

WASHINGTON
UNION STATION
STATION EXPANSION

Draft Environmental Impact Statement for Washington
Union Station Expansion Project

Appendix A6 – Parking Program Memorandum



U.S. Department of Transportation
Federal Railroad Administration

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W A S H I N G T O N
UNION STATION
STATION EXPANSION

Project Memorandum

DATE: May 29, 2020

REFERENCE: Washington Union Station Expansion

SUBJECT: DRAFT - WUS Parking Program Memorandum

This memorandum documents the planning and coordination activities related to the parking program of the Washington Union Station (WUS) Expansion Project (Project). The memorandum is divided into three sections:

- 1) Development and Refinement of the Parking Program. This section details the work led by the Federal Railroad Administration (FRA) and Union Station Redevelopment Corporation (USRC) to determine an appropriate parking program for WUS.
- 2) District-WUS Parking Working Group. This section summarizes discussions of a working group comprised of representatives of the Project and the District of Columbia Office of Planning (DCOP) and District Department of Transportation (DDOT) about the parking program for the Project, conducted in spring 2020.
- 3) Assessment of Potential Impacts of Reducing the Parking Program. This section provides a high-level analysis of how the anticipated environmental impacts of the Draft Environmental Impact Statement (DEIS) Alternatives would change should the parking program in any of the alternatives be reduced.

1 Development and Refinement of the Parking Program

1.1 Parking as Project Element from Concept Development to Present

During the Concept Development phase of the Project, USRC and Amtrak (Project Proponents) identified vehicular parking as a core “Project element” common to all concepts. These concepts and their development are documented in the *Concept Development and Evaluation Report (CDR)*, **Appendix A3** to the DEIS. The Concept Development process included rigorous coordination between the Project Proponents and other stakeholders, including Akridge,¹ the National Capital Planning Commission (NCPC), the U.S. Commission of Fine Arts (CFA), DCOP, and DDOT.

The *CDR* identifies goals for the parking program related to both transportation demand and financial viability:

“The Parking Program Element provides parking capacity to meet the future demand for vehicular access to the different transportation modes at WUS. It will include public parking and rental vehicle parking” (CDR, Page 20).

“The SEP shall be economically viable and financially sustainable to support everyday station maintenance and operations. The SEP considers revenue generating features such as improved retail amenity and parking as part of the planning” (CDR, Page 16).

The Project Proponents delivered the *CDR* to FRA on July 13, 2016 with a set of nine concepts and varying amounts of parking. While the parking program subsequently continued to be refined, parking has remained a component of all Project Action Alternatives in light of FRA and USRC’s determination as owner and operator of WUS that providing parking is essential to meeting the Project’s Purpose and Need.²

1.2 Vehicle Parking as responsive to Purpose and Need

Providing parking at WUS is consistent with several elements of the Project Purpose and Need:

- **Facilitate intermodal travel:** Parking and rental cars at WUS provide access for passengers who drive to take a train or a bus at the station.
- **Provide a positive customer experience:** Convenient parking enhances customer experience for those who drive to access intercity travel. This supports the competitiveness of rail and bus services with other intercity modes of travel, such as airports where ample parking is available. Visitors to WUS and Washington, DC area benefit from the provision of parking at this central location.
- **Sustain WUS’s economic viability:** Parking at WUS provides more than 70 percent of USRC’s operating revenue. It supports station retail, office, and event uses, which facilitate the operation of

¹ Akridge owns the private air rights above the WUS rail terminal between the historic station and K Street NE, excluding the existing bus and parking facility. Akridge intends to develop these air rights as Burnham Place (private air-rights development). Coordination among USRC, Amtrak, and Akridge during the Concept Development phase is further described in the *CDR*, **Appendix A3**, Section 2, *Design Goals and Objectives* and Section 4.1, *Overview of Process and Methodology*.

² The Project’s Purpose and Need is documented in full in **Chapter 2, Purpose and Need**, of the DEIS.

the station as part of the retail lease agreement and contribute to WUS's civic role as a vibrant public space and visitor destination.

- **Support continued preservation and use of the historic station building:** Parking revenue is used for the preservation and rehabilitation of the historic station building. As a major reliable source of revenue, parking is needed for the continuation of station preservation and operation activities.

1.3 Development of Parking Program in Concept Development

The parking capacity analysis conducted to develop the parking program in 2016 found that between 2,667 and 2,772 spaces would be needed to meet projected 2040 needs, assuming 10 percent mode shift away from autos between 2016 and 2040.³ An intermediate value of 2,730 spaces was used in concept screening. These spaces included parking for Amtrak passengers, WUS users, and rental cars. This 2,730-space estimate represented a substantial reduction from the 5,000- to 7,600-space estimate developed for the 2012 *Union Station Master Plan*.⁴ The parking program was subsequently revised downward during Concept Refinement to approximately 1,600 spaces based on feedback from stakeholders and agencies.

1.3.1 Initial Parking Program

This section discusses the data collected to assess the existing condition of the WUS parking garage, outlines the two approaches taken to project future parking capacity needs during concept development, describes the policy considerations used to plan for the station's future in 2016, and identifies the program for the future of the parking facility in the Project that was incorporated in the DEIS Action Alternatives.

The analysis used to develop the parking program for the Project concepts consisted of two steps:

- Step 1: Collecting Data to Assess Existing Conditions; and
- Step 2: Projecting Growth to Estimate Future Capacity Needs.

1.3.1.1 Step 1: Collecting Data to Assess Existing Conditions

Baseline Conditions

An extensive data collection process was undertaken to establish baseline conditions at the parking garage. Data were provided by the Union Station Parking Garage, LLC (USPG), which operates the bus facility and parking garage on behalf of USRC. Data collected from USPG were validated by field visits and surveys. USPG provides approximately 2,200 striped public parking spaces on four levels. The mezzanine level, which is currently used for rental vehicles, is leased on a square foot basis and could potentially hold an estimated 225 spots if these areas were striped for general use.⁵

³ This mode shift is consistent with the Transportation Planning Board (TPB) regional travel demand model estimates for the Transportation Activity Zone (TAZ) around WUS.

⁴ Amtrak. 2012. *Union Station Master Plan, July 2012 Report*. <https://nec.amtrak.com/wp-content/uploads/2017/08/Washington-Union-Station-Master-Plan-201207.pdf>.

⁵ Taking into account the use of the unmarked areas, the total physical capacity of the existing parking garage, including public parking and rental car operations, is approximately 2,450 vehicles.

Current Usage and Occupant Behavior

Comprehensive parking inventory and occupancy data were provided by USRC and USPG. The data included daily garage occupancy, revenue, and hourly usage for comparison over a multi-month period. The parking data provided by USRC and USPG included:

- Weekday hourly parking occupancies from January 2015 to June 2015 and from October 27, 2015 to December 25, 2015, spanning the hours from 6:00 am to 3:00 pm;
- Revenue data (including number of validated parkers from 2015); and
- Electronically recorded in/out data from the parking gates from January to June 2015.

A maximum parking demand of up to 2,127 spaces occurred at 2:00 pm on April 22, 2015, with Levels 1 and 4 reported to be at capacity. USRC and USPG data indicated that on many afternoons throughout the year, Level 1 and Level 4 reached capacity. The 90th percentile occupancy of the garage within the data set provided was 1,981 vehicles.

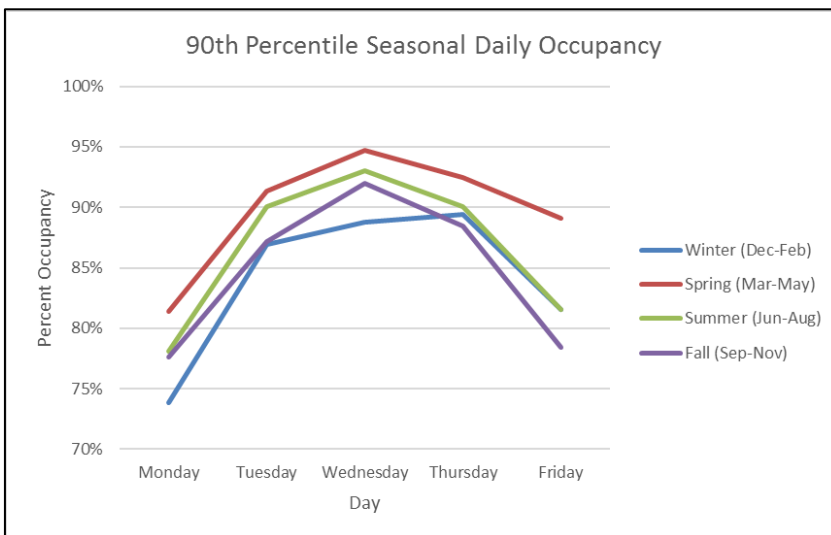
A review of the daily data provided by USRC and USPG was performed to determine seasonal variations in parking occupancy. Review of the data showed that the garage operates at or near 90 percent occupancy most Tuesdays, Wednesdays, and Thursdays throughout the year with occupancies peaking on Wednesdays during the spring months as shown on Table 1.1 and Figure 1.1.

Table 1.1: Daily and Seasonal 90th Percentile Occupancy

Day	Winter (Dec-Feb)		Spring (Mar-May)		Summer (Jun-Aug)		Fall (Sep-Nov)	
	Occ. Spaces	Pct.	Occ. Spaces	Pct.	Occ. Spaces	Pct.	Occ. Spaces	Pct.
Monday	1,620	74%	1,787	81%	1,714	78%	1,702	78%
Tuesday	1,907	87%	2,004	91%	1,976	90%	1,913	87%
Wednesday	1,948	89%	2,078	95%	2,040	93%	2,017	92%
Thursday	1,962	89%	2,029	92%	1,976	90%	1,941	88%
Friday	1,789	82%	1,954	89%	1,789	82%	1,720	78%

Source: USRC

Figure 1.1: Daily and Seasonal 90th Percentile Occupancy



Source: USRC

Overall Parking Activity Summary

WUS parking garage provides approximately 2,200 parking spaces on four levels. Review of USPG daily and seasonal data indicated that the garage operates above or near 90 percent occupancy on most weekdays throughout the year.

Retail/Tourism/Short-term Visitor Parking

The Union Station Redevelopment Act of 1981 (USRA) called for the completion of the parking facility to its originally intended size.⁶ The Act stipulated that the garage's pricing structure could be above cost but should encourage use by patrons visiting both the station and the surrounding area.⁷

With regard to retail parking demand, the retail study done as part of the concept development process indicated that WUS competes with urban retail centers throughout the region such as Chinatown, Georgetown, and Fashion Centre at Pentagon City, suggesting that its peers are urban hubs that have parking available. The retail at WUS relies in part on the parking capacity offered at the parking garage. The 99-year retail lease stipulates the provision of 600 spaces convenient to WUS for retail purposes.

In 2016, there were approximately 208,000 square feet of existing retail (with 380,000 square feet of potential retail leasable area) and approximately 80,000 to 100,000 square feet will be added under the Action Alternatives. In order to understand the demand for retail and other short-term uses, it was assumed that visitors to the station remaining there for less than five hours were making use of the retail functions of the station or making use of the garage to visit the area as noted in the Act. Based on USPG parking data, an average of around 860 parkers per day used the facility between 1 and 5 hours. A peaking analysis was performed that assumed that, during peak demand, all peak period short-term parkers were present in the garage at the same time. Under this analysis, 429 spaces would be required to satisfy the peak demand, which was rounded down to 400 spaces for the 2016 parking program.

Rental Cars

The Union Station Parking Garage also supports rental car facilities for Enterprise Car Rental, Avis/Budget Car Rental, and Hertz Car Rental. Zipcar and Enterprise CarShare also have spaces. Information from USPG provided in April 2017 indicated that the average occupancy of the rental car facility was around 275, up from 260 the previous year.⁸ By 2020, that number had increased again to 295.⁹ The traditional rental car operators have indicated that the current conditions are cramped and lead to vehicle accidents.¹⁰ Follow-up informal site visits confirmed that when the facility is near capacity, there is substantial "stacking" of vehicles and very limited room for vehicles to maneuver. Stacking of rental vehicles allows for maximizing parking per square footage as opposed to discrete, striped parking spaces. The current facility has approximately 52,000

⁶ Pub. Law 97-125. Section 118(a).

⁷ Pub. Law 97-125. Section 118(b). Although the Union Station Redevelopment Act was subsequently amended (see Pub. Law 107-217), the authorization to charge fees at a rate that encourages rail passengers and those participating in activities in and near Union Station to use the facility remains.

⁸ Source: USPG e-mail. April 12, 2017.

⁹ USRC Analysis. Provided to FRA March 4, 2020.

¹⁰ Source: USPG e-mail. April 11, 2016.

square feet of space for rental cars. Table 1.2 below lists rental car companies. Two providers, Zipcar and Maven (a car-sharing service owned by General Motors), operate using striped parking spaces in the garage.

Table 1.2: Rental Car Area

Provider	Square Footage used in Garage
Hertz	~17,000
Avis	~17,000
National	~18,000
ZipCar	n/a
Maven	n/a

Source: USPG.

1.3.1.2 Step 2: Projecting Growth to Determine Future Capacity Needs

After establishing current conditions and policies for the future garage, future capacity needs through the 2040 planning horizon were then projected using two methods. The first approach estimated future demand on observed (present day) parking behavior. The second approach relied on Amtrak ridership surveys.

Some assumptions were common to both approaches, including the projections for parking and rental car needs. As noted above, garage use fluctuates throughout the year and during each week. The 40 busiest days of the year were averaged to develop a baseline peak capacity number. Cars that remain in the garage more than one day were counted across multiple days and incorporated into the 40-day average.

The retail/tourism and rental parking estimates are common to both approaches. As noted above, the current need for short-term retail and visitor parking is normally between 360 and 429 spaces; for planning purposes, it was assumed to be 400.

Projections for rental cars were tied with Amtrak ridership, which is expected to grow 95 percent by 2040. Rental car projections did not take into account any local use of the facility. If the current square footage of the rental car facility is grown by 95 percent, there will be a need for approximately 100,000 square feet of rental facility space, compared to 51,800 today. Such an arrangement would allow for 260 traditional parking spaces and 9,000 square feet for ancillary facilities. (Please see discussion in Step 4 for additional evaluation of future rental car facility needs).

Approach 1: Observed Demand-Based

In this approach, all vehicles that are in the garage for more than one day (24 hours) were assumed to be using Amtrak or intercity bus services. Cars that are in the garage for less than five hours are assumed to be

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either accessing the site for other services at WUS, nearby offices, retail, or other uses.¹¹ These assumptions were meant to avoid incorporating monthly parkers in the long-term intercity parking estimate. Based on these assumptions, it was estimated that approximately 1,178 vehicles in the garage each day belong to Amtrak or intercity bus users.

In the first projection approach, the number of needed Amtrak spaces was then grown by 95%, the Amtrak growth factor.¹² Retail parking was added to the intercity number. Then, overall parking projection was reduced by 10% to account for future reduction in single-occupancy vehicle use in favor of transit and other modes. This reduction was taken from the Metropolitan Washington Council of Governments (MWCOC) Transportation Planning Board (TPB). TPB model data for the Travel Activity Zones (TAZs) around WUS suggests that, by 2040, car-based trips in that part of Washington, DC should decrease by 10 percent.¹³

The rental car spaces were then added. In this approach, the total parking requirement for 2040 came to 2,687 (See Table 1.3).

Table 1.3: Estimate Based on Existing Garage Usage Statistics

		Growth Factor		Mode Shift	
Average Existing Long Term Parking during April – June	1,178	1.95	2,297		
Retail Parking (No Growth)			400		
Adjustment for Future Mode Shift			2,697	0.9	2,427
Rental Car Parking (100,000 square ft. ¹⁴)					260
					2,687

Approach 2: Amtrak Survey-Based

In the second projection approach, the future number of needed spaces was calculated based on Amtrak ridership and survey data. According to the Amtrak eCSI customer satisfaction surveys conducted for passengers arriving at or departing WUS from March 2015 to March 2016, 8 percent of riders at WUS access the service via private vehicle. This figure was derived from additional information from the 2016 version of the survey Amtrak provided on February 27, 2017. Results broken down by service at WUS (see Tables 1.4 and 1.5). Eight percent is the rounded average of the weighted totals in Tables 4 and 5.

¹¹ Cars in the garage for more than five hours, but less than one day, were assumed to be monthly parkers or other daily parkers associated with a 9-to-5 office use pattern and were not incorporated in the estimate.

¹² This growth factor is based on NEC FUTURE projections for Amtrak ridership at the station.

¹³ Transportation Planning Board Regional Travel Demand Model, Version 2.3.57. Model run performed in July 2016.

¹⁴ Includes 9,000 square feet of support and 91,000 square feet of parking.

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Table 1.4: WUS Access Data (April 2015 to March 2016)

Route	Responses	Drove & Parked	
		at Station	Boarding
01 – Acela	944	17%	699,437
04 – Vermonter	69	3%	3,687
05 - Northeast Regional	1,600	12%	1,385,096
12 - New Haven-Springfield	36	0%	4,758
16 - Silver Star	108	6%	16,481
18 – Cardinal	97	4%	9,725
19 - Silver Meteor	100	5%	20,399
26 - Capitol Limited	587	4%	62,862
46 - Washington-Lynchburg	125	2%	33,092
47 - Washington-Newport News	149	5%	53,095
48 – Palmetto	323	3%	46,884
50 - Washington-Norfolk	86	7%	38,450
51 - Washington-Richmond	144	13%	37,634
52 – Crescent	130	2%	23,825
66 – Carolinian	156	4%	27,322
Total	4,654	12% weighted	2,462,747

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Table 1.5: WUS Egress Data (April 2015 to March 2016)

Route	Responses	Drove & Parked	
		at station	Alighting
01 – Acela	873	4%	674,546
04 – Vermonter	78	3%	3,564
05 - Northeast Regional	1,579	3%	1,427,843
12 - New Haven-Springfield	67	4%	4,626
16 - Silver Star	175	2%	18,026
18 – Cardinal	136	0%	9,026
19 - Silver Meteor	166	1%	20,221
26 - Capitol Limited	721	1%	56,745
46 - Washington-Lynchburg	250	2%	29,740
47 - Washington-Newport News	195	1%	48,534
48 – Palmetto	326	2%	48,996
50 - Washington-Norfolk	197	2%	28,680
51 - Washington-Richmond	187	3%	53,541
52 – Crescent	221	1%	22,273
66 – Carolinian	277	1%	28,240
Total	5,448	3% weighted	2,474,601

Baseline Amtrak ridership at WUS is estimated to be a daily average of 16,394 passengers.¹⁵ Eight percent of 16,394 is 1,311. Since that ridership number includes individuals both departing from, and arriving at, WUS, it was halved to capture individual travelers who park (656). Analysis of the Amtrak parking data from the garage indicated that the average length of stay for those users was around 1.87 days. Therefore, in spaces-per-day, the average current space usage for riders is estimated to be 1,226. That number was then grown by the Amtrak growth factor of 95 percent.

Retail parking was added to the intercity demand. This overall parking number was then reduced by 10 percent to account for future reduction in single-occupancy vehicle use in favor of other modes, as in the first approach. Lastly, rental car parking spaces were added. This approach yielded a 2040 parking requirement of 2,772 spaces (see Table 1.6).

¹⁵ FRA, 2016. Estimated 2012 ridership, which serves as baseline for *NEC FUTURE* estimates.

Table 1.6: Estimate Based on Amtrak Survey Data

		Growth Factor		Mode Shift
Daily Amtrak Ridership	16,394			
Riders Access via Vehicle	8%			
Total Spaces (divided by 2)	656			
Average Length of Stay	1.87			
Estimated Parking Based on Amtrak Survey	1,226	1.95	2,391	
Retail Parking (No Growth)			400	
Adjustment for Future Mode Shift			2,791	0.9
Rental Car Parking (100,000 square ft ¹⁴)				260
				2,772

Based on the two approaches for estimating parking requirements, between 2,687 and 2,772 spaces may be required in 2040 to meet parking demand if behavior shifts away from parking by about 10 percent to 2040, consistent with area mode shift changes. For concept screening purposes, an average of 2,730 spaces was assumed. These projections represented an estimate of the *potential future parking demand*.

1.3.2 2017 Refinement of Parking Program

The nine CDR concepts included parking programs consistent with this estimated demand and were shared with agencies and the public in October 2016. Based on public and agency feedback, FRA, working with the Proponents, explored the feasibility of adopting a smaller parking program. Considerations that were incorporated into this refinement are provided below.

1.3.2.1 Parking Policy: Legislation and Lease Agreement

Parking has been provided at WUS since 1976. Congress authorized the creation of a National Visitors Center in 1968. Later that year the Department of Interior executed an agreement with the private railroad owners of WUS to convert the station into the Visitors Center with a parking facility for 4,000 cars. An initial phase of the garage was opened in 1976. The USRA required the full construction of the parking facility and provided further direction. The Act stated that “The rate of fees charged for use of the parking facility may exceed the rate required for maintenance and operation of the facility and shall be established in a manner that encourages its use by rail passengers and participants in activities in the Union Station complex and area.”¹⁶ Subsequent amendments to the USRA preserved this language.¹⁷ This legislative language indicates Congress’s interest in a parking facility that serves rail functions, non-rail WUS functions, and some amount of use as a parking facility serving the Capitol Hill area.

The USRC lease stipulates other requirements concerning parking. The lease states that 600 spaces should be provided “convenient to the retail stores on the Project.” The lease also states that USRC “shall exercise its

¹⁶ Public Law 97-125 Sec. 118(b)

¹⁷ Public Law 107-217; 40 U.S.C. § 6908(b).

best efforts to cause” the District government to construct an additional 900 spaces (the second phase of the garage to satisfy the USRA).

1.3.2.2 Amtrak, Project, and USRC Parking Considerations

Over 85 percent of the total projected parking demand is associated with Amtrak users either parking their personal cars or making use of the rental car options. Using 2040 projections for Amtrak ridership growth and the average Amtrak drive and park demand of 8 percent (which corresponds with the projections discussed in Step 3), the projection signals a demand for approximately 2,700 parking spaces.

The EIS Purpose and Need for the Project,¹⁸ developed by FRA and Project Proponents with input from participating Federal and District agencies and the public, calls for a multimodal facility at WUS. In such a facility, it is important that a reasonable amount of parking be provided to support the station’s transportation and real estate services. The Purpose and Need also calls for sustaining the Station’s economic viability and supporting the continued use of the historic station. The parking garage currently plays a substantial role in supporting economic activities and other uses at the station by providing the majority of the revenue for maintaining the historic building. It is reasonably foreseeable that a parking garage would continue to play a role in supporting the economic viability and continued use of the historic station. The parking facility currently provides the majority of USRC revenues, which are used to support the historic station.

Additionally, USRC is obligated, under lease terms, to provide 600 spaces for retail uses, an additional 75 rental car spaces, and to pursue 900 additional spaces within the facility. While the initial estimate accommodated 400 spaces for retail use, this estimate did not include parking for retail employees (estimated at 104 today) or potential for growth related to the 35 percent growth in the retail program to 2040.

1.3.2.3 Parking Program Policy

FRA and USRC therefore considered statutory direction, legal agreements, and possible shifts in demand over time, and identified 1,600 spaces as the planning number for spaces at WUS, which is the amount reasonably required under USRC lease terms with some additional spaces added for flexibility. The DEIS Action Alternatives were developed to meet this program goal. This approach would provide approximately 900 spaces for Amtrak passenger demand. Approximately 1,130 spaces of projected 2040 Amtrak demand may not be accommodated by the Project. Instead, it is assumed that users not able to park at the station would take different modes to the Station. Such a program would be consistent with USRC’s 99- year lease agreement with Union Station Investco (USI),¹⁹ which manages WUS retail. This reduced parking program represents a 35 percent reduction relative to existing parking capacity at WUS despite a projected 83 percent increase in intercity travel demand. FRA and the Proponents incorporated the reduced parking program into the DEIS Action Alternatives.

1.3.2.4 Other Considerations

During the public process, a series of other considerations for future parking were considered. These considerations are provided below.

¹⁸ The Project’s Purpose and Need can be found in Chapter 2, Purpose and Need, of the DEIS.

¹⁹ The lease is due to expire in 2084.

Impact of Autonomous Vehicles

An important consideration for future demand is technological change. Autonomous vehicle technology is improving quickly, and some transportation industry leaders are prognosticating substantial changes to car ownership and usage patterns within the build timeframe of this project. These changes may reduce overall parking demand because autonomous vehicles allow for more efficient operations. They may also promote shared use of vehicles, which is already a substantial activity provided by for-hire-vehicle services.

However, autonomous vehicles will still need to be stored in convenient and cost-effective locations, particularly locations that are close to concentrated and high-volume trip generators like WUS. Additionally, some academic research suggests that widespread adoption of autonomous vehicles may be beyond the build year of this project.²⁰ It is too early to know exactly how autonomous vehicles will affect parking demand at WUS. However, a well-designed parking facility should be flexible enough to potentially accommodate different needs of autonomous vehicles. In particular, it may be that part of the parking facility would be converted to additional pick-up and drop-off space if transportation trends continue to move in that direction. An above ground facility may provide greater flexibility for such a role because of its convenient location, and because of its relative ease and lower cost of construction.

Car Sharing and For-Hire Services

There have been recent increases in the use of carsharing services, such as Zipcar and Free2Move, as well as for-hire, or TNC, services like Uber and Lyft. The emergence of both services suggest decreased demand for parking for individual, personally owned vehicles in the future parking facility. The ease of access and use for these two services is expected to promote movement away from single-occupancy vehicles, though there is substantial uncertainty about the future of such mobility services. Growth in TNC service may also require a facility to store or house vehicles as they await pick-ups.

Future of Rental Cars

In the two projection approaches, 260 space-equivalents (100,000 square feet) were provided for a rental car facility. The USRC/USI lease mandates 75 rental car spaces be provided. This projection assumed a similar style of operation for the rental car facility. However, the rental car industry's needs are changing. The future of rental cars will be affected by both the success of more flexible car-sharing services like Zipcar and the traditional brands' own car-sharing offerings and by the success of Uber and Lyft. The car-sharing options will require parking spaces but not the same type of facilities as a traditional rental car service. Additionally, the rental car operators see themselves as the future fleet managers for autonomous vehicles, creating potential overlap with the private vehicle portion of the parking facility as autonomous vehicles play a large role in the transportation system.²¹ Therefore, a reduction of the space requirement for the future facility may be reasonable. In the minimum program identified in Step 4, rental cars would have 100 space equivalents (29,000 square feet).

²⁰ Bansal, Prateek and Kara Kockelman. "Forecasting Americans' Long-term Adoption of Connected and Autonomous Vehicle Technologies." April 2016 Working Paper. http://www.cae.utexas.edu/prof/kockelman/public_html/TRB16CAVTechAdoption.pdf; Litman, Todd. "Autonomous Vehicle Implementation Predictions: Implications for Transport Planning." September 1, 2016. Victoria Transport Policy Institute. <http://www.vtpi.org/avip.pdf>

²¹ See: Glinton, Sonari. "Rental Car Companies Face Challenges in Age of Ride-Sharing Services." NPR. August 22, 2016. <http://www.npr.org/2016/08/22/490969811/rental-car-companies-face-challenges-in-age-of-ride-sharing-services>

1.3.2.5 Presentation of Alternatives in Public Meeting #4

DEIS Action Alternatives A through E, with this reduced program, were shared with the public and agencies in March 2018. DDOT did not indicate a position on the parking program in the agency's comment on these alternatives. DCOP requested that FRA consider two issues related to the parking program:

- “Ensure that the proposed reduction in parking program is fully analyzed with respect to the economic viability of the Union Station Redevelopment Corporation (USRC), in alignment with federal requirements;
- Ensure that configuration of parking facilities minimizes impact to active uses at street level, such as pedestrian entrances, potential for retail, and views into and out of the station from existing and new entry points.”

2 Parking Program Agency and Public Coordination

During development of the Action Alternatives for the DEIS, FRA and proponents engaged with other agencies, stakeholders, and the public on the scope of the parking program and other elements. Each of the DEIS Action Alternatives would substantially reduce the existing parking program at WUS despite projections of greatly increased ridership and use at WUS within the 2040 planning horizon. Consistent with NEPA, FRA has continuously obtained and relied on objective and verifiable data and analyses to size the parking program.

In summer and fall 2019, FRA and the proponents developed an additional Action Alternative – Alternative A-C – and identified it as the Preferred Alternative for the DEIS. Alternative A-C would provide approximately 1,600 parking spaces in six levels above the two-level bus facility, constituting a multimodal surface transportation center that could also potentially provide space for for-hire vehicles, as well as support potential commercial development in the remaining federal air rights above and to the east of the new structure. FRA and the Project Proponents presented the Preferred Alternative to DDOT on October 25, 2019, as part of the Project’s monthly coordination meetings with DDOT, and subsequently coordinated on the transportation impact analysis of the alternative.

2.1 Fall 2019 Agency Engagement

2.1.1 Coordination with Commission on Fine Arts (CFA)

On November 21, 2019, FRA and the Proponents presented the Preferred Alternative to CFA at an informational meeting. In a letter dated November 27, 2019, CFA indicated its support for Alternative A-C, including general approach, sectional disposition, and plan layout of the programmatic elements. CFA also noted that *“the inclusion of the bus terminal at Union Station is an important, equitable convenience for travelers.”* However, CFA expressed concern about the planning assumptions underlying the parking element and the volume represented by the combined bus and parking facilities. Therefore, CFA requested that FRA and the Proponents reconsider the above-ground parking element of the Project in order to develop a more *“appropriately sized and sympathetically configured massing.”*

2.1.2 NCPD Concept Review Hearing

FRA submitted the Preferred Alternative to NCPD for conceptual review at the Commission’s January 9, 2020 hearing.²² During the hearing, the NCPD commissioners expressed support for most aspects of the Project. The commissioners found that the placement of parking beneath the station tracks and lower concourses may be challenging due to constructability and cost, and they noted the significant challenges facing any off-site locations for parking. However, the commissioners expressed concerns about the massing of an above-ground parking facility. The Commissioners approved the following language regarding the parking program:

“The Commission... requests the applicant substantially reduce the number of parking spaces, and that the applicant, private development partner, and staff work with the District Office of Planning and the District Department of Transportation to evaluate and confirm the appropriate amount of parking given the mix of

²² FRA previously provided an informational presentation to NCPD on July 13, 2017.

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uses, traffic and urban design impacts, and transit-oriented nature of the project prior to the next stage of review.”²³

2.1.3 Public Comments

At the NCPC January 2020 hearing, representatives of Advisory Neighborhood Commission (ANC) 6C, the Coalition for Smarter Growth, and Akridge expressed opposition to the 1,600-space parking program and advocated for the Project to adopt a smaller program or dispense entirely with parking at WUS. In the weeks following the NCPC hearing, FRA received multiple emails from District and regional residents. Most expressed support for a reduced parking program. There were also expressions of support for a maintained or expanded parking program.

2.2 Parking Working Group

2.2.1 Description of Working Group and Objectives

Consistent with NCPC’s recommendation, DCOP, DDOT, FRA, and the Project Proponents convened a Parking Working Group. The Working Group included staff from DCOP, DDOT, and NCPC, as well as representatives from FRA, USRC, and Amtrak.²⁴ The Working Group held five meetings:

- **February 7, 2020:** Initial kickoff led by DCOP Director Andrew Trueblood
- **February 14, 2020:** Parking Working Session #1
- **February 28, 2020:** Parking Working Session #2
- **March 6, 2020:** Parking Working Session #3
- **March 26, 2020:** Leadership Meeting (DCOP, DDOT, FRA, USRC)

At these meetings, FRA and USRC presented a “use case” analysis that supported the original Project parking program developed for the DEIS Action Alternatives.^{25,26} Amtrak reiterated its position, first expressed on January 7, 2020, that parking for its passenger operations at WUS “*is not essential to Amtrak’s operation of intercity passenger rail*” and that “*Amtrak does not support any entity building a parking garage specifically to support Amtrak passengers.*”²⁷ Amtrak also stated that the proportion of Amtrak passengers driving and parking at WUS had declined from 8 percent (of an average 16,394 daily passengers) in 2015/2016 to 4 percent (of approximately 17,300 total daily passengers) currently. Current projections for 2040 are for approximately 32,000 total Amtrak passengers daily, or a 95 percent increase. DCOP and DDOT presented the District’s current policy preferences for parking at WUS and a proposed parking program based on these preferences. The “use cases” presented by FRA/USRC and the District are provided in Sections 2.2.2 and 2.2.3, respectively.

²³ National Capital Planning Commission. Commission Action. January 9, 2020. Accessed at: https://www.ncpc.gov/docs/actions/2020January/7746_Washington_Union_Station_Expansion_Project_Commission_Action_Jan2020.pdf. Accessed on March 26, 2020.

²⁴ Participants in the working group process are listed at the end of this memorandum (**Attachment 1**).

²⁵ See Section 1 of this memorandum on the development of the original parking program.

²⁶ For the purposes of this analysis, “use cases” are different market demand segments for parking at WUS.

²⁷ Amtrak memorandum to FRA and USRC. January 7, 2020 (**Attachment 2** of this memorandum).

2.2.2 FRA/USRC Review of Parking Use Cases

As part of the working group process, FRA and USRC presented to DCOP and DDOT the analysis used to support the initial (approximately 2,730) and reduced (approximately 1,600) parking program. Additionally, FRA and USRC re-examined the program and further identified and presented a set of use cases that further support the continuing provision of parking at WUS as included in the DEIS Action Alternatives. The use case analysis was unconstrained by the size of a potential facility. It yielded a total number of spaces exceeding the 1,600-space program. Each use case is described in more detail below.

2.2.2.1 Station Land Use

In addition to being the second-busiest Amtrak rail station, WUS is a retail and event destination, with approximately 380,000 square feet of potential retail development and event capacity for over 6,500 individuals. WUS also includes a 120,000-square-foot office complex. These uses are located in the District's PDR-3 zone. Based on zoning parking minimums, FRA and USRC estimate station land uses to support a parking program of 357 spaces.

2.2.2.2 Federal Air-rights Development

All DEIS Action Alternatives envision the potential development of the Federal air rights southwest of H Street NE not needed for Project elements. In Alternative A-C, the Preferred Alternative, that development would total approximately 380,000 gross square feet and is analyzed as office space. As the DEIS assumes that this parcel would conform to USN zoning, there is no parking minimum applicable to the development. Instead, FRA and USRC followed the DDOT Comprehensive Transportation Review (CTR) guidelines, which calls for a maximum of 0.4 spaces per 1,000 square feet of transit-adjacent office space. On this basis, FRA and USRC estimate a program of 152 spaces associated with this development.²⁸

2.2.2.3 Rental Cars

Current rental car capacity in the WUS garage is approximately 295 cars. Based on information from rental car operators, USRC understands that the rental car program serves both intercity passengers and local District residents, with intercity passengers accounting for approximately 45 percent of the demand, and District businesses and residents making up the other 55 percent. Based on growth of the intercity (Amtrak and bus) program by 2040 at WUS and retention of the existing levels of local resident and business-serving rental cars, FRA estimates that there would be an unconstrained demand for space to accommodate 400 rental cars at WUS.

2.2.2.4 Long-Term Parking

As shown in **Table 2.1** below, parking for long-term intercity rail needs is estimated at 1,076 spaces under the currently proposed parking program. This estimate identifies the parking demand associated with a 4 percent parking mode share, along with an assumed additional mode shift away from parking of 10 percent. This assumed mode shift derives from MWCOC data for the Travel Activity Zones (TAZs) around WUS, which indicate that, by 2040, car-based trips in that part of the District should decrease by 10 percent. As part of the Parking Working Group work, FRA and USRC examined particular subsets of this use case.

²⁸ FRA notes that parking demand associated with this use case may or may not make use of a WUS parking facility.

Table 2.1. FRA and USRC Long-Term Intercity Rail Parking Estimates for 1,600-space Program

		Growth Factor	Mode Shift	Total Spaces
Daily Amtrak Ridership	16,394			
Riders Access via Vehicle	4%			
Total Spaces (divided by 2)	328			
Average Length of Stay	1.87			
Estimated Parking Based on Amtrak Survey	613			
Future Growth		1.95		1,196
Adjustment for Future Mode Shift			0.9	1,076

Additionally, Greyhound provided information to FRA and USRC regarding mode of access for their passengers. These data indicated that 4.3 percent of Greyhound passengers at WUS drove and parked before taking the bus. Although intercity bus demand was not taken into account in the 2016 parking demand estimate, FRA and USRC provided a calculation of future unconstrained demand for intercity bus-related parking. This estimate is shown in **Table 2.2** below.

Table 2.2. FRA and USRC Long-Term Intercity Bus Parking Demand Estimate

		Growth Factor	Mode Shift	Total Spaces
Daily Intercity Bus Ridership	10,000			
Riders Access via Vehicle	4.3%			
Total Spaces (divided by 2)	215			
Average Length of Stay	1.87			
Estimated Parking Based on Amtrak Survey	402			
Future Growth (Action Alternatives)		1.19		478
Future Growth (No-Action Alternative)		1.27		511
Adjustment for Future Mode Shift			0.9	430-460

Early Morning/Late Evening

During the early morning and late evening, transit options may not be available or practical for passengers arriving at or departing from WUS. To provide parking for these individuals, FRA estimates needing an unconstrained 295 parking spaces as part of the larger intercity parking program. Consistent with the reduced use/availability of transit at certain hours, evidence from DDOT indicates large spikes in for-hire vehicle activity during the late hours, which exacerbates congestion at the front of WUS. The 295 spaces would contribute to alleviating this situation.

Passengers Requiring Accommodations

With the goal of providing equitable access to WUS, FRA and USRC are also mindful of passengers for whom driving their own vehicles may be a necessary or most practical means of access to intercity service. Such passengers may include individuals with disabilities and mobility impairment; elderly passengers, even if they do not have a formal disability; families with small children; and those with substantial luggage. Studies of airline passengers using U.S. travel survey data indicate seven to ten percent of travelers have some degree

of mobility limitation.²⁹ Based on this research, between 1,500 and 2,000 boarding bus and rail passengers per day face these challenges. Because of the absence of WUS data regarding the full range of passengers who may require accommodations and who would need to bring a vehicle to the station, FRA used data regarding intercity travelers with disabilities to project a minimum estimate for all passengers requiring parking as an accommodation of approximately 90 spaces.

2.2.2.5 Short-Term Parking

In addition to long-term traveler parking demand, FRA and USRC identified existing and future potential demand for short-term parking to facilitate bus and rail travel. The USRA calls for parking prices to be set in a manner that “*encourages [the garage’s] use by rail passengers and participants in activities in the Union Station complex and area.*” In addition to broader area demand, FRA and USRC identified two specific short-term uses. While forecasting such demand is challenging, the working group discussion indicated a need for approximately 50 spaces.

Kiss and Ride

The challenges in matching a pick-up vehicle with an arriving intercity passenger can exacerbate congestion at pick-up and drop-off locations. A Kiss and Ride location that permits short-term parking of vehicles may reduce congestion at the front of WUS and other proposed pick-up and drop-off locations. WUS currently has a small Kiss and Ride/cell phone lot in the parking garage.

Passengers Requiring Accommodations

As noted above, FRA and USRC are mindful of passengers who may need accommodation to access intercity service. Some such passengers, including individuals with disabilities and mobility impairments as well elderly passengers and those with substantial luggage, may rely on for-hire vehicles or private pick-up/drop-off. Some passengers may also be met or accompanied into the station by friends or family using private vehicles. These passengers would be better served in a short-term parking area rather than navigating and dwelling at a congested curbside.

2.2.2.6 For-Hire Vehicles

For-hire vehicles are expected to be a major source of traffic at and around WUS in 2040. FRA and USRC have considered the potential for for-hire vehicle staging and queueing above the bus facility in Alternatives A, C, and A-C. In Alternative D, such a facility could be provided in the above-ground parking facility.

2.2.3 District Parking Policy Framework and Use Case Analysis

As part of the Working Group activities, DCOP and DDOT, representing the District, developed a parking policy framework for the same use cases as described above. The two agencies’ positions and supporting

²⁹ See (1) Stephen Brumbaugh, “Travel Patterns of American Adults with Disabilities,” *Bureau of Transportation Statistics Issue Brief*, September 2018. Accessed from <https://www.bts.gov/sites/bts.dot.gov/files/docs/explore-topics-and-geography/topics/passenger-travel/222466/travel-patterns-american-adults-disabilities-11-26-19.pdf>; accessed on April 22, 2020. (2) The National Academies of Sciences, Engineering, and Medicine 2020. *Innovative Solutions to Facilitate Accessibility for Airport Travelers with Disabilities*. ACRP Report 210. Washington, DC: The National Academies Press. (3) Briefing of Gerald Dillingham, Director, Physical Infrastructure Issues, US Government Accountability Office to Senate Committee on Commerce, Science, and Transportation and House Committee on Transportation and Infrastructure.

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information are summarized below, based on both conversations and materials developed during the Working Group process and subsequent follow-up communications with FRA.³⁰ The agencies' stated policy positions are to reduce vehicular parking in the downtown core, generally shift users away from using private vehicles, and provide more space for residential, commercial, or mixed development.

2.2.3.1 Station Land Use

For the office land use at WUS, DCOP and DDOT indicated that the parking minimum of 0.4 spaces per 1,000 in the PDR-3 zone is the maximum parking program they would support. They indicated that they would support zoning waivers to achieve zero parking for all land uses on-site. A medium level of parking would be 0.2 spaces per 1,000. As a result, the District's parking framework for station office ranged from 0 to 54 spaces. In subsequent communication to FRA following the Working Group meetings, DCOP indicated that the District recommends 54 spaces for the office program, which is the maximum of their framework. The District clarified to FRA that it recommends this level because of the trip generation profile of office uses, likely office lease requirements that parking be provided, and the need for office uses at WUS to be competitive with other office space in the District.

For WUS's retail, the agencies initially identified a maximum of 0.25 spaces per 1,000 square feet, one-fourth of the CTR guidelines, for a total of 95 total spaces. They selected this level because of WUS's location near transit. During the working group sessions, they recommended a minimum of zero based on their belief that parking is not essential to the success of retail at WUS due to increased passenger volumes at the station expected in the future. In subsequent communication to FRA, DCOP reiterated that the District recommends zero space for the retail program.

2.2.3.2 Federal Air-Rights Development

All DEIS Action Alternatives envision the potential development of the Federal air rights southwest of H Street NE, which is not needed for Project Elements. In Alternative A-C, the Preferred Alternative, that potential development would total approximately 380,000 gross square feet. It is analyzed as office space in the DEIS.³¹ DCOP and DDOT identified that the parking minimum for this development could be zero because of its proximity to transit. A medium level of parking would be 76 spaces, one-half of the CTR guidelines, again due to proximity to transit. The maximum level of parking would be 152 spaces, as provided for in the CTR guidelines. District staff indicated that these parking recommendations would apply to the private air-rights development as well. The private air-rights development would be expected to provide no more parking than the maximum under the CTR guidelines and preferably substantially less. In subsequent communication to FRA, DCOP indicated that the District recommends 152 spaces for the Federal air-rights office program, which is the maximum of their framework. The District recommends this level because of the trip generation profile of office uses, likely office lease requirements that parking be provided, and the need for office uses at WUS to be competitive with other office space in the District.

³⁰ Letter from DCOP to FRA, dated April 30, 2020, included as Attachment 3.

³¹ This analysis assumption was made to provide a conservative estimate of transportation impacts. Trip generation models generally produce more trips per square foot for office versus apartments or hotels. Additionally, trip generation in office development derives from square footages directly as opposed to rooms or keys. With no program known for this area, the office represents a conservative approach both in its consideration of the number of trips and in the ability to relate a potential program to an estimated number of trips.

2.2.3.3 Rental Cars

DCOP and DDOT did not provide a specific recommendation for the number of spaces associated with this use during the Working Group meetings. They indicated that they do not support providing rental cars at WUS for use by local residents, as they consider that this service can be provided elsewhere. DCOP subsequently informed FRA that the District did not have enough information regarding intercity passenger demand for rental cars to determine whether the District would support a traditional rental car facility at WUS.

2.2.3.4 Long-Term Parking

DCOP and DDOT indicated that they do not support general long-term parking at WUS to serve intercity rail passengers, based on (a) Amtrak's current stated position that it does not require parking for its passenger operations at WUS, (b) the level of proposed parking at other urban rail stations, (c) the availability of parking at other regional rail stations, and (d) recent reductions in parking demand reported by Amtrak and area airports. The agencies also do not support general long-term parking at WUS to serve the intercity bus services, due to the agencies' perception of the "price sensitivity" of intercity bus passengers.

Early Morning/late evening

Based on the positions summarized above, DCOP and DDOT did not support providing any parking spaces for this specific use case, recommending instead that passengers make use of modes other than personal vehicles needing parking. The agencies also indicated that they expected commercial parking to adapt to meet this type of demand if needed.

Passengers Requiring Accommodations

DCOP and DDOT expressed support for providing parking for use by passengers requiring accommodations. The agencies recommended that 49 spaces (the number of accessible spaces in the existing parking garage) be provided. In subsequent communication to FRA, DCOP identified a range of 7 to 49 spaces, with the maximum of 49 spaces being recommended if it can be shown that the existing spaces are well utilized and needed.

2.2.3.5 Short-Term Parking

DCOP and DDOT concurred that short-term parking is important for managing passenger demand at WUS. The agencies supported meeting this need to the level of 1 to 3 percent of Amtrak riders during the 85th percentile peak of station operations as estimated by them. As a result, the agencies indicated their support for a minimum of 27 spaces and a maximum of 55 spaces associated with this use. In subsequent communication to FRA, the District revised this range to a minimum of 40 spaces and a maximum of 120 spaces. DCOP recommended 40 spaces, the minimum of the revised framework.

2.2.3.6 For-Hire Vehicles

Following the Working Group process, DCOP and DDOT indicated that they support distributed loading for for-hire and pick-up and drop-off vehicles around WUS and a facility for for-hire vehicles. The agencies did not have recommendations regarding capacity, design, or location for such a facility.

2.2.4 Conclusion

Table 2.3 shows the parking programs proposed by FRA/USRC for the Project and DCOP/DDOT for the District based on the use case analyses summarized above.

Table 2.3. FRA/USRC and DCOP/DDOT Parking Levels

	FRA/USRC	DCOP/DDOT ³²
Estimated Parking Use Case Size	3,000 - 4,237	47-375
Proposed Parking Program	1,600	295
Additional Mobility Program (additional space for vehicular needs for which a space count has not been determined)	For-hire queue/storage area Short-term parking ³³	For-hire queue/storage area

Following the working group meetings, the Directors of DCOP and DDOT discussed the coordination process with FRA and USRC. DCOP subsequently provided FRA with a letter summarizing the District’s conclusions.³⁴

FRA recognizes the District’s interest in reducing the parking program consistent with its policy interest in reducing car use in the downtown core. FRA and the Proponents’ 2017 decision to reduce the parking program below the estimated 2040 demand level of 2,730 as well as below the existing parking capacity of 2,450 is consistent with the District’s policy goal. This determination is reflected in the DEIS Action Alternatives, each of which is grounded in data and analysis and greatly reduces the existing WUS parking capacity despite significant projected increases in activity at WUS over the next 20 years and beyond.

FRA as owner and USRC as operator of WUS concluded that the best currently available information does not warrant a further reduction of the parking program evaluated in the DEIS at this time. The USRA calls for the development of WUS as a multimodal transportation facility; the restoration and preservation of the historic station; and operational self-sufficiency for WUS. FRA considers the provision of adequate parking as an important factor to attract passengers to the Federally owned station and provide different modes of access for station users. The Action Alternatives with the current parking program also support the Project’s Purpose and Need by maintaining full multimodal functionality at WUS and a reliable source of commercial revenue used for the preservation of the historic station building.

While vehicular use is likely to change in the future, project studies indicate substantial continued use of vehicles to access WUS and continued demand for the parking of vehicles at the levels provided for by the Project. Further, there is additional need for parking to serve any Federal air-rights development. In the absence of substantial evidence of reduced parking needs, it is necessary to plan for the parking amount proposed.

USDOT and USRC are aware of the possibility that conditions could sufficiently change during the development of the Project and, if so, they would consider re-examining the parking program as appropriate. The need for such flexibility influenced USDOT’s and USRC’s preference for an above-ground, combined bus

³² Confirmed in communications to FRA following the Working Group process.

³³ While DCOP and DDOT recommended 40 to 120 spaces for short-term parking, FRA and USRC did not reach a determination regarding a short-term parking use size for intercity demand.

³⁴ Letter from DCOP to FRA, dated April 30, 2020, included as Attachment 3.

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and parking facility because an above-ground structure offers opportunities for adaptive reuse whereas a below-ground facility has little reuse potential.

DDOT and USRC both understand pick-up and drop-off demand to be a major operational challenge for WUS in the future. The private air-rights developer has expressed opposition to the Project's proposed strategy for managing this demand. The ability to accommodate some vehicular demand through use of the parking facility may help to manage these challenges.

After conducting additional analysis as part of the coordination with the District, and consistent with the above considerations, FRA has retained the 1,600-space parking program for analysis in the DEIS. Release of the DEIS will provide agencies and the public with the opportunity to comment further on the Project, the Action Alternatives including the proposed parking program, and anticipated impacts. FRA will continue to coordinate with the District and NCPC regarding parking and other issues. In light of the public interest regarding parking and to help inform public comments on this issue, FRA has prepared a high-level assessment of how a reduction in the parking program could affect the environmental impacts of the DEIS Action Alternatives. This assessment is provided in the next section.

3 Assessment of Impacts of Reduced Parking Program

The purpose of this section is to help inform public and agency comment by providing a qualitative assessment of how a substantial reduction in the parking program would change the environmental impacts of the Action Alternatives as analyzed in **Chapter 5** of the DEIS.

3.1 Methodology

The assessment covers all resources addressed in the DEIS. For each resource topic, the qualitative assessment is relative to the impacts of the Action Alternatives under consideration as presented in Chapter 5 of the DEIS. To allow for meaningful comparison, unless otherwise specified below, only the size of the parking facility was assumed to change.

For each Action Alternative, the smaller parking facility would be constructed in the same location and with the same general characteristics (below- or above-ground; north or south of the H Street Bridge) as in the current Action Alternatives. These locations and characteristics - including vehicular access to below-ground parking from K Street and construction of parking above the bus facility in Alternatives A, C, and A-C - represent the options that FRA has determined to be reasonable based on the extensive concept and alternatives development and screening process conducted for the Project.

Direct and indirect operational impacts, as well as construction impacts are considered. When there is no change to a direct, indirect, or construction impact addressed in Chapter 5, information about the impact is omitted. The changes to each alternative caused by the parking reduction are described below. **Tables 3.1 through 3.4** describe how the reduction in parking and associated changes to each alternative may result in different impacts.

3.2 Impact Assessment

3.2.1 Alternative A

Reducing the parking program in Alternative A would lead to the following changes to this alternative:

Direct Operational Impacts

- The parking facility would provide fewer parking spaces and would have fewer levels. The greater the reduction of the parking program, the greater the reduction in the height of the structure. As parking is reduced, Alternative A would become more like Alternative B with respect to the Project's above-ground components.
- Reducing the parking program would change how station users travel to and from the station, affecting several transportation modes, including Metrorail, for-hire vehicles, and private pick-up and drop off. Metrorail and pick-up and drop-off modes would see increased demand. This shift in turn would potentially have a minor effect on traffic operation impacts and air quality impacts associated with vehicular traffic. While parking-related traffic may decrease, increased pick-up and drop-off activities may contribute to traffic congestion elsewhere.

- It is estimated that for every 100 spaces that the parking facility is reduced, 18 AM and 18 PM peak hour parking-related trips would be eliminated. At the same time, 21 AM and 21 PM peak hour pick-up and drop-off trips would be created.³⁵

Indirect Operational Impacts

- As the parking facility is reduced, more of the Federal air rights would become available for potential development as office space (as assumed in Alternatives B through A-C). A practical limit to the reduction on the parking facility would come from the increase in parking to serve increasing Federal air rights development. Also, the more parking is reduced, the more Alternative A would be like Alternative B, which assumes that all federal air-rights above the bus facility would be developed as office space.

Construction Impacts

- A smaller parking facility would require less construction, shorten the construction period, and reduce impacts associated with construction. This reduction would occur in Phase 4 of construction, which is when the facility would be constructed in Alternative A.

Table 3.1 below presents how these changes would differ from the impacts of Alternative A described in Chapter 5 of the DEIS.

3.2.2 Alternative B

Reducing the parking program in Alternative B would lead to the following changes to this alternative:

Direct Operational Impacts

- The below-ground parking facility may have one rather than two levels. In this regard, Alternative B would become more like Alternative C.
- Changes in vehicular trip generation, mode choice, and resulting changes in traffic and air quality impacts would be as described for Alternative A above.

Indirect Operational Impacts

- The bus facility and potential Federal air-rights development would not be affected.

Construction Impacts

- A smaller below-ground parking facility would require less excavation, shorten the construction period, and reduce impacts associated with construction. Most of this reduction would occur in Phase 4 of construction, which is when most of the excavation for and construction of the parking facility would take place in Alternative B.

³⁵ Initial reduction of the size of the parking facility from anticipated future demand to the 1,600-space parking program shifted the trips most able to conveniently use transit. Further reduction would impact trips that are highly automobile-dependent. This shift is calculated in the following way: Based on a literature review of parking policy, approximately 10 percent of trips would be expected to shift to other stations (such as BWI Thurgood Marshall International Airport, New Carrollton, or Alexandria) or to be lost to travel using another intercity mode. Of the remaining trips, approximately 75 percent would be expected to shift to private or for-hire pick-up and drop-off. A private pick-up/drop-off trip generates, on average, two traffic trips due to the arrival and departure. A for-hire pick-up/drop-off trip generates slightly less, 1.5 trips on average, due to linking of trips at WUS. The remaining 25 percent would shift to transit, most likely Metrorail.

- Use of a sheet-pile cut-off wall to the clay layer for support of excavation (SOE), as in Alternative C, instead of a slurry wall to bed rock, would be used if the reduced parking facility has only one level. This change would reduce the impacts associated with construction.

Table 3.2 below presents how these changes would differ from the impacts of Alternative B described in Chapter 5 of the DEIS.

3.2.3 Alternative C

Alternative C includes both above-ground parking and below-ground parking. Depending on its scope, a reduction of the parking program could translate into various scenarios involving reducing both parking facilities; reducing only one of them; or eliminating one with or without reducing the other. For the purposes of this evaluation, the two following scenarios were considered:

3.2.3.1 Scenario 1

In Scenario 1, the below-ground facility would be eliminated and above-ground parking could be reduced. Reducing the Alternative C parking program under Scenario 1 would lead to the following changes to the alternative:

Direct Operational Impact

- There would be no below-ground parking facility. In this regard, Alternative C would become more like Alternative A.
- Changes in vehicular trip generation, mode choice, and resulting changes in traffic and air quality impacts would be as described for Alternative A above.

Indirect Operational Impacts

- The bus facility and potential Federal air-rights development would not be affected.

Construction Impacts

- Without below-ground parking, there would be less excavation, the construction period would be shorter, and the impacts associated with construction would generally be reduced. Most of this time reduction would occur in Phase 4 of construction, which is when most of the excavation for, and construction of, the parking facility would take place in Alternative C.
- A secant pile cut-off wall to 64 feet, like in the Alternative A, instead of a sheet-pile wall to the clay layer, would be used for SOE.

3.2.3.2 Scenario 2

Under Scenario 2, the above-ground parking facility would be eliminated and the below-ground parking could be reduced. Reducing the Alternative C parking program under Scenario 2 would lead to the following changes to the alternative:

Direct Operational Impacts

- There would be no above-ground parking facility. In this regard, Alternative C would become more like Alternative B.
- Changes in vehicular trip generation, mode choice, and resulting traffic and air quality impacts would be as described for Alternative A above.

Indirect Operational Impacts

- The bus facility and potential Federal air-rights development would not be affected.

Construction Impacts

- A smaller above-ground structure housing only the bus facility would require less construction, shorten the construction period. This reduction would occur for Alternative C with the West Option in the later part of Phase 4 of construction, which is when the bus facility would be constructed in this option. In Alternative C with the East Option, the facility would be constructed during Phases 2 and 3 and the change in total construction duration would be negligible.
- If the below-ground parking facility is reduced, it would require less excavation and this would further shorten the construction period and reduce impacts from construction. This reduction would occur in Phase 4 of construction, which is when most of the excavation for and construction of the parking facility would take place in Alternative C. This would occur under either the East or the West Option.

Table 3.3 (Scenario 1) and **Table 3.4** (Scenario 2) below present how these changes would differ from the impacts of Alternative C described in Chapter 5.

3.2.4 Alternatives D, E, and A-C

In all respects relevant to the present analysis, Alternative D is similar to Alternative C, Alternative E is similar to Alternative B, and Alternative A-C is similar to Alternative A.

The same two scenarios used for Alternative C can be applied to Alternative D and the evaluation of how reducing the parking program would affect the impacts of Alternative D under either scenario would be the same as for Alternative C with the West Option: See **Tables 3.3 and 3.4** below. The evaluation of how reducing the parking program would affect the impacts of Alternative E would be the same as for Alternative B: See **Table 3.2** below. Finally, the evaluation of how reducing the parking program would affect the impacts of Alternative A-C would be the same as for Alternative A: See **Table 3.1** below.

Table 3.1. Changes in the Anticipated Impacts of Alternatives A and A-C with Reduced Parking Program as Compared to the Impacts Identified for Alternatives A and A-C in the DEIS

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Water Resources and Water Quality	No change. Water resources impacts do not depend on the amount of parking provided.	Greater adverse impacts on wastewater and drinking water consumption due to commercial development of the Federal air rights (assumed to be office space). Impacts would not exceed those of Alternative B.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Solid Waste Disposal and Hazardous Materials	No change. No measurable waste impacts from the amount of parking provided.	Greater adverse impacts on wastewater and drinking water consumption due to commercial development of the Federal air rights (assumed to be office space). Impacts would be similar to those of DEIS Alternative B.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Transportation	Greater adverse impact on Metrorail volumes and circulation. Decreased parking-related vehicular trips. Increased for-hire vehicle trips. Increased private pick-up and drop-off trips. Increased traffic volumes in front of WUS, First Street, and 2nd Street. Adverse impacts on traffic operations may be reduced at some intersections and increased at others due to redistribution of traffic.	Increased adverse impacts on all modes from commercial development of the Federal air rights (assumed to be office space). Impacts would not exceed those of Alternative B.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Air Quality	<i>Microscale analysis:</i> Reduction in emissions associated with the parking facility; increase in other hot-spot emissions analyzed.	<i>Mesoscale analysis:</i> Negligible change in emissions.	No change during most of the construction period. Reduction in air emissions from construction equipment in Phase 4.
Greenhouse Gas Emissions and Resilience	Negligible change in CO ₂ emissions.	Greater CO ₂ emissions due to the commercial development of the Federal air rights (assumed to be office space). Impacts would not exceed those of Alternative B.	No change during most of the construction period. Reduction in CO ₂ emissions from construction equipment in Phase 4.
Energy Resources	Reduction in energy consumption due to smaller parking facility.	Greater energy consumption due to the commercial development of the Federal air rights (assumed to be office space). Impacts would not exceed those of Alternative B.	No change during most of the construction period. Negligible reduction in energy consumption for construction equipment in Phase 4.
Land Use, Land Planning and Property	No change in land use compatibility.	The remaining Federal air-rights would be developed as office space, as in Alternative B (office use assumed for the purposes of the DEIS).	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Noise and Vibration	No perceptible change.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Aesthetics and Visual Quality	No change if the parking facility remains high enough to be visible above the WUS roof line. Otherwise, impacts would be as in DEIS Alternative B.	No change. The height and volume of the combined mobility center and potential Federal air-rights development would remain the same.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Cultural Resources	Physical Impacts: No change. <i>Visual impacts:</i> No change if the parking facility remains high enough to be visible above the WUS roof line. Otherwise, impacts would be as in DEIS Alternative B. <i>Noise/Vibration/Traffic:</i> No noticeable change. Changes in traffic are not anticipated to be sufficient to increase/reduce impacts.	No change. The height and volume of the combined mobility center and potential Federal air-rights development would remain the same.	No change during most of the construction period. Adverse impacts would end sooner due to shorter Phase 4.

Table 3.1. Changes in the Anticipated Impacts of Alternatives A and A-C with Reduced Parking Program as Compared to the Impacts Identified for Alternatives A and A-C in the DEIS

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Parks and Recreation Areas	No change.	Negligible change from the commercial development of the remaining air rights (assumed to be office space).	No change.
Social and Economic Conditions	Greater adverse impact on WUS revenue. No other changes.	Greater beneficial impact on employment trending toward Alternative B impact. Greater beneficial impact on WUS revenue.	No change during most of the construction period. Impacts would end a sooner due to shorter Phase 4. Reduction in beneficial economic impacts because of reduced construction in Phase 4.
Public Safety and Security	No change.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Public Health, Elderly and Persons with Disabilities	May make station access more difficult for some users who need to drive and park at the station.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.

Table 3.2. Changes in the Anticipated Impacts of Alternatives B and E with Reduced Parking Program as Compared to the Impacts Identified for Alternatives B and E in the DEIS

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Water Resources and Water Quality	Reduced impacts on groundwater and wastewater due to reduced need for long-term dewatering. Reduction would depend on the size and depth of the parking facility and the SOE used but impact would not be less than in DEIS Alternative A.	No change.	Reduced adverse impacts on groundwater and wastewater due to reduced need for short-term dewatering. Reduction would depend on the size and depth of the parking facility and the SOE used but impacts would not be less than in DEIS Alternative A. No other change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Solid Waste Disposal and Hazardous Materials	No change. No measurable waste impacts from the amount of parking provided.	No change.	Reduction in the amount of excavation spoil to be disposed of. Amount would depend on the size and depth of the parking facility but would not be less than in Alternative A.
Transportation	Greater adverse impact on Metrorail volumes and circulation. Decreased parking-related vehicular trips. Increased for-hire vehicle trips. Increased private pick-up and drop-off trips. Decreased traffic volumes on K Street but increased volumes in front of WUS, First Street, and 2nd Street. Adverse impacts on traffic operations may be reduced at some intersections and increased at others due to redistribution of traffic.	No change.	No change during most of the construction period. Reduction in the amount of excavation needed would not reduce the maximum number of daily truck trips but this impact would last for a shorter time in Phase 4.
Air Quality	<i>Microscale analysis:</i> Reduction in emissions associated with the parking facility; increase in other hot-spot emissions analyzed.	<i>Mesoscale analysis:</i> Negligible change in emissions.	No change during most of the construction period. Reduction in air emissions from construction equipment during SOE construction (if sheet-pile cut off wall is used) and in Phase 4.
Greenhouse Gas Emissions and Resilience	Negligible change in CO ₂ emissions.	No change.	No change during most of the construction period. Reduction in CO ₂ emissions from construction equipment during SOE construction (if sheet-pile cut off wall is used) and in Phase 4.
Energy Resources	Reduction in energy consumption due to smaller parking facility.	No change.	No change during most of the construction period. Reduction in energy consumption for construction equipment during SOE construction and in Phase 4.
Land Use, Land Planning and Property	No change.	No change.	No change.

Table 3.2. Changes in the Anticipated Impacts of Alternatives B and E with Reduced Parking Program as Compared to the Impacts Identified for Alternatives B and E in the DEIS

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Noise and Vibration	No perceptible change.	No change.	Lower noise levels during SOE construction (if sheet-pile cut-off wall is used). Higher noise levels at end of excavation due to shallower depth. Noise and vibration levels would become more like in DEIS Alternative C.
Aesthetics and Visual Quality	No change.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Cultural Resources	Physical Impacts: No change. Visual impacts: No change. <i>Noise/Vibration/Traffic Impacts:</i> No noticeable change. Changes in traffic are not anticipated to be sufficient to increase or reduce impacts.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4. Noise and vibration levels may be lower during SOE construction but impacts on cultural resources would remain.
Parks and Recreation Areas	No change.	No change.	No change.
Social and Economic Conditions	No change.	No change.	No change during most of the construction period. Impacts would end sooner and beneficial economic impacts would be reduced due to shorter Phase 4.
Public Safety and Security	No change.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Public Health, Elderly and Persons with Disabilities	May make station more difficult to access for some users who need to drive and park at the station.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.

Table 3.3. Changes in the Anticipated Impacts of Alternatives C and D with Reduced Parking Program as Compared to the Impacts Identified for Alternatives C and D in the DEIS – Scenario 1

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Water Resources and Water Quality	Reduced impacts on groundwater and wastewater due to reduced need for long-term dewatering. Impacts would become as in Alternative A.	No change.	Reduced adverse impacts on groundwater and wastewater due to reduced need for short-term dewatering. Impacts would be as in DEIS Alternative A. No other change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Solid Waste Disposal and Hazardous Materials	No change. No measurable waste impacts from the amount of parking provided.	No change.	Reduction in the amount of excavation spoil to be disposed of. Amount would be as in Alternative A.
Transportation	Greater adverse impact on Metrorail volumes and circulation. Decreased parking-related vehicular trips. Increased for-hire vehicle trips. Increased private pick-up and drop-off trips. Decreased traffic volumes on K Street but increased volumes in front of WUS, First Street, and 2nd Street. Adverse impacts on traffic operations may be reduced at some intersections and increased at others due to redistribution of traffic.	No change.	No change during most of the construction period. Reduction in the amount of excavation needed would not reduce the maximum number of daily truck trips but this impact would last for a shorter time in Phase 4 (duration similar to Alternative A).
Air Quality	<i>Microscale analysis:</i> Elimination of emissions associated with the below-ground parking facility and potential reduction in emissions associated with the above-ground facility if made smaller; increase in other hot-spot emissions analyzed.	<i>Mesoscale analysis:</i> Negligible change in emissions.	No change during most of the construction period. Reduction in air emissions from construction equipment during SOE construction and in Phase 4. Emission levels similar to Alternative A.
Greenhouse Gas Emissions and Resilience	Negligible reduction in CO ₂ emissions.	No change.	No change during most of the construction period. Reduction in CO ₂ emissions from construction equipment during SOE construction and in Phase 4. Emission levels similar to Alternative A.
Energy Resources	Reduction in energy consumption due to elimination of below-ground parking and potential reduction of above-ground parking.	No change.	No change during most of the construction period. Reduction in energy consumption for construction equipment during SOE construction and in Phase 4.
Land Use, Land Planning and Property	More private air rights remaining available above the bus facility if above-ground parking is reduced.	No change.	No change.
Noise and Vibration	No perceptible change.	No change.	Lower noise levels during SOE construction. Higher noise levels at end of excavation due to shallower depth. Noise and vibration levels would be similar to DEIS Alternative A.

Table 3.3. Changes in the Anticipated Impacts of Alternatives C and D with Reduced Parking Program as Compared to the Impacts Identified for Alternatives C and D in the DEIS – Scenario 1

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Aesthetics and Visual Quality	No change. if above-ground parking is reduced, the available air rights would be used for private development.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Cultural Resources	Physical Impacts: No change. Visual impacts: No change. <i>Noise/Vibration/Traffic Impacts:</i> No noticeable change. Changes in traffic are not anticipated to be sufficient to increase or reduce impacts.	No change.	No change during most of the construction period. Adverse impacts would end sooner due to shorter Phase 4. Noise and vibration levels would be similar to Alternative A.
Parks and Recreation Areas	No change.	No change.	No change.
Social and Economic Conditions	No change.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4. Reduction in beneficial economic impacts because of reduced construction in Phase 4 (also in Phase 2/3 in East Option is above-ground parking is reduced).
Public Safety and Security	Elimination of below-ground parking would reduce potential security risks. Impacts would be as in Alternative A.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.
Public Health, Elderly and Persons with Disabilities	May make station more difficult to access for some users who need to drive and park at the station.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4.

Table 3.4. Changes in the Anticipated Impacts of Alternatives C and D with Reduced Parking Program as Compared to the Impacts Identified for Alternatives C and D in the DEIS – Scenario 2

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Water Resources and Water Quality	Reduced impacts on groundwater and wastewater due to reduced need for long-term dewatering if below-ground parking is reduced.	No change.	Reduced adverse impacts on groundwater and wastewater due to reduced need for short-term dewatering if below-ground parking is reduced.
Solid Waste Disposal and Hazardous Materials	No change. No measurable waste impacts from the amount of parking provided.	No change.	Reduction in the amount of excavation spoil to be disposed of if below-ground parking is reduced. Amount would depend on the size of the reduction but would not be less than in Alternative A.
Transportation	Greater adverse impact on Metrorail volumes and circulation. Decreased parking-related vehicular trips. Increased for-hire vehicle trips. Increased private pick-up and drop-off trips. Increased traffic volumes in front of WUS, First Street, and 2nd Street. Adverse impacts on traffic operations may be reduced at some intersections and increased at others due to redistribution of traffic.	No change.	No change during most of the construction period. Impacts would cease sooner due to shorter Phase 4 (West Option or if below-ground parking is reduced).
Air Quality	<i>Microscale analysis:</i> Elimination of emissions associated with the above-ground parking facility and potential reduction in emissions associated with the below-ground facility if made smaller; increase in other hot-spot emissions analyzed.	<i>Mesoscale analysis:</i> Negligible change in emissions.	No change during most of the construction period. Reduction in air emissions from construction equipment in Phases 2/3 (East Option) and Phase 4 if below-ground parking is reduced (West Option or if below-ground parking is reduced).
Greenhouse Gas Emissions and Resilience	Negligible change in CO ₂ emissions.	No change.	No change during most of the construction period. Reduction in CO ₂ emissions from construction equipment in Phases 2/3 (East Option) and Phase 4 if below-ground parking is reduced (West Option or if below-ground parking is reduced).
Energy Resources	Reduction in energy consumption due to elimination of above-ground parking and potential reduction of below-ground parking.	No change.	No change during most of the construction period. Reduction in energy consumption for construction equipment in Phases 2/3 (East Option) and Phase 4 (West Option or if ground parking is reduced).
Land Use, Land Planning and Property	No change in land use compatibility.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4 (West Option or if ground parking is reduced).
Noise and Vibration	No perceptible change.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4 (West Option or if ground parking is reduced).

Table 3.4. Changes in the Anticipated Impacts of Alternatives C and D with Reduced Parking Program as Compared to the Impacts Identified for Alternatives C and D in the DEIS – Scenario 2

Resource Area	Direct Operational Impacts	Indirect Operational Impacts	Construction Impacts
Aesthetics and Visual Quality	No change. The available air rights above the bus facility would be used for private development.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4 (West Option or if ground parking is reduced).
Cultural Resources	Physical Impacts: No change. Visual impacts: No change. <i>Noise/Vibration/Traffic Impacts:</i> No noticeable change. Changes in traffic are not anticipated to be sufficient to increase/reduce impacts.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4 (West Option or if ground parking is reduced).
Parks and Recreation Areas	No change.	No change.	No change.
Social and Economic Conditions	No change.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4. Reduction in beneficial economic impacts because of reduced construction in Phases 2/3 (East Option) and 4 (west option or if below-ground parking is reduced).
Public Safety and Security	Elimination of above-ground parking would reduce potential security risks. Impacts would be as in Alternative A.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4 (West Option or if below-ground parking is reduced).
Public Health, Elderly and Persons with Disabilities	May make station access more difficult for some users who need to drive and park at the station.	No change.	No change during most of the construction period. Impacts would end sooner due to shorter Phase 4 (West Option or if below-ground parking is reduced).

May 29, 2020

Attachment 1 - List of Parking Working Group Participants

District of Columbia Office of Planning

Andrew Trueblood, Director

Sakina Khan, Deputy Director for Citywide Strategy and Analysis

Rogelio Flores, Associate Director, Citywide Planning

Kristin Calkins, Senior Transportation Planner

Matthew Jesick, Development Review Specialist

Andrea Limauro, Senior Neighborhood Planner, Wards 2 & 6

District Department of Transportation

Ellen Jones, Chief Project Delivery Officer

Jim Sebastian, Associate Director, Planning & Sustainability Division

Haley Peckett, Project Manager

Aaron Zimmerman, Site Development Program Manager

National Capital Planning Commission

Diane Sullivan, Director, Urban Design and Plan Review

Matthew Flis, Senior Urban Designer

Federal Railroad Administration

David Valenstein, Senior Advisor for Major Projects & Credit Programs

Union Station Redevelopment Corporation

Beverley Swaim-Staley, President/CEO

Kevin Forma, 2nd Century Program Manager

Amtrak

Gretchen Kostura, Director – Major Stations, Washington Union Station

WASHINGTON UNION STATION EXPANSION PROJECT

May 29, 2020

Consultants

Bradley Decker, Booz Allen Hamilton

Maria de la Paz Aviles, Booz Allen Hamilton

Nikolas Dando-Haensch, Grimshaw Architects

Drew Morrison, VHB

WASHINGTON UNION STATION EXPANSION PROJECT

May 29, 2020

**Attachment 2 - *Amtrak Parking for the Washington Union Station Expansion Project*
(Memorandum from Amtrak to FRA and USRC, January 7, 2020)**



Memorandum

To: David Valenstein; Beverley Swaim-Staley
CC: David Handera; Daniel Sporik; Kevin Forma; Bradley Decker
From: Gretchen Kostura
Date: January 7, 2020
Re: Amtrak Parking for the Washington Union Station Expansion Project

Passenger parking is not essential to Amtrak's operation of intercity passenger rail at Washington Union Station and is regarded as an ancillary passenger amenity. Although existing conditions provide for rail passenger parking, a majority of Amtrak and commuter rail passengers access the Station via alternate transportation modes. Amtrak strongly encourages passengers to travel to the Station through modes other than private vehicle to park. This advocacy coupled with major planned rail infrastructure investments north and south of the Station and a shifting culture away from private automobile use leads Amtrak to anticipate passenger parking demand to continually decrease in the future.

Currently, based on our ridership and survey responses from passengers, Amtrak estimates 600-700 passengers are parking at the Station¹. We do not assume that parking will increase proportionally as rail ridership increases. Additionally, there will likely be a considerable period where there is no parking available at the Station during construction and passengers will need to figure out an alternative means of accessing the Station. Therefore, Amtrak believes the current parking program targeted for Amtrak passengers in the Station Expansion Project is over planned and Amtrak supports refinement of the parking estimate in the future. Amtrak does not support any entity building a parking garage specifically to support Amtrak passengers.

In a public setting, Amtrak will continue to support Alternative A-C and will offer testimony to the elements directly related to the core business of operating intercity passenger rail. However, given the parking garage is located on federal property and overseen by Union Station Redevelopment Corporation, Amtrak will defer to the property owner and operator to determine the appropriate use for their property given market demand, land use analysis and transportation mode shifts as the planning progresses into design. The City should also be involved with determining the overall appropriate amount of parking for the Station as they are responsible for setting parking requirements for development projects in DC. Amtrak, FRA, USRC, and the City should commence a working group to refine the parking program.

We do not believe the EIS process needs to be stalled or postponed as this refinement work can move in parallel to the current process with the current numbers serving as a stress test for the Project.

Finally, in the event the property owner and operator, in coordination with local and regional transportation officials and Amtrak, determines the parking program should be downsized, Amtrak encourages the reevaluation of locating the parking facility below the tracks and platforms.

¹ Daily Amtrak ridership is approximately 16,000. It can be assumed that Union Station is the origin station for half those riders and 8% of those riders are parking at the Station given our survey results from 2017. Note that the most recent survey of passengers in December 2019, only 4% of riders from Union Station drove and parked.

WASHINGTON UNION STATION EXPANSION PROJECT

May 29, 2020

Attachment 3 - District of Columbia Comments on the Preferred Alternative for the Washington Union Station Project (Letter from DCOP to FRA, April 30, 2020)

District of Columbia Office of Planning



Office of the Director

April 30, 2020

David Valenstein, Senior Advisor
Federal Railroad Administration
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington DC 20590

RE: District of Columbia Comments on the Preferred Alternative for the Washington Union
Station Expansion Project

Dear Mr. Valenstein:

The District of Columbia Office of Planning (OP) appreciates the opportunity to participate in the ongoing National Environmental Protection Act (NEPA) process for the Washington Union Station Expansion Project for which the Federal Railroad Administration (FRA) is the Lead Agency. This letter is to share with FRA our conclusions regarding parking, which we are providing to the National Capital Planning Commission (NCPC). At 1,575 spaces, the project would be overparked and sacrifices to parking valuable space that should instead be devoted to land uses that would enhance both the station and the surrounding area.

On January 9, 2020, NCPC, in its dual role as a consulting party to the NEPA process and as land use approval authority for the project, requested that:

[t]he applicant (FRA) substantially reduce the number of parking spaces (in the Union Station Expansion Project), and that the applicant, private development partner, and staff work with the District Office of Planning and the District Department of Transportation to evaluate and confirm the appropriate amount of parking given the mix of uses, traffic and urban design impacts, and transit-oriented nature of the project prior to the next stage of review.

We believe that it is possible to design the project in a manner that supports the best long-term land use, delivers world-class multi-modal transportation, and is financially viable for the Union Station Redevelopment Corporation (USRC) in its role as steward of Washington Union Station. We do not believe that such an important project can compromise on any of these vital



objectives. Unfortunately, because Preferred Alternative A-C makes significant compromises on land-use and parking – sacrificing far more valuable land uses to make room for parking – OP cannot support it.

Based on District policies, comparable U.S. facilities, and our analysis of parking demand, our report to NCPC recommends a total of 295 parking spaces for the subject project, although up to 375 might be appropriate if additional information demonstrated it was justified. Table 1 shows the District’s proposed parking for Union Station.

Table 1: District Proposed Parking for Union Station

Program	Case	District Rec. Parking #	Min	Max
Land Use	Retail	0	0	0
	Office	206	0	206
Long-Term Parking	Amtrak	0	0	0
	Bus	0	0	0
Short-Term Parking	Driver leaves car temporarily	40	40	120
ADA Parking		49	7	49
Total Parking		295	47	375

Source: District Office of Planning, District Department of Transportation¹

Throughout this process, the District has emphasized the importance of:

- Prioritizing intermodal effectiveness and efficiency (including intercity bus, rideshare services, and bicycle connections);
- Providing continued and enhanced quality of life for people who live in, work in, and visit the Washington Union Station area;
- Affirming the civic identity rooted in the transportation infrastructure at Union Station;
- Retaining intercity bus service at Washington Union Station; and
- Promoting pedestrian mobility in the design.

As illustrated by our recommended parking numbers in Table 1, OP and DDOT agree with NCPC that the 1,575 parking spaces in Preferred Alternative A-C will undermine the ability of the project to achieve these goals and must be reduced. OP reached this conclusion through the Inter-Agency Parking Working Group, which was created to address NCPC’s request and included representatives of FRA, USRC, Amtrak, OP, and DDOT.

Union Station is a unique facility in a dense urban location. It hosts more visitors than the Las Vegas Strip and handles more passengers than any of the major airports in our region. Beyond its role as an intercity transit hub, Union Station is accessible by Metrorail, Streetcar, MARC, VRE, and Circulator and WMATA bus routes. Moreover, it is adjacent to the District’s highly

¹ The numbers recommended herein were developed in collaboration with the District Department of Transportation (DDOT) and represent the District’s recommended parking numbers for the Union Station Expansion Project.

walkable and bikeable downtown. In this setting and with such rich multimodal access, private vehicles will play a limited role in the future Union Station.

With this accessibility in mind, and as part of the Parking Working Group, the District analyzed policies, case studies, and rationales that could help address appropriate parking numbers at Union Station in the year 2040 (the horizon year for the subject Project and NEPA process), taking into account future retail and office uses as well as long-term, short-term, and ADA-related parking at Union Station.

OP drew policy guidance from proposed amendments to the District's Comprehensive Plan, made as part of the current Comprehensive Plan update process, and from DDOT's Guidance for Comprehensive Transportation Review. District policies and guidance from these and other planning documents emphasize reducing the use of single occupancy vehicles, reducing parking, reducing greenhouse gas emissions, and enhancing multimodal transportation.

Unfortunately, after three sessions of the Parking Working Group, in which the District shared information about the policies, data, and analysis supporting substantially reduced parking, FRA remained unwilling to propose any reduction in the 1,575 spaces presented to NCPC for Preferred Alternative A-C.

OP cannot see a viable path to success for such an overparked project. A NEPA Record of Decision that includes so much parking will likely require future modifications to reduce the amount parking and deliver a viable project. To avoid such a time-consuming process, FRA should modify the existing Preferred Alternative or develop a new Preferred Alternative that substantially reduces parking, substitutes the difference in parking with additional land use programming, and integrates pick-up and drop-off (PUDO) facilities and related details for capacity, location, and design. We recognize that reducing the parking will impact PUDO and are prepared to collaborate with FRA, DDOT, and surrounding communities and developments to ensure an appropriate facility or facilities are dedicated to PUDO activity.

OP fully appreciates the need to ensure the long-term financial viability of Washington Union Station and believes that a recalibrated approach to parking can support and achieve multiple project benefits for its stakeholders. OP believes that developing uses such as hotel, office, and retail instead of parking could provide robust revenue streams to support operations. Although the retail at Union Station serves patrons of the station and is not destination retail for which customers drive and park, we understand that parking may present a challenge in terms of an existing lease agreement between USRC and commercial tenants at the station. OP stands ready to work with the project team on questions relating to lease terms and to identify the land uses. But the terms of a lease should not dictate critical land use and transportation decisions that will be felt for a century or more.

I look forward to continued engagement in the Union Station Expansion Project and will submit comments consistent with those in this letter in response to the DEIS when you release it for public comment.

Please do not hesitate to contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Andrew Trueblood', with a long horizontal flourish extending to the right.

Andrew Trueblood

cc: John Falcicchio, Deputy Mayor for Planning and Economic Development
Jeffrey Marootian, Director, District Department of Transportation
Beverley Swaim-Staley, President and CEO, Union Station Redevelopment Corporation
Marcel Acosta, Executive Director, National Capital Planning Commission
Gretchen Kostura, Senior Program Manager, Washington Union Station, Amtrak