

Naval Support Facility Suitland



TRANSPORTATION MANAGEMENT PLAN UPDATE

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Marstel-Day/The Diallo Group
Planning Team

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EXECUTIVE SUMMARY

ES 1 Introduction

A Transportation Management Plan (TMP), as noted in the *Federal Agency TMP Handbook*, is an employer-driven program aimed at improving commuting efficiency by incorporating strategies to reduce single-occupancy vehicle (SOV) use, manage traffic congestion, and improve air quality. Strategies are developed to encourage changes in employee travel modes, trip timing, trip frequency, and travel routes.

In 2019, a TMP was previously prepared for Naval Support Facility (NSF) Suitland to address current and projected staffing requirements and transportation needs. However, since then, significant development around the Suitland Federal Center (SFC) has increased traffic congestion, making an updated TMP for NSF Suitland necessary.

This updated TMP aligns with guidance from the *Federal Agency TMP Handbook* and the National Capital Planning Commission (NCPC), requiring goals for reducing SOV trips, strategies to encourage alternative commuting, traffic and parking assessments, and coordination with regional agencies. It draws on information from the 2020 SFC-TMP while remaining specific to NSF Suitland, ensuring commuting goals reflect the installation's unique needs.

The new plan incorporates current traffic data, projected development impacts, and regional transit improvements, with the aim of expanding mobility options, reducing environmental impacts, and supporting mission growth alongside the ongoing NSF Suitland Area Development Plan (ADP).

ES 2 Current Site Conditions

NSF Suitland is located on a 41-acre site at the SFC in Suitland, Maryland, two miles southeast of Washington, DC. Suitland, located in Prince George's County, is an unincorporated town. The NSF Suitland campus is owned and operated by Naval Support Activity Washington (NSAW), and the campus is a separate operation from the other federal uses of the SFC that are managed by the General Services Administration (GSA). NSF Suitland has its own security fences and gates separate from the SFC fences and gates.

ES 2.1 Roadway Network

The SFC site is surrounded by an extensive network of major arterials and local roads: Silver Hill Road (MD Route 458), Suitland Parkway, Suitland Road (MD Route 218), Pennsylvania Avenue (MD Route 4), St. Barnabas Road (MD Route 414) and Branch Avenue (MD Route 5). NSF Suitland employees can access the SFC through five secured vehicular entrance gates or through one pedestrian gate. The pedestrian gate provides pedestrian access to/from the Suitland Metrorail Station. Once through the perimeter gates of the SFC, employees and visitors of NSF Suitland can reach the installation via Swann Road. Vehicular circulation within the NSF Suitland site is accomplished via an internal loop road extending from the Primary Access Gate to the Staff Access Gate, terminating at Swann Road at both ends.

ES 2.2 Pedestrian Facilities

Within the NSF Suitland campus, sidewalks are located alongside the internal loop road, providing a connection between the parking areas and the main facility. The sidewalks along the loop road connect to sidewalks along Swann Road outside of the campus, providing a connection to the rest of the SFC. Outside of the NSF Suitland installation, a partial sidewalk along the south-side of Swann Road and crosswalks provide pedestrian connectivity within the SFC. A pedestrian path, located along the west side of the Census Bureau, provides a connection between the Suitland Metro Station and Swann Road. Beyond the SFC, while sidewalks exist, the roadways are largely catered to automobile access.

ES 2.3 Bicycle Facilities

Bicycle facilities are provided at NSF Suitland. A bike rack with a capacity of 15 bicycles is provided outside of the main facility. Bicyclists may shower and change clothing at the fitness center within the NSF Suitland campus. The roadways within the SFC are favorable for biking because of the low posted speed limits. However, there are no exclusive painted bike lanes along Swann Road within the SFC. Outside of the SFC, bicycle facilities are limited in the surrounding community.

ES 2.4 Transit Facilities

The SFC and the surrounding community is well served by transit, which provides local and regional transit connections. The Suitland Metrorail Station is located north of Suitland Parkway and west of Silver Hill Road, adjacent to the SFC. The SFC is also served by eight Washington Metropolitan Area Transit Authority (WMATA) Metrobus routes, two local "The Bus" routes, and two Maryland Transit Administration (MTA) regional commuter bus routes at the Suitland Metrorail Station and along Silver Hill Road and Suitland Road.

ES 2.5 Parking

NSF Suitland has several parking areas for employees and visitors. As of August 2025, the existing number of parking spaces within the installation's fence line is 850 parking spaces (including 779 parking spaces for employees) and 1,077 leased parking spaces within the SFC provided through an agreement with GSA) for a total of 1,927 parking spaces.

Parking has been identified as the primary concern at NSF Suitland. The current parking ratio is approximately 1 parking space for every 2.16 employees (1:2.16). Parking data was collected as a part of the Employee Transportation Survey. Due to the insufficient amount of parking spaces for employees, it typically takes an employee more than 2 minutes to find an open parking space in the morning once they arrive at the NSF Suitland campus.

Short-term and long-term plans for replacement parking are being developed, with the desire to have a new parking garage in the future.

ES 3 Traffic Conditions and Roadway Capacity Analysis

The existing traffic volumes are comprised of vehicle turning movement data collected on Wednesday, February 5, 2025, at 15-minute intervals between 5:00 AM – 9:00 AM and 2:00 PM – 6:00 PM. The data indicates that there are separate peak hours within in the study area. These separate peak hours are due to the early arrival and departure times of NSF Suitland employees. Therefore, most NSF Suitland employees travel to and leave from the installation at times earlier than the peak hour for the surrounding roadways.

For NSF Suitland, the internal AM peak period is 5:45 AM – 6:45 AM and the internal PM peak period is 2:00 PM – 3:00 PM. The External Commuter Peak Hour is based on the period of the heaviest traffic volume along Silver Hill Road. The external AM peak period is 8:00 AM – 9:00 AM and the external PM peak period is 4:15 PM – 5:15 PM.

ES 3.1 Existing (2025) Traffic Conditions

A capacity analysis was conducted at several intersections around NSF Suitland to evaluate traffic operations using the critical lane volume (CLV) methodology for intersections external to the SFC and Highway Capacity Manual (HCM) methodology for signalized and unsignalized intersections.

CLV methodology measures the volume-to-capacity (v/c) ratio, which indicates whether an intersection can handle traffic demand. Ratios below 0.85 suggest smooth flow, while values near or above 1.0 indicate congestion, delays, and queuing. A CLV of 1,600 vehicles per hour (Level of Service E) is considered the acceptable minimum for developed areas like Suitland. Based on Existing (2025) Traffic Conditions, the traffic analysis indicates that during the NSF Suitland and External Commuter Peak Hours, all external intersections operate below CLV thresholds.

HCM methodology quantifies the time (in seconds) it takes for a vehicle to travel through an intersection based on the type of intersection control. A signalized intersection is considered to have acceptable operations if no movement within the intersection exceeds 55.0 seconds of delay time or LOS D or better and an unsignalized intersection is considered to have acceptable operations if no movement within the intersection exceeds 50.0 seconds of delay time or LOS E or better. The traffic analysis indicates that during the NSF Suitland and External Commuter Peak Hours all signalized and unsignalized intersections operate at acceptable levels during the morning and afternoon under Existing (2025) Traffic Conditions using HCM methodology.

ES 3.2 Future Background (2035) Traffic Conditions (No Action)

The analysis of Future Background (2030) Traffic Conditions (No Action) consists of traffic generated by planned developments in the vicinity of NSF Suitland and the SFC, traffic rerouted due to background-related roadway improvements, and inherent regional traffic growth on nearby roadways by the year 2035.

Since the previous NSF Suitland TMP update, the COVID-19 pandemic dramatically affected traffic volumes, and transit usage within the study area due to stay-at-home orders, though volumes have since stabilized and began to recover after the January 2025 federal mandate requiring employees to return to in-person work.

To anticipate future conditions, a conservative one percent annual traffic growth rate was applied, adjusted by road segment for localized accuracy. Only external intersections during morning and afternoon external commuter peak hours were evaluated for 2035 projections, as these periods represent the highest traffic demand in the study area.

For the Future Background (2035) Traffic Conditions, the study intersections were analyzed using the same methodology as the Existing (2025) Traffic Conditions. Even though there is a slight degradation of the LOS and an increase in the CLV at the study area intersections due to the inherent regional growth and planned development within the study area, the traffic analysis indicates that during the External Commuter Peak Hour, all SFC external intersections operate below CLV thresholds and at acceptable levels during the morning and afternoon. The Silver Hill Road (MD 458) & Suitland Road (MD 218) intersection is projected to approach an unstable flow (LOS D) during the afternoon.

ES 3.3 Total Future (2035) Traffic Conditions (Action)

The analysis of Total Future (2035) Traffic Conditions (Action) consists of the projected traffic generated by the anticipated population growth at NSF Suitland, in addition to the traffic generated by inherent growth and background developments in the surrounding area.

To develop future NSF Suitland traffic growth projections, it was assumed that the installation will have a conservative estimated employee population growth rate of 0.5 percent per year through 2035. It should be noted that the rate of future long-term growth at NSF Suitland is uncertain and may vary depending on any future mission changes.

With the addition of anticipated population growth at NSF Suitland, the traffic analysis indicates that during the External Commuter Peak Hour under Total Future (2035) Traffic Conditions, all SFC external intersections will operate similar to Future Background (2035) Traffic Conditions. The Silver Hill Road (MD 458) & Suitland Road (MD 218) intersection will continue to approach an unstable flow (LOS D) during the afternoon.

By 2035, traffic growth around NSF Suitland is expected to cause significant congestion and delays for employees during both morning and afternoon peak hours. Morning commuters will face queuing on Suitland Road and Silver Hill Road (MD 458), particularly at the Metro Driveway South/NB Suitland Parkway Off-ramp, where turning traffic will back up. These conditions will slow down arrival times to the facility. In the afternoon, congestion on Suitland Road and Silver Hill Road will continue to hinder employees leaving the installation.

ES 3.4 Traffic Capacity Analysis Comparison

A comparison of the CLV, V/C ratio, and LOS Summary for the Existing (2025), Future Background (2035) (No Action) and Total Future (2035) (Action) traffic condition scenarios for the External Commuter Peak Hour are shown in Table ES.1 for the morning and Table ES.2 for the afternoon.

Table ES.1 AM Peak Hour Comparison – CLV, V/C Ratio, and LOS Summary (External Commuter Peak Hour)

Study Intersection		AM Peak Hour (8:00 AM - 9:00 AM)								
		Existing (2025)			Future Background (2035)			Total Future (2035)		
		CLV	V/C	LOS	CLV	V/C	LOS	CLV	V/C	LOS
1	Suitland Road (MD 218) & Swann Road (Gate 0)	273	0.17	A	322	0.20	A	322	0.20	A
2	Suitland Road (MD 218) & Gate 1	269	0.17	A	319	0.20	A	319	0.20	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	413	0.26	A	454	0.28	A	454	0.28	A
4	Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-	-	-	-
5	Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-	-	-	-
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	-	-	-	-	-	-	-	-	-
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	660	0.41	A	721	0.45	A	721	0.45	A
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	630	0.39	A	724	0.45	A	724	0.45	A
9	Silver Hill Road (MD 458) & Swann Road	547	0.34	A	604	0.38	A	604	0.38	A
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	528	0.33	A	570	0.36	A	570	0.36	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	583	0.36	A	626	0.39	A	626	0.39	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

Table ES.2 PM Peak Hour Comparison – CLV, V/C Ratio, and LOS Summary (External Commuter Peak Hour)

Study Intersection		PM Peak Hour (4:15 PM - 5:15 PM)								
		Existing (2025)			Future Background (2035)			Total Future (2035)		
		CLV	V/C	LOS	CLV	V/C	LOS	CLV	V/C	LOS
1	Suitland Road (MD 218) & Swann Road (Gate 0)	426	0.27	A	538	0.34	A	538	0.34	A
2	Suitland Road (MD 218) & Gate 1	406	0.25	A	517	0.32	A	517	0.32	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	684	0.43	A	748	0.47	A	749	0.47	A
4	Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-	-	-	-
5	Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-	-	-	-
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	-	-	-	-	-	-	-	-	-
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	985	0.62	A	1090	0.68	B	1090	0.68	B
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	1149	0.72	B	1428	0.89	D	1429	0.89	D
9	Silver Hill Road (MD 458) & Swann Road	683	0.43	A	692	0.43	A	692	0.43	A
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	728	0.46	A	816	0.51	A	817	0.51	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	774	0.48	A	863	0.54	A	864	0.54	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

A comparison of the LOS summary using the HCM method for the Existing (2025), Future Background (2035) (No Action) and Total Future (2035) (Action) traffic condition scenarios for the External Commuter Peak Hour are shown in Table ES.3 for the morning and Table ES.4 for the afternoon.

Table ES.3 AM Peak Hour Comparison – LOS Summary (HCM Method) (External Commuter Peak Hour)

Study Intersection	Traffic Control ¹	AM Peak Hour (8:00 AM - 9:00 AM)						
		Existing (2025)		Future Background (2035)		Total Future (2035)		
		Delay (sec) ²	LOS	Delay (sec) ²	LOS	Delay (sec) ²	LOS	
1	Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	9.2	A	9.5	A	9.5	A
2	Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A	0.0	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	10.6	B	11.0	B	11.0	B
4	Swann Road & NSF Suitland Primary Gate Driveway	SSSC	9.2	A	-	-	9.3	A
5	Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	-	-	0.0	A
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	AWSC	8.9	A	-	-	8.9	A
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	24.8	C	25.8	C	25.8	C
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	19.4	B	22.2	C	22.2	C
9	Silver Hill Road (MD 458) & Swann Road	Signal	8.6	A	9.6	A	9.7	A
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	Signal	8.5	A	9.6	A	9.6	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	Signal	19.7	B	21.9	C	21.9	C

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

Table ES.4 PM Peak Hour Comparison – LOS Summary (HCM Method) (External Commuter Peak Hour)

Study Intersection	Traffic Control ¹	PM Peak Hour (4:15 PM - 5:15 PM)						
		Existing (2025)		Future Background (2035)		Total Future (2035)		
		Delay (sec) ²	LOS	Delay (sec) ²	LOS	Delay (sec) ²	LOS	
1	Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	11.0	B	12.0	B	12.0	B
2	Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A	0.0	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	13.1	B	13.8	B	13.9	B
4	Swann Road & NSF Suitland Primary Gate Driveway	SSSC	8.9	A	-	-	8.9	A
5	Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	-	-	0.0	A
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	AWSC	8.8	A	-	-	8.8	A
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	30.9	C	34.0	C	34.0	C
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	25.4	C	32.2	C	32.2	C
9	Silver Hill Road (MD 458) & Swann Road	Signal	10.1	B	11.0	B	11.1	B
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	Signal	10.1	B	11.8	B	11.8	B
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	Signal	29.1	C	30.3	C	30.3	C

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

ES 4 Employee Transportation Survey

A transportation questionnaire was administered through Qualtrics to the employees of NSF Suitland in February 2025. The survey consisted of questions relating to an employee's residential location, mode of travel, arrival/departure time and commuting patterns and behavior. The survey questions provided insight on the willingness of employees to change their current commuting patterns and identify potential measures to encourage use of non-automobile modes to and from NSF Suitland. A total of 898 responses were collected.

The employee transportation survey revealed that 54% of employees live in Maryland, 35% live in Virginia, 10% live in Washington, D.C., and 1% live in other locations. Nearly 75% of employees live outside of the Capital Beltway, or reside in a zip code that does not contain any transit option. A significant number of employees live more than 15 miles from NSF Suitland. The geographic spread of employees limits the opportunities for carpool and vanpool programs.

Nearly 90% of employees who routinely drive to NSF Suitland typically spend over 30 minutes one-way commuting, with nearly 75% of employees driving for more than an hour. Due to the suburban location of the SFC, the typical commuting time of NSF Suitland employees is typically longer than that of other commuters in the Washington Metropolitan area.

The preferred mode of travel to work for NSF Suitland employees is to drive alone. Very few NSF Suitland employees carpool, vanpool, use transit or use other alternative modes of travel.

Since the previous TMP was prepared in 2019, there have been several changes to the regional transportation network in the Washington Metropolitan area that may have altered an employee's preferred mode of travel.

There have been several regional roadway improvements, such as new highway interchanges and express toll lanes, that may make driving to NSF Suitland more favorable in the present day than in 2019. Improvements to transit include Metrorail expansion, the addition of new Metrorail and commuter rail cars, and improvements to local and commuter bus routes and schedules.

A comparison of survey results from 2019 and 2025 indicate that current TDM measures to reduce the reliance on SOVs at NSF Suitland have been modestly effective and more action is needed. From 2019 to 2025, there was a slight decrease in NSF Suitland employees who drive to work alone and there was a 2% increase in public transportation usage. However, there was a decrease in carpool/vanpool usage. A comparison of modes of travel between 2019 and 2025 is outlined in Table ES.5.

Table ES.5 Mode of Travel Comparison: 2019 and 2025

Mode of Travel	2019 TMP		2025 TMP UPDATE		Percent Change
	Survey Responses	Percentage	Survey Responses	Percentage	
Drive Alone	982	86%	855	85%	- 1%
Carpool / Vanpool	45	4%	26	3%	- 1%
Public Transportation	70	6%	83	8%	+ 2%
Taxi / Uber / Lyft	3	Fewer than 1%	2	Fewer than 1%	-
Bicycle	5	Fewer than 1%	6	Fewer than 1%	-
Walk	12	1%	7	1%	-
Motorcycle	24	2%	13	1%	- 1%
Other	5	Fewer than 1%	9	1%	+ 1%
No Response	0	0%	0	0%	-
TOTAL RESPONSES	1,146	100%	1,001	100%	-

ES 5 Transportation Management Plan Update Strategies

To further reduce single-occupancy vehicle trips at NSF Suitland and promote alternative travel options, a set of targeted transportation demand management (TDM) measures is required. These strategies build upon the recommendations from the previous TMP and are designed to strengthen efforts to decrease reliance on single-occupancy vehicles. The recommended measures include:

- Assign the responsibilities of an “Employee Transportation Coordinator” to an existing employee’s job duty to serve as a single point of contact for commuter information and overseer of the TMP.
- Establish a centralized on-site commuter transportation information kiosk with marketing materials and real-time schedules and information for alternative transportation options.
- Encourage the use of regional transportation demand management programs and strategies, such as Metropolitan Washington Council of Governments’ Commuter Connections program.
- Increase carpool/vanpool usage by increasing awareness of ride-matching and guaranteed ride home services.
- Increase transit use by increasing awareness of the DoD NCR Mass Transportation Benefit Program.
- Encourage bicycle usage by increasing the number of bicycle facilities, and ensuring they are well maintained.
- Examine pedestrian networks and facilities, to determine where improvements can be made.
- Examine expansion of teleworking opportunities.
- Offer flexible and alternative work schedules to the maximum extent possible.
- Offer shared-use (fleet) vehicles for transportation to off-site meetings and other travel during the workday.

- Parking management strategies should be initiated to improve the efficiency of facilities and to reduce single-occupancy vehicle use.
- Initiate parking ratio reduction strategies over time to accomplish NSF Suitland’s goal of a 1:3 parking ratio.

ES 6 Monitoring and Evaluation

To maintain a successful TMP, the program must be monitored and evaluated consistently to obtain maximum effectiveness in achieving intended goals and objectives. The following are recommendations for how best to monitor progress:

- Develop commuter focus groups that collect information from their peers and report back at regular, bi-monthly meetings.
- Prepare and distribute an employee transportation survey to determine changes in commuting modes, patterns and behaviors.
- Conduct traffic counts and intersection operation analyses to determine roadway impacts as a result of TMP strategies.
- Conduct a parking occupancy survey to determine changes in parking characteristics as a result of the TMP strategies.
- The results of commuter surveys and traffic analyses should be documented in a technical memorandum.
- Progress of the implementation of the TMP should be documented to identify successful TDM strategies and determine deficiencies and develop corrective actions.
- Documentation should be made of marketing materials for various TMP strategies.

ES 7 Conclusion

The appointment of the ETC, together with the creation of a central location for commuting information, is critical to the success of the TMP. The ETC is necessary to act as a coordinator to all representatives for the TMP (employees, staff, government, etc.). The ETC must be given full the full support of the installation, as well as the authority to implement and market programs to the benefit employees of NSF Suitland. Incentives must be also provided for alternative modes of travel, while making SOV use unattractive. Successful implementation of the TMP programs and strategies will result in achieving the goals and objectives outlined in this document. Regular updates to the TMP should be implemented to continue the progress made in reducing the impacts of NSF Suitland on the surrounding community and the entire region.

The parking ratio is currently approximately 1 parking space for every 2.16 employees. While the TDM strategies outlined in this document are instrumental in reducing SOV usage at NSF Suitland, many employees live considerable distances from work where it is not conducive to use alternative forms of transportation. Even though the SFC is located adjacent to the Suitland Metro Station, NSF Suitland's location within the SFC makes the walking distance from the Metro Station to be approximately 4,400 feet, which is much further than the distance outlined in the NCPC Transportation Element (2,000 feet) as reasonable for suburban areas.

Given the location of the NSF Suitland campus, residential location of employees and availability of regional transportation initiatives, a 1:3 parking ratio is not reasonably achievable by 2035 due to existing parking demands. Expected future growth at NSF Suitland presents the opportunity for new employees to participate in TDM programs from the onset of employment. With the implementation of the TDM measures outlined in this TMP to reduce SOV automobile trips at NSF Suitland and encourage alternative modes of travel, a 1:3 parking ratio can be achievable by 2045.

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1.0 INTRODUCTION

1.1 Background

A Transportation Management Plan (TMP), as noted in the Federal Agency TMP Handbook, is an employer's active program designed to foster more efficient commuting patterns and includes strategies to encourage change in employee travel behavior in order to reduce traffic congestion and improve air quality. Strategies are developed under a TMP that focus on changing employees travel modes, trip timing, trip frequency, and travel routes.

A TMP for Naval Support Facility (NSF) Suitland was previously prepared in 2019 to address the issues specific to accommodating current and future staffing requirements at the facility. The NSF Suitland campus is located within the Suitland Federal Center in Suitland, Maryland in Prince George's County. Since 2019, the area surrounding the Suitland Federal Center (SFC) has developed tremendously, requiring an updated TMP for NSF Suitland.

The guidance in the Federal Agency TMP Handbook and the National Capital Planning Commission (NCPCC) TMP requirements specify the components of a transportation management plan:

- Stated goals for single-occupancy vehicle (SOV) trip reduction, transportation mode split, and vehicle occupancy.
- Strategies to minimize SOV work trips and discourage SOV travel during peak and off-peak commuting hours.
- Measures to monitor goal achievement and to adjust SOV trip reduction strategies, as needed.
- A description of existing and projected peak hour traffic by transportation mode.
- A summary of existing and proposed parking by type of assignment (official cars, vanpools, carpools, single-occupant vehicles, handicapped persons, visitors, etc.).
- An evaluation of projected transportation impacts and a description of proposed mitigation measures.
- A summary of the relationship of TMP provisions to local, state, and regional agency transportation management requirements, including provisions

for working cooperatively with affected agencies to address these requirements.

In addition, The NCPCC Comprehensive Plan offers the following TMP-related guidance:

- Develop TMPs that explore methods and strategies to meet prescribed parking ratios (as described in the Comprehensive Plan) and include a thorough rationale and technical analysis in support of all TMP findings.
- Analyze scenarios that incorporate data on employee home zip codes, nearby bus routes, Metrorail, Maryland Rail Area Commuter (MARC), and Virginia Railway Express (VRE) lines and schedules, and that identify existing and planned High Occupancy Vehicle (HOV) or High Occupancy/Toll (HOT) lanes.
- Include implementation plans with timetables that outline the agency's commitment to reaching TMP goals.
- Reflect planned regional transportation infrastructure or service improvements within five miles of the federal facilities.

The Comprehensive Plan for NCPCC contains guidelines that require a TMP for any project that will increase work site employment to 500 or more employees (existing and proposed employees) and encourages a TMP for projects that will increase work site employment by 100 or more employees. In addition, a TMP should be completed for master plan updates.

The 2019 TMP conducted for NSF Suitland included strategies, programs and recommendations to reduce single occupancy vehicle usage. Since that time, the area surrounding the SFC has experienced significant commercial and residential development, resulting in increased traffic congestion, requiring an updated TMP for NSF Suitland. The goal of this NSF Suitland TMP is to update the 2019 TMP with current data collected as part of this effort, including traffic capacity and level of service analyses for both existing conditions and future requirements based on the ongoing NSF Suitland Area Development Plan

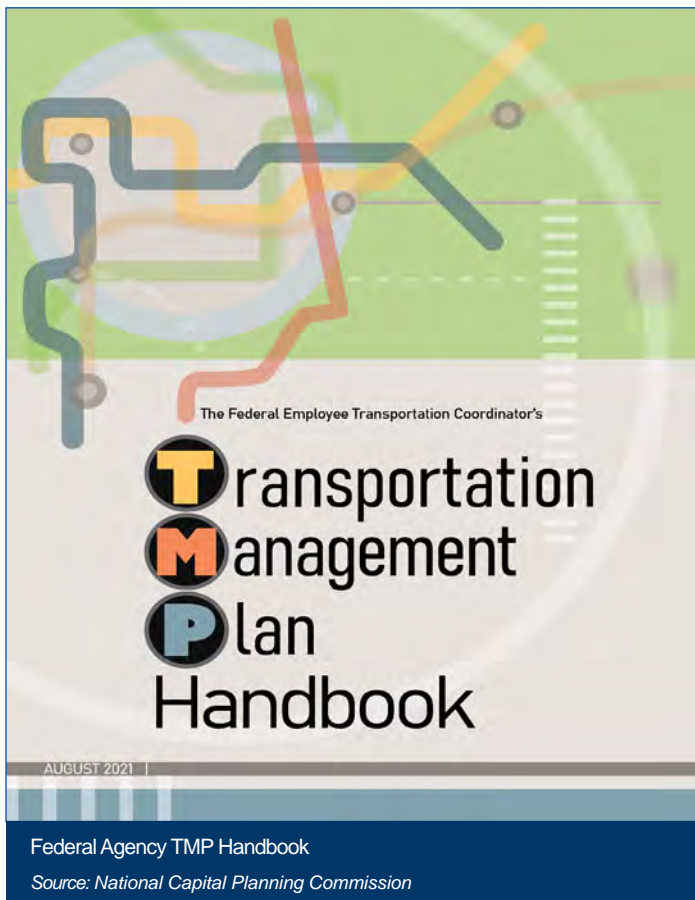
(ADP) and other known projected development included in the surrounding geographic area. The TMP will comply with the best practices and minimum requirements set forth in the Federal Agency TMP Handbook and NCPC submission guidelines.

A significant source of information for the update of the NSF Suitland TMP effort is the Suitland Federal Center Transportation Management Plan (SFC-TMP), developed in 2020. The SFC-TMP contained an assessment of the nature and potential for reducing SOV commute trips to the Suitland Federal Center. The SFC-TMP did not address strategies specific to NSF Suitland, as the site is a separate entity from the other General Services Administration (GSA)-specific agencies at the Suitland Federal Center.

However, the general observations concerning base conditions and the work setting mentioned in the SFC-TMP did apply to the NSF Suitland site. To ensure that the modal split and commuting pattern goals for NSF Suitland are met, this TMP document was developed independent of the SFC-TMP to include several necessary and complementary strategies.

This update to the 2019 NSF Suitland TMP enhances the efforts already underway at the installation to increase mobility options for those traveling to the facility, decrease the use of single occupancy vehicles and reduce the impact of travelers to NSF Suitland on the surrounding community. The updated TMP will be executed concurrently with the NSF Suitland ADP, providing an opportunity for the TMP to reflect any anticipated mission changes and growth at NSF Suitland.

The location of the SFC and NSF Suitland is shown in Figure 1.1.



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Figure 1.1 Location of NSF Suitland and the Suitland Federal Center



October 2025. Sources: Marstel-Day/The Diallo Group Planning Team, NAVFAC, ESRI Basemaps, 2025

2.0 CURRENT CONDITIONS

2.1 Site Characteristics

NSF Suitland is located on a 41-acre site at the SFC in Suitland, Maryland, two miles southeast of Washington, DC. Suitland, located in Prince George's County, is an unincorporated town. In 1941, the federal government acquired 437 acres of wooded farmland for the construction of federal office space to supplement federal offices in the District of Columbia; 226 acres of this parcel now are in use as the SFC. The NSF Suitland campus is owned and operated by Naval Support Activity Washington (NSAW), and the campus is a separate operation from the other federal uses of the SFC that are managed by the GSA. Other tenants at the Suitland Federal Center include GSA, the Department of Commerce (Census Bureau and National Oceanographic and Atmospheric Administration (NOAA)), Washington National Records Center (WNRC), and National Archives and Records Administration. The regional site location of the SFC campus is shown in Figure 2.1.

NSF Suitland has its own security fences and gates separate from the SFC fences and gates. Structures on the NSF Suitland site include the main building, a pass office, two recreation pavilions, a fuel tank enclosure, two smoking shelters, a mechanical building, a basketball court, two volleyball courts, a communications building, and surface parking lots, and on-street parking areas. The facility also has a credit union, a fitness center, and a cafeteria to best serve its employees and staff. The NSF Suitland site is partially wooded, including wooded drainage courses to the east and west of the site, with some variation in topography.



Suitland Gateway Sign

Source: Marstel-Day/The Diallo Group Planning Team



Suitland Federal Center Directional Signage along Suitland Parkway

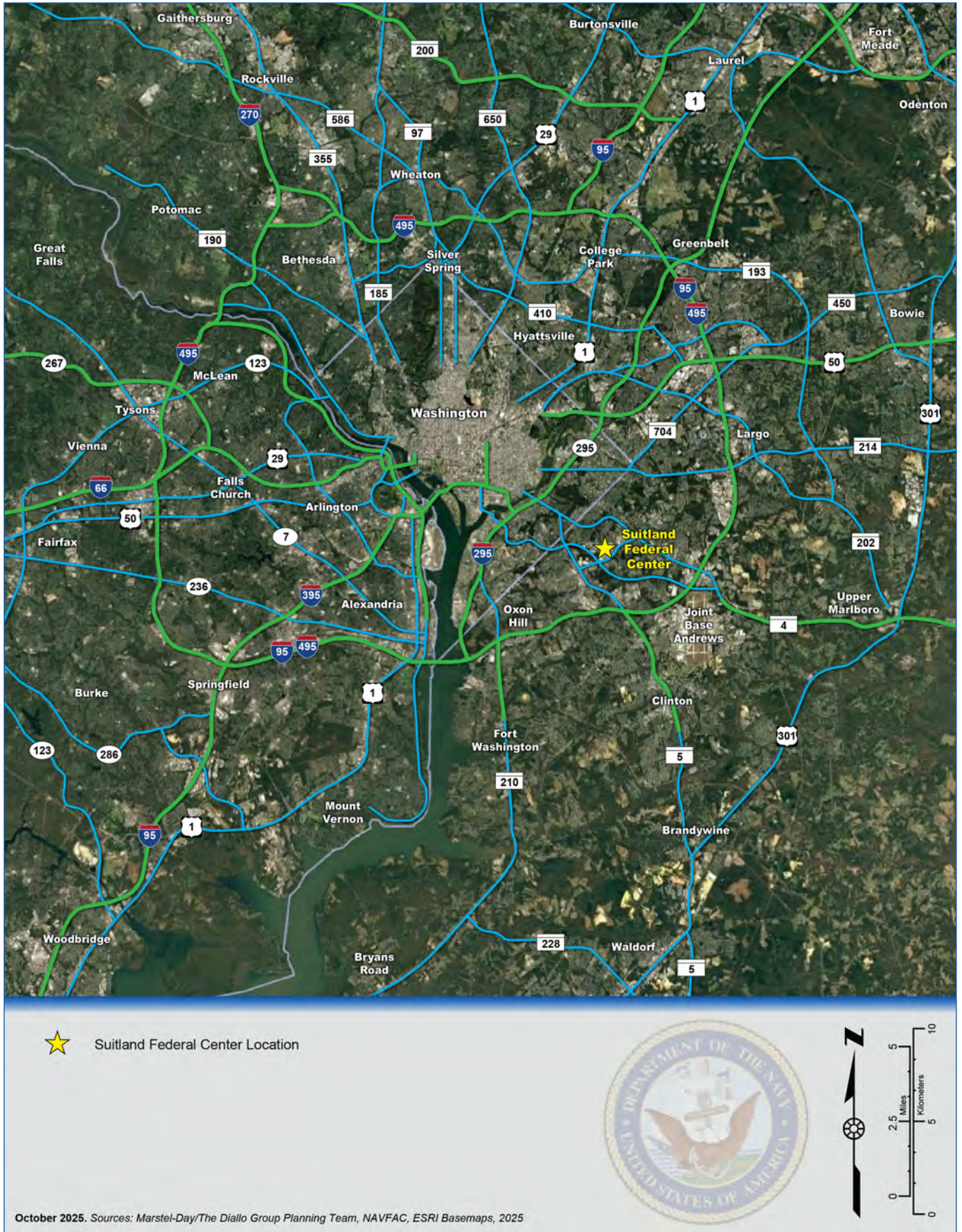
Source: Wikimedia Commons



NSF Suitland Looking South from Swann Road

Source: Marstel-Day/The Diallo Group Planning Team

Figure 2.1 Regional Site Location



2.2 Transportation Network and Facilities

The following section describes the transportation network and facilities of the NSF Suitland, SFC, and surrounding community.

2.2.1 Local Roadway Network

The SFC site is surrounded by an extensive network of major arterials and local roads: Silver Hill Road (MD Route 458), Suitland Parkway, Suitland Road (MD Route 218), Pennsylvania Avenue (MD Route 4), St. Barnabas Road (MD Route 414) and Branch Avenue (MD Route 5). NSF Suitland employees use a combination of these roads daily to get to the facility. The site is also approximately four miles from the Capital Beltway (I-95/I-495).

The following is a description of the roadway network surrounding the SFC site:

- **Suitland Parkway** – Suitland Parkway is a four-lane, limited access roadway with an average annual daily traffic (AADT) of approximately 39,500 vehicles per day (vpd). The road extends southeast to northwest from Pennsylvania Avenue (MD Route 4) to South Capitol Street in Washington, D.C. near the Frederick Douglass Memorial Bridge. Suitland Parkway is a scenic parkway, owned and maintained by the National Park Service (NPS). The roadway opened in 1943 during World War II to provide a connection between Joint Base Andrews (JBA) and Joint Base Anacostia-Bolling (JBAB). In 1995, the parkway was designated a historic site and is prohibited to commercial vehicles between the District line and its eastern terminus at Pennsylvania Avenue (MD Route 4). The posted speed limit for the Suitland Parkway is 50 miles per hour (mph).
- **Silver Hill Road (MD Route 458)** – Silver Hill Road is a six-lane divided principal arterial road with an AADT of approximately 43,000 vpd. The road extends southwest to northeast between Branch Avenue to Walker Mill Road, providing access to Marlow Heights, Silver Hill, Suitland, and District Heights. The posted speed limit of Silver Hill Road is 35 mph.

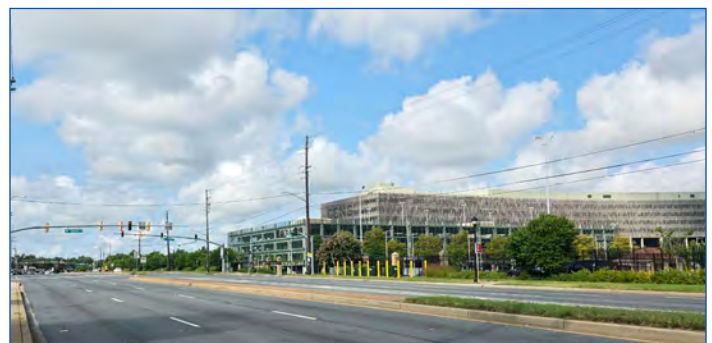
- **Suitland Road (MD Route 218)** – Suitland Road is a three-lane minor arterial road with an AADT of 18,000 vpd. The road extends from southeast to northwest from Allentown Road (MD Route 337) near JBA to Alabama Avenue in southeast Washington, D.C., providing access to Morningside, Suitland, and the Hillcrest area of Washington, D.C. The posted speed limit for Suitland Road is 30 mph.
- **Swann Road** – Swann Road is the main road through the SFC. The roadway varies from two to four lanes. The main entry point to the SFC is located along Swann Road at Silver Hill Road. Another connection to the SFC is provided along Swann Road at Suitland Road. East of the federal campus, Swann Road continues southeast, providing access to residential communities. The speed limit on Swann Road within the SFC is 20 mph.

The roadway network surrounding the SFC is shown in Figure 2.2.



Suitland Parkway Westbound

Source: Marstel-Day/The Diallo Group Planning Team



Silver Hill Road (MD 458) Looking Southwest

Source: Marstel-Day/The Diallo Group Planning Team

Figure 2.2 Surrounding Roadway Network



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2.2.2 Suitland Federal Center Site Access and Vehicular Circulation

NSF Suitland employees can access the SFC through five secured vehicular entrance gates or through one pedestrian gate. The pedestrian gate provides pedestrian access to/from the Suitland Metrorail Station.

The primary vehicular access point is via the main gate (Gate 5) along Swann Road at Silver Hill Road. Gate 5 is open to vehicular traffic seven days a week, 24 hours a day. Visitors must access the SFC at Gate 5. There are additional vehicular access points along Suitland Road.

Gate 0 is at the northernmost corner of the SFC campus and direct access is provided to the National Archives WNRC. This gate also functions at the main truck access and delivery inspection point.

Gate 1 is located along Suitland Road between Arnold Road and Shadyside Avenue and is currently not in use.

Gate 2 is located along Suitland Road just east of Shadyside Avenue and is currently not in use.

Gates 3 and 4 are located adjacent to one another along Suitland Road at Rose Park Drive. Gate 3 only provides peak period access. Gate 4 provides direct access to the surface parking lot behind the Suitland Green.

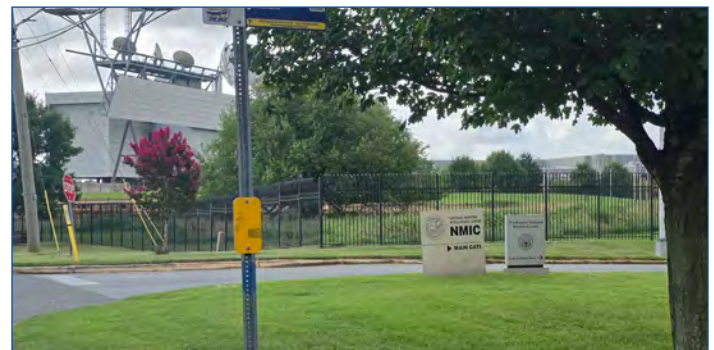
Gate 6 is located along Silver Hill Road approximately 220 feet southwest of Gate 5 and is currently not in use.

Gate 7 is a pedestrian-only gate located northeast of the Suitland Metro Station, providing a direct connection between the station and the SFC campus.

The access points, and days and hours of operation are shown in Table 2.1. The locations of the SFC vehicular and pedestrian access points are shown in Figure 2.3.

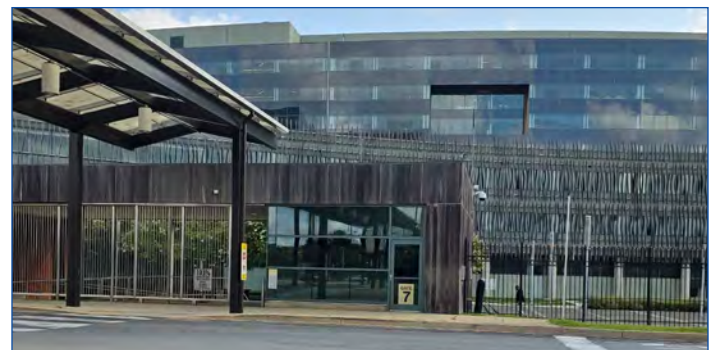
Table 2.1 Suitland Federal Center Access Points Hours of Operation

Gate	Hours of Operation
0	Monday – Friday; 5:00 AM – 6:30 PM
1	Not Used
2	Not Used
3	Monday – Friday; 6:30 AM – 9:30 AM and 3:30 PM – 6:30 PM
4	Monday – Friday; 6:30 AM – 6:30 PM
5	Seven Days a Week; 24 hours a Day
6	Not Used
7	Monday – Friday; 5:30 AM – 11:00 PM and Saturday – Sunday; 7:00 AM – 10:00 PM



NMIC Directional Sign from eastbound Suitland Road Near SFC Gate 0

Source: Marstel-Day/The Diallo Group Planning Team



Suitland Federal Center Gate 7

Source: Marstel-Day/The Diallo Group Planning Team

2.2.3 NSF Suitland Site Access and Vehicle Circulation

Once through the perimeter gates of the SFC, employees and visitors of NSF Suitland can reach the installation via Swann Road. All vehicular traffic must enter the installation through the Primary Access Gate located at the northwest quadrant of the campus. The Staff Access Gate is located at the northeast quadrant of the facility and is open for badged pedestrians only via a turnstile. Visitors to NSF Suitland must enter the SFC through the Gate 5, then proceed to the NSF Suitland visitors’ entrance at the Primary Access Gate.

Vehicular circulation within the NSF Suitland site is accomplished via an internal loop road extending from the Primary Access Gate to the Staff Access Gate, terminating at Swann Road at both ends. The hours of operation of the NSF Suitland access points are shown in Table 2.2 and internal vehicular circulation and location of the gates are shown in Figure 2.4.

Table 2.2 Suitland Federal Center Access Points Hours of Operation

Gate	Hours of Operation
Primary Access Gate	Seven Days a Week; 24 hours a Day
Staff Access Gate	Open for Badged Pedestrians Only



NSF Suitland Staff Access Gate

Source: Marstel-Day/The Diallo Group Planning Team

Figure 2.3 Suitland Federal Center Roadway Network and Gate Locations



Figure 2.4 NSF Suitland Access Gate Locations and Internal Vehicular Circulation



2.2.4 Pedestrian Facilities

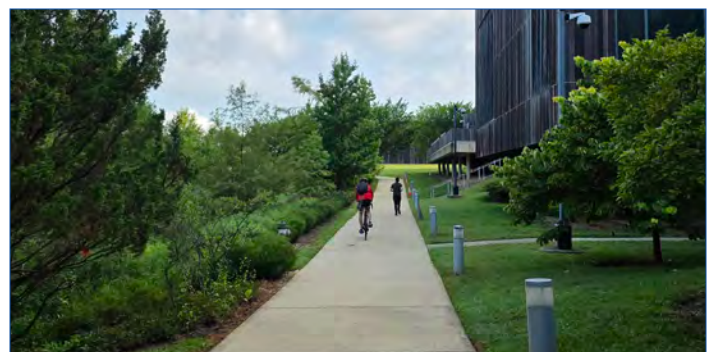
Within the NSF Suitland campus, sidewalks are located alongside the internal loop road, providing a connection between the parking areas and the main facility. The sidewalks along the loop road connect to sidewalks along Swann Road outside of the campus, providing a connection to the rest of the SFC.

Outside of the NSF Suitland installation, a partial sidewalk along the south-side of Swann Road and crosswalks provide pedestrian connectivity within the SFC. A pedestrian path, located along the west side of the Census Bureau, provides a connection between the Suitland Metro Station and Swann Road. This path provides a twenty-minute walk from the Metro Station fare-gates to the entrance of the NSF Suitland installation, however it is longer than the guidance in the NCPC Transportation Element of the Comprehensive Plan for the 1:3 parking ratio. Sidewalks within the SFC are generally in good condition and there are very few missing links. However, north and east of NSF Suitland, the sidewalk along the north-side of Swann Road is not continuous, as there is a missing link between the driveway for Gate 1 and Federal Center Lane. In addition, many crosswalks at the SFC are not up to Manual on Uniform Traffic Control Devices (MUTCD)¹ standards for design and proper widths as the crosswalk should be a minimum of six-feet wide and marked with solid white lines. Many crosswalks at the SFC are less than the minimum width and are painted yellow, which typically indicates a school crossing. There are also missing crosswalks at desired crossing locations for pedestrians along Swann Road.



Sidewalk and Bus Shelter Along Swann Road Adjacent to NSF Suitland

Source: Marstel-Day/The Diallo Group Planning Team



Pedestrian Path to Suitland Metrorail Station

Source: Marstel-Day/The Diallo Group Planning Team

Beyond the SFC, while sidewalks exist, the roadways are largely catered to automobile access. Sidewalks along both sides of Silver Hill Road are continuous. However, on the east-side of Silver Hill Road, the sidewalk is frequently interrupted by vehicular driveways and there is no buffer between the sidewalk and the roadway. Adjacent to the SFC along the south-side of Suitland Road, the sidewalk extends only between the Gate 2 and the Suitland Road and Silver Hill Road intersection. On the north-side of Suitland Road, there is no buffer between the sidewalk and the roadway, and it is interrupted by numerous vehicular driveways. Within the adjacent Towne Square at Suitland Federal Center development, sidewalks include buffers, however within the surrounding community, sidewalks are discontinuous or non-existent. Sidewalks along Swann Road outside of the SFC have been upgraded to include Americans with Disabilities Act (ADA) ramps.

Pedestrian facilities at NSF Suitland, the SFC, and vicinity are shown on Figure 2.5.

There are several locations within, and in the vicinity of the SFC that are accessible by foot from the NSF Suitland campus. These locations include other parking facilities at the SFC, Gate 1/Suitland Road, Gate 5/Silver Hill Road, Towne Square at Suitland Federal Center and Suitland Metro Station. It should be noted that the NSF Suitland ADP proposes a new path and pedestrian gate near the middle of eastern fence of the NSF Suitland campus to reduce the walking time and distance between the campus and the Suitland Metro Station. The walking times and distances between these locations and NSF Suitland are shown on Figure 2.6.

¹ Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) is published by the Federal Highway Administration (FHWA) and defines the standards used nationwide to install and maintain traffic control devices on all public streets, highways, bike-ways, and private roads open to public travel.

2.2.5 Bicycle Facilities

Bicycle facilities are provided at NSF Suitland. A bike rack with a capacity of 15 bicycles is provided outside of the main facility. Bicyclists may shower and change clothing at the fitness center within the NSF Suitland campus. The roadways within the SFC are favorable for biking because of the low posted speed limits. However, there are no exclusive painted bike lanes along Swann Road within the SFC. There are several off-road paths for pedestrians and bicyclists at the SFC.

Outside of the SFC, bicycle facilities are limited in the surrounding community. The Suitland Parkway is designated as a recreational green-way in the Maryland Atlas of Greenways. This roadway provides a direct travel route from the District of Columbia and points west, including Arlington, Alexandria, and Fairfax County, Virginia, to Suitland and points east in Maryland. The Suitland Parkway bike trail in the District of Columbia terminates abruptly at Southern Avenue at the border with Maryland. There is no off-road bike trail alongside the Suitland Parkway in Maryland and the roadway is not favorable to cycling as cyclists would have to share the roadway, with a posted speed limit of 50 mph with motor vehicles. From the District of Columbia-Maryland border, bicyclists traveling to NSF Suitland must continue travel on vehicular roadways to reach the SFC. Southern Avenue and other roads in the vicinity of the installation are not particularly conducive to biking, as these streets have many curb cuts, no exclusive bike lanes, fair to poor pavement conditions and high posted speed limits.

Designated bicycle facilities in the vicinity of the SFC include dedicated shoulder-use bicycle lanes along Suitland Road and Swann Road, and a shared-use on-road motor vehicle-bicycle lane (sharrow) along the right lane of both directions of Silver Hill Road. However, the high posted speed limit along Silver Hill Road is not favorable for biking.

Bicycle facilities at NSF Suitland, the Suitland Federal Center, and vicinity are shown on Figure 2.5.



Dedicated Bike Lane Along Suitland Road
 Source: Marstel-Day/The Diallo Group Planning Team



Sharrow Along Silver Hill Road
 Source: Marstel-Day/The Diallo Group Planning Team



Bicyclist on Silver Hill Road
 Source: Marstel-Day/The Diallo Group Planning Team

Figure 2.5 Pedestrian and Bicycle Facilities



Figure 2.6 Pedestrian Walk Times and Distances



2.2.6 Transit Facilities

The SFC and the surrounding community is well served by transit, which provides local and regional transit connections.

The Suitland Metrorail Station is located north of Suitland Parkway and west of Silver Hill Road, adjacent to the SFC. The station is served by the Washington Metropolitan Area Transit Authority's (WMATA) Green Line, providing a connection between Suitland, MD (Branch Avenue Station) and Greenbelt, MD via downtown Washington, DC. The Station has 10 bike racks, 20 bike lockers and a parking structure for 1,890 vehicles. The average weekday ridership at the Suitland Metrorail Station is 3,259 boarding's per day, through July 2025. NSF Suitland employees using Metrorail can access the facility by walking through the pedestrian gate, Gate 7, and using the pedestrian path located along the west side of the Census Bureau.

The SFC is also served by eight WMATA Metrobus routes, two local "The Bus" routes, and two Maryland Transit Administration (MTA) regional commuter bus routes at the Suitland Metrorail Station and along Silver Hill Road and Suitland Road. Figure 2.7 identifies the Suitland Metrorail Station and major transit routes and stops in the vicinity of the SFC. Transit service information is shown in Table 2.3.

Even though the SFC is located adjacent to the Suitland Metro Station, NSF Suitland's location within the SFC makes the walking distance from the Metro Station to the Staff Access Gate (by way of the pedestrian path) to be approximately 4,400 feet. This is much further than the distance outlined in the NCPD Transportation Element (2,000 feet) as reasonable for suburban areas. Due to the distance between NSF Suitland and the Suitland Metro Station, shuttle service is provided for employees.

Table 2.3 Transit Service Information

Transit Agency	Route	Route Name	Key Destinations	Weekday Peak Service Frequency
WMATA (Metrorail)	Green Line	Branch Ave - Greenbelt	Navy Yard - Ballpark L'Enfant Plaza Gallery Place Fort Totten College Park - U of Md	Every 8 - 10 minutes
WMATA (Metrobus)	P60	MLK Highway - Suitland	District Heights Addison Road Metro Station New Carrollton Metro Station	Every 12 minutes
	P61	Glenarden - Suitland	Morgan Boulevard Metro Station Northwest Stadium New Carrollton Metro Station	Every 30 minutes
	P66	Forestville - Suitland	Centre at Forestville Penn Mar Shopping Center	Every 15 - 30 minutes
	P87	Brinkley Road	Joint Base Andrews Oxon Hill Park & Ride	Every 30 minutes
	P90	St Barnabas Road	National Harbor King Street - Old Town Metro Station	Every 15 - 30 minutes
	P93	Suitland - Birchwood	Southern Avenue Metro Station Eastover Shopping Center	Every 24 minutes
	P94	Suitland - National Harbor	Southern Avenue Metro Station National Harbor	Every 24 minutes
	P96	Suitland - Oxon Hill	The Shops at Iverson Tanger Outlets	Every 30 minutes
PG County Transit "The Bus"	P64	Suitland - Downtown Largo	Penn Mar Shopping Center Hampton Mall	Every 30 minutes
	P83	Naylor Road - Suitland	The Shops at Iverson Carriage Hill Apartments Capital Crossing Apartments	Every 20 minutes
MTA Commuter Bus	735	Charlotte Hall/Waldorf - Washington, DC	Golden Beach Park & Ride Regency Furniture Stadium Brandywine Park & Ride	Every 35 - 60 minutes
	850	Prince Frederick/Dunkirk - Washington, DC	Prince Frederick Park & Ride Dunkirk Park & Ride Wayson's Corner Park & Ride	Every 60 minutes



Bus Bays at the Suitland Metro Station
Source: Marstel-Day/The Diallo Group Planning Team



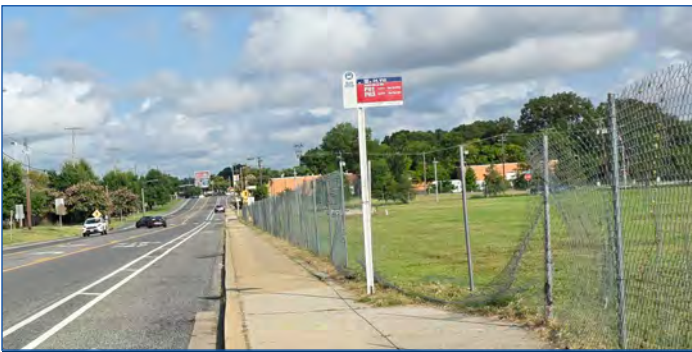
Commuter Bus and Metrobus Approaching the Suitland Metro Station
Source: Marstel-Day/The Diallo Group Planning Team



Covered Path to SFC Gate 7 from Suitland Metro Station
Source: Marstel-Day/The Diallo Group Planning Team



Passenger Boarding Bus Along Silver Hill Road (MD 458) at Swann Road
Source: Marstel-Day/The Diallo Group Planning Team

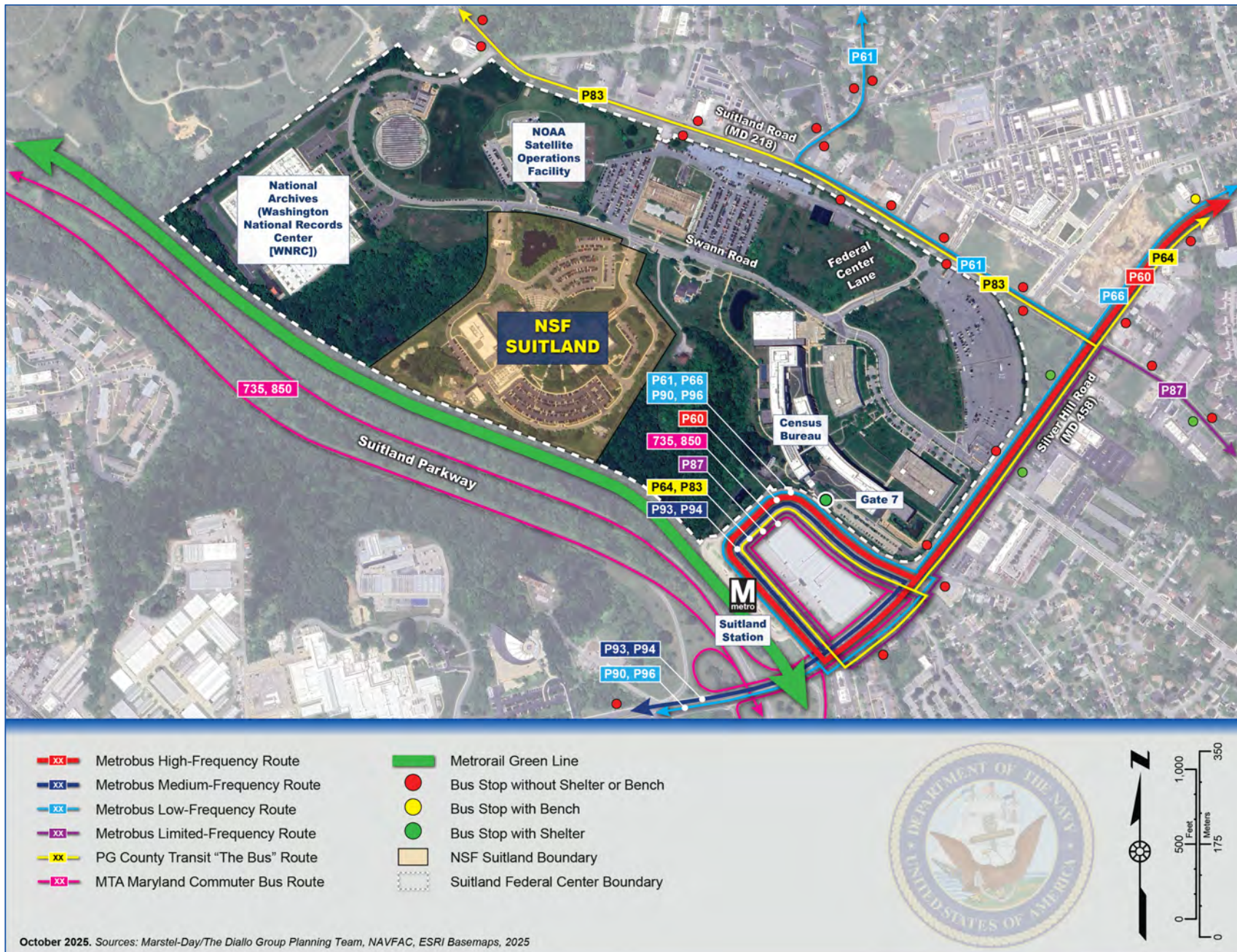


Bus Stop Along Suitland Road (MD 218)
Source: Marstel-Day/The Diallo Group Planning Team



NMIC Shuttle Along Swann Road
Source: Marstel-Day/The Diallo Group Planning Team

Figure 2.7 Transit Routes and Facilities



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2.2.7 Parking

NSF Suitland facility has several parking areas for employees and visitors. As of August 2025, the existing number of parking spaces within the installation's fence line is 850 parking spaces (including 779 parking spaces for employees) and 1,077 leased parking spaces within the SFC provided through an agreement with GSA) for a total of 1,927 parking spaces. There is additional on-street parking along Swann Road within the SFC for all employees and visitors. On any given day, there are upwards of 360 visitors for conferences and events at NSF Suitland, thereby displacing several employee parking spaces. A summary of the parking supply as of August 2025 is shown on Table 2.4.

The former parking garage was originally constructed in 1993. Through the years, the structure experienced severe corrosion and deterioration with interim repairs made to address cracks, holes, gaps, and exposed rebar in the concrete. However, the garage became impossible to maintain or renovate, therefore reaching the end of its operable and safe service life. Garage closures began in December 2018 with a complete closure of the upper level occurring in May 2019. The remaining portion of the garage closed in the spring of 2020 and was demolished in 2022. NSF Suitland permitted employee parking areas and allocations are shown on Figure 2.10.

NSF Suitland supports more than 4,000 military personnel, civilian, mobilized reservists, and contractor personnel. It also supports up to 1,000 additional employees during surges (due to mission changes or National Emergencies). Additionally, NSF Suitland hosts conferences for the North Atlantic Treaty Organization (NATO) and other allies. On any given day, there could be 300 visitors for conferences, and over 60 daily visitors for non-conference purposes.

Department of Defense (DoD) regulation, via the Unified Facilities Criteria (UFC), provides instruction by which Navy/ Marine Corps real property managers calculate vehicular parking requirement. As NSF Suitland is an administrative facility, it is allotted parking for 70% of its personnel and 75% for government or operational vehicles. According to DoD regulation, the total number of employee parking spaces needed for administrative personnel of 4,000 is 2,800 employee parking spaces (70% of administrative personnel).

However, NCPC guidance restricts the employee parking ratio at NSF Suitland to 1 space for every 3 employees (1:3). With all of NSF Suitland's current parking inventory (including leased spaces), the existing parking ratio is 1:2.16.

Parking has been identified as the primary concern at NSF Suitland. As Table 2.4 indicates, the parking ratio is approximately 1 parking space for every 2.16 employees. Parking data was collected as a part of the Employee Transportation Survey. (The methodology of the Employee Transportation Survey is discussed in Section 5.1). Due to the insufficient amount of parking spaces for employees, it typically takes an employee more than 2 minutes to find an open parking space in the morning once arriving to the NSF Suitland campus, as shown in Figure 2.8. The availability of open parking spaces within the NSF Suitland fence line is typically limited after 7:30 AM as parking facilities are generally 90% full by late morning. Many employees avoid moving their vehicles during the midday to avoid the risk of not finding an open parking space, as shown in Figure 2.9.

Table 2.4 Current NSF Suitland Parking Supply and Ratio as of August 2025

Parking Area / Description	Number of Parking Spaces	Permitted Employee Parking Spaces	Current Employee Parking Ratio
Visitor's (North) Parking Lot	15	0	1 space : 2.16 employees (1:2.16)
Executive Parking Pass Only Lot	56	0	
New Surface Lot (Former Garage)	391	391	
Perimeter (Loop Road)	66	66	
D-Wing	50	50	
Front Lot	222	222	
Carpool Lot	50	50	
TOTAL INTERNAL SPACES	850	779	
Lot 1 (GSA Leased)	112	112	
Lot 3 (GSA Leased)	673	673	
Gravel Lot (GSA Leased)	251	251	
Swann Road	41	41	
TOTAL EXTERNAL AND LEASED SPACES	1,077	1,077	
TOTAL SPACES	1,927	1,856	

Figure 2.8 Typical Time to Find an Open Parking Space – Morning *

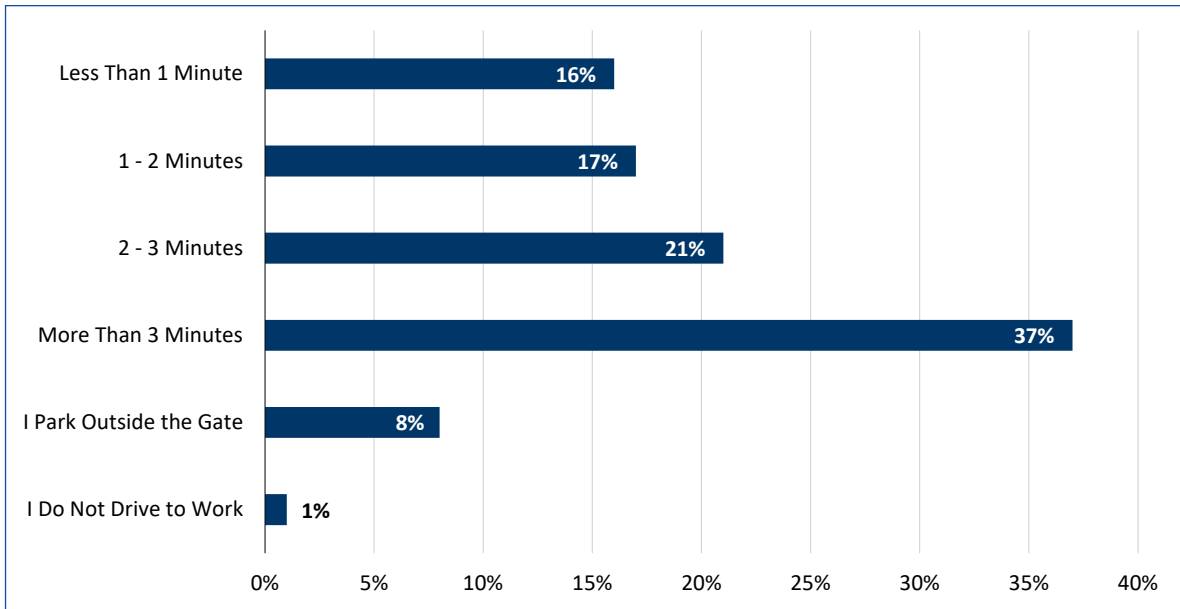
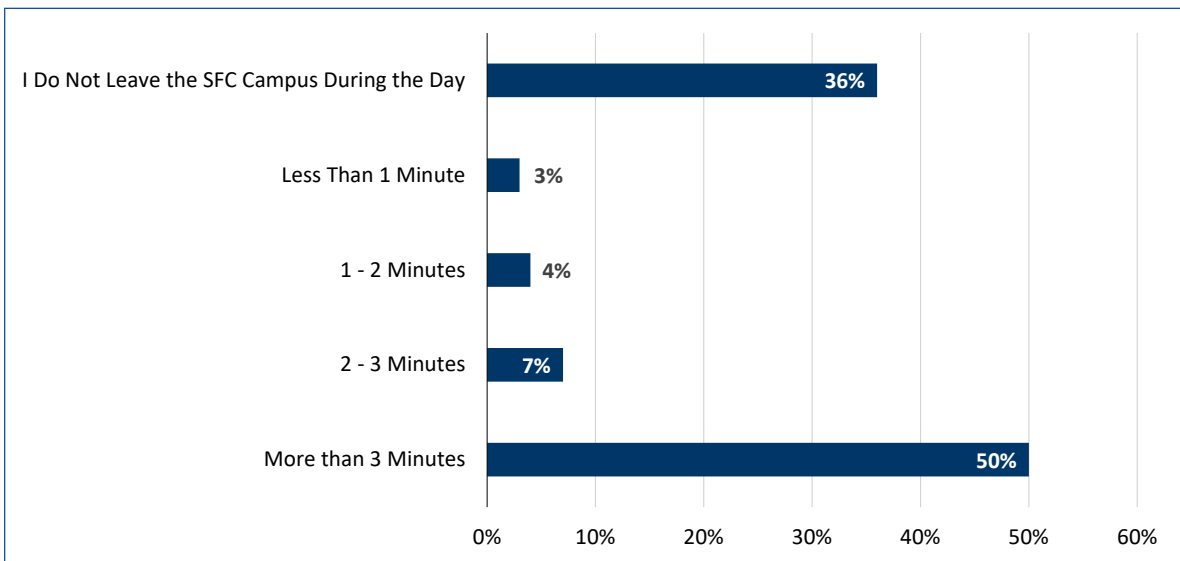


Figure 2.9 Typical Time to Find an Open Parking Space – Midday *



* Parking data was collected as a part of the Employee Transportation Survey. The methodology of the Employee Transportation Survey is discussed in Section 5.1.

Short-term and long-term plans for replacement parking are being developed, with the desire to have a replacement parking garage in the future. For the traffic analyses for future conditions, this document assumes that all long-term replacement parking will be facilitated within the fence-line of the NSF Suitland campus. However, the current course

of action (COA) for replacement parking at NSF Suitland includes the continued lease of parking spaces on existing surface lots on the SFC until a replacement parking garage can be programmed and constructed. This document also does not discuss options or provide recommendations for proposed replacement parking facilities.

Figure 2.10 NSF Suitland Employee Permitted Parking Locations and Allocations



3.0 EXISTING TRAFFIC CONDITIONS

A key measure of effectiveness of a TMP is an analysis of the operation and capacity of the surrounding roadway network. The following factors will be used to measure the success of existing and proposed TMP strategies:

- Peak Hour Vehicle Trips
- Average Vehicle Occupancy
- Intersection Level of Service
- Peak Parking Utilization

Collected traffic data, lane configuration and number of lanes were used to analyze intersection operations.

3.1 Existing Peak Hour Trips

The existing number of lanes, lane configuration, and collected traffic data were used to analyze intersection operations. The existing traffic volumes are comprised of vehicle turning movement data collected on Wednesday, February 5, 2025, at 15-minute intervals between 5:00 AM – 9:00 AM and 2:00 PM – 6:00 PM. Mid-week typically experiences the heaviest traffic volume.

Vehicle turning count movement data was collected at the following intersections:

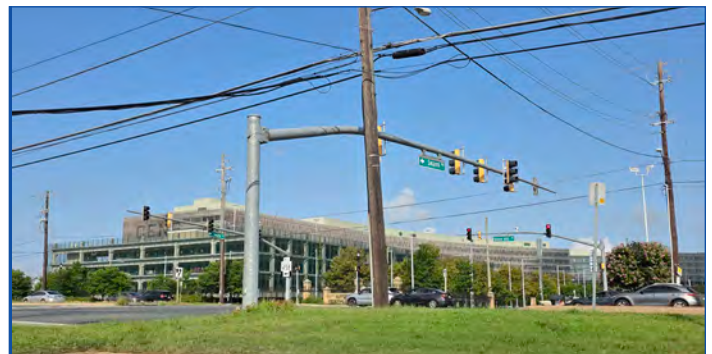
1. Suitland Rd. (MD 218) & Swann Rd. (Gate 0)
2. Suitland Rd. (MD 218) & (Gate 1)
3. Suitland Rd. (MD 218) & Federal Center Ln. (Gate 4)
4. Swann Rd. & NSF Suitland Primary Gate Driveway
5. Swann Rd. & NSF Staff Gate Driveway
6. Swann Rd. & Federal Center Ln. / Census North Garage Driveway
7. Silver Hill Rd. (MD 458) & Pennsylvania Ave. (MD 4)
8. Silver Hill Rd. (MD 458) & Suitland Rd. (MD 218)
9. Silver Hill Rd. (MD 458) & Swann Rd. (Gate 5)
10. Silver Hill Rd. (MD 458) & Navy Day Dr. / North Metro Station Driveway
11. Silver Hill Rd. (MD 458) & South Metro Station Driveway / Northbound Suitland Pkwy. Off-ramp

The existing lane configurations and traffic controls (signals and signage) observed at the study intersections during the time of traffic data collection are shown on Figure 3.1 and Figure 3.2.

The vehicle turning movement data indicate that there are separate peak hours within in the study area:

- An earlier peak hour for commuters traveling through the NSF Suitland vehicle gate (NSF Suitland Peak Hour).
- A later peak hour for vehicles traveling through study area intersections external to the installation and the SFC (External Commuter Peak Hour).

These separate peak hours are due to the early arrival and departure times of NSF Suitland employees. Therefore, most NSF Suitland employees travel to, and leave from the installation at times earlier than the peak hour for the surrounding roadways. As a result, the portion of NSF Suitland employees incorporated into the external commuter peak hour volumes along Silver Hill Road (MD 458), Suitland Road (MD 218), and surrounding roadways is minimal. Consequently, increases in commuter traffic due to employee growth at NSF Suitland are not expected to significantly increase traffic volumes on the surrounding external roadway network during the typical peak hours.



Silver Hill Road (MD 458) and Swann Road Intersection
Source: Marstel-Day/The Diallo Group Planning Team

3.1.1 NSF Suitland Peak Hour

At NSF Suitland, the primary access gate is currently the sole means of vehicular entry and exit for military personnel, civilians, contractors, retirees, and visitors. Congestion at the gate is caused by a high volume of vehicles arriving to the entry control point to be processed according to installation security requirements. The vehicle checkpoint and processing time limits the number of vehicles that can enter the installation during peak hours, resulting in delays, congestion, and vehicle queuing. Currently, the gate experiences congestion and delays during the morning peak hour.

The NSF Suitland peak hour consists of the greatest number of vehicle entries and exits during four consecutive 15-minute intervals through the NSF Suitland vehicular gate in the morning, and afternoon. The NSF Suitland peak hours were determined to be:

- AM Peak – 5:45 AM – 6:45 AM (375 vehicle entries through the vehicular gate)
- PM Peak – 2:00 PM – 3:00 PM (284 vehicle exits through the vehicular gate)

Table 3.1 Vehicle **ENTRIES** at NSF Suitland Vehicular Gate (Morning)

Time	Vehicle Entries (AM)
5:00 AM - 5:15 AM	13
5:15 AM - 5:30 AM	40
5:30 AM - 5:45 AM	52
5:45 AM - 6:00 AM	90
6:00 AM - 6:15 AM	87
6:15 AM - 6:30 AM	97
6:30 AM - 6:45 AM	101
6:45 AM - 7:00 AM	71
7:00 AM - 7:15 AM	24
7:15 AM - 7:30 AM	20
7:30 AM - 7:45 AM	16
7:45 AM - 8:00 AM	8
8:00 AM - 8:15 AM	12
8:15 AM - 8:30 AM	8
8:30 AM - 8:45 AM	11
8:45 AM - 9:00 AM	10
AM TOTAL	660

The **RED** shaded area represents the peak hour at the NSF Suitland vehicular gate.
 Source: Traffic counts conducted on Wednesday, February 5, 2025.

The NSF Suitland peak hour represents the greatest traffic impact on the road network immediately adjacent to the installation.

The number of morning vehicular entries and afternoon vehicular exits through the NSF Suitland vehicular gate on the date of traffic data collection are shown on Table 3.1 and Table 3.2, respectively.

During the morning, more than 90 percent of NSF Suitland commuters who used the vehicular gate to enter the installation turned left from westbound Swann Road, with the majority entering the SFC through Gate 5 from Silver Hill Road (MD 458).

In the afternoon, more than 90 percent of NSF Suitland commuters, who exited the installation through the vehicular gate, turned right onto eastbound Swann Road towards Silver Hill Road (MD 458).

The existing intersection traffic volumes for the NSF Suitland morning and afternoon peak hours are shown on Figure 3.3 and Figure 3.4.

Table 3.2 Vehicle **EXITS** at NSF Suitland Vehicular Gate (Afternoon)

Time	Vehicle Entries (PM)
2:00 PM - 2:15 PM	81
2:15 PM - 2:30 PM	81
2:30 PM - 2:45 PM	65
2:45 PM - 3:00 PM	57
3:00 PM - 3:15 PM	76
3:15 PM - 3:30 PM	59
3:30 PM - 3:45 PM	55
3:45 PM - 4:00 PM	40
4:00 PM - 4:15 PM	59
4:15 PM - 4:30 PM	26
4:30 PM - 4:45 PM	33
4:45 PM - 5:00 PM	24
5:00 PM - 5:15 PM	24
5:15 PM - 5:30 PM	22
5:30 PM - 5:45 PM	13
5:45 PM - 6:00 PM	10
PM TOTAL	725

The **RED** shaded area represents the peak hour at the NSF Suitland vehicular gate.
 Source: Traffic counts conducted on Wednesday, February 5, 2025.

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Figure 3.1 Intersection Geometry (Intersections 1-6)

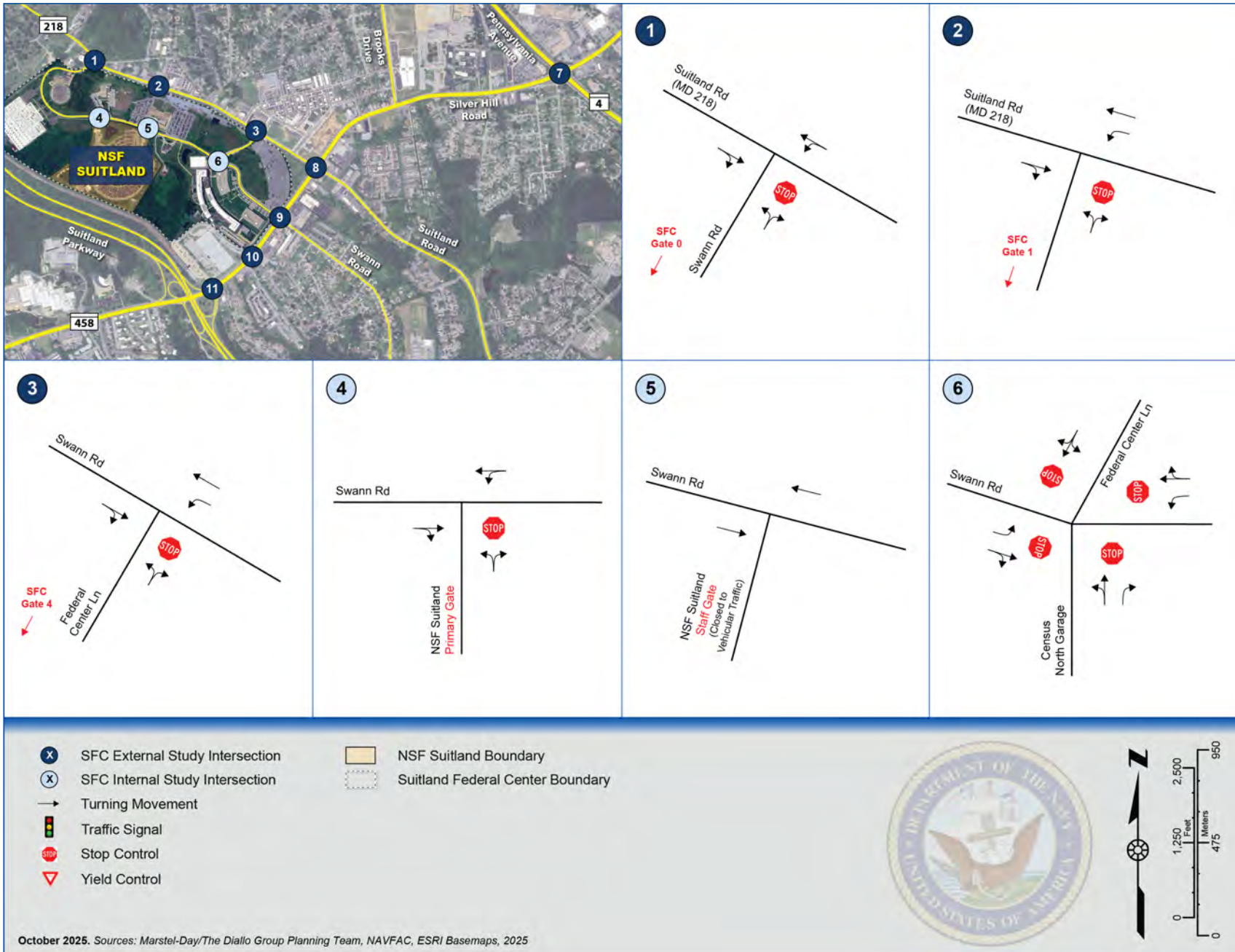


Figure 3.2 Intersection Geometry (Intersections 7-11)

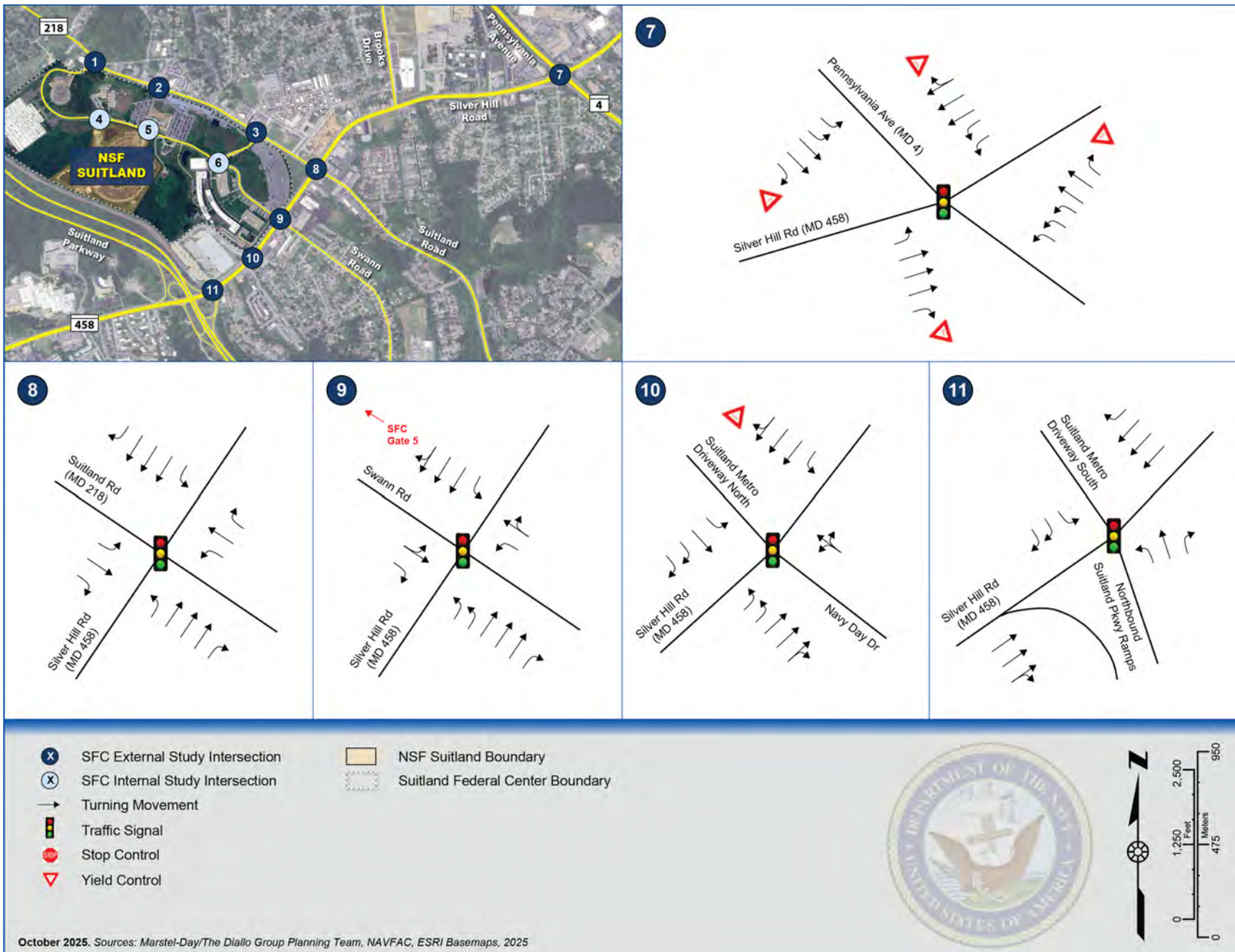


Figure 3.3 Existing (2025) Intersection Traffic Volumes (Intersections 1-6) (NSF Suitland Peak Hour)

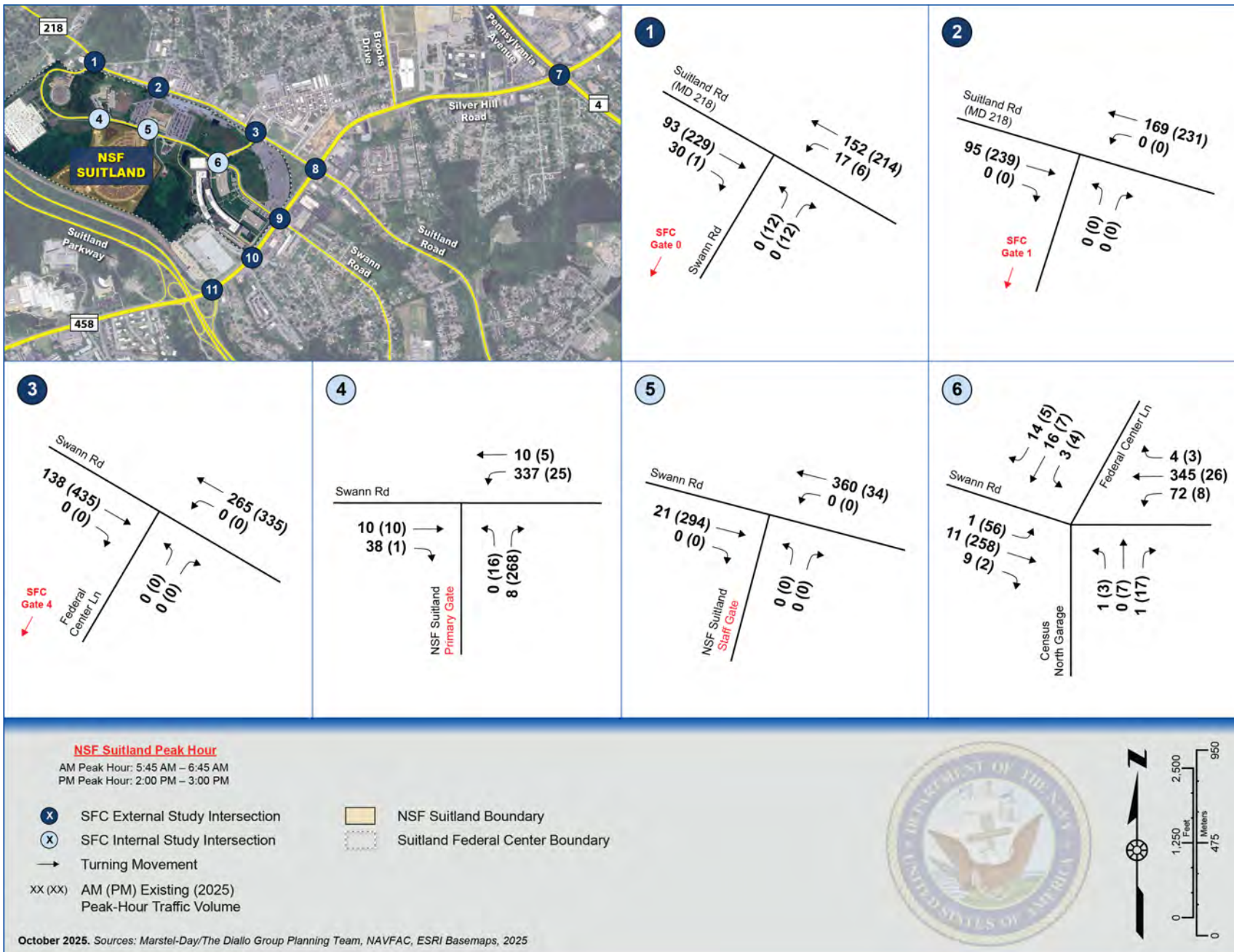
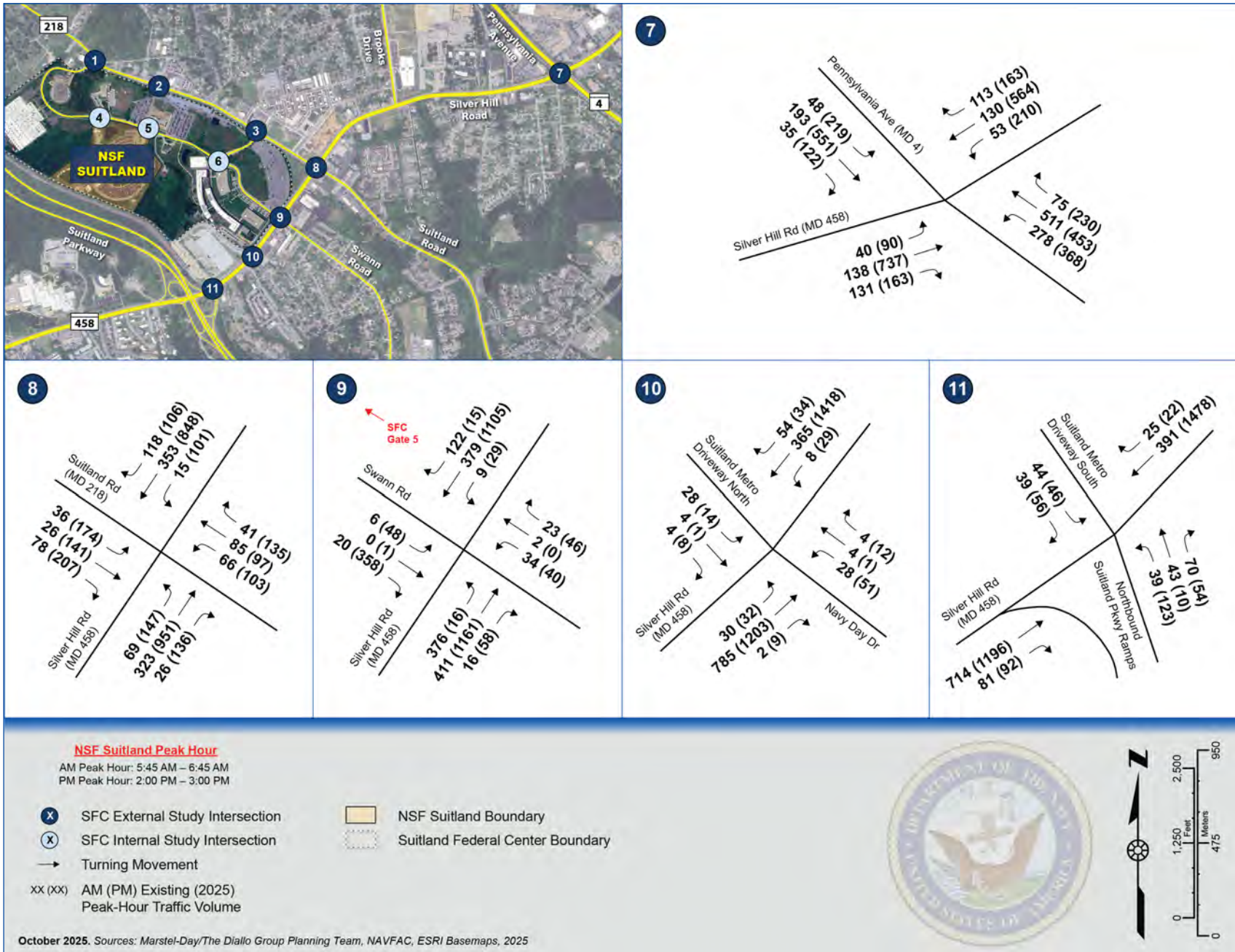


Figure 3.4 Existing (2025) Intersection Traffic Volumes (Intersections 7-11) (NSF Suitland Peak Hour)



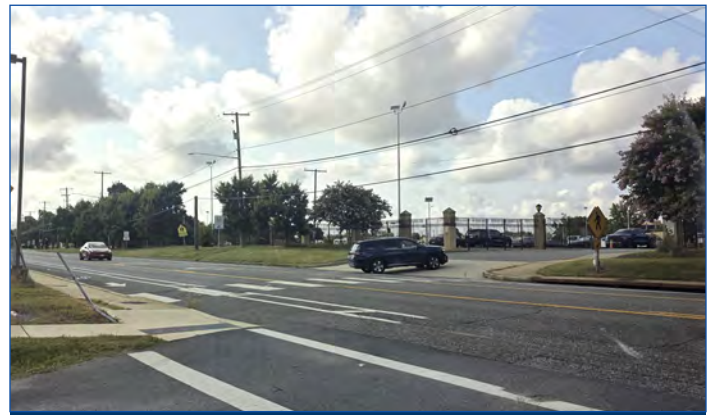
3.1.2 External Commuter Peak Hour

The External Commuter Peak Hour is based on the period of the heaviest traffic volume along Silver Hill Road (MD 458), the main thoroughfare within the study area, during four consecutive 15-minute intervals in the morning and afternoon. The External Commuter Peak hours were determined to be.

- AM Peak – 8:00 AM – 9:00 AM
- PM Peak – 4:15 PM – 5:15 PM

The External Commuter Peak Hour represents the period of the heaviest traffic volume within the study area. It should be noted that heavy traffic volume is also experienced within the study area at times other than the NSF Suitland and External Commuter Peak Hours.

The existing intersection traffic volumes for the External Commuter Peak Hour morning and afternoon peak hours are shown on Figure 3.5 and Figure 3.6.



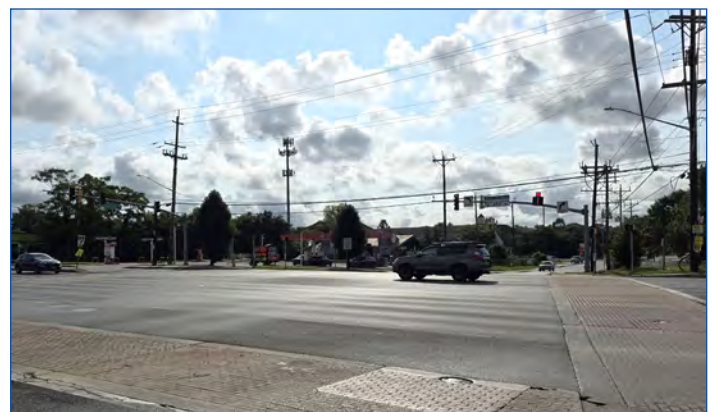
Suitland Road (MD 218) Between SFC Gate 3 and Gate 4

Source: Marstel-Day/The Diallo Group Planning Team



Silver Hill Road (MD 458) and Pennsylvania Avenue (MD 4) Intersection

Source: Marstel-Day/The Diallo Group Planning Team



Silver Hill Road (MD 458) and Suitland Road (MD 218) Intersection

Source: Marstel-Day/The Diallo Group Planning Team

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Figure 3.5 Existing (2025) Intersection Traffic Volumes (Intersections 1-6) (External Commuter Peak Hour)

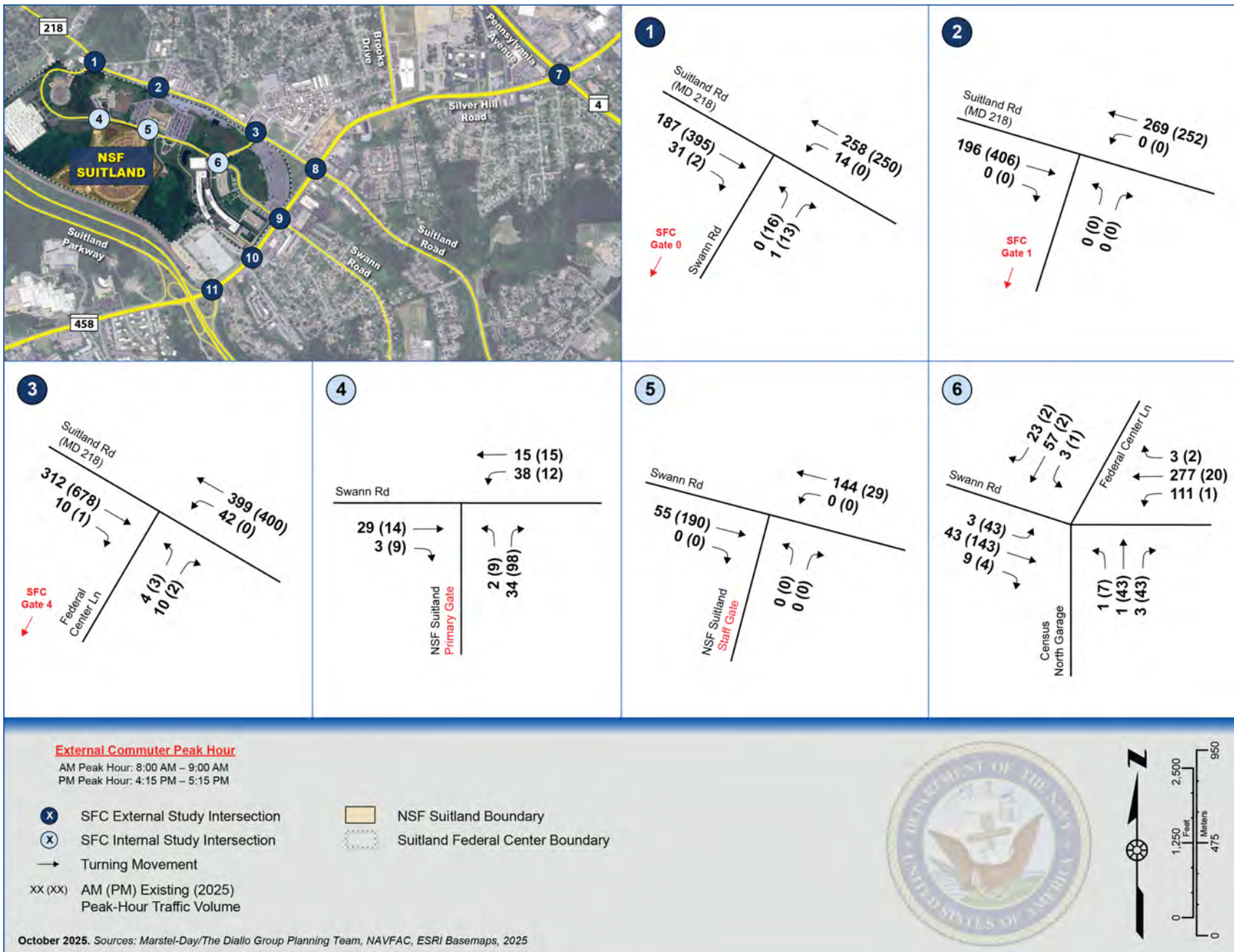
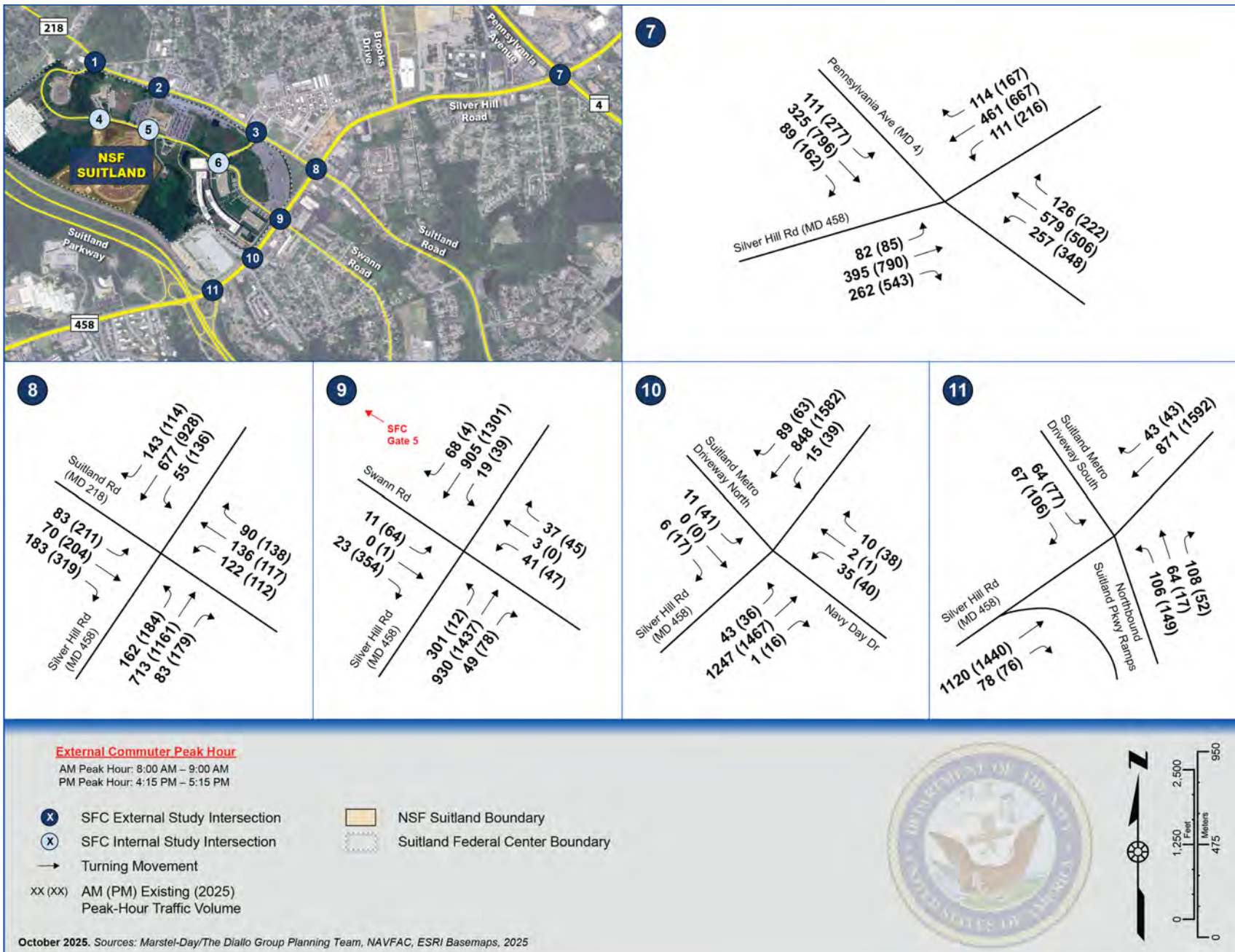


Figure 3.6 Existing (2025) Intersection Traffic Volumes (Intersections 7-11) (External Commuter Peak Hour)



3.2 Existing Intersection Capacity Level of Service Analysis

The existing traffic data was analyzed to determine existing intersection level of service (LOS) and capacity.

LOS is measured on a scale of A through F, with LOS A representing the best operating conditions with little or no delay. LOS A through D are considered acceptable conditions. Chronic congestion appears at LOS D and intersection capacity is reached at LOS E. Saturation occurs at LOS F, representing the worst conditions, with unacceptable delay and extreme congestion. LOS E and F are considered unacceptable conditions.

There are several variables that may affect the LOS of an intersection:

- Traffic signal phasing, timing, and coordination
- Traffic volume
- Number of left-turning vehicles
- Bicycle and pedestrians

The LOS was determined using critical lane volume (CLV) methodology for intersections external to the SFC and Highway Capacity Manual (HCM) methodology for all signalized and unsignalized intersections.

Table 3.3 Critical Lane Volume (CLV) Thresholds

Critical Lane Volume (CLV)	Level of Service (LOS)	General Description
0 - 1,000	A	Free Flow
1,001 - 1,150	B	Stable Flow (Slight Delays)
1,151 - 1,300	C	Restricted but Stable Flow
1,301 - 1,450	D	Approaching Unstable Flow (Chronic Congestion Appears)
1,451 - 1,600	E	Unstable Flow (Capacity Reached)
1,601 and over	F	Forced Flow (Congested and Queues Fail to Clear)

Source: Highway Capacity Manual, Transportation Research Board

3.2.1 Existing Critical Lane Volume Analysis

To understand traffic operations at the signalized study intersections, a capacity analysis was conducted to determine the volume to capacity (v/c) ratio using critical lane volume methodology. The v/c ratio represents the adequacy of an intersection to accommodate the vehicular demand. A v/c ratio less than 0.85 generally indicates that enough capacity is available, and vehicles are not expected to experience significant queuing and delays. As the v/c ratio approaches 1.0, traffic flow may become unstable, and delay and queuing conditions may occur. Once the v/c ratio exceeds 1.0, vehicle demand exceeds roadway capacity and traffic flow is unstable, resulting in excessive delay and queuing.

This methodology follows the parameters established by Prince George's County and the Maryland-National Capital Park and Planning Commission (M-NCPCC) and accepted by the Maryland State Highway Administration (SHA), in which the critical intersection volume movements are compared to a theoretical capacity level of vehicles per hour. NSF Suitland and the SFC are located within the Suitland Metro Regional Transit District in Prince George's County, therefore, a CLV of 1,600 and LOS E is accepted as the minimum standard for roadway network and intersection capacity for signalized intersections, as shown in Table 3.3.

The CLV analysis considers lane configuration, as shown in Figure 3.1 and Figure 3.2, and traffic volumes, as shown in Figure 3.3 through Figure 3.6. A summary of the CLV, volume to capacity ratio, and LOS for signalized study intersections under Existing (2025) Conditions is shown in Table 3.4 for the NSF Suitland peak hour and Table 3.5 for the External Commuter peak hour. The CLV LOS summary is shown graphically Figure 3.7 for the NSF Suitland Peak Hour and Figure 3.8 for the External Commuter Peak Hour.

The traffic analysis indicates that during the NSF Suitland Peak Hour and External Commuter Peak Hour under Existing (2025) Conditions using CLV methodology, all external intersections operate below CLV thresholds.

Table 3.4 Existing (2025) Conditions – CLV, V/C Ratio, and LOS Summary (NSF Suitland Peak Hour)

Study Intersection	AM Peak Hour 5:45 AM - 6:45 AM			PM Peak Hour 2:00 PM - 3:00 PM		
	CLV	V/C	LOS	CLV	V/C	LOS
	1 Suitland Road (MD 218) & Swann Road (Gate 0)	169	0.11	A	260	0.16
2 Suitland Road (MD 218) & Gate 1	169	0.11	A	239	0.15	A
3 Suitland Road (MD 218) & Federal Center Lane (Gate 4)	265	0.17	A	435	0.27	A
4 Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-
5 Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-
6 Swann Road & Federal Center Lane/Census North Garage Driveway	-	-	-	-	-	-
7 Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	426	0.27	A	842	0.53	A
8 Silver Hill Road (MD 458) & Suitland Road (MD 218)	313	0.20	A	915	0.57	A
9 Silver Hill Road (MD 458) & Swann Road	425	0.27	A	553	0.35	A
10 Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	347	0.22	A	614	0.38	A
11 Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	368	0.23	A	684	0.43	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

Table 3.5 Existing (2025) Conditions – CLV, V/C Ratio, and LOS Summary (External Commuter Peak Hour)

Study Intersection	AM Peak Hour 8:00 AM - 9:00 AM			PM Peak Hour 4:15 PM - 5:15 PM		
	CLV	V/C	LOS	CLV	V/C	LOS
	1 Suitland Road (MD 218) & Swann Road (Gate 0)	273	0.17	A	426	0.27
2 Suitland Road (MD 218) & Gate 1	269	0.17	A	406	0.25	A
3 Suitland Road (MD 218) & Federal Center Lane (Gate 4)	413	0.26	A	684	0.43	A
4 Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-
5 Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-
6 Swann Road & Federal Center Lane/Census North Garage Driveway	-	-	-	-	-	-
7 Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	660	0.41	A	985	0.62	A
8 Silver Hill Road (MD 458) & Suitland Road (MD 218)	630	0.39	A	1149	0.72	B
9 Silver Hill Road (MD 458) & Swann Road	547	0.34	A	683	0.43	A
10 Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	528	0.33	A	728	0.46	A
11 Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	583	0.36	A	774	0.48	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

Figure 3.7 Existing (2025) Conditions – LOS Summary (CLV Method) (NSF Suitland Peak Hour)



Figure 3.8 Existing (2025) Conditions – LOS Summary (CLV Method) (External Commuter Peak Hour)



3.2.2 Highway Capacity Manual Analysis

HCM methodology was used to analyze the unsignalized study intersections and provides a secondary analysis for signalized intersections. For HCM, LOS and average control delay are the measures of effectiveness. Control delay quantifies the time (in seconds) it takes for a vehicle to travel through an intersection based on the type of intersection control. It is measured by comparing the travel time through the same intersection without the use of intersection controls (absence of a stop sign, for example) for free-flowing conditions. A signalized intersection is considered to have acceptable operations if no movement within the intersection exceeds 55.0 seconds of delay time or LOS D or better. An unsignalized intersection is considered to have acceptable operations if no movement within the intersection exceeds 50.0 seconds of delay time or LOS E or better. The level of service criteria for the HCM method is shown on Table 3.6.

Table 3.6 Level of Service Criteria for Unsignalized Intersections

Level of Service (LOS)	Signalized Intersections – Control Delay (sec)	Un-signalized Intersections – Control Delay (sec)	General Description
A	≤ 10	0 - 10	Free Flow
B	> 10 - 20	> 10 - 15	Stable Flow (Slight Delays)
C	> 20 - 35	> 15 - 25	Restricted but Stable Flow
D	> 35 - 55	> 25 - 35	Approaching Unstable Flow (Chronic Congestion Appears)
E	> 55 - 80	> 35 - 50	Unstable Flow (Capacity Reached)
F	> 80	> 50	Forced Flow (Congested and Queues Fail to Clear)

Source: Highway Capacity Manual, Transportation Research Board

It should be noted that at unsignalized intersections, the movement with the highest delay is reported, regardless of how many vehicles are in that respective movement. The delay reported may not represent the overall operations of an intersection, as certain movements with low traffic volumes have large delays, which have a negative effect on the LOS and the intersection could be operating much better than the LOS output indicates.

A summary of the average control delay and LOS for all study intersections under Existing (2025) Conditions using the HCM method is shown in Table 3.7 and Figure 3.9 for NSF Suitland peak hours, and Table 3.8 and Figure 3.10 for the External Commuter Peak Hour.

The traffic analysis indicates that during the NSF Suitland Peak Hour and External Commuter Peak Hour, all signalized and unsignalized intersections, including access to the NSF Suitland vehicular gate, operate at acceptable levels during the morning and afternoon under Existing (2025) Conditions using HCM methodology.

Delays along Swann Road approaching Silver Hill Road (MD 458) during the afternoon NSF Suitland Peak Hour and External Peak Hour are caused by conditions external to NSF Suitland and the SFC.

Table 3.7 Existing (2025) Conditions – LOS Summary (HCM Method) (NSF Suitland Peak Hour)

Study Intersection	Traffic Control ¹	AM Peak Hour 5:45 AM - 6:45 AM		PM Peak Hour 2:00 PM - 3:00 PM	
		Delay (sec) ²	LOS	Delay (sec) ²	LOS
1 Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	7.5	A	9.9	A
2 Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A
3 Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	0.0	A	0.0	A
4 Swann Road and NSF Suitland Primary Gate Driveway	SSSC	8.5	A	9.5	A
5 Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	0.0	A
6 Swann Road & Federal Center Lane/Census North Garage Driveway	AWSC	9.5	A	8.3	A
7 Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	19.5	B	28.4	C
8 Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	15.0	B	21.9	C
9 Silver Hill Road (MD 458) & Swann Road	Signal	8.8	A	10.7	B
10 Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	Signal	6.9	A	8.2	A
11 Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	Signal	12.8	B	14.8	B

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

Table 3.8 Existing (2025) Conditions – LOS Summary (HCM Method) (External Commuter Peak Hour)

Study Intersection	Traffic Control ¹	AM Peak Hour 8:00 AM - 9:00 AM		PM Peak Hour 4:15 PM - 5:15 PM	
		Delay (sec) ²	LOS	Delay (sec) ²	LOS
1 Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	9.2	A	11.0	B
2 Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A
3 Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	10.6	B	13.1	B
4 Swann Road & NSF Suitland Primary Gate Driveway	SSSC	9.2	A	8.9	A
5 Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	0.0	A
6 Swann Road & Federal Center Lane/Census North Garage Driveway	AWSC	8.9	A	8.8	A
7 Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	24.8	C	30.9	C
8 Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	19.4	B	25.4	C
9 Silver Hill Road (MD 458) & Swann Road	Signal	8.6	A	10.1	B
10 Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	Signal	8.5	A	10.1	B
11 Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	Signal	19.7	B	29.1	C

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

Figure 3.9 Existing (2025) Conditions – Level of Service Summary (HCM Method) (NSF Suitland Peak Hour)



Figure 3.10 Existing (2025) Conditions – Level of Service Summary (HCM Method) (External Commuter Peak Hour)



3.3 Vehicle Occupancy

Vehicle occupancy is a key measure of effectiveness of a TMP, as single occupancy vehicles are a primary contributor to traffic congestion. Occupancy counts for vehicles entering the installation were conducted at the Primary Access Gate at NSF Suitland on Wednesday, February 5 2025, between 5:00 AM – 9:00 AM. The vehicle occupancy summary at the NSF Suitland primary gate is shown on Table 3.9.

As mentioned previously, the NSF Suitland Peak Hour is the period in which the primary gate at NSF Suitland experiences the heaviest volume. During the NSF Suitland morning peak hour, there were a total of 660 vehicles entering the installation through the Primary Access Gate, with 92 percent being SOVs. The vast majority of these trips entered the installation through SFC Gate 5 from northbound Silver Hill Road (MD 458).

It should be noted that a full comparison cannot be made between the 2019 TMP and 2025 conditions as in 2019, the parking garage was still in operation and there were two vehicular access points onto the installation. The parking garage has since been demolished and there is currently a single vehicular access point onto the installation.



Shuttle Bus Servicing the Gravel Lot

Source: Marstel-Day/The Diallo Group Planning Team

Table 3.9 Vehicle Occupancy Summary

Time	Inbound Vehicles with 1 Person	Inbound Vehicles with 2 People	Inbound Vehicles with 3+ People
5:00 AM - 5:15 AM	12	1	0
5:15 AM - 5:30 AM	40	0	0
5:30 AM - 5:45 AM	48	3	1
5:45 AM - 6:00 AM	85	2	2
6:00 AM - 6:15 AM	84	3	0
6:15 AM - 6:30 AM	90	6	1
6:30 AM - 6:45 AM	96	4	1
6:45 AM - 7:00 AM	62	9	0
7:00 AM - 7:15 AM	19	4	1
7:15 AM - 7:30 AM	15	5	0
7:30 AM - 7:45 AM	13	3	1
7:45 AM - 8:00 AM	6	2	0
8:00 AM - 8:15 AM	10	2	0
8:15 AM - 8:30 AM	7	1	0
8:30 AM - 8:45 AM	11	0	0
8:45 AM - 9:00 AM	10	0	0

3.4 Parking Utilization

Parking utilization is a key measure of effectiveness of a TMP, as a high parking utilization could indicate a significant amount of SOVs on the installation. Parking utilization counts were conducted at 11 NSF Suitland permitted employee parking areas on Wednesday, February 5, 2025. Three data collection times were used (10:30 AM, 12:30 PM, and 2:30 PM) to capture parking utilization throughout the entire day. A parking utilization summary is shown on Table 3.10. The location of the permitted parking facilities at NSF Suitland is shown on Figure 2.10.

Parking utilization data reveals that typically, once NSF Suitland employees arrive to the installation in the morning, vehicles remain stationary until the afternoon commute.

Table 3.10 Parking Utilization Summary

Parking Facility	Percent of Parking Spaces Occupied		
	10:30 AM	12:30 PM	2:30 PM
New Surface Lot (Former Garage)	100%	99%	85%
Perimeter (Loop Road)	100%	100%	83%
D-Wing	100%	99%	84%
Front Lot	100%	100%	70%
Carpool Lot	100%	100%	90%
Lot 1 (GSA Leased)	27%	20%	20%
Lot 3 (GSA Leased)	89%	85%	70%
Gravel Lot (GSA Leased)	40%	39%	38%
Swann Road	100%	99%	80%

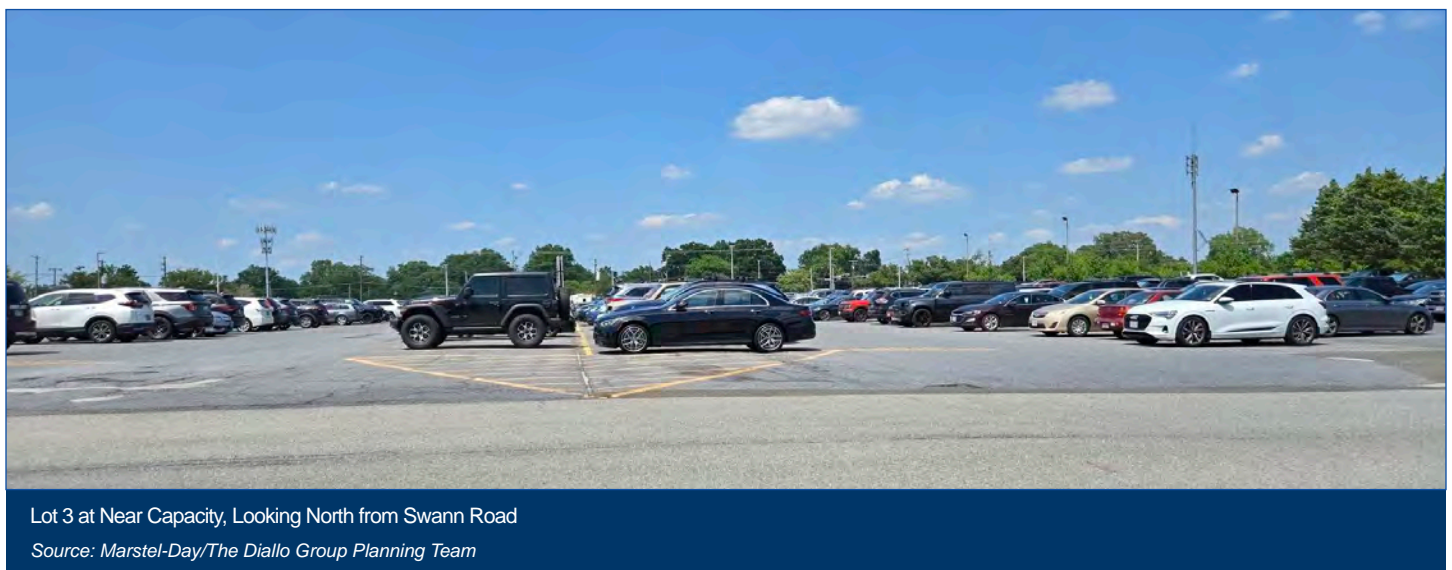
Text in **RED** indicates parking utilization over 95%.



Under-utilized Parking Spaces in the Gravel Lot
Source: Marstel-Day/The Diallo Group Planning Team



NMIC Permitted Parking Area in Lot 1
Source: Marstel-Day/The Diallo Group Planning Team



Lot 3 at Near Capacity, Looking North from Swann Road
Source: Marstel-Day/The Diallo Group Planning Team

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4.0 FUTURE TRAFFIC CONDITIONS

This section provides an assessment of future traffic conditions, as well as an analysis of the future roadway capacity at the study area intersections.

The traffic analysis in this study provides an update of future volumes, based on both anticipated growth in background traffic and projected traffic to and from the NSF Suitland. The traffic analysis included calculations of the growth in traffic volumes, the assumed mode share, and the distribution of vehicle trips to various routes.

Two scenarios were analyzed for future traffic conditions for NSF Suitland:

- Future Background (2035) Traffic Conditions (No Action)
 - » Represents the future traffic conditions of the roadway network assumed to be in place by 2035. Includes regional growth and background developments.
- Total Future (2035) Traffic Conditions (Action)
 - » Includes Future Background (2035) Conditions and anticipated growth at NSF Suitland.

4.1 Future Background (2035) Traffic Conditions (No Action)

The analysis of Future Background (2035) Traffic Conditions (No Action) consists of traffic generated by planned developments in the vicinity of NSF Suitland and the SFC, traffic rerouted due to background-related roadway improvements, and inherent regional traffic growth on nearby roadways by the year 2035. For Future Background (2035) Traffic Conditions, ONLY conditions external to the SFC are analyzed and assumes NO changes or improvements to the external roadway network. The analysis assumes NO change to the existing condition of the NSF Suitland employee population, resulting in no additional impacts on nearby roadways associated with NSF Suitland. The analysis also assumes NO changes to SFC site access or distribution of vehicular traffic within the campus.

Analysis of the Future Background (2035) Traffic Conditions will serve as the baseline for comparison to the Existing (2025) and Total Future (2035) Traffic Conditions.

4.1.1 Study Area Background Developments

Numerous external developments are planned within the study area. Towne Square at Suitland Federal Center is a mixed-used development immediately adjacent to the SFC. As of August 2025, 219 townhouses, 137 senior multi-family units, a 33,000-square-foot public plaza and a 36,000-square-foot neighborhood park have been constructed. The remainder of the proposed development consists of approximately 98,000 square feet of retail space, 538 market-rate multi-family residential units, and a 50,000-square-foot performing arts and technology center.

Additional background developments that were included in the analysis of Future Background (2035) Conditions are shown in Figure 4.1.

Projected background traffic and the distribution of traffic generated by planned external developments were applied to the Existing (2025) volumes.

4.1.2 Study Area Growth Projections

Since the previous NSF Suitland TMP Update, the COVID-19 pandemic dramatically affected traffic volumes and transit usage within the study area. There were mandated stay-at-home orders for all individuals living in the region, except for essential employees, local shopping, and other permitted errands. The resulting reduction in traffic volume has since stabilized and began to recover to pre-pandemic levels. This has been most prevalent following the January 2025 federal mandate terminating remote work arrangements for federal employees and requiring federal employees to return to in-person work.

To account for a potential increase in commuter and commercial traffic from neighboring areas, a conservative growth rate of one percent was applied to the existing traffic volumes. This growth rate was then adjusted per road segment to reflect localized traffic conditions more accurately. It should be noted that only external intersections during the morning and afternoon External Commuter Peak hour were analyzed under Future Background (2035) conditions, as this represents the period of the heaviest traffic volume within the study area.

Future Background (2035) projected intersection traffic volumes are shown on Figure 4.2 and Figure 4.3.

Figure 4.1 Background Developments



Figure 4.2 Future Background (2035) Projected Traffic Volumes (Intersections 1-6) (External Commuter Peak Hour)

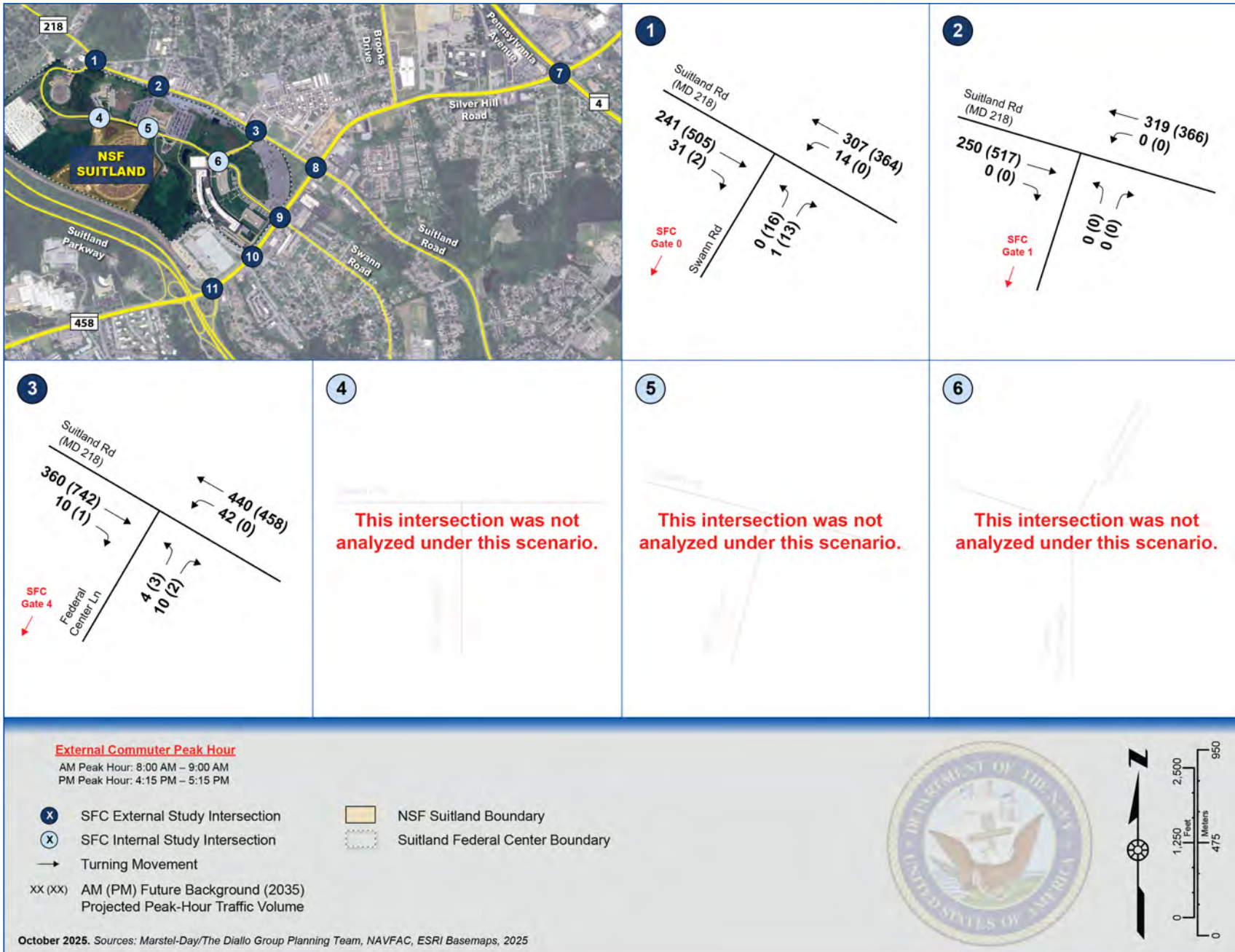
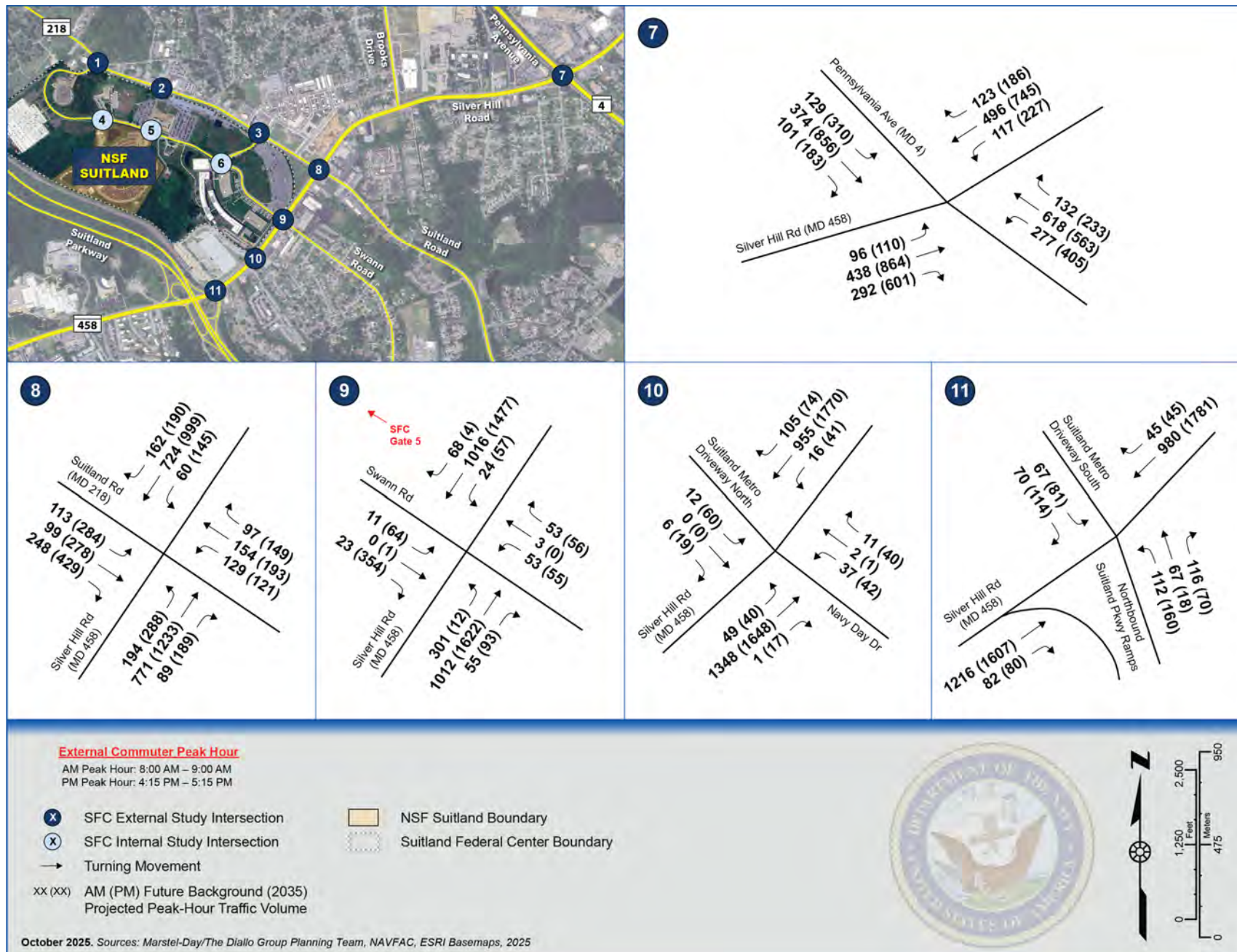


Figure 4.3 Future Background (2035) Projected Traffic Volumes (Intersections 7-11) (External Commuter Peak Hour)



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4.1.3 Future Background (2035) Traffic Conditions CLV Methodology Analysis

For the Future Background (2035) Traffic Conditions, the study intersections were analyzed using the same CLV methodology as the Existing (2025) Traffic Conditions. The CLV Summary for external intersections during the External Commuter Peak Hour under Future Background (2035) Conditions is shown on Table 4.1 and Figure 4.4. Even though there is a slight degradation of the LOS and an increase in the CLV at the study area intersections due to the inherent regional growth and planned development within the study area, the traffic analysis indicates that during the External Commuter Peak Hour, all SFC external intersections operate below CLV thresholds. The Silver Hill Road (MD 458) & Suitland Road (MD 218) intersection is projected to approach an unstable flow (LOS D) during the afternoon.

Table 4.1 Future Background (2035) Conditions – CLV, V/C Ratio, and LOS Summary (External Commuter Peak Hour)

	Study Intersection	AM Peak Hour 8:00 AM - 9:00 AM			PM Peak Hour 4:15 PM - 5:15 PM		
		CLV	V/C	LOS	CLV	V/C	LOS
1	Suitland Road (MD 218) & Swann Road (Gate 0)	322	0.20	A	538	0.34	A
2	Suitland Road (MD 218) & Gate 1	319	0.20	A	517	0.32	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	454	0.28	A	748	0.47	A
4	Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-
5	Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-
6	Swann Road & Federal Center Lane/Census North Garage Driveway	-	-	-	-	-	-
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	721	0.45	A	1090	0.68	B
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	724	0.45	A	1428	0.89	D
9	Silver Hill Road (MD 458) & Swann Road	604	0.38	A	692	0.43	A
10	Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	570	0.36	A	816	0.51	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	626	0.39	A	863	0.54	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

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Figure 4.4 Future Background (2035) Conditions – LOS Summary (CLV Method) (External Commuter Peak Hour)



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4.1.4 Future Background (2035) Traffic Conditions HCM Methodology Analysis

For the Future Background (2035) Traffic Conditions, the study intersections were analyzed using the same HCM methodology as the Existing (2025) Conditions. The LOS summary using the HCM method for the External Commuter Peak Hour under Future Background (2035) Conditions is shown on Table 4.2 and Figure 4.5. Even though there is a slight degradation of the LOS and an increase in the control delay at the study area intersections due to the inherent regional growth and planned development within the study area, the traffic analysis indicates that during the External Commuter Peak Hour, all intersections will operate at acceptable levels during the morning and afternoon.

With the addition of future background developments, employees traveling to NSF Suitland through these intersections will experience congestion and delays during the morning and afternoon peak periods. Vehicle queuing will remain prevalent for NSF Suitland employees using Suitland Road or Silver Hill Road (MD 458) to reach the facility during the morning peak period. Also, in the morning, employees of NSF Suitland will experience congestion along eastbound Silver Hill Road (MD 458) at the Metro Driveway South/NB Suitland Parkway Off-ramp intersection and employees will experience noticeable queuing along the northbound Suitland Parkway Off-ramp to turn right onto eastbound Silver Hill Road (MD 458). These locations for congestion and vehicle queuing will adversely affect the arrival time to the facility. During the afternoon peak period, congestion and delays will remain constant for NSF Suitland employees using eastbound Suitland Road (MD 218) or Silver Hill Road (MD 458) to leave the installation.

Table 4.2 Future Background (2035) Conditions – LOS Summary (HCM Method) (External Commuter Peak Hour)

Study Intersection	Traffic Control ¹	AM Peak Hour 8:00 AM - 9:00 AM		PM Peak Hour 4:15 PM - 5:15 PM	
		Delay (sec) ²	LOS	Delay (sec) ²	LOS
1 Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	9.5	A	12.0	B
2 Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A
3 Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	11.0	B	13.8	B
4 Swann Road & NSF Suitland Primary Gate Driveway	SSSC	-	-	-	-
5 Swann Road & NSF Suitland Staff Gate Driveway	SSSC	-	-	-	-
6 Swann Road & Federal Center Lane/Census North Garage Driveway	AWSC	-	-	-	-
7 Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	25.8	C	34.0	C
8 Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	22.2	C	32.2	C
9 Silver Hill Road (MD 458) & Swann Road	Signal	9.6	A	11.0	B
10 Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	Signal	9.6	A	11.8	B
11 Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	Signal	21.9	C	30.3	C

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

NOTE: Only intersections outside of the Suitland Federal Center were analyzed under the Future Background (2025) Conditions scenario.

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Figure 4.5 Future Background (2035) Conditions – LOS Summary (HCM Method) (External Commuter Peak Hour)



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4.2 Total Future (2035) Traffic Conditions (Action)

The analysis of Total Future (2035) Traffic Conditions (Action) consists of the projected traffic generated by the anticipated population growth at NSF Suitland, in addition to the traffic generated by inherent growth and background developments in the surrounding area.

To develop future NSF Suitland traffic growth projections, it was assumed that the installation will have a conservative estimated employee population growth rate of 0.5 percent per year through 2035. It should be noted that the rate of future long-term growth at NSF Suitland is uncertain and may vary depending on any future mission, policy, or economic changes.

For the Total Future (2035) Traffic Conditions analysis, it was assumed that vehicles arriving to and departing from NSF Suitland would use the same traffic patterns as the Existing (2025) Conditions. This methodology was used for the distribution of new installation traffic onto the roadway network. Following the existing morning arrival rate of the current NSF Suitland employee population, new vehicle trips were distributed proportionately over a three-hour morning period, as opposed to allowing all new vehicle trips to travel on the roadway network during the typical peak hour. These new trips were added to the inherent growth in the surrounding area to determine the total volume of traffic on the surrounding roadway network. As such, approximately 35 percent of the new trips would travel on the roadway network during the morning and afternoon peak hours. The remaining vehicle trips would travel to and from the installation during other times.

The analysis assumes no changes or improvements to the external roadway network. Total Future (2035) Traffic Conditions do not include potential reductions in SOV trips that may take place once additional Transportation Demand Management (TDM) measures are implemented.

It should be noted that only the morning and afternoon External Commuter Peak Hour was analyzed under Total Future (2035) Conditions as this represents the period of the heaviest traffic volume within the study area.

Total Future (2035) intersection traffic volumes are shown on Figure 4.6 and Figure 4.7.

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Figure 4.6 Total Future (2035) Projected Traffic Volumes (Intersections 1-6) (External Commuter Peak Hour)

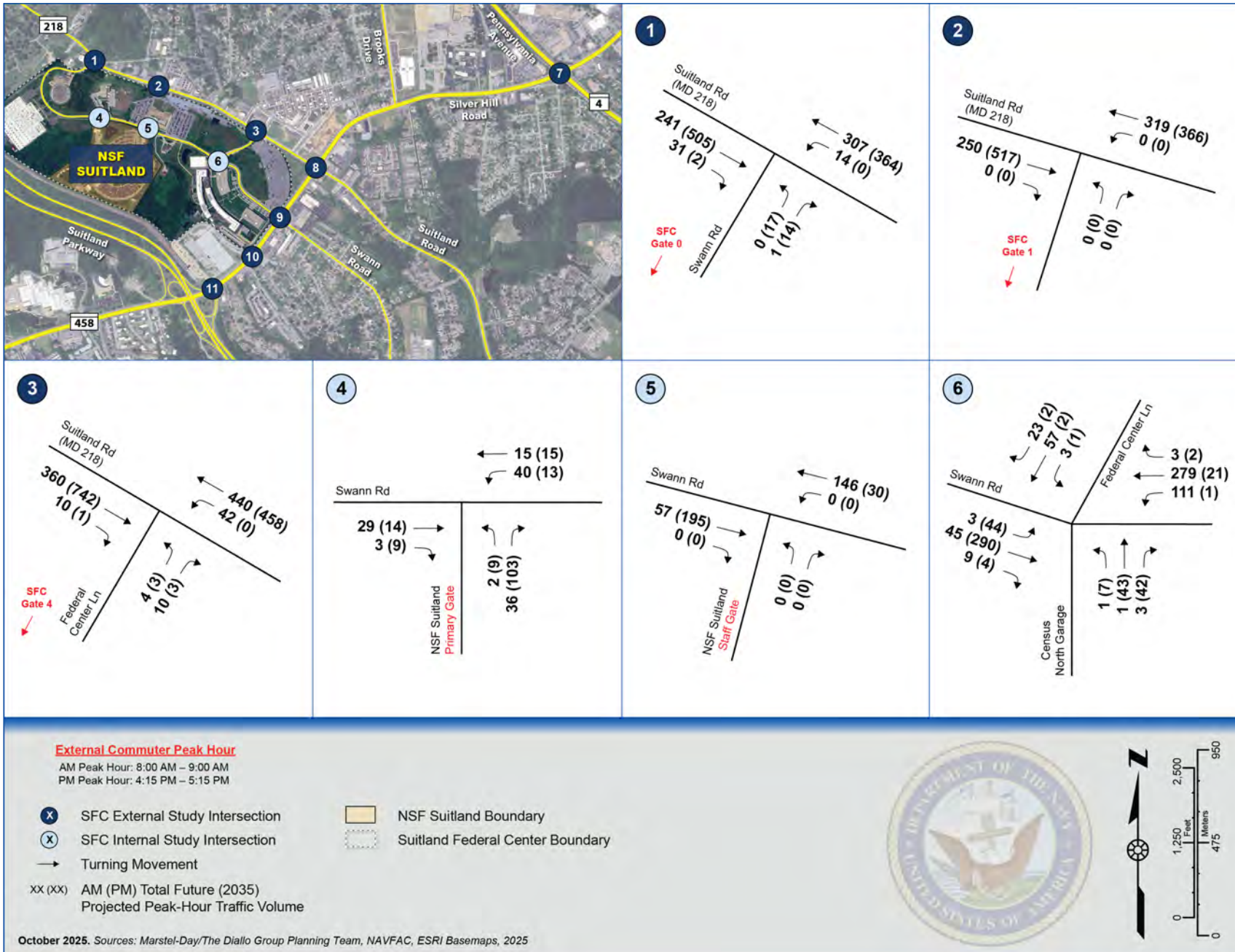
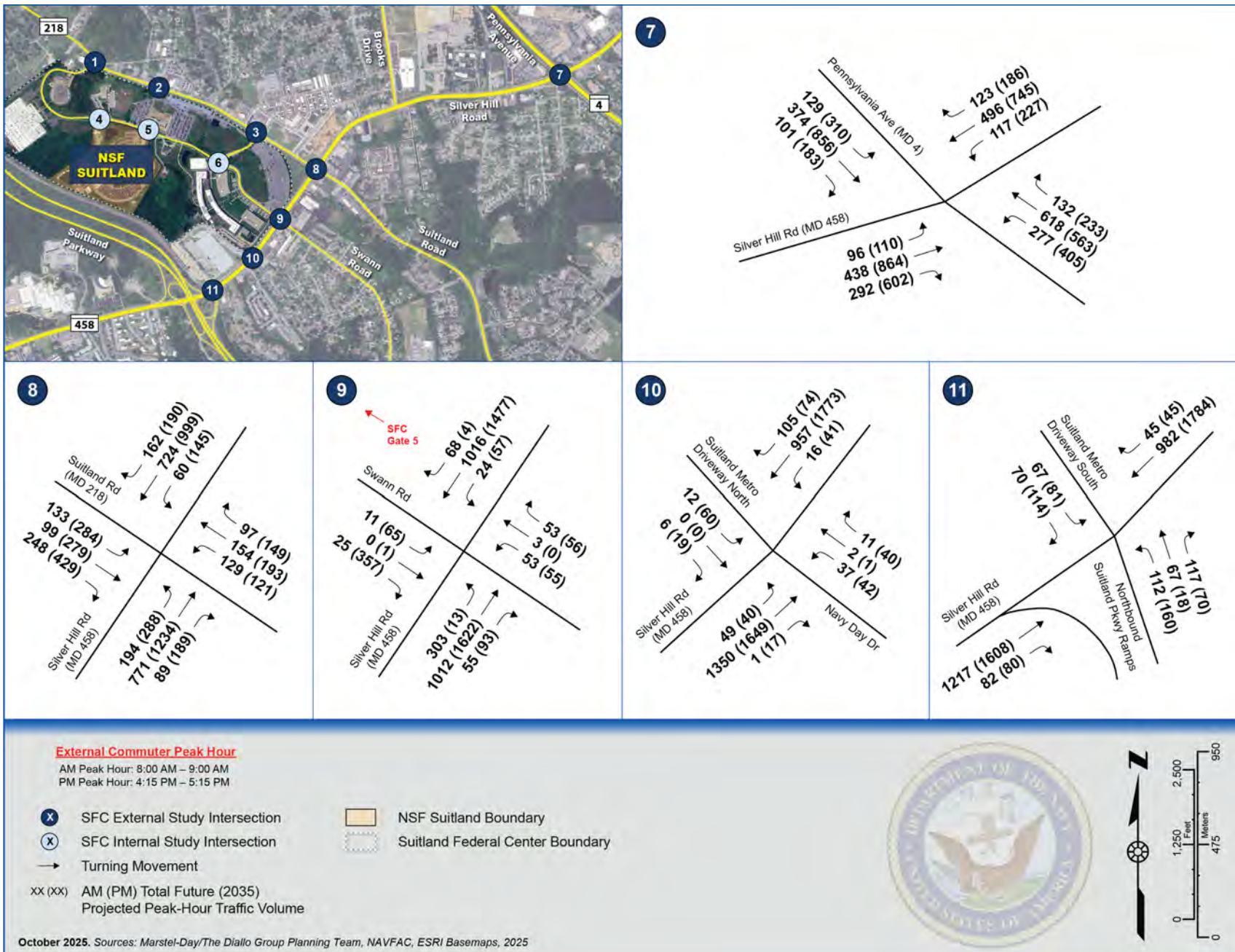


Figure 4.7 Total Future (2035) Projected Traffic Volumes (Intersections 7-11) (External Commuter Peak Hour)



4.2.1 Total Future (2035) Traffic Conditions CLV Methodology Analysis

For the Total Future (2035) Traffic Conditions, the study intersections were analyzed using the same CLV methodology as the Existing (2025) Conditions and the Future Background (2035) Traffic Conditions. The CLV Summary for Total Future (2035) Conditions is shown on Table 4.3 and Figure 4.8. With the addition of anticipated population growth at NSF Suitland, the traffic analysis indicates that during the External Commuter Peak Hour under Total Future (2035) Traffic Conditions, all SFC external intersections will operate similar to Future Background (2035) Traffic Conditions. The Silver Hill Road (MD 458) & Suitland Road (MD 218) intersection will continue to approach an unstable flow (LOS D) during the afternoon.

Table 4.3 Total Future (2035) Conditions – CLV, V/C Ratio, and LOS Summary (External Commuter Peak Hour)

	Study Intersection	AM Peak Hour 8:00 AM - 9:00 AM			PM Peak Hour 4:15 PM - 5:15 PM		
		CLV	V/C	LOS	CLV	V/C	LOS
1	Suitland Road (MD 218) & Swann Road (Gate 0)	322	0.20	A	538	0.34	A
2	Suitland Road (MD 218) & Gate 1	319	0.20	A	517	0.32	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	454	0.28	A	749	0.47	A
4	Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-
5	Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-
6	Swann Road & Federal Center Lane/Census North Garage Driveway	-	-	-	-	-	-
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	721	0.45	A	1090	0.68	B
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	724	0.45	A	1429	0.89	D
9	Silver Hill Road (MD 458) & Swann Road	604	0.38	A	692	0.43	A
10	Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	570	0.36	A	817	0.51	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	626	0.39	A	864	0.54	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

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Figure 4.8 Total Future (2035) Conditions – LOS Summary (CLV Method) (External Commuter Peak Hour)



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4.2.2 Total Future (2035) Traffic Conditions HCM Methodology Analysis

For the Total Future (2035) Traffic Conditions, the study intersections were analyzed using the same HCM methodology as the Existing (2025) Conditions and the Future Background (2035) Conditions. The LOS summary using the HCM method for the External Commuter Peak Hour under Total Future (2035) Conditions is shown on Table 4.4 and Figure 4.9. With the addition of anticipated population growth at NSF Suitland, the traffic analysis indicates that during the External Commuter Peak Hour under Total Future (2035) Traffic Conditions, all intersections will operate similar to Future Background (2035) Traffic Conditions and all intersections will operate at acceptable levels during the morning and afternoon.

As previously mentioned, there are separate peak hours for NSF Suitland and intersections external to the SFC, therefore the projected increase in the NSF Suitland employee population is expected to bring only a small percentage of additional vehicles to the surrounding roadway network during the external commuter morning and afternoon peak hours.

With the addition of future growth at NSF Suitland, employees traveling to the facility through the aforementioned intersections will experience congestion and delays during the morning and afternoon peak periods. Vehicle queuing is expected to continue for NSF Suitland employees using Suitland Road or Silver Hill Road (MD 458) to reach the facility during the morning peak period. Also, in the morning, congestion will persist for NSF Suitland employees traveling along Silver Hill Road (MD 458) at the Metro Driveway South/NB Suitland Parkway Off-ramp intersection and employees will experience noticeable queuing along the northbound Suitland Parkway Off-ramp to turn right onto eastbound Silver Hill Road (MD 458). These locations for congestion and vehicle queuing will adversely affect the arrival time to the facility. During the afternoon peak hour under Total Future (2035) Conditions, congestion and delays will remain constant for NSF Suitland employees using Suitland Road (MD 218) or Silver Hill Road (MD 458) to leave the installation.

Table 4.4 Total Future (2035) Conditions – LOS Summary (HCM Method) (External Commuter Peak Hour)

	Study Intersection	Traffic Control ¹	AM Peak Hour 8:00 AM - 9:00 AM		PM Peak Hour 4:15 PM - 5:15 PM	
			Delay (sec) ²	LOS	Delay (sec) ²	LOS
			1	Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	9.5
2	Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	11.0	B	13.9	B
4	Swann Road & NSF Suitland Primary Gate Driveway	SSSC	9.3	A	8.9	A
5	Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	0.0	A
6	Swann Road & Federal Center Lane/Census North Garage Driveway	AWSC	8.9	A	8.8	A
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	25.8	C	34.0	C
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	22.2	C	32.2	C
9	Silver Hill Road (MD 458) & Swann Road	Signal	9.7	A	11.1	B
10	Silver Hill Road (MD 458) & Navy Day Drive / Metro Drwy North	Signal	9.6	A	11.8	B
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp	Signal	21.9	C	30.3	C

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

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Figure 4.9 Total Future (2035) Conditions – LOS Summary (HCM Method) (External Commuter Peak Hour)



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4.2.3 Total Future (2035) Traffic Conditions - SFC Internal Intersections (NSF Suitland Peak Hour)

Several intersections internal to the SFC (Intersections 4-6) were also analyzed under Total Future (2035) Traffic Conditions for the NSF Suitland morning and afternoon peak hours, as these periods represent the greatest impact of installation traffic on the SFC. The projected traffic volume for the internal intersections under NSF Suitland Peak Hour Total Future (2035) Conditions are shown on Figure 4.10 and the LOS Summary is shown on Table 4.5 and Figure 4.11. In the future during the NSF Suitland Peak Hour, the SFC internal intersections will operate similar to the Existing (2025) Conditions.

Table 4.5 Total Future (2035) Conditions – LOS Summary (HCM Method) (NSF Suitland Peak Hour)

Study Intersection		Traffic Control ¹	AM Peak Hour		PM Peak Hour	
			5:45 AM - 6:45 AM		2:00 PM - 3:00 PM	
			Delay (sec) ²	LOS	Delay (sec) ²	LOS
4	Swann Road & NSF Suitland Primary Gate Driveway	SSSC	8.5	A	8.9	A
5	Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	0.0	A
6	Swann Road & Federal Center Lane/Census North Garage Driveway	AWSC	9.8	A	8.4	A

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

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Figure 4.10 Total Future (2035) Projected Traffic Volumes (SFC Intersections 4-6) (NSF Suitland Peak Hour)

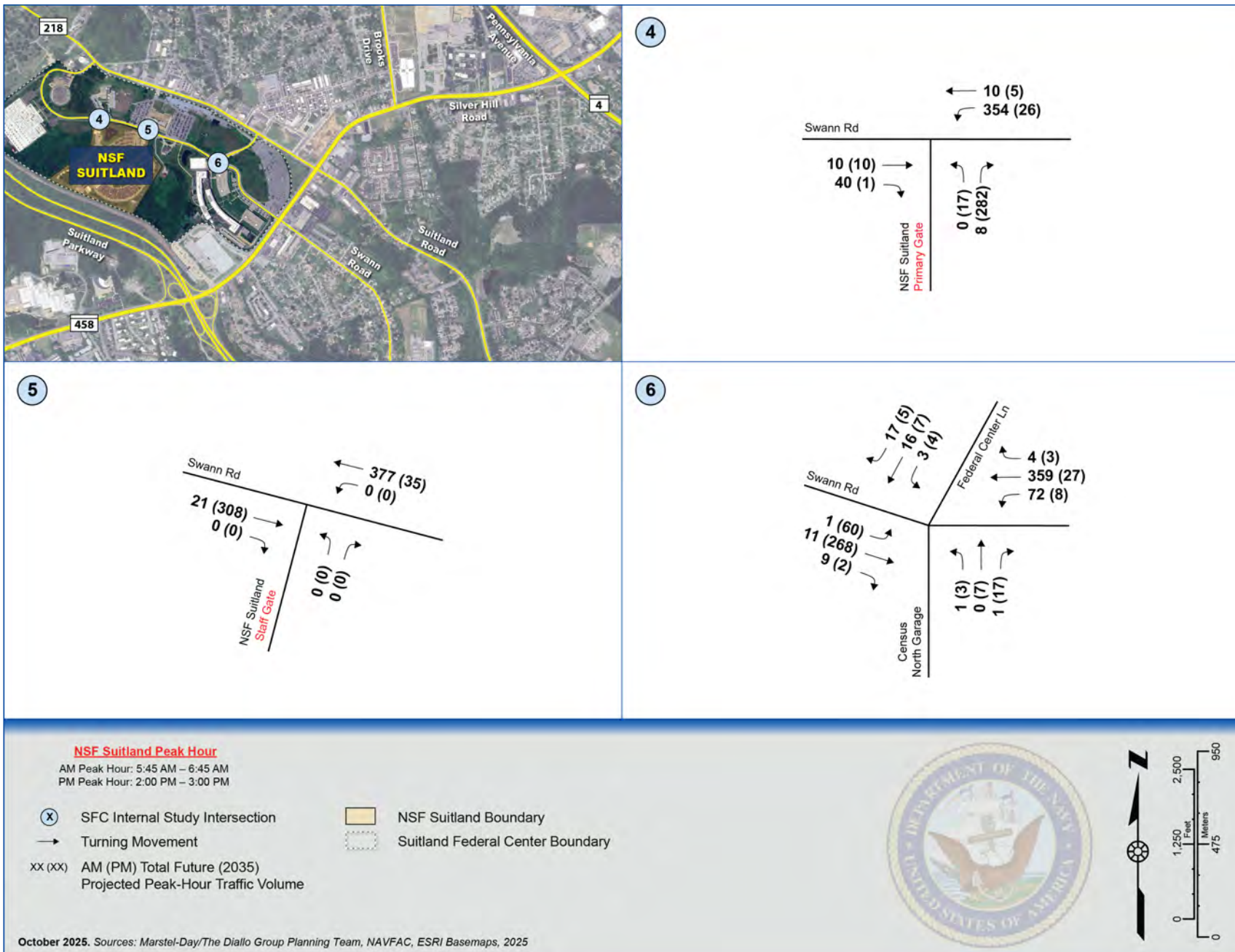


Figure 4.11 Total Future (2035) Conditions – LOS Summary (SFC Intersections 4-6 (HCM Method) (NSF Suitland Peak Hour))



4.3 Traffic Capacity Analysis Comparison

A comparison of the CLV, V/C ratio, and LOS Summary for the Existing (2025), Future Background (2035) (No Action) and Total Future (2035) (Action) traffic condition scenarios for the External Commuter Peak Hour are shown in Table 4.6 for the morning and Table 4.7 for the afternoon.

Table 4.6 AM Peak Hour Comparison – CLV, V/C Ratio, and LOS Summary (External Commuter Peak Hour)

Study Intersection		AM Peak Hour (8:00 AM - 9:00 AM)								
		Existing (2025)			Future Background (2035)			Total Future (2035)		
		CLV	V/C	LOS	CLV	V/C	LOS	CLV	V/C	LOS
1	Suitland Road (MD 218) & Swann Road (Gate 0)	273	0.17	A	322	0.20	A	322	0.20	A
2	Suitland Road (MD 218) & Gate 1	269	0.17	A	319	0.20	A	319	0.20	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	413	0.26	A	454	0.28	A	454	0.28	A
4	Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-	-	-	-
5	Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-	-	-	-
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	-	-	-	-	-	-	-	-	-
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	660	0.41	A	721	0.45	A	721	0.45	A
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	630	0.39	A	724	0.45	A	724	0.45	A
9	Silver Hill Road (MD 458) & Swann Road	547	0.34	A	604	0.38	A	604	0.38	A
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	528	0.33	A	570	0.36	A	570	0.36	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	583	0.36	A	626	0.39	A	626	0.39	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

Table 4.7 PM Peak Hour Comparison – CLV, V/C Ratio, and LOS Summary (External Commuter Peak Hour)

Study Intersection		PM Peak Hour (4:15 PM - 5:15 PM)								
		Existing (2025)			Future Background (2035)			Total Future (2035)		
		CLV	V/C	LOS	CLV	V/C	LOS	CLV	V/C	LOS
1	Suitland Road (MD 218) & Swann Road (Gate 0)	426	0.27	A	538	0.34	A	538	0.34	A
2	Suitland Road (MD 218) & Gate 1	406	0.25	A	517	0.32	A	517	0.32	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	684	0.43	A	748	0.47	A	749	0.47	A
4	Swann Road & NSF Suitland Primary Gate Driveway	-	-	-	-	-	-	-	-	-
5	Swann Road & NSF Suitland Staff Gate Driveway	-	-	-	-	-	-	-	-	-
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	-	-	-	-	-	-	-	-	-
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	985	0.62	A	1090	0.68	B	1090	0.68	B
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	1149	0.72	B	1428	0.89	D	1429	0.89	D
9	Silver Hill Road (MD 458) & Swann Road	683	0.43	A	692	0.43	A	692	0.43	A
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	728	0.46	A	816	0.51	A	817	0.51	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	774	0.48	A	863	0.54	A	864	0.54	A

NOTE: Only intersections outside of the Suitland Federal Center were analyzed using the CLV Method.

A comparison of the LOS summary using the HCM method for the Existing (2025), Future Background (2035) (No Action) and Total Future (2035) (Action) traffic condition scenarios for the External Commuter Peak Hour are shown in Table 4.8 for the morning and Table 4.9 for the afternoon.

Table 4.8 AM Peak Hour Comparison – LOS Summary (HCM Method) (External Commuter Peak Hour)

Study Intersection	Traffic Control ¹	AM Peak Hour (8:00 AM - 9:00 AM)						
		Existing (2025)		Future Background (2035)		Total Future (2035)		
		Delay (sec) ²	LOS	Delay (sec) ²	LOS	Delay (sec) ²	LOS	
1	Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	9.2	A	9.5	A	9.5	A
2	Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A	0.0	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	10.6	B	11.0	B	11.0	B
4	Swann Road & NSF Suitland Primary Gate Driveway	SSSC	9.2	A	-	-	9.3	A
5	Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	-	-	0.0	A
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	AWSC	8.9	A	-	-	8.9	A
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	24.8	C	25.8	C	25.8	C
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	19.4	B	22.2	C	22.2	C
9	Silver Hill Road (MD 458) & Swann Road	Signal	8.6	A	9.6	A	9.7	A
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	Signal	8.5	A	9.6	A	9.6	A
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	Signal	19.7	B	21.9	C	21.9	C

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

Table 4.9 PM Peak Hour Comparison – LOS Summary (HCM Method) (External Commuter Peak Hour)

Study Intersection	Traffic Control ¹	PM Peak Hour (4:15 PM - 5:15 PM)						
		Existing (2025)		Future Background (2035)		Total Future (2035)		
		Delay (sec) ²	LOS	Delay (sec) ²	LOS	Delay (sec) ²	LOS	
1	Suitland Road (MD 218) & Swann Road (Gate 0)	SSSC	11.0	B	12.0	B	12.0	B
2	Suitland Road (MD 218) & Gate 1	SSSC	0.0	A	0.0	A	0.0	A
3	Suitland Road (MD 218) & Federal Center Lane (Gate 4)	SSSC	13.1	B	13.8	B	13.9	B
4	Swann Road & NSF Suitland Primary Gate Driveway	SSSC	8.9	A	-	-	8.9	A
5	Swann Road & NSF Suitland Staff Gate Driveway	SSSC	0.0	A	-	-	0.0	A
6	Swann Rd & Federal Center Ln/Census North Garage Drwy	AWSC	8.8	A	-	-	8.8	A
7	Silver Hill Road (MD 458) & Pennsylvania Avenue (MD 4)	Signal	30.9	C	34.0	C	34.0	C
8	Silver Hill Road (MD 458) & Suitland Road (MD 218)	Signal	25.4	C	32.2	C	32.2	C
9	Silver Hill Road (MD 458) & Swann Road	Signal	10.1	B	11.0	B	11.1	B
10	Silver Hill Rd (MD 458) & Navy Day Dr / Metro Drwy North	Signal	10.1	B	11.8	B	11.8	B
11	Silver Hill Road (MD 458) & Metro Driveway South / NB Suitland Parkway Off-Ramp)	Signal	29.1	C	30.3	C	30.3	C

Text in **RED** indicates unacceptable conditions.

¹ AWSC = All-way stop controlled. SSSC = Side-street stop controlled.

² The vehicular delay for the worst movement is reported for side-street, stop-controlled (SSSC) intersections.

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5.0 INITIATING THE PROGRAM

Several components are necessary to initiate the TMP program; understanding and evaluating employee behavior and establish goals and objectives are essential to the success of the TMP. These components are used to evaluate the work setting and to establish a base line for TMP strategy development and measurement.

5.1 Employee Transportation Survey

An important step in developing a successful TMP is to gain an understanding of NSF Suitland employees' current commuting patterns, behaviors and transportation concerns. To achieve this, a transportation questionnaire was administered through Qualtrics to the employees of NSF Suitland in February 2025. The survey consisted of questions relating to an employee's residential location, mode of travel, arrival/departure time and commuting patterns and behavior. The survey questions provided insight on the willingness of employees to change their current commuting patterns and identify potential measures to encourage use of non-automobile modes to and from NSF Suitland.

A total of 898 responses were collected. A detail of the survey questions and responses is provided in the Appendix of this document.

5.1.1 Residential Locations of NSF Suitland Employees

Employees of NSF Suitland are dispersed in a variety of residential locations across the Washington Metropolitan region. The employee transportation survey revealed that 54% of employees live in Maryland, 35% live in Virginia, 10% live in Washington, D.C. and 1% live in other locations, such as New Jersey, Pennsylvania and West Virginia. Approximately 25% of employees live inside of the Capital Beltway in the immediate Washington Metropolitan area (Prince George's, Montgomery, Fairfax, Arlington, Alexandria, and Washington, D.C.). These residents are served by Metrorail, enabling the potential of short commuting times to the facility via transit.

However, nearly 75% of employees live outside of the Capital Beltway, or reside in a zip code that does not contain any transit option. A significant number of employees live more than 15 miles from NSF Suitland. The geographic spread of employees limits the opportunities for carpool and vanpool programs.

A summary of the residential locations of NSF Suitland survey respondents is provided in Figure 5.1 by state and Figure 5.2 by county. The zip codes with highest concentration of NSF Suitland employees is shown in Table 5.1. Detailed residential locations of survey respondents are provided in the Appendix of this document.

Figure 5.1 Residential Location of NSF Suitland Employees – By State

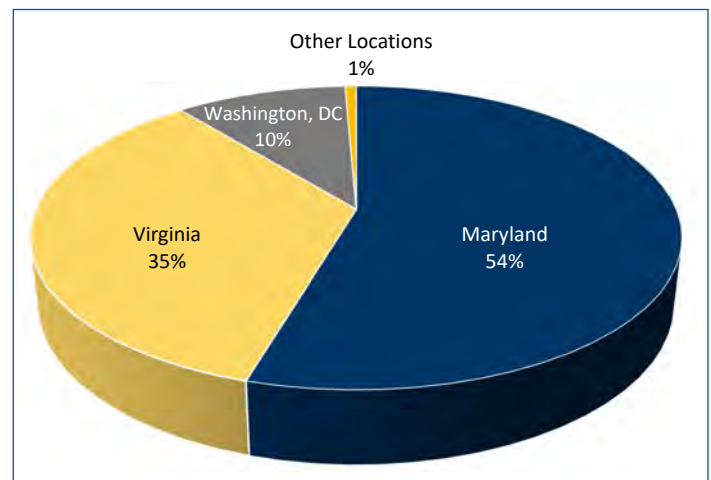


Figure 5.2 Residential Location of NSF Suitland Employees – By County

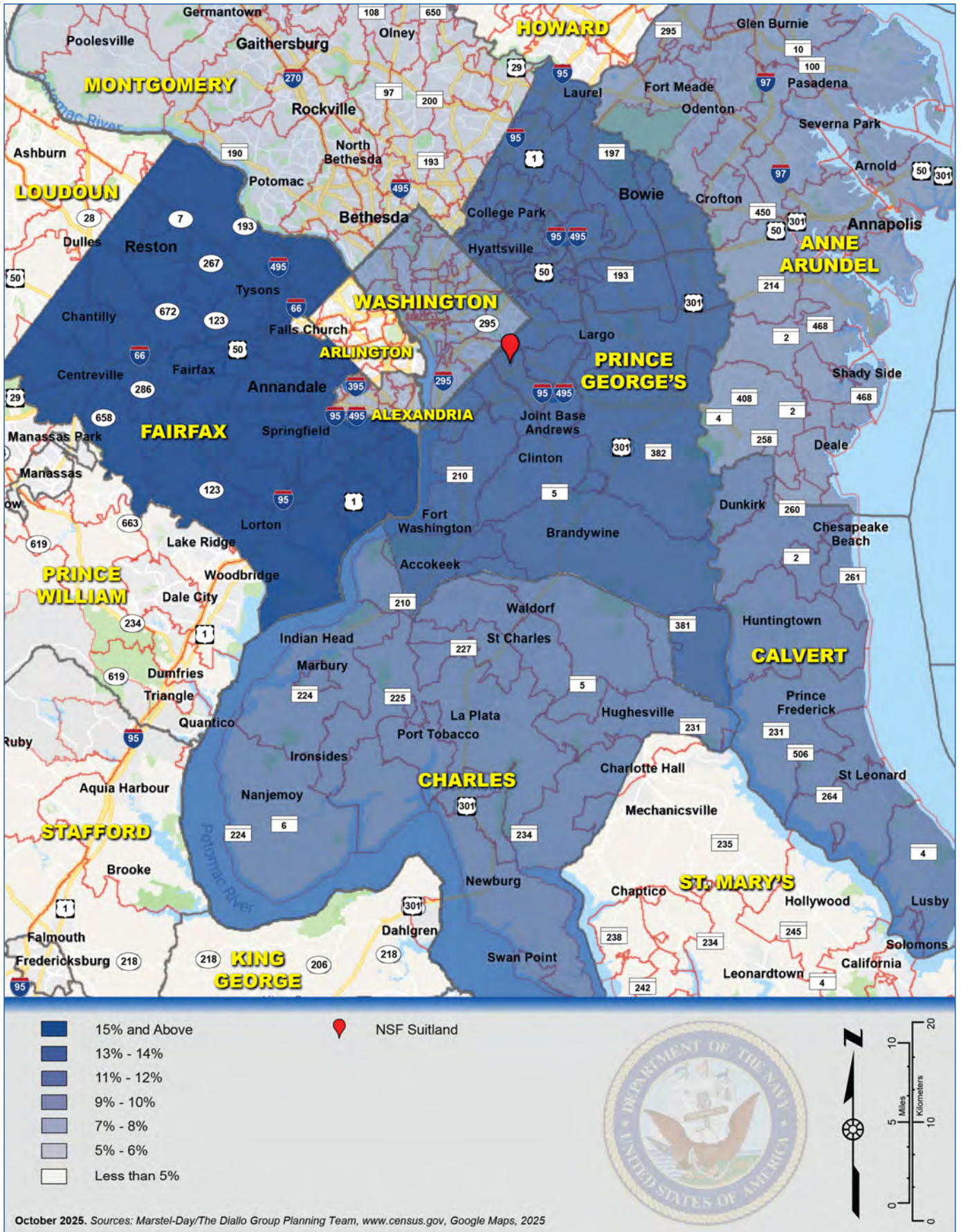


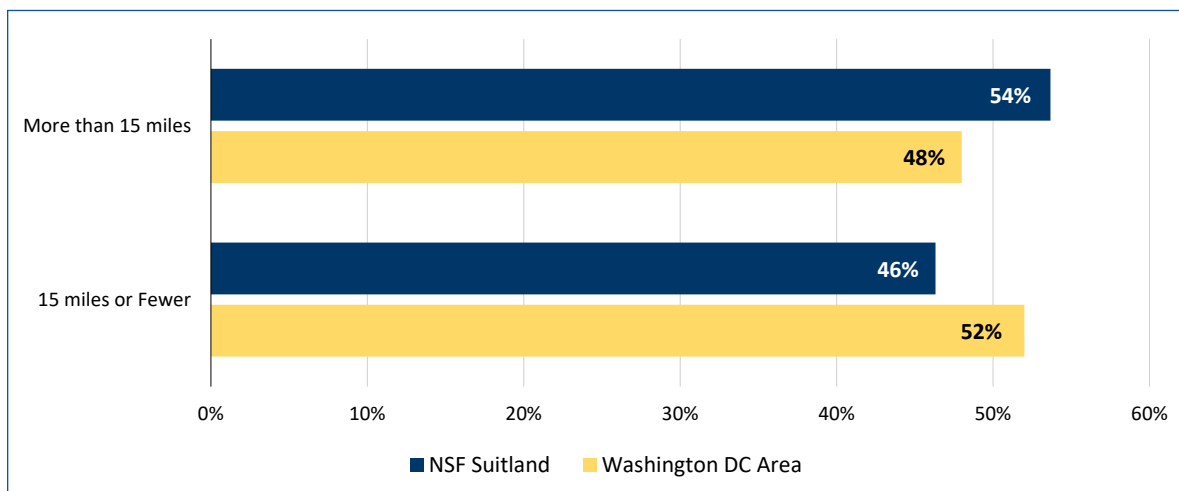
Table 5.1 Zip Codes with Highest Concentration of NSF Suitland Employees

Location	Zip Code	County	Number of Employees
Alexandria, VA (Old Town)	22314	City of Alexandria	146
Washington, DC (Capitol Hill)	20003	District of Columbia	111
Chesapeake Beach, MD	20732	Calvert	99
LaPlata, MD	20646	Charles	94
Alexandria, VA (Hybla Valley)	22306	Fairfax	90
Alexandria, VA (Landmark)	22304	City of Alexandria	86
Upper Marlboro, MD	20772	Prince George's	86
Washington, DC (SW Waterfront)	20024	District of Columbia	77
Huntingtown, MD	20639	Calvert	69
Prince Frederick, MD	20678	Calvert	69
Alexandria, VA (Huntington)	22303	Fairfax	64
Annapolis, MD	21401	Anne Arundel	64
Owings, MD	20736	Calvert	64
Waldorf, MD (St. Charles - West)	20603	Charles	64
Dunkirk, MD	20754	Calvert	60
Edgewater, MD	21037	Anne Arundel	56
Waldorf, MD (St. Charles - East)	20602	Charles	51
Waldorf, MD (North-Central)	20601	Charles	47

The residential location greatly affects which mode an employee may use to commute. The greater the distance a residential location is from work, the more likely a commuter will drive to work. Furthermore, a commuter living more than 3 miles from a rail station will likely drive to work. Figure 5.3 compares NSF Suitland employees' residential distances from work to other commuters in the Washington, D.C. Area².

More than half of NSF Suitland employees live more than 15 miles from work. Therefore, driving may be the better option compared to using transit. NSF Suitland employees generally live farther from work than other Washington, D.C. area commuters, as about 46% of other commuters live 15 miles or fewer from work.

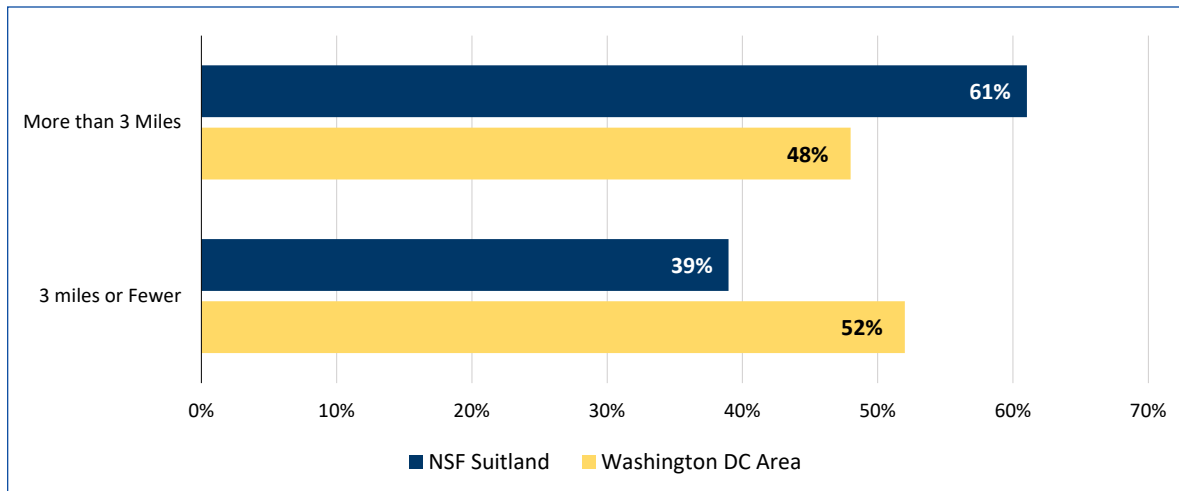
Figure 5.3 Employees' Residential Distance from Work



² Data used is from the Metropolitan Washington Council of Governments (MWCOC) Commuter Connections *State of the Commute Survey – 2022*.

Figure 5.4 compares NSF Suitland employees' residential distances from work and the nearest rail station to other commuters in the Washington, D.C. Area³.

Figure 5.4 Employees' Residential Distance from a Rail Station *



* Includes Metrorail, MARC, and VRE stations.

Over 60% of NSF Suitland employees live more than three miles from a Rail Station (Metrorail, MARC or VRE Station), Therefore, driving may be the better option compared to using transit. NSF Suitland employees live

farther from a rail station compared to other Washington DC area commuters. The zip codes with the highest concentration of NSF Suitland employees living within 3 miles of a rail station is shown in Table 5.2.

Table 5.2 Zip Codes with Highest Concentration of NSF Suitland Employees Within 3 Miles of a Rail Station

Location	Zip Code	Rail Type	Rail Station	Number of Employees
Alexandria, VA (Old Town)	22314	Metrorail	Various	146
Washington, DC (Capitol Hill)	20003	Metrorail	Various	111
Alexandria, VA (Hybla Valley)	22306	Metrorail	Huntington	90
Alexandria, VA (Landmark)	22304	Metrorail	Van Dorn Street	86
Washington, DC (SW Waterfront)	20024	Metrorail	Waterfront	77
Alexandria, VA (Huntington)	22303	Metrorail	Huntington	64
Washington, DC (NoMa)	20002	Metrorail	NoMa - Gallaudet U	47
Bowie, MD (Main Street)	20715	MARC	Bowie State University	43
Alexandria, VA (Franconia)	22310	Metrorail / VRE	Franconia - Springfield	43
Alexandria, VA (Kingstowne)	22315	Metrorail / VRE	Franconia - Springfield	43
Alexandria, VA (Huntington)	22303	Metrorail	Huntington	43
Upper Marlboro, MD	20774	Metrorail	Downtown Largo	43
Burke, VA	22015	VRE	Burke	34
Odenton, MD	21113	MARC	Odenton	26
Springfield, VA	22015	Metrorail / VRE	Franconia - Springfield	26
Woodbridge, VA (East)	22191	VRE	Woodbridge	21

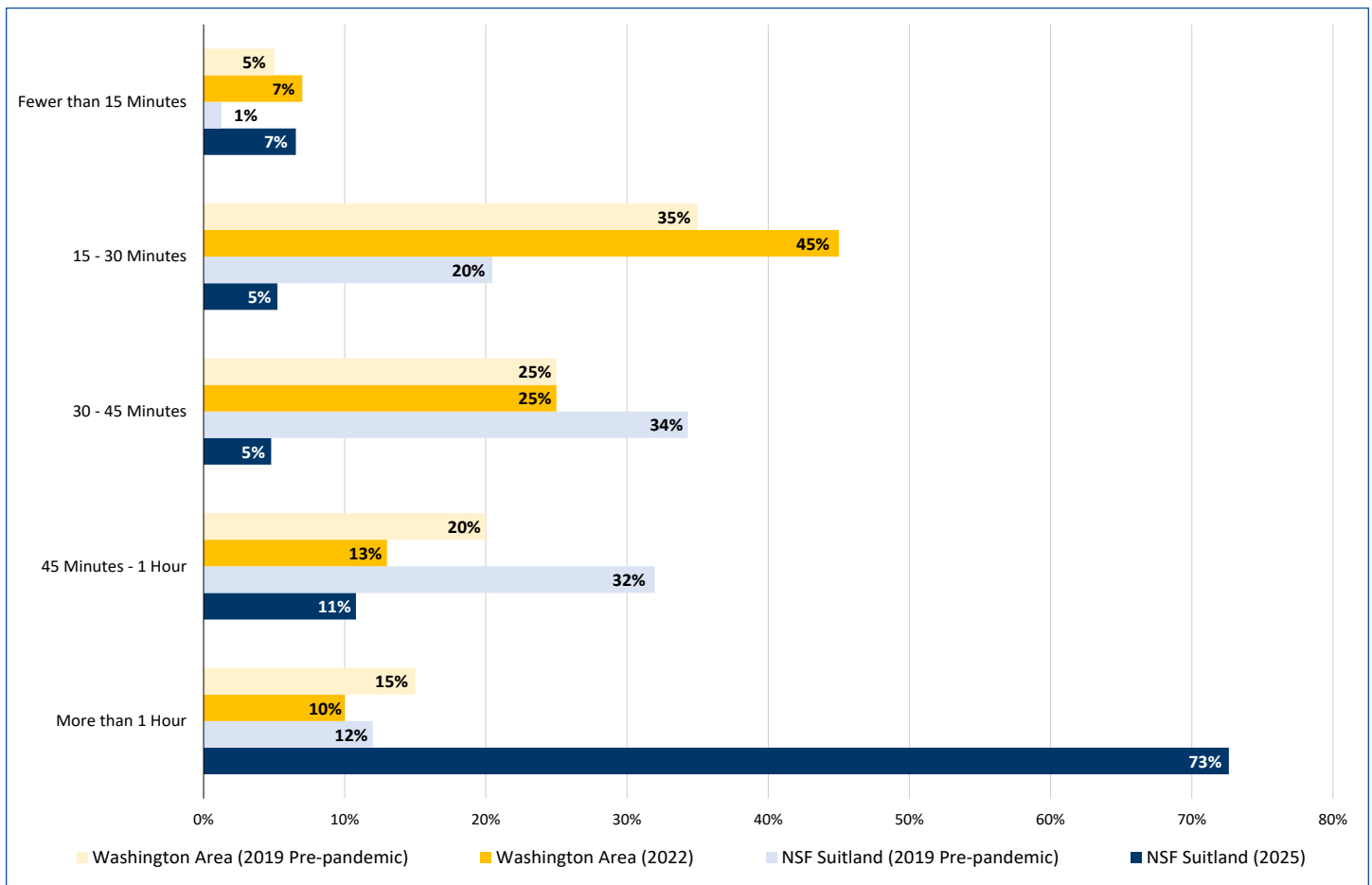
NOTE: Rail Stations include Metrorail MARC, and VRE Stations.

³ Data used is from the Metropolitan Washington Council of Governments (MWCOC) Commuter Connections *State of the Commute Survey – 2016*.

5.1.2 Commuting Time of NSF Suitland Employees

The employee transportation survey reveals that employees of NSF Suitland spend a significant amount of time commuting to work, whether by driving or using transit. **Nearly 90% of employees who routinely drive to NSF Suitland typically spend over 30 minutes one-way commuting, with nearly 75% of employees driving for more than an hour.** The typical employee commuting time to NSF Suitland by driving is shown on Figure 5.5. **Due to the suburban location of the SFC, the typical commuting time of NSF Suitland employees is typically longer than that of other commuters in the Washington Metropolitan area⁴.**

Figure 5.5 Typical Employee Commuting Time by Driving



These extreme commuting times by driving confirm that many employees of NSF Suitland live great distances from work and that a personal vehicle may be the better option compared to using transit.

⁴ Data used is from the Metropolitan Washington Council of Governments (MWCOC) Commuter Connections *State of the Commute Survey – 2016*.

It should be noted that over 75% of NSF Suitland employees cannot or choose not to use transit to commute to work regularly. Many employees of NSF Suitland live in residential locations where transit is not a feasible option as the typical commute time using transit is significantly higher than the typical travel time for driving, making the use of a personal operated vehicle (POV) the more attractive option for commuting to and from work. Table 5.3 and Table 5.4 highlight the travel times between NSF Suitland and several residential locations with a high employee population during the morning and afternoon commuting periods, respectively. The tables reveal that for numerous residential locations, it typically takes an employee over 70 minutes to commute to NSF Suitland in the morning using transit and nearly an hour and a half to commute home in the afternoon using transit.

For each residential location, the same rail station or park and ride lot was used for both modes of travel to provide consistency in comparing the typical commuting time between driving and using transit. Since transit schedules vary, it should be noted that the morning departure time for transit is based on the rail or bus departure time closest to 5:00 AM from the point of origin. The average morning travel time also includes the 20-minute walking time along the SFC Pedestrian Path from the Suitland Metro Station to the NSF Suitland installation.

An afternoon departure time of 3:00 PM from NSF Suitland was used for POVs. To maintain a consistent comparison between both modes of travel, the afternoon departure time for transit is based on the rail or bus departure time from the Suitland Metro Station with the shortest typical travel time towards the destination location, leaving around 3:00 PM. The afternoon departure time also includes the 20-minute walking time along the SFC Pedestrian Path from the NSF Suitland facility to the Suitland Metro Station.

Table 5.3 Transit Commuting Time Comparison (Morning)

Morning (Commute to Work)							
Origin	Distance	Personal Operated Vehicle (POV)			Transit		
		Departure Time from Origin	Typical Commuting Time	Arrival Time to NSF Suitland	Departure Time from Origin *	Typical Commuting Time **	Typical Arrival Time to NSF Suitland
Capitol Hill, DC (Eastern Market Metro Station)	5 miles	5:00 AM	15 minutes	5:15 AM	5:18 AM	45 minutes	6:03 AM
Alexandria, VA (King Street Metro Station)	12 miles		22 minutes	5:22 AM	5:09 AM	1 hour, 1 minute	6:10 AM
Upper Marlboro, MD (PG Equestrian Center Park & Ride Lot)	12 miles		19 minutes	5:22 AM	5:32 AM	1 hour, 32 minutes	7:04 AM
Waldorf, MD (Regency Furniture Stadium)	23 miles		50 minutes	5:50 AM	5:10 AM	57 minutes	6:07 AM
Fairfax, VA (Vienna/Fairfax-GMU Metro Station)	24 miles		35 minutes	5:35 AM	5:10 AM	1 hour, 18 minutes	6:07 AM
Woodbridge, VA (I-95 and VA 123 Park & Ride Lot)	27 miles		38 minutes	5:38 AM	5:27 AM	1 hour, 19 minutes	6:46 AM
Charlotte Hall, MD (Golden Beach Park & Ride Lot)	30 miles		55 minutes	5:55 AM	4:54 AM	1 hour, 13 minutes	6:07 AM
Annapolis, MD (Parole/Truman Pkwy Park & Ride Lot)	31 miles		38 minutes	5:38 AM	5:13 AM	1 hour, 39 minutes	6:52 AM
Rockville, MD (Rockville Metro Station)	31 miles		50 minutes	5:50 AM	5:04 AM	1 hour, 12 minutes	6:16 AM
Odenton, MD (Odenton MARC Station)	32 miles		43 minutes	5:43 AM	5:14 AM	1 hour, 25 minutes	6:39 AM
Prince Frederick, MD (Prince Frederick Park & Ride Lot)	36 miles		50 minutes	5:50 AM	5:29 AM	1 hour, 9 minutes	6:38 AM
Fredericksburg, VA (Fredericksburg VRE Station)	60 miles		1 hour, 8 minutes	6:40 AM	5:03 AM	2 hours, 7 minutes	7:10 AM

Text in RED indicates commuting time over an hour.

* Departure time is based on the rail or bus departure time from the origin closest to 5:00 AM on a typical Wednesday from the point of origin.

** Includes the 20-minute walking time to NSF Suitland from the Suitland Metro Station.

Table 5.4 Transit Commuting Time Comparison (Afternoon)

Afternoon (Commute Home)							
Destination	Distance	Personal Operated Vehicle (POV)			Transit		
		Departure Time from NSF Suitland	Typical Commuting Time	Arrival Time to Destination	Departure Time from NSF Suitland *	Typical Commuting Time **	Typical Arrival Time to Destination
Capitol Hill, DC (Eastern Market Metro Station)	5 miles	3:00 PM	20 minutes	3:20 PM	3:01 PM	47 minutes	3:48 PM
Alexandria, VA (King Street Metro Station)	11 miles		30 minutes	3:30 PM	3:01 PM	1 hour, 1 minute	4:01 PM
Upper Marlboro, MD (PG Equestrian Center Park & Ride Lot)	12 miles		22 minutes	3:22 PM	3:02 PM	1 hour, 34 minutes	4:36 PM
Waldorf, MD (Regency Furniture Stadium)	23 miles		60 minutes	4:00 PM	3:04 PM	1 hour, 8 minutes	4:12 PM
Fairfax, VA (Vienna/Fairfax-GMU Metro Station)	24 miles		50 minutes	3:50 PM	3:01 PM	1 hour, 20 minutes	4:21 PM
Woodbridge, VA (I-95 and VA 123 Park & Ride Lot)	27 miles		1 hour, 5 minutes	4:05 PM	3:07 PM	1 hour, 21 minutes	4:28 PM
Charlotte Hall, MD (Golden Beach Park & Ride Lot)	30 miles		1 hour, 3 minutes	4:03 PM	3:04 PM	1 hour, 23 minutes	4:27 PM
Annapolis, MD (Parole/Truman Pkwy Park & Ride Lot)	31 miles		55 minutes	3:55 PM	3:01 PM	1 hour, 51 minutes	4:52 PM
Rockville, MD (Rockville Metro Station)	31 miles		1 hour, 20 minutes	4:20 PM	3:01 PM	1 hour, 21 minutes	4:22 PM
Odenton, MD (Odenton MARC Station)	32 miles		1 hour, 13 minutes	4:13 PM	3:02 PM	1 hour, 36 minutes	4:38 PM
Prince Frederick, MD (Prince Frederick Park & Ride Lot)	36 miles		58 minutes	3:58 PM	3:24 PM	1 hour, 11 minutes	4:35 PM
Fredericksburg, VA (Fredericksburg VRE Station)	60 miles		1 hour, 55 minutes	4:55 PM	3:19 PM	2 hour, 24 minutes	5:43 PM

Text in **RED** indicates commuting time over an hour.

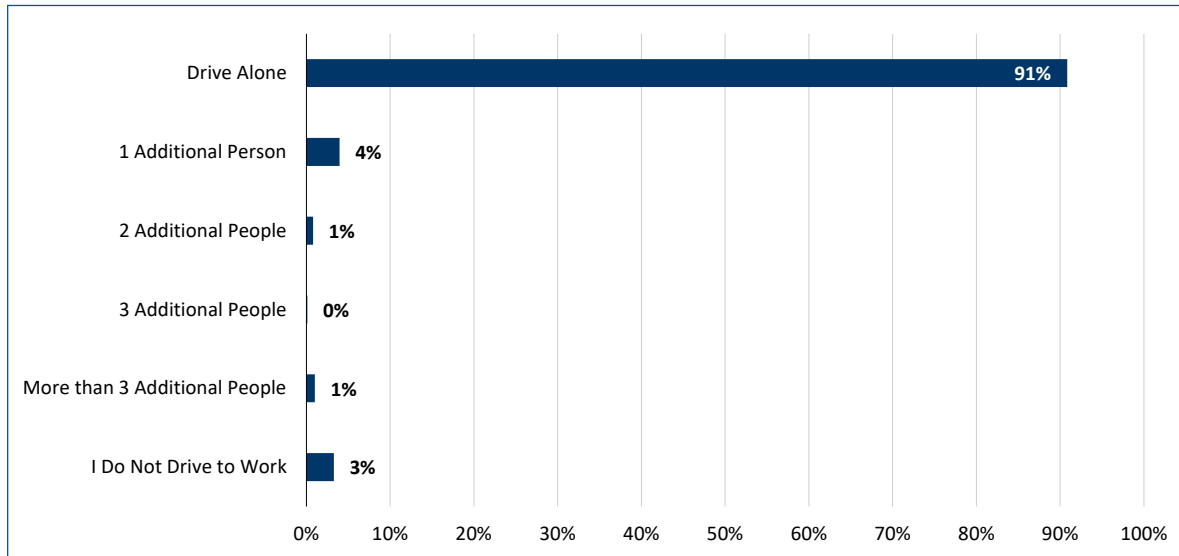
* Departure time is based on the rail or bus departure time from the Suitland Metro Station with the shortest typical commuting time towards the destination location, leaving after 3:00 PM on a typical Wednesday.

** Includes the 20-minute walking time from NSF Suitland to the Suitland Metro Station.

5.1.3 Employee Vehicle Occupancy

The commuting time for employees generally affects the preferred mode of travel and vehicle occupancy. The employee transportation survey indicates that **the preferred mode of travel to work for NSF Suitland employees is to drive alone, over 90%** as shown in Figure 5.6. Very few NSF Suitland employees carpool, vanpool, use transit or use other alternative modes of travel.

Figure 5.6 Employee Vehicle Occupancy



5.1.4 Arrival and Departure Times of Employees

The transportation survey revealed that nearly half of the employees of NSF Suitland arrive to work before 7:00 AM and that over 60% of employees depart the facility before 4:00 PM, indicating that most employees travel to and from the facility at times other than the peak periods for the surrounding external roadways. The typical employee arrival and departure times to and from NSF Suitland are shown in Figure 5.7 and Figure 5.8, respectively.

Figure 5.7 Typical Employee Arrival Time to NSF Suitland

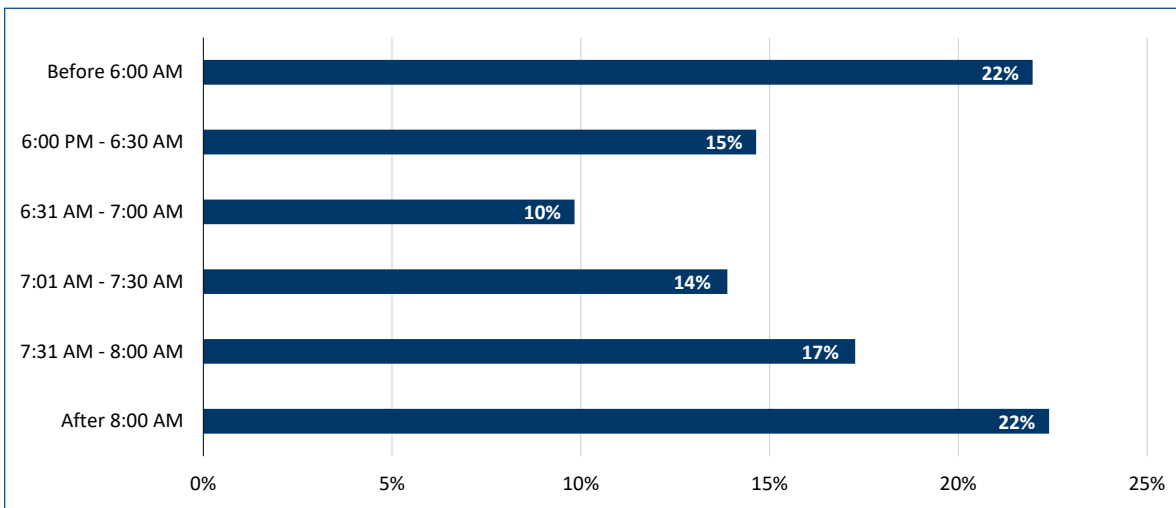
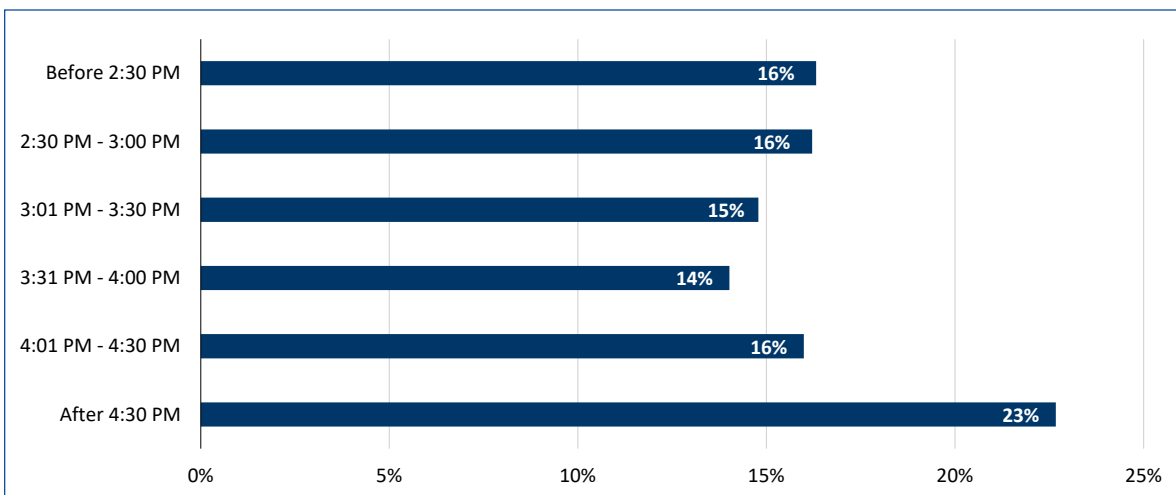


Figure 5.8 Typical Employee Departure Time from NSF Suitland



5.2 Comparison of Mode of Travel (2019 and 2025)

Since the previous TMP was prepared in 2019, there have been several changes to the regional transportation network in the Washington Metropolitan area that may have altered an employee's preferred mode of travel.

There have been several regional roadway improvements that may make driving to NSF Suitland more favorable in the present day than in 2019. Roadway improvements include the completion of new interchanges along Branch Avenue (MD 5) and Indian Head Highway (MD 210) in Prince George's County, and express toll lanes along I-66 and I-95 in Northern Virginia. Improvements to transit include Metrorail expansion with the extension of the Silver Line to Dulles International Airport and Loudoun County, Virginia, providing new service from Ashburn and Herndon in Virginia to Prince George's County. New rail cars have been added to Metrorail, MARC and VRE for more reliable service and improvements to bus routes and schedules were made to Metrobus, Prince George's County - The Bus, and commuter bus service in Southern Maryland.

Locally to the Suitland area, off-road bike trails have been added along Pennsylvania Avenue (MD 4) east of Silver Hill Road (MD 458) and dedicated bicycle lanes have been added to Suitland Road (MD 218) and Swann Road outside of the SFC in both directions.

A comparison of survey results from 2019 and 2025 indicate that current TDM measures to reduce the reliance on SOVs at NSF Suitland have been modestly effective and more action is needed. From 2019 to 2025, there was a slight decrease in NSF Suitland employees who drive to work alone and there was a 2% increase in public transportation usage. However, there was a decrease in carpool/vanpool usage. A comparison of modes of travel between 2019 and 2025 is outlined in Table 5.5.

Table 5.5 Mode of Travel Comparison: 2019 and 2025

Mode of Travel	2019 TMP		2025 TMP UPDATE		Percent Change
	Survey Responses	Percentage	Survey Responses	Percentage	
Drive Alone	982	86%	855	85%	- 1%
Carpool / Vanpool	45	4%	26	3%	- 1%
Public Transportation	70	6%	83	8%	+ 2%
Taxi / Uber / Lyft	3	Fewer than 1%	2	Fewer than 1%	-
Bicycle	5	Fewer than 1%	6	Fewer than 1%	-
Walk	12	1%	7	1%	-
Motorcycle	24	2%	13	1%	- 1%
Other	5	Fewer than 1%	9	1%	+ 1%
No Response	0	0%	0	0%	-
TOTAL RESPONSES	1,146	100%	1,001	100%	-

5.3 Goals and Objectives

Appropriate management strategies tailored to the NSF Suitland site should be based on an established set of goals and objectives. These goals and objectives should reflect the key transportation issues of the site, in both existing and future conditions. This section summarizes the main transportation issues for the site and defines goals and objectives that reflect those issues. Strategies to meet those goals and objectives will be examined in the succeeding major section.

5.3.1 Major Transportation Concerns and Challenges at NSF Suitland

The employee transportation survey revealed details about major transportation concerns and challenges for NSF Suitland. These concerns and issues serve as the basis for the goals and objectives that are relevant to the installation, which are summarized below.

- Over 90% of employees typically drive alone to NSF Suitland.
- Many employees live considerable distances from the site.
- For nearly 75% of employees who routinely drive to NSF Suitland, it typically takes more than an hour to commute via motor vehicle.
- It typically takes an employee over 70 minutes to commute to NSF Suitland using transit and nearly an hour and a half to commute home using transit.
- There are no direct transit connections to where many employees live.
- Mass transit, bicycle, and pedestrian modes are underused.
- Bicycle and pedestrian facilities are in poor condition or inadequate.
- Lack of awareness regarding alternative transportation modes.
- On-site parking is either limited or constrained.
- There is a negative perception of safety for transit.
- Limited alternative work schedules due to nature of mission.
- NSF Suitland's location within the SFC is a considerable distance from the Suitland Metro, even when using the pedestrian path.

5.3.2 Goals

To address the concerns and challenges at NSF Suitland, goals should be established. The key TDM goals for NSF Suitland generally align with those from the previous TMP and the SFC campus as a whole:

- Continue to reduce the impacts of trips generated by NSF Suitland on the surrounding local and regional roadway network.
- Continue to maximize the use of the conveniently located Metrorail Station adjacent to the SFC campus.
- Continue to reduce employee SOV trips.
- Increase the usage and efficiency of pedestrian paths and dedicated bike lanes.
- Maximize the use of public transit, carpooling, and other alternative transportation modes for commuting trips to limit the traffic impacts and parking requirements at NSF Suitland.
- Optimize the use of existing parking facilities on NSF Suitland campus.

5.3.3 Objectives

In order to accomplish the goals outlined previously, several objectives must be initially achieved:

- Work with local Suitland area community groups, Prince George's Chamber of Commerce, Prince George's County government and other agencies to make the area surrounding the SFC more appealing (changes in the perception of safety, leisure activities for children and adults, grocery store, public library, etc.).
- Maximize and enhance existing TDM strategies and programs and promote new TDM strategies.
- Increase awareness and promote use of alternative modes of travel to work, such as transit.
- Establish a routine of regularly conducting employee transportation surveys to monitor employee commuting behavior.
- Improve pedestrian and bicycling favorability.
- Eliminate safety concerns regarding transit.
- Improve circulation within existing parking facilities.

5.3.4 Mode-Share Target Objectives

The goals and objectives outlined previously will be instrumental in achieving the following mode-share target objectives for 2030 and 2045:

- Increase the percentage of NSF Suitland employees using Metrorail and public transit from 8% to 10% by 2030 and to 16% by 2045.
- Increase the percentage of NSF Suitland employees that commute regularly by carpool and vanpool from 3% to 6% by 2030 and to 12% by 2045.
- Increase the use of Ride-hailing services (Taxi/Uber/Lyft) from less than 1% to 1% by 2030 and to 2% by 2045.
- Increase non-motorized commute participants (walk, bike) from 1% to 2% by 2030 and to 4% by 2045.
- Increase the use of other modes of commuting of NSF Suitland employees, including telework, from 1% to 3% by 2045.

It should be noted that these goals and objectives are intended as guidance for implementation of the TDM strategies. The impact of certain strategies may affect the performance of others. For example, transit usage may be lower if more employees are commuting to work via carpools/vanpools.

6.0

EXISTING TRANSPORTATION DEMAND MANAGEMENT

This section outlines current TDM measures for NSF Suitland. TDM is the application of policies and strategies to reduce the demand of SOV trips during peak travel periods. These TDM measures promote the use of more efficient or alternative modes of travel to the facility.

6.1 Existing Suitland Federal Center Programs

Agencies at the SFC currently provide a diversity of transportation demand strategies. Although there is no central transportation management office at SFC, each agency (including NSF Suitland) participates in some level of transportation management. The following are transportation management measures currently in use at SFC:

- Transit Subsidies
- Carpooling and Vanpooling
- Telecommuting
- Alternative Work Schedules
- Bicycle Facilities
- Ride Matching Services
- “Guaranteed Ride Home” Program

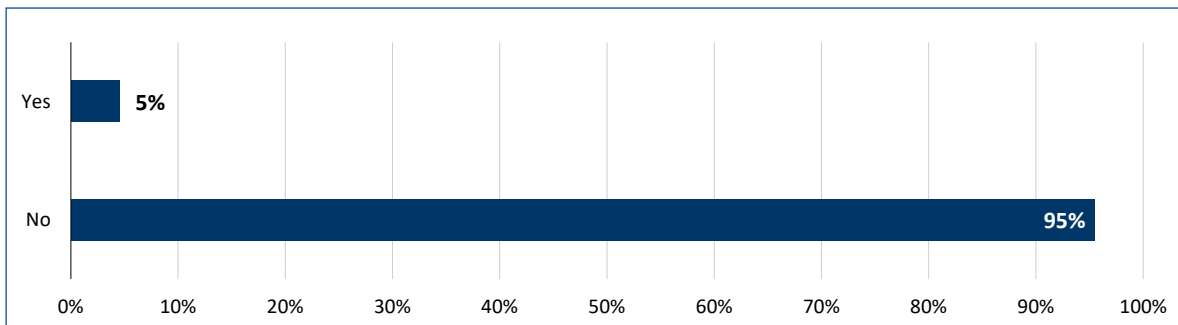
6.2 Existing NSF Suitland Programs

NSF Suitland currently has several transportation management programs and strategies to help decrease the number of SOVs at the facility. These programs include:

- **Carpools** - There is a dedicated parking area for carpools and vanpools in the front parking lot of the main facility.
- **Vanpools** - There are vanpools routes at NSF Suitland serving the following locations:
 - » Fredericksburg, VA
 - » Stafford County, VA
 - » Charlotte Hall, MD
 - » Southern Maryland

Carpool/vanpool use has decreased by 1% since 2019. Even though carpool and vanpool options are available at NSF Suitland, 95% of employees do not use these forms of alternative transportation, as shown in Figure 6.1. Many employees cited the preference to drive alone, the flexibility of having their personal vehicle and the unawareness on how to connect with employees with similar commuting patterns as reasons for not participating in a carpool/vanpool.

Figure 6.1 Employees' Participation in a Carpool/Vanpool



- **Ride-matching Service for Carpools and Vanpools** - There is a dedicated parking area for carpools and vanpools in the front parking lot of the main facility.

- **Guaranteed Ride Home Service for Carpools/ Vanpools** – The service is available if a carpool or vanpool rider needs to go home outside of regular hours in case of an emergency.

Even though a carpool/vanpool ride-matching service is available at NSF Suitland, over 65% of employees are unaware of this service and less than one percent currently use this service, as shown in Figure 6.2.

Even though there is a guaranteed ride home program at NSF Suitland, over 65% of employees are un-aware of this program and less than 1% have used this service before, as shown in Figure 6.3.

Figure 6.2 Employees' Awareness and Usage of Ride-matching Service for Carpools/Vanpools

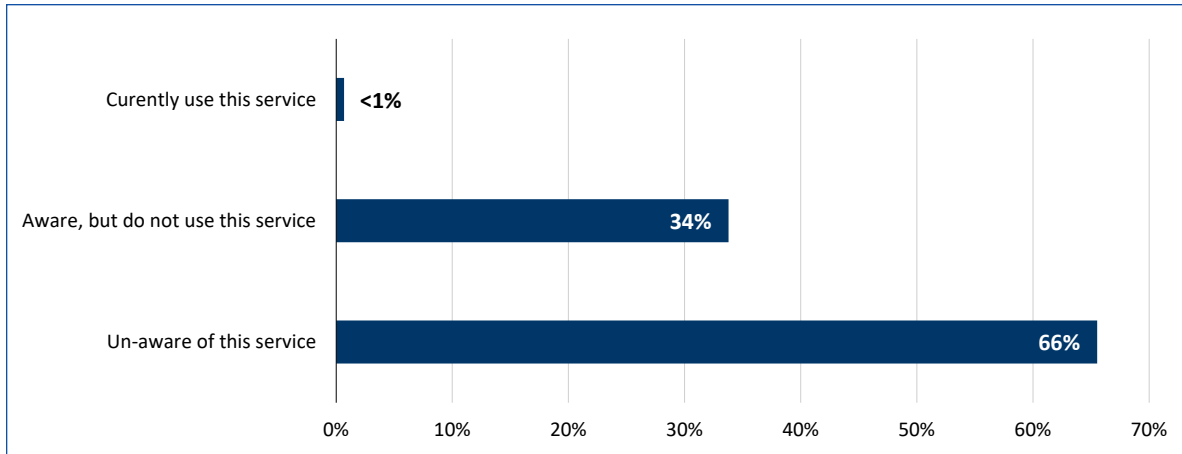
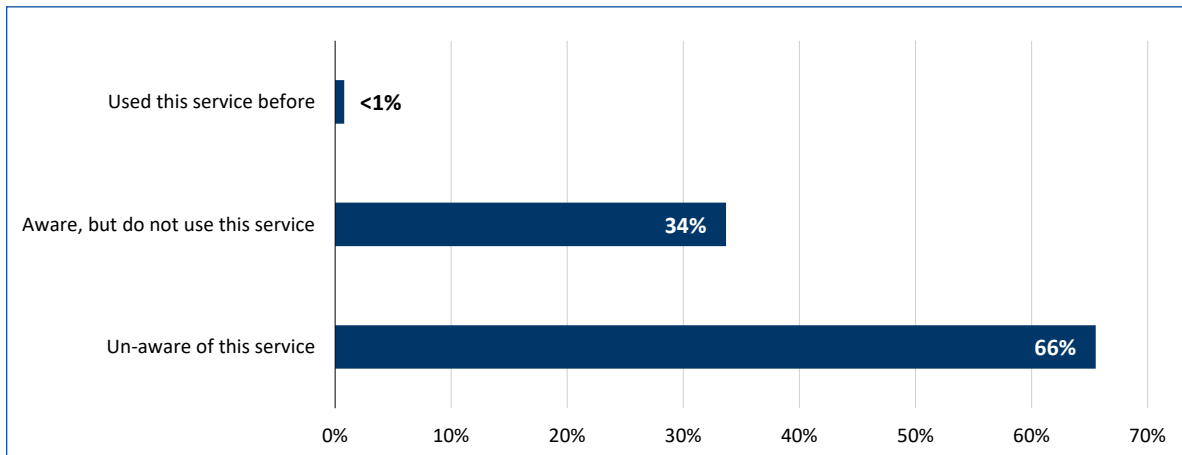


Figure 6.3 Employees' Awareness and Usage of Guaranteed Ride Home Program



- **Transit Subsidy** – There is a federal transportation subsidy available to NSF Suitland employees and other employees in the National Capital Region (NCR) through the Mass Transportation Benefit Program. Participants receive benefits by submitting monthly transit expense claims via a Common Access Card (CAC)-enabled portal. Metrorail and other transit modes require a SmarTrip card for fare payment. Benefits auto-load directly to the participant’s SmarTrip card the first time the card is used on the first workday of the benefit period. Personnel receiving a federal transit subsidy are not eligible for a permanent parking permit.

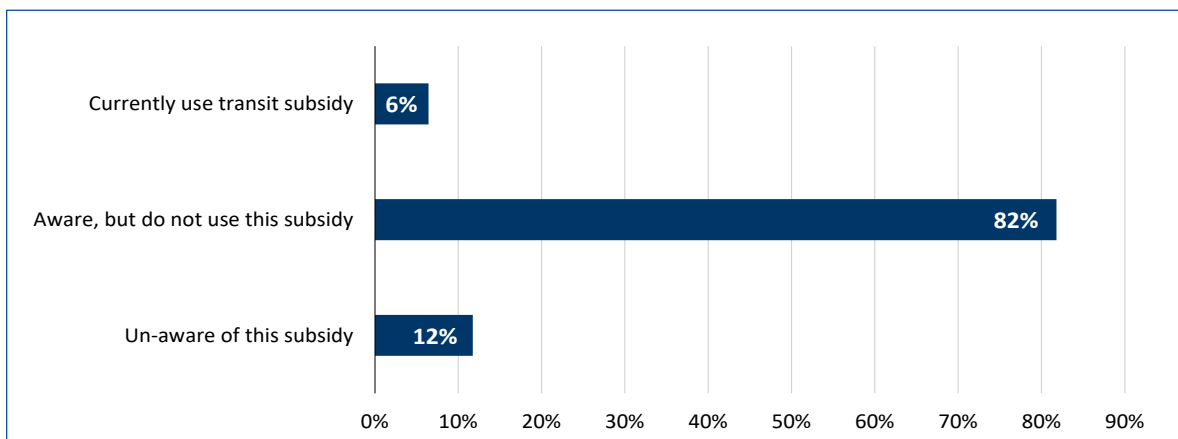
Transit usage has increased by 2% since 2019. However, even though a transit subsidy is available at NSF Suitland, only 6% of employees currently use this subsidy, as shown in Figure 6.4.

- **Bicycle Facilities** – Clothes lockers and office showers are currently provided in the fitness center. There is a bike rack at the facility with a capacity of 15 bicycles. Bicycle usage has remained flat as fewer than 1% of NSF Suitland employees bicycle to work.
- **Telecommuting** – Few employees have the option to work from home. Fewer than 20% of NSF Suitland employees have the option to telecommute due to the nature of the mission they support.

- **Flexible Work Schedule** – Flex work schedules are available enabling personnel to work a variety of work schedules. The typical work schedule is five 8-hour days per week. Alternatively, personnel may choose to work 10-hour workdays and receive one day off each week. Other work schedules include a combination of four 10-hour days per week, or nine 9-hour days and one 8-hour day over the course of two weeks (36 hours one week, 44 hours the next week for a total 80 hours for a 2-week period).

The strategies that are currently in use at NSF Suitland can be expanded. While the flexible work schedule has been effectively used, additional measures could improve the effectiveness of the carpool and vanpool program and increase participation in the transit subsidy program. Additionally, while alternate modes of transportation, such as biking to work, are permitted, they could be better promoted. Information on transit subsidies, ride-sharing, and alternative commute options is not provided in a central location.

Figure 6.4 Employees’ Awareness and Usage of Transit Subsidy



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7.0 TRANSPORTATION DEMAND MANAGEMENT UPDATE

To effectively achieve the goals and objectives outlined previously, a combination of key TDM measures are necessary to continue the reduction of SOV trips at NSF Suitland and encourage alternative modes of travel. These TDM measures will build upon strategies and recommendations that were outlined in the previous TMP for NSF Suitland.

7.1 Employee Transportation Coordinator (ETC)

According to many employees, the greatest obstacle in participating in alternative transportation modes of travel is the inadequacy of information. An ETC at NSF Suitland would serve as a single point of contact for commuter information and overseer of the TMP. The Employee Transportation Coordinator does not have to be a new position, as NSF Suitland could assign a current employee with the responsibilities of this position.

The ETC plays a fundamental role in any successful TMP program by being responsible for the administering of all aspects of the program, from initiation, to marketing, to monitoring and evaluating the effectiveness of the TDM measures and programs. The primary goal of the ETC is to provide personalized trip planning assistance to commuters and to meet the transportation needs of the individual employee using the program.

Expected future growth and the expansion of NSF Suitland presents the opportunity for new employees to participate in TDM programs from the onset of employment. The ETC should meet with new employees within the first several weeks of employment to discuss and encourage the use of alternative transportation options.

Updates to the TMP should occur regularly as the ETC evaluates responses to marketing campaigns, sign-ups for services, and frequent outreach to commuters.

7.2 Centralized Commuter Transportation Information

A centralized on-site commuter transportation information kiosk should be provided with an electronic display board of real-time schedules and information for transportation options. The information provided in this format will keep employees up to date on the status of alternative transportation options and link to the intranet and other online sources. The information kiosk should also include marketing materials to promote TDM programs, such as transit subsidies, ride-matching and guaranteed ride home services. The kiosk will also allow employees to ask questions and receive information about their specific commute. This transportation kiosk would be maintained by the ETC.

7.3 Participation in Regional Commuter Programs and Strategies

The Washington Metropolitan area currently has several regional programs to encourage the use of alternative modes for travel for commuters. The ETC at NSF Suitland should integrate and market regional programs, such as Metropolitan Washington Council of Governments' (MWCOCG) Commuter Connections program, to provide incentives to use alternative transportation options. Commuter Connections is a regional network of transportation organizations with the goal of providing commuters with information on regional commuting options and aiding employers in establishing commuting benefits and assistance programs.

The following services are offered through the Commuter Connections program:

- **Ride-sharing** - This service uses an interactive technology to connect employees together who live and work in similar geographical areas, have similar work schedules, and are interested in carpooling and/or vanpooling to and from work.

- **Guaranteed Ride Home Program** - This program ensures users of carpools, vanpools, public transportation, or bicycle or walk to work two or more days a week, a guaranteed ride home in the event of an unexpected personal or family emergency or unscheduled overtime.
- **CarpoolNow App** - A free service through a ride-share app that gives commuters in the Washington Metropolitan area the ability to carpool on-demand and in real-time, immediately connecting users who are offering a ride with those seeking a ride. It also displays routes, estimates pickup times, and confirms pick-up and drop-off locations.

- **Ride-matching Service** - The ETC should continue to use the existing ride-matching service to connect employees in these populous zip codes, and others, to form new carpool and vanpool routes. A database should be created for employees who are interested in carpooling and vanpooling enabling the ETC to link people based on their residential proximity and work schedule. The ride-matching service should be better marketed to employees to increase awareness. The ETC should conduct regular follow-ups with employees who are connected through this service to ensure the employees are a good fit or if new arrangements need to be made.

7.4 Increase Carpool and Vanpool Usage

Currently only 5% of NSF Suitland employees participate in a carpool or vanpool, indicating an opportunity to increase use of this mode of travel to reduce SOV trips. Many employees live in the same approximate area and could benefit from these modes of alternative transportation to the campus, as shown in Table 7.1.

These zip codes are in proximity to existing park-and-ride lots with access to the Beltway (I-95/I-495) or other major roadways leading to the SFC and NSF Suitland. Knowledge about employees’ residential locations is key to increasing carpool and vanpool usage.

The following recommendations should be considered to increase carpool and vanpool usage at NSF Suitland:

- **Preferential Parking Spaces** - To incentivize usage, an increase in the number of reserved spaces for carpools and vanpools should be considered. These preferential parking spaces should be located closest to the entrance to the main building to provide more convenient access. These spaces should always be designated during the day, instead of currently ending at 8:30 AM.

Table 7.1 Top 10 Zip Codes with Highest Concentration of NSF Suitland Employees

Location	Zip Code	County	Number of Employees
Alexandria, VA (Old Town)	22314	City of Alexandria	146
Washington, DC (Capitol Hill)	20003	District of Columbia	111
Chesapeake Beach, MD	20732	Calvert	99
LaPlata, MD	20646	Charles	94
Alexandria, VA (Hybla Valley)	22306	Fairfax	90
Alexandria, VA (Landmark)	22304	City of Alexandria	86
Upper Marlboro, MD	20772	Prince George’s	86
Washington, DC (SW Waterfront)	20024	District of Columbia	77
Huntingtown, MD	20639	Calvert	69
Prince Frederick, MD	20678	Calvert	69

7.5 Increase Transit Usage

Many employees of NSF Suitland live in distant locations where transit is not a viable option to work. For these employees, commutes via transit would require several connections to reach the Suitland Metrorail and could take more than 3 hours one-way. However, numerous employees reside in, or in proximity to a zip code with a Metrorail Station or other transit option. For those that do use transit, it typically takes over an hour to commute one-way to NSF Suitland.

Transit usage at NSF Suitland has increased by 2% since 2019. The adjacency of the SFC to the Suitland Metrorail creates a wondrous incentive for employees to use transit to the facility and reduce total vehicle trips.

The following strategies should be considered to increase transit usage at NSF Suitland:

- **Maintain a Centralized Transportation Kiosk** - The ETC would play a key role in increasing transit usage at NSF Suitland by maintaining a centralized kiosk that would have information on transit routing and schedules.
- **Maximize Employee Usage of the Suitland Metrorail Station** - The Suitland Station is located adjacent to the SFC and is served by the Green Line. Several local and regional commuter buses also service the station. NSF Suitland employees using the station can access the facility by walking through the pedestrian gate, Gate 7, and using the pedestrian path located along the west side of the Census Bureau. The convenient location of this facility to NSF Suitland should be marketed to increase usage. It should be noted that the shortest path from the Suitland Station to NSF Suitland is more than twice as long as that considered reasonable by the Transportation Element; therefore, this mode may be unsuitable for some employees.
- **Direct Path or Shuttle to the Metro** - Many employees requested a more direct walking path between the Suitland Metro Station and the entrance to NSF Suitland. The walking distance is over a half mile and this distance may be a deterrent to transit use, especially during inclement weather. A shorter path, bypassing the need to walk along Swann Road would incentivize the use of transit. A new path is proposed in the NSF Suitland ADP to better connect the NSF Suitland campus to the Suitland Metro Station.
- **Market Existing Commuter Bus Service** - The MTA has two routes that provide service to the SFC at Gate 7. These routes originate at park-and-ride lots in Charlotte Hall, MD and Prince Frederick, MD, with intermediate stops serving nearly 15% of employees NSF Suitland. These commuter bus routes should be promoted to provide an alternative mode of travel for residents of Southern Maryland.
- **New Commuter Bus Service** - High concentrations of NSF Suitland employees live along the US Route 301/MD Route 5 corridor in the areas of La Plata, White Plains, Waldorf, Brandywine and Clinton. NSF Suitland should work with other tenants at the SFC to advocate the MTA to establish a new, direct commuter bus route to provide a connection between this corridor and the SFC. Ideally, this new service would be able to enter through Gate 5 of the SFC to provide a more convenient drop-off/pick up location along Swann Road closer to Gate 9 for NSF Suitland employees.
- **Transit Fairs** - The ETC could conduct transit fairs to familiarize employees on fair payment, transfers, and routing.
- **Transit Subsidy Awareness** - NSF Suitland offers a transit subsidy through the DoD National Capital Region Mass Transportation Benefit Program. The survey indicated that many employees are not aware of this program and only a small percentage currently use the subsidy.
- **Transit Promotions** - Special promotions, such as “Try Transit” events could be used to promote transit as a more attractive commuting option, helping increase knowledge of transit options and familiarize employees to the transit benefit program.
- **Increase SmarTrip Card Usage** - Metrorail and other transit modes require a SmarTrip card for fare payment. The employee transportation survey revealed that many employees have a SmarTrip card but only a very small percentage use transit to work. NSF Suitland could increase SmarTrip Card awareness by selling pre-programmed cards and handing out a map of the adjacent transit stops. Qualified employees include those that live within a mile of a transit facility (Metrobus stop or Metrorail station) and currently do not use transit.

- **Transit Advocacy Group** - A transit advocacy group should be established to discuss transit issues and advocate for improved service. The group could also work together with the ETC to change negative perceptions of safety and socio-economic stigmas regarding transit.

- **Additional Bicycle Racks** - Supplementary bike racks (preferably sheltered) should be installed at the facility, ideally in surface lots nearest to the main building.
- **Inclusion of Bicycle Support Facilities** - Tool and pump stations for bicycle maintenance should be provided to increase the likelihood of bicycling to work.
- **Bicycle Commuter Subsidy** - A subsidy for bicycle commuters should be implemented to compensate the cost of bicycle maintenance and replacement parts. This would require approval and implementation by the DoD Mass Transportation Benefit Program.
- **Bicycle Advocacy Group** - A bicycle advocacy group should be established to provide support and advice for bicycle commuters.

7.6 Increase Bicycle Usage

Regionally, bicycling has become a popular alternative mode of transportation for commuters. Locally however, there are two significant disincentives to biking to NSF Suitland: the condition of roadways external to the SFC and the distances most employees travel to work from home.

The SFC is conveniently located near the Suitland Parkway recreational corridor; however, the Suitland Parkway Bike Trail only extends to Southern Avenue, stopping at the District of Columbia – Prince George’s County border. Many connecting roads to the SFC are not favorable to bicycling and exclusive facilities are limited in the surrounding community. However, there are dedicated bicycle lanes along Suitland Road (MD 218) and Swann Road, and a shared on-road vehicle/bicycle lane along both directions of Silver Hill Road (MD 458) adjacent to the SFC. Although the condition of external roadways is beyond the SFC’s control, working with the Prince George’s County Department of Public Works and Transportation and the Maryland State Highway Administration to improve conditions and implement traffic calming measures on surrounding roadways should be a priority.

Many employees live great distances from work that make commuting by bicycle difficult. Commuters from distant areas in Southern Maryland and Northern Virginia who choose to travel to work via bicycle would have a challenging commute along discontinuous bike paths, high-speed roadways with extreme commuting times, resulting in an unfavorable mode of travel. However, many other employees live in areas within a reasonable bicycle commuting distance of NSF Suitland. The nearby Towne Square at Suitland Federal Center community and other proposed developments present a significant opportunity for NSF Suitland employees to live near where they work. NSF Suitland should support employees that choose to live near the SFC and work with the State, County and the SFC to provide more bicycle facilities on the surrounding local roadway network and within the SFC.

The following strategies should be considered to increase bicycle usage at NSF Suitland:

These strategies would make it more conducive for participation in regional and national bicycle activities, such as “Bike to Work Day”, which is an annual event encouraging commuters to ride their bikes to work as an alternative mode of travel.

Combined, these strategies can improve the biking conditions around the installation and encourage usage, thus reducing the reliance on POVs.

7.7 Examine Pedestrian Network and Facilities Improvements

The existing pedestrian network and facilities should be examined for potential improvements. There is a developed network of sidewalks within NSF Suitland and the SFC, which makes walking between facilities inside the SFC campus desirable. However, there is a significant distance between NSF Suitland and the perimeter gates of the SFC, which constrains pedestrian accessibility and makes walking to/from external locations undesirable. This results in driving being more favorable for commuters who live in walking distance to the installation and for short lunchtime trips in the vicinity of the SFC. While the security of employees and visitors at the SFC is of paramount importance, improvements to pedestrian accessibility should be examined.

Several improvements to the circulation and safety within the NSF Suitland and SFC campuses are recommended to make walking more desirable:

- **Traffic Calming** - Traffic calming measures, such as raised crosswalks, speed humps, curb extensions, and speed feedback displays should be installed.
- **Warning Signage** - Rectangular rapid flashing beacons at mid-block crossings should be installed along Swann Road.
- Other circulation and safety measures that are recommended include speed enforcement, improved wayfinding signage and improved lighting.

The nearby Towne Square at Suitland Federal Center community and other proposed developments present a significant opportunity for NSF Suitland employees to walk to work. NSF Suitland should support employees that choose to live near the SFC and work with the State, County and the SFC to enhance pedestrian facilities along the local roadway network and within the SFC.

7.8 Examine Expansion of Telework Opportunities

Prior to the return to work mandate for federal workers, few employees at NSF Suitland telecommuted or had the option to telecommute because it was not viable for the majority of personnel due to the nature of the high-security mission they support. Many employees have the desire to telecommute and teleworking would reduce the daily number of vehicles entering the installation. If routine teleworking opportunities for federal workers become available in the future, NSF Suitland should explore telework capabilities and implement to the maximum extent possible by determining if there are any positions whose work can be completed at home or at a secure off-site facility. To reduce the peak parking demand on the campus, telecommuting should be encouraged during the peak commuting days of Tuesday, Wednesday, and Thursday. Telecommuting could be incentivized further by providing preferential parking for telework employees who must be on-campus for a particular day.

7.9 Flexible and Alternative Work Schedules

The core working hours at NSF Suitland are between 6:00 AM – 4:00 PM. These times allow employees to have flexibility in commuting time; however, the biggest obstacle to flexible work schedules is the ability to find parking. The current parking ratio at NSF Suitland is 1 parking for every 2.16 employees and it is typically difficult to find parking within the installation fence line after 7:30 AM, which discourages off-peak commuting. To incentivize off-peak commuting, guaranteed parking should be provided for employees who commit to arriving after 9:00 AM.

Many employees aspire to work an alternative schedule, such as working 10-hour days, 4 days a week. With an alternative work schedule, employees should be encouraged to take their day off during peak commuting days. This option would reduce the number of motor vehicles at the installation, therefore reducing the daily parking demand. Preferential parking should be given to alternative work schedule employees so that one reserved parking space could be used by multiple employees who have different workdays. These parking spaces could be linked with parking for employees who have the telecommute in the future.

7.10 Shared-Use Vehicles and Shuttle Service

Many employees have workday meetings off-site that require travel by motor vehicle. An increase in fleet vehicles should be considered at NSF Suitland for employees who do not drive to work to use to attend off-site meetings and for other business travel during the workday. NSF Suitland could also establish accounts with ride-sharing companies, such as Uber and Lyft, and subsidize off-site workday trips for employees who do not drive to work.

Many employees of NSF Suitland commute to work from Fort Meade, JBA and JBAB. Shuttle services could be established from these installations to NSF Suitland to reduce the number of single-occupancy vehicles to the campus from these locations.

7.11 Parking Management

As mentioned previously, a significant number of employees of NSF Suitland reside in areas that do not contain viable transit options and must drive to work. Parking policies for NCPC state that parking is to be provided for employees who are unable to use other travel modes of transportation.

The following parking management strategies should be considered to improve efficiency at existing parking facilities and to reduce parking demand at NSF Suitland:

- **Preferential Parking** - NSF Suitland currently provides preferential parking spaces for carpools/vanpools. An additional 50-75 spaces should be designated near the front entrance of the main facility for carpool use, providing an added incentive for NSF Suitland employees to carpool to the installation.

- **Designated Visitor Parking** - Designated parking spaces should be provided for visitors. The parking lot nearest to Swann Road was previously used for visitor parking and structural concerns of the former garage necessitated the use of this parking lot for employee parking. During conferences and other events at NSF Suitland, spaces are blocked off for visitors, reducing the number of spaces available for employee parking. A permanent designated parking area for visitors would eliminate the need to block off parking spaces used by employees and reduce congestion in other parking areas as employees try to seek an open parking space during days of conferences and other events at NSF Suitland. Designated parking for visitors should be separated from the employee spaces when calculating the parking ratio.
- **Assigned Parking** - The employee transportation survey indicated that it typically takes more than three minutes to find an open parking space for nearly 40% of employees during the morning and after midday trips. Assigned parking spaces would eliminate congestion in parking areas as drivers circle around to look for an open parking space. Assigned parking would benefit employees who have atypical work schedules, such as watchstanders, and encourage employees to commute to work at times other than the peak period. This would reduce NSF Suitland's impact on the external roadway network during peak commuting times. However, assigned parking spaces may encourage an increase in SOV usage, especially during the midday period, as drivers would have the comfort of a guaranteed parking space and not have to worry about the difficulty in finding an open parking space once returning to the installation.
- **Parking Guidance System** - The desire for assigned parking spaces could be waived by the installation of a parking guidance system, similar to systems at airports and shopping malls, that would lead drivers to open parking spaces during crowded times or when the user leaves and returns to the facility during the day. This system uses light-emitting diode (LED) signs located at the end of each driving aisle to indicate how many spaces are available in each parking aisle. By removing the need for drivers to circle driving aisles looking for an open space, parking guidance systems improve and enhance safety by helping drivers locate open spaces quickly and minimizing the risk of collisions with other vehicles or pedestrians. Parking guidance

systems can be used in indoor parking structures or outdoor surface lots.

- **Reduce Executive Parking** - There are currently many executive parking spaces at NSF Suitland and often these spaces go unused. A reduction of executive parking spaces would encourage executives to use other forms of travel to reach the facility and reduce the reliance on SOVs. Executive spaces would be reserved for commanders only.

While these parking management strategies aim to make the parking facilities at NSF Suitland more efficient, the marketing of other modes of travel to help reduce parking demand is the ideal parking management strategy.

7.12 Parking Ratio Reduction

NSF Suitland is committed to working towards the 1:3 parking ratio goal over time and proposes the following concrete measures over the planning horizon of the NSF Suitland ADP.

Short-term (1-5 Years, 2030)

- Utilize existing surface parking on the SFC to meet the entire decreased parking requirement.
- Re-evaluate Parking Placard System and criteria for parking eligibility (target contractors for parking off-site).
- Continue use of ticketing system for illegal use of parking spaces.
- Target carpool/vanpool to specific zip codes with potential highest return.
- Engage with commuter bus services to provide better transit opportunities for employees not served by Metrorail.
- Host town hall meetings to re-educate staff on all transit opportunities and benefits.
- Periodically conduct employee surveys to gain insight on the interest of the workforce for specific alternative modes of transportation (commuter bus, carpool/vanpool, metro parking, employee shuttle).
- Partner with GSA to conduct an updated Transportation Study for the SFC to determine opportunities for better TDM at the SFC as a whole.

- It should be noted with the northeastern expansion of NSF Suitland for the construction of a new Foreign Material Exploitation (FME) laboratory, the installation will lose approximately 200 leased parking spaces from GSA in Lot 3. If no replacement parking is provided, there will be a total of approximately 1,656 employee parking spaces (1:2.42 ratio).

Mid-term (6-10 Years, 2035)

- Program funds and initiate conversation with GSA for a new, more direct pedestrian path (and associated pedestrian entrance) to NSF Suitland through GSA property. This is subject to further study.
- Explore moving missions to other Intelligence Community properties in the region (which would potentially help alleviate the installation space deficit as well).
- At the end of the current lease period with GSA, the 112 spaces in Lot 1 will return to GSA, resulting in a total of 1,744 employee spaces (1:2.30 ratio). (It should be noted that if replacement parking is not provided with the loss of parking in Lot 3 due to the construction of the new facility, there will be an approximately 1,544 employee parking spaces (1:2.59 ratio)).

Long-term (10-20 Years, 2045)

- Achieve the 1:3 parking ratio goal by locating all employee parking within the NSF Suitland fence line.
- Pursue Military Construction (MILCON) funding for a new parking garage on the site of the former garage. The new parking garage would facilitate the removal of all leased parking from GSA (1,036 spaces). The capacity of the garage would be limited to only what would meet a 1:3 parking ratio for the NSF Suitland installation, approximately 822 parking spaces.
- In coordination with GSA, construct a more direct pedestrian path (and associated pedestrian entrance) between NSF Suitland and the Suitland Metro Station. This is subject to further study.
- Pursue options for a joint parking garage on the SFC campus.

Short-, mid-, and long-term parking allocations for NSF Suitland employees are shown on Table 7.2 and graphically on Figure 7.1, Figure 7.2, and Figure 7.3, respectively.

Table 7.2 NSF Suitland Future Parking Ratio Goals

Parking Area / Description	Existing of Parking Spaces (2025)	Short-term (1-5 Years, 2030)	Mid-term (6-10 Years, 2035)	Long-term (11-20 Years, 2045)
Employee Parking Ratio	1:2.16	1:2.42	1:2.59	1:3
Visitor's (North) Parking Lot	0	0	0	0
Executive Parking Pass Only Lot	0	0	0	0
New Surface Lot (Former Garage)	391	391	391	0
Perimeter (Loop Road)	66	66	66	66
D-Wing	50	50	50	50
Front Lot	222	222	222	222
Carpool Lot	50	50	50	50
Lot 3 (Navy-owned Property with Expansion of NSF Suitland)	0	0	473	125
New Garage	0	0	0	822
TOTAL INTERNAL SPACES	779	779	1,252	1,335
Lot 1 (GSA Leased)	112	112	0	0
Lot 3 (GSA Leased)	673	473	0	0
Gravel Lot (GSA Leased)	251	251	251	0
Swann Road	41	41	41	0
TOTAL EXTERNAL AND LEASED SPACES	1,077	877	292	0
TOTAL SPACES	1,856	1,656	1,544	1,355

Figure 7.1 NSF Suitland Short-Term Employee Parking Locations and Allocations (1-5 years, 2030)



Figure 7.2 NSF Suitland Mid-Term Employee Parking Locations and Allocations (6-10 years, 2035)



Figure 7.3 NSF Suitland Long-Term Employee Parking Locations and Allocations (11-20 years, 2045)



8.0 MONITORING AND EVALUATION

To maintain a successful TMP, the program must be monitored and evaluated consistently to obtain maximum effectiveness in achieving intended goals and objectives. This will enable NSF Suitland to assess effectiveness of TDM strategies and recommendations in reaching desired goals and objectives, particularly determining if there was a reduction in the number of employees driving to work alone.

8.1 Program Monitoring and Evaluation

Successful evaluation of TDM strategies will determine the following:

- The extent to which the program has accomplished its stated objectives.
- The extent to which the performance of the objectives can be associated to the program.
- The relationship of different strategies to the effectiveness of the program (productivity).

The following are recommendations for monitoring the NSF Suitland TMP:

- Develop commuter focus groups that collect information from their peers and report back at regular, bi-monthly meetings.
- Prepare and distribute an employee transportation survey to determine changes in commuting modes, patterns and behaviors.
- Conduct traffic counts and intersection operation analyses to determine roadway impacts as a result of TMP strategies.
- Conduct a parking occupancy survey to determine changes in parking characteristics as a result of the TMP strategies.
- The results of commuter surveys and traffic analyses should be documented in a technical memorandum.

- Progress of the implementation of the TMP should be documented to identify successful TDM strategies and determine deficiencies and develop corrective actions.
- Documentation should be made of marketing materials for various TMP strategies.

The monitoring and evaluation recommendations should be initiated at least six months after implementation of the TMP strategies and should continue annually unless otherwise noted.

8.2 Measures of Effectiveness

The base conditions should be used as a starting point to measure the effectiveness of the TMP. Measures that should be evaluated six months after implementation of the TDM strategies include the following:

- **Mode Split** – Has usage of public transportation increased? Has the number of carpoolers/vanpoolers increased? Are more employees using the SFC shuttle bus service? Are more employees biking or walking to work?
- **Average Vehicle Occupancy** – Has the average vehicle occupancy increased in the past the year?
- **Intersection LOS** – Has the level of service deteriorated at key intersections on the NSF Suitland campus and at the SFC gates? Have the intersection operations improved?
- **Peak Parking Utilization** – Has the peak parking utilization changed? Has the demand for parking changed on campus? Are employees finding it more difficult or less difficult to finding a parking space on campus.
- **Number of SOV Commute Trips** – Has the number reduced in the past six months? In the past year?

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9.0 FINAL RECOMMENDATIONS AND CONCLUSION

This update to the TMP builds upon the TDM measures that were established previously and was produced to address changes in employee travel behavior as a result of development in the area surrounding the SFC and to reflect any anticipated mission changes or growth at NSF Suitland through 2035.

By the year 2035, there is projected to be an increase in personnel of 500, resulting in an increase in base loading to approximately 4,500 employees at the installation.

Based on the collection of current data and analysis undertaken, NSF Suitland can have a successful transportation management plan that will reduce SOV trips and increase alternative modes of travel, thus addressing parking concerns by optimizing the use of parking facilities.

Many of the obstacles and concerns presented in the employee survey can be overcome with a coordinated effort by all employees at NSF Suitland. Senior staff and officers must also be encouraged to change their modes of travel for the TMP to be successful. A successful transportation management plan can only be achieved if several of the key strategies identified in this document are implemented.

The following strategies, as discussed in the TDM Update section (Chapter 7), are recommended to reduce single occupancy vehicle usage at NSF Suitland:

- Provide shuttle service between NSF Suitland and other regional military facilities, especially to enlisted personnel barracks.
- Assign the responsibilities of an “ETC” to an existing employee’s job duty to serve as a single point of contact for commuter information and overseer of the TMP.
- Establish a centralized on-site commuter transportation information kiosk with marketing materials and real-time schedules and information for alternative transportation options.
- Encourage the use of regional transportation demand management programs and strategies, such as MWCOC’s Commuter Connections program.

- Increase carpool/vanpool usage by increasing awareness of ride-matching and guaranteed ride home services.
- Increase transit use by increasing awareness of the DoD NCR Mass Transportation Benefit Program.
- Increase bicycle usage by increasing bicycle facilities.
- Examine the pedestrian network and facilities for potential improvements.
- Parking management strategies should be initiated to improve the efficiency of facilities and to reduce SOV use.
- Offer flexible and alternative work schedules to the maximum extent possible.
- Offer shared-use (fleet) vehicles for transportation to off-site meetings and other travel during the workday.

The appointment of the ETC, together with the creation of a central location for commuting information, is critical to the success of the TMP. The ETC is necessary to act as a coordinator to all representatives for the TMP (employees, staff, government, etc.). The ETC must be given full the full support of the installation, as well as the authority to implement and market programs to the benefit employees of NSF Suitland. Incentives must be also provided for alternative modes of travel, while making SOV use unattractive. Successful implementation of the TMP programs and strategies will result in achieving the goals and objectives outlined in this document. Regular updates to the TMP should be implemented to continue the progress made in reducing the impacts of NSF Suitland on the surrounding community and the entire region.

The parking ratio is currently approximately 1 parking space for every 2.16 employees. While the TDM strategies outlined in this document are instrumental in reducing SOV usage at NSF Suitland, many employees live considerable distances from work where it is not conducive to use alternative forms of transportation. Even though the SFC is located adjacent to the Suitland Metro Station, NSF Suitland's location within the SFC makes the walking distance from the Metro Station to be approximately 4,400 feet, which is much further than the distance outlined in the NCPC Transportation Element (2,000 feet) as reasonable for suburban areas.

Given the location of the NSF Suitland campus, residential location of employees and availability of regional transportation initiatives, a 1:3 parking ratio is not reasonably achievable by 2035 due to existing parking demands. Expected future growth at NSF Suitland presents the opportunity for new employees to participate in TDM programs from the onset of employment. With the implementation of the TDM measures outlined in this TMP to reduce SOV automobile trips at NSF Suitland and encourage alternative modes of travel, a 1:3 parking ratio can be achievable by 2045.

ACRONYMS

AADT	Average Annual Daily Traffic	NCR	National Capital Region
ADA	Americans with Disabilities Act	NOAA	National Oceanographic and Atmospheric Administration
ADP	Area Development Plan	NPS	National Park Service
AWSC	All-way Stop Control	NSAW	Naval Support Activity Washington
CAC	Common Access Card	NSF	Naval Support Facility
CLV	Critical Lane Volume	POV	Personal Operated Vehicle
COA	Course of Action	SFC	Suitland Federal Center
DoD	Department of Defense	SHA	State Highway Administration
DU	Dwelling Unit	SOV	Single-occupancy Vehicle
ETC	Employee Transportation Coordinator	SSSC	Side-street Stop Control
FME	Foreign Material Exploitation	TDM	Transportation Demand Management
HCM	Highway Capacity Manual	TMP	Transportation Management Plan
HOT	High-occupancy/Toll	UFC	Unified Facilities Criteria
HOV	High-occupancy Vehicle	V/C	Volume to Capacity
GSA	General Services Administration	VPD	Vehicles Per Day
JBA	Joint Base Andrews	VRE	Virginia Railway Express
JBAB	Joint Base Anacostia-Bolling	WMATA	Washington Metropolitan Area Transit Authority
LED	Light-emitting Diode	WNRC	Washington National Records Center
LOS	Level of Service		
MARC	Maryland Area Rail Commuter		
MILCON	Military Construction		
M-NCPPC	Maryland-National Capital Planning Commission		
MPH	Miles Per Hour		
MTA	Maryland Transit Administration		
MWCOG	Metropolitan Washington Council of Governments		
MUTCD	Manual on Uniform Traffic Control Devices		
NATO	North Atlantic Treaty Organization		
NCPC	National Capital Planning Commission		

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APPENDICES

AP 1 Employee Transportation Survey

NSF Suitland - Employee Transportation Questionnaire (2025)

These questions are intended to gather general information regarding commuter habits at NSF Suitland. The survey will take about 5 – 10 minutes to complete. Responses should be based on your typical commuting habit since 01 March 2025. The first 9 questions are required.

* 1. What is your 5-digit home zip code?

* 2. Which is your typical mode(s) of travel to the Suitland Federal Center (SFC) Campus and NSF Suitland? (Check all that apply)

- | | |
|---|---|
| <input type="checkbox"/> Car/Truck (personal vehicle) | <input type="checkbox"/> VRE or MARC Commuter Rail |
| <input type="checkbox"/> Motorcycle | <input type="checkbox"/> Taxi / Uber / Lyft |
| <input type="checkbox"/> Carpool/Vanpool | <input type="checkbox"/> Bicycle |
| <input type="checkbox"/> Metrorail | <input type="checkbox"/> Scooter |
| <input type="checkbox"/> Metrobus | <input type="checkbox"/> Walk |
| <input type="checkbox"/> PG County The Bus | <input type="checkbox"/> Telecommute (Remote or telework) |
| <input type="checkbox"/> MTA Commuter Bus | |
| <input type="checkbox"/> Other (please specify) | |

* 3. Which gate do you typically use to ENTER the SFC Campus in the MORNING?

- | | |
|---|---|
| <input type="radio"/> Gate 0 (Water Tower Gate) | <input type="radio"/> Gate 4 (Suitland Road onto Satellite parking lot) |
| <input type="radio"/> Gate 1 (Suitland Road, near former NMIC Facility) | <input type="radio"/> Gate 5 (Main Gate / Silver Hill Road) |
| <input type="radio"/> Gate 3 (Federal Center Lane) | <input type="radio"/> Gate 7 (Metro Gate) |

* 4. Which is your typical arrival time into work?

- | | |
|---|---|
| <input type="radio"/> Before 6:00 AM | <input type="radio"/> 7:01 AM - 7:30 AM |
| <input type="radio"/> 6:00 AM - 6:30 AM | <input type="radio"/> 7:31 AM - 8:00 AM |
| <input type="radio"/> 6:31 AM - 7:00 AM | <input type="radio"/> After 8:00 AM |

* 5. How long does it typically take you to commute to work?

- | | |
|--|---|
| <input type="radio"/> Less than 15 minutes | <input type="radio"/> 46 minutes - 60 minutes |
| <input type="radio"/> 15 - 30 minutes | <input type="radio"/> 61 minutes - 90 minutes |
| <input type="radio"/> 31 - 45 minutes | <input type="radio"/> More than 90 minutes |

* 6. Which is your typical departure time from work?

- Before 2:30 PM
- 2:30 PM - 3:00 PM
- 3:01 PM - 3:30 PM
- 3:31 PM - 4:00 PM
- 4:01 PM - 4:30 PM
- After 4:30 PM

* 7. Which gate do you typically use to EXIT the SFC Campus in the AFTERNOON / EVENING?

- Gate 0 (Water Tower Gate)
- Gate 1 (Near former NMIC Facility to Suitland Road)
- Gate 3 (Federal Center Lane)
- Gate 4 (Satellite parking lot onto Suitland Road)
- Gate 5 (Main Gate / Silver Hill Road)
- Gate 7 (Metro Gate)

* 8. How long does it typically take you to commute home?

- Less than 15 minutes
- 15 - 30 minutes
- 31 - 45 minutes
- 46 minutes - 60 minutes
- 61 minutes - 90 minutes
- More than 90 minutes

NSF Suitland - Employee Transportation Questionnaire (2025)

Motor Vehicle Usage (Driving)

The next several questions are to get information on motor vehicle usage at NSF Suitland.

* 9. How often do you typically drive to work?

- Daily
- 4 times per week
- 2-3 times per week
- Once per week
- Only on occasion
- Never (If "Never", skip to Question 19)

10. When driving to work, how many people are typically in your vehicle?

- Only myself
- 1 additional person
- 2 additional people
- 3 additional people
- more than 3 additional people
- I do not drive to work

11. When driving, which route best describes the way you come to work?

- I do not drive to work
- Eastbound Suitland Road (from Washington towards Suitland)
- Shadyside Avenue to Suitland Road
- Southbound Suitland Parkway (from Washington) to Silver Hill Road
- Northbound Suitland Parkway (towards Washington) to Suitland Road
- Northbound Suitland Parkway (towards Washington) to Silver Hill Road
- Pennsylvania Avenue to Silver Hill Road
- St. Barnabas Road to Silver Hill Road
- Branch Avenue to Silver Hill Road

Other (please specify)

12. After passing through the NSF Suitland gate, how long does it typically take to find an open parking space?

- Less than 1 minute
- 1 - 2 minutes
- 2 - 3 minutes
- More than 3 minutes
- I park outside the gate
- I do not drive to work

13. Once through the gate, what parking facility do you typically use?

- NMIC Front Parking Lot
- NMIC Back Parking Lot
- GSA Overflow Parking Lot (Closest to the Former NMIC Facility)
- GSA Overflow Parking Lot (Closest to the Census Bureau)
- Along Swann Road
- Other parking facility
- I do not drive to work

14. Once you have a parking space, do you avoid moving your car during the day?

- Yes
- No
- I do not drive to work

15. If you do leave the SFC Campus / NSF Suitland installation during the day, how would you describe your typical trip?

- I do not leave the SFC Campus / NSF Suitland installation during the day.
- Close by (less than 1/2 mile)
- Local (more than 1/2 mile but less than 3 miles)
- Distant (more than 3 miles away from the SFC Campus / NSF Suitland installation)

16. If you leave the SFC Campus / NSF Suitland installation during the day, how would you classify the duration of your trip?

- I do not leave the SFC Campus / NSF Suitland installation during the day.
- 30 minutes - 1 hour
- 1 - 2 hours
- More than 2 hours
- Typically, I do not return after leaving the SFC Campus / NSF Suitland installation.

17. When returning to the SFC Campus / NSF Suitland installation from MIDDAY trips, how long does it typically take to find an open parking space?

- I do not leave the SFC Campus / NSF Suitland installation during the day
- Less than 1 minute
- 1 - 2 minutes
- 2 - 3 minutes
- More than 3 minutes

18. Which of the following services would encourage you to explore alternatives to driving alone? (Check all that apply)

- I do not drive alone to work
- Flexible work schedule
- Express bus or vanpool near home
- Increased transit subsidies
- Improved shuttle service to Metro
- Guaranteed Ride Home (existing program)
- Carpool/vanpool ride-matching service
- Increased installation daycare capacity
- Extended daycare hours

NSF Suitland - Employee Transportation Questionnaire (2025)

Transit Usage

The next several questions are to get information on transit usage to NSF Suitland.

19. Do you have a SmarTrip® Card?

-
- Yes
- No
- I do not know what a SmarTrip® Card is.

20. How often do you use transit (Metrorail / Metrobus / PG County The Bus / MTA Commuter Bus, etc.) to commute to NSF Suitland?

- Daily
- 4 times per week
- 2 - 3 times per week
- Once per week
- Only on occasion
- Never (If "Never", skip to Question 22)

21. Do you currently use the federal transportation subsidy paid to employees in the National Capital Region to take shared transportation options?

Yes

No

I am unaware of this subsidy

NSF Suitland - Employee Transportation Questionnaire (2025)

Carpool/Vanpool Usage

The next several questions are to get information on carpool/vanpool usage at NSF Suitland.

22. Do you currently participate in a carpool/vanpool?

Yes

No

23. If NO, why do you choose not to carpool/vanpool? (Check all that apply)

Concern about the ride-share program

Concern about a guaranteed ride home

Carpool / vanpool spaces not close by

Prefer to commute by myself

Inconsistent work hours

Limited carpool / vanpool availability

Do not know where to or how to apply

Have before / after work obligations

Need own car for off-site meetings during the day

Other (please specify)

24. Are you aware of the NSF Suitland ride-matching service for carpools / vanpools?

Yes, and I currently use this service

Yes, but I do not use this service

No, I am unaware of this service

25. Are you aware of the Guaranteed Ride Home service for carpool / vanpool users?

- Yes, and I have used this service before
- Yes, but I have not used this service
- No, I am unaware of this service

NSF Suitland - Employee Transportation Questionnaire (2025)

Final Questions

26. Do you currently use the satellite parking lot / Metro Station shuttle?

- Yes, frequently
- Yes, occasionally
- I am aware of the shuttle, but do not use it
- I am unaware of the parking lot / Metro Station shuttle

27. Once at work, do you have a need to travel to other areas on the SFC Campus?

- Yes, I travel by foot
- Yes, I travel by car
- Yes, I travel by bike / scooter
- No

28. Do you have a child or children that frequently attend the Child Development Center at the SFC Campus?

- Yes
- No
- I am unaware of the Child Development Center at the SFC Campus

29. What can be done to improve your commute to NSF Suitland?

30. Comments or Observations

