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MEMORANDUM

TO:	Jonathan Rogers	DDOT
	Jamie Henson	DDOT
FROM:	Samantha Williams	Symmetra Design
	Nicole White, P.E., PTOE	Symmetra Design
DATE:	August 9, 2013	
RE:	1600 North Capitol Street Planned Unit Development (PUD) Modification – Transportation Memorandum	

INTRODUCTION

The following memorandum is a transportation assessment for the proposed 1600 North Capitol Street Planned Unit Development (PUD) Modification. The applicant, Florida & Q Street, LLC, is proposing the following changes to the previously approved (June 2007) PUD application:

- Increase the number of units (previous approved range was 55 to 85 units to now include approximately 80 to 90) NOTE: size of units will be reduced
- Reduce the building height by 16 feet from 86 feet to 70 feet
- Provide one (1) level of parking instead of two (2) levels which reduces the parking supply from 85 to 42 spaces, which exceeds the zoning regulation requirement of 35 required spaces

The applicant coordinated with the District Department of Transportation (DDOT) to confirm the transportation requirements for the PUD modification. Per the May 15, 2013 conference call, the applicant may forgo the formal scoping /Transportation Impact Study (TIS) submittal process and submit an abbreviated transportation memorandum. The contents of the abbreviated transportation memorandum were confirmed and approved at the June 12, 2013 DDOT Public Space and Transportation meeting. Meeting minutes are attached.

This memorandum provides a comparison of trip generation under the previous and current development programs based on the trip rates presented in the June 2006 Traffic Impact Analysis

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(TIA)[1]. Subsections on Off-Street Parking Supply, On-Street Parking Inventory and Occupancy, Site Access and Loading and Transportation Demand Management are also included in this Transportation Memorandum.

BACKGROUND

The subject site is 0.44 acres located in Square 3100 within the northwest quadrant of the North Capitol Street/ Florida Avenue intersection. The site is currently vacant and was previously utilized as a gas station. See **Figure 1** for site location map and **Figure 2** for an existing aerial of the site. The proposed project is located approximately 0.44 miles (or about a 10 minute walk) west of the Washington Metropolitan Area Transit Authority's (WMATA) NoMa-Gallaudet University (New York Avenue) Metrorail Station on the red line.

As part of the previous PUD, the site was rezoned to C-2-B (Community Business Center- Medium Density) and included 55 to 85 residential units with 4,000 GSF of commercial space. The project planned for two levels of parking with 85 below grade parking spaces. In June 2007, the project was approved under Zoning Commission Order 06-04. The initial Order was extended by the Zoning Commission.

[1] A Traffic Impact Analysis (TIA) was previously submitted (June 27, 2006) as part of the original application.

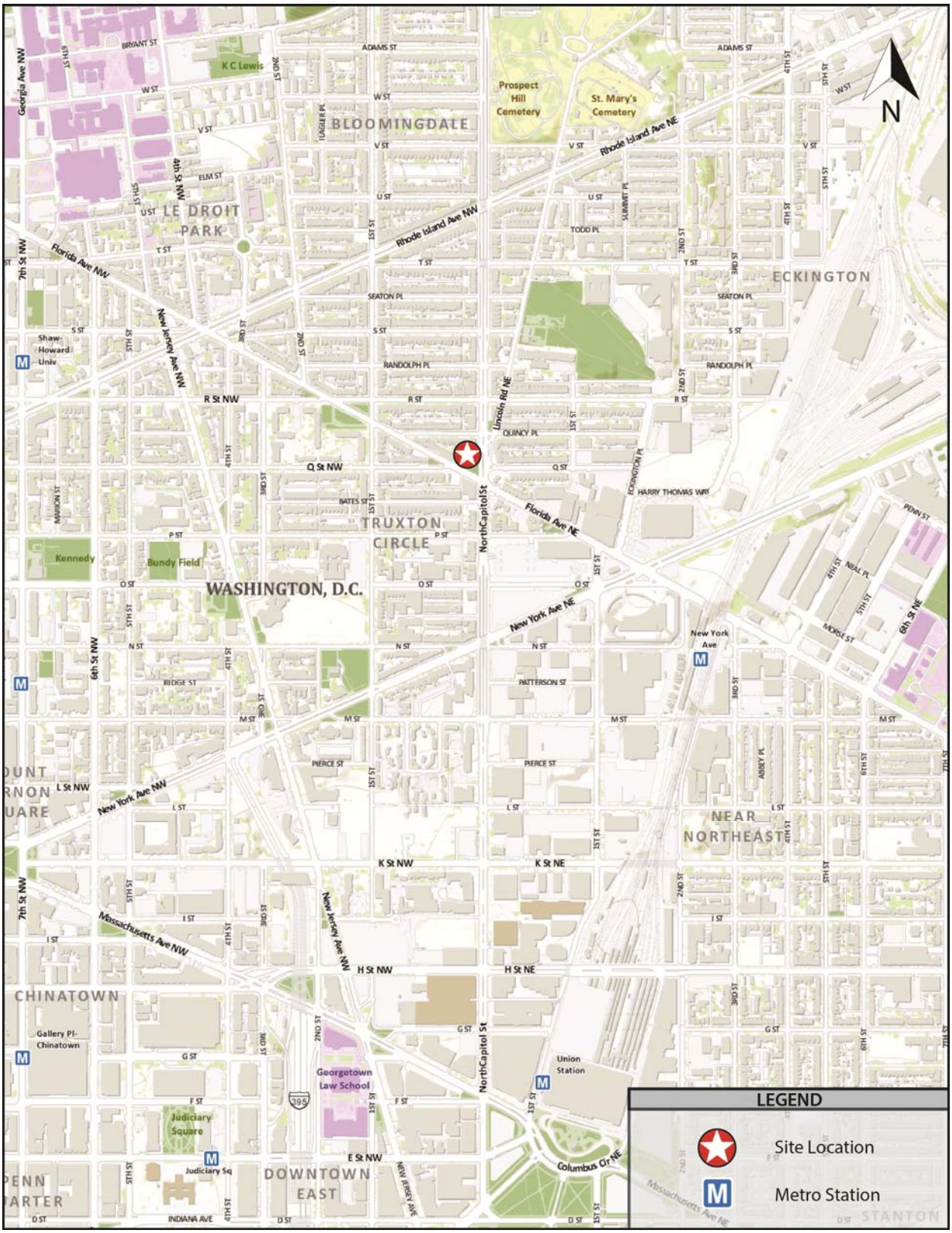

Figure 1: Site location map

Figure 2: Aerial of Site

PREVIOUS AND CURRENT DEVELOPMENT PROGRAM TRIP GENERATION COMPARISON

The development program under the PUD Modification includes the following:

- 80-90 residential units
- 4,000 GSF retail

A comparison of site trips under the previous and current development programs are shown in **Tables 1** and **2**. Trip rates in the June 2006 TIA were based on the Institute of Transportation Engineers (ITE) Trip Generation Manual (7th Edition) and were reduced to account for multi-modal transportation options in the area. Trip generation for the current development program is based on the trip rates presented in the 2006 TIA. The June 2006 TIA is attached as an appendix to this document.

Table 1: 2006 TIA 1600 North Capital Street PUD Projected Peak Hour Trip Generation

Land Use	**AM Peak Hour**			**PM Peak Hour**		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Trips per Mid-Rise Apartment Unit	0.09	0.21	0.30	0.23	0.16	0.39
With 35% Transit Walk and Other Non-vehicle Trips)	0.06	0.14	0.20	0.15	0.10	0.25
Trips per 1000 GSF Retail	0.63	0.40	1.03	1.80	1.95	3.75
With 80% Transit Walk and Other Non-vehicle Trips)	0.13	0.08	0.21	0.36	0.39	0.75
Trip Generation	**AM Peak Hour**			**PM Peak Hour**		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Trips for 85 Mid-Rise Apartment Units	5	12	17	13	9	22
Trips for 4000 GSF Retail	1	1	2	2	2	4
Total Site Trip Generation	**6**	**13**	**19**	**15**	**11**	**26**

The previous application included a range of 55 to 85 units however the trip generation and analysis was conservatively high and assumed the maximum 85 apartment units. As shown in Table 1, under the previous development program (with 85 units) the 1600 North Capitol Street PUD would generate 19 AM and 26 PM peak hour trips.

Table 2: 2013 PUD Modification 1600 North Capital Street Peak Hour Trip Generation

Land Use	AM Peak Hour			PM Peak Hour		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Trips for 90 Mid-Rise Apartment Units	5	13	18	14	9	23
Trips for 4000 GSF Retail	1	1	2	2	2	4
Total Trip Generation	**6**	**14**	**20**	**16**	**11**	**27**

Table 3: Net Increase in Site Trips from 2006 to 2013 Development Programs

Land Use	AM Peak Hour			PM Peak Hour		
	IN	OUT	TOTAL	IN	OUT	TOTAL
2006 Total Site Trip Generation	6	13	19	15	11	26
2013 Total Site Trip Generation	6	14	20	16	11	27
Net Increase in Site Trips	**0**	**1**	**1**	**1**	**0**	**1**

Under the PUD Modification, there would be five additional residential units which would result in an increase in one vehicular outbound trip during the AM Peak Hour and one inbound vehicular trip during the PM Peak Hour. This is a negligible increase in site trips from the previously approved plan. There would not be an increase or decrease in the retail trips as there are no proposed changes to the retail square footage.

SITE PLAN

The site plan for the 1600 North Capitol Street project is shown in **Figure 3**. The project will allow for a number of improvements including a minimum 8-foot clear space for sidewalks plus a 6-foot wide tree box between the sidewalk and street along North Capitol Street and Florida Avenue adjacent to the site.

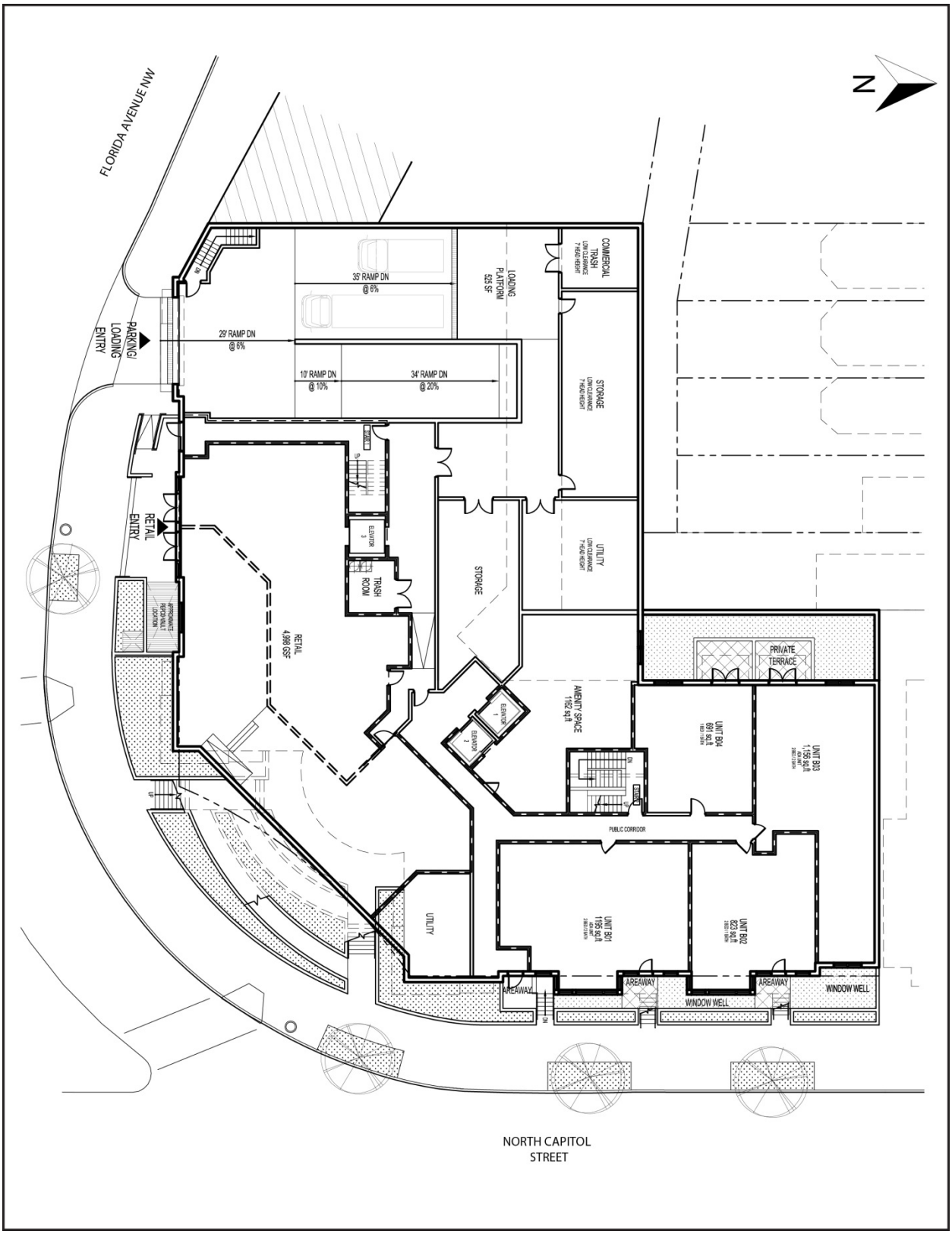

Figure 3: Site Plan

SITE ACCESS & LOADING

A curb cut along Florida Avenue in the southwestern extent of the site would support vehicular and loading access in the future. The curb cut is in the same location as shown on the approved PUD plans and the applicant is not modifying the location or layout of the loading or parking entrances approved for the project. Under the previous PUD, left turn ingress and egress to/from the site was permitted. To address potential safety concerns with left-turning traffic to/from Florida Avenue, the applicant has agreed to modify the driveway operations to support right-turn-in/right-turn-out only access.

Pedestrian access will be supported via sidewalks along North Capitol Street and Florida Avenue and the main entryway for residents is planned at the corner of Florida Avenue and North Capitol Street as shown in Figure 2. Entry to the commercial space will be provided via Florida Avenue as shown in Figure 3. In the event the commercial spaces cannot be leased the applicant has the flexibility to turn the space into residential units.

With regards to loading, the PUD Modification continues to provide one (1) 12' x 30' loading berth with a loading platform and one (1) 10' x 20' service area, accessible via the entrance on Florida Avenue, as previously approved by the Zoning Commission. The 30' loading berth would support the residential use. Under the previous PUD, the application was granted a variance from the 55' truck berth requirement, as determined during the original PUD process. A 30' loading berth is adequate to accommodate trucks[2] associated with residential move-ins. The commercial component of the project does not have a loading berth requirement.

Trucks entering the site would reverse into the site driveway to the loading berth. Leaving the site truck traffic would pull out of the loading berth and make a right out onto Florida Avenue. Residential deliveries to the site are expected to be infrequent, particularly after the initial move-in.

The following management measures will be enforced to reduce the potential occurrence of hazards with trucks reversing into the driveway from Florida Avenue:

- **Delivery Day/Hours**- Residents would be required to schedule use of the loading berth and move-ins would only occur during weekday off-peak hours and weekends. Proposed weekday hours include Monday and Friday from 10:00 AM to 2:00 PM[3] and after 7:00 PM and on Saturday and Sunday from 7:00 AM to 7:00 PM.

[2] Typical size of U-Haul moving trucks for a one to two bedroom apartment is 14'. For a home, truck sizes range from 17' to 26' for two to four bedrooms.
[3] Proposed Weekday hours were determined by examining 13-hour traffic counts at Florida Avenue and Q Street, NW and identifying low traffic periods.

- **Truck Size** – Trucks larger than 30' would be prohibited.

Figure 4 provides an illustration of vehicular, truck and pedestrian access.

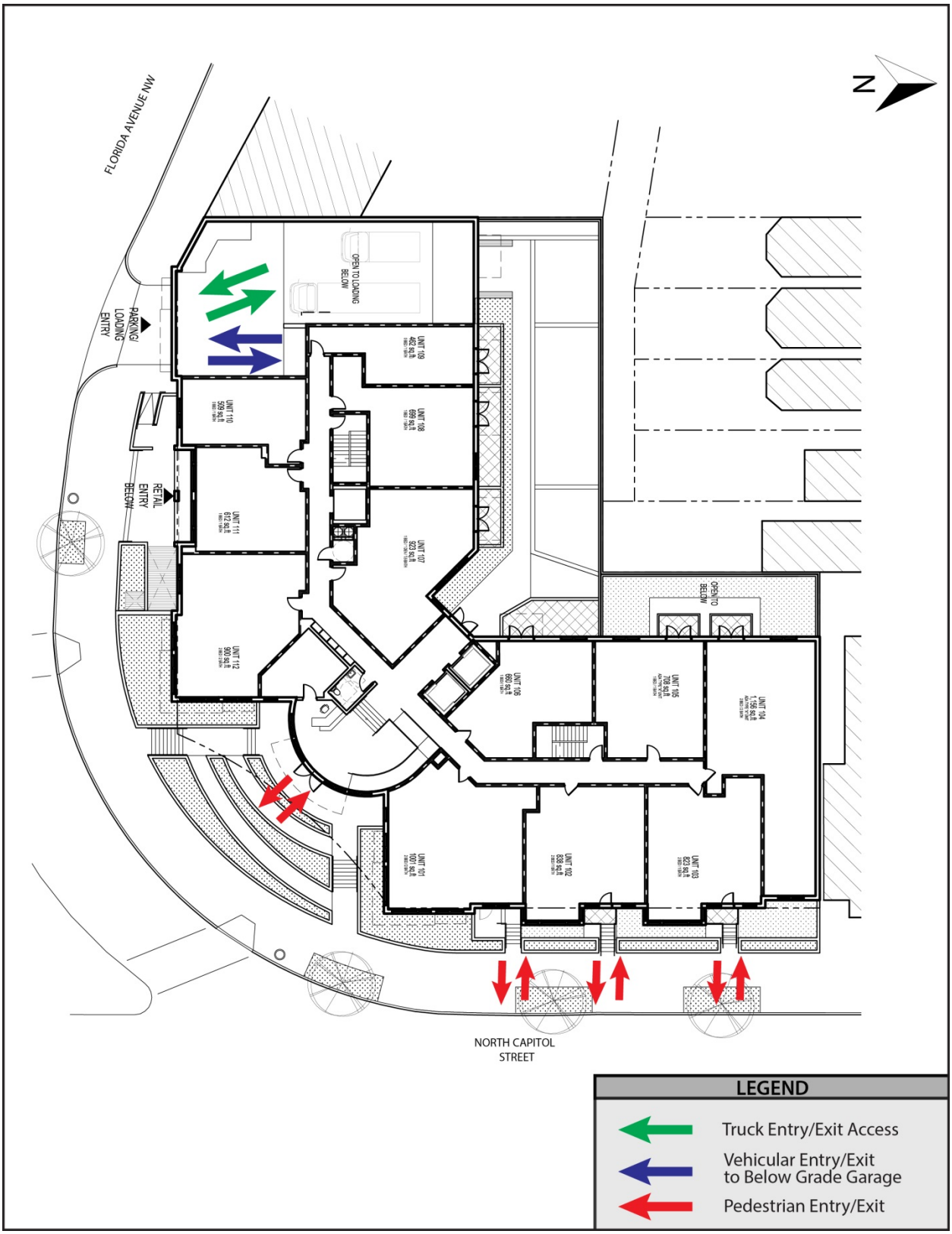

Figure 4: Vehicular, Truck and Pedestrian Access.

PARKING

On-Site Parking

The applicant is seeking a reduction of 43 parking spaces from 85 to 42 by providing one level of parking instead of two levels. The reduction in parking supply is a favorable measure to reduce potential trip generation to the site. The parking ratio is 0.47 spaces per unit and provided parking will support the residential component of the project. The parking supply exceeds the zoning requirement of 1 space per 3 units and is adequate to accommodate residential demand.

On-Street Parking Inventory and Occupancy

On-street parking surveys were conducted in the vicinity of the proposed site to determine existing parking restrictions, control, supply and occupancy. The study area, shown in **Figure 5**, was approved by DDOT and includes the following street segments:

- R Street, NW (First Street NW to North Capitol Street)
- Quincy Place, NW (Florida Avenue NW to North Capitol Street)
- Quincy Place, NE (North Capitol Street to First Street, NE)
- Lincoln Road, NE (Q Street, NE to R Street, NE)
- Q Street, NW (First Street, NW to Florida Avenue, NW)
- Q Street, NE (North Capitol Street, NE to First Street, NE)
- Bates Street, NW (First Street, NW to North Capitol Street)
- North Capitol Street (Bates Street, NW to R Street, NW)
- Florida Avenue (First Street, NW to P Street, NE)

A summary of parking supply and control for the parking study area is provided in Table 1. Occupancy surveys were conducted on Saturday, June 22 at 4:00 AM and on Tuesday, June 25 at 4:00 PM. Table 2 summarizes occupancy and observed demand during each survey period.

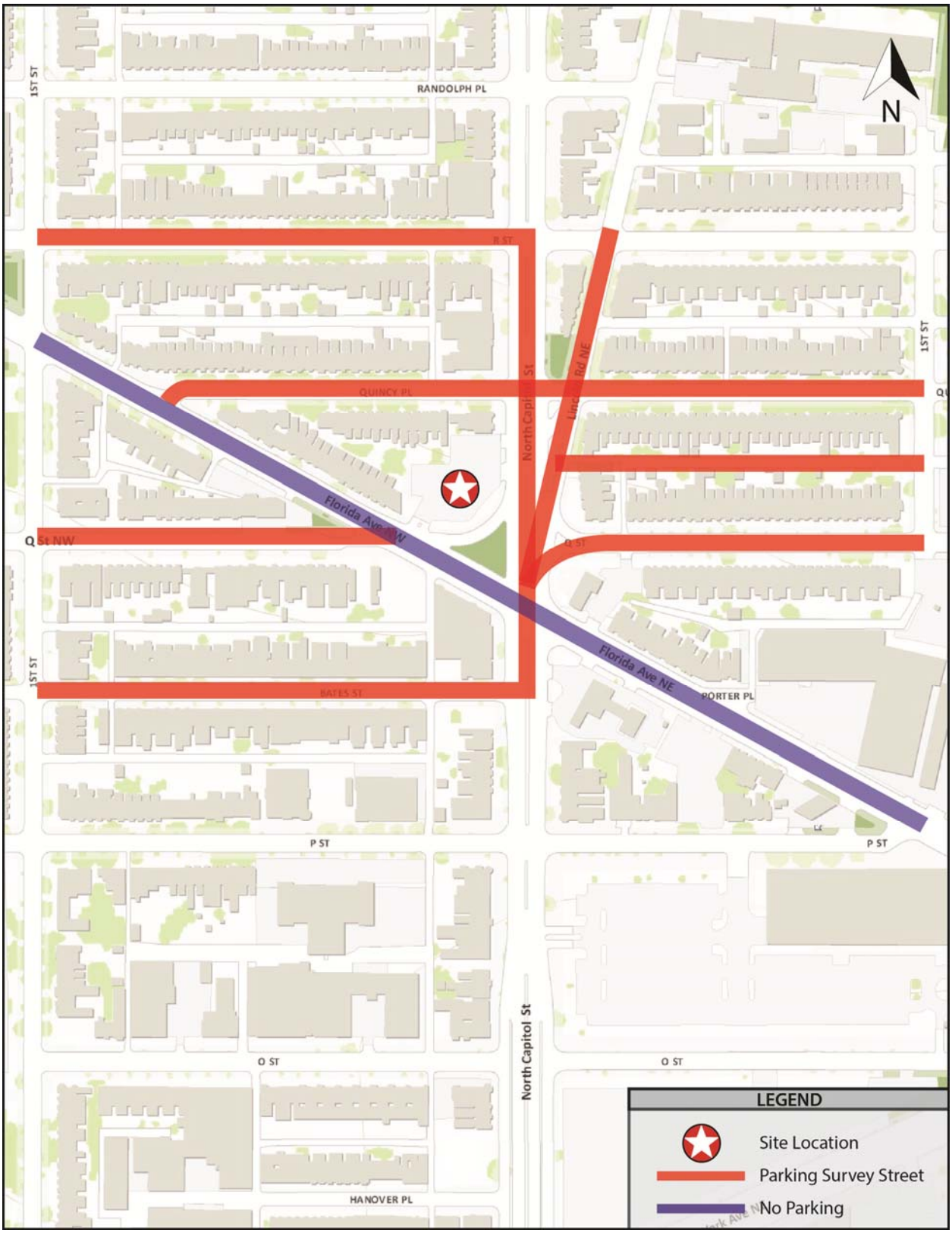

Figure 5: On-Street Parking Survey Study Area

Table 1: On-Street Parking Control, Restriction and Supply

Street	Supply		Parking Control
R St., NW	North side	38	Two Hour Parking Zone 5 Monday to Friday 7:00 AM to Midnight; North side street cleaning Wednesday 12:30 PM to 2:30 PM and one handicap reserved space South side street cleaning Thursday 12:30 PM to 2:30 PM
	South side	40	
	Total	**78**	
Quincy Pl, NW	North side	24	Two Hour Parking ZONE 5 7:00 AM to 8:30 PM; North side street cleaning Wednesday 12:30 PM to 2:30 PM; South side street cleaning Thursday 12:30 PM to 2:30 PM
	South side	29	
	Total	**53**	
Quincy Pl, NE	North side	29	Two Hour Parking ZONE 5 7:00 AM to 8:30 PM; North side street cleaning Thursday 9:30 PM to 11:30 PM; South side street cleaning Wednesday 9:30 PM to 11:30 PM
	South side	28	
	Total	**57**	
Lincoln Rd, NE	East side	10	No Signage/No Control (Q St. to Quincy Pl); Between Quincy Pl. and R St.- No Standing or Parking 4:00 PM to 6:30 PM; Street cleaning Wednesday 12:30 PM to 2:30 PM
	West side	0	No Standing or Parking Anytime
	Total	**10**	
Q St., NW	North side	22	Two Hour Parking ZONE 5 7:00 AM to 8:30 PM; Street cleaning Thursday 9:30 PM to 11:30PM
	South side	25	Two Hour Parking ZONE 5 7:00 AM to 8:30 PM; Street cleaning Wednesday 9:30 PM to 11:30 PM
	Total	**47**	
Q St., NE	North side	24	Two Hour Parking ZONE 5 7:00 AM to 8:30 PM; Street cleaning Wednesday 9:30 PM to 11:30PM)
	South side	26	Two Hour Parking ZONE 5 7:00 AM to 8:30 PM; Street cleaning Thursday 12:30 PM to 2:30 PM
	Total	**50**	
Bates St, NW	North side	**37**	Two Hour Parking ZONE 5 7:00 AM to 8:30 PM; North side street cleaning Wednesday 9:30 PM to 11:30 PM; South side street cleaning Thursday 9:30 PM to 11:30 PM; South side two handicap reserved spaces
	South side	**36**	
	Total	**73**	
North Capitol St.	East side	0	No Standing or Parking Anytime
	West side	5	R St. to Quincy Pl. and Florida Ave to Bates St. -Loading Zone Monday to Friday 9:30 AM to 6:30 PM; Florida Ave. to Bates St. – No Stopping 7:00 AM to 9:30 AM and 4:00 PM to 6:30 PM
	Total	**5**	
Florida Ave	**Total**	**0**	No Standing or Parking Anytime

As shown in Table 1, curb parking within the study area is primarily Two Hour Zone 5 residential permit parking (excluding North Capitol Street). Curb parking supports local residents. At various periods on Wednesday and/or Thursday parking is prohibited to accommodate street cleaning. Along North Capitol Street, parking is very limited. There are bus loading zones, loading zones for commercial use and rush hour parking restrictions along the west side of North Capitol Street. There are a total of 358 RPP spaces (with two hour restrictions) and 15 unrestricted spaces (along Lincoln Road and North Capitol Street) within the study area.

Table 2: On-Street Parking Occupancy

Street	Supply	Weekday June 25 (4:00 PM)		Weekend June 22 (4:00 AM)	
		Occupied Spaces	% Occupied	Occupied Spaces	% Occupied
R St.	78	40	51%	74	95%
Quincy Pl.	110	89	76%	103	94%
Lincoln Rd.	10	6	60	6	60%
Q St.[4]	97	56	58%	79	81%
Bates St.	73	46	63%	60	82%
North Capitol St.	5	0	0%	3	40%
Total Study Area	**373**	**234**	**63%**	**322**	**86%**

Occupancy levels (shown in Table 2) indicate on-street parking was at 63% and 86% capacity during the Weekday afternoon and Weekend morning survey periods, respectively. The highest demand for parking was observed during the Weekend morning survey period along R Street and Quincy Place. About 51 curb spaces were unoccupied during the Weekend morning survey.

CURBSIDE SIGNAGE PLAN

As identified in Table 1, standing or stopping at any time is prohibited along the frontages of the proposed site on both North Capitol Street and Florida Ave. Thus curb loading would be prohibited and no additional signage would be required.

[4] During observations there were Emergency No Parking signs along the north side of Q Street between First Street and Florida Avenue. Although the signage prohibited parking from June 24th to August 2nd during the hours of 7:00AM to 5:00PM vehicle were still observed parked at this location. A dumpster was also on-site and occupied several parking spaces.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

The Transportation Demand Management (TDM) Plan is an active program used to foster alternative transportation choices that are more environmentally friendly than driving alone. *DDOT's TDM in the Development Process Report* was used as a reference to guide development of this TDM plan. The applicant will provide all expected TDM measures as outlined in the TDM Recommendations Matrix which identifies TDM measures based on the level of projected vehicle trips for the project. In accordance with the matrix, the applicant will commit to the following expected measures for developments that generate less than 50 peak hour trips[5] :

- Require all parking cost be unbundled from the cost of lease or purchase.
- Comply with zoning requirement to provide bicycle parking/storage facilities. Four bike racks with space for eight bikes will be provided at-grade along the sidewalk on Florida Avenue. Additional bike storage will also be provided within the parking garage.
- Post all TDM commitments on-line, publicize availability, and allow the public to see what commitment have been promised. Providing each initial tenant a welcome package that promotes website links such as CommunterConnections.com, goDCgo.com, Capital BikeShare and ZipCar, WMATA Metrobus route and DC Bicycle maps.

CONCLUSION

The PUD Modification for the 1600 North Capitol Street project, including the additional residential units (plus five) and the reduction in parking supply, will not adversely impact traffic and transportation conditions.

To address potential safety concerns with left-turning traffic to/from Florida Avenue, the applicant has agreed to limit the driveway operations to support right-turn-in/right-turn-out only access.

The applicant has committed to a loading management plan to reduce the potential occurrence of hazards with trucks reversing into the driveway from Florida Avenue. A TDM will be implemented which includes measures that encourage use of non-automotive transportation choices.

[5] Reference Table 2: TDM Recommendation Matrix; Incorporation of Transportation Demand Management into the Development Review Process Final Report and Recommendations (October 2010).

1600 NORTH CAPITOL STREET

TRANSPORTATION MEMORANDUM

TECHNICAL APPENDIX

AUGUST 2013

symmetra design

List of Appendices

Appendix A: 2006 Traffic Impact Analysis for 1600 North Capitol Street Planned Unit Development (Case No. 06-04) report exerts

TRAFFIC IMPACT ANALYSIS – 1600 NORTH CAPITOL STREET PLANNED UNIT DEVELOPMENT AND REZONING APPLICATION, NORTHWEST, WASHINGTON, D.C.

(Case No. 06-04)

Prepared for:
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June 27, 2006

4.0 FUTURE TRAFFIC SITUATION

4.1 Proposed Development Plan

As noted earlier, this analysis is in support of the Planned Unit Development and Rezoning application for the development of approximately 85 apartment units and 4,000 GSF commercial space on the site. The proposed development would be served by approximately 85 parking spaces and one (1) loading berth with platform. Immediate vehicular access to the site would be provided via an entrance off Florida Avenue, in the southwestern extremity of the property.

4.2 Trip Generation

DDOT typically requires that the trip rates recommended by the Institute of Transportation Engineers (ITE) be utilized in conducting traffic impact assessments. As such, the trip estimates for the proposed development were based on the current ITE Trip Generation Manual (7th Ed., 2003). It is important to note that the ITE rates are for stand-alone suburban sites, which have little or no public transportation services or significant opportunities for weekday work trips via alternative modes. Accordingly, the rates were adjusted to reflect the location of the property within the downtown area with opportunities for use of transit facilities and travel by other modes. The trip rates and projected vehicular trips for the subject development are presented in Table 4.

TABLE 4

PROJECTED PEAK HOUR TRIP GENERATION – 1600 NORTH CAPITOL STREET PUD

Trip Rates	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
• Trips per Mid-Rise Apartment Unit	0.09	0.21	0.30	0.23	0.16	0.39
(With 35% Transit, Walk, and Other Non-vehicle Trips)	(0.06)	(0.14)	(0.20)	(0.15)	(0.10)	(0.25)
• Trips per 1,000 GSF Retail	0.63	0.40	1.03	1.80	1.95	3.75
(With 80% Transit, Walk, and Other Non-vehicle Trips)	(0.13)	(0.08)	(0.21)	(0.36)	(0.39)	(0.75)
Trip Generation						
• Trips/85 Mid-Rise Apartment Units	5	12	17	13	9	22
• Trips/4,000 GSF Retail	1	1	2	2	2	4
TOTAL	**6**	**13**	**19**	**15**	**11**	**26**

Source: WMATA 1989 Development Ridership Survey Report, ITE Trip Generation Manual (2003), and O. R. George & Associates.

It is important to note that the trips shown in Table 4 represent the projected trip generation for the **peak hour** only, and not for the entire peak period. The peak period generation occurs over a 3 - 4 hour period between 6:00 – 10:00 AM and 3:00 – 7:00 PM. This takes into consideration various types of workers, distances traveled between home and work, as well as transportation demand management measures such as flexible work hours, which are being encouraged by both public and private sector employees and government agencies.

4.3 Trip Distribution and Traffic Assignment

The peak hour trip generation and distribution patterns for the proposed residential uses would be related primarily to the location of the site relative to regional employment opportunities, available transportation modal splits and associated travel patterns. Accordingly, the projected trip generation would largely be oriented toward the City's Central Employment Area to the south and west. The in-town location and road network provides considerable flexibility and opportunity as far as directions of approach for vehicular traffic. These take into consideration the directional flow patterns and turn restrictions in the immediate vicinity of the site (these were discussed in greater detail in Section 2 regarding the existing roadway conditions). Based on the above, the assumed distribution pattern and the projected traffic assignment for the proposed development are shown in Exhibit 5.

4.4 Capacity Analysis - Year 2009 Total Traffic Situation

The year 2009 total traffic situation was derived by combining the traffic assignment for the proposed development (Exhibit 5) with the year 2009 total background traffic situation (Exhibit 4). The year 2009 total traffic situation is illustrated in Exhibit 6 (on page 15). These volumes were analyzed using the Highway Capacity Manual (HCM), as was done for the existing and background traffic conditions. The level of service results are presented in Table 5.

With the projected low trip generation of the proposed development, the capacity analysis results indicate that, upon build-out of the proposed development, the study area intersections would continue to operate acceptably, during the morning and afternoon peak periods. The capacity analysis worksheets for this situation are presented in Appendix H.

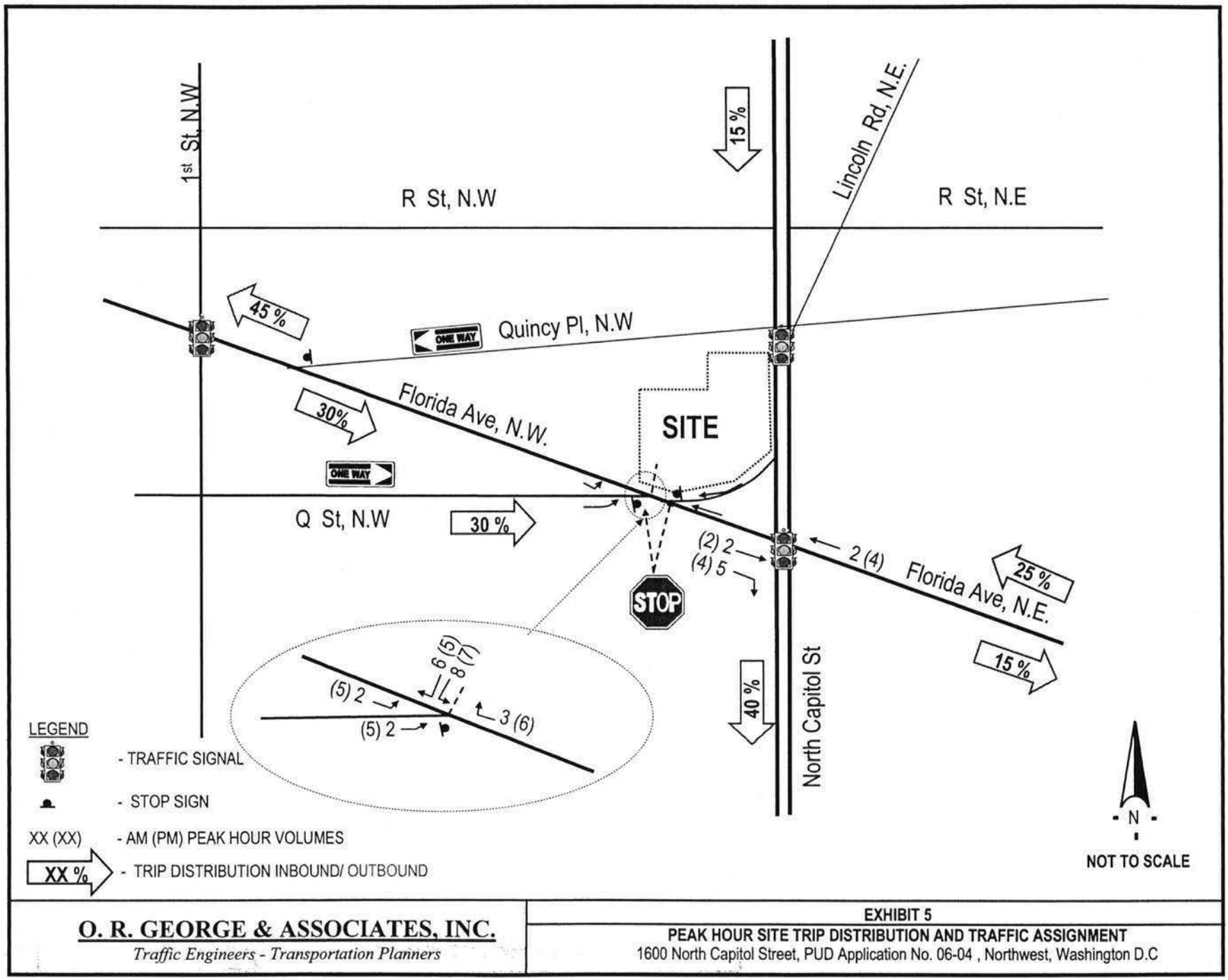
TABLE 5

SUMMARY OF CAPACITY ANALYSIS RESULTS - PROJECTED 2009 TOTAL TRAFFIC SITUATION (INCLUDING THE SUBJECT DEVELOPMENT)

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Avg. Delay (Sec/Veh)*	Level of Service	Avg. Delay (Sec/Veh)*
1) Q Street @ Florida Avenue, N.W. (Stop Sign Controlled)*	D	29.3	D	34.5
2) North Capitol Street @ Florida Avenue.(Signalized)	C	33.8	C	25.5

* Minor adjustments were made to account for the geometric configuration of the Q Street approach.

Source: O. R. George & Associates.



O. R. GEORGE & ASSOCIATES, INC.
Traffic Engineers - Transportation Planners

EXHIBIT 5
PEAK HOUR SITE TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT
1600 North Capitol Street, PUD Application No. 06-04 , Northwest, Washington D.C

4.5 Parking and Loading Evaluation

The subject property would be rezoned to C-2-B and the proposed improvements would be provided with off-street parking spaces. The City's parking requirements, based on the proposed zoning and land uses, are compared with the off-street parking proposed for the subject development, in Table 6 following:

TABLE 6

REQUIRED VS PROPOSED OFF-STREET PARKING

Land Use	Required Parking Supply	Proposed Parking Supply
- Apartments (85 Units) (1 per 3 units)	29	n/a
- Commercial Space (4,000 gsf) (In excess of 3,000 gsf, 1 per 750 gsf)	2	n/a
TOTAL	**31**	**85**

Source: DCMR Title 11 – Zoning and O. R. George & Associates.

Table 6 shows that the proposed off-street parking will exceed the City's requirements by a factor of approximately 2.75. The proposed off-street parking supply would therefore adequately accommodate the projected needs of the subject development. In addition, the proposed parking supply will ensure that the development will not adversely impact the local community in regard to spillover parking.

With regard to the loading, the PUD plan calls for the provision of one (1) 12' x 30' loading berth with a loading platform and one (1) 10' x 20' service loading area, accessible via the entrance off Florida Avenue. Due to the proposed size of the retail space, a specific loading berth or platform is not required per the Zoning Regulations. A 30 FT berth is provided for the residential uses. The plans call for the approximately 85 condominium units to consist of one-, two- and three-bedroom apartments, with the majority of units being one- and two- bedroom.

The Applicant's experience at other comparable properties is that not more than single-unit trucks would be required for typical moving activities. Also, since the units would be owned, the frequency of such activities would be quite low. It is projected that deliveries would be scheduled during weekday off-peak daytime hours as well as during weekend off-peak periods. Based on these considerations, the Applicant proposes the minor adjustment indicated from the requirements of the Zoning Regulations (one 55 FT berth with 200 FT^2 platform and a 20FT loading space for residential uses with more than 50 units). This is consistent with the PUD process and would not lead to any operational deficiencies regarding residential or retail loading/delivery needs. The loading issue was discussed extensively with DDOT Transportation Policy and Planning Administration staff as well as Traffic Services Administration staff and the relevant documentation is included in Appendix A.

APPENDIX

C

CAPACITY ANALYSIS WORKSHEETS
EXISTING TRAFFIC SITUATION

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Florida Ave @ Q Street
Agency/Co.	O.R.GEORGE & ASSOCIATES	Jurisdiction	D.C.
Date Performed	12/22/2005	Analysis Year	2005
Analysis Time Period	AM PEAK		
Project Description	1600 NORTH CAPITOL STREET		
East/West Street:	Q STREET	North/South Street:	Florida Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	957	0	0	698	0
Peak-Hour Factor, PHF	1.00	0.92	1.00	1.00	0.91	1.00
Hourly Flow Rate, HFR	0	1040	0	0	767	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T			T	
Upstream Signal		1			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	4	0	92
Peak-Hour Factor, PHF	1.00	1.00	0.65	0.81	1.00	0.81
Hourly Flow Rate, HFR	0	0	0	4	0	113
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
v (vph)						4		113
C (m) (vph)						219		766
v/c						0.02		0.15
95% queue length						0.06		0.52
Control Delay						21.7		10.5
LOS						C		B
Approach Delay	--	--				10.9		
Approach LOS	--	--				B		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	North Capitol St.@ Florida Ave
Agency or Co.	O.R.GEORGE & ASSOCIATES	Area Type	All other areas
Date Performed	12/22/2005	Jurisdiction	D.C.
Time Period	PM PEAK	Analysis Year	2005

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	2	0	0	3	0	0	3	0
Lane group		LTR			TR			TR			TR	
Volume (vph)	31	976	79		657	275		1766	14		1370	24
% Heavy veh	0	0	0		0	0		0	0		0	0
PHF	0.97	0.97	0.97		0.96	0.96		0.99	0.99		0.98	0.98
Actuated (P/A)	P	P	P		P	P		P	P		P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width		10.0			10.0			10.0			10.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		11			7			10			10	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	Thru & RT	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 52.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	1119	970	1798	1422
Lane group cap.	1484	1209	2476	2472
v/c ratio	0.75	0.80	0.73	0.58
Green ratio	0.38	0.38	0.52	0.52
Unif. delay d1	26.9	27.6	18.5	16.4
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	3.6	5.7	1.9	1.0
PF factor	1.000	1.000	1.000	1.000
Control delay	30.5	33.3	20.4	17.4
Lane group LOS	C	C	C	B
Apprch. delay	30.5	33.3	20.4	17.4
Approach LOS	C	C	C	B
Intersec. delay	24.1	Intersection LOS		C

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	North Capitol St.@ Florida Ave
Agency or Co.	O.R.GEORGE & ASSOCIATES	Area Type	All other areas
Date Performed	12/22/2005	Jurisdiction	D.C.
Time Period	AM PEAK	Analysis Year	2005

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	2	0	0	3	0	0	3	0
Lane group		TR			TR			TR			TR	
Volume (vph)		693	97		903	198		1262	4		2051	54
% Heavy veh		0	0		0	0		0	0		0	0
PHF		0.93	0.93		0.94	0.94		0.87	0.87		0.95	0.95
Actuated (P/A)		P	P		P	P		P	P		P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width		10.0			10.0			10.0			10.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		8			17			10			10	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	Thru & RT	02	03	04	Thru & RT	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 52.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	849	1172	1456	2216
Lane group cap.	1783	1206	2477	2469
v/c ratio	0.48	0.97	0.59	0.90
Green ratio	0.38	0.38	0.52	0.52
Unif. delay d1	23.5	30.5	16.6	21.6
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	0.9	20.0	1.0	5.7
PF factor	1.000	1.000	1.000	1.000
Control delay	24.4	50.5	17.6	27.3
Lane group LOS	C	D	B	C
Apprch. delay	24.4	50.5	17.6	27.3
Approach LOS	C	D	B	C
Intersec. delay	29.2	Intersection LOS		C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Florida Ave @ Q Street
Agency/Co.	O.R.GEORGE & ASSOCIATES	Jurisdiction	D.C.
Date Performed	12/22/2005	Analysis Year	2005
Analysis Time Period	PM PEAK		
Project Description	1600 NORTH CAPITOL STREET		
East/West Street:	Q STREET	North/South Street:	Florida Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	681	0	0	965	0
Peak-Hour Factor, PHF	1.00	0.97	1.00	1.00	0.93	1.00
Hourly Flow Rate, HFR	0	702	0	0	1037	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T			T	
Upstream Signal		1			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	6	0	121
Peak-Hour Factor, PHF	1.00	1.00	0.75	0.85	1.00	0.85
Hourly Flow Rate, HFR	0	0	0	7	0	142
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

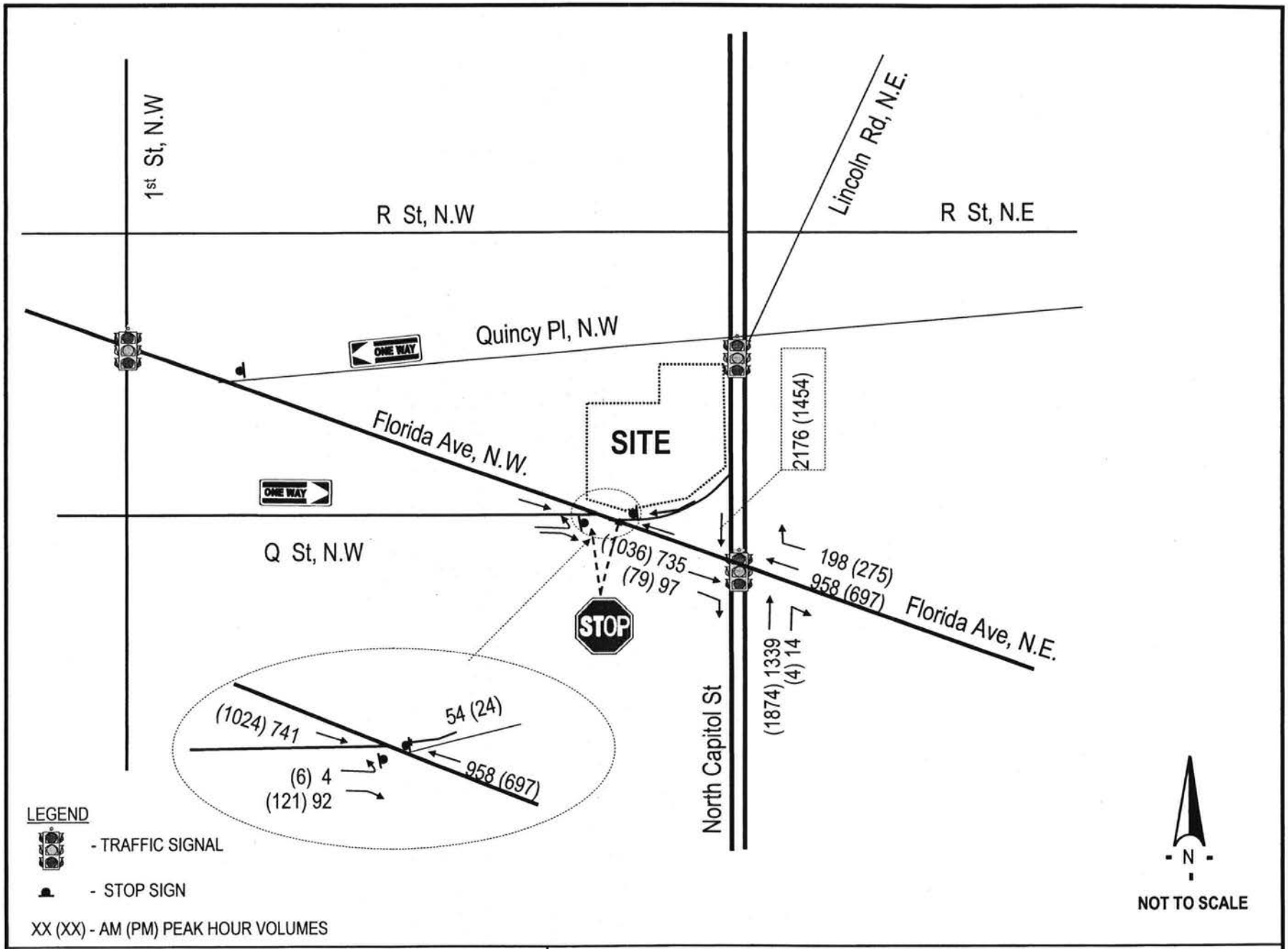
Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
v (vph)						7		142
C (m) (vph)						186		760
v/c						0.04		0.19
95% queue length						0.12		0.68
Control Delay						25.1		10.8
LOS						D		B
Approach Delay	--	--				11.5		
Approach LOS	--	--				B		

APPENDIX

F

2009 'BASE' TRAFFIC SITUATION



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O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers - Transportation Planners

APPENDIX F-1

BASE YEAR 2009 TRAFFIC SITUATION

1600 North Capitol Street, PUD Application No. 06-04 , Northwest, Washington D.C

APPENDIX

G

CAPACITY ANALYSIS WORKSHEETS -
2009 BACKGROUND TRAFFIC SITUATION

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Florida Ave @ Q Street
Agency/Co.	O.R.GEORGE & ASSOCIATES	Jurisdiction	D.C.
Date Performed	05/01/2006	Analysis Year	Background 2009
Analysis Time Period	AM PEAK		
Project Description	1600 NORTH CAPITOL STREET		
East/West Street:	Q STREET	North/South Street:	Florida Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	1012	0	0	741	0
Peak-Hour Factor, PHF	1.00	0.92	1.00	1.00	0.91	1.00
Hourly Flow Rate, HFR	0	1099	0	0	814	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T			T	
Upstream Signal		1			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	4	0	92
Peak-Hour Factor, PHF	1.00	1.00	0.65	0.81	1.00	0.81
Hourly Flow Rate, HFR	0	0	0	4	0	113
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
v (vph)						4		113
C (m) (vph)						199		738
v/c						0.02		0.15
95% queue length						0.06		0.54
Control Delay						23.5		10.8
LOS						C		B
Approach Delay	--	--				11.2		
Approach LOS	--	--				B		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	North Capitol St.@ Florida Ave
Agency or Co.	O.R.GEORGE & ASSOCIATES	Area Type	All other areas
Date Performed	05/01/2006	Jurisdiction	D.C.
Time Period	PM PEAK	Analysis Year	Background 2009

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	2	0	0	3	0	0	3	0
Lane group		LTR			TR			TR			TR	
Volume (vph)	31	1036	79		697	275		1874	14		1454	24
% Heavy veh	0	0	0		0	0		0	0		0	0
PHF	0.97	0.97	0.97		0.96	0.96		0.99	0.99		0.98	0.98
Actuated (P/A)	P	P	P		P	P		P	P		P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width		10.0			10.0			10.0			10.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		11			7			10			10	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	Thru & RT	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 52.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	1181	1012	1907	1508
Lane group cap.	1466	1211	2476	2473
v/c ratio	0.81	0.84	0.77	0.61
Green ratio	0.38	0.38	0.52	0.52
Unif. delay d1	27.7	28.2	19.2	16.9
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	4.8	6.9	2.4	1.1
PF factor	1.000	1.000	1.000	1.000
Control delay	32.5	35.1	21.6	18.0
Lane group LOS	C	D	C	B
Apprch. delay	32.5	35.1	21.6	18.0
Approach LOS	C	D	C	B
Intersec. delay	25.4	Intersection LOS		C

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	North Capitol St.@ Florida Ave
Agency or Co.	O.R.GEORGE & ASSOCIATES	Area Type	All other areas
Date Performed	05/01/2006	Jurisdiction	D.C.
Time Period	AM PEAK	Analysis Year	Background 2009

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	2	0	0	3	0	0	3	0
Lane group		TR			TR			TR			T	
Volume (vph)		735	97		958	198		1339	4		2176	
% Heavy veh		0	0		0	0		0	0		0	
PHF		0.93	0.93		0.94	0.94		0.87	0.87		0.95	
Actuated (P/A)		P	P		P	P		P	P		P	
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0			
Lane Width		10.0			10.0			10.0			10.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		8			17			10			10	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	Thru & RT	02	03	04	Thru & RT	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 52.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	894	1230	1544	2291
Lane group cap.	1784	1208	2477	2478
v/c ratio	0.50	1.02	0.62	0.92
Green ratio	0.38	0.38	0.52	0.52
Unif. delay d1	23.7	31.0	17.0	22.2
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	1.0	30.5	1.2	7.3
PF factor	1.000	1.000	1.000	1.000
Control delay	24.7	61.5	18.2	29.5
Lane group LOS	C	E	B	C
Apprch. delay	24.7	61.5	18.2	29.5
Approach LOS	C	E	B	C
Intersec. delay	32.5	Intersection LOS		C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Florida Ave @ Q Street
Agency/Co.	O.R.GEORGE & ASSOCIATES	Jurisdiction	D.C.
Date Performed	05/01/06	Analysis Year	Background 2009
Analysis Time Period	PM PEAK		

Project Description	1600 NORTH CAPITOL STREET
East/West Street:	Q STREET
North/South Street:	Florida Avenue
Intersection Orientation:	North-South
Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	721	0	0	1024	0
Peak-Hour Factor, PHF	1.00	0.97	1.00	1.00	0.93	1.00
Hourly Flow Rate, HFR	0	743	0	0	1101	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T			T	
Upstream Signal		1			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	6	0	121
Peak-Hour Factor, PHF	1.00	1.00	0.75	0.85	1.00	0.85
Hourly Flow Rate, HFR	0	0	0	7	0	142
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	1	0	1
Configuration				L		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration						L		R
v (vph)						7		142
C (m) (vph)						165		751
v/c						0.04		0.19
95% queue length						0.13		0.69
Control Delay						27.8		10.9
LOS						D		B
Approach Delay	--	--				11.7		
Approach LOS	--	--				B		

APPENDIX

H

CAPACITY ANALYSIS WORKSHEETS
2009 TOTAL TRAFFIC SITUATION

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Florida Ave @ Q Street
Agency/Co.	O.R.GEORGE & ASSOCIATES	Jurisdiction	D.C.
Date Performed	05/01/2006	Analysis Year	Future 2009
Analysis Time Period	AM PEAK		
Project Description	1600 NORTH CAPITOL STREET		
East/West Street:	Q STREET	North/South Street:	Florida Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	1012	3	2	741	0
Peak-Hour Factor, PHF	1.00	0.92	0.92	0.91	0.91	1.00
Hourly Flow Rate, HFR	0	1099	3	2	814	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR	LT	T	
Upstream Signal		1			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	8	0	6	4	2	92
Peak-Hour Factor, PHF	0.65	1.00	0.65	0.81	0.81	0.81
Hourly Flow Rate, HFR	12	0	9	4	2	113
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	1	1	0
Configuration	L		R	L		TR

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	L		R	L		TR
v (vph)		2	12		9	4		115
C (m) (vph)		812	160		832	262		793
v/c		0.00	0.08		0.01	0.02		0.15
95% queue length		0.01	0.24		0.03	0.05		0.51
Control Delay		9.4	29.3		9.4	19.0		10.3
LOS		A	D		A	C		B
Approach Delay	--	--	20.8			10.6		
Approach LOS	--	--	C			B		

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	North Capitol St.@ Florida Ave
Agency or Co.	O.R.GEORGE & ASSOCIATES	Area Type	All other areas
Date Performed	05/01/2006	Jurisdiction	D.C.
Time Period	PM PEAK	Analysis Year	Future 2009

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	2	0	0	3	0	0	3	0
Lane group		LTR			TR			TR			TR	
Volume (vph)	31	1038	83		701	275		1874	14		1454	24
% Heavy veh	0	0	0		0	0		0	0		0	0
PHF	0.97	0.97	0.97		0.96	0.96		0.99	0.99		0.98	0.98
Actuated (P/A)	P	P	P		P	P		P	P		P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width		10.0			10.0			10.0			10.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		11			7			10			10	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	EW Perm	02	03	04	Thru & RT	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 52.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 — Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	1188	1016	1907	1508
Lane group cap.	1464	1212	2476	2473
v/c ratio	0.81	0.84	0.77	0.61
Green ratio	0.38	0.38	0.52	0.52
Unif. delay d1	27.8	28.2	19.2	16.9
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	5.0	7.0	2.4	1.1
PF factor	1.000	1.000	1.000	1.000
Control delay	32.8	35.2	21.6	18.0
Lane group LOS	C	D	C	B
Apprch. delay	32.8	35.2	21.6	18.0
Approach LOS	C	D	C	B
Intersec. delay	25.5	Intersection LOS		C

SHORT REPORT

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	North Capitol St.@ Florida Ave
Agency or Co.	O.R.GEORGE & ASSOCIATES	Area Type	All other areas
Date Performed	05/01/2006	Jurisdiction	D.C.
Time Period	AM PEAK	Analysis Year	Future 2009

Volume and Timing Input

	EB			WB			NB			SB		
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Num. of Lanes	0	3	0	0	2	0	0	3	0	0	3	0
Lane group		TR			TR			TR			TR	
Volume (vph)		737	102		960	198		1339	4		2176	54
% Heavy veh		0	0		0	0		0	0		0	0
PHF		0.93	0.93		0.94	0.94		0.87	0.87		0.95	0.95
Actuated (P/A)		P	P		P	P		P	P		P	P
Startup lost time		2.0			2.0			2.0			2.0	
Ext. eff. green		2.0			2.0			2.0			2.0	
Arrival type		3			3			3			3	
Unit Extension		3.0			3.0			3.0			3.0	
Ped/Bike/RTOR Volume	0		0	0		0	0		0	0		0
Lane Width		10.0			10.0			10.0			10.0	
Parking/Grade/Parking	N	0	N	N	0	N	N	0	N	N	0	N
Parking/hr												
Bus stops/hr		8			17			10			10	
Unit Extension		3.0			3.0			3.0			3.0	

Phasing	Thru & RT	02	03	04	Thru & RT	06	07	08
Timing	G = 38.0	G =	G =	G =	G = 52.0	G =	G =	G =
	Y = 5	Y =	Y =	Y =	Y = 5	Y =	Y =	Y =

Duration of Analysis (hrs) = 0.25 | Cycle Length C = 100.0

Lane Group Capacity, Control Delay, and LOS Determination

	EB	WB	NB	SB
Adj. flow rate	902	1232	1544	2348
Lane group cap.	1783	1208	2477	2469
v/c ratio	0.51	1.02	0.62	0.95
Green ratio	0.38	0.38	0.52	0.52
Unif. delay d1	23.8	31.0	17.0	22.8
Delay factor k	0.50	0.50	0.50	0.50
Increm. delay d2	1.0	31.0	1.2	9.8
PF factor	1.000	1.000	1.000	1.000
Control delay	24.8	62.0	18.2	32.6
Lane group LOS	C	E	B	C
Apprch. delay	24.8	62.0	18.2	32.6
Approach LOS	C	E	B	C
Intersec. delay	33.8	Intersection LOS		C

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	ORGA-IJB	Intersection	Florida Ave @ Q Street
Agency/Co.	O.R.GEORGE & ASSOCIATES	Jurisdiction	D.C.
Date Performed	05/01/06	Analysis Year	Total 2009
Analysis Time Period	PM PEAK		
Project Description	1600 NORTH CAPITOL STREET		
East/West Street:	Q STREET	North/South Street:	Florida Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	721	6	5	1024	0
Peak-Hour Factor, PHF	1.00	0.97	0.97	0.93	0.93	1.00
Hourly Flow Rate, HFR	0	743	6	5	1101	0
Percent Heavy Vehicles	0	--	--	0	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR	LT	T	
Upstream Signal		1			1	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7	0	5	6	5	121
Peak-Hour Factor, PHF	0.92	1.00	0.92	0.85	0.85	0.85
Hourly Flow Rate, HFR	7	0	5	7	5	142
Percent Heavy Vehicles	0	0	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	1	0	1	0	1	1
Configuration	L		R	LT		R

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		LT	L		R	LT		R
v (vph)		5	7		5	12		142
C (m) (vph)		957	143		843	107		751
v/c		0.01	0.05		0.01	0.11		0.19
95% queue length		0.02	0.15		0.02	0.37		0.69
Control Delay		8.8	31.5		9.3	42.9		10.9
LOS		A	D		A	E		B
Approach Delay	--	--	22.2			13.4		
Approach LOS	--	--	C			B		