

WASHINGTON
UNION STATION
STATION EXPANSION

Draft Environmental Impact Statement for Washington
Union Station Expansion Project

Appendix A4 – Concept Screening Report



U.S. Department of Transportation
Federal Railroad Administration

July 31, 2017

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Washington Union Station Expansion Project

Concept Screening Report

July 31, 2017



Table of Contents

1	Purpose of this Report	1
2	Introduction.....	2
3	Purpose and Need.....	5
4	What was the Concept Development Process?	5
5	What was the Concept Screening Process?	14
6	How has FRA Advanced Concepts to Preliminary Alternatives?.....	23
6.1	Bus Access via New York Avenue Viaduct	24
6.2	Underground Bus Facility within the Station Area.....	24
6.3	Metrobus/Commuter Bus in the Bus Facility.....	25
6.4	Element Options Outside Railyard Footprint, including Parking under Columbus Plaza.....	25
6.5	Repurposing the Historic Passenger Concourse	32
6.6	Bus Program Size.....	35
6.7	Parking Program Size.....	35
6.8	Alternative Concept 5 that Separates Buses from Train Hall	36
6.9	Reinstating the Ends of the Historic Passenger Concourse.....	36
6.10	Alternate Belowground Parking Access Options	37
6.11	Bus Facility on 1 st Street NE	37
7	What are the Preliminary Alternatives?.....	38
8	What Issues will be Considered during Alternatives Refinement?	42
9	What Follows Alternatives Refinement?.....	44
	Appendices.....	45
A	Public Meeting Summary.....	46
B	Agency Comments.....	51
C	Public Comments.....	87

List of Figures

2-1	Project Area	3
2-2	Private Air-Rights Area	4
4-1	Shared Track Plan Options (TI 14 and TI 16)	7
4-2	Combined Concourse Plan Common To All Concepts.....	7

4-3	Ride-for-Hire Options Common to All Concepts.....	8
4-4	Bicycle and Pedestrian Access Common to All Concepts.....	8
4-5	Historic Station Common to All Concepts.....	8
4-6	Concept 1A	9
4-7	Concept 1B	9
4-8	Concept 2A	10
4-9	Concept 2B	10
4-10	Concept 3A	11
4-11	Concept 3B	11
4-12	Concept 4A	12
4-13	Concept 4B	12
4-14	Concept 5	13
5-1	Retained Concept 1A	20
5-2	Retained Concept 1B	20
5-3	Retained Concept 4A	21
5-4	Retained Concept 4B	22
5-5	Retained Concept 5.....	23
6.4-1	Overview of Outside the Railyard Footprint Options	26
6.4-2	Belowground Constraints for Sites 1a, 1b, and 2.....	28
6.4-3	Conceptual Future WMATA Metrorail Rail Line and Station.....	29
6.4-4	Postal Square Building Sketch	30
6.5-1	Existing and Proposed Pedestrian Flow Diagram	34
7-1	Preliminary Alternative 1A.....	40
7-2	Preliminary Alternative 1B.....	40
7-3	Preliminary Alternative 4B.....	41
7-4	Preliminary Alternative 5	41
8-1	Bicycle Access.....	43
8-2	Pedestrian Access	43

List of Tables

1-1	Steps in Concepts to Alternatives Process for WUS Expansion Project	1
4-1	Summary of Concepts	13
5-1	Project Purpose and Screening Criteria.....	15
5-2	Screening Results	18

Concept Screening Report

1. Purpose of This Report

This Concept Screening Report was prepared by the Federal Railroad Administration (FRA), an agency within the United States Department of Transportation (USDOT), for the Washington Union Station (WUS or the Station) Expansion Project (Project). This report was produced as part of the development of an Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] § 321 et seq.); the Council on Environmental Quality (CEQ) NEPA Regulations (40 Code of Federal Regulations [CFR] §§ 1500-1508); the FRA Procedures for Considering Environmental Impacts (64 Federal Register [FR] 28545 [May 26, 1999]); and FRA's Update to NEPA Implementing Procedures (78 FR 2713 [January 14, 2013]). The National Historic Preservation Act of 1966 (as amended) (NHPA) Section 106 process is coordinated with the NEPA process for this Project in keeping with CEQ and Advisory Council on Historic Preservation (ACHP) guidance ("NEPA and NHPA: A Handbook for Integrating NEPA and Section 106" March 2013).

For this Project, FRA is following a four-step process from development of concepts to identification of alternatives for evaluation in the EIS (see Table 1-1). This report documents the first three steps in the process: Concept Development, Concept Screening, and Concept Refinement, and identifies the preliminary alternatives that will be carried forward into the Alternatives Refinement phase, the fourth step.

Following Alternatives Refinement, FRA expects to identify the alternatives that will be evaluated in the EIS. FRA will document the Alternatives Refinement process, including any changes to the Preliminary Alternatives or the addition of new alternatives, and will inform the public about the Alternatives that will be carried forward for evaluation in the EIS. FRA will then proceed to prepare a Draft Environment Impact Statement (DEIS) that analyzes the Alternatives and the No Action (No Build) Alternative. FRA will make the DEIS available for public comment, consistent with the requirements of NEPA, CEQ's NEPA regulations, and FRA's Procedures for Considering Environmental Impacts.

Table 1-1. Steps in Concepts to Alternatives Process for WUS Expansion Project

Step	Result/Outcome	Approximate Timeframe
Concept Development	Project Proponents (Amtrak and USRC) identify preliminary concepts for screening by FRA	July 2016
Concept Screening	FRA identifies retained concepts for refinement	January 2017
Concept Refinement	FRA identifies preliminary alternatives for refinement	April 2017
Alternatives Refinement	FRA refines alternatives for consideration in EIS	Summer–Fall 2017

2. Introduction

WUS was designed by renowned architect Daniel Burnham, and constructed between 1903–1908 to serve as the central train terminal for the Nation’s capital. As passenger rail service declined, the Station was converted to the National Visitor Center by an Act of Congress in 1968. As the Station deteriorated and rail ridership began to rebound, Congress passed the Union Station Redevelopment Act of 1981 (Act). The Act authorized the Secretary of Transportation to rehabilitate and redevelop WUS as a multi-use transportation facility and commercial complex. (Pub. L. 97-125, December 29, 1981). The Secretary of Transportation delegated responsibility for the Station to FRA. The Act articulates the following four goals for the Station: (1) preserve the Historic station building; (2) restore and operate the Historic station building as a passenger rail station with facilities for charter, transit, and intercity busses; (3) financially support the continued maintenance and operations of the station through commercial development; and (4) allow for the Federal government to withdraw from active operation and management of the Station as soon as practical and with the least possible expense to the Federal government. In 1985, FRA subleased¹ WUS to the Union Station Redevelopment Corporation (USRC) under a long-term (85-year) lease. Under the lease, USRC is responsible for the rehabilitation, redevelopment, and ongoing management and operations of WUS.

USRC, in coordination with the National Railroad Passenger Corporation (Amtrak) (jointly, the Project Proponents), determined that WUS needs to be expanded and modernized to meet current and future needs. The WUS Expansion Project Area is depicted in the area bordered by the dashed yellow line in Figure 2-1.

¹ In 1988, FRA became the owner of WUS. Before 1988, FRA leased WUS from Terminal Realty Baltimore Co. and Terminal Realty Penn Co.

Figure 2-1. Project Area



In 2006, a private developer acquired from the General Services Administration (GSA) the air-rights, or the right to develop in the 14-acre area approximately 70-80 feet above the tracks, from north of the WUS historic building to K Street, excluding the area currently occupied by the Claytor Concourse, vehicular ramps, and bus and parking facility. The District of Columbia subsequently zoned the air-rights property, which continues to be privately owned, with the Union Station North (USN) designation. This zone allows for mixed-use development and heights of up to 130 feet above the level of H Street (see Figure 2-2 below).

Figure 2-2. Air-Rights Area



The Federal government, acting through the FRA, owns the Station building, parking garage, and underlying real property, and may issue approvals or provide funding in the future for construction of the Project. FRA is the lead Federal agency preparing the EIS. The EIS will provide the FRA, other agencies, and the public with information to evaluate the potential environmental impacts of the Project alternatives, and to identify potential avoidance/mitigation measures, as appropriate. The EIS will evaluate reasonable alternatives for the proposed WUS Expansion Project, including a No Action (No Build) Alternative.

3. Purpose and Need

The development of the Purpose and Need was coordinated with the public and agencies.

The purpose of the Washington Union Station Expansion Project (the Project) is to support current and future long-term growth in rail service and operational needs; achieve compliance with the Americans with Disabilities Act (ADA) and emergency egress requirements; facilitate intermodal travel; provide a positive customer experience; enhance integration with the adjacent neighborhoods, businesses, and planned land uses; sustain the Station's economic viability; and support continued preservation and use of the historic station building.

The Project is needed to improve rail capacity, reliability, safety, efficiency, accessibility, and security, for both current and future long-term railroad operations at this historic station.

4. What was the Concept Development Process?

The first step of the Concepts to Alternatives Process is referred to as Concept Development. During Concept Development, the Project Proponents jointly submitted to FRA a *Concept Development and Evaluation Report (CDR)* in July 2016. The goals of the CDR were to develop and assess concepts for redeveloping WUS as a world-class multimodal transportation hub consistent with the draft Purpose and Need outlined in the November 2015 Notice of Intent.² FRA treated the concepts presented to them by the Proponents as "preliminary" concepts. FRA evaluated these preliminary concepts through a screening process based on Purpose and Need (see Section 5). To develop these preliminary concepts, the CDR evaluated a variety of options for including eight key program elements in the Project. The *Union Station Redevelopment Act of 1981* identified core functions of WUS and influenced the selection of the program elements listed below.³ Many elements are shared across all concepts, as shown in Figures 4-1 through 4-5 below:

1. **Tracks and Platforms** – The tracks and platforms provide space for trains and their passengers and are the core function of the Station. Two track and platform plans developed by Amtrak, referred to as terminal infrastructure (TI) Options 14 and 16, are common to all the concepts. Amtrak developed a range of options for TI. Options 14 and 16 were selected to move forward because they meet future rail demands and facilitate increased operational reliability. Option 14 has 19 total revenue tracks, including seven run-through tracks. The option provides typical 30-foot-wide platforms with an opening for the central concourse beneath the track level that narrows from the terminal out into the train yard. Option 16 has 19 total revenue tracks, including seven run-through tracks. The option provides typical 30-foot-wide platforms and a large central platform at track level over the concourse. Skylights are provided to the concourse below.

² Environmental Impact Statement for the Washington Union Station Expansion Project, 80 Fed. Reg. 213 (November 4, 2015). <https://www.fra.dot.gov/Elib/Details/L17199>.

³ Public Law 97-125.

2. **Bus** – Intercity and tour/charter buses are important parts of the programming at Union Station as identified in the Union Station Redevelopment Act of 1981. During concept development, the 2040⁴ peak bus demand was estimated to be 47 active spaces compared to 61 total spaces in the facility today.
3. **Train Hall** – A monumental train hall would be an architectural feature to add air and light to the main train concourse and train platforms and is a common feature at large train stations across the globe.
4. **Parking** – Parking has been a component of the program at WUS since the Union Station Redevelopment Act of 1981 and benefits Amtrak and retail users at WUS. During concept development, the 2040 peak parking demand was estimated to be 2,730 spaces across Amtrak, retail, and rental car needs compared to 2,200 spaces in the garage today.
5. **Concourses and Retail** – Concourses provide circulation space for passengers, and retail contributes financing for Station maintenance and operations while enhancing the passenger experience. A shared concourse plan, which includes a “Concourse A” at the south end of the tracks adjacent to the Historic station and concourses beneath H Street below the tracks, along the 1st Street side of the project, and beneath the central tracks, is common to all concepts.
6. **Taxi/Shared Ride** – For-hire vehicle⁵ facilities provide WUS visitors with a range of transportation options. All concepts envision for-hire vehicle pick-up and drop-off at the front of the historic station, in an underground facility beneath the H Street Concourse, and on a deck on the same level of H Street.
7. **Historic station** – The historic station building is a National Historic Landmark and an important part of the urban fabric of Washington, D.C. All concepts integrate the station expansion with the historic station.
8. **Bicycle and Pedestrian Access** – Ensuring quality bicycle and pedestrian access is essential for a multimodal facility in a downtown environment. All concepts envision enhancements to bicycle and pedestrian access to and within the station, as well as new opportunities for bicycle parking.

These eight key program elements were identified by the Project Proponents from feedback received through a stakeholder engagement process between Fall 2015 and Spring 2016, and from review of statutory requirements described in the Union Station Redevelopment Act of 1981. A public informational forum was held on March 30, 2016, to present and receive public feedback on the program elements. As the Notice of Intent for the Project was published in the Federal Register on November 4, 2015, this outreach occurred during the NEPA process.

A total of 18 preliminary concepts were developed by the Project Proponents. The *CDR* individually evaluated options for the different program elements and each of the 18 preliminary concepts based on whether they were feasible and helped to achieve a series of design goals and objectives

⁴ 2040 is the build year for the Project. Rail, bus, and vehicular needs are projected to 2040 in the planning of the Station.

⁵ “For-hire vehicle” refers to taxis and transportation networking companies like Uber and Lyft.

based on the Project’s draft Purpose and Need as described in the Notice of Intent to Prepare an EIS (published in the Federal Register on November 4, 2015). Nine of the 18 concepts envisioned placing additional below-grade tracks beneath the station to accommodate increased passenger rail capacity. Amtrak conducted an analysis of WUS’ rail capacity needs and determined in June 2016 that additional tracks below grade would not be needed in the time horizon of the Project. Therefore, only the nine preliminary concepts without below grade tracks were retained for screening by FRA (see Figures 4-1 through 4-9 below). All feasible preliminary concepts require some placement of Project elements within private air-rights.

Figure 4-1. Shared Track Plan Options (TI 14 and TI 16)

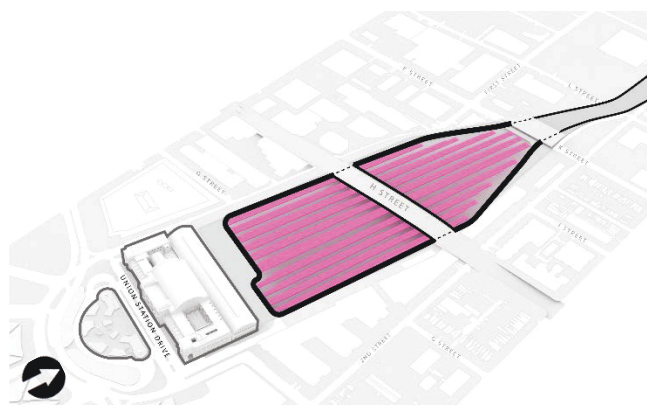


Figure 4-2. Combined Concourse Plan Common to All Concepts

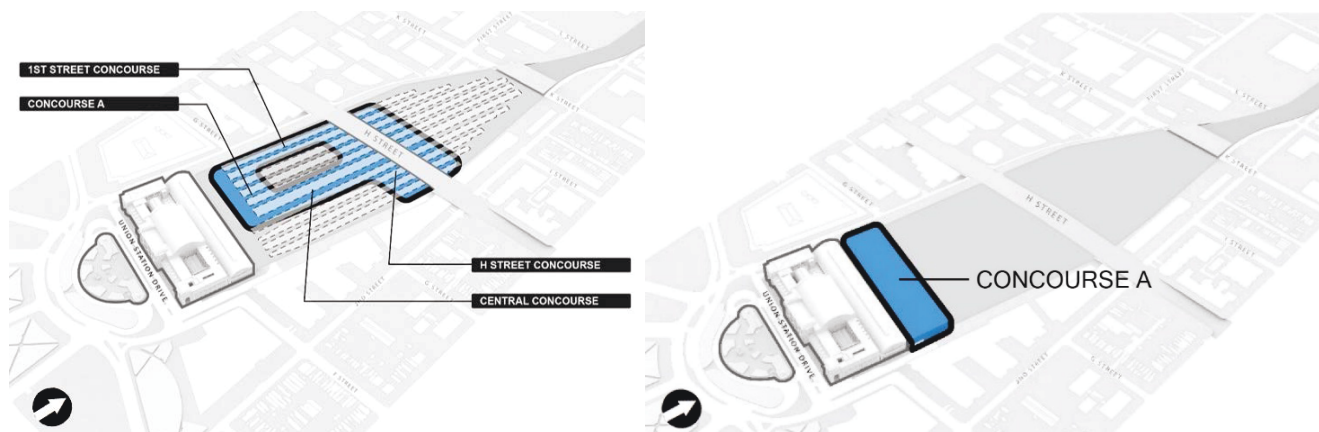


Figure 4-3. Ride-for-Hire Options Common to All Concepts

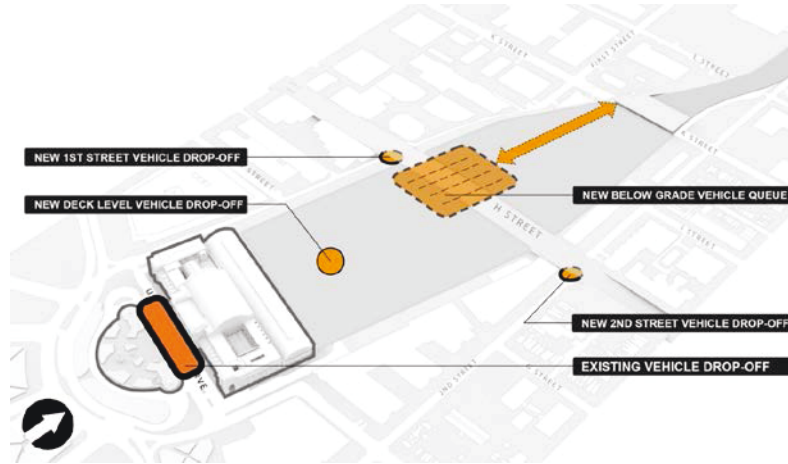


Figure 4-4. Bicycle and Pedestrian Access Common to All Concepts

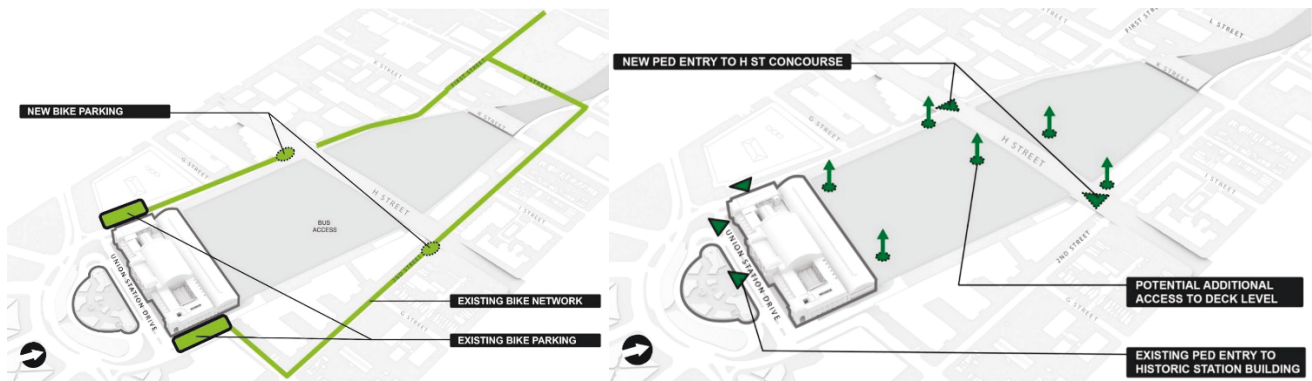
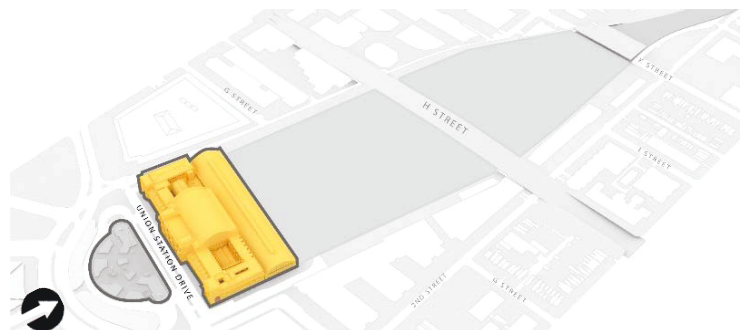


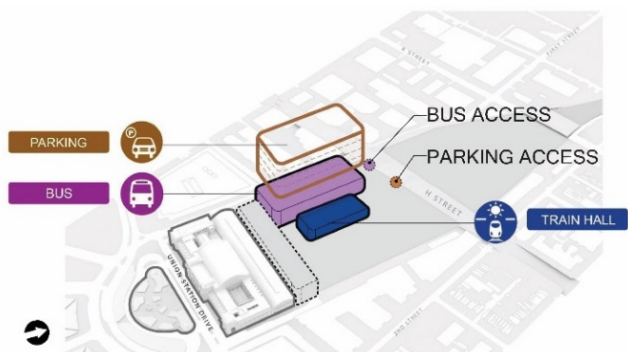
Figure 4-5. Historic Station Common to All Concepts



Concept 1A

Concept 1A features a combined bus and aboveground-parking facility on the southwest area of the railyard in the general location of the existing bus and parking garage.⁶ The parking facility can accommodate 1,664 spaces for Amtrak, rental car, and retail uses.⁷ The bus facility can accommodate 34 active bus slips⁸ on two levels. Most of the bus and parking facility would be on Federal property. Concept 1A has a north-south running train hall. The north-south train hall covers three tracks. The train hall in 1A is narrowed compared to some other concepts due to the access ramp for the adjacent aboveground parking.

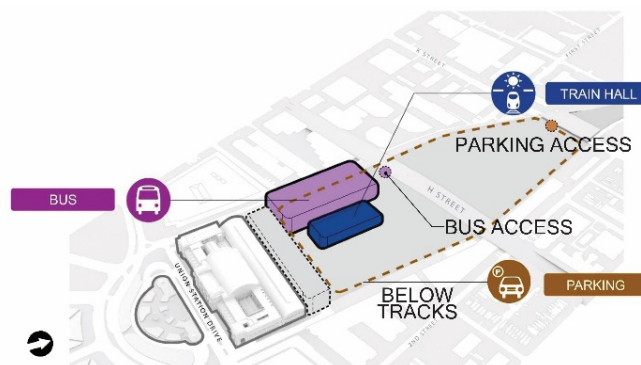
Figure 4-6. Concept 1A



Concept 1B

Concept 1B locates the bus facility on the southwest area of the railyard at the general location of the existing bus and parking garage. Parking is located belowground. The parking facility can accommodate 2,497 parking spaces over 2.5 levels of parking underground,⁹ for Amtrak, rental car, and retail uses. The bus facility can accommodate 34 active slips on two levels. Most of the bus facility would be on Federal property. No parking ramp is required, resulting in a north-south train hall that covers four tracks—one track wider than Concept 1A.

Figure 4-7. Concept 1B



⁶ As of May 2017, FRA is evaluating the feasibility of retaining the existing garage. Please see Section 6.

⁷ The concept design for the facility is consistent with the height limits established by the adjacent USN zoning district.

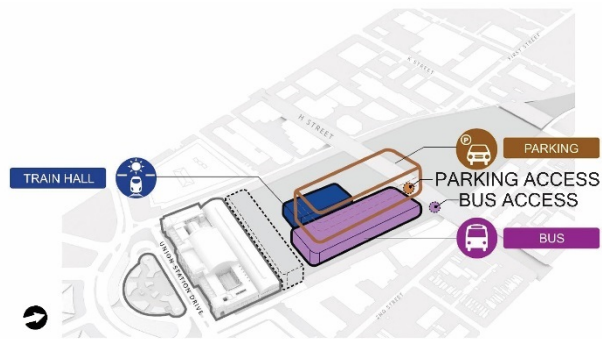
⁸ An active bus slip is a slip designed for active unloading, loading, and short (under two-hour) waiting periods for intercity and charter buses. It is not designed for the long-term layover of buses beyond two hours.

⁹ It is possible that additional parking spaces could be provided by making the parking garage deeper.

Concept 2A

Concept 2A locates the bus facility and parking garage on the southeast area of the railyard. Both facilities would be located aboveground. The parking facility can accommodate 1,936 parking spaces for Amtrak, rental car, and retail uses. The bus facility can accommodate 48 active slips on two levels. Due to the parking ramp for the aboveground facility, a narrowed north-south train hall would be provided that covers three tracks. Most of the elements—parking, bus, and much of the train hall—would be in the private air-rights.

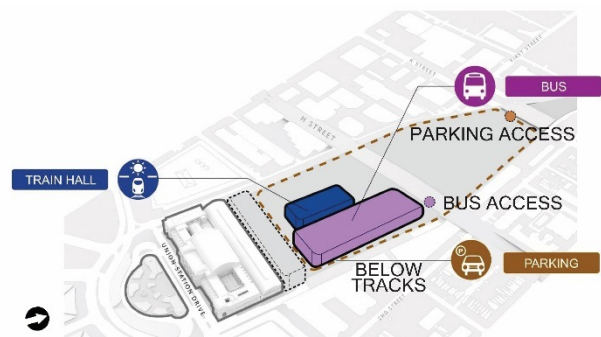
Figure 4-8. Concept 2A



Concept 2B

Concept 2B locates the bus facility over the railyard to the southeast area of H Street NE. Parking is located underground and beneath the track area between the Concourse and K Street NE. The parking facility can accommodate 2,497 parking spaces for Amtrak, rental car, and retail uses. The bus facility can accommodate 48 active slips on two levels. A wider north-south train hall than in Concept 2A that covers four tracks would be provided, as no parking ramp is required. Several of the elements—including bus and much of the train hall—would be in the private air-rights.

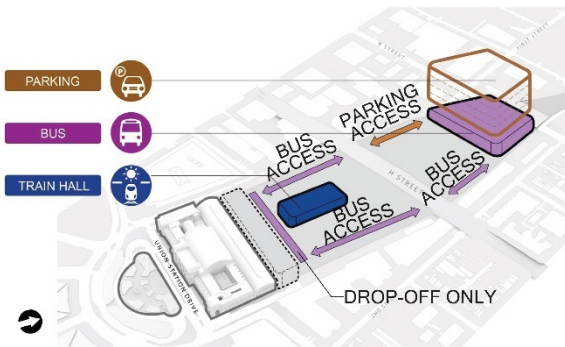
Figure 4-9. Concept 2B



Concept 3A

Concept 3A locates the bus facility and the parking garage aboveground, over the railyard and to the north of H Street NE. For buses, an additional drop-off facility would be located on the deck adjacent to Concourse A. The parking facility can accommodate 1,827 parking spaces for Amtrak, retail, and rental car uses. The bus facility can accommodate 42 active slips (34 on two levels of the bus terminal and eight at the concourse). Concept 3A provides a north-south train hall that is the same width as the train halls in Concepts 1B and 2B, covering four tracks. Most of the elements—parking, bus, and much of the train hall—would be in the private air-rights.

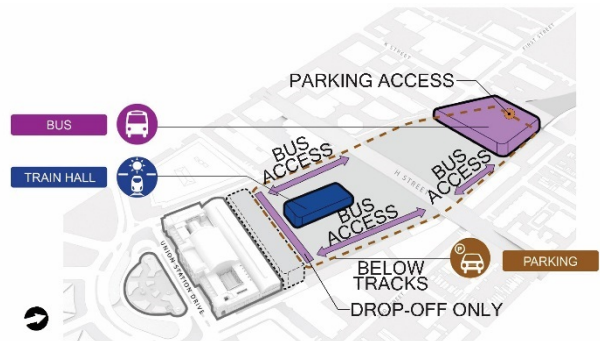
Figure 4-10. Concept 3A



Concept 3B

Concept 3B locates the bus facility above the railyard to the north of H Street NE with an additional drop-off facility located on the deck adjacent to the concourse. The parking would be located underground and beneath the track area between the Concourse and K Street NE. The parking facility can accommodate 2,497 parking spaces for Amtrak, retail, and rental car uses. The bus facility can accommodate 42 active slips (34 on two levels of the bus terminal and eight at the concourse). Concept 3B provides a north-south train hall that is the same width as the train halls in Concepts 1B, 2B, and 3A, covering four tracks. Most of the elements—parking, bus, and much of the train hall—would be in the private air-rights.

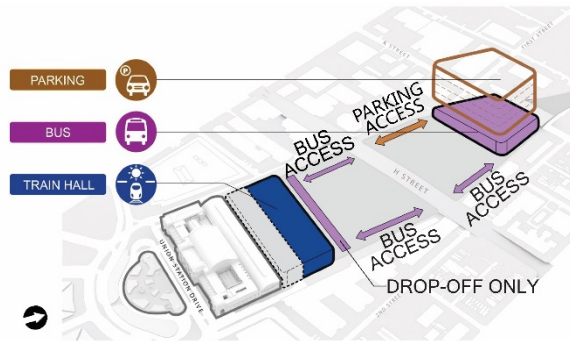
Figure 4-11. Concept 3B



Concept 4A

Concept 4A locates the bus facility and the parking garage above the tracks to the north of H Street NE. For buses, an additional drop-off facility would be located on the deck adjacent to the Concourse. The parking facility could accommodate 1,827 parking spaces for Amtrak, retail, and rental car uses. The bus facility can accommodate 42 active slips (34 on two levels of the bus terminal and eight at the concourse). In contrast to Concept 3A, Concept 4A has an east-west train hall integrated into Concourse A, covering the first 250 feet of all the tracks. Most of the elements—parking, bus, and much of the train hall—would be in the private air-rights.

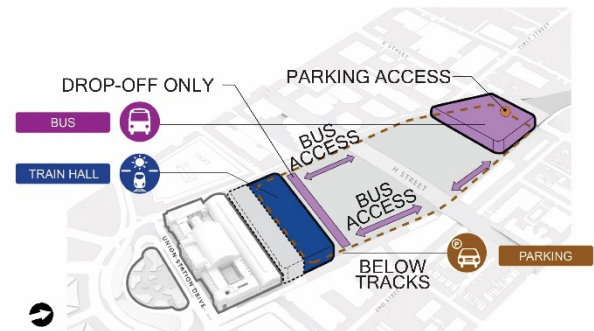
Figure 4-12. Concept 4A



Concept 4B

Concept 4B locates the bus facility above the tracks to the north of H Street NE with an additional drop-off facility located on the deck adjacent to the concourse. Underground parking would be located beneath the track area between the Concourse and K Street NE. The parking facility can accommodate 2,497 parking spaces for Amtrak, retail, and rental car uses. The bus facility can accommodate 42 active slips (34 on two levels of the bus terminal and eight at the concourse). In contrast to Concept 3B, Concept 4B has an east-west train hall integrated into Concourse A, covering the first 250 feet of all the tracks. Most of the elements—parking, bus, and much of the train hall—would be in the private air-rights.

Figure 4-13. Concept 4B



Concept 5

Concept 5 locates the bus terminal above an integrated east-west train hall covering the first 100 feet of all the tracks and Concourse A. Underground parking would be located beneath the track area between the Concourse and K Street NE. The parking facility can accommodate 2,497 parking spaces for Amtrak, retail, and rental car uses. The bus facility can accommodate 40 active slips. Approximately half of the project elements above the tracks are in Federal air-rights, while half are within private air-rights.

Figure 4-14. Concept 5

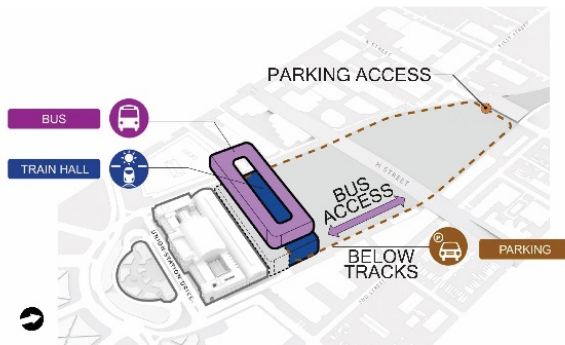


Table 4-1. Summary of Concepts

Concept	Tracks and Platforms	Train Hall	Parking	Bus
Concept 1A	Options 14 or 16	North-south	Aboveground southwest of H Street	Southwest of H Street
Concept 1B	Options 14 or 16	North-south	Below the tracks	Southwest of H Street
Concept 2A	Options 14 or 16	North-south	Aboveground southeast of H Street	Southeast of H Street
Concept 2B	Options 14 or 16	North-south	Below the tracks	Southeast of H Street
Concept 3A	Options 14 or 16	North-south	Aboveground north of H Street	North of H Street
Concept 3B	Options 14 or 16	North-south	Below the tracks	North of H Street
Concept 4A	Options 14 or 16	East-west	Aboveground to the north of H Street	North of H Street
Concept 4B	Options 14 or 16	East-west	Below the tracks	North of H Street
Concept 5	Options 14 or 16	East-west	Below the tracks	In east-west train hall

5. What was the Concept Screening Process?

The Project Proponents provided the *CDR* to FRA on July 13, 2016, which marked the end of the Concept Development step and the start of the Concept Screening step. In Concept Screening, FRA first reviewed the *CDR* and determined that the nine preliminary concepts recommended in the report were reasonable and feasible. Then, FRA conducted an initial assessment of whether each concept met Purpose and Need based on a “yes or no” consideration of whether the concepts addressed, on a basic level, the different aspects of the Purpose and Need.

All concepts support current and future long-term growth in rail service by meeting 2040 rail capacity demands. They achieve compliance with the ADA and emergency egress requirements. They facilitate intermodal travel by providing space for buses, private vehicles, and for-hire vehicles and circulation space to connect across those modes. They provide a positive customer experience with their increased concourse space and the introduction of a train hall. They all enhance integration with adjacent neighborhoods, businesses, and planned land uses by creating new connections to those neighborhoods and leaving space for planned air-rights development. They sustain the Station’s economic viability by increasing the retail space available in the Station. They support continued preservation and use of the historic building by keeping the historic building as the “front door” of the station and connecting the historic building with the station expansion. Therefore, each of the nine preliminary concepts was determined to meet Purpose and Need.

The nine preliminary concepts were then further assessed by FRA on the degree to which they met Purpose and Need. This assessment was based on 10 screening criteria that FRA developed for this Project (see Table 5-1). Nine criteria were directly related to the Purpose and Need of the Project. The tenth criterion—constructability—is not based on Purpose and Need, but is an important criterion that assesses whether the proposed concepts are buildable, and therefore feasible.

Each of the 10 screening criteria listed in Table 5-1 is composed of sub-criteria that address a range of issues. The FRA evaluation team assessed whether each preliminary concept had high compatibility, medium compatibility, or low compatibility with each sub-criterion. This analysis resulted in a score and ranking of each preliminary concept. The analysis was based on the information that was available at this stage of concept development.

Table 5-1. Project Purpose and Screening Criteria

Purpose Statement	Screening Criterion	Sub-Criteria
Support current and future long-term growth in rail service and operational needs	Provide needed platform/rail capacity and rail operational requirements	<ul style="list-style-type: none"> • Adequate track and platform capacity to meet future needs • Multiple access points to each platform • Accommodate increased passenger volumes without substantially impeding the concourses or other key circulatory corridors • Platforms accommodate two trains
Achieve compliance with the ADA and emergency egress requirements	All nine concepts were designed to meet code and regulatory requirements and therefore were not further screened on this item.	<ul style="list-style-type: none"> • n/a
Facilitate intermodal travel	Meet future multimodal capacity needs	<ul style="list-style-type: none"> • Capacity of taxi and shared-ride pick-up/drop-off facilities • Capacity of bus terminal • Parking capacity • Increased bicycle capacity
	Meet operational needs of multimodal facilities and minimize impact on roadways	<ul style="list-style-type: none"> • Operations of taxi and shared-ride facilities • Operations of bus terminal • Parking operations • Cumulative impacts of location of new vehicular access points for parking, buses, and taxi/shared-ride vehicles relative to the local street system
	Improve internal circulation	<ul style="list-style-type: none"> • Improved passenger movement between trains and Metro lobby • Improved passenger navigation • Reduced or eliminated congestion points • Ease of movement between the bus terminal and the main concourse • Ease of movement between the bus terminal and the H Street Concourse • Ease of movement between parking and the main concourse • Ease of movement between parking and the H Street Concourse • Provide ingress and egress for all modes or connections, including bicycle and pedestrian, to meet current and future demand
Provide a positive customer experience	Quality of the train hall experience	<ul style="list-style-type: none"> • Volume of the train hall • Number of platforms/tracks served by the train hall • Percentage of users who will be able to experience the train hall • Visual experience provided by the train hall • Spatial experience provided by the train hall • Visual experience provided by the concourses • Spatial experience in the concourses • Space for train amenities (Club Acela, waiting areas, restrooms, baggage claim)

Purpose Statement	Screening Criterion	Sub-Criteria
Enhance integration with the adjacent neighborhoods, businesses, and planned land uses	Enhance integration with the adjacent neighborhoods, businesses, and planned land uses	<ul style="list-style-type: none"> • The estimated number and maximum size of development parcels within the 14-acre air-rights development area (based on zoning approval—height and footprint) • Availability of southeast corner of air-rights area for development • Availability and size of air-rights development area parcels to be constructed during the early phases of the Project • Integration with adjacent neighborhoods and businesses outside of rail yard footprint
Sustain the Station’s economic viability	Sustain the Station’s economic viability	<ul style="list-style-type: none"> • Space available for retail to increase USRC revenue stream to support maintaining the historic building • Parking spaces available to serve Station retail • Proximity of parking to existing Station retail
Support continued preservation and use of the historic station building	Preserve and maintain the historic Union Station building and urban environment	<ul style="list-style-type: none"> • Visual relationship between the expansion and the historic Union Station building • Alteration of the historic Union Station building • Impact on important viewsheds • Impact on L’Enfant Plan Streets • Urban design context of overbuild (parking/bus) • Impacts on nearby historic properties • Alterations or use of Columbus Plaza
Constructability ¹⁰	Offer ease of construction and maintain station operations during construction	<ul style="list-style-type: none"> • Impacts on railroad and station operations • Available staging locations • Excavation • Impacts to garage operations • Site restrictions • Construction techniques • Impacts to WMATA • Site security

¹⁰ As noted above, constructability is not based on Purpose and Need but is an important criterion to determine feasibility of a concept.




FRA performed a screening of the concepts using these criteria, assessing the concepts qualitatively and quantitatively when possible. FRA's preliminary screening results were presented to the public and agencies in a series of meetings in October 2016 and are available on the Project website.¹¹ The results for each criterion were based on the extent to which the concepts addressed the sub-criteria listed in Table 5-1 above. Comments received in those meetings and during a comment period that ended on November 6, 2016, were considered in the identification of concepts to be retained for further refinement. Full agency comments, public comments, and a public meeting summary are available in the Appendix to this report.

Comments were received on potential effects to some EIS environmental resource areas (Visual/Aesthetics, Transportation/Traffic, Land Use, Social and Economic Effects, Construction Impacts, Section 4(f) Resources, Historic Properties, and Cumulative Impacts); preliminary concepts; and FRA's preliminary concept screening. Feedback provided pertinent information for the review of these preliminary concepts, including public and agency opinions on the preliminary concepts, and suggestions for other approaches that may not have been embodied in the preliminary concepts. This coordination yielded suggestions for concept approaches that warranted further investigation during the Concept Refinement and Alternatives Refinement phases of the project (see Sections 6 and 7 of this Report). The results of FRA's screening process, accounting for public and agency comments, are provided in Table 5-2 below.

¹¹ See: www.WUSstationexpansion.com

Table 5-2. Screening Results

Legend

	High Compatibility
	Medium Compatibility
	Low Compatibility

Concepts

Criterion	1A	1B	2A	2B	3A	3B	4A	4B	5
1. Quality of Train Hall Experience	Low	Medium	Low	Medium	Low	Low	High	High	Medium
2. Quality of Concourse Experience	High	High	High	High	High	High	High	High	High
3. Provide Needed Platform/Rail Capacity and Rail Operational Requirements	High	High	High	High	High	High	High	High	High
4. Meet Future Multimodal Capacity Needs	Medium	Medium	High	High	Medium	High	Medium	High	High
5. Meets Operational Needs of Multimodal Facilities and Minimizes Impacts on Roadways	Medium	Medium	Low	Medium	Medium	Medium	Medium	Medium	Medium
6. Improves Internal Circulation	High	High	High	High	Medium	High	Medium	High	High
7. Preserves and Maintains the Historic Union Station Building and Urban Environment	Medium	High	Medium	High	High	High	High	High	High
8. Sustains the Station’s Economic Viability	High	High	High	High	Medium	High	Medium	High	High
9. Offers Ease of Construction and Maintains Station Operations During Construction	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
10. Enhances Integration with Adjacent Businesses, Neighborhoods, and Future Land Uses	High	High	Medium	Medium	Medium	Medium	High	High	High

FRA conducted a thorough assessment of the preliminary concepts and found that the concepts broadly scored similarly on the screening criteria. FRA considered the comments from the public and agencies in determining which concepts to refine for development into preliminary alternatives. On the basis of its review of the concepts and the comments received, FRA concluded that Concepts 2A, 2B, 3A, and 3B should be dismissed from further consideration. FRA retained Concepts 1 (both A and B), 4 (both A and B), and 5 for further refinement and to evaluate their suitability as alternatives in the EIS.

The two concepts that were dismissed after screening are:

- **Concept 2 (A and B)** – FRA determined that Concept 2 should be dismissed. Concept 2 scored the lowest on average of any of the five concepts. While Concept 2 met the bus program requirements, its multimodal operations were difficult because parking and for-hire vehicle operations exit at an un-signalized intersection, and it would require the acquisition of the greatest amount of private property. In contrast to Concept 1, which provides similar facilities on the west side of a north-south train hall, Concept 2 has more challenging multimodal operations in terms of facilitating easy access of taxis, cars, and buses, and has a greater impact on private property.
- **Concept 3 (A and B)** – FRA determined that Concept 3 should be dismissed. Concept 3 scored the second-lowest on average of the five concepts. Concept 3’s placement of the bus/parking facility on the north side of the railyard footprint had some historic preservation and urban design benefits because of the distance between these elements and the historic station. However, Concept 3 did not score as highly as Concept 4—to which it is similar—because it requires more acquisition of private air-rights and the north-south train hall provides a positive experience for fewer customers. This is because the north-south train hall covers three to four tracks, while the east-west train hall covers all tracks.

The three concepts that were retained for further refinement and analysis are:

- **Concept 1 (A and B)** – This Concept scored third overall in the screening results. The Concept promotes multimodal connections and internal circulation because of the closeness of the bus/parking facility to the station and minimizes the impacts to private land uses by placing most of the bus/parking facility in Federal air-rights. However, there are concerns about whether parking and bus operations could be maintained during construction of this Concept, which would require identifying temporary locations for these important station elements for an extended period of time. The placement of the parking facility adjacent to the historic building raised concerns about potential impacts to the historic setting; and bus access in and out of the bus facility may pose challenges because the ramp needed to access the facility requires buses to make sharp turns.

Figure 5-1: Retained Concept 1A

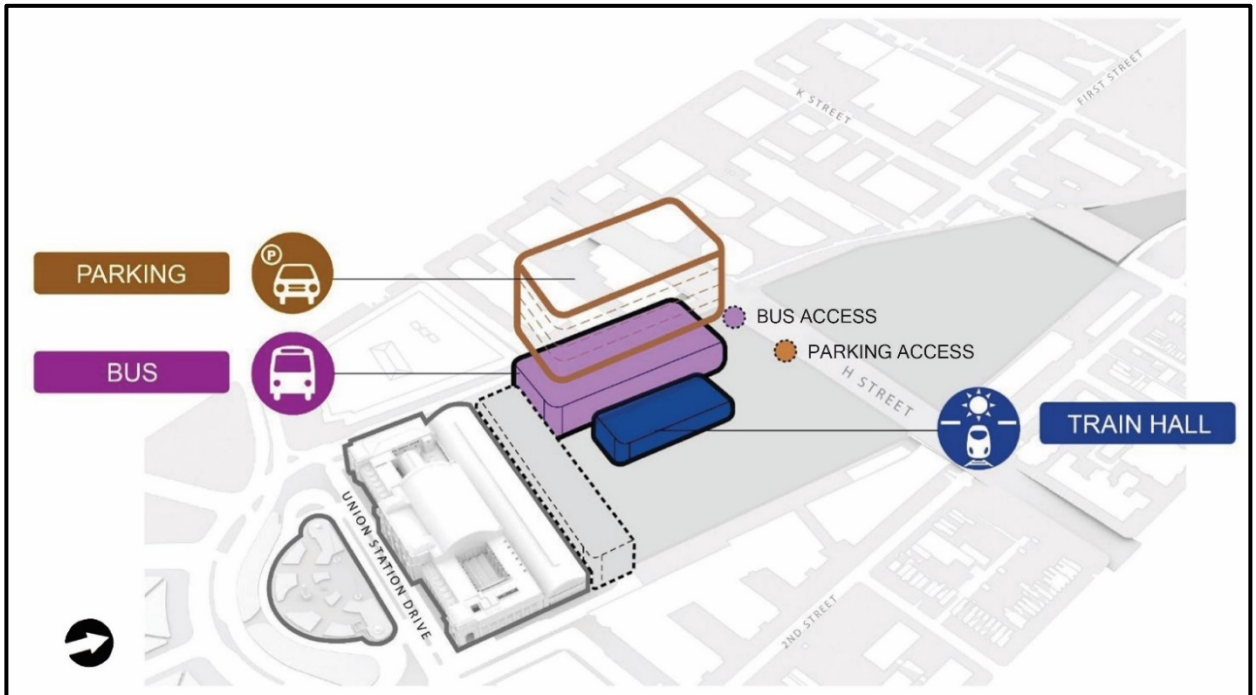
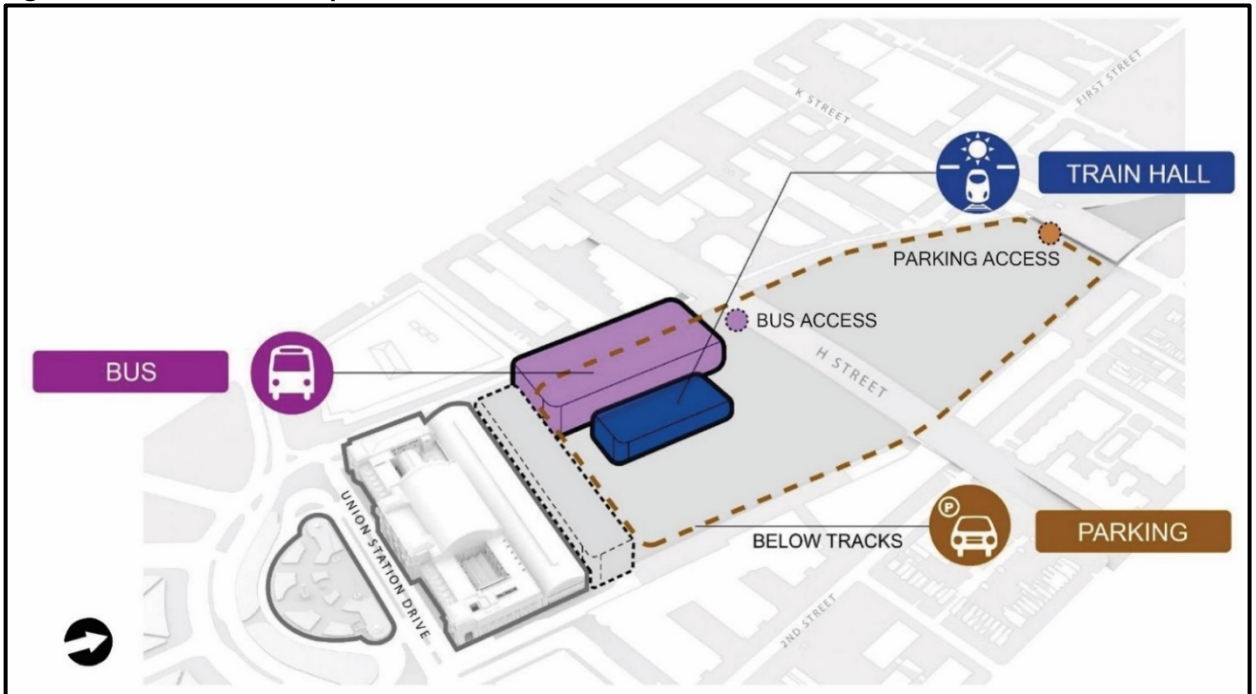


Figure 5-2: Retained Concept 1B



- **Concept 4 (A and B)** – This Concept scored second overall in the screening process. The concept scored well because it provides the east-west train hall that allows all passengers the opportunity to experience this project element and the bus and/or parking facility in the north side of the railyard footprint minimized aesthetic impacts on the historic station because of the distance between the bus/parking and the historic station. However, there are concerns about the long distance that users of the northern bus facility and parking facility must traverse to reach the Station and the private air-rights owner has expressed opposition to bus uses in their property.

Figure 5-3: Retained Concept 4A

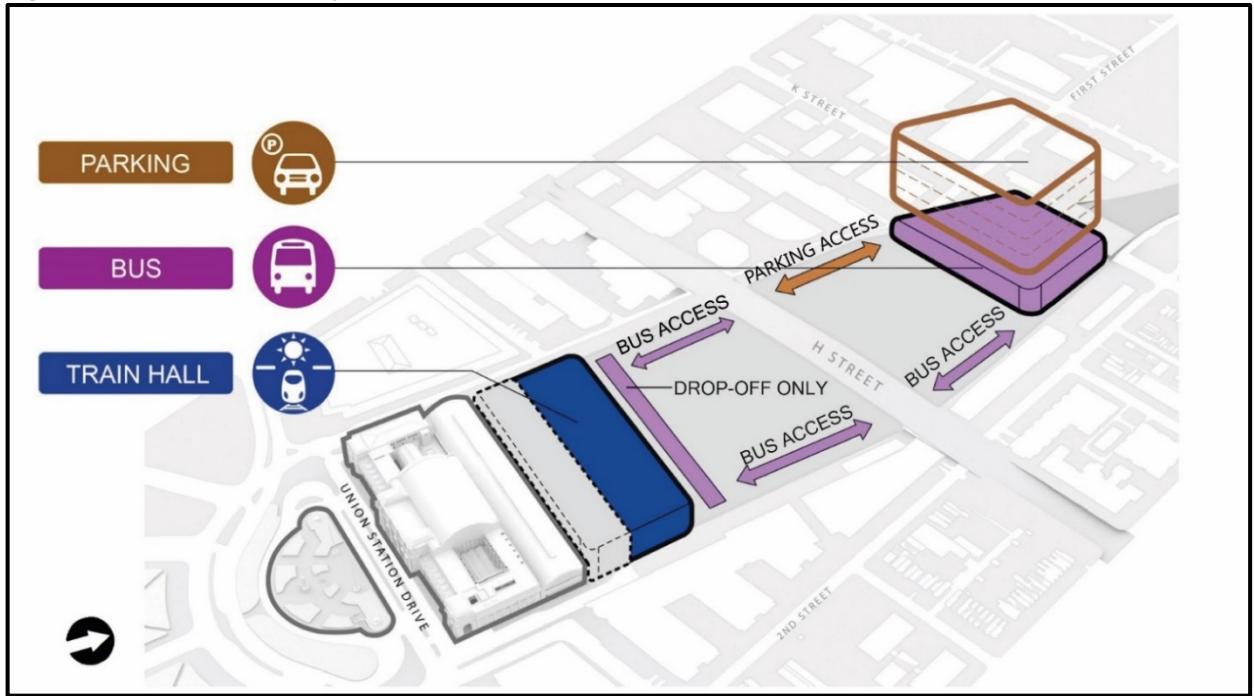
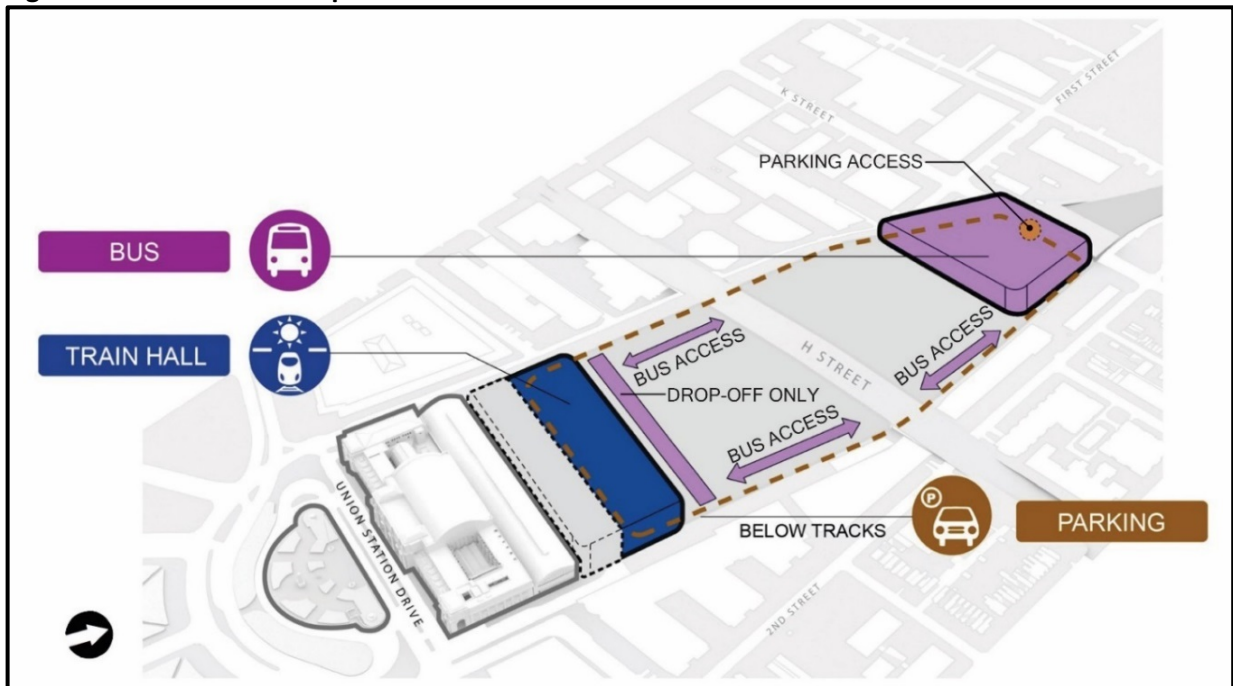
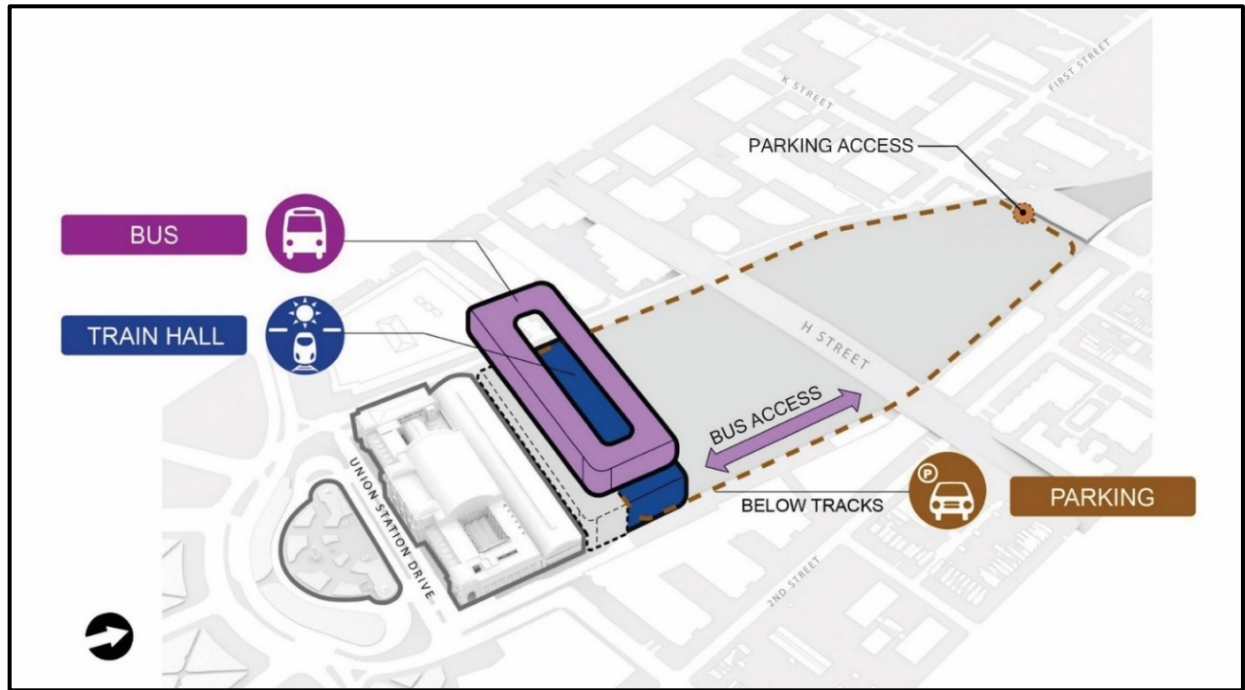


Figure 5-4: Retained Concept 4B



- **Concept 5** – This concept scored first overall in the screening process. The concept scored well because it brings together the various elements of the Station in an integrated bus terminal-train hall, had the smallest impact on the private air-rights development, and actually increased the amount of air-rights available for development. However, there are concerns about the impact of the bus terminal on the quality of the train hall experience for passengers and potential historic impacts from placing these program elements immediately adjacent to the historic station.

Figure 5-5: Retained Concept 5



6. How has FRA Advanced Concepts to Preliminary Alternatives?

The final two steps in the four-step approach to identifying alternatives are referred to as Concept Refinement and Alternatives Refinement. The first of these two steps, Concept Refinement, has been completed and is described in the section below.

What Issues were considered during Concept Refinement?

During the Concept Refinement step, FRA worked with the Project Proponents to refine the retained concepts to address public and agency comments. In addition, FRA analyzed some ideas and issues raised by the public, agencies, and Project Proponents during Concept Screening.¹² These ideas were analyzed with the same approach used for the initial nine concepts. They were assessed for feasibility, reasonableness, and whether they met an initial assessment of Purpose and Need.

The issues and ideas addressed during Concept Refinement are:

1. Bus access via New York Avenue Viaduct
2. Underground bus facility within the Station Area
3. Metrobus/commuter bus in the bus facility
4. Elements outside the railyard footprint, including parking under Columbus Plaza
5. Repurposing the Historic Passenger Concourse
6. Bus program size

¹² FRA will address the remainder of comments and design issues raised during Concept Screening during Alternatives Refinement.

7. Parking program size
8. An alternative Concept 5 that separates buses from the train hall
9. Reinstating the ends of the Historic Concourse
10. Alternative belowground parking access options
11. Bus facility on 1st Street NE

These issues are described in more detail below.

- 6.1 Bus Access via New York Avenue Viaduct** – Some commenters advocated for the consideration of bus access by a viaduct connecting the Project to New York Avenue. This proposal would be designed to minimize bus traffic along H Street by providing a direct connection to New York Avenue, from which buses would access U.S. 50, the Baltimore-Washington Parkway, and I-495/I-95. Constructing this proposed route would require placing columns to support the viaduct along the existing rail line. The placement of columns along this area is likely not feasible because the track plan (either TI 14 or 16) needed to meet future WUS rail capacity needs takes up most of the available right-of-way. Even if it were feasible, these columns would create an unreasonable constraint to future expansions or modifications of the tracks leading to WUS. The construction of an elevated highway-like structure in downtown would detract visually and create impacts to adjacent properties, including the potential for adverse effects to historic properties. Additionally, some buses serving WUS are not heading north and therefore would not make use of this approach, so an alternative route would be required for those buses. This approach would create substantial challenges with limited benefit. Because this option may not be feasible and is not reasonable, the FRA will not investigate this option further.
- 6.2 Underground Bus Facility within Station Area** – Some commenters requested that an underground bus facility below the tracks be considered. An underground bus facility beneath the railyard footprint was considered by the Project Proponents during the Concept Development step. However, the required column grid to support tracks and air-rights structures above an on-site underground bus facility would severely limit the feasibility of an underground bus facility because it would not accommodate the required bus movements and turning radii. Because this option is not feasible, the FRA will not continue to investigate an on-site underground bus facility. Underground bus facilities outside the Station area were considered in Section 6.4 below.

6.3 Metrobus/Commuter Bus in the Bus Facility – Commenters requested that Metrobus and commuter buses be considered as part of the multimodal operations of the Station, with those services perhaps being moved to the Station’s bus facility. Entering the bus terminal would likely decrease the effectiveness of Metrobus operations because of the time that would be required to enter and exit the bus facility for each trip, reducing the directness of the route and creating delays. Meanwhile, commuter buses have many destinations within the city and operate at a high volume. Commuter bus operations could not be reasonably accommodated without a much larger facility and centralizing commuter operations within the Union Station bus facility would require more customers to transfer to WMATA Metrorail before reaching their final destinations. Doing so would diminish the relative convenience of commuter bus service, which would likely diminish its use, and add to congestion of the Union Station Metrorail Station. For these reasons, such an approach is not reasonable. Therefore, the FRA will not further investigate bringing Metrobus/commuter bus into the bus facility.

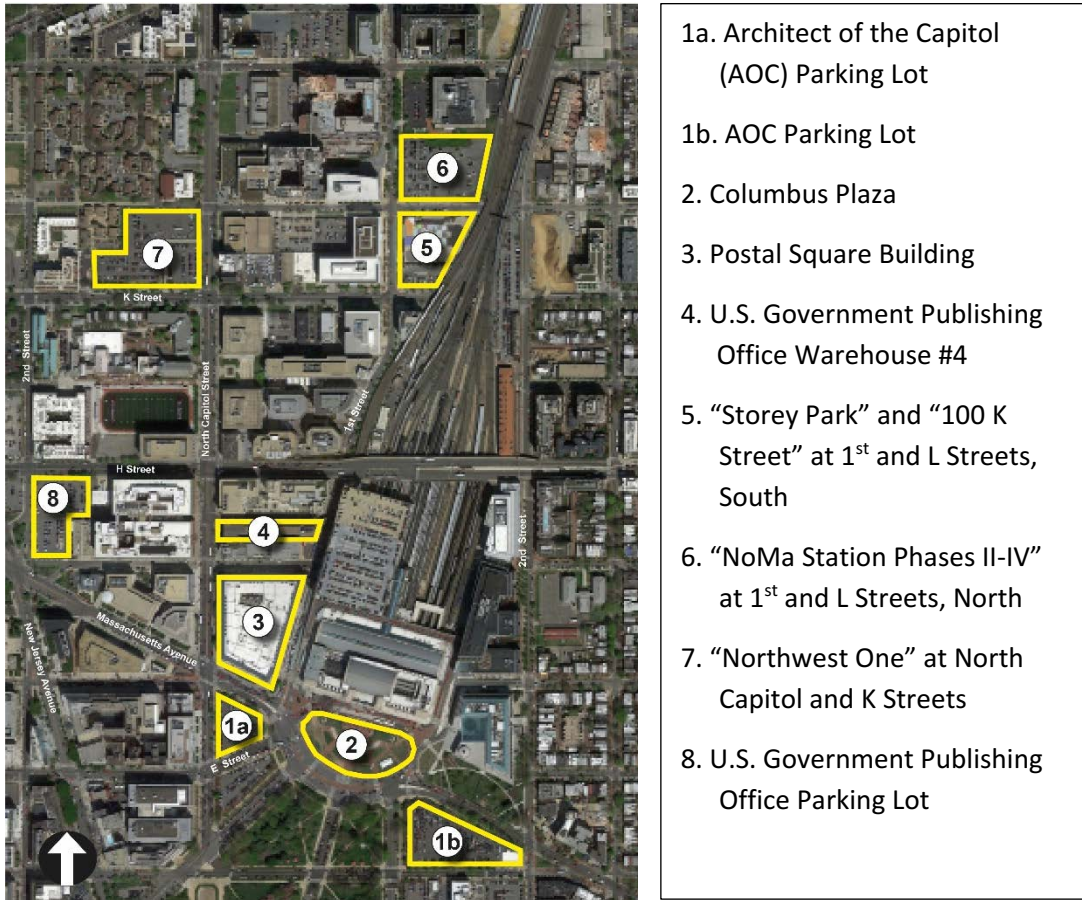
6.4 Element Options Outside the Railyard Footprint, including Parking under Columbus Plaza – Some commenters requested that FRA consider locations outside of the track and parking garage area for bus and parking program elements. As part of Concept Refinement, nine potential sites outside the railyard footprint (Figure 6.4-1) were identified that were existing parking lots, had current industrial uses, or had been identified in previous planning efforts as potentially suitable for bus and parking uses. In a letter to FRA, the District Department of Transportation (DDOT) indicated their position on bus planning efforts, stating:

“In considering options for intercity and charter bus operations, the EIS may propose splitting bus uses by function, such as loading and layover, or type, such as sightseeing and intercity, into separate locations around or near Union Station. DDOT encourages FRA to consider multiple concepts that use the full Union Station site, including Columbus Circle, interior parking garages, and access from H Street ... Active loading for buses should occur in an appropriate location on site or immediately adjacent to Union Station due to its proximity to Metrorail and intercity rail. DDOT would consider limited use of public streets for active loading, provided that a robust evaluation of options yields street operations that can be managed.”¹³

An additional approach to buses on 1st Street is documented in Section 8 and will be considered during Alternatives Refinement.

¹³ Letter from Sam Zimbabwe, Chief Project Delivery Officer, DDOT, to David Valenstein, FRA. April 12, 2017.

Figure 6.4-1: Overview of Outside the Railyard Footprint Options



Sites 1a and 1b: AOC Parking Lots

AOC previously studied the use of the lots at Sites 1a and 1b for Amtrak parking as part of the 2012 master planning efforts at WUS. The parking would need to accommodate the existing AOC parking and the WUS parking. AOC determined at that time that the use of these lots for Station parking would be infeasible due to necessary security measures to accommodate Senate-related parking. AOC property transfer of use or disposal, and the allowance of commercial activity are all subject to Congressional approvals. AOC indicated to FRA that they would not be willing to transfer the property for this Project.

There are challenges to placing parking belowground at both Sites 1a and 1b. The shape of the western site (1a) does not work well for supporting either a parking or a bus facility because of its irregular shape and the potential future and existing WMATA tunnels. The future WMATA tunnel would run along the north side of the site. Meanwhile, the existing WMATA Red Line (see Figures 6.4-2 and 6.4-3) would limit eastward expansion such that there is not enough space for program requirements. Site 1b is also limited on the east side of the site by the future WMATA tunnel and for any western underground expansion by the 1st Street Tunnel. These conflicts pose substantial feasibility challenges.

FRA determined that Sites 1a and 1b are not reasonable and are dismissed from further consideration because of conflicts with existing and planned infrastructure, unlikelihood to be transferred by AOC, and security requirements.

Site 2: Columbus Plaza and Circle¹⁴

Site 2 is comprised of Columbus Plaza, owned by the National Park Service (NPS), and Columbus Circle, owned in parts by FRA, NPS, and DDOT.

Locating parking for the Project underneath Columbus Plaza is not feasible. Congestion concerns and NPS requirements limit the feasibility of constructing under Columbus Plaza. Meanwhile, a number of existing and planned infrastructure elements limit the potential footprint underground.

Access to belowground parking or bus at Columbus Plaza is unreasonable. Providing access from Columbus Circle is likely to add more congestion to an already congested and confusing street system. Alternatively, it is possible that access to parking could be provided from Louisiana or Delaware Avenues to reach sufficient depth to access the parking and to minimize congestion within Columbus Circle. However, creating ramps on these avenues would be a permanent impact to historic L'Enfant Plan Streets and would require Congressional approval because those segments of Delaware and Louisiana Avenues are under jurisdiction of AOC. Public safety concerns may also limit the usable space in an underground facility.

Parking and bus facilities require vertical circulation elements, vents, and grates above. NPS opposes any aboveground structures on the Plaza, including vertical circulation elements, vents, or grates.¹⁵ This requirement may render the option infeasible. Moreover, were an option identified through further design work that could place these vertical elements elsewhere while meeting building code and life safety requirements, that option would likely locate those elements in streets, or on other adjacent Federal and historic property. There are also concerns with the potential construction impacts associated with the excavation below the Plaza. There would be a large amount of excavation and pile driving needed to construct a facility in this location. The historic fountain would need to be moved during construction.

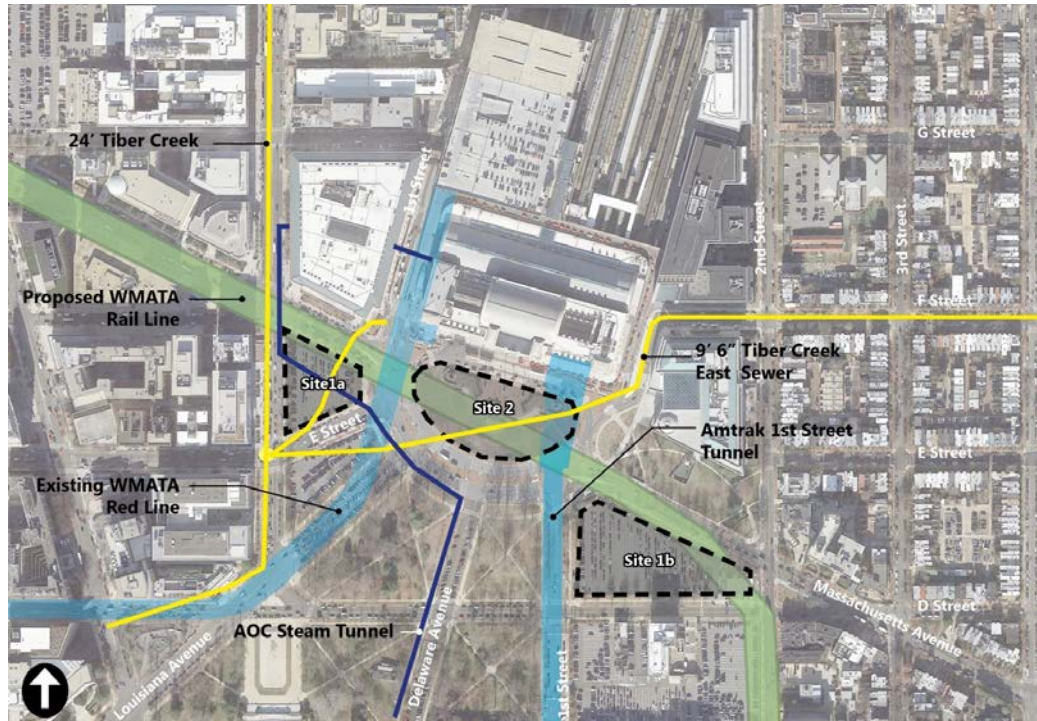
The First Street Tunnel, which provides rail connections to the south of WUS, interferes with potential belowground parking areas (see Figure 6.4-2). In addition, WMATA has long-term plans for a second downtown Metrorail line that serves Union Station. The alignment proposed by WMATA passes along the southern edge of Columbus Plaza. In communications in Fall 2016 to the WUS project team, WMATA asked FRA that space be preserved for a future Metrorail alignment, which further reduces the available space for parking below the Plaza (see Figure 6.4-2). All WUS Expansion Project concepts already preclude an alternative WMATA alignment underneath H Street to construct a belowground concourse running east-west underneath H Street and Amtrak "back of

¹⁴ Columbus Circle, in this document, refers to the roadway network around Columbus Plaza, a NPS-owned park. Columbus Circle is labeled on maps as Massachusetts Avenue, Columbus Circle, and Union Station Drive. Improvements described above will focus on the areas north of the Plaza that provide ingress and egress to the pick-up and drop-off areas in front of the historic Station.

¹⁵ NPS. January 12, 2017.

house”¹⁶ space that needs to be located in that location to provide adequate proximity and access to the platforms. Preventing the possibility of two WMATA alignment alternatives is not reasonable, because it precludes construction of a Metrorail line that would help meet future regional and Station needs beyond 2040.

Figure 6.4-2: Belowground Constraints for Sites 1a, 1b, and 2



¹⁶ “Back of house” refers to space that is used by Amtrak to provide service to trains, store equipment for maintenance and operations, and provide operational space for staff.

Figure 6.4-3: Conceptual Future WMATA Metrorail Rail Line and Station



FRA dismissed parking beneath Columbus Plaza from further consideration because this option is not reasonable due to conflicts with existing and planned infrastructure, impacts to historic properties, and NPS opposition to vertical structures.

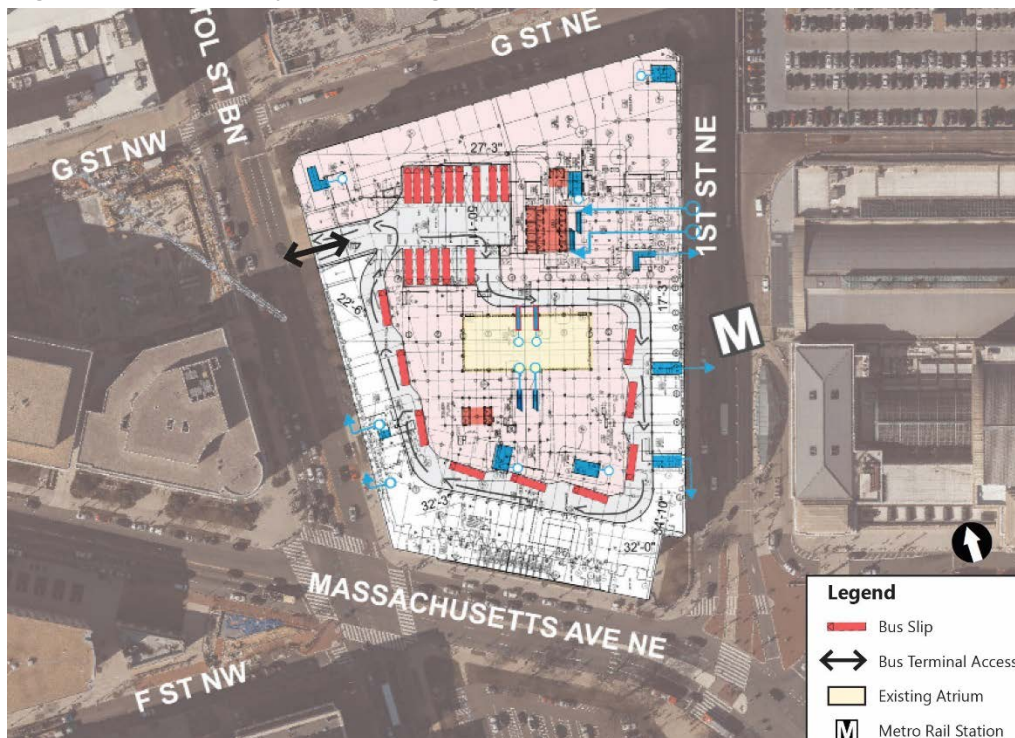
Site 3: Postal Square Building

The Postal Square Building is owned by the United States Postal Service, leased to a private developer, and then sub-leased to the General Services Administration (GSA). It currently houses the Postal Museum, the Bureau of Labor Statistics, Senate offices and data servers, and a United States Postal Service facility. The historic building was designed by Daniel Burnham and constructed in 1914. The facility is designed to accept trucks, making it potentially suitable for bus use. Nevertheless, accommodating the volume of buses considered for the Project and related passenger infrastructure would require substantial modification to convert more of the historic Postal Square Building to a bus facility, including changes to its structural frame and floor plates with impacts to the historic building (including interior spaces) and possible relocation of the Smithsonian Postal Museum housed there. However, even with substantial modification, the building could not meet the bus program requirements. Even greater impacts to the historic building are anticipated to convert the building to a parking facility. Based on early sketches prepared during the concept development phase of the Project, potential impacts to the Postal Square Building from such a conversion would include substantial demolition of the historic interior, including the atrium that is the centerpiece of the Postal Museum. Meanwhile, the property is unlikely to be declared excess to Federal agency need because it remains in active Federal use, and

this change of use would require displacing Federal agencies with potential relocation requirements.

FRA determined the Postal Square Building is dismissed from further consideration because use of the site is not reasonable as the site is in active use and unlikely to be declared excess to Federal need and substantial historic building modifications would be required.

Figure 6.4-4: Postal Square Building Sketch



Site 4: U.S. Government Publishing Office (GPO) Warehouse #4

Warehouse #4 is a part of the GPO's North Capitol Street complex and is an historic property eligible for the National Register of Historic Properties. The long rectangular shape of the building, combined with the narrow right-of-way on G Place NE, makes it undesirable for buses and vehicle parking. The facility is too narrow to provide bus circulation space. Meanwhile, parking ramps and circulation space would take up most of the interior space of the facility, limiting the possible number of parking spaces. FRA met with GPO on January 12, 2017, at which time GPO indicated that they were not willing to transfer the property to FRA because it is occupied and in active use. GPO anticipated portions of the property that were not in use at the time of discussion would soon be leased by another Federal agency. The property is unlikely to be declared excess by GPO as it remains in active use and new Federal uses are planned in the facility.

FRA determined that Warehouse #4 is not reasonable and dismissed it from further consideration because the site is in active Federal use, unlikely to be declared excess to Federal need, and the site layout is not suitable for bus and vehicle parking.

Site 5: 1st and L Streets (south side), “Storey Park” and “100 K Street”

This lot is the former Greyhound bus facility that was vacated when intercity bus services were consolidated at WUS in 2011. The site is located two blocks from the H Street Concourse with no cover provided. This option failed to meet the Purpose and Need in the initial assessment because the combination of the distance and the inability to provide a covered connection does not meet the requirements to provide a positive customer experience at the Station and facilitate intermodal travel. In addition, it is privately owned and is being redeveloped as two parcels—Storey Park and 100 K Street. Construction has begun on 100 K Street, and the southern end of Storey Park is being utilized for construction staging. Storey Park has an expected completion date in 2017. Preliminary permits for the construction of the foundation of Storey Park have been issued by the District Department of Consumer and Regulatory Affairs.

FRA determined that Storey Park and 100 K Street are dismissed from further consideration because they fail to meet the Purpose and Need in the initial assessment due to distance of the site from the Station and the lack of cover for passengers, which do not meet the Project’s Purpose and Need to provide a positive customer experience at the Station and facilitate intermodal travel. It is not reasonable to provide cover in the public right-of-way for that length. Additionally, use of these sites is not reasonable because they are being actively developed. Therefore, any use of the site would require displacement and relocation of tenants. Development is proposed for the whole site and already underway on part of the site. Permits have been issued for the remaining area of the site, and the projects are expected to be completed in the immediate future.

Site 6: 1st and L Streets (north side), “NoMa Station Phases II-IV”

This lot is part of an ongoing planned private development referred to as “NoMa Station Phases II-IV.”¹⁷ The site is distant from the historic station and a three-block walk from the proposed H Street Concourse without any protection from weather elements. This option failed to meet the Purpose and Need in the initial assessment because the combination of the distance and the inability to provide a covered connection does not meet the requirements to provide a positive customer experience at the Station and facilitate intermodal travel.

FRA determined that NoMa Station Phase II-IV is dismissed from further consideration because the distance of the site and the lack of covered circulation space for pedestrians does not meet the Project’s Purpose and Need.

Site 7: North Capitol and K Street

This lot is the former Temple Courts low-income housing complex, now referred to as “Northwest One.” The site is located three blocks from the Station and would require users to cross busy North Capitol Street to access Station functions and no cover would be provided. Therefore, the site would not meet the project Purpose and Need requirements to provide a positive customer experience at the Station and facilitate intermodal travel.

¹⁷ The first phase of the development was the redevelopment of the historic former “Woodies” warehouse into office space, which was completed in 2005 and would not be affected by the proposed use for the Station Expansion Project.

Northwest One is a component of DC's New Communities Initiative to revitalize the public housing in the NoMa/Mount Vernon Triangle area. The Deputy Mayor for Planning and Economic Development has issued a Request for Proposals (RFP) for redevelopment of the site that calls for a mixed-use development with affordable housing, open space, and a restored street grid. The RFP was issued on September 22, 2016, and closed on December 15, 2016. On April 1, 2017, eight prospective developers discussed their proposals in a public meeting.

FRA determined that North Capitol and K Street is dismissed from further consideration because the distance of the site to the Station and the lack of covered circulation space does not meet the Project's Purpose and Need, and it is unreasonable because it is the subject of an active development process.

Site 8: GPO Parking Lot

This GPO-owned lot is the current parking lot for their headquarters on North Capitol Street. The lot currently provides necessary secure parking for round-the-clock employees (300 spaces) and access/egress for materials with loading docks on Jackson Alley. This space for truck deliveries is essential to the GPO operation and would need to be maintained if the lot were to be used for Station purposes. The GPO facility operates 24-hours a day, so employees need to be able to park at the building during hours when public transit is not available.¹⁸ As a result, the property is unlikely to be declared excess for Federal purposes. Any transfer would require Congressional approval. The parking would also need to meet a level of security consistent with other Federal buildings in Washington, D.C. If a parking facility were to be provided beneath the existing GPO parking lot, it would have to accommodate separate, secure parking for GPO.

The two-block walk to the Station along open sidewalks would require all users to cross busy North Capitol Street without any cover. It would be unreasonable to add protection to the public right-of-way for this length. These inconveniences mean that this option would not meet the Project's Purpose to provide a positive customer experience and facilitate intermodal travel.

FRA determined the GPO Parking Lot is dismissed from further consideration because the distance of the site to the Station and the lack of covered circulation does not meet the Project's Purpose and Need in the initial assessment, and because the option is unreasonable due to the site being in active Federal use and unlikely to be declared excess to Federal needs, as it is currently used by GPO parking and trucks.

- 6.5 Repurposing the Historic Passenger Concourse** – Some commenters expressed interest in a concept that made greater use of the historic passenger concourse, currently the home of the Station's shopping mall and food court, for transportation purposes consistent with its historic use. However, there have been changes to transportation operations and services at WUS since the last use of the historic passenger concourse as the main train loading and unloading area that make this concept unreasonable. Train operations and schedules are vastly different from the 1970s, when this concourse was used, and there are new intermodal connections that did not previously exist. WMATA Metrorail was introduced in 1976 when the historic concourse was still in use, but

¹⁸ FRA Meeting with GPO. January 12, 2017.

ridership has increased dramatically. Intercity bus and vehicular parking were completed subsequently. Additionally, the DC Streetcar has begun service, and its importance as an intermodal connection is likely to increase as it is expanded eastward and westward. The historic concourse was not designed to accommodate passenger flows across the range of multimodal activity. Additionally, particularly as compared to the preliminary concepts, the historic concourse has insufficient space to meet the expected increase in passenger rail service at WUS. Therefore, the historic concourse is not suitable for the logistical needs of the modern operations of the Station. This approach would not comport with the Project's Purpose and Need, particularly in the areas of supporting current and future long-term growth in rail service and operational needs and facilitating intermodal travel. The historic concourse would not be able to meet modern station ingress and egress requirements of an expanded station. Therefore, it would fail to meet the Purpose and Need requirement to achieve emergency egress requirements and facilitate intermodal travel. In addition, making the Station once again suitable for intensive transportation use, even if it could accommodate the current and anticipated future operations and services, would require extensive modifications to the historic building. Therefore, this approach fails to meet the Purpose and Need requirement to support continued preservation of the historic building.

FRA determined that this approach does not provide the necessary space to relieve current and future congestion in the Station. The new multimodal uses would not be well-served by the historic concourse alone, because of increased passenger demand and new multimodal connections. In addition, reuse of the historic building as the only passenger concourse would impact retail uses. Retail plays a key role in funding USRC and the preservation, maintenance, and operations of WUS. Substantially reducing retail, as would be required to use the historic concourse as the main rail ingress and egress facility could undermine the financial viability of USRC and the station. In that way, this approach fails the Purpose and Need requirement to sustain the Station's economic viability. In establishing USRC, it was Congress's intention¹⁹ to minimize future Federal resources dedicated to the maintenance of the facility and limiting a revenue stream would run counter to that direction. Therefore, FRA will not pursue this idea further because it is not reasonable and does not meet the Project's Purpose and Need.

FRA is not carrying forward for further evaluation the concept of enhanced transportation use of the historic passenger concourse. However, continued use of the historic station building for station functions is part of the Project's Purpose and Need and an important part of all concepts. Modifications to the historic passenger concourse to enhance passenger circulation will be considered in Alternatives Refinement. Figure 6.5-1 illustrates the relationship between the common pedestrian flow of the Project's retained concepts and the Historic station. Entrances and exits for the H Street Concourse are denoted with triangles.

As part of the Project, FRA will consider modest modifications to the retail mall within the historic Passenger Concourse to improve passenger movement from the Main Hall to the Expanded Concourse A. This may include improvements to areas currently used for ticketing and information.

Expanding the Station to the north, through expansion of concourses and implementation of the train hall, will provide additional access points beyond the historic entrance from the south. These

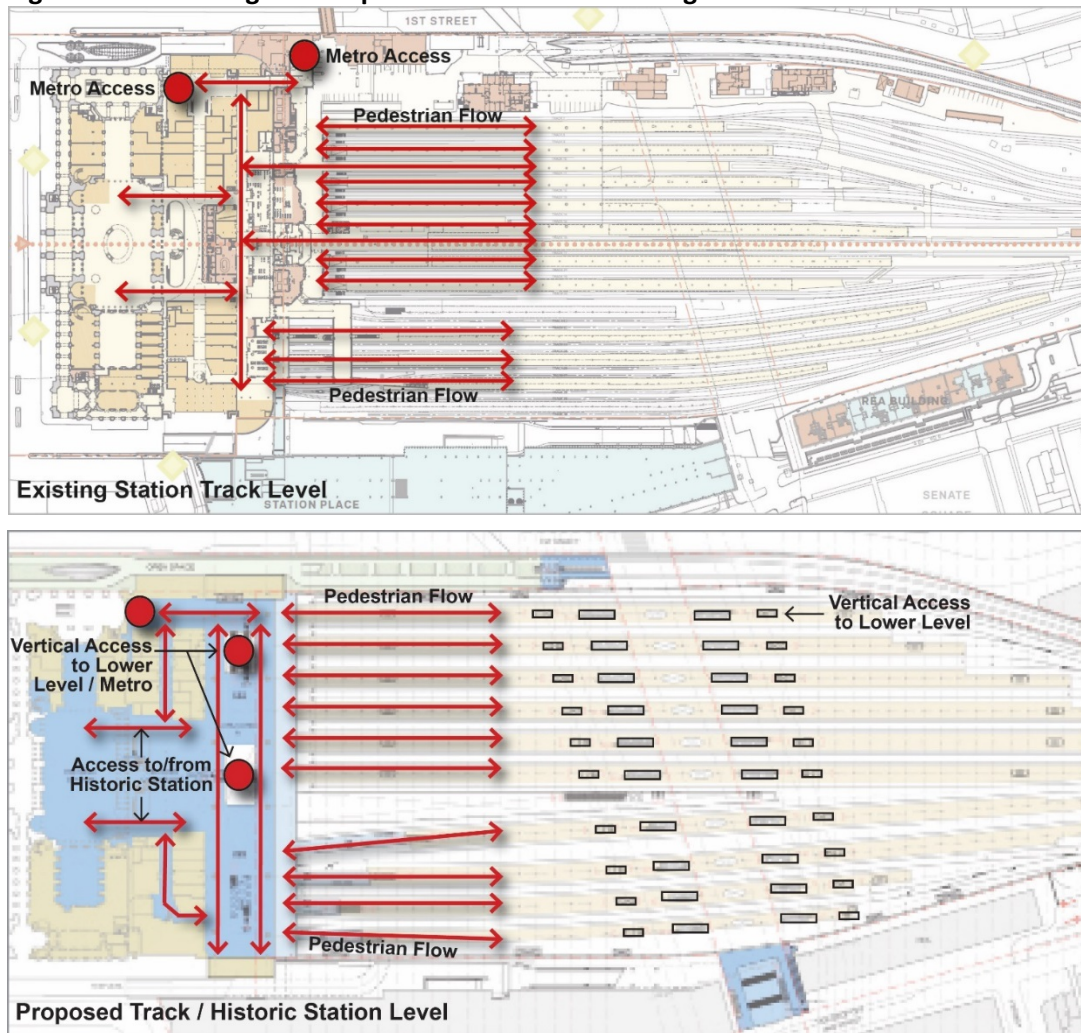
¹⁹ Please see the Union Station Redevelopment Act of 1981 (Public Law 97-125).

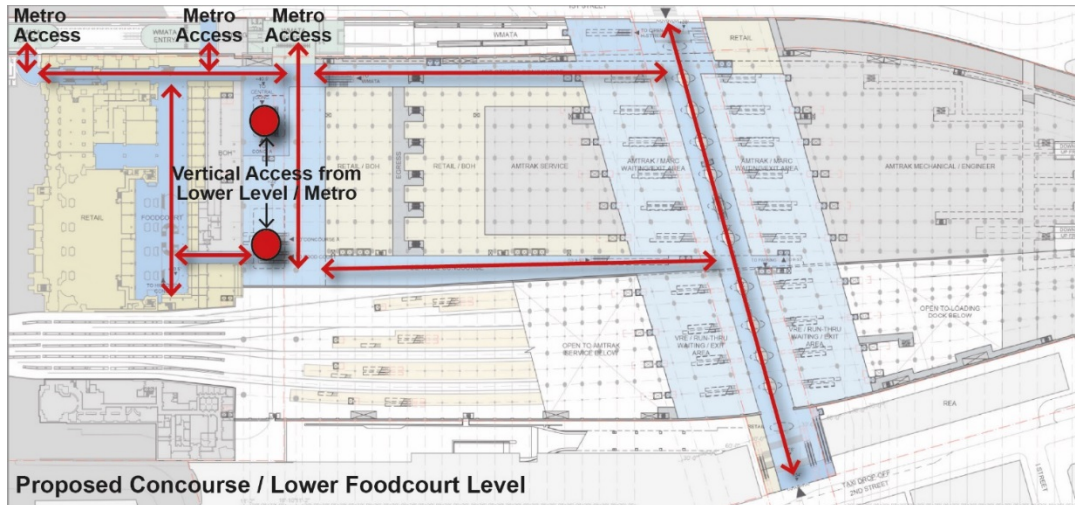
additional access points will provide increased capacity for the future growth in passenger flows because the historic south entrance is currently operating near capacity during peak periods.

At the same time, the historic south entrance will remain a major access point into the station. The Columbus Circle drop-off will continue to be an active location for ride-for-hire and private vehicle pick-up and drop-off. This entrance is also the most direct connection to the National Mall and Monuments and Capitol Complex for both tourists and workers going to those locations.

Expanding the station to the north will support existing access points into the Historic Union Station. At the existing Track/Concourse level, the Station Expansion Project will continue to rely on the access points between Union Station and the Concourse at the east, center, and west sides. At the lower food court level, there are two additional access points proposed between Union Station and the Station Expansion. These occur at the western edge of the food court and in the eastern side of the food court. Access from the food court into the historic station would continue to occur from the center stair or the elevators.

Figure 6.5-1: Existing and Proposed Pedestrian Flow Diagrams





6.6 Bus Program Size – Commenters expressed concerns about the size of the bus program envisioned in the concepts. While some commenters requested a larger bus facility be considered, most comments on the topic requested that a smaller facility be examined. One commenter requested that “layover” facilities for buses be moved away from the railyard footprint, and another expressed concern that the size of the bus facility could “constrain and negatively impact” the WUS Project and the proposed private air-rights development. FRA explored the appropriate size of the bus program in Concept Refinement. The program estimate for the bus facility used by the Proponents in the *CDR* was 47 active slips. The presented concepts had between 34 and 48 active slips on two levels. FRA investigated current and future bus demand at WUS using data from Amtrak and Union Station Parking Garage, LLC (USPG).²⁰ FRA and the Project Proponents agreed on an active management approach to operate the future facility with shorter turnaround times for tour/charter and intercity operators. Based on this active management approach, FRA has determined that a program of approximately 20–25 slips can meet the 2040 bus demand at WUS. An active management system is an emerging approach for bus facility operations. In such an approach, bus slips are not assigned to individual carriers but are managed based on need and demand. Buses are not allowed to either “lay over” in a slip or to wait for an extended duration. This approach is consistent with the Purpose and Need requirement to facilitate intermodal travel. Moreover, this operational profile is similar to the requirements for the rail operations to meet the 2040 rail demand. Trains will not be allowed to store at the platforms in 2040 and trains will be turned around at the station quickly. This revised bus program was applied in the Concept Refinement step to adjust the retained concepts.

6.7 Parking Program Size – Commenters expressed concerns about the amount of parking envisioned in the concepts. FRA explored a smaller parking program in Concept Refinement. The original program estimates for the parking facility used by the Proponents in the *CDR* projected a demand of 2,730 spaces in 2040 for Amtrak, retail, and rental car uses. In response to commenters’ concerns about amount of parking presented in the concepts and based on current lease requirements concerning the facility, FRA worked with the Project Proponents to set the minimum parking program of 1,575 spaces. This program captures the 600 retail-serving spaces, 900 flexible

²⁰ USPG operates the parking facility on behalf of USRC.

spaces, and 75 rental car spaces captured in USRC lease agreements with Union Station Investco (USI), which manages the Station and retail. Amtrak indicated that they favor “rideshare and other types of transit over automobile parking” and did not object to the reduced parking program.²¹ It is likely that the preliminary alternatives may either minimally exceed this program to maximize the use of FRA-owned property or not fully meet this program because of design considerations that would make reaching that number of spaces impractical. FRA incorporated this revised parking program into the retained concepts evaluated during the Concept Refinement step (see Section 7). It is expected that demand that will not be accommodated by this reduced parking facility will instead be met with pick-up and drop-off, ride-for-hire, and transit. This demand will be further assessed during Alternatives Refinement and in the DEIS.

6.8 Alternative Concept 5 that Separates Buses from Train Hall – While Concept 5 performed well in screening, commenters worried that the integrated bus facility in the train hall would diminish the passenger experience by reducing the amount of air and light in the train hall. Therefore, FRA considered an approach that separates the two functions in Concept Refinement, but this approach diminished the quality of the train hall, reducing the passenger experience, and produced a small bus facility that had poor integration with the H Street frontage. As described in Section 7, FRA identified an approach that increases the width of the east-west train hall, in part due to a reduced bus facility, in Concept 5 to improve the passenger experience while retaining an integrated facility. That approach will be further assessed in Alternatives Refinement.

6.9 Reinstating the Ends of the Historic Passenger Concourse – Prior to the construction of the ramps to the parking facility, the historic passenger concourse extended further east and west. These historic concourse ends were removed to allow for the construction of the access ramps for the parking garage to the east and west and the WMATA Metrorail Red Line to the west. The area today is occupied by the east and west parking ramps. Members of the historic preservation community have requested that the historic concourse ends be reconstructed as part of the Project.

The east parking ramp provides important multimodal access to the Station today and would continue to do so in the proposed concepts. To promote intermodal travel at the Station, provide sufficient emergency egress, and minimize traffic impacts on surrounding neighborhoods, it is not reasonable to remove the east ramp. If it were not maintained, for-hire vehicles and other vehicles would be pushed into nearby streets in the historic Capitol Hill and NoMa neighborhoods to circulate around the Station area. All of the preliminary and retained concepts eliminate the west ramp so as to not preclude a potential greenway that would serve as an extension of the Metropolitan Branch Trail. Allowing for a greenway supports the Project’s Purpose to facilitate intermodal travel and enhance integration with local neighborhoods, adjacent businesses, and planned land uses. Without a west ramp, the east ramp’s importance will be even greater in the future condition. Even if the greenway, which would be a separate project, were not to be constructed, principles of Beaux-Arts architecture and design on which WUS is based on, places a heavy emphasis on symmetry. It would be inconsistent with the architectural style of the Station for the west end to be reinstated in the absence of the east end, and would therefore fail the Purpose and Need requirement to support continued preservation of the historic building. Additionally, even if the east ramp were to be removed, the Securities and Exchange Commission (SEC) Building is located too close to the east side of the Station to restore the east end to its original extent. It is

²¹ February 27, 2017 e-mail to WUS NEPA team.

not feasible to fully restore the east end, and it would not be reasonable to extend the ends if the full historical extent cannot be achieved. For these reasons, the FRA will not continue to investigate this suggestion.

6.10 Alternate Belowground Parking Access Options – Some commenters expressed a desire for FRA to consider alternate access locations to belowground parking in place of K Street. Specific roadways identified included G Street NE, G Place NE, Louisiana Avenue NE, and Delaware Avenue NE. The access options on G Street or G Place are infeasible because planned and existing station space, as well as the existing WMATA tunnel, do not provide sufficient clearance for a parking access from this direction.

With regards to Louisiana Avenue or Delaware Avenue, parking facilities under AOC or NPS properties were determined to be unreasonable and infeasible during Concept Refinement, as described in Section 6.4 of options outside of the Station Area. Meanwhile, access to parking facilities under the tracks via Louisiana Avenue and Delaware Avenue would create conflicts with existing or planned infrastructure (as described in Section 6.4) and would require modifications to historic L'Enfant Plan Streets to provide ramps to access the parking below. Therefore, these access options will not be further evaluated.

6.11 Bus Facility on 1st Street NE – Comments were received requesting that 1st Street NE be examined for bus use. As part of Alternatives Refinement, FRA will assess options for bus and other multimodal use of 1st Street NE that are immediately adjacent to the Station.

Comments requested that FRA examine existing office buildings in the vicinity of the Station along 1st Street NE between Massachusetts Avenue and H Street NE that could accommodate a waiting area for bus passengers. These options were eliminated. The buildings in that vicinity are the Postal Square Building, 10 G Street NE, GPO Warehouse #4, and 750 1st Street NE. Demolishing these structures to accommodate a bus waiting facility is not reasonable because they are historic and/or presently occupied and their demolition would require extensive relocation.

Repurposing space in the Postal Square Building is unreasonable because it would require displacing Federal tenants. Constructing a waiting facility in the GPO loading dock area, the only space with frontage on 1st Street, is unreasonable due to the continued active use of the GPO Warehouse #4 and the historic nature of the property. The Project does not envision intercity bus use on 1st Street because a curbside operation does not enhance the intercity customer experience over existing conditions. Therefore, the use of 750 1st Street or 10 G Street for a passenger waiting area is not needed. Tour/sightseeing operators as private entities may wish to acquire some space in a commercial building to advertise their service, as they do elsewhere in the city. As these facilities are not essential for their operations at the Station, the acquisition of such space will not be considered as part of this Project. The H Street Concourse provides an interior space and connection for users of buses along 1st Street, should FRA's investigations during Alternatives Refinement determine this to be an appropriate location for the use.

7. What are the Preliminary Alternatives?

In Concept Refinement, FRA sought to address the comments described above through design modifications to Retained Concepts 1A, 1B, 4A, 4B, and 5. FRA held design workshops with the Project Proponents, Amtrak and USRC. A number of variations were considered for each of the Retained Concepts. Ultimately, as a result of the Concept Refinement Process, **FRA identified 1A, 1B, 4B, and 5 as Preliminary Alternatives** (described below).

Retained Concept 4A was eliminated from further consideration during the Concept Refinement step because the change in design resulted in the determination that it is no longer reasonable to place the parking facility above the buses because of the new configuration of the bus facility. The long shape would create an inefficient vehicle parking layout that would not be a reasonable layout and would require circulation ramps that would have an impact on the private property. **Therefore, Concept 4A was eliminated.**

Preliminary Alternatives 1A and 1B: For Concepts 1A and 1B, the following modifications were made. Based on the bus program of approximately 25 slips, a one-level facility with 26 spaces replaces a two-level facility with 34 spaces that was shown as a preliminary concept at the October 2016 public and agency meetings. That size is a 24-percent reduction from the preliminary concept and a 57-percent reduction from the existing facility's 61 spaces. In Preliminary Alternative 1B, the FRA-owned area above the bus parking facility would be suitable for potential development by the Federal government or potentially a private developer upon separate transfer of those air-rights by the Federal government. Preliminary Alternative 1A retains the 1,664 parking spaces shown in the October 2016 concept, and this may increase to maximize the use of the FRA-owned air-rights in the area where the parking facility would be constructed. Based on the parking program, the belowground parking in Preliminary Alternative 1B is reduced from 2,497 to 1,888 spaces, a reduction in a one-half level of parking from what was shown as a preliminary concept in October 2016. In contrast to the previous preliminary concept version, the bus facility is only one level²² and set back from H Street. This setback allows for lobby and retail areas to be constructed between H Street and the bus facility, connecting to a potential larger building above.

The screening of the preliminary concepts also noted that the north-south train hall in Concept 1 was narrow when parking is above and that light into the station was diminished in both options by adjacent buildings. As a result, Concept 1A received scores of low compatibility related to train hall experience and Concept 1B. The Preliminary Alternatives 1A and 1B have been adjusted to provide a larger train hall that provides a better train hall experience and covers five (versus 3 or 4) tracks (see figures 7-1 and 7-2).

Preliminary Alternative 4B: For Concept 4B, the following modifications were made. Based on the bus program, a one-level facility with 29 spaces (20 in the north and 9 pick-up and drop-off) replaces a two-level facility with 42 spaces (34 in the north and 8 pick-up and drop-off) that was shown as a preliminary concept at the October 2016 public and agency meetings. That size is a 31 percent reduction from the preliminary concept and 52 percent reduction from the existing facility's 61 spaces. Based on the parking program, the belowground parking in 4B is reduced from

²² One level for buses is equivalent in height to approximately two levels of commercial development because of the vertical clearances needed to accommodate buses.

2,497 to 1,888 spaces, a reduction in one-half level of parking from what was shown as a preliminary concept in October 2016.

The bus pick-up and drop-off area, previously on the north side of the east-west train hall in the private air-rights, was moved within FRA-owned property south of the train hall. As a result, the east-west train hall is no longer directly connected to the historic concourse. This separation creates a visual and spatial transition zone for passengers moving between the historic building and the station expansion, adding to the customer experience. The train hall was marginally reduced in size from the concept phase to accommodate the bus pick-up and drop-off area.

The reduced bus parking program also allows for a more efficient bus facility in the northern part of the railyard footprint. This facility can then move from occupying the entire northern portion of the railyard footprint to being a narrow facility along the eastern edge of the railyard footprint north of H Street.²³ This approach frees up the far north of the railyard footprint for private development by placing the bus facility adjacent to the REA Building and its surface parking lot. This alteration brings the bus facility closer to the historic station and train hall, reducing the distance between the bus facility and historic station, a concern expressed by the public and agencies during Concept Screening. It is important to note that walking distance was a principal reason for the elimination of options outside of the railyard.

Preliminary Alternative 5: Based on the bus program, a one-level facility with 25 spaces replaces a two-level facility with 34 spaces. That size is a 26 percent reduction reduced from the preliminary concept's 40 spaces and a 59 reduction from the existing facility's 61 spaces that was shown in the October 2016 meetings. Based on the parking program, the belowground parking in Concept 5 is reduced from 2,497 to 1,888 spaces, a reduction in a one-half level of parking from what was shown in the October 2016 meetings.

Comments regarding Concept 5 were concerned about the integrated bus facility diminishing the passenger experience because of reduced light and air in the east-west train hall. FRA and the Project Proponents explored an option that would separate the bus facility from the east-west train hall, while keeping the bus facility close to the east-west train hall in the southwest corner. However, this approach minimized the effectiveness of both the east-west train hall and the bus facility. The train hall was too narrow to provide light and air for the trains themselves. The bus facility, although meeting the reduced 25-slip bus program, could only do so with a direct street frontage for the bus facility. This frontage does not promote a positive relationship between the station, proposed air-rights development, and the street. As a result, this approach would perform poorly in the Purpose and Need requirement of integration with surrounding neighborhoods, businesses, and planned land uses.

Instead of separating the uses, FRA also investigated expanding the east-west train hall. The reduced bus facility provided more space for the train hall, and the east-west train hall was further expanded to be comparable to the size of the east-west train hall in Concept 4B.

²³ A potential option still on the table would place the bus facility on the west side instead. Placement of the bus facility on the east side is preferable for Station operations as it allows a new bus facility to be constructed before the existing facility is demolished.

The Preliminary Alternatives that emerged from Concept Refinement are shown below:

Figure 7-1. Preliminary Alternative 1A

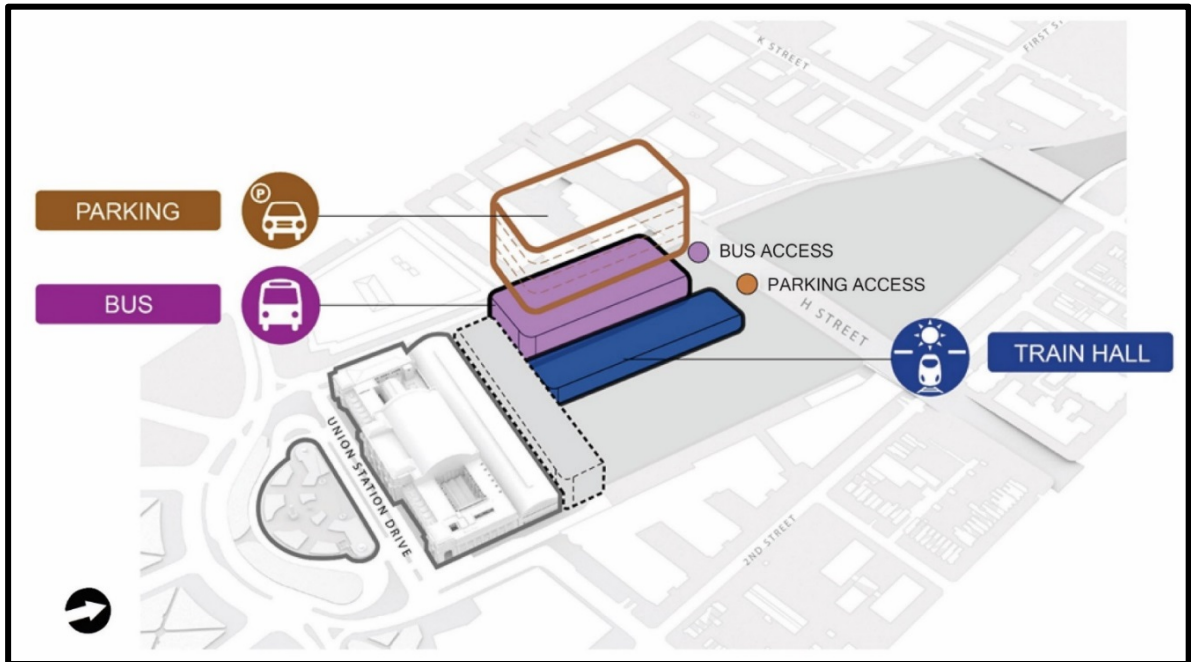


Figure 7-2. Preliminary Alternative 1B

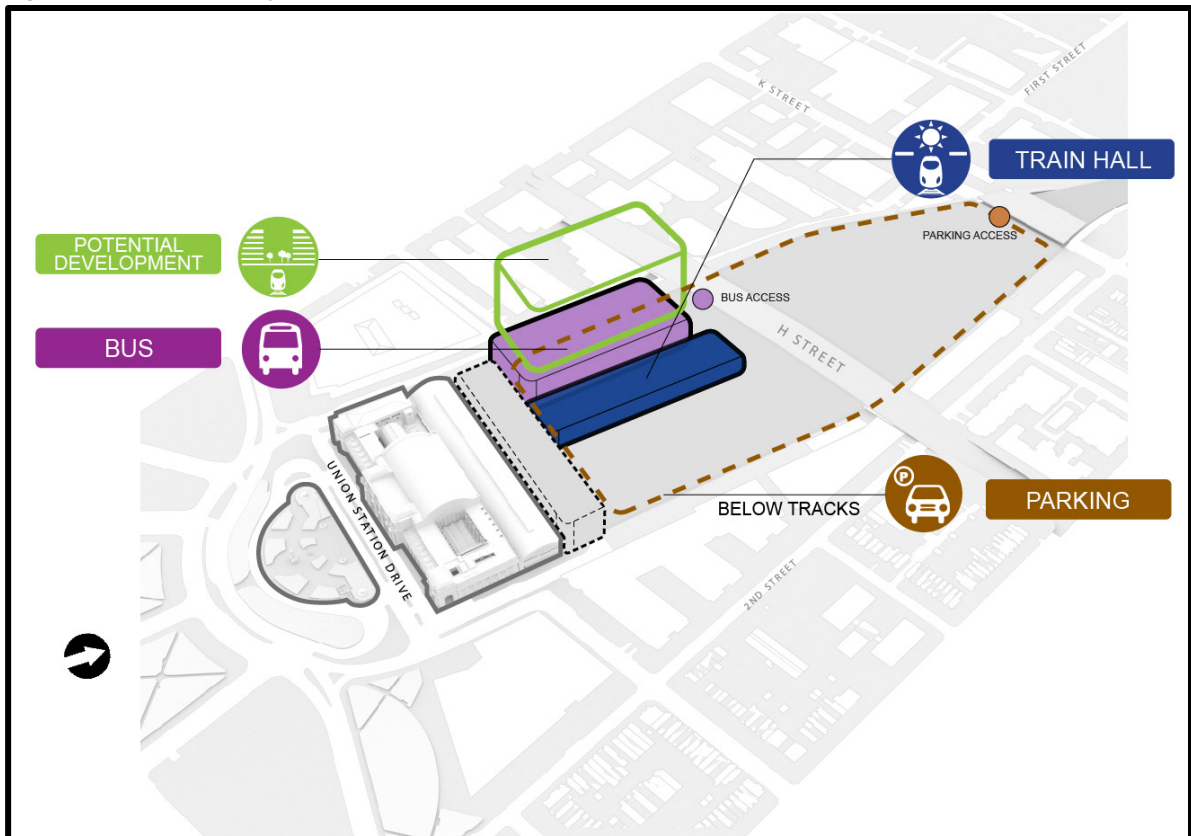


Figure 7-3. Preliminary Alternative 4B

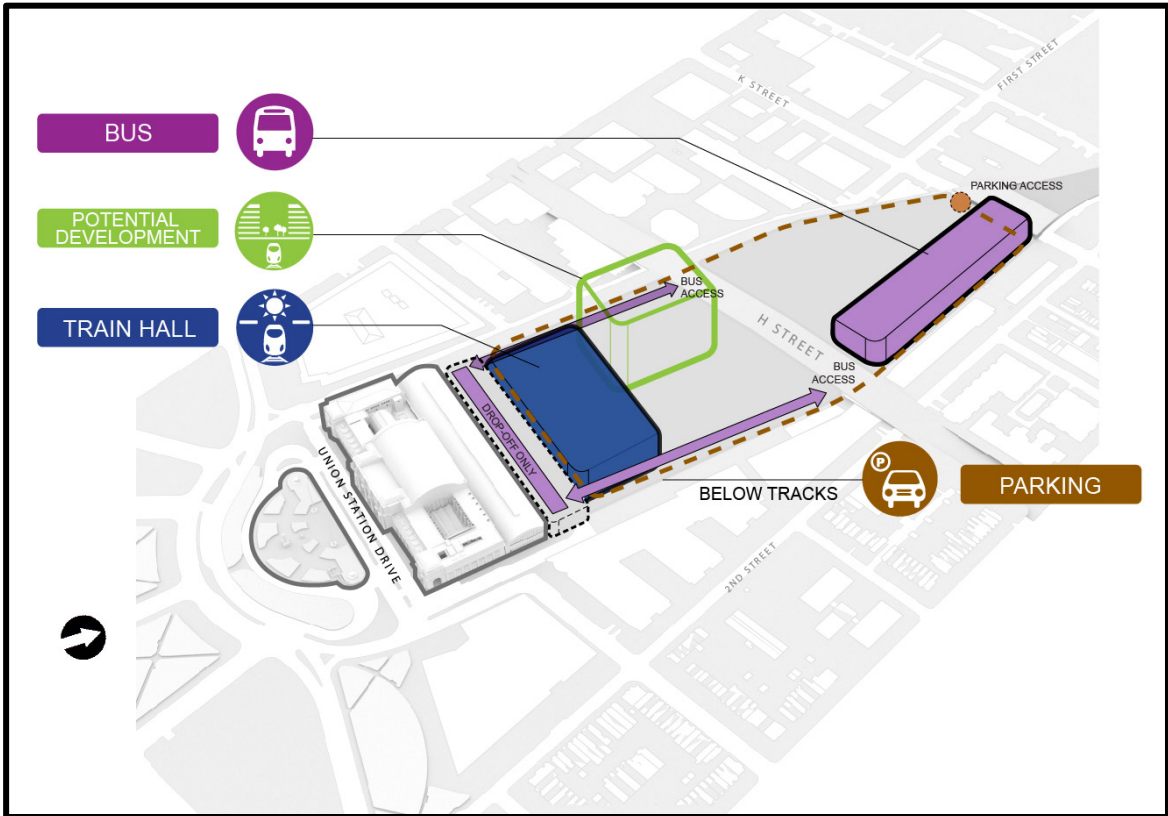
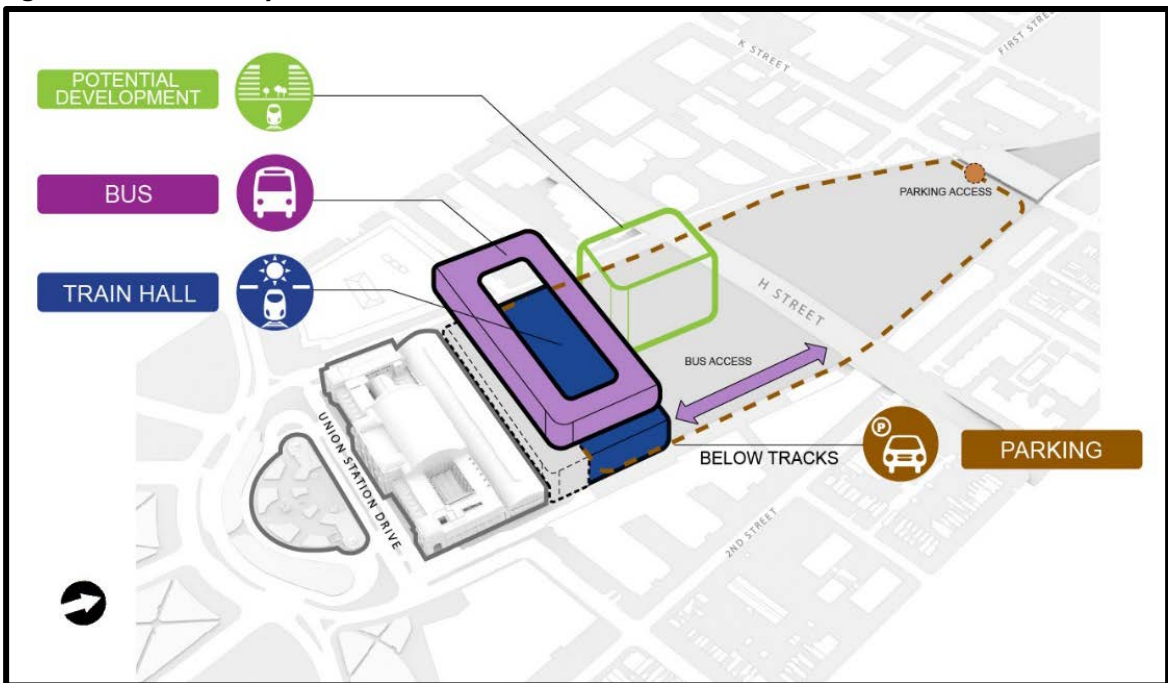


Figure 7-4. Preliminary Alternative 5



8. What Issues will be considered during Alternatives Refinement?

Preliminary Alternatives 1A and B, 4B, and 5 will proceed into Alternatives Refinement. In addition, some comments and design issues raised during Concept Screening are more appropriately addressed during Alternatives Refinement. These topics are described below. The FRA will also consider additional information developed by the Project Proponents on feasibility, cost, and constructability as the four preliminary alternatives are advanced for further evaluation. FRA will continue to work with the Project Proponents and others, as appropriate, during Alternatives Refinement. FRA will also study other issues that may arise during Alternatives Refinement that may not be documented in this section.

Retaining the Existing Garage – In the *CDR*, Amtrak determined that the existing garage had to be removed to accommodate a track plan that could meet 2040 rail needs. FRA is continuing to evaluate whether it is reasonable and feasible to retain the existing garage.

Potential Use of Private Air-Rights – Comments were received expressing opposition to the use of private air-rights for certain purposes, most notably bus operations. In Concept Refinement, FRA took steps to address these concerns by reducing the footprint of the bus facility, placing more of the bus operations within FRA-owned property, and considering options outside of the station area for bus and parking. In Alternatives Refinement, FRA will continue to consider appropriate approaches that minimize the bus-related impacts to existing and proposed private development, while retaining this important multimodal element of the Project.

Traffic Operations on H Street – Comments were received concerning the future traffic operations on H Street resulting from the Project. The preliminary alternatives make use of H Street for different multimodal ingress and egress. FRA has coordinated with DDOT regarding the potential alignments of the Streetcar along H Street, and the concepts had been evaluated in Criterion 5 (multimodal operations) with potential conflicts with the Streetcar in mind. FRA will continue to coordinate with DDOT regarding the separate Streetcar and H Street Bridge projects throughout the EIS process.

K Street Access and Operations – Comments were received regarding the potential to provide access for parking by a ramp up from K Street to the deck level within the current REA Building parking lot area for preliminary alternatives with parking in the north of the railyard footprint. While security screening might be performed elsewhere, the only suitable identified loading facilities make use of some portion of the REA Building lot. Despite these challenges, this access option will be further evaluated in Alternatives Refinement.

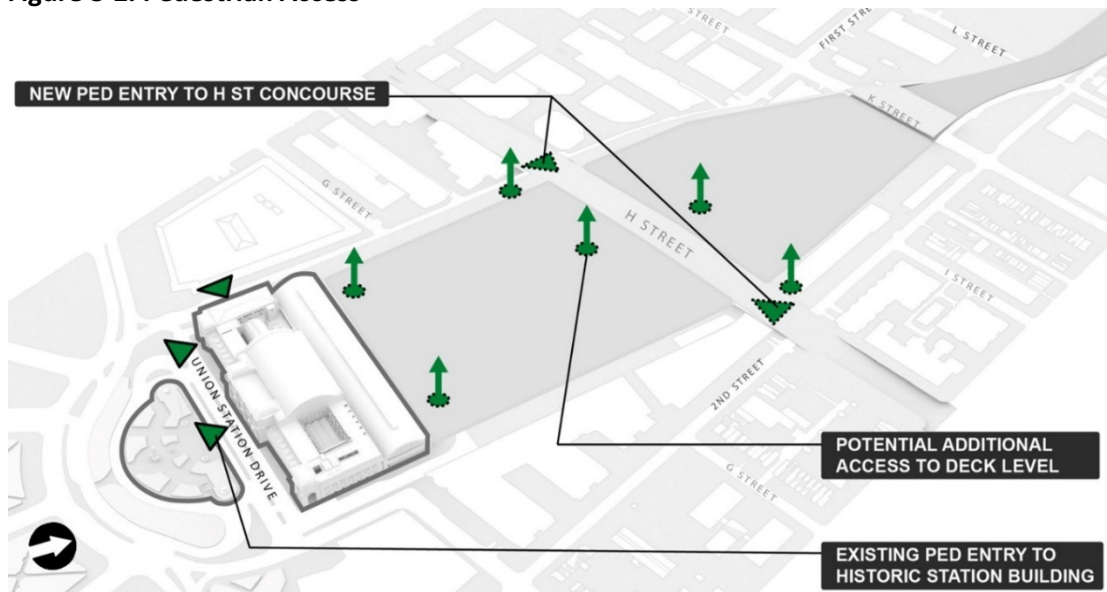
Meanwhile, the preliminary alternatives that have underground elements make use of K Street for ingress and egress. This access will be provided underneath the K Street Bridge. FRA believes this approach is feasible based on information from Amtrak and will further evaluate it during Alternatives Refinement.

Bicycle and Pedestrian Access – Comments were received asking that more attention be given by the Project to bicycle and pedestrian access. As shown in Figures 8-1 and 8-2 below, the Project includes improvements to bicycle and pedestrian access. FRA will further refine and develop bicycle and pedestrian access during Alternatives Refinement, including pedestrian flow within the Station.

Figure 8-1. Bicycle Access



Figure 8-2. Pedestrian Access



Modifications to East-West and North-South Train Hall – Comments were received recommending design modifications to the east-west and north-south train hall. While changes were made in Concept Refinement, FRA will continue to consider these comments and other potential modifications in Alternatives Refinement.

Modifications to Parking/Bus Facility on North – Comments were received recommending design modifications to the bus/parking facility on the north end of the railyard footprint in Concept 4. As

part of Concept Refinement, changes were made to the bus facility. FRA will continue to consider suggestions in Alternatives Refinement.

Bus and Other Multimodal Uses on 1st Street – Comments were received requesting that 1st Street NE be examined for bus use. As part of Alternatives Refinement, FRA will assess options for bus and other multimodal use of 1st Street NE. Requests for bus waiting facilities along 1st Street will not be further considered, as documented in Section 7. As noted above, tour/sightseeing operators as private entities may wish to acquire some space in a commercial building to advertise their service, as they do elsewhere in the city. As these facilities are not essential for their operations at the Station, the acquisition of such space will not be considered as part of this Project.

Columbus Circle Roadway Modifications – Comments were received requesting traffic engineering changes to Columbus Circle and the pick-up and drop-off lanes in front of the Station. FRA will consider changes to the pick-up and drop-off areas, and the ingress and egress to them, in Alternatives Refinement.

WMATA Metrorail Station – Comments were received about the relationship of the Project with the WMATA Red Line and the existing WMATA Metrorail Station. While the WMATA Red Line and the existing WMATA Metrorail Station are not part of the Project, FRA will continue to communicate with WMATA throughout the EIS process to promote a highly-functioning transition between the Project and the WMATA Metrorail station.

9. What follows Alternatives Refinement?

At the conclusion of the Alternatives Refinement phase, FRA anticipates identifying the alternatives that will be evaluated in the EIS. FRA will document changes to a Preliminary Alternative or the addition of a new alternative that result from Alternatives Refinement. FRA will inform the Cooperating Agencies, Section 106 Consulting Parties, Interagency Committee, and the public about the Alternatives that will be carried forward for evaluation in the EIS. FRA expects that this will occur in Fall 2017. Then, FRA will proceed to prepare a Draft Environment Impact Statement (DEIS) that analyzes the Alternatives and the No Action (No Build) Alternative. FRA will make the DEIS available for public comment, consistent with the requirements of NEPA, CEQ's NEPA regulations, and FRA's Procedures for Considering Environmental Impacts.

The FRA continues to accept comments on the Project throughout the EIS process via the project website (www.wusstationexpansion.com) or the Project e-mail address (info@wusstationexpansion.com).

Appendices

Appendix A: Public Meeting Summary

Public Meeting Summary - On October 19, 2016, the Federal Railroad Administration (FRA) held a public meeting in the Presidential Room in the East Hall of Washington Union Station, which 118 members of the public attended. Meeting materials are available online at <https://www.fra.dot.gov/Page/P0982>.

The public was notified of the meeting through a variety of means. The meeting was announced in the *City Paper*, *Express*, *Hill Rag*, and *Washington Informer* newspapers. Advertisements were displayed in the Station itself. Online notifications were distributed via the FRA and Proponents' email lists, as well as FRA's social media accounts.

Notes from the meeting follow below.

ITEM	DESCRIPTION
1.	<p>Open House: 4:00 – 4:30 pm</p> <p>Presentation boards were available in different sections of the room:</p> <ol style="list-style-type: none"> 1. Background Information 2. Concept Designs 3. NEPA/Section 106 4. Screening Criteria
2.	<p>Introduction and Welcome, Jerome Paige (Justice and Sustainability Associates LLC for the Federal Railroad Administration)</p> <p>Jerome Paige called the meeting to order around 4:30 pm and gave welcoming remarks about the EIS process, the public workshop format and the comment forms provided to attendees.</p> <ul style="list-style-type: none"> • Introductions • Presentation • Question and Answer • Open House
3.	<p>Public Meeting Presentation, Paul Moyer: 4:40 pm – 5:20 pm</p> <p>Paul Moyer, from VHB, consultants for FRA, gave the presentation, which covered the Project Purpose and Need, the nine preliminary concepts, the screening criteria used to evaluate those concepts, and the preliminary screening results.</p>

4.	<p>Question and Answer:</p> <p>Q. "I'm a Metrobus rider who likes to take the MARC: I don't see any place for Metrobus and Circulator buses. This is not multimodal."</p> <p><i>A. Metrobus will continue on the street. There is a Circulator stop in the bus terminal.</i></p> <p>Q. During the earlier sessions, there were drawings that were ruled out. Can you comment on the advantage of the 2nd lower train level? Will you be able to do something between high-platform vs. low platform?</p> <p><i>A. We are looking into it.</i></p> <p>Q. Looking at the designs with the entrance from H Street, where is the ticketing booth? Will you have to stay where it is, or move up front? Another problem, have you considered pedestrian underground pathway?</p> <p><i>A. We are looking for more info on the concourse, and other future methods of ticketing through phone, at home, etc.</i></p> <p>Q. Why would it be desirable to have a train hall perpendicular to the tracks? In Europe all are parallel to the tracks?</p> <p><i>A. We are looking to see where a train hall can physically fit in, and which configuration fits more people in the train hall.</i></p> <p>Q. Why is it that the public parking is looking to be expanded when we have other forms of public transportation, namely, bus, metro, and train station, in an area where we can de-emphasize public parking?</p> <p><i>A. We are looking into the demand for parking.</i></p> <p>Q. Have you explored the Columbus Circle for parking and other circulation because it retains the main hall as the historic site?</p> <p><i>A. At this point we are trying to look at all of our options. Exploring Columbus Circle would require us to undergo a 4(f) process in which we would need to prove Columbus Circle is the only possible site for parking.</i></p>

	<p>Q. Several of the concept designs have access points by K Street, which is a mess. Do you have any thoughts of how people can access K St when it's already terrible?</p> <p><i>A. We're considering the different options carefully. We are also paying attention to the traffic patterns. For example, Amtrak riders tend to arrive before and after rush hour.</i></p>
5.	Open House: 5:20 – 6:30 pm
6.	Introduction & Welcome, Jerome Paige 6:30 pm - 6:40 pm
7.	<p>Public Meeting Presentation, Paul Moyer: 6:40 pm - 7:20 pm</p> <p>Q. Is the train Hall above ground?</p> <p><i>A. Yes, the train hall is an above ground structure with a glass ceiling so light is allowed in and reaches the tracks.</i></p> <p>F/U. Like an atrium?</p> <p><i>A. Yes, like an atrium.</i></p> <p>Q. Is the train running beyond the blue (train hall) and into the grey end (concourse)? (in reference to the diagram for Concept 3)</p> <p><i>A. Yes, into the blue, but they end at the concourse.</i></p> <p>Q. Does the bus terminal include tour buses, intercity buses?</p> <p><i>A. Yes, but not the Metrobuses. There is a circulator stop in the bus hall. Metrobus and Streetcar remain on the street.</i></p> <p>Q. What does the green mean (in reference to the scoring criteria slide)?</p> <p><i>A. Green means the concept design scores high against any given criteria. Red means the concept design scores low against the criteria. Yellow indicates that the concept design faces a few challenges in</i></p>

meeting criteria requirements. Some quantitative and qualitative analysis was used to score these concept designs, depending on what information could be measured.

8.

Question and Answer Period: 7:20 pm - 7:30 pm

Q. Has a cost-benefit analysis been done on each of these options?

A. We have not gotten to that specific level of analysis yet.

Q. Are you trying to retain the same amount of parking?

A. The amount is something that we are having ongoing conversations about. The parking garages now have leased spaces in it. Parking under Columbus Circle and Plaza is a possibility, but at this point we want to consider all of our options. Columbus Plaza belongs to National Park Service and we would have to undergo a 4(f) Process. This is not to say that we will not apply for the 4(f), but we are considering all of our options.

Q. How are you establishing your rail capacity needs? I was involved in the first growth of Union station and no one determined that.

A. We are looking at the rail demands of Amtrak, MARC, and VRE. We are working with FRA and projecting future ridership and we can expect two and a half times the growth. There is also Metro and its future growth that we are looking into, along with bus ridership.

Q. I liked the ideas of parking underground, but K St. is already a mess, so how would you consider access areas there?

A. We have not done that specific of an impact analysis yet. We have done some traffic analysis. We will need to do some more moving forward. We are also looking at the parking-traffic generated by Amtrak riders, who tend to come before and after rush hour. We appreciate that there is not a simple solution.

Q. The plan looks like you would have to destroy a perfect/current parking structure, if you build underground question is that easy to reconfigure?

A. This is still in debate amongst some stakeholders.

9.

Open House Format: 7:30 pm – 8:00 pm



Appendix B: Agency and Organizational Comments

Fourteen agencies and organizations provided written comments following the public and agency meetings. Their comments are provided below, organized by topic area.

Topic	Author	Organization	Comment
Americans with Disabilities Act (ADA) Compliance	Steve Strauss	DDOT	At the public presentation on the 19th the information seemed a bit unclear as to whether there would be high-level platforms serving the run-through tracks. I'd like to see this addressed as the EIS progresses. I would think that by 2040 service frequencies and ADA requirements would definitely warrant high level platforms for all regular service platforms at Union Station.
Bicycles	Jeff Johnson	DC Bicycle Advisory Council (BAC)	Overall: Any plans for Union Station expansion must recognize that its future design must reflect the increasing role of bicycles in the District. Its current design, which relies heavily on automobile access, is not sustainable. For instance, Massachusetts Ave., which fronts the station, has been designated by the District as one of the five most dangerous intersections in the city as documented by accidents involving pedestrians, automobiles, and bicyclists. The combination of a magnificent yet extremely busy rail station, a subway station feeding congressional buildings and burgeoning businesses, and ever-growing bicyclists' and pedestrians' use must be wisely considered in FRA's design. We don't think the design proposal makes this transportation analysis and is therefore inadequate in one of FRA's key planning elements for the station -- "enhance integration with the adjacent neighborhoods, businesses, and planned land uses."

Topic	Author	Organization	Comment
Bicycles	Jeff Johnson	BAC	<p>Parking: Bicycle transportation in the District is on a terrific growth curve and will be a major transportation mode in 2040, the FRA design timeframe. Currently bike parking facilities at Union Station are inadequate and appear to fall short of DC zoning requirements. The areas are too small, unprotected from theft and weather, and unlit, and frankly unsafe. The BAC has expressed concerns about the adequacy of bicycle parking to Union Station management on several occasions. The two additional planned parking and entry additions on H Street are far from the station's current entry on Massachusetts Ave. and access is likely to be inadequate for cyclists. Additionally, just as automobile drivers need both short term and long term parking at a regional transportation hub, so do bicycle riders. We recommend station designers explore bicycle parking and use concepts for rail stations developed in other countries, particularly the Netherlands and Denmark, for both good and bad examples.</p>
Bicycles	Jeff Johnson	BAC	<p>Integration: Bike-car conflicts are a significant problem, particularly for bicyclists as they are the most vulnerable of road users. The FRA plan must take careful consideration of how cars, buses, and bicyclists can safely utilize the same infrastructure while minimizing the direct interaction of such disparate modes of transit. Several of the concept plans call for an entrance to a large parking facility for buses and cars to be from K Street NE. K Street is one of the few east-west streets that goes across town with few interruptions. As such, it is a commuter route for cars, buses and bicycles. In the area conceived for the garage entrance, the infrastructure is already crowded and risky for bicyclists. Having the entrance on K Street without making significant changes, such as widening the tunnel under the tracks, would make an already heavily trafficked Street more dangerous.</p>

Topic	Author	Organization	Comment
Bicycles	Jeff Johnson	BAC	In summary: Union Station is much more than a railroad station. It is a majestic and historical structure. It is a transportation hub for our city. It must be integrated into our community. It unfortunately appears that bicycling accommodations are an afterthought and have been shoe-horned into whatever design makes the final cut. Experience shows that this method of planning will provide inferior bicycle infrastructure and will not improve safety for cyclists and others and will not realize biking's potential for easing transportation demands at the grand junction Union Station can be.
Buses	Emeka Moneme	Federal City Council	The inclusion of a bus terminal as a fully formed program element makes a false assumption that it should or will be located within the project area. It would be helpful to understand the opportunity cost associated with locating the bus terminal at the various locations proposed in the preliminary concepts. As the planning process progresses, identifying a level of service that would meet the needs of bus travelers would help inform efforts to accurately size the bus program element. In addition, it will be helpful to value-engineer the bus terminal program to achieve a viable solution.
Buses	Craig Leake	Greyhound	If we were asked to select a favorite our preference would be option 5 which shows what we understand to be a circulating bus concourse above the train hall. If the design activity moves forward with particular reference to option 5 or indeed any of the other scenarios it is very important for the designers to understand the fundamental differences between how tour and transit buses operate compared to intercity buses. The drive in drive out (DIDO) design such as a saw tooth or curb side layout works fine for a tour bus or transit operation. For intercity buses the accessible luggage compartments on both sides of the bus as well as the space required for ADA lifts make it more appropriate for a drive in reverse out (DIRO) design to be adopted like those Greyhound operates today.

Topic	Author	Organization	Comment
Buses	Jonathan Parker	WMATA	For more detailed comparison purposes, we recommend that the EIS retain and evaluate one or more alternatives that include both above and below ground parking, and a bus terminal located both north and south of H St.
Buses	Brandon Buchanan	American Bus Association (ABA)	In response to the announcement soliciting public comment, we offer the following comments in the context of preparing the environmental impact statement for the Union Station Expansion Project. As the Project proceeds through the next phase of development, we wish to emphasize the importance of the motorcoach access points and facilities currently in operation at Union Station. It is crucial these components be taken into proper consideration during Project development and execution. Bus operations at Union Station are a vital link, in terms of providing public transportation, and supporting both the environment and the economy of Washington, D.C. Project developers must ensure Union Station remains a truly intermodal facility, critical to the larger integrated transportation network.

Topic	Author	Organization	Comment
Buses	Brandon Buchanan	ABA	<p>In addition to having motorcoach operators, ABA members include many tour, travel companies, convention and visitors' bureaus (CVBs) destinations and attractions including many based in the District of Columbia. From this standpoint, ABA plays a vital role in promoting tourism throughout North America and for the District, in addition to intermodal transportation and multi-modal transportation planning. In this context, Union Station (specifically as a destination) and other intermodal transportation hubs are crucial cogs in our tourism infrastructure and drivers of economic development in addition to multimodal mobility. We believe that there is a unique synergy between transportation and tourism. In fact, ABA's President & CEO Peter Pantuso has recently been named as a member of the U.S. Department of Transportation's National Advisory Committee on Travel and Tourism Infrastructure (NACTTI). One of the NACTTI's key tasks is to identify critical transportation facilities and corridors that facilitate and support the interstate and interregional transportation of passengers for tourism, commercial, and recreational activities as well as identify strategies to improve intermodal connectivity for travelers and tourists. We believe that Union Station and this Expansion Project can serve as a model for future intermodal facilities.</p>

Topic	Author	Organization	Comment
Buses	Brandon Buchanan	ABA	<p>In this context, we would like to be your partner and see this expansion project continue to build upon these principles pairing transportation with development. We view motorcoach and bus tourism as a vital piece of that puzzle. In previous changes to the configuration of Union Station, buses haven't been embraced to their fullest potential. Prior to the completion of the current intercity and charter bus deck in 2012 there were over 90 spaces for mostly charter buses to park or pick up and drop off. Those were reduced under the redesign and integration to about 40 spaces. There had been discussions of the development (and completion) of an off-site satellite parking lot near New York Ave., NE, with a first-rate driver's lounge to incentivize continued bus patronage at Union Station before the elimination of the 90 tour bus parking spaces. Within the Union Station Expansion Project designs, those space will be further reduced to roughly 30 (or less) and parking additionally constrained.</p>
Buses	Brandon Buchanan	ABA	<p>Motorcoaches love Washington, DC! Among ABA's bus operator members, more than 33% list Washington, DC as one of their top 5 destinations. Motorcoaches and the groups that they bring also have a significant positive impact on the local economy. Motorcoaches bring as much as \$5,000-\$10,000 per night during an overnight visit to a destination such as Washington, DC. The Union Station Redevelopment Corporation estimates that its retailers realize more than \$33 million in revenues from bus passengers on an annual basis. For FY 2015, Amtrak realized its second highest passenger ridership in its national system at Union Station with 4.9 million passengers, trailing only New York. Nearly 4 million bus passengers also passed through Union Station in 2015. This does not include bus passengers who were dropped off in other locations such as the National Mall and matriculated their way through Union Station by other modes. Bus passengers represent a significant demographic in the continued economic success of Union Station.</p>

Topic	Author	Organization	Comment
Buses	Brandon Buchanan	ABA	<p>George Mason University and the Metropolitan Washington Council of Governments have recently concluded studies that demonstrate that more than 1,000 private buses pass through the District of Columbia on a daily basis, a number which increases to over 2,000 buses per day during the peak tourism season, February through June. The District maintains a motorcoach parking inventory of roughly 800 spaces throughout the city. Less than half of the motorcoach parking inventory is close, convenient or easily accessible (10 minutes travel time or less) to the downtown core or the National Mall. With parking at an extreme premium, locations like Union Station are essential to ensuring that buses continue to visit. Washington needs safe places to park and give drivers with limited allowable driving hours a place to rest. Union Station is perfectly positioned to fill that void.</p>
Buses	Brandon Buchanan	ABA	<p>Still, beyond the obvious economic benefits, one of the most underappreciated benefits of motorcoach travel are the environmental benefits that they bring. In traveling by motorcoach, on average 35 to 40 cars are displaced from our roadways with each load of 55 passengers who decide to ride the bus rather than drive. With double-decker motorcoaches capable of carrying up to 81 passengers, additional congestion reduction benefits are realized.</p>

Topic	Author	Organization	Comment
Buses	Brandon Buchanan	ABA	<p>An EIS will not only need to assess the impact of the buses serving Union Station, but it will also need to estimate and weigh the impact of the congestion and pollution that they will prevent. Motorcoaches are the greenest and most efficient form of surface transportation. Motorcoaches realize 239.8 passenger miles per gallon, as compared to 85.2 passenger miles per gallon for Amtrak and 27.9 passenger miles per gallon for cars. Motorcoaches also release only 43 grams of CO₂ per passenger mile, as compared to 147 grams for Amtrak and 368 grams for cars. And that is just today! Motorcoach emissions and fuel economy are going to continue to get even better, particularly under the Environmental Protection Agency's (EPA) recently released Greenhouse Gas Phase 2 regulations. These regulations will impact new engines beginning in 2021 and will be heavy users of the expanded Union Station. Those vehicles will see a 24% or greater reduction in their already low CO₂ emissions. These calculations and environmental benefits will need to be incorporated into the EIS.</p>

Topic	Author	Organization	Comment
Buses	Brandon Buchanan	ABA	<p>As mentioned, motorcoaches emit the lowest average amount of grams of CO₂ per passenger mile of any mode including Amtrak, transit buses and single passenger vehicles. When motorcoaches are left without viable parking options and forced to circulate the city streets in "creep mode" (roaming around city streets at low speed) rather than parking, this activity has a negative impact on traffic congestion as well as the environment. Buses operating in creep mode use more fuel (generally double) and emit at least 50% more nitrogen oxides (NO_x) when driving at low speed in urban traffic than when idling. This adds more than 375 gallons more fuel burned and emissions of more than 22 pounds of excess NO_x annually, for only one hour/day of circulating. The District has a strict 3 minute idling law, and thanks to the success of annual outreach efforts by ABA, the DC Department of Transportation, Union Station and Destinations DC, the motorcoach industry is very familiar with the law and rarely found to be out of compliance. Parking eliminates idling for motorcoaches. We would suspect that the same cannot be said for Amtrak or transit bus operations. Motorcoaches would gain a significant environmental benefit by being afforded increased parking locations.</p>

Topic	Author	Organization	Comment
Buses	Brandon Buchanan	ABA	<p>Motorcoach drivers also operate in compliance with the DOT's hours of service regulations, which mandate a maximum of 10 hours of driving time. For companies visiting Washington, DC on day-trips, and for companies located more than 4 hours away, drivers need a place to rest and relax while waiting for their group to return. Eliminating parking locations such as Union Station will negatively impact their trips. Forcing drivers to waste time searching for a distant parking location, or creating a situation where they use up valuable service hours creeping through the streets and making the driver less rested and threatening the safety of the trip. We hope that you will consider this need and the needs of more than 50,000 tourists who visit Washington, DC by motorcoach daily during the busy tour season and add realized safety benefits as a factor in the EIS.</p>
Buses	Brandon Buchanan	American Bus Association	<p>In summary, motorcoaches bring significant economic and environmental benefits to Union Station and the District of Columbia. As you begin the process of redesigning and transitioning to its next phase of Union Station's operations, we would like to stress that it is critical that motorcoach parking and the intercity bus aspects of the bus deck's operational footprint within the Union Station Expansion Project must be maintained or enhanced, not reduced. As fewer and fewer millennials seek to get driver's licenses or own cars, the demand for intercity motorcoach travel will continue to increase.</p>

Topic	Author	Organization	Comment
Buses	Rina Cutler	Amtrak	Amtrak is looking to capitalize on the advantageous locations of our major stations throughout the Northeast Corridor and to create development opportunities that are integrated with our station expansion projects and drive value and revenue to Amtrak. Placing a bus facility of this scale above the rail terminal will reduce areas for potential development and will be a significant expense. There is no identification, as of yet, as to where the funding for this facility will come from and whether it might be the best use of scarce resources for what are, essentially, private entities. We recognize that costing is not a determining factor in the screening at this point. However, Amtrak remains concerned about supporting a project that includes this type of assumption without some indication of the overall cost, financial tradeoffs, and when costs are associated with which group of users.
Buses	Rina Cutler	Amtrak	As stated above, Amtrak would request that FRA consider an additional concept that would move the large bus facility off the boundaries of the SEP but would remain a bus loading and unloading function as part of the Project.
Community Engagement	Elizabeth Nelson	CHRS	Very significant public and private investments will be required for these interdependent projects. The totality of these three projects – the H Street Bridge, an expanded Union Station, and Burnham Place – requires a creative and exciting solution to warrant the expense and disruption these projects will entail. The exclusion of the H Street Bridge and Burnham Place projects from the EIS represents a failure of candor that threatens support for the overall project. The concepts presented thus far demonstrate little potential to achieve more than a mediocre solution.
Community Facilities/	Matthew Flis	NCPC	The Economic Vitality and Neighborhood Integration criteria still seem somewhat unclear. The impacts on the Akridge development have been mentioned, but are other factors also included in these criteria?

Topic	Author	Organization	Comment
Community Facilities/ Neighborhoods	Nancy MacWood	Committee of 100	<p>Access to Union Station is limited by the presence of the building itself which impedes five of the alphabet east-west streets in the Old City's grid and three of the north-south streets. This places terrific pressure on Massachusetts Avenue, the H Street overpass and K Street, for pedestrians, autos, and buses trying to get to or around the complex. The anticipated expansion of transportation services and of a three million square foot development is, in truth, hard to conceive. It was clear from the discussion of the effort to screen benefits that some part of this is being addressed, but again no information is available to the public to begin to understand these very important issues.</p>
Historic Properties	Elizabeth Nelson	Capitol Hill Restoration Society (CHRS)	<p>First, what had previously been described as an expansion of the railyards to accommodate an as-yet un-quantified expansion, appears now to be a reduction in the number of tracks and platforms. Further, in earlier meetings, it was stated that platforms would be extended to accommodate longer trains. That, too, seems to no longer be a priority. Without providing any information to the contrary, it appears that the project is no longer an expansion of rail capacity, but rather a reduction in rail capacity in order to accommodate the platform for Burnham Place. Reclaiming the existing historic train shed from the current retail functions would allow both longer concourses and retain Union Station's historic function.</p>

Topic	Author	Organization	Comment
Historic Properties	Nancy MacWood	Committee of 100	To that point, the Committee of 100 on the Federal City is concerned with how best to ensure that Union Station continues to serve first as a transportation hub for the City and Region, and secondly provides a positive anchor for community development in northeast Washington, DC. We have an overriding concern for the sensitive development of the area, so that the historic building is not impacted. Our concerns mirror the goals of Congress when they enacted PL. 97-125 in 1981. Congress' goals are stated today in 40 U.S.C. 112:
Historic Properties	Nancy MacWood	Committee of 100	Given the significance of Union Station as an architectural landmark, we have an ongoing concern about how the expansion project will affect this historic building. While the massing and placement studies provided thus far would seem to favor alignments of the proposed building masses parallel to the existing station and concourse, without scaled drawings, elevations and resulting viewshed analysis it is extremely difficult to discern what the impact to the station will be. Further, selecting specific alignments for this purpose may yield a favorable result for this particular undertaking, but may produce a far more damaging result from the private (air-rights) development anticipated after the expansion. It is unfortunately impossible to assess the overall impact, since there continues to be a refusal to look at the overall development plan for the entire site, including Burnham Place.

Topic	Author	Organization	Comment
Historic Properties	Nancy MacWood	Committee of 100	In addition to our concern about the impacts to the historic building and individual elements themselves, we believe it is crucial to have better integration of the historic station with its intended use. Many of the proposed alignments further divorce the 1907 station from its historic function as a transportation facility, instead rendering it even more to a retail function than it is today. While we understand that there is a lease for retail space in the station, it would be a tragedy if you did not look holistically at the existing station and subsequent spaces to determine whether the expansion can create a more harmonious mix between transportation hub and shopping center.
Multimodal Access/Connectivity	Sam Zimbabwe	DDOT (District Department of Transportation)	The successful integration of parking, circulation and access are critical, especially the maximization of internal circulation, consideration of new access points for all modes and the management of on-site parking. The concepts and screening criteria used to assess them include these overarching principles and we look forward to continuing discussions as alternatives are developed for assessment in the Environmental Impact Statement (EIS) based on comments and input from various stakeholders.
Multimodal Access/Connectivity	Sam Zimbabwe	DDOT	Current concepts provide a range of options for how major elements (bus, parking and train hall) of the project could reside on the site and how they might relate to each other, including internal circulation between the elements. We understand the EIS alternatives will provide additional detail concerning external circulation, impacts and mitigation and we will provide comments at that point.
Multimodal Access/Connectivity	Sim Zimbabwe	DDOT	The interaction of internal and external circulation is of great interest to DDOT and we look forward to working with you on their development. Specific parking access points, their location or locations on the site, and how those users make other modal connections or move through the site is one example of how we will assess the future alternatives.

Topic	Author	Organization	Comment
Multimodal Access/Connectivity	Sam Zimbabwe	DDOT	The concepts shown to date do not indicate access points for multi-modal traffic. Singular points of access versus multiple points of access for one or more elements may drive the development of alternatives and the evaluation of impacts. Further, based on the study and information available at this point, below grade parking is our preference to facilitate greater flexibility in above ground uses.
Multimodal Access/Connectivity	Sam Zimbabwe	DDOT	We also believe an intercity bus facility should remain part of the project elements and that it should be located in close proximity to the station itself and Metro. If the Federal Railroad Administration (FRA) would like to advance this concept, we think DDOT and FRA should work to evaluate potential impacts through the EIS process.
Multimodal Access/Connectivity	Sam Zimbabwe	DDOT	In future iterations, as details are developed, DDOT will provide comments on such elements as accommodation (or lack of preclusion) of a future Metrorail station east of the project site, high speed/high capacity vertical circulation solutions, placement of drop-off and staging areas for the rapidly evolving private carrier industry, internal building usage layout, frontage uses and activities along H St., including orientation and proximity of the train hall. Additionally, as evaluation criteria evolve during alternative development, we will provide our thoughts on those.
Multimodal Access/Connectivity	Maribeth Oakes and Ellen Malasky	Guild of Professional Tour Guides of Washington, D.C.	The proposal materials do mention the station's multi-modal functions, including tour buses. However, more information about the bus area plans would be helpful. More specifically, we ask that future documents be very specific in how the proposed bus area will accommodate transit companies like Bolt or Mega Bus as opposed to the future tour bus parking.

Topic	Author	Organization	Comment
Multimodal Access/Connectivity	Jonathan Parker	Washington Metropolitan Area Transit Authority (WMATA)	Options 1A and 2A locate both bus and parking access from H Street NE, which may have a greater potential impact on crosstown Metrobus and DC Streetcar operations and our customers' waiting environment. Traffic analysis is needed as a part of the EIS for the out year to know if consolidating these entry points along H Street NE will impede through transit service. The results of that analysis may require the dispersal of vehicular access points to multiple locations.
Multimodal Access/Connectivity	Jonathan Parker	WMATA	Options 3A, 3B, 4A and 4B separate the bus terminal from Union Station main hall, but include a south side passenger drop-off. The amount of bus circulation associated with this design appears excessive for a site with limited real estate and capacity. Pedestrian circulation options connecting a north side bus terminal with the proposed concourses and historic station may provide a better balance between circulation and space requirements.
Multimodal Access/Connectivity	Jonathan Parker	WMATA	The location of the bus terminal in Options 3A, 3B, 4A and 4B provides an option to utilize NoMa-Gallaudet U station as a secondary Metrorail location, potentially reducing the amount of pedestrian movement and pressure through the concourses and historic station for bus riders who are transferring to Metrorail.
Multimodal Access/Connectivity	Jonathan Parker	WMATA	The preliminary screening criteria 4 and 5 should be expanded to reference Metrorail as a major multimodal element for Union Station.

Topic	Author	Organization	Comment
Multimodal Access/Connectivity	Rina Cutler	Amtrak	<p>Amtrak continues to be concerned about the inclusion of a large bus facility in the Station Expansion Project (SEP) concepts. While Amtrak fully supports creating an integrated multi-modal facility as part of the SEP, we have reservations that the bus facility is driving the overall design of the SEP. As Amtrak has previously stated through written correspondence and communications, we acknowledge the need for continued bus access at the station but do not believe it should be at the expense of other modes or development opportunities. Currently all nine concepts have a large bus facility as part of the overall program. However, four concepts (3A, 3B, 4A, and 4B) have a smaller drop-off/pick-up bus function close to the historic station as well as the larger bus facility to the north. Amtrak supports the smaller footprint and function of a bus drop-off/pick-up facility that is shown in these four concepts and would encourage FRA to continue to look at a concept that removes the larger bus facility from the station expansion footprint. We believe there is a material difference between bus loading and unloading (around 20 minutes) and bus parking (1-2+ hours) and this distinction should drive the size and scope of a bus facility.</p>
Multimodal Access/Connectivity	Nancy MacWood	Committee of 100	<p>The logical starting point is to develop the best estimates of the number of trains and the nature and frequency of operation, and then determine the number of tracks and platforms required to support them. The next step would be to determine the number of passengers each of those trains will carry, and knowing their schedule, the number of pedestrians that must be accommodated at any one time. These numbers in turn will determine the capacity of concourses, escalators, and transportation to and from the station. But the basic starting point – the projected number of trains that was used in determining the number of tracks and platforms – is information that has not been made available to the public.</p>

Topic	Author	Organization	Comment
Multimodal Access/Connectivity	Nancy MacWood	Committee of 100	The Scoping Report claims the expansion will be able to support the projected number of trains that will be operated by MARC, VRE, Amtrak Regional, Amtrak Intercity and Amtrak Acela in 2040. Those numbers are published and were taken into account when the Union Station Master Plan was developed in 2011. The Master Plan called for near-term improvements to the eight east-side run-through tracks and the 12 west-side stub tracks, and by 2030, increasing the stub trackage by retaining the 12 improved upper level west-side tracks and adding six to nine new lower level west-side stub tracks.
Multimodal Access/Connectivity	Nancy MacWood	Committee of 100	The Congress was clearly sensitive to the need of Union Station management to be as self-sufficient as possible. In the original redevelopment process, that was the reason given for not using the bus deck for public transit, for which it was originally designed including a driver layover comfort station. (Although there has been some WMATA access over the years, as well as some use of it by the Circulator.) We recognize that it would be difficult to accommodate all WMATA buses of the 18 routes, plus Circulator buses, that serve Union Station daily, and still generate needed income. But the more transit buses that do their loading on Massachusetts Avenue, H Street, and North Capitol, the greater the access and congestion problems for other modes of transport attempting to reach or leave the station. Moreover, some of the bus stops pose safety problems to pedestrians and to automobiles, and will only grow more unsafe if not addressed.
Multimodal Access/Connectivity	Nancy MacWood	Committee of 100	Access to Metrorail is very important to Union Station's continued development, but the crowded conditions at the north end of the platform are restricting entrance and exit of pedestrians. While various staff at the meeting offered that there will be improvements for that situation, very little information was provided on this growing concern.

Topic	Author	Organization	Comment
Parking	Sam Zimbabwe	DDOT	The location of the major elements on site continues to be of great interest to us. For example, the location of parking to the far north under some concepts, separated from the Union Station building, will need to be carefully weighted in terms of its efficiency in facilitating intermodal connections. It is possible that a cost-benefit study of one-large parking facility versus several smaller ones and their comparative effects on traffic and transportation operations in the project vicinity would weigh more heavily in the next round of alternative development and assessment.
Parking	Maribeth Oakes and Ellen Malasky	Guild of Professional Tour Guides of Washington, D.C.	A tour guide's paramount concern is the safety of the guests. At Union Station a first step towards safe travel means ensuring that the motor coach on which they are traveling can secure an onsite parking space. Currently there are too few parking spots available to buses, especially those coaches that are nonaffiliated with a travel company that purchases spaces in advance. The Guild asks that the planners incorporate at least a dozen additional parking spots that are open to drives regardless of their company affiliation.
Parking	Elizabeth Nelson	CHRS	Third, the automobile parking requirement has not been quantified or justified. Proposals that envision the K Street underpass for access to an automobile parking deck two levels below the railyard are not practical and dump traffic into a low-scale residential neighborhood. The Unit Block of G Street and G Place, NE provide an un-explored opportunity for more direct access off of North Capitol. The goal of a multi-modal transportation center is doomed by proposals that fail to anticipate the additional traffic generated by Burnham Place. Similarly, increasing intercity bus capacity without addressing how those busses will arrive and depart is similarly ill conceived. Intercity bus traffic should be routed away from residential street, as well as H Street with a direct connection to New York Avenue.

Topic	Author	Organization	Comment
Parking	Matthew Flis	NCPC	It will be helpful to understand how parking is allocated, both for the existing conditions and proposed, including those spaces for employees, retail, other travel modes (smart cars etc.) and what the overall change in parking count will be.
Parking	Jonathan Parker	WMATA	Consideration should be given to the impact of underground parking construction and the depth of an additional level or more on a potential future east-west Metrorail line connection underneath H Street NW, as per our letter to FRA, dated September 2.
Parking	Brandon Buchanan	American Bus Association	The net impact of reducing congestion and increasing the parking capacity for cars through the turnover generated by limited time parking also purports to have an environmental benefit. However, every motorcoach visiting Union Station is also contributing to this goal of improving the environment. In addition to the mass transportation benefits offered by motorcoaches, they also offer a significant reduction in terms of emissions over every other surface transportation vehicle.
Pedestrian Access/Circulation	Maribeth Oakes and Ellen Malasky	Guild of Professional Tour Guides of Washington, D.C.	The proposal must detail an intended walking path that directs people from the parking area to the food court. Dropping-off or picking-up 50-52 persons (the motor coach capacity) generates a high level of foot traffic into the food court area that we hope is taken into consideration in the expansion plan. In addition, guests utilizing the motor coach are often school groups and elderly travelers who have mobility challenges. To help ensure public safety the plan must be explicit as how the footpath will be marked with appropriate signage. Proposals 2A or 2B appear to place motor coach parking closer to the terminal, which the Guild supports. However, we urge planners to consider designating new pathways that avoid the present congestion that occurs at the train gate escalators. A more direct route to the food court from the bus area would help eliminate overcrowding in the train gate zone.

Topic	Author	Organization	Comment
Pedestrian Access/Circulation	Maribeth Oakes and Ellen Malasky	Guild of Professional Tour Guides of Washington, D.C.	Another consideration the Guild asks be addressed in the plan is identifying and providing a meet-up space for groups. Guides try to be sensitive to the wishes of merchants that don't want groups gathering in front of their business while everyone assembles and account is taken. Yet, the current food court area doesn't provide a large enough open area where groups can gather. In evaluating future space needs, we request the plan outline several preferred group meeting sites that is close to the food court.
Pedestrian Access/Circulation	Jeff Johnson	BAC	Access: The plan must address pedestrian and bike access to the station in a manner equal to its emphasis on vehicle access. The city is urging a shift from cars to a walkable, bikeable city, and the design as currently expressed does not recognize this change. On a more positive note, the design appears to preserve the current north/south bike lanes on the station's east and west side as well as a bike lane on Massachusetts Ave. However, some options allow vehicle passenger drop-off zones that will conflict with bike riders. These north-south lanes are important as they tie Union Station to areas north of the station, particularly the Metropolitan Branch Trail and NoMa residential and commercial area, both are rapidly growing in use and will be integrated into the District's future transportation needs. The Metropolitan Branch Trail (MBT) is on its way to becoming a major bike route, providing bicycle access through the northeastern segment of DC as well as to and from parts of Maryland, such as Silver Spring and Takoma Park. It is already heavily used. Having plans for Union Station Expansion that incorporate easy flow from the MBT to Union Station and improved bicycling facilities would be a tremendous asset and truly would incorporate bicycling as a viable mode of transit into Union Station.
Pedestrian Access/Circulation	Jonathan Parker	WMATA	Please evaluate the quality of pedestrian connections within the facility and particularly the connection to the Red Line at the Metrorail North Mezzanine.

Topic	Author	Organization	Comment
Railyard	Nancy MacWood	Committee of 100	<p>Currently, we know of the following studies that are looking at some of the same trackage and access: the Union Station EIS that addresses multimodal access to the Station, historic preservation, as well as rail access; the District’s State Rail Plan; the Long Bridge Study; the VDRPT [Virginia Department of Rail and Public Transportation] and FRA’s <i>Southeast High Speed Rail Study: Richmond to Washington, DC</i>; and on-going engineering studies for the VRE on access to DC. There also have been several recent studies covering part or all of the same real estate including: the VDRPT’s <i>2006 Washington DC to Richmond Three Track Feasibility Study, the VRE 2040 System Plan</i>; and the <i>MARC Growth and Investment Plan</i>. All of these studies project greatly increased numbers of trains will be accessing Union Station by 2040.</p>
Railyard	Nancy MacWood	Committee of 100	<p>At the same time, Amtrak plans to have significantly increased rail traffic on the NE Corridor by 2040.⁵ Amtrak has started the process to purchase new high-speed train-sets to permit doubling of Acela Express frequencies between New York and Washington by 2021.⁶ By 2025 infrastructure improvements and new additional high-speed train-sets will permit tripling of Acela Express frequencies in peak periods between New York and Washington, and hourly Acela Express service between New York and Boston.⁷ And by 2040: “Under the proposed NextGen HSR service plan, high-speed train frequencies would increase dramatically – over three times more daily service in the Boston to New York market and five times more service in the key Washington, D.C. to New York market.” <i>[emphasis supplied.]</i> <i>The EIS scoping should provide a clear and convincing rationale for decreasing the number of Union Station tracks in view of the projected greatly increased number of trains that will be using Union Station by 2040.</i></p>

Topic	Author	Organization	Comment
Railyard	Nancy MacWood	Committee of 100	The Union Station Master Plan stated that future tracks could be extended to the south, “enabling extension of high-performance high-speed rail service to Virginia, North Carolina, and the southeastern United States”. But neither the Scoping Report nor the information presented at the October 19 meeting includes any mention of high-speed rail south of Union Station ¹⁰ .
Railyard	Nancy MacWood	Committee of 100	This EIS needs to include 53 high-speed trains traveling from Union Station south, or provide a careful analysis and explanation if any different number should be included.
Railyard	Nancy MacWood	Committee of 100	But what is now being proposed in this EIS according to Exhibits at the October 19 meeting consists of new, wider, platforms that connect to new concourses with escalators, but a reduced number of tracks. There are 12 west-side stub-end tracks, the same as now exist, and five east-side run-through tracks, compared to the current six. The 2012 Master Plan proposal for six to nine additional, lower-level stub-end tracks has been eliminated. The 2012 plan for eight east-side run-through tracks proposed has been reduced to five. No explanation has been provided for the reduced number of tracks - and the public needs one.
Screening Criteria	Beverley Swaim-Staley	Union Station Redevelopment Corporation (USRC)	As presented, it is unclear if the preliminary screening criteria are ranked, or if each of the criteria has the same level of importance in evaluating the preliminary concepts. If the preliminary screening criteria are ranked, USRC requests that the following criteria receive a greater weight due to their direct nexus to USRC's mission: a) Preserves and maintains the historic station building and the urban environment; b) Sustains the station's economic vitality; and c) Meets future multi-modal capacity needs.

Topic	Author	Organization	Comment
Screening Criteria	Beverley Swaim-Staley	USRC	The preliminary screening criteria, while comprehensive, do not appear to directly address an important component of USRC's mission, which is to enhance the retail and amenities within the Station. The quality of the concourse experience and the economic vitality criteria begin to suggest the enhancement of amenities, but this component is not explicit within the screening criteria.
Screening Criteria	Beverley Swaim-Staley	USRC	Criterion 6 assesses the ease of access across modes within the Station, but does not appear to consider circulation within or through the historic station. As circulation patterns within the historic station are an important consideration, USRC requests that FRA consider how the preliminary concepts could alter the historic circulation patterns.
Screening Criteria	Beverley Swaim-Staley	USRC	Criterion 6 also ranks concepts 3B and 4B as high, but the buses in these two preliminary concepts are located the furthest distance from the other transportation modes. We continue to be concerned about the distance of the intercity buses from the other transportation modes, as well as the uncertainty of pick-up and drop-off operations or concourse extension to the bus facility. As noted in our July 28th memo, USRC's support for preliminary concepts 3 and 4 is contingent upon passengers connectivity between the historic station and the bus terminal at the lower concourse level and/or the deck level and a dedicated drop-off and pick-up area for tour and charter buses.
Screening Criteria	Beverley Swaim-Staley	USRC	None of the preliminary concepts received a "high" ranking for Criterion 8 - Economic Vitality of the Station. Is this due to the elimination of the monthly parking program? Can you further clarify economic vitality?

Topic	Author	Organization	Comment
Screening Criteria	Rina Cutler	Amtrak	Criteria 1 (Quality of the Train Hall): As stated in our evaluation of the concepts, Amtrak strongly supports a north-south train hall versus an east-west train. Amtrak envisions this new train hall to be an iconic and central piece of architecture to the entire project and to be used as a means to pull the focus of the site north towards H Sreet. It also meant to work in tandem with the historic building, not competing with it. Given that, Amtrak objects to Concepts 4A, 4B and 5 being rated a 'green' while the others are give a 'yellow.' Furthermore, it is unclear how Concept 5 is rated 'green' when there is to be a bus/parking facility on top of the train hall. The following are items Amtrak believes are missing from the definition for this Criteria: i. Passenger/visitor experience ii. Place creation iii. establishment of a modern architectural feature that does not affect the historic station and knits together the entire SEP boundary.
Screening Criteria	Rina Cutler	Amtrak	Criteria 2 (Quality of Concourse Experience): Do amenities include space for retail and ticketing/customer service areas? Amtrak suggests that wayfinding should also be a criteria for concourse experience.
Screening Criteria	Rina Cutler	Amtrak	Criteria 3 (Rail Capacity): Amtrak recommends that operational requirements should include a specification for back of the house access and train servicing functions as part of the criteria.
Screening Criteria	Rina Cutler	Amtrak	Criteria 4 and 5 (Multimodal): Amtrak would like to understand the FRA's definition of multimodal for this Criteria and if one mode is given preference over another. Amtrak strongly supports connecting stations to communities and communities to the station through Metro, bike, pedestrian, auto, etc. and wants to ensure these modes are being included in this Criteria, not just buses and autos. Amtrak requests additional clarification of the definition and its application to the concepts as the color-coding for this Criteria seems to reflect a different prioritization of multimodal.

Topic	Author	Organization	Comment
Screening Criteria	Rina Cutler	Amtrak	Criteria 6 (internal circulation): As was noted in Criteria #2, wayfinding as well as safety egress should be a part of this Criteria.
Screening Criteria	Rina Cutler	Amtrak	Criteria 7 (Historic Preservation and Urban Environment): Amtrak suggests adding some definition or more specificity as 'urban context' seems very subjective. Again, Amtrak is unclear on the 'yellow' coloring for Concepts 1A and 2A while concepts that place the modern train hall directly adjacent to the historic building are colored 'green'.
Screening Criteria	Rina Cutler	Amtrak	Criteria 8 (Economic Vitality of the Station): Amtrak suggests including economic vitality of rail operations in this Criteria.
Screening Criteria	Rina Cutler	Amtrak	Criteria 9 (Constructability): Amtrak requests a re-phrasing of this Criteria as nothing will be easy about the construction but this Criteria should focus on mitigating impacts and determining which elements are more complex to construct and would add significant time and money to the construction.
Security	Matthew Flis	NCPC	As the concepts develop further, please consider any security implication which may impact the placement or access to certain program elements.

Topic	Author	Organization	Comment
Station Design and Alternatives	Elizabeth Nelson	CHRS	<p>Second, the concept proposals envision recapturing portions of Akridge’s air-rights for the Union Station Expansion. The concepts do not include any information about – or even reference to – closely related projects for the H Street Bridge and Burnham Place. Similarly, renderings of Burnham Place envision construction on areas that Akridge does not (yet) control. No information has been proffered on whether areas would be acquired by eminent domain, a swap of air-rights, or an outright re-purchase. It appears that Union Station’s transportation functions have been placed in a secondary role to the development objectives for Burnham Place. Nonetheless, the master plan for these closely related projects is proceeding outside the public view and renders the limited-in-scope EIS a fiction. The current EIS does not in any meaningful way achieve the goal of genuine public involvement and harms efforts to coordinate these closely related projects.</p>
Station Design and Alternatives	Elizabeth Nelson	Capitol Hill Restoration Society	<p>Fourth, the concepts presented to date do not exhibit the required degree of creative problem solving. This is a one-time opportunity to re-make this entire area. The reconstruction or elimination of the H Street Bridge, alternate geometries for the railyard, and re-envisioning Burnham Place must be viewed as a single project and all design opportunities further explored. Presuming that the railyard is limited to the existing footprint and at the current elevation, precludes the opportunity for a multi-level railyard. Similarly, the assumption that the H Street Bridge will be re-built at the existing elevation misses another opportunity for creative problem solving.</p>

Topic	Author	Organization	Comment
Station Design and Alternatives	Matthew Flis	National Capital Planning Commission (NCPC)	Note that as the project advances, particularly for concepts that include stacking multiple uses, the limits in building height as described by the Height Act should be considered. In general, lower building massing is preferable adjacent to the historic station. We note that the District's USN [Union Station North] zoning designation, which applies to the private development air-rights, includes specific step backs that are intended to address the impacts of high-density development adjacent to the historic train station and within important viewsheds.
Station Design and Alternatives	Craig Leake	Greyhound	Options 1, 2 and 5 all seem acceptable in concept as they are consistent with, and in some respects could offer an improvement on the layout we use today. From a construction and phasing perspective options 2 and 5 could be delivered while the existing facility remains functional preventing the need for a temporary or interim solution and saving the associated time and money involved in the delivery.
Station Design and Alternatives	Craig Leake	Greyhound	Options 3 and 4 are a cause for concern to Greyhound and indeed any other intercity bus provider in that the main bus facility has been located to the north of the property. Bus passengers at Union Station currently benefit from the convenience of access and transfer between modes with minimal horizontal and vertical travel that you would associate with a world class intermodal facility. Although the options do indicate a pick-up facility convenient to the Head House it is assumed that some passenger activity will be located in the remote facility some 1500 feet away beyond H Street. Pedestrian connectivity is therefore very inconvenient and the bus circulation indicated suggests that buses are active and circulating more than they need to be in an enclosed environment contrary to the environmental objectives of the project.

Topic	Author	Organization	Comment
Station Design and Alternatives	Rina Cutler	Amtrak	<p>Concepts 1A and 1B: Amtrak prefers the north-south orientation to the train hall that is present in these concepts as we believe a central tenet to the SEP is to expand the station footprint to accommodate future volumes of passengers and visitors to the station complex. Having a grand civic space extending north from the current station will help to engage the development of the entire site and will refocus usage away from just the south end of the Project. It is also our opinion that a north-south train hall provides better daylight and visual experiences from the tracks below. In terms of car parking, Amtrak is more supportive of car parking below the tracks than above the tracks as we want as much of the above track property available for other development to support our transit-oriented development focus. However, if it is determined that parking should be placed above the tracks, Amtrak supports having the parking garage remain in the southwest portion of the site, given that the area is currently a parking garage and in control of USRC. Furthermore, Amtrak requests that FRA revisit car parking under Columbus Plaza as a viable option as there are precedents in other cities for public parking underneath National Park Service land.</p>
Station Design and Alternatives	Rina Cutler	Amtrak	<p>Concepts 2A and 2B: As in Concepts 1A and 1B, Amtrak is supportive if having a train hall that is oriented north-south. Amtrak believes a world-class transit facility should include vibrant transit-oriented development. Amtrak has concerns that placing a bus and parking facility above the tracks in the southeast corner could hinder the development potential that exists on site. As in Concepts 1A and 1B, Amtrak prefers the car parking below the tracks.</p>

Topic	Author	Organization	Comment
Station Design and Alternatives	Rina Cutler	Amtrak	<p>Concepts 3A, 3B, 4A, and 4B: Amtrak is supportive of having a train hall that is oriented north-south, nor east-west. Amtrak is supportive of having a bus loading and unloading zone on the site in lieu of a large bus facility (dwell time +/- 20 minutes). While Amtrak has constructability concerns with a bus/parking facility over special track work, we do support a bus/parking facility in the north part of the site as these concepts would allow for a majority of the above track deck to be dedicated to development.</p> <p>Additionally, while it would be a longer walk for the users of the parking/bus facility to reach the historic station, we believe there are ways of mitigating this issue. In addition, these concepts would encourage use of the full site by passengers and visitors and would prevent all operations being oriented to the south, as it is today.</p>

Topic	Author	Organization	Comment
Station Design and Alternatives	Rina Cutler	Amtrak	<p>Concept 5: Amtrak has concerns with having an east-west oriented train hall. This concept orients a majority of rail passengers back to the south, to the expanded Concourse A, in conflict with our desired strategy to expand the station footprint. Additionally, it puts the footprint of the train hall immediately and entirely adjacent to the historic station. The height limit of the train hall may be restricted which could hinder design opportunities. With an expanded Concourse A and bus/parking facility on top, there will be a significant number of vertical circulation elements throughout the area to get visitors and passengers up to the parking facility. This arrangement does not support Amtrak's central tenet to provide a world class public space to enhance the station experience. Amtrak thinks there is a shared vision to embody a light, airy, and iconic architectural element which achieves design excellence. We do not believe this can be achieved while having a large bus facility above the train hall. Furthermore, direct adjacencies to the historic building will limit height and design opportunities. Amtrak does acknowledge that this concept allows a majority of the above track deck area to be used for development which is a main goal of Amtrak of this project.</p>
Station Design and Alternatives	Rina Cutler	Amtrak	<p>As has been stated previously, Amtrak prefers Option 14 which includes a central opening between the stub-end and run-through tracks.</p>

Topic	Author	Organization	Comment
Station Design and Alternatives	Nancy MacWood	Committee of 100	The Committee appreciates the opportunity to comment on the preliminary concepts for the Union Station Environmental Impact Statement (USEIS). While we view the concepts as interesting and as a useful exercise to see what will fit on the footprint of property for which the Federal Railroad Administration (FRA) has jurisdiction, but we will be reserving judgment on the quality of these concepts until more information is available as to which concept better meets public goals. We will instead focus these comments on the need for more underlying information that is needed to drive the decisions on alternatives.
Station Design and Alternatives	Nancy MacWood	Committee of 100	The number of passenger rail tracks shown in the meeting exhibits were not vague, however, and clearly show fewer tracks than the current number, rather than more as proposed in the Union Station Master Plan (2012) to accommodate planned expansion of MARC, Virginia Railway Express (VRE), and Amtrak to 2040.
Station Design and Alternatives	Nancy MacWood	Committee of 100	Little to no information was provided on access to the Metrorail station, increased auto traffic, and safe access for pedestrians, except for a very generalized Preliminary Screening chart. In answer to a question at the Meeting, the presenter said that WMATA buses would not be accommodated in the bus facility.
Station Design and Alternatives	Nancy MacWood	Committee of 100	Given the lack of clarity about the transportation needs being met by the expansion, it is hard to evaluate the appropriateness of the proposed alignments of the new building masses (concourse, parking, train shed, bus zone, etc.) and their impacts not only on the historic station itself, but on its historic function as a train station.

Topic	Author	Organization	Comment
Station Design and Alternatives	Nancy MacWood	Committee of 100	It is not clear why the number of tracks would be reduced rather than increased, but accommodating three million square feet of development of the air-rights is one such possibility. It could also occur for other reasons such as the changing placement of parking – a link between station and development functions. At the same time, the project sponsors have gone to great lengths to limit the scope of the EIS to on-site owner (FRA) interests and not to include consideration of the Burnham Place development in the EIS.
Station Design and Alternatives	Nancy MacWood	Committee of 100	To maintain the position that development is not a driving factor in the USEIS, the sponsors must provide a clear and convincing rationale for decreasing the number of rail tracks serving the station and the growing north and south rail traffic. In terms of accommodating the other modes of access to the station, more information is needed before the public can understand how the concepts compare with each other and their individual impacts. There could be valid reasons not to accommodate all WMATA buses serving the station, but no information for excluding the major transit provider was presented.
Station Design and Alternatives	Kristin Michael	Architect of the Capitol	We prefer the train shed concept that runs parallel to Union Station, as shown in Concepts 4B, 4A, and 5. While the perpendicular orientation of the train shed could work, it would be less intuitive for visitors, and less integrated with the terminal, historic station, and surrounding neighborhood concept.
Station Design and Alternatives	Kristin Michael	Architect of the Capitol	In Concept 5, I'm concerned that the bus terminal above would decrease the visual/architectural experience of the train shed below.
Station Design and Alternatives	Kristin Michael	Architect of the Capitol	Concept 4B is generally my preference because it places the parking below grade. 4A is my second choice.

Topic	Author	Organization	Comment
Station Ownership	Matthew Flis	NCPC	It can be inferred that there may be changes in ownership over portions of the site. As the concepts develop, it will be helpful to have parallel diagrams that outline the ownership of the various elements, in particular for FRA and Amtrak property, if the changes are proposed. Further, it will be helpful to understand what entities may own or maintain the respective components (parking, train hall and bus bays). Will the change in ownership require dispositions, land swaps or other transfers? What does this mean for the covenant associated with the Akridge development rights? Does "Constructability" criteria consider ownership or changes in ownership that may require additional approvals, disposition procedures or other procedures?
Station Ownership	Emeka Moneme	Federal City Council	The Union Station 2 nd Century major program elements (e.g., historic train station, passenger concourses, and parking) must have clear ownership, financial stewardship, and a business case for the improvements proposed. This is the case for the previously mentioned major program elements. However, the same cannot be said about the bus terminal. While it would be misinformed to argue about whether bus <i>service</i> is essential to the intermodal nature of the station, discussing whether it is essential to locate the bus <i>terminal</i> within the project area of Washington-Union Station is not. The current bus terminal was conceived and is being executed as Union Station Redevelopment Corporation (USRC) cost center rather than a revenue center, and in the context of the entire 2 nd Century project, it must be subsidized by other project elements.

Topic	Author	Organization	Comment
Study Area	Emeka Moneme	Federal City Council	As the preliminary concepts advance and become the alternatives, we should include additional concepts both within the project area and areas outside. This should include locations that could be identified by the District for a permanent bus terminal, as well as thinking about a network of facilities that would still drop off and pick up at Union Station, but not be located there. Of the locations identified by the preliminary concepts, and we believe that a bus facility in the southwest is a viable option. However, serious consideration should be given to both off-site locations and adjustments to the proposed size of the facility.
Study Area	Jonathan Parker	WMATA	As the EIS advances, please ensure that the EIS study area includes stations serving on-street bus stops along Massachusetts Avenue, N. Capitol Street, E Street NE, and Columbus Circle as we noted in our January 4 EIS scoping comments.
Study Area	Nancy MacWood	Committee of 100	The Committee appreciates that the proposed expansion is complex, involving by 2040: a major expansion of high-speed rail; increased commuter and passenger rail operations north and south of Union Station; Akridge's Burnham Place development project; and replacement of the H Street Bridge over the railyard. And we applaud the sponsors' efforts to grapple with these issues, while attempting to work together in a unique public-private partnership. However, the EIS purports to address only on-site FRA interests, taking the position that the rail tracks south of Union Station are not part of the site, bridge replacement is a DDOT project and Akridge is a private development, and thus not within the scope of the EIS process. The result of this decision is to limit the scope of the EIS in order to make the EIS process more manageable for FRA, to limit meaningful public involvement in this transformative development, and to prevent the consideration of long-range impacts that must be carefully weighed.

Topic	Author	Organization	Comment
Transportation	Steve Strauss	DDOT	How can we get Washington Union Station fast tracked like the Gateway Tunnels?
Transportation	Nancy MacWood	Committee of 100	The issue of access to the station for all modes is not a sidebar. In particular, transit issues deserve considerably more attention than is evident from study documents to date. These matters should be directly addressed in this study through thorough analysis, including off site solutions to lessen traffic impacts. For instance, both VRE and MARC are proposing run-through service to the adjacent state. Some of this service could conceivably use CSX's East Branch line that connects with L'Enfant Plaza station, thereby reducing commuter rail pressure on Union Station and providing greatly improved access to jobs in both states for the residents east of the Anacostia and in near Southeast and Southwest.
Viewsheds	Kristin Michael	Architect of the Capitol (AOC)	Our main preference is that the height of any new construction (train shed, bus terminal, parking deck, etc.) be lower than the height of the historic Washington Union Station. This will decrease negative visual impact to viewsheds, as well as protect the historic appearance of Washington Union Station.
Visitor Experience	Matthew Flis	NCPC	In general, a train hall that is oriented to cross all platforms appears to result in a better visitor experience that one narrowly focused on the interior of the site; the train hall may also provide some visual and physical buffer from the scale and massing of the private development which may occur further to the north. In general, bus services should be closer to transit than parking. Concept 5 includes a bus ramp above the train hall. We believe this may impact the visitor experience by limiting natural light to the train hall; it may also have visual impacts on the historic train station depending on its height and massing. Regarding Concept 4, could the bus program be located south of H Street, adjacent to the train hall?

Appendix C: Public Comments

Seven members of the public provided written comment. Their comments are provided below and organized by topic.

Topic	Author	Comment
Aesthetics	Bill Sanders	I am in support to improving Union Station, I looked at the presentation, there are a lot of options. Needs a lot of updating and the idea of bringing in outside light is good.
Agency Coordination	None given	It is unforgivable that WMATA was not present at Wednesday's (10/19, 6:30pm) public meeting to discuss the 2040 vision for Union Station. The FRA is aggressively ignoring WMATA with its proposals. The failure to be actively engaged in a joint public process for such a huge project is unforgivable.
Agency Coordination	None given	It is WMATA's interest to have a presence at these meetings. If the FRA was serious about public comments regarding the Union Station Expansion Project, they would have advertised the public meeting where people are - the subway and the local bus stops.
Bikes	Richard Layman	<p>Bicycle parking is inadequate, and few if any Amtrak stations are particularly noteworthy on this dimension. The Bike station is showy (and was expensive) but doesn't provide a lot of capacity. It is great though that it provides bike rental and other services. Underground bike parking treatments should be considered (e.g. like www.biceberg.ed) and including more bike station services, comparable to how bike parking and bike services are incorporated into transit stations in Los Angeles and the SF Bay, and train stations in the Netherlands and the UK, and the TransMilenio BRT stations in Bogota, Colombia.</p> <ul style="list-style-type: none"> • Cycle Point, Leeds Station, UK, http://www.cyclepoint.org/ • Bogota, http://thisbigcity.net/photo-essay-bogota-and-the-bicycle-a-city-that-prioritises-cyclists/ • Parkiteer, Victoria State, Australia, https://www.bicyclenetwork.com.au/general/programs/370/ <p>Whether or not showers and lockers should be included should also be considered.</p>

Topic	Author	Comment
Community Facilities/Neighborhoods	David Rosenberg	<p>The materials aren't online yet, so I can't look at them, but I wanted to suggest that if they aren't already included, there should be access points at every L'Enfant Street that would have connected through if the tracks weren't there (so I St., G St., and F Street on the east side). By L'Enfant Street, I mean that excluding G Place and Parker Street would be acceptable. If possible, it would be nice if someone could simply pass through Union Station one street and exit on the other side (or walk toward the head-house and shops/restaurants if they chose to do so). Even better would be if the walkways also contained shops and restaurants.</p>
Historic Properties	David Rosenberg	<p>It was unclear to me, looking at the designs, if the taxi loop was to be removed. If it will be, has there been any consideration for restoring the historic concourse to its original length?</p>
Historic Properties	Richard Layman	<p>Separately, the plan should discuss the interpretation and presentation of railroad history within the city and should consider the ability to incorporate a museum-exhibiting program within the expanded station. For example, the transportation plan for Passaic County, New Jersey has an element on transportation history and interpretation, in part as a component of tourism. Sadly, the MoveDC plan didn't include an element on cultural interpretation as it relates to transportation. Union Station should be the focal point for the presentation of the city's transportation history. The station is a signature element of the McMillan Plan of 1902 and a key example of the City Beautiful Movement and its Beaux Arts architecture style (as well as an example of Haussmann-like urban renewal programs).</p> <p>Union Station has done a better job recently of presenting its transportation history but with the expansion of the station there is an opportunity to do much more. Given that Union Station is frequently a site for Train Day festivities and Amtrak provides storage for privately owned passenger train cars, it would be possible to develop spaces and opportunities to present railroad history as a program element of the station's expansion. One recommendation that should be made is the creation of a transportation and tourism "museum" within the station.</p>

Topic	Author	Comment
		<p>A "transportation" museum at Union Station wouldn't have to develop a large permanent collection. It could more be a place for existing museums to display items that would otherwise remain in vaults, complemented by changing exhibits curated locally and developed by and with other transportation museums around the country. Partners could include the National Museum of American History, the National Postal Museum, the National Railroad Historical Society Washington chapter, the B&O Railroad Museum in Baltimore, and the National Capital Trolley Museum. Because of Washington's place as a leading tourist destination and the inter-modality represented by Union Station, exhibits on other elements of transportation and visitation history would also be appropriate. Private railcar storage could be "displayed" to the public as part of the exhibit program also.</p> <p>One example of the kind of exhibit I am thinking is the companion exhibit--up currently in Chicago's Union Station--to the book Terminal Town, which covers all of the types of transportation terminals in Chicago.</p> <p>http://www.terminaltown.org/exhibits</p>
Multimodal Transportation/Connectivity	Charles McMillion	<p>I am deeply supportive of Union Station and LOVE the recent restoration: the Great Hall is again magnificent! I also strongly support Union Station's historic, railroad station mission along with the grandest, tallest, most sun-filled Train Hall the FRA can possibly negotiate! However, under such dramatically changing density and congestion conditions (and METRO's long-standing troubles), I urge FRA to look closely at the extent of its obligations to non-rail modes of transport and whether some of this congestion - particularly inter-city buses - can be shifted to other areas of the city and region where they could serve more positive purposes.</p>

Topic	Author	Comment
Multimodal Transportation/Connectivity	Richard Layman	Put taxi service underground. A way to “expand” the amount of surface space to work with in front of Union Station facing the plaza and Massachusetts Avenue NE would be to leverage the B scenarios presented in the alternatives analysis, which all propose underground parking. The B scenario could be further extended by moving taxi pick up and drop off services underground as well, comparable to how Denver's Union Station has an underground bus terminal as part of the rail station. There they have moved bus service to and from the station off the surface streets (although the 13th Street transit mall is still adjacent to the Station, and provides intra-district transit within the Downtown). That model, but for taxi service, not bus service, should be incorporated into the Union Station program. That will allow ample space in front of the station to be devoted to tourist bus services. And it would significantly reduce traffic congestion and volume in front of Union Station. Note that while some people believe that taxi use will decline in association with app-based mobility services, railroad passenger travel is usually associated with luggage, often a lot of it, and getting to the final destination is not usually that easy depending on how much luggage there is and how many people are in the party. Therefore, taxi services are likely to be a part of “last mile” (in the case of airport and railroad transportation the portion of the trip to the final destination is usually significantly longer than one mile) for a long time and should be accommodated in a manner that improves the quality of the journey, especially the portion that is most distinctly associated with “DC.”
Multimodal Transportation/Connectivity	Richard Layman	Surface local transit is trickier. With a train shed connecting to the H Street side of the station complex, transit service on H Street NE as well as streetcars service could provide more direct connections to the station, which aren’t provided now. (The X bus stops are on H Street at North Capitol Street and 3rd Street NE, a significant distance from the Station, so for all intents and purposes there is no direct articulation between Union Station and the X bus line, which is one of the highest used bus lines in the city.) Note that the presentation materials show a smaller train shed that does not extend to H Street NE, but the Union Station Master Concept Plan by Amtrak did show such an extension. Various bus lines serve Massachusetts Avenue. The primary eastbound bus stop is at First Street

Topic	Author	Comment
		<p>NE, on the unit block. The Circulator has a westbound stop just short of the Union Station road apron (Columbia Drive), adjacent to the US Courts Administration Building, between First Street and Second Street. This stop in particular impedes bicycle and motor vehicle traffic significantly. It's also not particularly convenient for bus patrons. Other westbound Metrobuses stop in front of the Postal Museum on the unit block of Massachusetts Avenue. This can provide conflicts for traffic seeking to turn right onto North Capitol Street. By moving taxi service underground as suggested above, westbound buses could instead provide a direct connection at the front of Union Station because of reduced demand for scarce street space. Alternatively, a bus lay by could be "notched" into the plaza part of the station grounds. This will be problematic perhaps from a design standpoint but should be reviewed and considered. A lay by would conflict with the bike lane.</p>
Multimodal Transportation/Connectivity	Richard Layman	<p>Union Station as a potential hub for an overnight local transit network. While the DC area doesn't have a "Nite Owl" bus transit network operating at the metropolitan scale during those hours when subway service is not running, it is being discussed in the context of proposed changes to the current service profile. It is possible that Union Station could serve as a primary node-staging area for such a service. Therefore, the ability to accommodate more local transit service should be considered as part of the planning process. Because it would be overnight, it would not compete with tourist bus services and likely could be accommodated in the front of the station.</p>
Multimodal Transportation/Connectivity	Richard Layman	<p>Inter-city bus terminal/charter bus accommodation. Currently, this element is not well handled, as it has been grafted into a preexisting parking garage. Much more attention should be paid to best practice bus station planning as an element of the expansion of Union Station, out of the spirit that FRA/Union Station/DC have the opportunity to make an expanded Union Station the preeminent example of best practice in the US of any comparable high usage train station in North America. For the inter-city bus terminal portion of the station complex, historical best practice should be referenced (e.g., Greyhound terminals constructed in the era of Streamlined Art Deco). But treatments comparable to the Union Station</p>

Topic	Author	Comment
		<p>Denver and bus terminals separate from but approximate to train stations such as the main bus terminal in Montreal, or the ZOB [Zentraler Omnibus Bahnhof] in Hamburg (great design and outside bus bays, but inadequately sized on the interior) or even the previous version of the Port Authority bus terminal in New York City, examples from London, etc. should be referenced. One element that should be included is passenger information screens on departures and arrivals, both generally and at each bay. Such screens should be included in the “train station” section of the complex as well, which is not the case currently. This would require coordination between the various services, which is difficult, but necessary. Montreal’s bus station is particularly exemplary on this dimension. Go Train and Bus services at Toronto’s Union Station use a combined passenger information screen system.</p>

Topic	Author	Comment
Multimodal Transportation/Connectivity	Richard Layman	<p>Transit wayfinding. Ideally, Amtrak, WMATA, DDOT, MARC, VRE, and the tourist bus services could develop comprehensive transit wayfinding materials so that patrons know how each of the services work. There is a tremendous opportunity to "use" Union Station to explain transit – sadly, we don't utilize any Metro stations as a way to deliver transit "wayfinding and interpretation." This need was reiterated when I overheard a tourist exclaiming angrily "\$20 to get to the White House!" because he went up to one of the tourist buses (on and off throughout the day) in front of the station., and that's how much a ticket costs—even though he only wanted to go to the White House. On the other hand, he could have taken the subway or a Circulator bus, but a comprehensive but simple signage system explaining all these options doesn't exist. Think of those handouts on taxi policy that they hand out in the line at National Airport, but signage. And WMATA's bus map signage, but with more explanation, using that idea to explain how to get around more generally. Among others, Walk/Ride wayfinding signage in Newcastle-Gates head UK is an example that should be referenced:</p> <p>https://www.flickr.com/photos/septemberindustry/4540318834/in/faves-82269993@N00/</p> <p>https://www.flickr.com/photos/septemberindustry/4539658945/in/faves-rllayman/</p> <p>While such a system should be created for Union Station, as a framework it could be extended to the region's airports as well as the Silver Spring Transit Center and other subway stations. Currently, BWI Airport is probably the best at providing integrated information services about different surface transportation options, incorporating information screens with rolling-repeating messages on the different modes and services in the baggage claims area.</p>

Topic	Author	Comment
Multimodal Transportation/Connectivity	David Tuchman (Akridge)	<p>Despite repeated comments from Akridge and from members of the public, the identification of alternative uses or configurations for Columbus Circle is conspicuously absent from the Preliminary Concepts. Widely recognized as currently failing to meet pedestrian or vehicular needs, this area should be studied, if only to document how additional roadways and open spaces will work in concert with Columbus Circle. Preferably, study of this area would yield optimized solutions for a comprehensive improvement to traffic conditions on all sides of an expanded station. As illustrated in Figure 6: Columbus Circle, we recommend considering:</p> <ul style="list-style-type: none"> • Repurposing, or altering the configuration of the three lanes south of the station including for more or different types of buses and improved ride for hire services • Locating station parking beneath the Circle, a strategy which would cause very minimal impact to at-grade areas • Much of the area south of the station is within DDOT or FRA ownership rather than under control of the National Park Service (NPS), potentially increasing the feasibility of changes to the program uses <p>All of the Preliminary Concepts suggest considerable station related vehicular uses on Akridge's property. Our willingness to consider such uses is highly correlated to the extent to which at-grade areas have been optimized for similar uses. Akridge will not agree to incorporate a replica of the vehicular services currently within Columbus Circle within the Burnham Place footprint. An oversized vehicular zone will prevent the type of place-making required for BP's success.</p>

Topic	Author	Comment
Parking	Lynne Martin	Why should an expanded and modernized Union Station provide public parking for personal vehicles? Unlike suburban rail stations, passengers have other transit options to get to/from the station. There should of course be drop-off/pickup areas for taxis and hired vehicles, and for buses.
Parking	Richard Layman	The parking garage should accommodate multiple car sharing services, especially one way car sharing options like Car2Go. To facilitate “last mile” portions of trips, Union Station should plan to accommodate car sharing in the station. Ideally, all popular services should be included, and a focus on generating rental income from the accommodation shouldn’t be prioritized, rather it should be seen as part of the passenger service equation. One example is how Car2Go is being accommodated at Montreal’s Trudeau Airport. Unfortunately, National Airport has not developed similar accommodations. Union Station could be a leader on this dimension as it relates to rail stations. (WMATA has bobbed this with the Silver Spring Transit Center.)

Topic	Author	Comment
Pedestrian Access/Circulation	Richard Layman	<p>To reduce pedestrian-vehicle conflicts in front of the station as pedestrians cross “Columbia Drive” to get to the plaza, walking and crossing Massachusetts Avenue to reach the U.S. Capitol Complex a special treatment should be created for the crosswalk to indicate pedestrian primacy. (This has been done at the crosswalk in front of the Station crossing Massachusetts Avenue, which has been striped very wide – but other than the extranormal width of the crosswalk there are no special treatments, such as brick, or special striping.) If the recommendation to move taxi services underground is implemented, motor vehicle traffic volume would be significantly reduced compared to the current situation because while hundreds of taxis and other automobile vehicles use these lanes every hour, the volume of traffic of tourist buses is significantly smaller. This comment format does not support including images. While this image is of the Indianapolis Cultural Trail, http://streetstreetstreetfilms.streetsblog.org/wp-content/uploads/sites/8/2013/06/INDY-bioswales-poster.jpg, it offers some ideas for creating a unique and appropriate crosswalk treatment. Special brick sidewalk treatment across (perpendicular to) the traffic lanes, set off by a bioswale/greenery/plantings on the edge of the sides of the crosswalk (east and west sides, while the sidewalk would be in the north-south direction), would distinguish the crossing as special with pedestrians having priority.</p>

Topic	Author	Comment
Pedestrian Access/Circulation	Richard Layman	<p>Automobile-based passenger drop off and pick up. While this type of traffic is discouraged, it is part of the mobility mix at Union Station and needs to be addressed to reduce congestion, improve throughput, and reduce conflicts between pedestrians and motor vehicles. Ideally this traffic could be directed to the H Street side of the Union Station building, with an appropriately sized concourse and train station and ticket facilities and information services on both the south (current) and north sides of the building. Alternatively passenger drop-off and pick-up could be incorporated in the proposed underground taxi (and ride hailing) accommodations outlined above, just as airports usually include taxi, automobile, and transit (both local transit service and intra-airport services) in the same area, but in separate lanes.</p> <p>One complication would be a potential need for a “waiting area” for people who have arrived ahead of the passenger. By having pick up/drop off accommodations on both H Street and from Massachusetts Avenue a variety of needs could be addressed in different but appropriate ways.</p>
Pedestrian Access/Circulation	Richard Layman	<p>Subway service articulation in the context of the railroad passenger guest experience. It is anticipated that a new subway line will be constructed which would also provide an additional line connection to Union Station. Adding subway service is necessary to accommodate proposed increased railroad passenger volume. Currently, Metrorail station accommodations are inadequate for the present volume. When local passenger trains arrive, there can be a continuous line of passengers moving from the train shed through the walkways and into the station and on the platform. The two escalators are barely able to provide enough capacity, especially when one or even both may be out of service (I have experienced both escalators being out of service myself). There is no stairway as an alternative (which would also provide redundancy and greater capacity). And the elevators provide limited capacity. These issues need to be addressed.</p>

Topic	Author	Comment
Pedestrian Access/Circulation	Richard Layman	<p>Related to vertical elements of pedestrian mobility within Union Station, escalators should be provided that have wider than normal ‘steps’ in order to better accommodate luggage. This is true for escalators within the Metrorail section of the station, between the parking garage and Union Station, and from the Mezzanine level of Union Station (which connects to the parking garage) and the train passenger gates/waiting areas. FWIW [For what it’s worth], wider escalators should be incorporated into airports, train stations, and bus stations more generally, because of this clear need.</p>
Property Impacts	David Tuchman (Akridge)	<p>While Akridge is dedicated to the SEP’s success, we simultaneously retain as our principal goal the building of a commercially viable project of our own with feasible costs, revenues and schedule. We are thus very concerned that all nine of the Preliminary Concepts propose varying degrees of use of Akridge’s air-rights for certain primarily or exclusively non-rail purposes. Seven out of nine concepts would use multiple acres of our property for bus facilities, including bus passenger space, bus pick-up and drop-off areas, bus layover spaces and ramps and roads leading to such facilities. At the same time, the Preliminary Concepts ignore nearby off-site areas that could accommodate these non-rail functions without intruding on Akridge’s rights.</p> <p>As noted above, Akridge holds title to the air-rights in fee simple. During previous discussions, FRA representatives have acknowledged that the FRA does not possess eminent domain rights. Further, it is Akridge’s understanding that Amtrak has stated that it does not intend to assert any eminent domain authority to acquire any of Akridge’s property for bus related uses. We agree that neither Amtrak nor USRC possesses such rights. Consequently, we believe that any concept that places a bus facility on Akridge property will require a negotiated transaction. Failure to reach agreement on such a transaction would render a given SEP concept, or major portion thereof, infeasible.</p> <p>In light of these conditions, we believe it is appropriate that Akridge provide evaluations and reactions to the Preliminary Concepts, including recommendations for alternate concepts. We provide these comments to</p>

Topic	Author	Comment
		<p>assist the FRA in its screening process and to increase the chances that SEP alternatives carried forward for further review are feasible and take the availability of property into account. As you know, it would not be consistent with the National Environmental Policy Act (NEPA) to include in the EIS any alternatives that are not feasible, which includes alternatives that intrude unacceptably on Burnham Place’s (BP) property rights.</p>
Screening Criteria	David Tuchman (Akridge)	<p>Neighborhood Integration</p> <p>During the October 19th public presentation, Neighborhood Integration was described as reflecting how much area is available in each concept for private development. We do not agree with this overly simplified characterization. Rather, we think this critical screening element should reflect the extent to which a concept:</p> <ul style="list-style-type: none"> • facilitates the creation of a special urban place at and adjacent to the station • creates a safe, pedestrian-friendly and appealing environment along H Street • incorporates strong and numerous neighborhood pedestrian connections and entrances • allows the incorporation of new open spaces, roadways and buildings • avoids overwhelming visually and physically publicly accessible areas with vehicular functions
Screening Criteria	David Tuchman (Akridge)	<p>Constructability and Feasibility Akridge can only support SEP alternatives which have a reasonable and achievable cost, schedule and method of construction—both for the SEP and for how the SEP impacts the same parameters for BP. At present, the FRA has shared no information regarding the relative or absolute levels of costs, schedule or constructability of any of the Preliminary Concepts. We note that significant study will be required to determine whether concepts are feasible, and equally important, which components of a given concept may be infeasible and should therefore be altered or removed. The later these tasks are completed, the greater chance of back-tracking, incurring additional project costs, and likely delaying the WUS Expansion Project.</p>

Topic	Author	Comment
		<p>Moreover, we know now that some of the proposed facilities are not feasible in regards to availability of property as discussed in this letter and previous submissions we have made. Carrying such infeasible plans forward will provide the public with inaccurate information, which will confuse stakeholders and delay the SEP.</p>
Station Design/Alternatives	Richard Layman	<p>The project should strive for national best practice intermodal connections. Because the station is owned by the FRA, there is an opportunity to make the station a national best practice example for multi-modal connections especially for walking, biking, and other connections “on the surface” approach to the station. The nation’s highest volume railroad stations (e.g., Grand Central Station, Penn Station, Union Station, 30th Street Station, South Station/Boston, etc.) are not particularly distinguished when it comes to intermodal connections between the station and the area around the station (with the exception, usually, of subway connections). The materials presented in Public Meeting #3 did not treat with a great deal of precision how the station area handles access for pedestrians, bus transit, tourist buses, bicyclists, taxis and other for hire vehicles, charter buses, inter-city bus transit, and personal vehicle passenger drop off and pick up, plus access to the Metrorail station, and treating a number of intersections in the vicinity as a system (North Capitol and Massachusetts Avenue, 1st Street NE and Massachusetts Avenue, 2nd Street NE and Massachusetts Avenue, G Street NE between North Capitol and 1st Street NE/the Metrorail Station entrance). Note that it appears that Network Rail (UK) appears to provide superior-more detailed guidance concerning station design on these dimensions than comparable FRA publications. The documents accessed here, http://www.networkrail.co.uk/aspx/6368.aspx, provide more detailed guidance concerning “intermodal exchange and wayfinding” and</p>

Topic	Author	Comment
		<p>should be referenced in preparing more detailed recommendations with regard to these dimensions and planning for an expanded Union Station.</p>
Station Design/Alternatives	Richard Layman	<p>The materials presented at the most recent public meeting handle surface “bus” transit in too gross grained fashion, mixing tourist bus services, charter bus services, inter-city bus transit, and local surface bus transit into one broad category. I have limited experience with train stations as best practice examples from other countries, but have been to the main train stations in Hamburg, Dortmund, and Essen, all in Germany. In particular, the Hamburg and Dortmund stations “segregate” tourist bus services (such as “City Sights DC” or the “Old Town Trolley”) from local transit bus service. Different parts of the space outside the station are set up to serve different needs, so that local transit, tourist services, and inter-city bus services aren’t mixed together, but separated. Local transit and tourist bus services should be treated separately from charter buses, which in the presentation boards, are to be handled in the “inter-city bus terminal” section of the parking garage.</p>
Station Design/Alternatives	Richard Layman	<p>Developing Union Station as the city’s main visitor center. While people have bad memories of the experience making Union Station a “National Visitors Center,” the fact remains that DC is the only major city in the United States without a major visitor center (there is a desk with information at the Convention Center), even though between 12 million and 20 million people visit the city each year. When railroads were the nation's primary mass transit mode, especially for long distance trips, Washington's Union Station was the primary entry point into the city, with hundreds of trains arriving and departing, serving as many as 200,000 people each day.</p> <p>The expansion of Union Station as proposed by Amtrak and in the Burnham Place at Union Station project planned through the decking over the Union Station railyard between the station and K Street NE is a game changer for the city and Central Washington.</p> <p>The plan should discuss Union Station's context as a major portal into the</p>

Topic	Author	Comment
		<p>city for visitors, the opportunity for Union Station to serve as the city's main visitor center, and how this position could be further enhanced as a form of "guest services" both for the station and the city more generally.</p>
		<p>Because the station has a parking garage, unlike the Convention Center, it is a good place to offer such a service, especially because of the high ridership usage of the station. It doesn't have to be huge. Regional example such as visitor centers in Baltimore, Annapolis, Winchester, VA, even Fairfax City, VA show that a lot can be done in a variety of sizes.</p> <p>This issue should be raised with DC Office of Planning, Destination DC, NCPD (the Federal Elements of the DC Comprehensive Plan have a visitor accommodations element, although the Local Elements section of the plan does not), and other relevant agencies.</p> <p>This use should be incorporated into planning for the station going forward. Note that the station currently has a Traveler's Aid desk and a small information kiosk at the inter-city bus terminal section of the parking garage, but neither rises to the level of a traditional visitor center.</p>
Station Design/Alternatives	David Tuchman (Akridge)	<p>The size, location and configuration of the bus facilities shown in the seven Preliminary Concepts which utilize BP property for bus related uses are unacceptable to Akridge, and we will not enter a transaction to make our property available for any of these facilities. The bus facilities shown: All nine of the Preliminary Concepts utilize a substantial portion of Akridge property for the creation of a train hall. With the adjustments to bus facilities described in the previous section, and subject to any adjustments needed to protect Akridge's ability to develop the Burnham Place project, Akridge is prepared to support the inclusion of both an east-west and north-south train hall configuration within the EIS process. We believe each train hall concept has the potential to create a dramatic, architecturally striking structure which enhances the experience of passengers and tourists, neighbors and visitors alike, both inside and outside the train hall. Paired with carefully planned public plazas, a train hall can create a sense of</p>

Topic	Author	Comment
		<p>place and identity as well as civic and neighborhood pride. Both train hall configurations can achieve this goal and can be compatible with Burnham Place. However, Akridge believes the east-west configuration, with some modifications, is more likely to create both a superior Station Expansion Project as well as Burnham Place project.</p>
		<p>East-west train hall We note the following benefits:</p> <ul style="list-style-type: none"> • Combined with Concourse A, this space can be monumental covering as much site area as the historic station’s head house (main, east and west halls). This feature can create a powerful arrival and departure experience for rail passengers as well as dramatic views and abundant light for those waiting in Concourse A • The adjacency of the historic building to a new, modern monumental station component reinforces the continued importance of the original station and this juxtaposition replicates a successful expansion model used at other historically significant international stations • Allows a cleaner separation between station functions and Burnham Place, yet will more easily connect public and private areas via open spaces • Allows simpler construction phasing with more public benefits realized sooner

Topic	Author	Comment
		<p>While the concept for an east-west train hall has many positive attributes, it could have some negative impacts on Burnham Place if several important design considerations are not taken into account as the concept is refined. We have illustrated these and other important issues in Figure 2: East-West Train Hall Considerations.</p> <p>One of Amtrak’s goals is to expand the station northward by reinforcing the north-south station axis and establish a prominent identity at H Street. Akridge shares this goal and believes it can be achieved with an east-west train hall when combined with other features. As shown in Figure 3: Alternate East-West Train Hall Configuration:</p> <ul style="list-style-type: none"> • Adding skylights above and/or adjacent to the Central Concourse would enhance the prominence and quality of the space below including the Acela tracks • Creating a significant, naturally lit station entrance adjacent to H Street where the Central Concourse meets the H Street Concourse would establish a strong station identity, visible from many directions. This structure would have architectural flexibility given its distance from the historic station <p>These adjustments would in essence provide an east-west and north-south station expansion, with many of the benefits associated with both concepts.</p> <p>North-south train hall</p> <p>As noted above, the north-south train hall expands the energy of the station towards the new H Street Concourse and would complement BP’s buildings and open spaces clustered around H Street. This concept, however, presents significant challenges which would need to be addressed to be compatible with BP as illustrated in Figure 4: North-South Train Hall Considerations. This train hall concept:</p>

Topic	Author	Comment
		<ul style="list-style-type: none"> • Creates a barrier and dividing line between the areas east and west of the train hall for both pedestrians and vehicles, • Constrains the sizes of open spaces, roadways and buildings east or west of the train hall, and • Will be more difficult to build in phases <p>Applicable to all train hall concepts, Akridge supports designs which:</p> <ul style="list-style-type: none"> • Are activated by pedestrian entrances, • Do not impair views to and from Burnham Place, • Are not overwhelmed by vehicular functions, and • Do not significantly diminish developable areas in Phase 2 of the BP project
Study Area	David Rosenberg	I also believe that cutting holes in the viaduct wall along 1st Street NE...and putting in small shops and restaurants would also be a great way to help 1st Street NE south of K Street not feel so dead. Adding small shops and restaurants here may also draw people into the neighborhood, and in to Union Station to spend money.
Study Area	Charles McMillion	I appreciate that thus far in the process FRA and USRC properly have focused exclusively on defining the study area - Massachusetts Avenue to K Street, and 1st Street to 2nd Street - and developing preliminary concepts best suited to minimize bottlenecks within your site from magnitude increases of anticipated intermodal traffic.

Topic	Author	Comment
Study Area	Richard Layman	<p>Treating the roadway and sidewalk network serving Union Station as an integrated system. Related to a number of the points that follow, it makes sense to treat the area around the station as an integrated system. On Massachusetts Avenue, while improvements have been made to the roadway, sidewalk, and plaza in front of the station and in part of the intersection of 1st Street and Massachusetts Avenue NE, the reality is that the intersections from North Capitol Street to 2nd Street should be treated as one unit. These intersections have a fair number of crashes and treating them as a unit could improve safety, as well as address throughput issues which contribute to the number of crashes because of conflicts between through traffic, turning traffic, standing vehicles, parking (for example parking should be eliminated from the north side of the unit block of Massachusetts Avenue NE), and pedestrians. Similarly, parts of 1st Street NE providing access to the Station via the Metrorail entrance are particularly uncongenial with narrow sidewalks. There are parking and pedestrian conflicts on the G Street NE unit block which is a major thoroughway to the Metrorail station entrance. Similarly, sidewalks on North Capitol can be narrow. A pedestrian scramble could be considered for the North Capitol-Massachusetts Avenue intersection, etc. H Street is an issue such as with bus access, but this will improve as Burnham Place is constructed. Nevertheless, improvements for H Street should also be considered as a part of this study. Currently the roadway element of the planning process is circumscribed and should be expanded to include these areas.</p>
Tourism	Richard Layman	<p>Union Station as a staging point for “railroad tourism.” Many people are already riding trains as an element of their plans to visit DC and other cities in the region. It is a key element of the Amtrak Virginia program and generally Amtrak devotes a fair amount of marketing to tourism. Many states have scenic-excursion railroads that are tourist attractions. There are a number of these systems in Virginia, Maryland, West Virginia, and Pennsylvania, and the B&O Museum and the National Capital Trolley Museum have short tracks used for train riding. NRHS [National Railway Historic Society] chapters also organize excursion trips.</p>

Topic	Author	Comment
		<p>Some state rail plans, including those for Virginia and West Virginia, do discuss, albeit briefly, excursion railroads and their place in the rail and tourism systems. DC as a city-state has much different conditions than a typical state, and there is no opportunity for that kind of dedicated tourist attraction in the city.</p> <p>However, as a way to build interest and awareness of railroad service in the region, it could be worthwhile for MARC and VRE, with the National Railway Historical Society and the proposed transportation museum in Union Station and the B&O Museum, to develop a special event railroad excursion program.</p> <p>One example is the program between Norfolk Southern Railway and the Tennessee Valley Railroad Museum, which offers special excursion steam engine trains in the Spring, Summer, and Fall on various segments of the Norfolk Southern system (2015 schedule).</p> <p>Since Norfolk Southern is already doing this, they would be a logical partner to work with to test and launch such a program out of DC. At the same time, rather than just approach this haphazardly, a detailed marketing program to simultaneously promote regional passenger service should be developed in association with this program.</p>
Transportation	Charles McMillion	<p>To date, I have seen no attempt to quantify projections for what is assumed to be vast increases of passengers and various types of transport vehicles that will need to enter or leave Union Station even in 2020, much less in 2030 and 2040. Now is the time carefully and objectively to develop these projections and to share them with the public and with outside experts for assessment and feedback. With buses and trucks prohibited in the Historic Residential District (and most cars during weekday rush hours), vehicles coming to or leaving the Station would seem largely to be limited to the already often gridlocked Massachusetts Avenue and H Streets. Several of your preliminary concepts do suggest major new bus or car traffic might be routed along the narrow, largely residential K Street but this seems highly problematic. This is, of course, even before anticipating traffic from the three million square feet of new office, residential, and retail space now</p>

Topic	Author	Comment
		planned over the rail tracks immediately behind Union Station and many other, massive developments already going up in the immediate area

Topic	Author	Comment
Transportation	David Tuchman (Akridge)	<p>The size, location and configuration of the bus facilities shown in the seven Preliminary Concepts which utilize BP property for bus related uses are unacceptable to Akridge, and we will not enter a transaction to make our property available for any of these facilities. The bus facilities shown:</p> <ul style="list-style-type: none"> A. Create major negative visual impacts from within BP B. Create unacceptable traffic, noise and air quality impacts along BP internal and service roads and along H Street. These impacts are magnified when combined with the added vehicular activity from bus and rail station passenger pick-up and drop-off by private cars and rides for hire C. Decrease achievable density for BP. Note that we do not believe it is feasible to build private development on top of any of the bus facilities shown in the Preliminary Concepts, despite what is indicated D. Prevent the H Street deck level from including the type and size of plazas, green spaces and parks necessary for BP feasibility and to provide public assets and amenities for the surrounding neighborhoods E. All use H Street for ingress/egress. For the EIS analysis to quantify and isolate traffic impacts of a potential bus facility, more than one vehicular access point should be considered <p>In addition, these facilities detract from the passenger and visitor experience at Union Station, particularly for rail passengers within Concourse A and the Train Hall when bus stations are shown south of H St.—a negative impact at odds with the SEP’s Purpose and Need.</p>

Topic	Author	Comment
		<p>Akridge understands that some level of bus service is integral to Union Station’s role as the region’s premier multi-modal facility. Metrobus, Circulator, and shuttle bus riders should enjoy proximate transfers to Metrorail, Amtrak and commuter rail. Tour, charter and sight-seeing bus passengers should have convenient access to the historic station and Capitol Hill. These facilities, for active loading and unloading, can and should be located to the maximum extent possible on surface roadways adjacent to the station. Akridge will seek to make BP’s surface transportation plan compatible with such facilities when not in conflict with BP project feasibility.</p> <p>However, underlying the nine Preliminary Concepts is an erroneous assumption that for Union Station to be “multi-modal,” it must accommodate a large bus station with layover facilities. Assumptions for future bus requirements should be based on an optimized consideration of the various goals in the project Purpose and Need and on best practices at comparable facilities. Instead, SEP team representatives have stated that they asked each existing bus operator the amount and type of space they desire in a new facility for future growth, and sized the requirement to accommodate 100% of these requests. A second, flawed position reflected in the Preliminary Concepts is that this oversized bus station must be within either the footprint of the SEP or the BP project. Seven of nine potential locations for the facility are shown within Burnham Place’s air-rights. As described above, Burnham Place is privately owned property. Akridge’s property is not part of the Federal action subject to the EIS, it is not part of the SEP footprint, and it is not property controlled by the two project proponents. Therefore, Akridge’s property is “off-site,” regardless of its vertical adjacency to the SEP boundaries.</p>
		<p>Akridge does not object to the proposition that certain station facilities that are not incompatible with the BP project be studied within BP property during the EIS process. In fact, Akridge has stated previously and continues to be open to a transactional arrangement whereby some of its air-rights property might be acquired for SEP use or traded for property rights currently controlled by various station related entities. However, Akridge has made clear that certain intrusions on its air-rights are not compatible with the BP project and thus not acceptable or feasible alternatives. Our previous comments have also suggested changes to concepts which could decrease the detrimental impacts of a proposed bus facility on BP. Finally, we</p>

Topic	Author	Comment
		<p>have suggested that the FRA explore alternative locations and sizes for bus facilities. Akridge is concerned that the Preliminary Concepts principally ignore the feedback we have provided to the FRA. These concepts do not explore any meaningful alternatives for bus stations which are smaller or outside the footprint of the railyard or which exclude on-site layover functions.</p> <p>Akridge is confident that Congress did not direct the sale of the valuable but geographically limited air-rights over the Union Station railyard for private development only to see a large portion of those rights used for a public bus station. While the Preliminary Concepts make liberal use of Akridge property, no other off-site but proximate bus facility locations are assessed or even identified. In Figure 1: Alternate Bus Locations, we provide several alternate locations where active bus pick-up and drop-off activities could occur. These locations can accommodate tens of thousands of bus passengers per day, including those for for-profit intercity bus providers should they choose to secure agreements for such access. If project sponsors desire covered or enclosed bus passenger facilities adjacent to curbside bus loading zones, multiple, feasible and no doubt lower cost locations exist west of First Street for these facilities (Postal Square, GPO building loading dock and/or building, and other private buildings). Acquisition of just 20,000 sf within one of these locations for covered or enclosed passenger waiting and amenity space would cost a fraction of a percent of the bus related costs reflected in all of the Preliminary Concepts, and have a high likelihood of success.</p> <p>Akridge recommends that prior to narrowing the concepts and identifying alternatives, additional concepts pertaining to bus facilities be identified per the parameters above. In addition, we suggest that the FRA identify the approximate cost to design, build and operate an above-track bus station and determine which parties could feasibly be responsible to cover such costs. The District's Departments of Transportation and Planning and the Deputy Mayor for Planning and Economic Development should be consulted to determine the District's position on supporting such a facility, and its ability to identify alternate locations for layover or bus station facilities.</p>

Topic	Author	Comment
Transportation	David Tuchman (Akridge)	<p>We have the following observations and recommendations, as shown in Figure 5:</p> <p>Parking: Akridge prefers below-track parking to above-track. This strategy places passengers closer to their destinations at the rail concourses, disperses vehicle traffic off of H St., creates no visual impact on surrounding neighborhoods, and provides more area for development opportunities</p> <ul style="list-style-type: none"> • Providing garage access solely at K Street NE will concentrate traffic impacts at a single location. We suggest considering additional access points, including via Columbus Circle which is the intuitive place for many visitors to access a parking facility • A combination of below- and above-track parking could be employed • Above-track parking, if employed, should be located north of H St., must be screened or 'laminated' with other active uses to minimize visual impacts, and should maintain the I Street view corridor, be limited in height, and consider vehicular access from the north
Transportation	David Tuchman (Akridge)	<p>A number of surface transportation components required to serve the station and BP have not yet been considered in the Preliminary Concepts sufficiently to demonstrate feasibility. Waiting for the EIS alternative refinement phase to assess traffic impacts is a flawed methodology if all the alternatives have nearly identical or undefined surface transportation plans. Akridge recommends that as part of Preliminary Concept refinement, FRA identify a range of options with sizes and locations for station pick-up and drop-off, ride for hire, bus movements, streetcar service, pedestrian and bicycle movements and BP vehicular access. These options and their impacts can then be analyzed and assessed in various permutations.</p> <p>In particular, we note our strong support for the existing and future H Street streetcar service planned to continue west. Streetcar service is a key modality for the station and is a highly valuable amenity for BP's future occupants and visitors. A westbound terminal station along H Street or within Burnham Place property has great potential for place-making and activation. We encourage FRA to work with us, as well as with DDOT, Amtrak and USRC to explore potential configurations for the H Street Bridge and its adjacencies which are fully compatible with DDOT's goals for this service.</p>

Topic	Author	Comment
Transportation, Cumulative Impacts	Charles McMillion	This is a large, complex undertaking in a densely populated and explosively growing "NoMa" area. The area already has been transformed by thousands of new residential and commercial units since the Amtrak rail air-rights were sold for development in 2002, and particularly since the New York/Florida Avenue Metro station opened in 2004. If, as expected, the areas' frenetic pace of development, increasing population density and traffic continue, Union Station's inter-modal transportation expansion will face -- and create -- significant new traffic congestion challenges. This congestion will adversely affect the relationship that tens of thousands of people each day have with their environment.