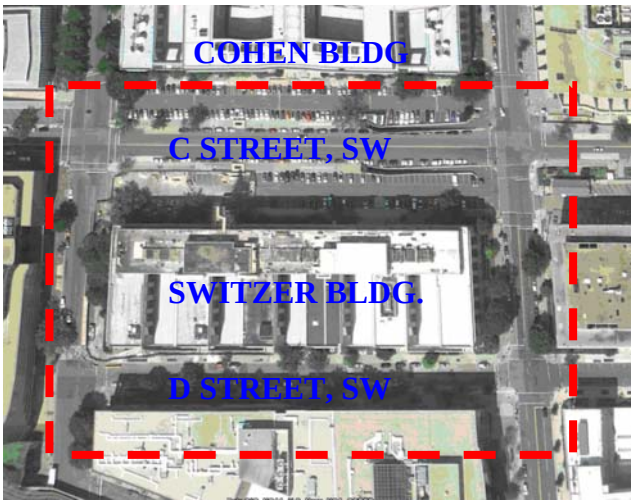
Technical Memorandum:

PRELIMINARY ASSESSMENT - SUMMARY OF TRAFFIC ISSUES AND IMPACTS FOR SWITZER BUILDING RENOVATIONS AND UPGRADES, SOUTHWEST, WASHINGTON, D.C.



Prepared for:
GENERAL SERVICES ADMINISTRATION
Office of Project Delivery
301 7th Street SW, Room 2021 (WPC)
Washington, D.C. 20407-0001

- Mark Banks, AIA, Senior Project Manager

Prepared by:
O. R. GEORGE & ASSOCIATES, INC.
Transportation Planning & Engineering Consultants
10210 Greenbelt Road, Suite 310
Lanham, Maryland 20706
Tel: (301) 794-7700

April 6, 2011

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O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

10210 Greenbelt Road, Suite 310 • Lanham, MD 20706-2218
Tel: (301) 794-7700 • Fax: (301) 794-4400
E-mail: ogeorge@orgengineering.com

TECHNICAL MEMORANDUM

DATE: April 6, 2011

TO: U.S. GENERAL SERVICES ADMINISTRATION
Office of Project Delivery
Attn: Mark Banks, AIA, Senior Project Manager

Via

HNTB Corporation
Arlington, VA
Attn: Jeffrey V. Catts, RLA, ASLA

FROM: Osborne R. George, P.E., PTOE
A. Mark Atkinstall, EIT

RE: Switzer Building Renovations and Upgrades –
Traffic Impact Assessment (Preliminary Summary Report)

INTRODUCTION AND BACKGROUND

The General Services Administration (GSA) is undertaking renovations of several federal buildings within the Neighborhood of Third Street and C Street Southwest, Washington, DC. Key among these are the Cohen Building and the Mary Switzer Building, situated north and south of C Street, respectively. As part of the on-going development process, an initial urban design scheme was developed by GSA to modify the roadway cross-section and abutting parking areas adjacent to the two (2) buildings referenced above. The traffic impacts associated with that scheme was evaluated in a 2010 report prepared for the GSA National Capital Region Property Development Division.[1] That assessment concluded that the proposed roadway changes would not adversely impact site access and circulation involving the various modes of travel within the neighborhood.

As part of the further planning and design process, the GSA Office of Project Delivery has developed proposals to modify the roadway configuration and abutting streetscape elements in the immediate vicinity of the Switzer Building. The proposal includes the following key features:

1) Elimination of the off-street parking adjacent to the Cohen and Switzer Buildings, and creation of landscaped areas with pedestrian pathways linking the buildings with the adjacent roadway.

2) Reducing the 300 Block of C Street cross-section, eliminating much of the on-street parking, and creating bulb-outs at the 3rd Street and 4th Street ends of the block; as well as providing a mid-block pedestrian crossing.

[1] Supplemental Data Collection and Operational Assessment, by O. R. George & Associates (June 15, 2010).

3) Elimination of all vehicular access to the Switzer Building and Cohen Building, with the exception of access to the underground loading and service areas, via entry ramps along the north side, and exit ramps along the south side of C Street at 3rd Street.

The building improvements associated with the roadway access and circulation plan calls for the following programmatic changes to the Switzer Building:

a) Gross Floor Area of 525,373 SF; and

b) Building occupancy of 1,450 persons.

As part of the planning process, the GSA Project Management has been engaged in discussions with the District Department of Transportation (DDOT), Policy, Planning and Sustainability Administration. DDOT has raised specific issues pertaining to the use and operational situation along the adjacent/public City roadways. This memorandum addresses the issues raised; and is also prepared as an accompanying document to GSA's application submission to the National Capital Planning Commission (NCPC).

In order to facilitate the data, analysis, and discussion presented herein, Exhibit 1 shows the location of the Switzer Building and study area roadways discussed above. Exhibit 2 shows the Switzer Building Site Improvements. Communications between GSA and DDOT regarding the key local area access issues are included as Attachment 1.

It is relevant to note that the Switzer Building is favorably situated with respect to access by various modes of travel accessing the Downtown Area. This includes easy access to the adjacent I-395/I-295 Freeway system; proximity to two (2) Metrorail Stations (the Southwest Federal Center, and the L'Enfant Station), served by the Yellow, Blue, Green, and Orange Lines on the WMATA system, as well as access to the Virginia Railway Express, which provides service via a stop at the L'Enfant Plaza Station. The area is also served by stops on various shuttle bus routes, the DC Circulator, as well as by Metrobus routes along C Street, D Street, and 3rd Street. Several bicycle routes also serve the local area.

The remainder of this memorandum addresses existing traffic conditions, summarizes traffic operations and safety issues, and examines potential impacts associated with the on-going improvements and upgrades proposed for the subject building.

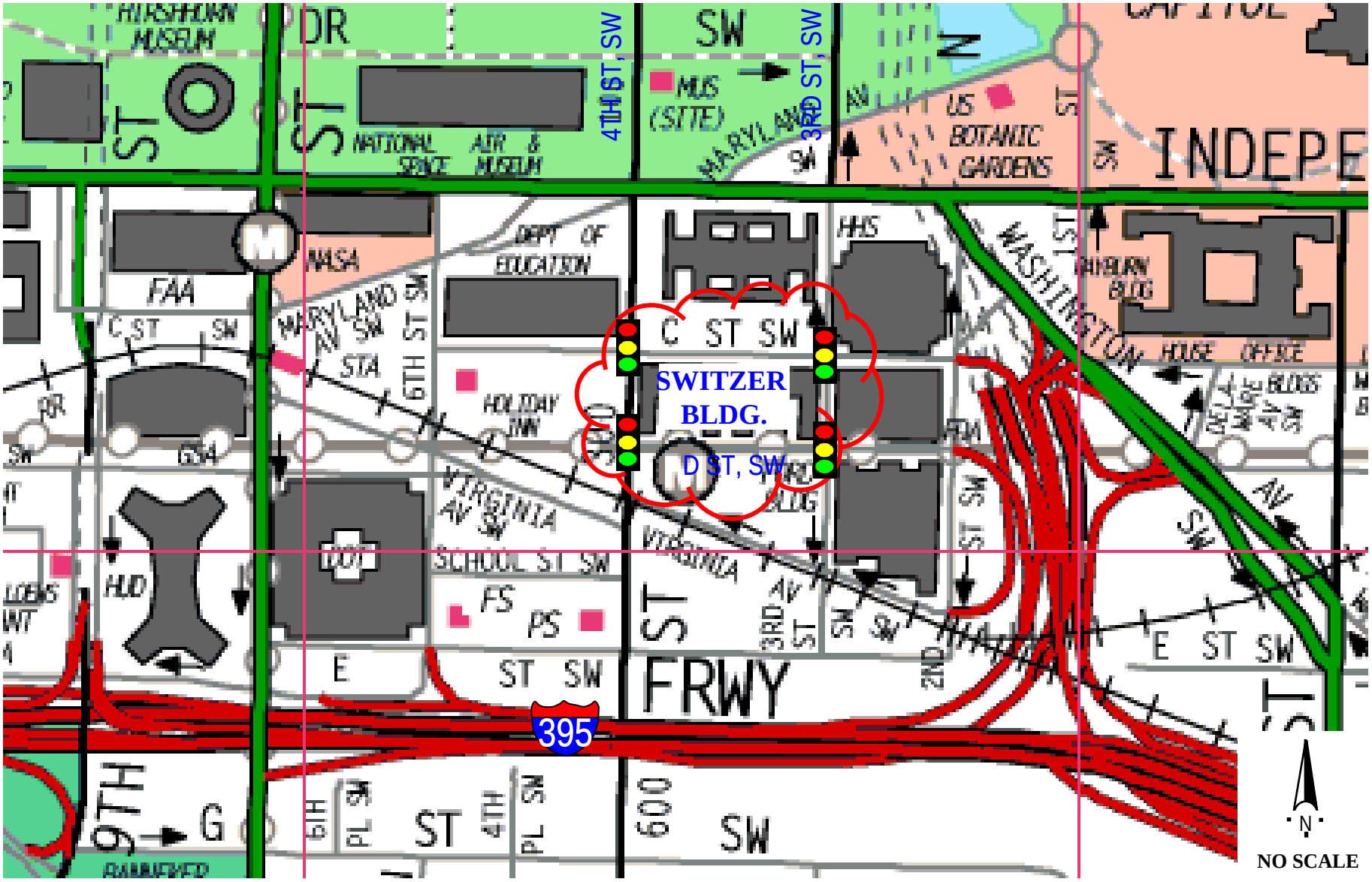

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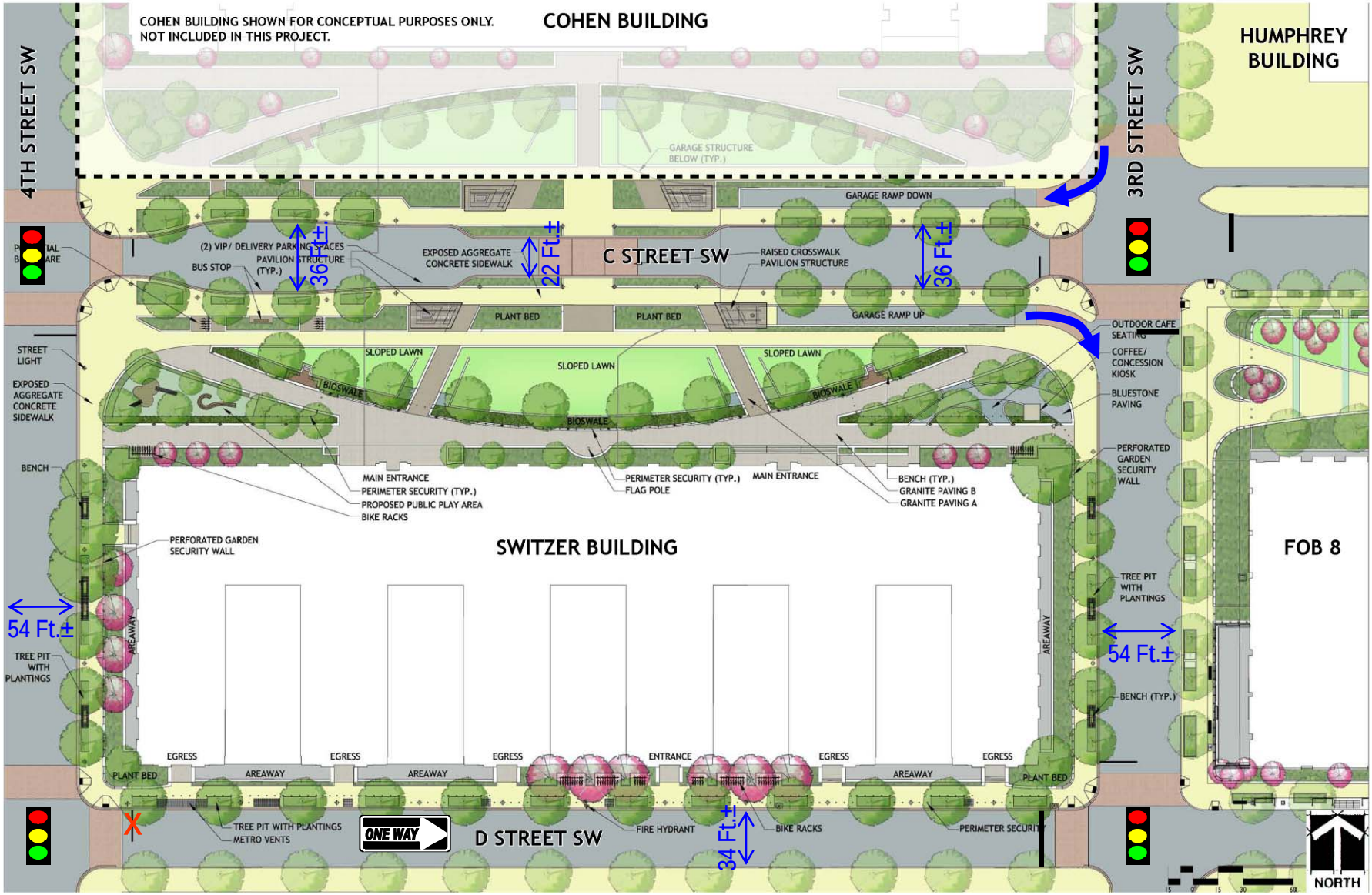
Exhibit 1: Site Location Map

Mary Switzer Building Renovations and Upgrades,
Southwest, Washington, D.C.
Preliminary Traffic Impact Assessment



Source: HNTB/AECOM: 1.1 PROGRAM LAYOUT (2/17/2011) & ORGA

Exhibit 2: Site Improvement Concept

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Mary Switzer Building Renovations and Upgrades,
Southwest, Washington, D.C.
Preliminary Traffic Impact Assessment

EXISTING ROADWAY AND TRAFFIC CONDITIONS

The Switzer Building is located with the Central Employment Area (CEA) of the City. More specifically, it is within the "C Street Neighborhood" within the L'Enfant Plaza Southwest Area, as defined in the City's Comprehensive Plan. For context, the key functional and operational elements of the roadway network are summarized below:

- **C Street, SW** is designated a Collector Roadway[2] and provides a varied cross section with four (4) travel lanes west of Third Street, and two (2) lanes east of Third Street. Metered parking is provided along this roadway section, which also serves Metrobus routes, with stops within the immediate study area. The subject roadway section carries approximately 5,100 vehicles daily.
- **Third Street, SW** is designated a Collector Roadway[2], and provides four (4) travel lanes through the study area. Metered parking is provided along this roadway. The adjacent section of C Street serves ADT volumes of approximately 6,600 vehicles.
- **Fourth Street, SW** is designated as a Minor Arterial[2] on the City's roadway system and provides four (4) travel lanes through the study area. Metered parking is provided along the roadway, which serves ADT volumes of 6,100 vehicles.

The ADT Volumes noted above were obtained from the DDOT 2008 Traffic Volume Map; and the volumes quoted for Fourth Street above are for a point between C Street and Independence Avenue. There are no posted speed limit signs within the immediate study area. The roadways defined above are all governed by the City's 25 MPH speed limit.

Exhibit 3 shows the roadway/intersection configuration and traffic controls for the defined roadway network. For further context, Exhibit 4 shows details of the roadway width and on-street parking provisions within the immediate vicinity of the Switzer Building. *[Note: Due to the on-going construction activity within the area, there were several locations where encroachment has occurred into the traveled-way. The roadway lane configuration shown in Exhibit 3 reflects the typical situation assuming reinstatement of the normal roadway conditions.]*

In order to assess current roadway and operational conditions, intersection turning movement counts were conducted on Thursday, February 10, 2011 and Tuesday, March 8, 2011 during the following periods on typical weekdays:

- 7:00 - 10:00 AM; • 11:00 AM - 1:00 PM; and • 4:00 - 7:00 PM

Exhibit 5 shows the peak hour volumes occurring during each of these periods. For this purpose, the peak hour is defined as the four consecutive 15-minute intervals reflecting the highest total traffic usage. Field observations and the traffic count data confirm that traffic volumes using the local roadways are low to moderate, and they reflect their functional characteristics, which is geared to providing local access with some through traffic movements. Further evaluation of the traffic data collected is developed in the following section entitled "Traffic Operations and Safety," on page 9. Pedestrian volume data were also collected on the dates referenced above and is summarized in Table 1 (on page 9). In addition to the base data, Table 1 also reflects the morning, mid-day and afternoon peak hour activity for the four (4) study area intersections.

[2] District Department of Transportation, Functional Classification Map. [See Attachment 2.]

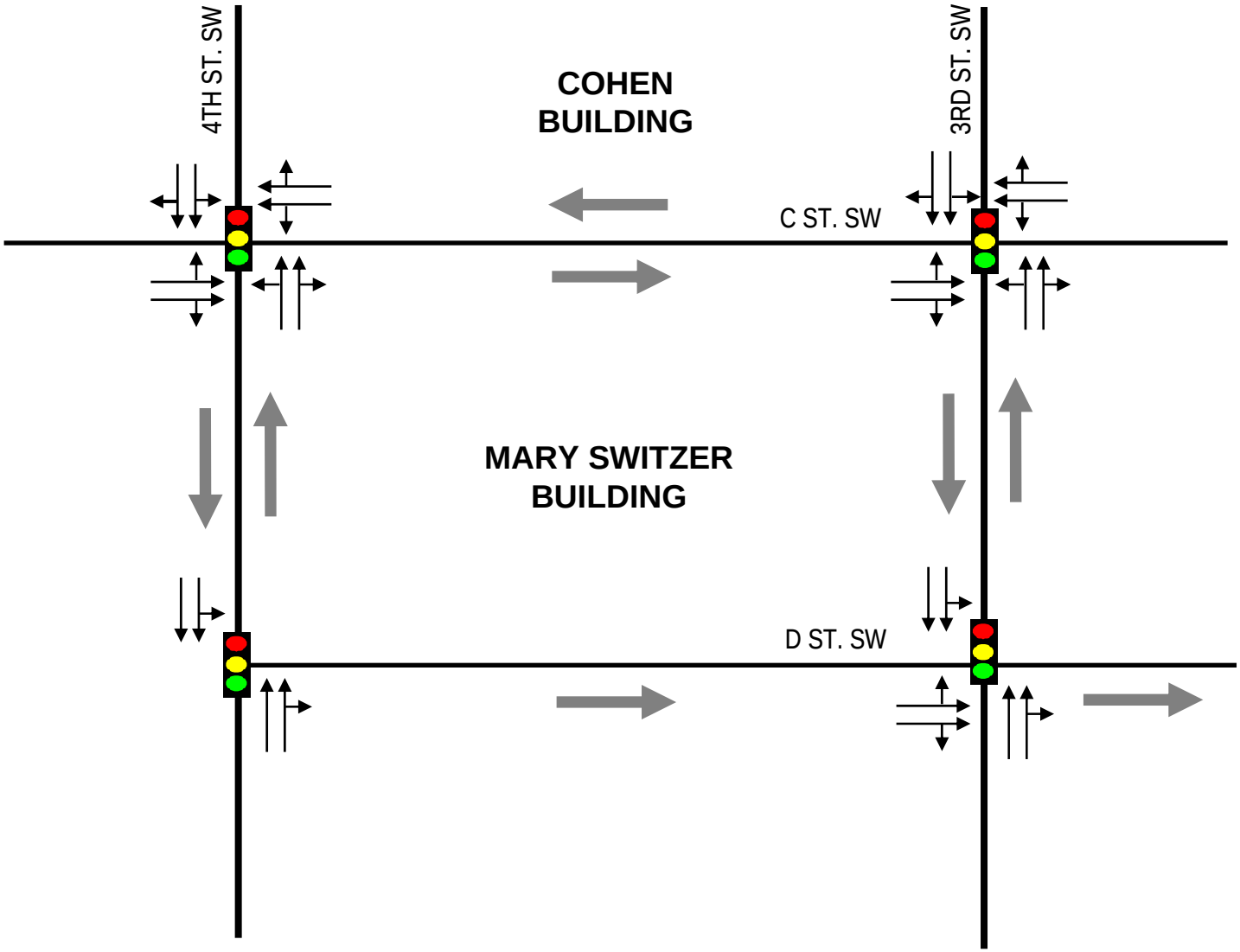

Exhibit 3: Roadway Lane Configuration and Traffic Control Devices

Mary Switzer Building Renovations and Upgrades,
Southwest, Washington, D.C.
Preliminary Traffic Impact Assessment

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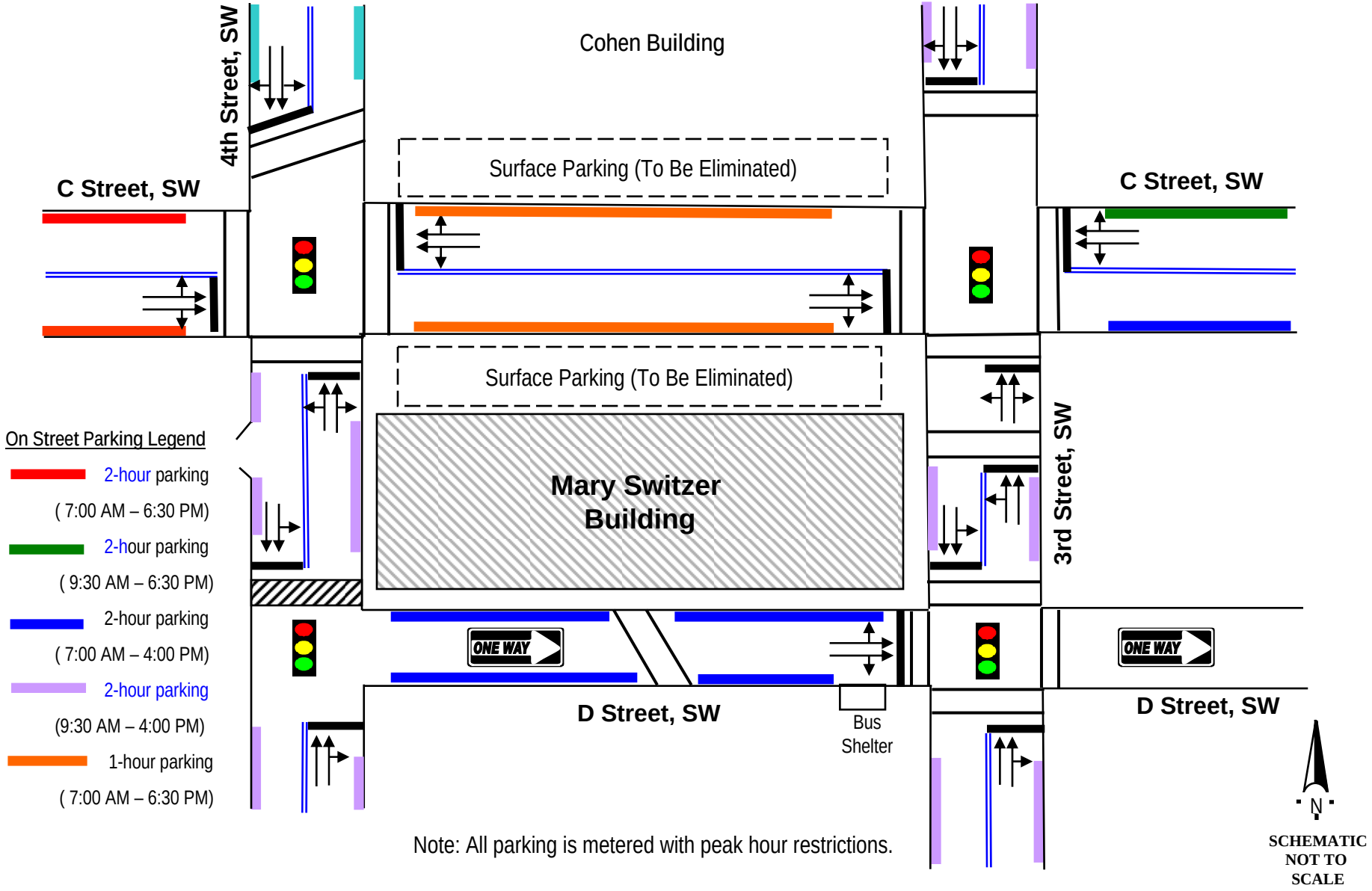

Exhibit 4: Condition Diagram

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Mary Switzer Building Renovations and Upgrades,
Southwest, Washington, D.C.
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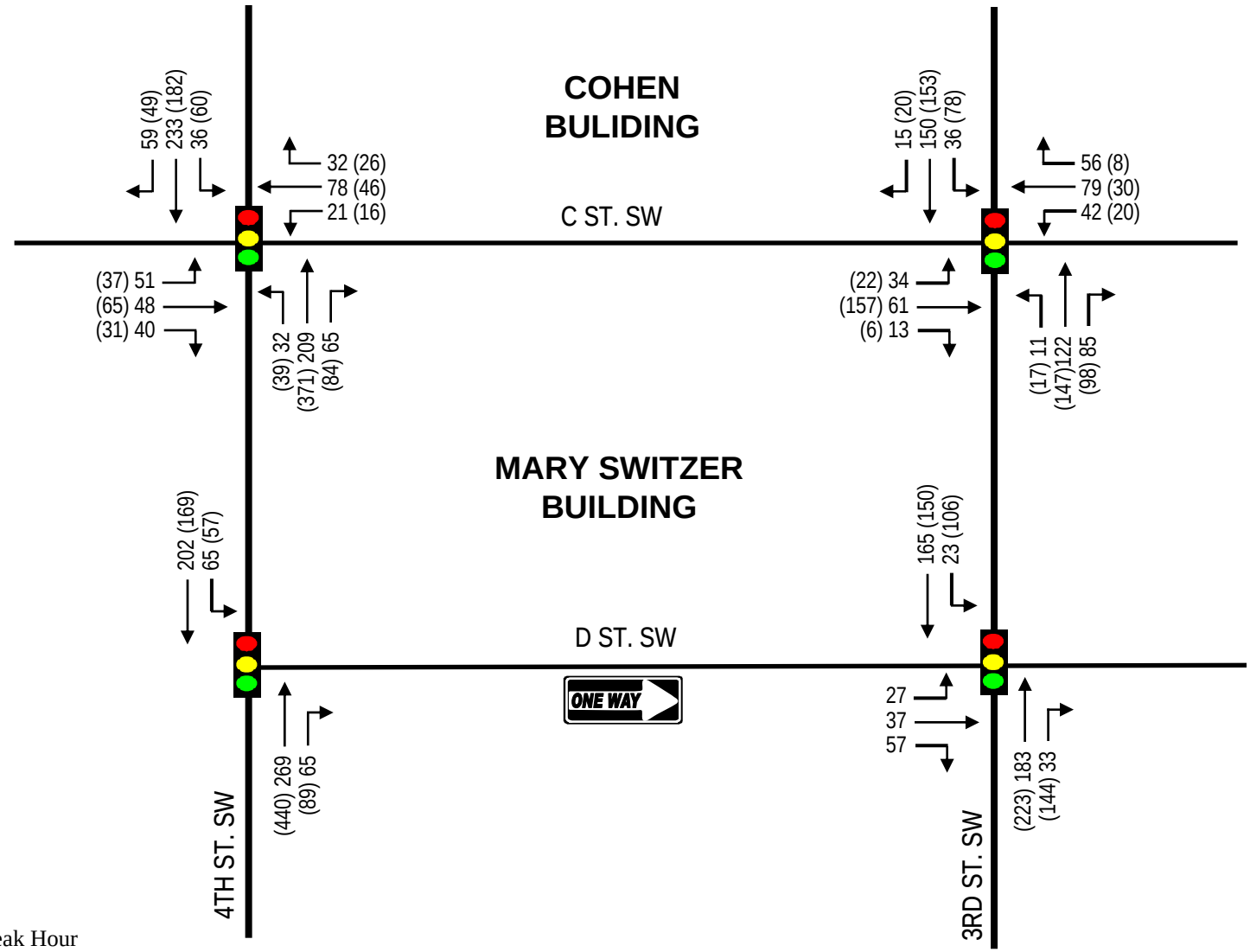

Legend

00 - AM Peak Hour

(00) - PM Peak Hour

SCHEMATIC NOT TO SCALE

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Exhibit 5: Peak Hour Volumes

Mary Switzer Building Renovations and Upgrades,
Southwest, Washington, D.C.
Preliminary Traffic Impact Assessment

TABLE 1

Pedestrian Volumes (Study Area Intersections)

Street Name	Pedestrian Volumes			
	C Street, SW		3rd Street, SW	
Hour Ending	East Leg	West Leg	North Leg	South Leg
7:00 - 8:00 AM	293	73	2	57
8:00 - 9:00 AM	437	62	1	100
9:00 - 10:00 AM	387	54	6	158
10:00 - 11:00 AM	NOT COUNTED			
11:30 - 12:00 PM	154	11	25	61
12:00 - 1:00 PM	444	74	137	167
1:00 - 1:30 PM	168	29	26	85
1:30 - 3:00 PM	NOT COUNTED			
3:30 - 4:00 PM	155	45	42	72
4:00 - 5:00 PM	436	81	35	147
5:00 - 6:00 PM	468	61	20	151
6:00 - 6:30 PM	162	28	8	57
AM PEAK (9:00 - 10:00)	387	57	6	158
MIDDAY PEAK (12:00 - 1:00)	444	74	137	167
PM PEAK (5:00 - 6:00)	468	61	20	151

Street Name	Pedestrian Volumes			
	C Street, SW		4th Street, SW	
Hour Ending	East Leg	West Leg	North Leg	South Leg
7:00 - 8:00 AM	71	138	139	84
8:00 - 9:00 AM	123	185	213	175
9:00 - 10:00 AM	52	121	152	94
10:00 - 11:00 AM	NOT COUNTED			
11:30 - 12:00 PM	33	113	82	65
12:00 - 1:00 PM	149	291	244	173
1:00 - 1:30 PM	86	147	125	53
1:30 - 3:00 PM	NOT COUNTED			
3:30 - 4:00 PM	40	79	64	69
4:00 - 5:00 PM	90	110	174	149
5:00 - 6:00 PM	117	91	122	142
6:00 - 6:30 PM	44	39	42	42
AM PEAK (8:00-9:00)	123	185	213	175
MIDDAY PEAK (12:00 - 1:00)	149	291	244	173
PM PEAK (5:00-6:00)	90	110	174	149

Street Name	Pedestrian Volumes			
	D Street, SW		3rd Street, SW	
Hour Ending	East Leg	West Leg	North Leg	South Leg
7:00 - 8:00 AM	76	399	70	142
8:00 - 9:00 AM	140	579	156	243
9:00 - 10:00 AM	99	432	98	162
10:00 - 11:00 AM	NOT COUNTED			
11:00 - 12:00 PM				
12:00 - 1:00 PM				
1:00 - 2:00 PM				
2:00 - 3:00 PM				
3:30 - 4:00 PM	49	171	24	39
4:00 - 5:00 PM	73	509	70	80
5:00 - 6:00 PM	77	511	104	107
6:00 - 6:30 PM	45	166	46	125
AM PEAK (8:00-9:00)	140	579	156	243
PM PEAK (5:00-6:00)	77	511	104	107

Street Name	Pedestrian Volumes			
	D Street, SW		4th Street, SW	
Hour Ending	East Leg	West Leg	North Leg	South Leg
7:00 - 8:00 AM	35	18	105	0
8:00 - 9:00 AM	20	15	94	0
9:00 - 10:00 AM	15	12	57	1
10:00 - 11:00 AM	NOT COUNTED			
11:00 - 12:00 PM				
12:00 - 1:00 PM				
1:00 - 2:00 PM				
2:00 - 3:00 PM				
3:30 - 4:00 PM	15	7	53	0
4:00 - 5:00 PM	10	12	163	3
5:00 - 6:00 PM	10	4	134	7
6:00 - 6:30 PM	0	7	43	3
AM PEAK (7:00 - 8:00)	35	18	105	0
PM PEAK (4:00 - 5:00)	10	12	163	7

TRAFFIC OPERATIONS AND SAFETY

In keeping with standard practices and procedures specified by DDOT, the weekday peak hour traffic volumes were analyzed in order to determine current levels of service.[3] The peak hours were found to generally occur between 7:30 to 9:00 AM, and 4:45 to 6:00 PM. Table 2 following summarizes the levels of service (LOS) results, and notes the average control delay experienced by vehicles utilizing each intersection. Detailed capacity analysis worksheets are included in Attachment 3.

TABLE 2

SUMMARY OF CAPACITY ANALYSIS RESULTS - EXISTING TRAFFIC SITUATION

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Avg. Delay (Sec/Veh)*	Level of Service	Avg. Delay (Sec/Veh)*
1) 3rd Street @ C Street, SW	C	25.2	C	27.1
2) 4th Street @ C Street, SW	B	12.5	B	13.0
3) 3rd Street @ D Street, SW	A	8.6	A	9.6
4) 4th Street @ D Street, SW	A	1.8	A	1.9

* Seconds per Vehicle (Control Delay).

Source: O. R. George & Associates

The results of the capacity analysis presented above reflect that the study area intersections currently operate at quite acceptable levels of service during both the AM and PM peak hours. This is due to the fact that traffic volumes within the area are relatively low. Allowing for the on-going construction, the consultant factored the traffic count data by 10%, in order to reflect a somewhat conservative approach for planning purposes. It is important to note that the analysis process incorporates the critical characteristics of the local traffic. This includes the traffic signal timings, vehicle types/classification, parking controls; as well as pedestrian and bicycle movements. Synchro analyses reflecting potential queuing along the study area roadways will be provided in the final report to supplement the analysis and data presented above.

[3] *"Level of Service" is a qualitative measure describing operational conditions within a traffic stream or at an intersection, and their perception by roadway users. Principal factors are speed and travel time, delay, and freedom to maneuver, traffic interruptions, comfort, convenience and safety. Current engineering practice defines six (6) Levels of Service (A-F), with "A" representing best operating conditions, and Level of Service "F" representing the worst conditions. Level of Service D is generally considered by the District of Columbia as the minimum acceptable conditions for planning and design purposes.*

In order to assess the traffic safety situation within the study area, crash data was obtained from the District Department of Transportation for the study area intersections. The data covered the most recent three-year period, i.e., 2007 - 2009, for which data were available. Copies of the crash data summaries are included as Attachment 4. The summary of crash data is presented in Table 3.

TABLE 3

CRASH RECORD SUMMARY (2007-2009)
STUDY AREA INTERSECTIONS

Location	Accidents			Avg./ Year	MEV*	Crash Rate
	2007	2008	2009			
1) 3rd Street @ C Street, SW	4	6	1	3.67	7.23	1.52
2) 4th Street @ C Street, SW	0	2	0	0.67	6.68	0.30
3) 3rd Street @ D Street, SW	3	1	0	1.33	7.23	0.55
4) 4th Street @ D Street, SW	1	1	0	0.67	6.68	0.30

* MEV = Million Entering Vehicles.

Source: DDOT and O. R. George & Associates.

The crash rate is defined as the number of crashes per million entering vehicles (MEV's) for intersections. The MEV's were developed by estimating average annual traffic based on the existing peak hour traffic volumes (presented in Exhibit 5), and applying procedures recommended by the Institute of Transportation Engineers (ITE). Typically, intersections with crash rates of 2.0 (or greater) warrant further evaluation to determine whether remedial safety measures would be appropriate. Based on the crash occurrences and rates indicated in Table 2 above, it can be concluded that there are currently no significant safety deficiencies at the study area intersections, warranting further analysis and evaluation.

The Third Street at C Street intersection is clearly the most complex considering the current entries into the Cohen Building parking, the underground loading/access ramp and the service roadway along the north side of C Street, east of the intersection. While this study does not have data on any geometric or access changes, the trend at this location is clearly positive, with only one crash occurring during the most recent year on record. Correspondingly, it is noteworthy that no crashes were reported for the other three (3) intersections during 2009.

PROPOSED SWITZER BUILDING IMPROVEMENTS

As noted in the introduction, the proposed renovations and upgrades of the Switzer Building involve the following programmatic changes:

Program Element	Current	Future
• Building Square Footage	N/A	525,373 SF
• Building Occupancy	N/A	1,450 Persons
• Child Development Center Capacity	82 Children	100 Children (22% increase)

N/A = Not Available.

Completion and occupancy is anticipated by mid-2012. With respect to the roadway and urban design elements of the plan, it is noted that the street system will remain unchanged except for the 600-Ft. section running from the west face of Third Street to the east face of Fourth Street. Changes proposed for this section include the following:

1. Provision of bulb-outs on both ends of the block;
2. Narrowing of the roadway to provide approximately 36-Ft. wide sections at the Third Street and Fourth Street ends; and
3. Provision of a 150-Ft. mid-block section approximately 22 Feet in width, including a crosswalk connecting to pathways accessing the adjacent landscaped area.

A notable component of the urban design improvement is the elimination of the two (2) adjacent surface lots, along with the curb-cuts/driveways which currently access these lots north and south of the adjacent intersections. The ramps accessing the underground service area will be maintained; with access being restricted to right-turns into the north ramp, and right-turns out of the exit/south ramp. (Details are provided on Exhibit 2, page 4.)

Except for the existing surface parking lots 122 spaces, off-street parking is not currently provided for the Mary Switzer Building. These spaces are signed and designated for specific users. Based on typical parking ratios for the City, over 1,500 parking spaces would be required for a building of this size. It is also understood that the General Services Administration does not provide on-site parking for employees, expect where special needs justify such arrangements. *[There are a number of commercial parking lots within the general area, and it is understood that employees, who commute to work using personal vehicles, are responsible for their own parking arrangements.]*

Considering the proximity of the Switzer Building to both the Federal Center Southwest Metrorail Station and the L'Enfant Plaza Station, this appears to the fully consistent with the

policies of the Federal, City governments and NCPC, which call for minimizing parking supply as part of Transportation Demand Measures adopted by both agencies. [4] While no specific employee parking surveys were conducted within the area, it is quite apparent that the parking demands are being met.

Given the above factors, the actual parking demand is less than the figure previously referenced. Additionally, the WMATA Ridership survey referenced later in the study (on page 17) suggests that the actual demand is likely in the range of 100 - 120 spaces on a typical weekday. However, the Consultant understands that this building is designated as a Historic site and that no off-street parking is required as part of the on-going improvements and upgrades. Furthermore, no off-street parking will be provided in future plans.

Previous concepts evaluated in 2010 called for a reduction of parking to approximately 45 spaces accessed by secured/manned security gates. As part of further analysis to be undertaken, the Consultant will coordinate with GSA Project Management Team to locate spaces proximate to the building for parking/drop-off functions.

Table 4 summarizes the key roadway design element of GSA's proposals with the City's design standards as highlighted in DDOT's Design and Engineering Manual.

TABLE 4

COMPARISON OF CITY DESIGN STANDARDS WITH GSA PLAN PROVISIONS

Roadway Element	City's Design Standards*	GSA Design Proposal
1) Corner Radii	15 Ft. (Min.)	TBP
2) Directional Wheelchair/ ADA Ramps	Required	Provided
3) Crosswalks	15 Ft.	TBP
4) Sidewalks (including Tree Space)	10 Ft. (Min.)	10 – 12 Ft.
5) Lane Width (with Bus Service)	11 Ft.	11 Ft.
6) Roadway Width (Two-Way, parking both sides)	36 Ft.	36 Ft.
7) Roadway Width Two-Way, No Parking (with Bus Service)	22 Ft.	22 Ft.

TBP - To Be Provided
* DDOT Design and Engineering Manual.

[4] Implementing a Successful TMP, by the General Services Administration (GSA), the Metropolitan Washington Council of Governments (MWCOG), and the National Capital Planning Commission (NCPC) , (May, 2008).

Table 3 shows that the key elements of the development plan would satisfy the City's design and engineering standards. Issues such as available turning radii associated with the bulb-out treatments along C Street are being addressed by others. In terms of impact on the general traffic flow patterns, it is clear the proposed roadway changes would not have any significant adverse impacts on the roadway capacity and safety.

OTHER/GENERAL CONSIDERATIONS

Child Development Center Parking Needs

One issue of particular concern pertains to the Health and Human Services Child Development Center (CDC), which is located in the subject building. The Center is located on the first floor of the Switzer Building, and is currently provided with four (4) reserved parking spaces within the adjacent surface lot for use by patrons during drop-off and pick-up operations. Patrons enter and leave the lot through the north/main entrance of the building. With the elimination of these spaces alternate arrangements will need to be made.

In connection with the above, a transportation usage survey was conducted and it reflects the following:

1) The current enrollment of eighty-two (82) children reflect an average of 1.6 child per family (i.e., fifty-one (51) families);

2) Virtually all patrons arrive and depart during the morning (7:00 – 9:30 AM), and the afternoon (4:00 – 6:00 PM) peak periods of commute; and

3) Eighty-two (82) percent of CDC families use personal vehicles to access the site. The survey shows some level of inconvenience be CDC patrons that are related to the management of the designated spaces.

The survey summary sheets are included as Attachment 5.

In order to address this issue, the following provisions are presented for consideration by the GSA Management:

a) Provision of seven (7) reserved drop-off spaces for the CDC along D Street adjacent to the south end of the Switzer Building. The time period designated for the reserved spaces would occur during the morning and afternoon peak periods (7:00 - 9:30 AM and 4:00 - 6:30 PM).

b) As an alternate, the reserved spaces could be distributed along the west side of 3rd Street, and the east side of 4th Street adjacent to the north end of the Switzer Building. Similar parking restrictions as noted in Item (a) would govern these spaces.

c) The spaces noted in Items (a) and (b) above, would be appropriately signed and otherwise delineated with pavement markings, cones, bollards, etc., in order to clearly delineate their use.

Signage would include penalties for violation (to be agreed upon between GSA and DDOT). The spaces would also be monitored by the Security Services associated with the Switzer Building. The locations of the designated CDC reserved/drop-off spaces are shown on Exhibit 6. Information provided by GSA indicates that the Health And Human Services Child Development Center conducts frequent meetings involving GSA and other client representatives. This arrangement would allow for effective communication with clients regarding the proposed pick-up/drop-off arrangements. It is understood that these end-users would provide input prior to finalizing the parking/drop-off arrangements.

The parking along D Street and the alternate locations of 3rd Street and 4th Street are provisional. The results of traffic simulations, signage, and delineation will be provided in order to confirm with the City's regulations and standards. The final placement of these spaces will be determined as the project progresses.

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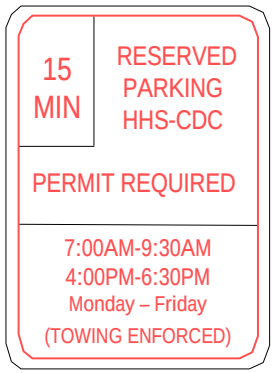
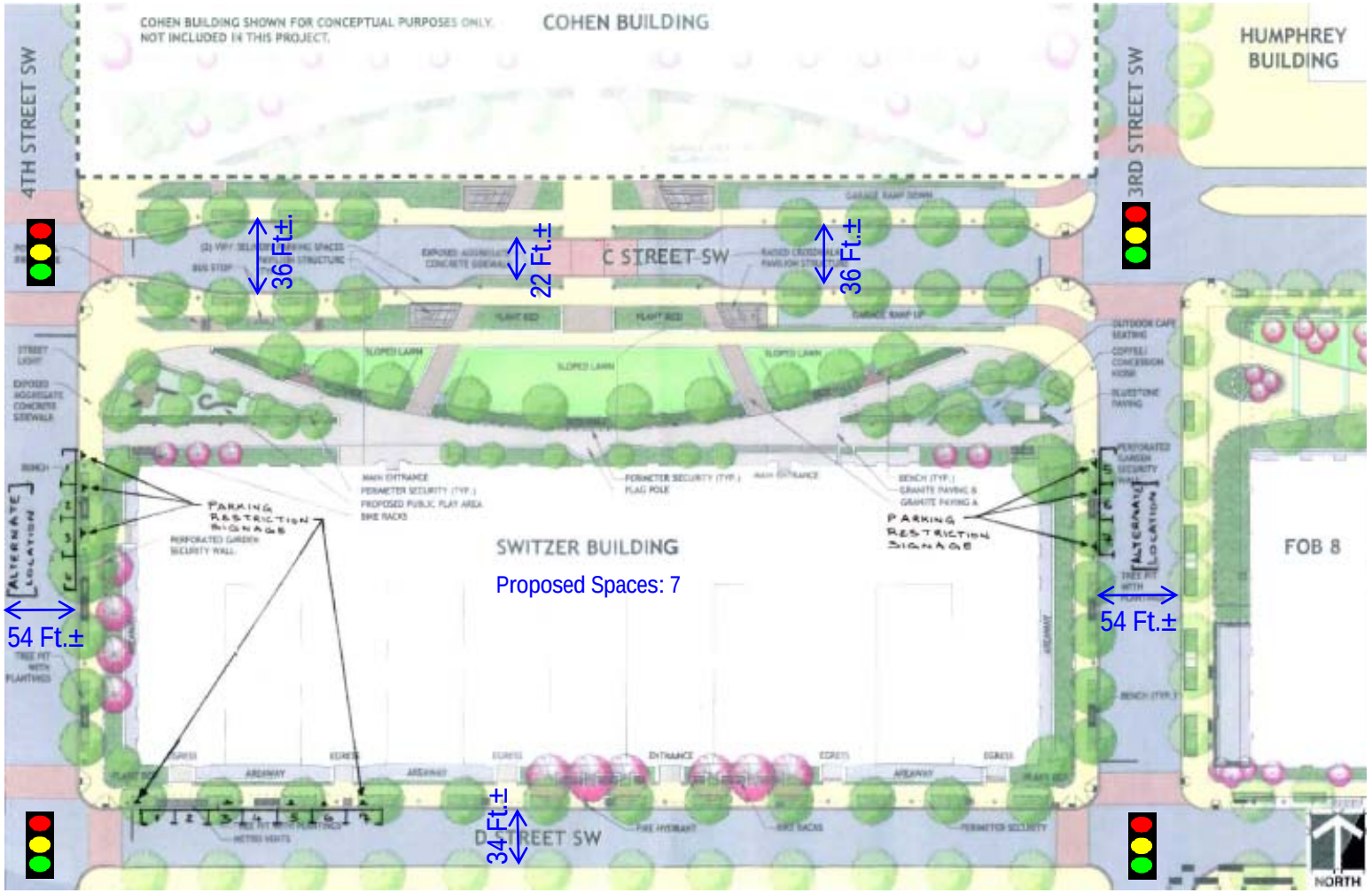


Sign Concept



NOTE: See discussion on page 15.

Source: HNTB/AECOM: 1.1 PROGRAM LAYOUT (2/17/2011) & ORGA

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Traffic Engineers - Transportation Planners

Exhibit 6: Proposed HHS-CDC Reserved Parking/Drop-off Area Concept

Mary Switzer Building Renovations and Upgrades,
Southwest, Washington, D.C.
Preliminary Traffic Impact Assessment

Travel Modal Splits

As noted earlier in this report, the Switzer Building is located quite favorably with respect to Metrorail, Metrobus and VRE access. The building is also subject to the requirements stipulated in the relevant policies and regulations in the Comprehensive Plan – Federal Elements.[5] It is relevant to note that surveys of office buildings within the Central Employment Area and the Federal Enclave show significant non-auto use. In this connection, ridership surveys conducted by WMATA in 1989 and in 2005 show quite positive trends in terms of transit ridership and reduced use of personal vehicles. Key factors derived from review of these surveys are summarized in the table following:

WMATA Ridership Survey	Principal Modal Split Elements		
	Metrorail & Metrobus	Other Non-Auto Modes	Auto Use
1989	51.0%	5.0%	44.0%
2005	55.0%	38.5%	6.5%

This data represents surveys for the Farragut West Station and would likely be higher for the Switzer Building, which is more favorably situated. The above factors demonstrate that the proposed improvements should not generate any significant additional traffic within the subject area. It is again noted that the traffic surveys conducted in 2008 and 2011 show low to modest vehicular use of the study area roadway network. This is to be expected, and consistent with the study area location and functional classification of the local roadways.

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[5] Comprehensive Plan – Federal Elements by the National Capital Planning Commission (2004).

ASSESSMENT SUMMARY AND CONCLUSION

The purpose of this report was to examine site access issues associated with the proposed Switzer Building renovations and related urban design upgrades, and their potential impact on traffic operations within the neighboring roadway network. More specifically, on-street parking and traffic circulatory patterns along C, D, 3rd and 4th Streets. The following is a summary of the key findings and recommendations for the current task:

a) Due to the location and functional characteristics of the roadway serving the Mary Switzer Building, traffic volumes within the area are low to moderate when compared to other areas of the Central Employment Area; and current levels of service are quite acceptable and well within the City's planning standards;

b) Examination of crash data for the study area show no significant safety deficiencies;

c) The geometric changes proposed for the 300 Block of C Street satisfies the City's design standards as referenced in Table 3 previously*;*

d) The proposed reduction of off-street parking within the local area is in general accordance with the City's and Federal policies regarding travel demand management, mobility and sustainability;

One of the key considerations raised in this report pertains to the provision of drop-off/pick-up of children attending the HHS Child Development Center due to the elimination of the surface parking located adjacent to the Switzer Building. The study has presented a concept for providing seven (7) spaces that would be located along D Street with alternate placement along both 3rd Street and 4th Street. This concept is preliminary in nature, and will be refined based on input from the GSA Project Manager, the HHS Child Development Center Management, and interaction with responsible administrations within DDOT. This will also include consideration of ADA requirements. The final report will also include traffic simulation modeling that would further refine the analysis and data presented.

ORG/AMA

Attachments: As Noted.

ATTACHMENT

1

Communications Between GSA and DDOT
(Local Area Access Issues)

From: Jeffrey Catts [mailto:jcatts@HNTB.com]
Sent: Wednesday, February 23, 2011 2:40 PM
To: 'O. R. George & Assoc.'; Susan Gygi
Subject: RE: occupancy study for Switzer building

Hello Osborne-

I have just received further clarification from GSA about what information they think is necessary to obtain for the Mary Switzer project. See below for their recommendation:

What is needed for the traffic study:

description of current conditions (parking, vehicular volumes, turning movement)
traffic counts on the following intersections:

C and 3rd
C and 4th
D and 3rd
D and 4th

Analysis of Impacts of future conditions on C and D streets to include:
- double parking impacts during peak hours, peak hours to be expanded
- model output volumes from the existing conditions model on all 4 intersection
- model output volumes from a future scenario all 4 intersections
- comparison analysis between current and future scenario
- queuing analysis all 4 intersections
- summary of operational impacts

Please give me a call with any questions. Many thanks.

Regards-
Jeff

Jeffrey V. Catts, RLA, ASLA
Team Leader: Urban Design + Planning,
Senior Landscape Architect

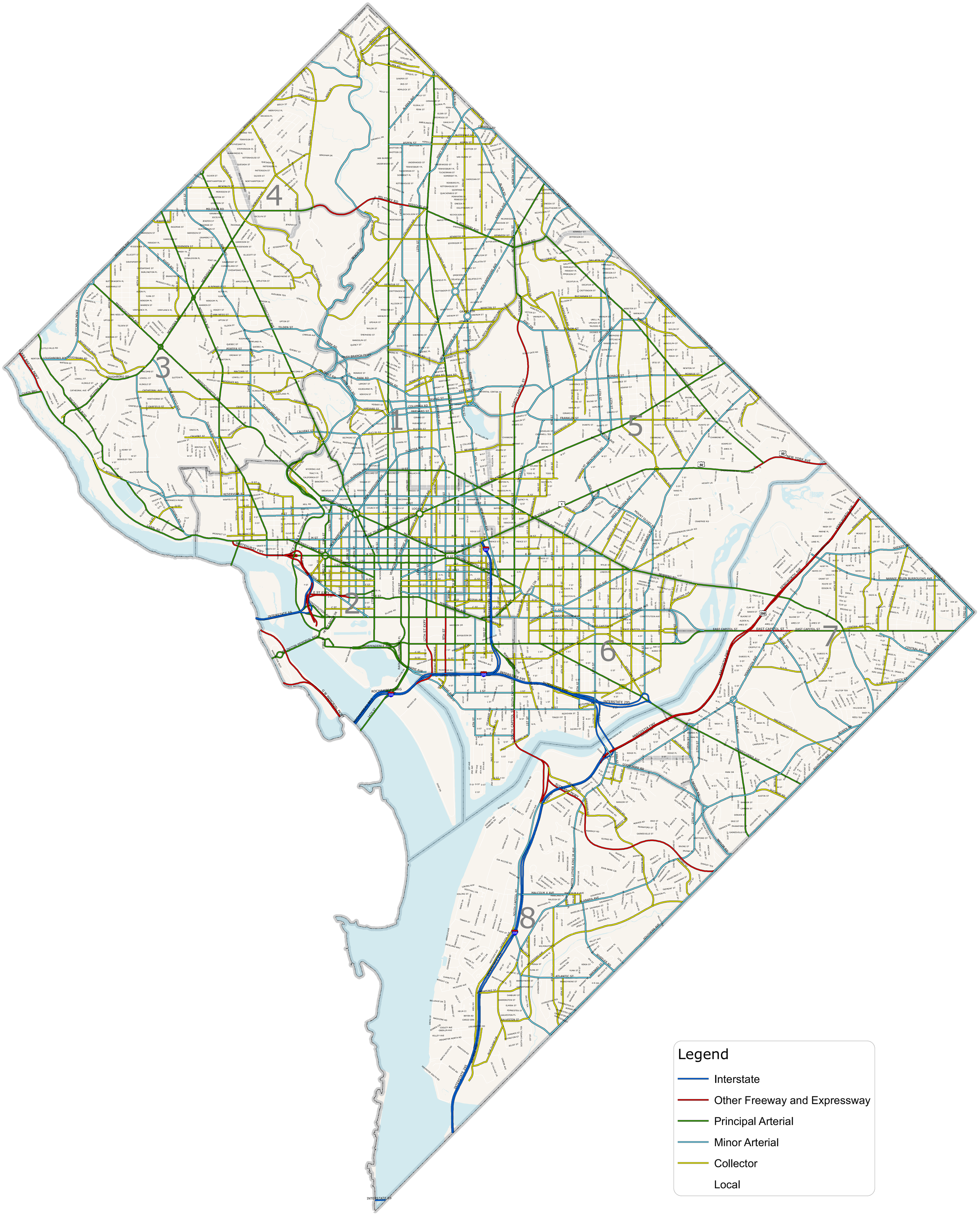
HNTB Corporation
Urban Design + Planning
2900 South Quincy Street
Suite 200
Arlington, Virginia 22206-2265
Direct: 703. 253.5857
Email: jcatts@hntb.com
www.hntb.com

ATTACHMENT

2

District Department of Transportation -
Functional Classification Map

FUNCTIONAL CLASSIFICATION MAP



Scale 1:21,000

0 0.25 0.5 1 1.5 2 2.5 Miles

The base map was compiled from aerial photography and airborne GPS data acquired in March and April 1999.

All mapping is referenced to the Maryland State Plane Coordinate System 1983 North American horizontal datum and 1988 vertical datum in meters.

Data Source	IPMA	Date Created	August 22, 2006
Map Type	Standard	Expiration Date	N/A
Serial No	000000	Created By	DDOT GIS

Government of the District of Columbia
Adrian M. Fenty, Mayor

District Department of Transportation
Emeka C. Moneme, Director

Office of Information Technology and Innovations
Geographic Data Systems Division
District Department of Transportation

ATTACHMENT

3

Highway Capacity Software
Capacity Analysis Worksheets
(Existing Traffic Conditions)

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	C Street SW & 3rd Street SW
Agency or Co.	O R George & Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	AM Peak Hour	Analysis Year	Existing_2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	2	0	0	2	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	34	61	13	42	79	53	11	122	85	36	150	14
% Heavy vehicles, %HV	4	4	4	4	4	4	4	4	4	4	4	4
Peak-hour factor, PHF	0.79	0.79	0.79	0.83	0.83	0.83	0.82	0.82	0.82	0.86	0.86	0.86
Pretimed (P) or actuated (A)	P	P	P	P	P	P	P	P		P	P	P
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		5			5			5			5	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0		0	0		0
Lane width		11.0			11.0			11.0			11.0	
Parking / Grade / Parking	N	0	Y	N	0	Y	N	0	N	N	0	Y
Parking maneuvers, N_m			10			10						10
Buses stopping, N_B		0			6			0			0	
Min. time for pedestrians, G_p	15.7			15.7			15.7			15.7		

Phasing	EW Perm	02	03	04	Peds Only	NS Perm	SB Only	08
Timing	G = 26.0	G =	G =	G =	G = 20.0	G = 15.0	G = 7.0	G =
	Y = 4	Y =	Y =	Y =	Y = 0	Y = 4	Y = 4	Y =

Duration of Analysis, T = 0.25 | Cycle Length, C = 80.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		136			210			266			232	
Lane group capacity, c		743			739			481			819	
v/c ratio, X		0.18			0.28			0.55			0.28	
Total green ratio, g/C		0.32			0.32			0.19			0.32	
Uniform delay, d_1		19.4			20.1			29.5			20.1	
Progression factor, PF		0.679			0.679			0.846			0.679	
Delay calibration, k		0.50			0.50			0.50			0.50	
Incremental delay, d_2		0.5			1.0			4.5			0.9	

Initial queue delay, d_3												
Control delay		13.7			14.6			29.5			14.5	
Lane group LOS		B			B			C			B	
Approach delay	13.7			14.6			29.5			14.5		
Approach LOS	B			B			C			B		
Intersection delay	19.1			X_c = 0.00			Intersection LOS			B		

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	C Street SW & 3rd Street SW
Agency or Co.	O R George & Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	PM Peak Hour	Analysis Year	Existing_2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	2	0	0	2	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	22	157	6	20	30	8	17	147	98	78	153	20
% Heavy vehicles, %HV	4	4	4	4	4	4	4	4	4	4	4	4
Peak-hour factor, PHF	0.84	0.84	0.84	0.76	0.76	0.76	0.88	0.88	0.88	0.80	0.80	0.80
Pretimed (P) or actuated (A)	P	P	P	P	P	P	P	P		P	P	P
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		5			5			5			5	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0		0	0		0
Lane width		11.0			11.0			11.0			11.0	
Parking / Grade / Parking	N	0	Y	N	0	Y	N	0	N	N	0	Y
Parking maneuvers, N_m			10			10						10
Buses stopping, N_B		0			6			0			0	
Min. time for pedestrians, G_p	15.7			15.7			15.7			15.7		

Phasing	EW Perm	02	03	04	Peds Only	NS Perm	SB Only	08
Timing	G = 26.0	G =	G =	G =	G = 20.0	G = 15.0	G = 7.0	G =
	Y = 4	Y =	Y =	Y =	Y = 0	Y = 4	Y = 4	Y =
Duration of Analysis, T = 0.25						Cycle Length, C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		220			76			297			313	
Lane group capacity, c		834			745			475			749	
v/c ratio, X		0.26			0.10			0.63			0.42	
Total green ratio, g/C		0.32			0.32			0.19			0.32	
Uniform delay, d_1		19.9			18.8			29.9			21.1	
Progression factor, PF		0.679			0.679			0.846			0.679	
Delay calibration, k		0.50			0.50			0.50			0.50	
Incremental delay, d_2		0.8			0.3			6.1			1.7	

Initial queue delay, d_3												
Control delay		14.3			13.1			31.4			16.0	
Lane group LOS		B			B			C			B	
Approach delay	14.3			13.1			31.4			16.0		
Approach LOS	B			B			C			B		
Intersection delay	20.4			X_c = 0.00			Intersection LOS			C		

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	C Street SW & 4th Street SW
Agency or Co.	O R George & Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	PM Peak Hour	Analysis Year	Existing_2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	2	0	0	2	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	37	65	31	16	46	26	39	371	84	60	182	49
% Heavy vehicles, %HV	4	4	4	4	4	4	4	4	4	4	4	4
Peak-hour factor, PHF	0.81	0.81	0.81	0.88	0.88	0.88	0.97	0.97	0.97	0.84	0.84	0.84
Pretimed (P) or actuated (A)	P	P	P	P	P	P	P	P	P	P	P	P
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		5			5			5			5	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		11.0			11.0			12.0			12.0	
Parking / Grade / Parking	N	0	Y	N	0	N	N	0	N	N	0	Y
Parking maneuvers, N_m			10									10
Buses stopping, N_B		0			6			0			0	
Min. time for pedestrians, G_p	15.7			15.7			19.5			22.0		

Phasing	EW Perm	WB Only	03	04	NS Perm	06	07	08
Timing	G = 22.0	G = 8.0	G =	G =	G = 43.0	G =	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 85.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		164			100			509			346	
Lane group capacity, c		600			1064			1299			1115	
v/c ratio, X		0.27			0.09			0.39			0.31	
Total green ratio, g/C		0.26			0.40			0.51			0.51	
Uniform delay, d_1		25.1			15.9			12.9			12.3	
Progression factor, PF		0.767			0.556			0.317			0.317	
Delay calibration, k		0.50			0.50			0.50			0.50	
Incremental delay, d_2		1.1			0.2			0.9			0.7	

Initial queue delay, d_3												
Control delay		20.4			9.0			5.0			4.6	
Lane group LOS		C			A			A			A	
Approach delay	20.4			9.0			5.0			4.6		
Approach LOS	C			A			A			A		
Intersection delay	7.5			X_c = 0.31			Intersection LOS			A		

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	C Street SW & 4th Street SW
Agency or Co.	O R George & Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	AM Peak Hour	Analysis Year	Existing_2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	2	0	0	2	0	0	2	0	0	2	0
Lane group		LTR			LTR			LTR			LTR	
Volume, V (vph)	51	48	40	21	78	32	32	209	25	36	233	59
% Heavy vehicles, %HV	4	4	4	4	4	4	4	4	4	4	4	4
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Pretimed (P) or actuated (A)	P	P	P	P	P	P	P	P	P	P	P	P
Start-up lost time, l_1		2.0			2.0			2.0			2.0	
Extension of effective green, e		2.0			2.0			2.0			2.0	
Arrival type, AT		5			5			5			5	
Unit extension, UE		3.0			3.0			3.0			3.0	
Filtering/metering, I		1.000			1.000			1.000			1.000	
Initial unmet demand, Q_b		0.0			0.0			0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0	0	0	0	0	0	0	0	0
Lane width		11.0			11.0			12.0			12.0	
Parking / Grade / Parking	N	0	Y	N	0	N	N	0	N	N	0	Y
Parking maneuvers, N_m			10									10
Buses stopping, N_B		0			6			0			0	
Min. time for pedestrians, G_p	15.7			15.7			19.5			22.0		

Phasing	EW Perm	WB Only	03	04	NS Perm	06	07	08
Timing	G = 22.0	G = 8.0	G =	G =	G = 43.0	G =	G =	G =
	Y = 4	Y = 4	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 85.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		147			138			280			345	
Lane group capacity, c		568			1074			1291			1276	
v/c ratio, X		0.26			0.13			0.22			0.27	
Total green ratio, g/C		0.26			0.40			0.51			0.51	
Uniform delay, d_1		25.0			16.1			11.7			12.0	
Progression factor, PF		0.767			0.556			0.317			0.317	
Delay calibration, k		0.50			0.50			0.50			0.50	
Incremental delay, d_2		1.1			0.2			0.4			0.5	

Initial queue delay, d_3												
Control delay		20.3			9.2			4.1			4.3	
Lane group LOS		C			A			A			A	
Approach delay	20.3			9.2			4.1			4.3		
Approach LOS	C			A			A			A		
Intersection delay	7.6			X_c = 0.24			Intersection LOS			A		

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	D Street SW & 3rd Street SW
Agency or Co.	O R George & Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	AM Peak Hour	Analysis Year	Existing_2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	2	0	0	0	0	0	2	0	0	2	0
Lane group		LTR						TR			LT	
Volume, V (vph)	27	37	57					183	33	23	165	
% Heavy vehicles, %HV	4	4	4					4	4	4	4	
Peak-hour factor, PHF	0.86	0.86	0.86					0.83	0.83	0.81	0.81	
Pretimed (P) or actuated (A)	P	P	P					P	P	P	P	
Start-up lost time, l_1		2.0						2.0			2.0	
Extension of effective green, e		2.0						2.0			2.0	
Arrival type, AT		5						5			5	
Unit extension, UE		3.0						3.0			3.0	
Filtering/metering, I		1.000						1.000			1.000	
Initial unmet demand, Q_b		0.0						0.0			0.0	
Ped / Bike / RTOR volumes	0	0	0	0			0	0	0			
Lane width		11.0						12.0			12.0	
Parking / Grade / Parking	N	0	Y	N		N	N	0	N	N	0	N
Parking maneuvers, N_m			10									
Buses stopping, N_B		6						0			0	
Min. time for pedestrians, G_p	11.7			11.7			15.7					

Phasing	EB Only	02	03	04	NS Perm	06	07	08
Timing	G = 27.0	G =	G =	G =	G = 45.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 80.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		140						260			232	
Lane group capacity, c		856						1601			1590	
v/c ratio, X		0.16						0.16			0.15	
Total green ratio, g/C		0.34						0.56			0.56	
Uniform delay, d_1		18.6						8.4			8.3	
Progression factor, PF		0.660						0.143			0.143	
Delay calibration, k		0.50						0.50			0.50	
Incremental delay, d_2		0.4						0.2			0.2	

Initial queue delay, d_3												
Control delay		12.7						1.4			1.4	
Lane group LOS		B						A			A	
Approach delay	12.7						1.4			1.4		
Approach LOS	B						A			A		
Intersection delay	3.9			X_c = 0.16			Intersection LOS			A		

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	D Street SW & 3rd Street SW
Agency or Co.	O R George & Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	PM Peak Hour	Analysis Year	Existing_2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	2	0	0	0	0	0	2	0	0	2	0
Lane group		LTR						TR		DefL	T	
Volume, V (vph)	49	73	36					223	144	108	150	
% Heavy vehicles, %HV	4	4	4					4	4	4	4	
Peak-hour factor, PHF	0.85	0.85	0.85					0.94	0.94	0.88	0.88	
Pretimed (P) or actuated (A)	P	P	P					P	P	P	P	
Start-up lost time, l_1		2.0						2.0		2.0	2.0	
Extension of effective green, e		2.0						2.0		2.0	2.0	
Arrival type, AT		5						5		3	5	
Unit extension, UE		3.0						3.0		3.0	3.0	
Filtering/metering, I		1.000						1.000		1.000	1.000	
Initial unmet demand, Q_b		0.0						0.0		0.0	0.0	
Ped / Bike / RTOR volumes	0	0	0	0			0	0	0			
Lane width		11.0						12.0		12.0	12.0	
Parking / Grade / Parking	N	0	Y	N		N	N	0	N	N	0	N
Parking maneuvers, N_m			10									
Buses stopping, N_B		6						0		0	0	
Min. time for pedestrians, G_p	11.7			11.7			15.7					

Phasing	EB Only	02	03	04	NS Perm	06	07	08
Timing	G = 27.0	G =	G =	G =	G = 45.0	G =	G =	G =
	Y = 4	Y =	Y =	Y =	Y = 4	Y =	Y =	Y =
Duration of Analysis, T = 0.25						Cycle Length, C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v		186						390		123	170	
Lane group capacity, c		886						1543		482	925	
v/c ratio, X		0.21						0.25		0.26	0.18	
Total green ratio, g/C		0.34						0.56		0.56	0.56	
Uniform delay, d_1		18.9						8.9		8.9	8.5	
Progression factor, PF		0.660						0.143		1.000	0.143	
Delay calibration, k		0.50						0.50		0.50	0.50	
Incremental delay, d_2		0.5						0.4		1.3	0.4	

Initial queue delay, d_3												
Control delay		13.0						1.7		10.2	1.7	
Lane group LOS		B						A		B	A	
Approach delay	13.0						1.7			5.2		
Approach LOS	B						A			A		
Intersection delay	5.3			X_c = 0.24			Intersection LOS			A		

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	D Street SW & 4th Street SW
Agency or Co.	O R George Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	AM Peak Hour	Analysis Year	Existing 2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	0	0	0	0	0	0	2	0	0		0
Lane group								TR			LT	
Volume, V (vph)								269	65	65	202	
% Heavy vehicles, %HV								4	4	4	4	
Peak-hour factor, PHF								0.90	0.90	0.80	0.80	
Pretimed (P) or actuated (A)								P	P	P	P	
Start-up lost time, l_1								2.0			2.0	
Extension of effective green, e								2.0			2.0	
Arrival type, AT								5			5	
Unit extension, UE								3.0			3.0	
Filtering/metering, I								1.000			1.000	
Initial unmet demand, Q_b								0.0			0.0	
Ped / Bike / RTOR volumes							0	0	0			
Lane width								15.0			15.0	
Parking / Grade / Parking	N		N	N		N	N	0	Y	Y	0	N
Parking maneuvers, N_m									10	10		
Buses stopping, N_B								0			0	
Min. time for pedestrians, G_p								3.2				

Phasing	Peds Only	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 55.0	G =	G =	G =
	Y = 0	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis, T = 0.25						Cycle Length, C = 80.0		

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v								371			333	
Lane group capacity, c								2122			1728	
v/c ratio, X								0.17			0.19	
Total green ratio, g/C								0.69			0.69	
Uniform delay, d_1								4.4			4.5	
Progression factor, PF								0.160			0.160	
Delay calibration, k								0.50			0.50	
Incremental delay, d_2								0.2			0.2	

Initial queue delay, d_3												
Control delay								0.9			1.0	
Lane group LOS								A			A	
Approach delay							0.9			1.0		
Approach LOS							A			A		
Intersection delay	0.9			X_c = 0.00			Intersection LOS			A		

HCS2000™ DETAILED REPORT

General Information		Site Information	
Analyst	RM/ORG	Intersection	D Street SW & 4th Street SW
Agency or Co.	O R George Associates	Area Type	CBD or Similar
Date Performed	3/15/2011	Jurisdiction	Washington DC
Time Period	PM Peak Hour	Analysis Year	Existing 2011
		Project ID	Mary Switzer Bldg Upgrade

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Number of lanes, N_1	0	0	0	0	0	0	0	2	0	0	2	0
Lane group								TR			LT	
Volume, V (vph)								440	89	57	169	
% Heavy vehicles, %HV								4	4	4	4	
Peak-hour factor, PHF								0.95	0.95	0.75	0.75	
Pretimed (P) or actuated (A)								P	P	P	P	
Start-up lost time, l_1								2.0			2.0	
Extension of effective green, e								2.0			2.0	
Arrival type, AT								5			5	
Unit extension, UE								3.0			3.0	
Filtering/metering, I								1.000			1.000	
Initial unmet demand, Q_b								0.0			0.0	
Ped / Bike / RTOR volumes							0	0	0			
Lane width								15.0			15.0	
Parking / Grade / Parking	N		N	N		N	N	0	Y	Y	0	N
Parking maneuvers, N_m									10	10		
Buses stopping, N_B								0			0	
Min. time for pedestrians, G_p								3.2				

Phasing	Peds Only	02	03	04	NS Perm	06	07	08
Timing	G = 20.0	G =	G =	G =	G = 55.0	G =	G =	G =
	Y = 0	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =
Duration of Analysis, T = 0.25					Cycle Length, C = 80.0			

Lane Group Capacity, Control Delay, and LOS Determination

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Adjusted flow rate, v								557			301	
Lane group capacity, c								2130			1637	
v/c ratio, X								0.26			0.18	
Total green ratio, g/C								0.69			0.69	
Uniform delay, d_1								4.8			4.5	
Progression factor, PF								0.160			0.160	
Delay calibration, k								0.50			0.50	
Incremental delay, d_2								0.3			0.2	

Initial queue delay, d_3												
Control delay								1.1			1.0	
Lane group LOS								A			A	
Approach delay							1.1			1.0		
Approach LOS							A			A		
Intersection delay	1.0			X_c = 0.00			Intersection LOS			A		

ATTACHMENT

4

Crash Data Summaries (2007 – 2009)

DDOT: Accident Summary Report (R-7)

Date: 3/10/2011
Prepared by: Eric Walden

Location: **THIRD ST** And **C ST**

Quadrant: **SW**

2007		2008		2009	
Accidents	Injuries	Accidents	Injuries	Accidents	Injuries
4	1	6	2	1	1

2007 - 2009 SUMMARIES

Contributing Factors:

Diver:		Vehicle:		Roadway:		Unknown:	
4	36.36%	0	0.00%	0	0.00%	6	54.55%

Collision Types:

Right Angle:	Left Turn:	Right Turn:	Rear End:	Side Swiped:	Head On:	Parked:
1	1	2	4	1	1	0

Fixed Object:	Ran Off Road:	Pedestrian:	Backing:	Non Collision:	Other:
0	1	0	0	0	0

Accident Times:

	2007		2008		2009	
Time	**# ACC**	**Percent**	**# ACC**	**Percent**	**# ACC**	**Percent**
07:30-09:30	1	25.00%	1	16.67%	0	0.00%
09:30-11:30	0	0.00%	0	0.00%	1	100.00%
11:30:13:30	1	25.00%	2	33.33%	0	0.00%
13:30-16:00	1	25.00%	1	16.67%	0	0.00%
16:00-18:30	1	25.00%	1	16.67%	0	0.00%
18:30-07:30	0	0.00%	1	16.67%	0	0.00%
Total	4	100.00%	6	100.00%	1	100.00%
Weekday	3	75.00%	5	83.33%	1	100.00%
Weekend	0	0.00%	1	16.67%	0	0.00%

DDOT: Accident Summary Report (R-7)

Date: 3/10/2011
Prepared by: Eric Walden

Location: **FOURTH ST** And **C ST**

Quadrant: **SW**

2007		2008		2009	
Accidents	Injuries	Accidents	Injuries	Accidents	Injuries
0	0	2	0	0	0

2007 - 2009 SUMMARIES

Contributing Factors:

Diver:		Vehicle:		Roadway:		Unknown:	
1	50.00%	0	0.00%	0	0.00%	1	50.00%

Collision Types:

Right Angle:	Left Turn:	Right Turn:	Rear End:	Side Swiped:	Head On:	Parked:
0	0	0	0	0	0	0

Fixed Object:	Ran Off Road:	Pedestrian:	Backing:	Non Collision:	Other:
2	0	0	0	0	0

Accident Times:

	2007		2008		2009	
Time	**# ACC**	**Percent**	**# ACC**	**Percent**	**# ACC**	**Percent**
07:30-09:30	0	0.00%	0	0.00%	0	0.00%
09:30-11:30	0	0.00%	1	50.00%	0	0.00%
11:30:13:30	0	0.00%	0	0.00%	0	0.00%
13:30-16:00	0	0.00%	0	0.00%	0	0.00%
16:00-18:30	0	0.00%	1	50.00%	0	0.00%
18:30-07:30	0	0.00%	0	0.00%	0	0.00%
Total	0	0.00%	2	100.00%	0	0.00%
Weekday	0	0.00%	2	100.00%	0	0.00%
Weekend	0	0.00%	0	0.00%	0	0.00%

DDOT: Accident Summary Report (R-7)

Date: 3/10/2011
Prepared by: Eric Walden

Location: **THIRD ST** And **D ST**

Quadrant: **SW**

2007		2008		2009	
Accidents	Injuries	Accidents	Injuries	Accidents	Injuries
3	5	1	2	0	0

2007 - 2009 SUMMARIES

Contributing Factors:

Diver:		Vehicle:		Roadway:		Unknown:	
2	50.00%	0	0.00%	0	0.00%	1	25.00%

Collision Types:

Right Angle:	Left Turn:	Right Turn:	Rear End:	Side Swiped:	Head On:	Parked:
0	0	0	1	3	0	0

Fixed Object:	Ran Off Road:	Pedestrian:	Backing:	Non Collision:	Other:
0	0	0	0	0	0

Accident Times:

	2007		2008		2009	
Time	**# ACC**	**Percent**	**# ACC**	**Percent**	**# ACC**	**Percent**
07:30-09:30	1	33.33%	1	100.00%	0	0.00%
09:30-11:30	0	0.00%	0	0.00%	0	0.00%
11:30:13:30	0	0.00%	0	0.00%	0	0.00%
13:30-16:00	1	33.33%	0	0.00%	0	0.00%
16:00-18:30	1	33.33%	0	0.00%	0	0.00%
18:30-07:30	0	0.00%	0	0.00%	0	0.00%
Total	3	100.00%	1	100.00%	0	0.00%
Weekday	2	66.67%	1	100.00%	0	0.00%
Weekend	1	33.33%	0	0.00%	0	0.00%

DDOT: Accident Summary Report (R-7)

Date: 3/10/2011
Prepared by: Eric Walden

Location: **FOURTH ST** And **D ST**

Quadrant: **SW**

2007		2008		2009	
Accidents	Injuries	Accidents	Injuries	Accidents	Injuries
1	1	1	1	0	0

2007 - 2009 SUMMARIES

Contributing Factors:

Diver:		Vehicle:		Roadway:		Unknown:	
0	0.00%	0	0.00%	0	0.00%	2	100.00%

Collision Types:

Right Angle:	Left Turn:	Right Turn:	Rear End:	Side Swiped:	Head On:	Parked:
0	0	0	0	0	0	0

Fixed Object:	Ran Off Road:	Pedestrian:	Backing:	Non Collision:	Other:
0	0	1	0	1	0

Accident Times:

	2007		2008		2009	
Time	**# ACC**	**Percent**	**# ACC**	**Percent**	**# ACC**	**Percent**
07:30-09:30	0	0.00%	0	0.00%	0	0.00%
09:30-11:30	0	0.00%	0	0.00%	0	0.00%
11:30:13:30	0	0.00%	0	0.00%	0	0.00%
13:30-16:00	0	0.00%	1	100.00%	0	0.00%
16:00-18:30	1	100.00%	0	0.00%	0	0.00%
18:30-07:30	0	0.00%	0	0.00%	0	0.00%
Total	1	100.00%	1	100.00%	0	0.00%
Weekday	1	100.00%	1	100.00%	0	0.00%
Weekend	0	0.00%	0	0.00%	0	0.00%

ATTACHMENT

5

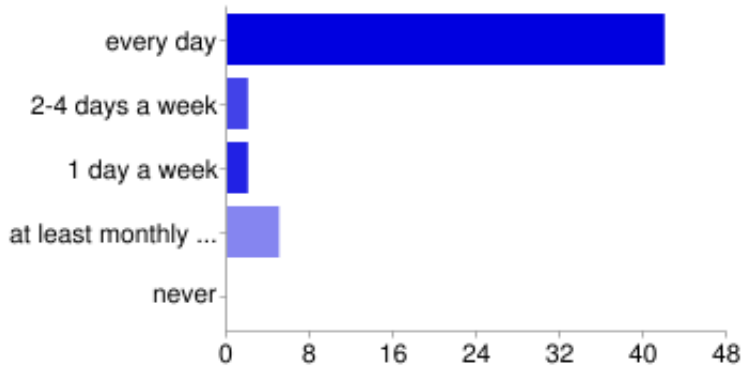
Transportation Usage Surveys

51 responses

Summary See complete responses

Drop off

How often do you drive your car to the Switzer Building to drop off your child or children?



every day	**42**	82%
2-4 days a week	**2**	4%
1 day a week	**2**	4%
at least monthly but not weekly	**5**	10%
never	**0**	0%

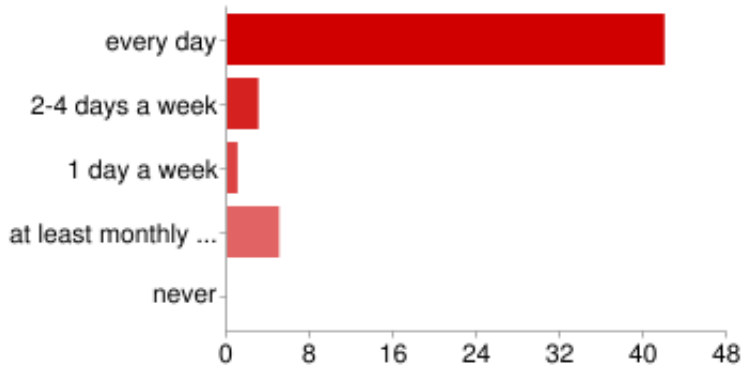
If you drive to drop off your child or children, most of the time, do you do so between 7 and 9:30 AM, or at a time outside of this window?

between 7 and 9:30 AM	**51**	100%
at another time	**0**	0%
don't drive	**0**	0%

Pick up

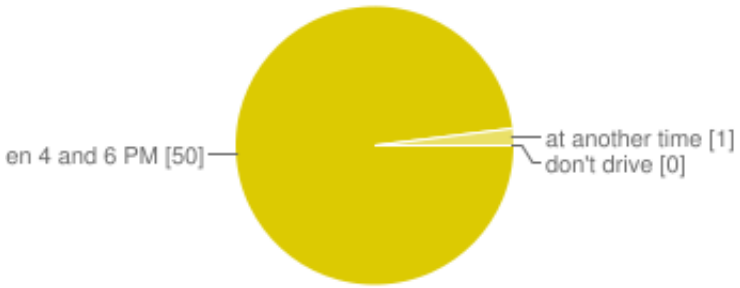
How often do you drive your car to the Switzer Building to pick up your child or children?

every day	**42**	82%



2-4 days a week	**3**	6%
1 day a week	**1**	2%
at least monthly but not weekly	**5**	10%
never	**0**	0%

If you drive to pick up your child or children, most of the time, do you do so between 4 and 6 PM, or at a time outside of this window?



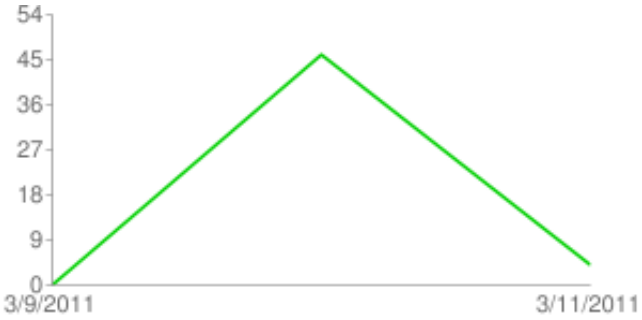
between 4 and 6 PM	**50**	98%
at another time	**1**	2%
don't drive	**0**	0%

Other

Have you regularly experienced any other issues related to parking at the Switzer Building? (For example, spaces not available when you need them, security issues, etc.)

No issues I have had no issues related to parking at the Switzer building. While all of the construction has been inconvenient, there really have been no problems getting into the lot in front of the building. I have not encountered any problems. I have noticed that there is a shortage of availabile spaces at key drop off and pick up times and that there is at least one day care employee who parks there all day, but, because I drop off and pick up on the early side (7:30 and 4:30), it is not an issue. In the parking lot, there are frequently issues with availability of our reserved parking sp ...

Number of daily responses



Number of responses without dates: 1