/16/2018	Email
White	Matt	2/17/2018	Email
White	Michelle	2/16/2018	Email
Whitehead	Brandon	3/8/2018	Email
Whitehead	Brandon	2/16/2018	Email
Whitford	John	2/16/2018	Email
Whiting	Anne	3/9/2018	Email
Whittenburg	Kim	2/16/2018	Email
Wich	Rachel s	2/27/2018	Email
Wick	Champika	3/7/2018	Email
Widner	Jameson	2/28/2018	Email
Wiedeke	Alexandra	2/16/2018	Email
Wiedeman	Matthew	2/22/2018	Email
Wieder	John	3/8/2018	Email
Wieder	John	2/27/2018	Email
Wiese	Marcus	3/8/2018	Email
Wigington	Norman	2/22/2018	Email
Wigington	Norman	3/8/2018	Email
Wigington	Norman	2/16/2018	Email
Wiley	Robert	3/9/2018	Email
Wiley	Robert	3/1/2018	Email
Wiley	Drew	2/27/2018	Email
Wilkes	Willie	2/20/2018	Email
Wilking	Ben	2/16/2018	Email
Wilkins	kathryn	2/27/2018	Email
Wilkins	Kathy	3/9/2018	Email
Wilkinson	Michael	2/27/2018	Email
Wilkinson	Quinta	2/16/2018	Email
Willhite	Joe	2/26/2018	Email
Williams	Anthony	2/18/2018	Email
Williams	Christa	3/3/2018	Email
Williams	Connie	2/17/2018	Email
Williams	Dallas	3/8/2018	Email
Williams	Jesse	2/27/2018	Email
Williams	Kailan	2/16/2018	Email
Williams	Larry	3/8/2018	Email
Williams	Mark	2/21/2018	Email
Williams	Monte d	3/9/2018	Email
Williams	Monte	3/1/2018	Email
Williams	Susan	2/21/2018	Email
Williams	S	3/8/2018	Email
Williams	Suzannah	3/6/2018	Email
Williams	Ursula	2/22/2018	Email
Williams	David	3/5/2018	Email
Williams	Day	2/16/2018	Email
Williams	Debbie	2/27/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Williams	Debbie	2/19/2018	Email
Williams	Denishea	2/17/2018	Email
Williamson	Shannan	3/5/2018	Email
Willig	Mary	3/9/2018	Email
Willox	David	2/27/2018	Email
Willox	David	2/27/2018	Email
Willox	David	2/16/2018	Email
Wilson	Ricky	2/21/2018	Email
Wilson	Bill	3/8/2018	Email
Wilson	Jeff	2/16/2018	Email
Wilson	Jessica	3/9/2018	Email
Wilson	Laura	3/8/2018	Email
Wilson	Laura	2/28/2018	Email
Wilson	Laura	2/16/2018	Email
Wilson	Peggy	3/9/2018	Email
Wilson	Welcome	2/19/2018	Email
Wilson	Douglas	3/4/2018	Email
Wilutis	Kimberly	2/28/2018	Email
Wimberley	Joshua	3/9/2018	Email
Wimberley	Joshua	2/16/2018	Email
Winborn	Jason	2/27/2018	Email
Windham	Diann	2/21/2018	Email
Windham	Diann	3/8/2018	Email
Windham	Diann	2/16/2018	Email
Winfield	Dorothy	3/8/2018	Email
Wingfield	Tim	3/9/2018	Email
Wingfield	Tim	2/19/2018	Email
Wingfield	Timothy	2/27/2018	Email
Winn	Terry	3/8/2018	Email
Winn	Walter	2/16/2018	Email
Winner	David	3/9/2018	Email
Winner	David	2/27/2018	Email
Winsett	Robert	3/9/2018	Email
Winslow	Randy	3/8/2018	Email
Winstead	Timothy	2/21/2018	Email
Winstead	Timothy	2/16/2018	Email
Winters	Scott	3/3/2018	Email
Wintters	Todd	3/9/2018	Email
Wisdom	Jeff	3/7/2018	Email
Wisdom	Jeff	3/8/2018	Email
Wisdom	Jeff	2/16/2018	Email
Wittekind	Dennis	2/27/2018	Email
Wolfson	Alina	3/8/2018	Email
Wolfson	Alina	3/5/2018	Email
Woo	Yewliang	2/17/2018	Email
Wood	Marcus	2/27/2018	Email
Wood	Robyn	3/9/2018	Email
Woodall	JD	2/25/2018	Email
Woodfolk	Anthony	3/3/2018	Email
Woods	Antonio	3/9/2018	Email
Woods	Richard	3/5/2018	Email
Woodson	Helen	3/9/2018	Email
Woodson	Lupton	2/16/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Woodward	Douglas	3/8/2018	Email
Woodward	Douglas	2/27/2018	Email
Woosley	Joe	3/4/2018	Email
Word	David	3/8/2018	Email
Word	David	2/27/2018	Email
Workman	J	3/8/2018	Email
WORKMAN	J	3/2/2018	Email
Wormuth	Robert	2/16/2018	Email
wreyford	Charles	2/16/2018	Email
Wright	Chuck	2/19/2018	Email
Wright	Ciel	3/5/2018	Email
Wright	Jackie	2/28/2018	Email
Wright	Randy	2/16/2018	Email
Wszolek	Zach	3/7/2018	Email
Wu	Michael	2/22/2018	Email
Wyar	Donnie	2/27/2018	Email
Wyatt	Trevor	3/6/2018	Email
Wylie	Mark	2/16/2018	Email
Xayadeth	Austin	3/6/2018	Email
Yager	Matthew	2/27/2018	Email
Yandell	Anita	3/8/2018	Email
Yandell	Robert	2/21/2018	Email
Yandell	Robert	3/9/2018	Email
Yandell	Robert	3/8/2018	Email
Yandell	Robert	2/27/2018	Email
Yarovikov	Stas	3/7/2018	Email
Yarrington	Trevor	3/8/2018	Email
Yarrington	Trevor	2/20/2018	Email
Yeager	Toni	2/16/2018	Email
Yelaka	Ravi	2/27/2018	Email
Yen	Martin	3/9/2018	Email
Yen	Martin	2/27/2018	Email
Yen	Martin	2/17/2018	Email
Yeverino	Augusto	2/16/2018	Email
Yordanov	Daniel	3/3/2018	Email
You	Jennifer	3/8/2018	Email
Youdin	Vivian	3/9/2018	Email
Young	Berton	2/28/2018	Email
Young	Berton	2/23/2018	Email
Young	Berton	2/21/2018	Email
Young	Chelsea	2/27/2018	Email
Young	Robert	2/18/2018	Email
Young	Scott	2/28/2018	Email
Young	Timothy	2/26/2018	Email
Young	Timothy	2/26/2018	Email
Yuen	Josiah	2/21/2018	Email
Yuen	Josiah	2/16/2018	Email
Yuen	Josiah	2/16/2018	Email
Zak	Unal	3/1/2018	Email
Zarate	Aquiles	2/16/2018	Email
Zarate	Rick	3/9/2018	Email
Zarate	Rick	2/27/2018	Email
Zarate	Rick	2/19/2018	Email

Table H-11: List of Individuals who Submitted a Support Form Letter			
LastName	FirstName	Date Submitted	Submission Type
Zardavedts	Jason	3/4/2018	Email
Zarikian	Carlos	3/9/2018	Email
Zarinkelk	Giti	3/6/2018	Email
Zaro	James	3/3/2018	Email
Zavala	Jazon	3/3/2018	Email
Zavala	Majorie	3/2/2018	Email
Zgourides	Christo	3/8/2018	Email
Zgourides	Christo	2/28/2018	Email
Zhang	Jie	3/8/2018	Email
Zhang	Leon	3/9/2018	Email
Zhang	Leon	2/27/2018	Email
Zhang	Leon	2/17/2018	Email
Zhang	Yifan	3/9/2018	Email
Zhang	Yifan	2/26/2018	Email
Zhu	Olivia	2/16/2018	Email
Zielke	Howard	3/9/2018	Email
Zogg	John	3/8/2018	Email
Zogg	John	2/19/2018	Email
Zurbriggen	Neal	3/9/2018	Email
Zurbriggen	Neal	3/8/2018	Email
Zurbriggen	Neal	2/27/2018	Email

4. REFERENCED REPORTS MEMORANDUM

Some public comments received by FRA during the public comment period referenced or cited reports, studies, and/or websites. FRA reviewed each comment and reference as they pertain to the Project. FRA’s findings appear in the following sections, sorted by discipline and topic.

Hyperlinks listed are those provided by the commenter. Hyperlinks that are no longer active are noted.

4.1 Cultural Resources

Discipline: Cultural Resources	Topic: Archaeological Surveys
Reference Title(s): Kickapoo Archaeological Survey Report of April, 2010	
Comment: Commenters noted that many Waller County residents commented during a meeting in February 2016 about the above-mentioned report. An archaeological survey was done on Kickapoo Preserve and found four archeological sites and two pre-historic/historic sites considered for inclusion in the National Register of Historical Places.	
<p>Response: The referenced report, <i>A Cultural Resource Survey of a 500 Acre Tract on Kickapoo Road, Waller County, Texas, Moore Archeological Consulting, Inc. Report of Investigations Number 567</i> (D. Driver 2010), was specific to a 500-acre archaeological survey conducted on the Kickapoo Preserve, which was required by the United States Army Corps of Engineers, Galveston District for permitting of a different project. This Project’s limits of disturbance (LOD) within Segment 5 (common to all Build Alternatives A through F) partially overlaps this previously surveyed area. Four sites were identified during the survey (41WL30, 41WL31, 41WL32, and 41WL33). Only one site (41WL33) identified in that report is located within the LOD for the Project and is mentioned in Section 3.19.4, Cultural Resources, Affected Environment, Table 3.19-8: Previously Recorded Archeological Sites Within the Archeological Resources APE. The remaining sites are 490 feet east (41WL30), 1,010 feet west (41WL31), and 340 feet east (41WL32). The Texas Historical Commission (THC) determined on April 16, 2010, site 41WL33 is not eligible for inclusion in the National Register of Historic Places (NRHP).</p> <p>For sections of the project that have not been surveyed, in accordance with Section 106 of the National Historic Preservation Act and pursuant to 36 C.F.R. 800.4(b)(2) and 5(a)(3), the FRA TCRR, THC, and other signatories are developing and will execute a Programmatic Agreement (PA), which will allow for the phased identification, evaluation and assessment of effects to historic and archeological resources as access to private land holdings becomes available after publication of the Final EIS. The PA outlines a comprehensive methodology to identify historic properties eligible for, or listed in, the NRHP, and to consider ways to avoid, minimize, or mitigate adverse effects to historic properties that may be affected. This process is discussed in Section 3.19.6.2, Cultural Resources, Programmatic Agreement, of the Final EIS and the Draft PA is included as Appendix L, Programmatic Agreement.</p> <p>The Waller County Historical Commission has been invited and is recognized as a Consulting Party in the development of the PA (Table 3.19-1, Section 3.19.3.1.1, State Historic Preservation Officer and Consulting Parties).</p>	

Discipline: Cultural Resources	Topic: Unidentified Cemetery
<p>Referenced Report(s):</p> <p>Whitfield Lake Cemetery, http://files.usgwarchives.net/tx/madison/cemeteries/whitfield.txt</p> <p>National Historic Preservation Act Section 106 Compliance for the Regulatory Program, 2016, http://www.spk.usace.army.mil/Portals/12/documents/regulatory/Reg_workshop/2016-04-01/RPW_Section106_2016_April-1.pdf</p>	
<p>Comment: Commenters referred to an unmarked, early to mid-nineteenth century cemetery constructed in the early 1960s in south-central Madison County that may be near the proposed Project alignment and a transmission line corridor. Comments referring to the U. S. GENWEB document indicate the cemetery was not labeled on mapping or addressed within the document. The USACE document referenced lays out the justification for a cultural survey according to Section 106 of the National Historic Preservation Act.</p>	
<p>Response: The referenced document is a record of a cemetery located south of SH 21 on Strawther Lane known as Whitfield Lake Cemetery. The document indicates that the cemetery is located on private property and the stones have been removed. A memorial marker was placed on Strawther Lane near the transmission line corridor by Houston Lighting & Power Company in 1994.</p> <p>The memorial marker for the cemetery was located approximately 300 feet southwest of the Project area of potential effect (APE). The parcels surveyed within the APE north and east of the memorial marker showed no evidence of the presence of the cemetery. As the location of the Whitfield Lake Cemetery is currently unknown, the potential effects on the cemetery remain undetermined, and therefore is not included in Section 3.19.4, Cultural Resources, Affected Environment, or identified on the maps in the EIS.</p> <p>All cemeteries in Texas are protected under provisions of the Texas Health and Safety Code in Chapters 711-715; Title 13 § 2, Chapter 22, Rule 22.4(b) of the Texas Administrative Code – <i>Unknown and Abandoned Cemeteries</i>, and Rule 22.5 of the Texas Administrative Code – <i>Removal of Remains from an Abandoned or Unknown Cemetery</i>. Texas cemetery laws are stated in Section 3.19.2, Cultural Resources, Regulatory Context. All parcels within the APE not previously surveyed in the vicinity of the memorial marker will be intensively surveyed prior to construction. Construction monitoring in the area will confirm the presence or absence of the cemetery within the APE.</p>	

4.2 Environmental Justice

Discipline: Environmental Justice	Topic: Unemployment and Poverty
<p>Reference Report(s):</p> <p>Long-term Unemployment and Poverty Produce a Vicious Cycle, 2013, https://www.urban.org/urban-wire/long-term-unemployment-and-poverty-produce-vicious-cycle</p> <p>Unemployment and Poverty, 2011, https://www.urban.org/research/publication/unemployment-and-poverty</p> <p>State Unemployment Rates, 2019, http://www.ncsl.org/research/labor-and-employment/state-unemployment-update.aspx</p> <p>U.S, Bureau of Labor Statistics, https://www.bls.gov/eag/eag.tx.htm</p>	
<p>Comment: Three commenters included links to unemployment maps, poverty maps and related charts and stated that they show a consistently higher amount of unemployment correlates to higher levels of poverty and that the project impacts would be disproportionate.</p>	
<p>Response: The first referenced article is a 2013 blog post published by the Urban Institute that states long-term unemployment begets longer-term unemployment. In other words, the longer an individual is unemployed, the harder it would be to find a job, and the more likely they are to remain in poverty. The comment is a reference to disproportionate impacts to environmental justice (EJ) communities. The second referenced article, published by the Urban Institute in 2011, contains similar data as the 2013 Urban Institute blog. The third is the National Conference of State Legislature’s (NCSL) website containing monthly state unemployment rates and the fourth links to the US Department of Labor, Bureau of Labor Statistics containing information regarding the economy of Texas.</p> <p>The Urban Institute blogs were not incorporated into the analysis within the Final EIS as they both were opinion articles and did not contain data specific for the project study area. The Draft and Final EIS identified minority and/or low-income block groups and communities through publicly available information from the US Census Bureau’s American Community Survey (ACS) 2016 5-year estimates and data obtained through community outreach, coordination with partner agencies, and public feedback, as detailed in Section 3.18.3, Environmental Justice, Methodology.</p> <p>Employment data from the US Department of Labor, Bureau of Labor Statistic (BLS) was included in multiple formats in both the Draft and Final EIS. The Draft and Final EIS included BLS Occupational Employment Statistic (OES) National data tables in Appendix E, Socioeconomics and Community Facilities Technical Memorandum, and used this information to review the average annual wage by employment sector.</p> <p>To model sales tax revenue resulting from increased employment levels within the study area, FRA utilized county-level OES data in combination with data from the U.S. Census Bureau’s ACS 2016 5-year estimates. The BLS information referenced by the commenter is based on the same underlying data set referenced in the Draft and Final EIS but presents information as a state-level snapshot. The referenced NCSL data also provide a state-level summary of unemployment levels and was not incorporated into the Final EIS in favor of the more detailed county level data described above.</p>	

4.3 Electromagnetic Fields

Discipline: Electromagnetic Fields	Topic: Electromagnetic Inference
Reference Report: Electromagnetic Fields and Electromagnetic Inference, 2014, http://www.caltrain.com/Assets/Caltrain Modernization Program/FEIR/3.5 EMF EMI.pdf	
Comment: The commenter suggested that FRA should conduct further evaluation on the potential electromagnetic inference (EMI) impacts of this Project, such as those conducted for the California High Speed Train. The commenter suggested that the first year of operations might include monitoring EMI impacts and sharing those reports with the general public.	
Response: The referenced document is a section of an Environmental Impact Report produced by the Peninsula Corridor Joint Powers Board for the Peninsula Corridor Electrification Project in California. California regulations differ from Texas regulations regarding electromagnetic fields (EMF) and EMI. Monitoring EMF/EMI is not required by Texas regulation. FRA does not intend to require any additional EMF/EMI monitoring for the Project since as stated in Section 3.15.5.2.2, Electromagnetic Fields, Operational Impacts , the EMF exposure levels within and outside the existing Shinkansen trainsets are reported by Shinkansen to be below ICNIRP guidelines; therefore, passengers on the trainset, waiting at the platform or beyond the external security fencing of the HSR ROW would not be exposed to EMF levels above the ICNIRP guidelines. Additionally, HSR equipment would comply with FCC requirements and not adversely interfere with other electric or electronic equipment.	

4.4 Endangered Species

Discipline: Endangered Species	Topic: Startle Effect on Wildlife and Livestock
<p>Reference Report(s):</p> <p>Effect of Noise on Performance, Stress, and Behavior of Animals, 2014, http://www.cvzv.sk/slju/14_2/8_Broucek.pdf</p> <p>California High-Speed Rail Train Noise and Vibration Technical Report, http://www.hsr.ca.gov/docs/programs/merced-fresno-eir/draft_EIR_MerFres_TR_Noise.pdf (no longer available online)</p>	
<p>Comment: Two commenters suggested that FRA review the article regarding startle effect caused by the Project to wildlife and cattle.</p>	
<p>Response: The first referenced document is a paper published in the <i>Journal of Animal Science</i> that outlines an animal’s response to noise and a technical report on the range of startle effect experienced from train noise. FRA reviewed the supplied articles and found no new information that had not already been considered from a review of other similar sources, including:</p> <ul style="list-style-type: none"> • C.E. Hanson, “High Speed Train Noise Effects on Wildlife and Domestic Livestock,” In Schulte-Werning B. et al. (eds) Noise and Vibration Mitigation for Rail Transportation Systems, Notes on Numerical Fluid Mechanics and Multidisciplinary Design, vol 99. Springer, Berlin, Heidelberg, 2008 • FRA, Interim Criteria for Train Noise Effects on Animals, last updated October 24, 2012, https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/2680/20120220_FRA_HSR_NV_Manual_FINAL_102412.pdf <p>FRA relied on the FRA guidance document, which includes the most up to date research on noise effects on animals, to evaluate impacts from the Project on wildlife and cattle.</p> <p>The noise assessment was carried out in accordance with FRA guidance (“Procedures for Considering Environmental Impacts,” 64 Federal Register 28545. May 26, 1999.). The assessment methodology, criteria for impact, and locations of noise and vibration impacts are contained in Section 3.4, Noise and Vibration. HSR effects on wildlife and livestock are assessed in Section 3.6.5.2.2, Natural Ecological Systems and Protected Species, Wildlife.</p> <p>According to the referenced FRA guidance document, the noise exposure limit for domestic (livestock and poultry) and wild animals (mammals and birds) is 100 decibels. Section 3.4.5.2.4, Noise and Vibration, HSR Operational Noise Impacts, assessed that the Sound Exposure Level of 100 dBA would only be exceeded within 15 feet from the HSR tracks, and no animals would be this close to the tracks where the HSR tracks would be at-grade because this area would be within the fenced ROW. For potential increased annoyance due to the startle effect of noise from passing HSR trainsets, this effect would only occur within about 45 feet of the centerline of the HSR tracks. This distance is within the fenced ROW; therefore, increased noise annoyance due to startle would not occur as access to this area would not be permitted. The HSR ROW would vary in width with an average width of 328 feet and a minimum ROW of 100 feet that would include the track, overhead catenary system, access road and security fencing.</p>	

Discipline: Endangered Species	Topic: Habitat Fragmentation
Reference Report: Habitat Fragmentation due to Transportation Infrastructure, 2003, http://www.iene.info/wp-content/uploads/COST341_final_report.pdf	
Comment: The commenter stated that new roads and rail lines will not allow free passage of livestock and wildlife and will fragment habitats.	
Response: The referenced document is a 16-page general summary of habitat fragmentation as a result of infrastructure in Europe, reported by the European Co-Operation in the field of Scientific and Technical Research (COST). Both the Draft and Final EIS analyze habitat fragmentation in detail in Section 3.6.3, Methodology; Section 3.6.5.2.2, Wildlife; and Section 3.6.6, Avoidance, Minimization and Mitigation. These sections incorporate data from vegetation types and aerial imagery and provide percent change in edge/ area ratio and loss of habitat for each segment and build alternatives. Additionally, mitigation measures including NR-MM#6: Wildlife Crossings have been incorporated to reduce impacts as a result of habitat fragmentation; therefore, the COST341 report was not incorporated into the Final EIS.	

Discipline: Endangered Species	Topic: Butterflies
Reference Report(s): Why Butterflies Matter, https://butterfly-conservation.org/butterflies/why-butterflies-matter Pollinators, https://www.environment.fhwa.dot.gov/env_topics/ecosystems/pollinators.aspx Pollinators – Monarch butterfly, https://www.nps.gov/articles/monarch-butterfly.htm	
Comment: The commenter stated that Dallas, Ellis, Navarro, and Limestone Counties have been selected as focal areas for Monarch butterfly habitat development because they coincide with the butterfly’s spring and fall migration corridor. The commenter states that monarch butterflies could be placed on the endangered species list and asks what the effect of the train be on Monarch habitats.	
Response: The referenced websites report that butterflies and moths are recognized as good indicators of biodiversity and quality of life. The FHWA website speaks to a 2014 Presidential Memorandum directing agencies to take additional steps to improve habitat for pollinators. To ensure the appropriate measures to avoid and minimize harm from potential impacts to federally listed species under the ESA, FRA, in consultation with US Fish and Wildlife Service (USFWS), determined it is appropriate to develop a Biological Assessment (BA) and enter into formal Section 7 consultation. FRA and the USFWS developed the list of species that were assessed within the BA (Appendix K, Agency Specific Reports, Biological Assessment), which included federally listed threatened, endangered and candidate species. The Monarch butterfly is currently “Under Review” for federal listing by the USFWS until December 2020. While some mitigation measures such as NR-MM#2: Field Delineation of Sensitive Habitat Areas and NR-MM#4: Minimize Disturbance in Sensitive Habitat Areas will help reduce impacts to the monarch butterfly and its habitat, it is currently not a federally-protected species; therefore, the referenced links were not incorporated into the Final EIS.	

Discipline: Endangered Species	Topic: Avian Species
<p>Reference Report(s):</p> <p>Texas eBird, https://ebird.org/tx/region/US-TX/regions?yr=cur&changeDate=Set</p> <p>On-Board Video Recording Unravels Bird Behavior and Mortality Produced by High-Speed Trains, https://www.frontiersin.org/articles/10.3389/fevo.2017.00117/full</p> <p>Reintroducing the Red-Cockaded Woodpecker, https://www.nature.org/en-us/about-us/where-we-work/united-states/florida/stories-in-florida/reintroducing-the-red-cockaded-woodpecker/</p>	
<p>Comment: The commenter states that the HSR will affect bird populations and points out that Bald eagles have been spotted along the route. The commenter states that the Red-cockaded woodpecker have been seen on the Scasta Farm which appears to be within the impact area for the HSR. The commenter states that there is a great concern due to the vast majority of migratory bird species and threatened birds near the Project that a number of these birds will be killed by the HSR.</p>	
<p>Response: The first referenced website allows for the user to search sightings of a particular species in relation to the project area. This website provides citizen observations of bird sightings that are not per reviewed or otherwise verified. In both the Draft and Final EIS, FRA relied on published literature that incorporates published and reviewed records for verified species occurrences; therefore, Ebird was not incorporated into the Final EIS.</p> <p>The second publication titled “On-Board Video Recording Unravels Bird Behavior and Mortality Produced by High-Speed Trains” was conducted in Spain and is not directly comparable to Texas migratory birds. This study cannot be used to estimate bird mortality as a result of the Project in Texas and, therefore, this publication was not used in the Final EIS. However, mortalities as a result of the operation of the rail will be recorded as discussed in NR-MM#7: Wildlife Mortality Recording Forms.</p> <p>The third webpage contains an article about reintroduction of red-cockaded woodpeckers in Florida. The range of the red-cockaded woodpecker lies east of the Project according to the following:</p> <ul style="list-style-type: none"> • J. A. Jackson, “Red-cockaded Woodpecker (<i>Dryobates borealis</i>),” version 1.0, <i>Birds of the World</i> (A. F. Poole and F. B. Gill, Editors), Cornell Lab of Ornithology, Ithaca, NY, USA, 2020, https://doi.org/10.2173/bow.recwoo.01 • K. A. Arnold. “Red-cockaded Woodpecker,” <i>The Texas Breeding Bird Atlas</i>, Texas A&M University System, College Station and Corpus Christi, TX, 2001, https://txbba.tamu.edu <p>As noted in Table 3.6-9, analysis of vegetation within the Study Area revealed no vegetation types with park-like stands of pines, which is a habitat requirement for this species. Therefore, this article was not incorporated into the Final EIS.</p>	

Discipline: Endangered Species	Topic: Blazing Star
Reference Report: Blazing Star, https://www.nature.org/en-us/about-us/where-we-work/united-states/indiana/stories-in-indiana/blazing-star-wildflowers/ (<i>site is inactive as of May 2020</i>)	
Comment: The commenter stated that blazing star is a protected plant that can be found on the Scasta Farm in the impact area for the HSR.	
Response: The referenced webpage link was inactive as of May 2020; however, it had described how blazing stars have been fragmented within their native prairie landscapes. The Project falls within the range of two species of blazing star or gayfeather. The range of this flower varies as it is a cultivated plant. However, neither are federally or state listed as endangered or threatened and therefore are not protected under the Endangered Species Act. Therefore, the article was not included in the Final EIS.	

4.5 Flooding

Discipline: Flooding	Topic: Hurricane Harvey
<p>Reference Report(s):</p> <p>Harvey Estimated Maximum Riverine Inundation, https://www.hcfd.org/media/2326/maximum-inundation-08310700_web.pdf (site inactive as of May 2020)</p> <p>Integrating Resilience into the Transportation Planning Process, https://www.fhwa.dot.gov/environment/sustainability/resilience/ongoing_and_current_research/planning/integrating_resilience.pdf</p>	
<p>Comment: The commenter stated that the Draft EIS appears insufficient in addressing floodplain hazards and floodplain management particularly in light of recent and severe flooding events in Harris, Grimes, and Waller Counties in 2015, 2016, and 2017.</p>	
<p>Response: The first referenced webpage is no longer active as of May 2020 but included a draft map of estimated flooding including data through August 31, 2017, at 7:00 am published by Harris County. The second referenced website is a link to a white paper on literature review findings published on FHWA’s website on how to work resiliency planning into transportation planning.</p> <p>The documentation of existing weather-related hazards in Section 3.16, Safety and Security, Table 3.16-1 has been updated to reflect more recent data from the National Oceanic Atmospheric Association (NOAA). Data associated with Hurricane Harvey are included in the Final EIS analysis of potential weather hazards in Section 3.16.4, Safety and Security, Affected Environment. NOAA classifies Harvey as a tropical storm where it made landfall in Harris County. Fatality and property damage associated with Hurricane Harvey does not change the severity classification in Section 3.16.4, Safety and Security, Affected Environment, Table 3.16-1, of “High” for Hurricane/Tropical Storms within Harris County.</p> <p>Compliance measure SS-CM#4: Perform Hazard Analysis (see Section 3.16.6.1, Safety and Security, Compliance Measures) describes requirements regarding TCRR’s Hazard Analysis. The Hazard Analysis methodology and assessment criteria require TCRR to establish the process used to identify and analyze hazards; methods for determining frequency, severity, and corresponding risk of identified hazards; procedures for identifying hazard controls or mitigating actions; and risk management roles and responsibilities within the organization. Natural hazards identified through this process would be addressed with appropriate hazard controls and procedures. In its NPRM, FRA proposes a requirement that TCRR shall install rain, flood, and wind detectors in locations identified by the railroad, based on relevant criteria used by JRC to provide adequate warning of when operational restrictions may be necessary due to adverse weather conditions. Operating restrictions shall be defined in the railroad's operating rules.</p> <p>Adequate drainage along the Project and at facilities is the key to preventing safety hazards related to flooding and flash flooding. Section 3.8.6, Floodplains, Avoidance, Minimization and Mitigation identifies several strategies and compliance measures to reduce the impacts to floodplains, and Appendix F, TCRR Final Conceptual Engineering Design and Constructability Reports describes the methods TCRR is proposing to accommodate drainage.</p>	

4.6 NEPA

Discipline: NEPA	Topic: Agriculture
Reference Report: USDA Census of Agriculture, https://www.agcensus.usda.gov/Publications/2012/Online_Resources/County_Profiles/Texas/cp48185.pdf	
Comment: Commenters stated that the main agriculture product in Grimes County was incorrect in the Draft EIS.	
Response: The referenced website contains agricultural census data by state and county from 2012. The Final EIS has been updated to reflect 2017 data. Refer to Section 3.13.4.2.1, Land Use, Agriculture, Table 3.13-6.	

4.7 Noise

Discipline: Noise	Topic: Noise Pollution
<p>Reference Report(s):</p> <p>Noise Pollution, http://calhsr.com/environmental-review/noise-pollution/</p> <p>Community Response to Shinkansen Noise and Vibration: A Survey in Areas Along the Sanyo Shinkansen Line, https://www.researchgate.net/publication/228505468_Community_response_to_Shinkansen_noise_and_vibration_A_survey_in_areas_along_the_Sanyo_Shinkansen_line (site inactive as of May 2020)</p> <p>International Union of Railways, https://uic.org/cdrom/2008/11_wcrr2008/pdf/S.1.1.4.4.pdf (site inactive as of May 2020)</p>	
<p>Comment: The commenter references articles on the effects of noise, noise regulations, and implications of the California High Speed Rail as it relates to noise and possible mitigation.</p>	
<p>Response: The first referenced website is an article posted by Californians advocating responsible rail design. The second contained an article on a social survey that analyzed the effectiveness of noise walls and annoyance. The third link was a technical report published by the International Union of Railways. The specific link was inactive as of May 2020; however, it was the organization’s noise reference data in various other high speed rail noise analyses.</p> <p>The noise and vibration assessment was carried out in accordance with FRA guidance. The assessment methodology, criteria for impact, and locations of impacts are contained in Section 3.4, Noise and Vibration.</p> <p>As discussed in Section 3.4.3.1, Noise and Vibration, Analysis Methods, the noise assessment is based on a reference level of 87 dBA at 50 feet and 180 mph, in terms of sound exposure level (SEL). This level was obtained from measured sound data for the Tokaido Shinkansen N700-A operating in Japan. Although the trainset operated on the HSR system would be based on the Shinkansen N700-Series, this remodeled trainset is not yet in service and sound data for this trainset are not yet available. However, because the N700-Series will have new features that reduce air resistance and noise compared to the N700-A model, the current noise assessment should be conservative (i.e., the noise impacts will not be greater than and are likely to be less than currently projected). As the proposed project would be operating at a speed of 205 mph, the reference noise level was extrapolated to predict and assess potential impacts using methodology from the FRA <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> and the FTA <i>Transit Noise and Vibration Impact Assessment Manual</i> guidance documents as described in Appendix E, Noise and Vibration Technical Memorandum. While the noise level experienced by an individual would vary depending on their location relative to the Project, Table 3.4-12 in Section 3.4.5.2.4, Noise and Vibration, HSR Operational Noise Impacts, provides estimated noise levels for sensitive receptors throughout the project area.</p> <p>Noise mitigation commitments are identified in Section 3.4.6.2, Noise and Vibration, Mitigation Measures, and are consistent with FRA guidance. FRA will require TCRR to mitigate severe noise impacts to a level below severe. TCRR would be responsible for implementation of all required mitigation. It is typical for Final EISs to require detailed studies during design to identify specific noise mitigation locations that are practical and viable. The cost for any mitigation measures will be a part of the Project.</p>	

Discipline: Noise	Topic: Noise Pollution
Reference Report(s): The Decibel-Scale, http://www.noisehelp.com/decibel-scale.html ‘Slapping’ sound when trains pass each other, https://physics.stackexchange.com/questions/259639/slapping-sound-when-trains-pass-each-other Aerodynamics of High Speed Trains Passing By Each Other, https://www.researchgate.net/publication/222156045 Aerodynamics of high speed trains passing by each other (site inactive as of May 2020) ‘Sound’ YouTube video, https://www.youtube.com/watch?v=JxJAEDgNxrw	
Comment: The commenter requested further information about the noise created by two trains passing and the noise of a train going 205 mph rather than 125-175 mph.	
Response: The first referenced website contains information on the different kinds of decibel ratings and decibel increases in certain instances. The second and third contain information regarding the ‘slapping sound’ when two trains pass, the fourth is a YouTube video taken at a public hearing in which officials are asked about the ‘slapping’ sound. The "slapping" sound is a phenomenon that only occurs in the area between the two passing trains and is only experienced by passengers on the trains, when it does occur. There is no effect on the noise at the wayside. The FRA noise assessment is conducted on a cumulative basis, which looks at the total noise over a 24-hour period. Because of this, the noise assessment uses the total number of trainsets per day in the assessment, and whether the trainsets occur at the same time does not matter in the cumulative assessment. The assessment is based on the reference noise level of a train (traveling at a known speed), the total number of trains within 24 hours, the length of each trainset, and the actual speed of the trainsets at a given location. The criteria for noise impacts are based on a comparison of the existing background noise and the predicted Project noise for the Project, as described in Section 3.4.3.2.3, Noise and Vibration, Operational Noise Impact Criteria . Maintenance was not included in the cumulative noise impact assessment, as it would only be conducted as needed and not on a regular basis. As discussed in Section 3.4.3.1, Noise and Vibration, Analysis Methods , the noise assessment is based on a reference level of 87 dBA at 50 feet and 180 mph, in terms of sound exposure level (SEL). This level was obtained from measured sound data for the Tokaido Shinkansen N700-A operating in Japan. Although the trainset operated on the HSR system would be based on the Shinkansen N700-Series, this remodeled trainset is not yet in service and sound data for this trainset are not yet available. However, because the N700-Series will have new features that reduce air resistance and noise compared to the N700-A model, the current noise assessment should be conservative (i.e., the noise impacts will not be greater than and are likely to be less than currently projected). As the proposed project would be operating at a speed of 205 mph, the reference noise level was extrapolated to predict and assess potential impacts using methodology from the FRA <i>High-Speed Ground Transportation Noise and Vibration Impact Assessment</i> and the FTA <i>Transit Noise and Vibration Impact Assessment Manual</i> guidance documents as described in Appendix E:,Noise and Vibration Technical Memorandum . While the noise level experienced by an individual would vary depending on their location relative to the Project, Table 3.4-12 in Section 3.4.5.2.4, Noise and Vibration, HSR Operational Noise Impacts , provides estimated noise levels for sensitive receptors throughout the project area.	

Discipline: Noise	Topic: Noise Pollution
Reference Report: Children and Noise, http://www.who.int/ceh/capacity/noise.pdf	
Comment: The commenter stated that noise over 50 dBA in nurseries can affect children's hearing, speech, and language development. The commenter requested that FRA require TCR to mitigate noise impacts in all communities, especially minority and/or low-income communities within the ½-mile buffer defined in the Draft EIS.	
Response: The referenced website contains an article that presents the adverse health effects of noise on different age groups. With regard to noise inside nurseries, an interior noise level of 50 dBA corresponds to a noise level of 75-80 dBA outdoors due to the reduction in noise from outside to inside for typical building constructions. For TCRR operations, the maximum noise levels from high-speed trainsets would not be expected to exceed these levels at locations beyond 200-500 feet from the tracks. Noise mitigation commitments are identified in Section 3.4.6.2, Noise and Vibration, Mitigation Measures , and are consistent with FRA guidance. FRA will require TCRR to mitigate severe noise impacts to a level below severe. Under Executive Order 12898 (59 Fed. Reg. 7629, February 16, 1994), FRA must identify and address, as appropriate, disproportionately high and adverse effects of its actions on minority and low-income populations. FRA identified minority and/or low-income block groups and communities through publicly available information from the US Census Bureau's American Community Survey (ACS) 2016 5-year estimates and data obtained through community outreach, coordination with partner agencies, and public feedback. Section 3.18.3, Environmental Justice, Methodology , of the Final EIS underwent substantial revisions to clarify analyses definitions, criteria and process. Through updated methodology, the assessment was also revised to more accurately identify minority and/or low-income communities throughout the Project Area. As detailed within the Final EIS Section 3.18.3.3, Environmental Justice, Outreach , FRA held additional public listening sessions targeting potentially impacted Environmental Justice communities. Additionally, Section 3.18.5, Environmental Justice, Environmental Consequences , now identifies the location of potential disproportionately high and adverse impacts on minority and/or low-income block groups across the entirety of the Project, as well as localized impacts to identified minority and/or low-income communities. Section 3.18.6, Environmental Justice, Mitigation Measures , describes potential mitigation that was developed through public listening sessions and feedback directly from impacted residents and community members. The mitigation measures section also includes a list of applicable mitigation measures that would minimize temporary impacts related to construction activities. Additional information can be found in Appendix D, Environmental Justice Mapbook , and Appendix E, Environmental Justice Technical Memorandum .	

4.8 Other

Discipline: Other	Topic: AECOM Data
Reference Report(s):	
Private Toll Road Backed by \$430 Million in Federal Funds Goes Bust, https://usa.streetsblog.org/2016/10/18/private-toll-road-backed-by-430-million-in-federal-funds-goes-bust/	
AECOM settles Australia toll-road lawsuit, https://www.infrastructureinvestor.com/aecom-settles-australia-toll-road-lawsuit/	
Class Action Complaint for Violation of the Federal Securities Laws, http://securities.stanford.edu/filings-documents/1058/A00_01/201691_f01c_16CV06605.pdf	
Comment: Commenters stated that AECOM data is flawed and the company is not trustworthy.	
Response: The first two referenced websites contain articles about a toll road project where AECOM traffic forecasts data projected higher traffic volume than what actually used the toll road project once complete. The toll road project is now bankrupt. The third hyperlink is a class action complaint filed against AECOM. The issue discussed in this comment is not germane to the NEPA process, nor FRA’s evaluation and documentation of the potential environmental impacts of the proposed Project. Therefore, this information did not factor into the NEPA evaluation of the Dallas to Houston HSR Project.	

Discipline: Other	Topic: Interstate Highway and Transportation
Reference Report:	
History of the Interstate Highway System, https://www.fhwa.dot.gov/interstate/history.cfm	
Comment: The commenter stated that the Interstate System is an integral part of the American way of life, including construction projects and transportation in our daily lives.	
Response: The referenced FHWA webpage contains information regarding the history of the interstate highway system. Both the Draft and Final EIS discuss the use, reliability and limitations of the highway system within the Project Area in Section 1.2.2.4, Purpose and Need, Reliability of the State Highway System , and Section 1.2.2.6, Purpose and Need, Limitations of Existing Transportation Modes . The historical background of the interstate highways system is not relevant and was not incorporated into the Final EIS.	

4.9 Project Viability

Discipline: Project Viability	Topic: Ridership Predictions
<p>Reference Report(s):</p> <p>State Ridership Analysis Report, Statewide Analysis Model – Version 2.5 (SAM-V2.5), 2013, https://ftp.dot.state.tx.us/pub/txdot-info/rail/rail-ridership-report-1213.pdf (site inactive as of May 2020)</p> <p>All Aboard Florida Ridership and Revenue Study, 2013, https://www.fra.dot.gov/eLib/Details/L15932</p> <p>Statewide Planning Map Statewide Planning Map, http://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html</p>	
<p>Comment: Approximately 10 commenters stated that TxDOT among others, provide ridership numbers that could have been used to determine ridership. Additionally, All Aboard Florida report gave their ridership and cost data, but similar data for the Project has been omitted from the Draft EIS. The commenters requested that the data that was used in the Project ridership estimates do not match with other predictions. Last, commenters stated that the traffic increase predicted in the Draft EIS is misrepresented.</p>	
<p>Response: The first referenced document contained a 2013 TxDOT high-level evaluation of forecasted ridership and cost effectiveness for various corridors in Texas to determine which corridors may warrant further analysis should funding become available. The second link outlines a ridership study for the HSR All Aboard Florida project in Florida. The third hyperlink references TxDOT’s statewide planning map.</p> <p>The TxDOT 2013 Statewide Ridership Analysis Report that used the Statewide Analysis Model (SAM) stated that it was a high level evaluation of forecasted ridership and cost effectiveness for various corridors to determine which ones may warrant further analysis. The report points out that the ridership forecast was conducted probabilistically to address uncertainties in estimated costs and forecasted ridership due to the inherent nature of a statewide high-level study that contained many unknowns that would need to be further evaluated and clarified in more in-depth corridor level studies. The report further states that the analysis was not intended to provide a detailed ridership analysis of an individual corridor, because many assumptions were applied to all corridors statewide, and would need to be modified to more accurately reflect the characteristics of any particular corridor. The range of ridership of 0.7 million to 2.7 million from the report cited in many comments were not the most appropriate Dallas-Houston corridor figures to use from this report. This is because the report states that further analysis was conducted on this corridor due to the results of the preliminary analysis being lower than other corridors, despite having higher numbers of intercity travelers. With further analysis using characteristics derived from publicized assumptions of the TCRR HSR at the 2013 date of the report, the ridership forecasted doubled to 7.8 million annual riders by 2035 with probabilistic results ranging 1.5 million to 5.7 million. The TCRR ridership number of 7.2 million that resulted from specific market analyses and using more specific and current service assumptions, are similar to the TxDOT projection of 7.8 million annual riders.</p> <p>The All Aboard Florida report is specific to that project and therefore did not factor into the review of this project. In response to public comment, AECOM, on behalf of FRA, independently evaluated the ridership inputs, assumptions, and methodology used by TCRR, which included both business and personal travel patterns as detailed in TCRR’s original June 19, 2018, and updated March 25, 2019, Ridership Forecast Reports. Based on the independent evaluation, FRA determined that TCRR used a reasonable approach to conduct their ridership assessment and the outputs of the assessment are reasonable based on the methodology. Since the ridership forecast approach and outputs were deemed reasonable, FRA continued to use TCRR’s ridership estimate (5-7M) in both the Draft EIS and Final EIS. A summary of this AECOM’s review is included in Appendix J, Ridership Demand Forecasting Methodology Assessment, Technical Memorandum.</p>	

Discipline: Project Viability	Topic: Profitability
Reference Report(s):	
'Shinkansen' operation a flop in Taiwan, https://asia.nikkei.com/Business/Shinkansen-operation-a-flop-in-Taiwan	
Texas High Speed Rail: Caution Ahead, https://reason.org/wp-content/uploads/files/texas_high_speed_rail.pdf	
Texas bullet train could cost taxpayers \$21.5 billion, new report concludes, https://www.bizjournals.com/dallas/news/2017/02/14/texas-bullet-train-could-cost-taxpayers-21-5.html	
Lone Star Shinkansen? Wide Open Spaces Make Texas the Perfect Market for Japan's Bullet Train, https://www.forbes.com/sites/salvatorebabones/2018/02/11/lone-star-shinkansen-wide-open-spaces-make-texas-the-perfect-market-for-japans-bullet-train/#4fc4ad987bf5	
Comment: Over 250 commenters stated that feasibility studies determined that the Project cannot make a profit from fare revenues alone and that or the rail line to exist in the long run it must be financially subsidized. Commenters stated that the Project is anticipated to operate at a \$537M annual deficit for 40 years and that the Project has raised less than 1% of the funds needed, so it may not be able to pay for land at fair market value.	
Response: The first URL is a link to a 2015 article discussing Taiwan High Speed Rail (THSR) and THSR's financial restructuring plan. The second is a link to a 2017 feasibility study conducted by the Reason Foundation comparing successful HSR lines to the Project. The study estimates cost and profits and concludes that the Project would lose money in the first 40 years. The third link is an article that speaks about the Reason Foundation 2017 feasibility study. The fourth link is an article questioning whether or not Texas is an appropriate location for HSR. FRA considered the information contained in these reports and decided against referencing the reports in the Final EIS. As stated in Section 1.2.1, Purpose , the purpose of the privately proposed Project is to provide the public with reliable and safe high-speed passenger rail transportation between Dallas and Houston. FRA determined that economic viability is an objective of TCRR, not a component of FRA's Project Purpose. Therefore, FRA did not include economic viability in the Project Purpose defined in Section 1.2.1, Introduction, Purpose .	

Discipline: Project Viability	Topic: Project Need
Reference Report: Potential Development of an Intercity Passenger Transit System in Texas – Final Project Report, 2010, https://static.tti.tamu.edu/tti.tamu.edu/documents/0-5930-2.pdf	
Comment: Commenters noted that the Draft EIS and Texas Central Rail are advertising a 200% increase in projected traffic by 2035, but the referenced document shows only 126%.	
Response: The referenced document is a report summarizing the findings of a research study for the development of an intercity rail and express bus system in the state of Texas that was cited in the Draft EIS. Table 3 "Corridor Traffic Data & Projections 2002 and 2035 FHWA Freight Analysis Framework 2.2" of the referenced report details that vehicles per day on IH-45 between Dallas and Houston would increase from 47,178 (9,102 trucks) in 2002 to 106,475 vehicles per day (21,423 trucks) in 2035. This would represent a more than doubling of traffic, or an increase of 127 percent. While the Draft EIS stated 200 percent, Section 1.2.2.4, Introduction, Reliability of the State Highway System , has been updated to correctly reflect this increase of 127 percent.	

Discipline: Project Viability	Topic: Project Need
Reference Report: US 290 Construction Finally to End (Mostly) Later This Year, https://www.houstonchronicle.com/news/transportation/article/U-S-290-construction-finally-to-end-mostly-12462291.php	
Comment: The commenter stated that the area near the terminal options in Houston is extremely congested and the traffic is concentrated near Houston, not in the areas between Houston and Dallas.	
Response: The referenced article states that although construction on 290 is almost complete, there are still portions that won't open until 2019. The Project runs predominantly parallel to US 290 in Harris County. The Project would cross on viaduct US 290 in northeast Harris County (see Table 3.11-31). Current construction along US 290 would not impact the Project, though, future widening of US 290 is documented in Table 3.11-35 .	

4.10 Property Value

Discipline: Property Value	Topic: Rail Impact on Adjacent Properties
<p>Reference Report:</p> <p>The Effect of Rail Transit on Property Values: A Summary of Studies, 2001, http://www3.drcog.org/documents/archive/The_effect_of_Rail_Transit_on_Property_Values_Summary_of_Studies1.pdf</p>	
<p>Comment: The commenter objects to the use of the cited document (referenced in the Draft EIS as a reason that property values near stations could increase) due to difference between intercity and intracity transit.</p>	
<p>Response: The referenced report appeared as a reference in the Draft EIS to provide a cross-sectional summary of changes in property values near a variety of transit corridors and insight into what different factors lead to higher or lower property values. As a result of the comment, several other studies were consulted to understand the range of potential impacts and factors influencing property premiums:</p> <ul style="list-style-type: none"> • Li Hensher and Mulley, “The Impact of High Speed Rail on Land and Property Values: A Review of Market Monitoring Evidence from 8 Countries,” <i>Road and Transportation Research</i>, 21(4):3-14, 2012. • Henriquez & Deakin, <i>High Speed Rail and Sustainability</i>, New York, NY: Routledge, 2017. • National Academies of Sciences, Engineering, and Medicine, <i>Economic Impact Case Study Tool for Transit</i>, Washington, DC: The National Academies Press, 2016. • James Peoples and John Bitzan, <i>The Economics of Airport operations</i>, 2017. <p>Some professional judgement is required to understand how these documented property value impacts might apply to a Shinkansen HSR station within an American market, as there are currently no available studies perfectly representing those conditions. However, the body of research did reinforce the premises of the Draft EIS assessment that unmitigated nuisance factors (such as noise, pollution, or presence of hazardous materials) can lead to reduction in property values, but that property values tend to increase around activity-generating hubs (such as HSR stations) when nuisance factors have been sufficiently mitigated. It should be noted that the property premiums assumed for the Draft and Final EIS reflect growth rates an order of magnitude lower than some of those reflected in the available research. The calculation of tax revenue benefits resulting from station property premiums do not assume conversion of vacant land to more productive uses and are driven almost exclusively by marginal changes to existing high-productivity property in the immediate vicinity of the Dallas and Houston Terminal Stations.</p> <p>To avoid the implication that the assessment relies on a single study, rather than a conservative approximation of industry trends, FRA amended the Final EIS to replace the citation to the referenced material with the following footnote:</p> <p><i>The analysis of property premiums around stations relies on a variety of literature documenting the station area effects of mass transit (including both light rail, commuter rail, and HSR projects) as well as professional judgement. The variety of available studies utilize differing methodology and approaches; however, the primary factors which can influence property values would be of a similar nature for HSR technology as for traditional mass transit. For example, presence of hazardous freight cargo is negatively correlated with property values, but, as for studies of traditional mass transit, the HSR Project does not involve the transportation of hazardous materials. Noise and vibration are negatively correlated with property values, but, similar to traditional mass transit, Project noise levels are not expected to exceed that of the background environment where stations are planned. Station area activity (the movement of people in and around the stations) is positively correlated with property premiums, and Project ridership estimates indicate higher levels of station area activity than for traditional rail transit projects. As a result, the factors used for this analysis are assumed to be conservative estimates of the potential for property value growth around station areas.</i></p> <p>The footnote appears in Section 3.14.3.2.3, Socioeconomics and Community Facilities, Property Premiums.</p>	

4.11 Purpose and Need

Discipline: Purpose and Need	Topic: Project Need
<p>Reference Report(s): It's Official: Japan's population is dramatically shrinking, https://www.washingtonpost.com/news/worldviews/wp/2016/02/26/its-official-japans-population-is-dramatically-shrinking/?utm_term=.d90012469415</p> <p>High-Speed Rail in Europe and Asia: Lessons for the United States, 2013, http://americandreamcoalition.org/2013PAD/Baruch%20Feigenbaum/high_speed_rail_lessons.pdf</p> <p>A Study of the Development and Issues Concerning High Speed Rail (HSR), http://www.tsu.ox.ac.uk/pubs/1020-lee.pdf</p>	
<p>Comment: Commenters stated that although the Japanese line is successful, automotive traffic has risen over 900% in 50 years and the population has only roughly doubled. Commenters stated that traffic cannot be attributed only to population growth and that the economic benefits of the HSR are not certain since there is no existing passenger rail line in place between the two cities. Commenters stated that there is no proof that there is demand for the HSR service.</p>	
<p>Response: The first referenced article is from 2016 and states that, for the first time, Japan's population has declined by almost 1M people in five years. The decline could lead to economic consequences. The second article by the Reason Foundation in 2013 analyzed French and Japanese HSR and its economic impacts, while the third hyperlink references a 2007 study that analyzed HSRs throughout the globe.</p> <p>As detailed throughout Section 1.2.1, Purpose, the purpose of the privately proposed Project is to provide the public with reliable and safe high-speed passenger rail transportation between Dallas and Houston. FRA determined that economic viability is an objective of TCRR, not a component of FRA's Project Purpose. Therefore, FRA did not include economic viability in the Project Purpose defined in Section 1.2.1, Introduction, Purpose.</p> <p>As such, these articles and information did not factor into the NEPA evaluation of the Dallas to Houston HSR Project.</p>	

Discipline: Purpose and Need	Topic: Telecommuting
<p>Reference Report(s):</p> <p>Unknown, https://www.mysolutionis.com/hr-management/images/CS-Telework_CaseStudies-102808.pdf (site inactive as of April 2019)</p> <p>Telecommuting: will State of Texas employees be next?, https://www.spartnerships.com/telecommuting-will-state-of-texas-employees-be-next/</p> <p>Latest Work-At-Home/Telecommuting/Mobile Work/Remote Work Statistics, http://globalworkplaceanalytics.com/telecommuting-statistics</p> <p>Employer Telework Case Study, http://www.federaletc.org/pdf/NIH.pdf</p> <p>Want to be green? Forget mass transit. Work at home, http://www.latimes.com/opinion/op-ed/la-oe-kotkin-telecommute-20170623-story.html</p> <p>Why Telecommuting Really Matters, in 6 Charts, https://www.citylab.com/transportation/2014/02/why-telecommuting-really-matters-6-charts/8227/</p> <p>The 2017 State of Telecommuting in the US Employee Workforce, https://www.flexjobs.com/2017-State-of-Telecommuting-US/</p> <p>Is the “Uberization” of Public Transportation the Future for Texas Cities?, https://www.tribtalk.org/2017/09/21/is-the-uberization-of-public-transportation-the-future-for-texas-cities/</p> <p>US Commuting Statistics from the 5 Year ACS 2010-2014, https://public.tableau.com/views/USCommutingStatisticsbyCounty/StateDashboard?:embed=y&:display_count=yes&:showVizHome=no#5</p> <p>The Telecommuting Strategy, https://www.fhwa.dot.gov/planning/tmip/publications/other_reports/analysis_of_congestion_scenarios/chap03.cfm#toc516125616</p>	
<p>Comment: Multiple commenters stated that telecommuting should be considered when projecting traffic and that the number of telecommuters has grown at a faster rate than traffic on I-45 during the same time period. Commenters stated that fewer people are travelling for work, private employers are offering the telecommuting as an option and it is becoming more common in urban settings. Commenters noted that telecommuting is almost 3 times as likely in Texas than someone using public transit and that the state overall only has 1.6% of commuters using public transit.</p>	
<p>Response: The first URL was inactive as of April 2019. The second referenced article discusses a 2015 bill that would allow state employees to telecommute or work flexible hours. 19% of the Texas workforce is made up of state workers; therefore, allowing a large portion of those to work remotely could reduce traffic during peak times. The third link is to a website that posts statistics related to telecommuting. The data show that telecommuting is becoming a more available option and that trends show the telecommuting population grew more than the employee population between 2013 and 2014. The fourth is a case study performed at the National Institute of Health where they have successfully implemented telework for many positions. The fifth is an op-ed from the <i>Los Angeles Times</i> that claims mass transit use has declined because the labor force working from home continues to grow. The number of people working from home is 250% larger than that of people taking trains or buses. The sixth, seventh, eighth, and tenth are articles that explain how telecommuting is becoming more common and changing the need for urban transportation systems. The ninth contains ACS data related to commuting.</p> <p>In response to public comment, AECOM, on behalf of FRA, independently evaluated the ridership inputs, assumptions, and methodology used by TCRR, which included both business and personal travel patterns as detailed in TCRR’s original June 19, 2018, and updated March 25, 2019, Ridership Forecast Reports. The total number of trips in the corridor was projected using actual corridor travel information from 2016; therefore,</p>	

telecommuting patterns are reflected in the forecast. There is not sufficient data to project changing telecommuting behaviors into the future. Based on the independent evaluation, FRA determined that TCRR used a reasonable approach to conduct their ridership assessment and the outputs of the assessment are reasonable based on the methodology. Since the ridership forecast approach and outputs were deemed reasonable, the FRA continued to use, TCRR's ridership estimate (5-7 million) in both the Draft EIS and Final EIS. A summary of this AECOM's review is included in **Appendix J, Ridership Demand Forecasting Methodology Assessment Technical Memorandum**.

As such, these articles and information did not factor into the NEPA evaluation of the Dallas to Houston HSR Project.

4.12 Recreation

Discipline: Recreation	Topic: Bicycle Plans
Reference Report: Houston Bikeways Bike Plan System Map, https://www.houstonbikeways.org/maps	
Comment: The commenter asked if the City of Houston or Bike Houston plans were consulted, as there are numerous bikeways cross or parallel Hempstead Road.	
Response: The hyperlink leads to a site that contains the current bike plan system map, project resources, bike parking, and regional resources. The Houston Bike Plan has been reviewed and incorporated into Section 3.17.4.8.2, Recreational Facilities, Trails, and Section 3.17.5.2.6, Recreational Facilities, Segment 5, of the Final EIS.	

4.13 Safety, Security, and Hazardous Materials

Discipline: Safety, Security, and Hazardous Materials	Topic: Proximity to High-Risk Site
<p>Reference Report(s):</p> <p>Explosion Rocks Pencco Plant, https://www.ennisdailynews.com/news/explosion-rocks-Pencco-plant/ (<i>site inactive as of May 2020</i>)</p> <p>Fire Extinguished at Ellis County Chemical Plant, https://www.nbcdfw.com/news/local/Explosion-Reported-in-Ellis-County-Town-of-Bardwell-259249651.html</p>	
<p>Comment: The commenter asked if it is safe for the project to pass within 370 feet of a high-risk site.</p>	
<p>Response: The links are to news stories pertaining to a fire/explosion at the Pencco chemical plant.</p> <p>Due to the shift in the LOD, the Pencco Bardwell Plant is now located 970 feet from the centerline. This has been revised in the Final EIS. As discussed in Section 3.5.6.2, Hazardous Materials and Solid Waste, Mitigation Measures, HM-MM#1: Environmental Site Assessments, prior to construction TCRR will conduct a Phase I ESA at the Pencco Plant to identify any recognized environmental conditions.</p> <p>As described in Section 3.16.6, Safety and Security, SS-CM#4: Perform Hazard Analysis, TCRR must prepare a Hazard Analysis that identifies potential hazards and unintended events that may lead to an accident, ranks the identified accidental events according to their severity, and identifies required hazard controls and follow-up actions. The hazard analysis may include items such as extreme storm, flood, wildfire, or earthquake; falling debris or projectiles; intrusion of animals or trespassers; high temperature system performance; proximity of HAZMAT and utility distribution sites; and structural damage.</p> <p>Additional safety and security compliance and mitigation measures intended to manage risks are documented in Section 3.16.6, Safety and Security, Avoidance, Minimization and Mitigation. TCRR, under 49 CFR 270, will be required to develop a System Safety Program, as described under SS-CM#2: System Safety Program. The System Safety Program shall address safety policies, procedures and training requirements. In its rulemaking petition, TCRR proposed minimum standards and schedules for inspection, testing, and maintenance of vehicles, track and other critical infrastructure required for the prevention of mechanical failures (refer to SS-CM#3: Inspection, Testing, and Maintenance). TCRR will supply emergency equipment consistent with the needs identified in its Emergency Preparedness Plan (see SS-CM#1: Emergency Preparedness Plan) and shall bear responsibility for the development of safety training. Local agencies would remain autonomous in their ability to determine the number of personnel in attendance at coordination and training events.</p>	

4.14 Texas Central Rail

Discipline: Texas Central Rail	Topic: Bribery
<p>Reference Report:</p> <p>Commercial Bribery, https://www.ftc.gov/system/files/documents/public_statements/685041/19301017_ferguson_commercial_bribery.pdf</p>	
<p>Comment: Approximately 15 commenters stated that they believed Texas Central Rail bribed the public to give positive comments during the comment period.</p>	
<p>Response: The reference is a link to a document about commercial bribery that was published by the Federal Trade Commission in 1930. The document describes commercial bribery which eliminates competition based on quality and service, and provides only competition for the good will of the agent or employee who is bribed.</p> <p>FRA is aware that supporters and opponents of the HSR Project encouraged the submission of comments to FRA during the public comment period. All comments received by FRA during the 78-day public comment period are included in Appendix H, Response to Draft EIS Comments, of the Final EIS. FRA will consider all comments submitted to FRA prior to the ROD and include them as part of the administrative record.</p> <p>Separate from FRA’s outreach under 40 C.F.R. 1501.7, TCRR also conducted public outreach throughout the history of Project development with various stakeholders, including federal, state and local agencies, elected officials, landowners and other interested parties. For example, several homeowners’ associations, particularly in northwest Houston, requested meetings with TCRR to better understand the Project and ask questions. TCRR provided a summary of the public outreach, including meetings and notifications, it conducted (see overview and TCRR Response to Comments memorandum dated June 15, 2019 attached in Appendix I, TCRR Plans and Public Outreach). Stakeholder feedback solicited or received by TCRR that was not submitted to FRA is not directly considered in this Final EIS.</p> <p>The specific FTC hyperlink regarding commercial bribery is not germane to the NEPA process, nor FRA’s evaluation and documentation of the potential environmental impacts of the proposed Project. Therefore, this particular report was not referenced in the Final EIS.</p>	

4.15 Transportation

Discipline: Transportation	Topic: Conflict with Regional Planning
Reference Report: Waller County Texas, County Engineer, http://www.co.waller.tx.us/page/County.Engineer	
Comment: Commenters stated that Waller County developed a major thoroughfare development plan which the HSR route interferes with and will prove costly to these counties.	
Response: The hyperlink referenced is the website for Waller County. It contains links to planning documents, public notices, county offices, and other information. Waller County Engineering and Transportation plans were reviewed in the Draft EIS and the Final EIS, as reported in Section 3.11.3.1, Transportation, Local Framework . Relevant regional and local transportation plans and policies that guide transportation planning, funding and project implementation are listed in Table 3.11-1 .	

Discipline: Transportation	Topic: Accessibility
Reference Report: METRO Interactive Service Map, https://www.ridemetro.org/Pages/RidershipReport-122019.aspx	
Comment: Houston Metro requested that the transit routes referenced in the Draft EIS be updated for the Final EIS to be consistent with Houston Metro website.	
Response: The link above is a system map of the Houston Metro system. The system map was used to update the routes that connect to the Northwest Transit Center. There are 12 bus routes that serve the Northwest Transit Center according to the METRO Trip mobile app as of April 2020. Additionally, Houston Metro’s Monthly Ridership Report for January 2020 was used to update ridership and route information (https://www.ridemetro.org/Pages/RidershipReport-122019.aspx). The Monthly Ridership Report for January 2020 also included the system map. The language in TR-MM#3: Transit Coordination (TR-MM#7 in the Draft EIS) was expanded to include that TCRR shall coordinate directly with transit agencies (including Houston Metro) for connections to and from the proposed station sites No roads would be permanently closed, which would allow bus transit activities to continue. Additionally, any temporary impacts related to construction would be coordinated with Houston Metro to limit disruptions to the transit network.	

4.16 Utilities

Discipline: Utilities	Topic: Impact on Existing Utilities
<p>Reference Report(s):</p> <p>RRC GIS Viewer, http://www.gisp.rrc.texas.gov/GISViewer2/ (<i>site is no longer active</i>)</p> <p>Land Use & Development Near Transmission Pipelines Checklist for Planning, Design, Communication, Permit, and Site Plan Review, 2012, https://primis.phmsa.dot.gov/comm/publications/PIPA/Land%20Development%20Near%20Transmission%20Pipelines%20Checklist%2005102012.pdf</p> <p>Partnering to Further Enhance Pipeline Safety in Communities Through Risk-Informed Land Use Planning, 2010, https://primis.phmsa.dot.gov/comm/publications/pipa/PIPA-Report-Final-20101117.pdf</p> <p>State Regulators join Feds investigating house explosion in Northwest Dallas, https://www.dallasnews.com/news/dallas/2018/02/26/state-regulators-join-feds-investigating-house-explosion-northwest-dallas</p> <p>Neighbors Say They'd Smelled Gas Before Fatal Explosion in Northwest Dallas, https://www.dallasnews.com/news/dallas/2018/02/27/city-leaders-meet-northwest-dallas-neighbors-worried-gas-leaks-after-deadly-blast</p> <p>What is FERC, https://www.ferc.gov/multimedia/what-is-ferc.asp</p> <p>Pipeline Accident Report, 1992, https://www.nts.gov/investigations/AccidentReports/Reports/PAR9301.pdf</p>	
<p>Comment: Commenters stated that vibration from the rail will cause fatigue on existing pipelines and that precautionary steps should be taken. Commenters noted that many pipelines are not marked in the Draft EIS, including some that run parallel to the proposed track. Commenters stated that since pipelines fail and can result in explosions and fatalities, the Project should include a safety process. Commenters stated that the Draft EIS does not mention working with FERC and pipeline company to ensure public safety. Commenters requested that TCRR coordinate early on with local entities about potentially hazardous situations.</p>	
<p>Response: The first hyperlink is for a GIS web viewer provided by Texas Railroad Commission (RRC) that can display pipelines, wells, railroads, etc. The link commenters provided has since been updated by RRC to https://www.rrc.state.tx.us/about-us/resource-center/research/gis-viewers/. The second is a checklist for land use and development near transmission pipelines intended to be used for planning, design, communication, permitting, and site plan review published by the Pipelines and Informed Planning Alliance (PIPA). The third is a recommended practices document also published by PIPA. The fourth and fifth are news stories about a house explosion that could be tied to a gas line. The fifth is a link to a video describing FERC authority and duties in relation to pipelines. The sixth is a link to an accident report regarding a highly volatile liquids release from an underground storage cavern and explosion at Mapco Natural Gas Liquids, Inc. in Brenham Texas.</p> <p>Pipeline data from the RRC public GIS database, as indicated by the commenters, was used in the analysis in both the DEIS and FEIS. This data is included in Tables 3.9-1 and 3.9-2 in Section 3.9, Utilities and Energy, which summarize (by county) the number of utilities crossed by or running parallel to the Project, and in Appendix F, TCRR Final Conceptual Engineering Design Report. It is recognized that not all pipelines may be identified in this analysis, as this is based on existing preliminary information and early coordination by TCRR with utility owners. TCRR will be conducting further investigation in the field and further coordination with utilities as construction design advances to determine all utilities to be impacted.</p> <p>Information regarding PHMSA and FERC requirements has been added to Section 3.9.2, Utilities and Energy, Regulatory Context. TCRR is designing and would construct the Project based on industry and regulatory agency standards, as discussed in Section 3.9.6, Utilities and Energy, Avoidance, Minimization and Mitigation. TCRR is obligated to apply PHMSA safety requirements, including those related to pipeline damage, electrical emissions, and cathodic protection, where there are pipeline crossings. FERC has no jurisdiction or decision-making</p>	

authority over the construction or operation of the HSR Project. FERC-regulated pipelines occur in the Study Area, and relocation and/or maintenance activities of these utilities during the construction of the HSR Project may require FERC involvement by the applicable utility providers.

As described in **Section 3.9.6, Utilities and Energy, Avoidance, Minimization and Mitigation**, mitigation measures **EU-MM#1: Identification of Utilities**, **EU-MM#2: Relocation of Major Utilities**, and **EU-MM#3: Protection and Encasement of Major Utilities** require TCRR to perform below ground utility exploration to verify exact locations and depths of known subsurface utilities and resolve conflicts with each major utility provider, including relocation or protection of existing utilities. For gas facilities and pipelines outside the Project footprint, **Section 3.16.6.1, Safety and Security, Avoidance, Minimization and Mitigation, SS-CM#4: Perform Hazard Analysis** requires TCRR to establish a risk-based hazard management program and hazard analysis. The hazard management program would establish the process used to identify and analyze hazards; methods for determining frequency, severity, and corresponding risk of identified hazards; procedures for identifying hazard controls or mitigating actions; and risk management roles and responsibilities within the organization.

The vibration impact assessment was carried out in accordance with the methods and procedures specified in the FRA High-Speed Ground Transportation Noise and Vibration Impact Assessment guidance document. The assessment methodology, criteria for impact, and locations of impacts are contained in **Section 3.4.3.1, Noise and Vibration, Analysis Methods**; **Section 3.4.3.2, Noise and Vibration, Impact Criteria**; and **Section 3.4.5, Noise and Vibration, Environmental Consequences**, respectively, and additional detailed information is provided in **Appendix E, Noise and Vibration Technical Memorandum**.

As described in **Section 3.4.5.2.5, Noise and Vibration, Operational Vibration Impacts**, HSR trainset vibration levels will be well below the threshold for damage to structures, including underground utilities, which are 90 Vdb or greater. As a mitigation commitment, where project construction activities occur in very close proximity to underground utilities, TCRR would coordinate with the utilities to identify where mitigation measures (e.g. relocation and/or encasement of pipelines) would be needed to avoid damage and would then compensate the utilities accordingly. Construction vibration impacts are addressed in **Section 3.4.5.2.1, Noise and Vibration, Construction Noise and Vibration Impacts**.

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