TRAFFIC IMPACT ASSESSMENT - NEW EAST CAPITOL PLANNED UNIT DEVELOPMENT APPLICATION, DISTRICT OF COLUMBIA ZONING COMMISSION, WASHINGTON, D.C.

(*Case No. 02 - 05*)



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EXHIBIT NO.16A

TABLE OF CONTENTS

Page

1.0 INTRODUCTION 1

1.1 Project Background 1
1.2 Study Purpose and Scope 3
1.3 Report Organization and Summary 3

2.0 EXISTING ROADWAY AND TRAFFIC CONDITIONS 4

2.1 Existing Land Use and Zoning 4
2.2 Existing Study Area Road Network 4
2.3 Existing Traffic Situation 6
2.4 Existing Safety Situation 9

3.0 BACKGROUND TRAFFIC SITUATION 10

4.0 FUTURE TRAFFIC SITUATION 11

4.1 Proposed Development Plan 11
4.2 Trip Generation 14
4.3 Trip Distribution and Traffic Assignment 17
4.4 Capacity Analysis - Year 2006 Total Traffic Situation 17

5.0 TRAFFIC IMPACT ASSESSMENT AND MITIGATION STRATEGIES 21

5.1 Assessment Summary 21
5.2 Mitigation Strategies 21
5.3 Road Closure Considerations 22

6.0 SUMMARY OF FINDINGS AND CONCLUSION 23

6.1 Summary of Findings 23
6.2 Conclusion 24

LIST OF EXHIBITS

		Page
1 -	Site Location Map	2
2 -	Existing Roadway Lane Configuration – Study Area Road Network	5
3 -	Existing Peak Hour Traffic Turning Movement Volumes	7
4 -	Proposed Layout and Access Situation	13
5 -	Projected Peak Hour Trip Distribution and Traffic Assignment	18
6 -	Projected Year 2006 Peak Hour Volumes (Including Subject Development)	19

LIST OF TABLES

Page

1- Summary of Capacity Analysis Results for Existing Traffic Situation 8

2- Trip Generation Rates – Proposed East Capitol Dwellings Development 15

3- Comparative Trip Generation – Existing Versus Proposed Land Uses 16

4- Summary of Capacity Analysis Results for Projected 2006 Total Traffic Situation (Including the Subject Development) 20

LIST OF APPENDICES

A. Correspondence with DPW Intermodal Planning Division Staff

B. Traffic Turning Movement Count Summaries – Existing Traffic Situation

C. Capacity Analysis Worksheets - Existing Traffic Conditions

D. Accident Data Records

E. Year 2006 Base Traffic Situation

F. Capacity Analysis Worksheets – Projected Year 2006 Total Traffic Situation

1.0 INTRODUCTION

1.1 Project Background

The District of Columbia Housing Authority, A&R/THC LLC, East Capitol Street Gateway LLC Joint Venture (hereinafter "the Applicant") plans to rezone and redevelop a 39.3 ± acre site within the eastern section of the City. The site straddles East Capitol Street, and is bounded generally by 56th Place, S.E. to the west, 61st Place, S.E., to the east, and Southern Avenue/Central Avenue to the south. The subject property is currently zoned Residential (R-2/R-5); and is improved with the East Capitol Dwellings, Capitol View Plaza and Capitol View Plaza II residential developments. These developments consist of a total of approximately 1,100 units, split roughly even between apartments and townhouses. Exhibit 1 shows the location and configuration of the subject site.

The Applicant plans to rezone the property to Residential (R-5-A) and Commercial (C-2-A); and to redevelop the site in accordance with the City's Planned Unit Development (PUD) guidelines. The breakdown of the proposed land uses is as follows:

Development Type	Density
1) Residential	515 units
2) Commercial	106,400 Gross Square Feet
2) Community Center	15,000 Gross Square Feet

The development plan also proposes the relocation and/or closure of several local access roadways, which serve the existing developments. These are detailed in Section 5 of the study. The proposed development will be served by a total of 1,100 parking spaces, consisting of 875 ± off-street spaces and approximately 225 ± on-street spaces.

A number of factors make the proposed development attractive from the perspective of access and internal circulation. These are as follows:

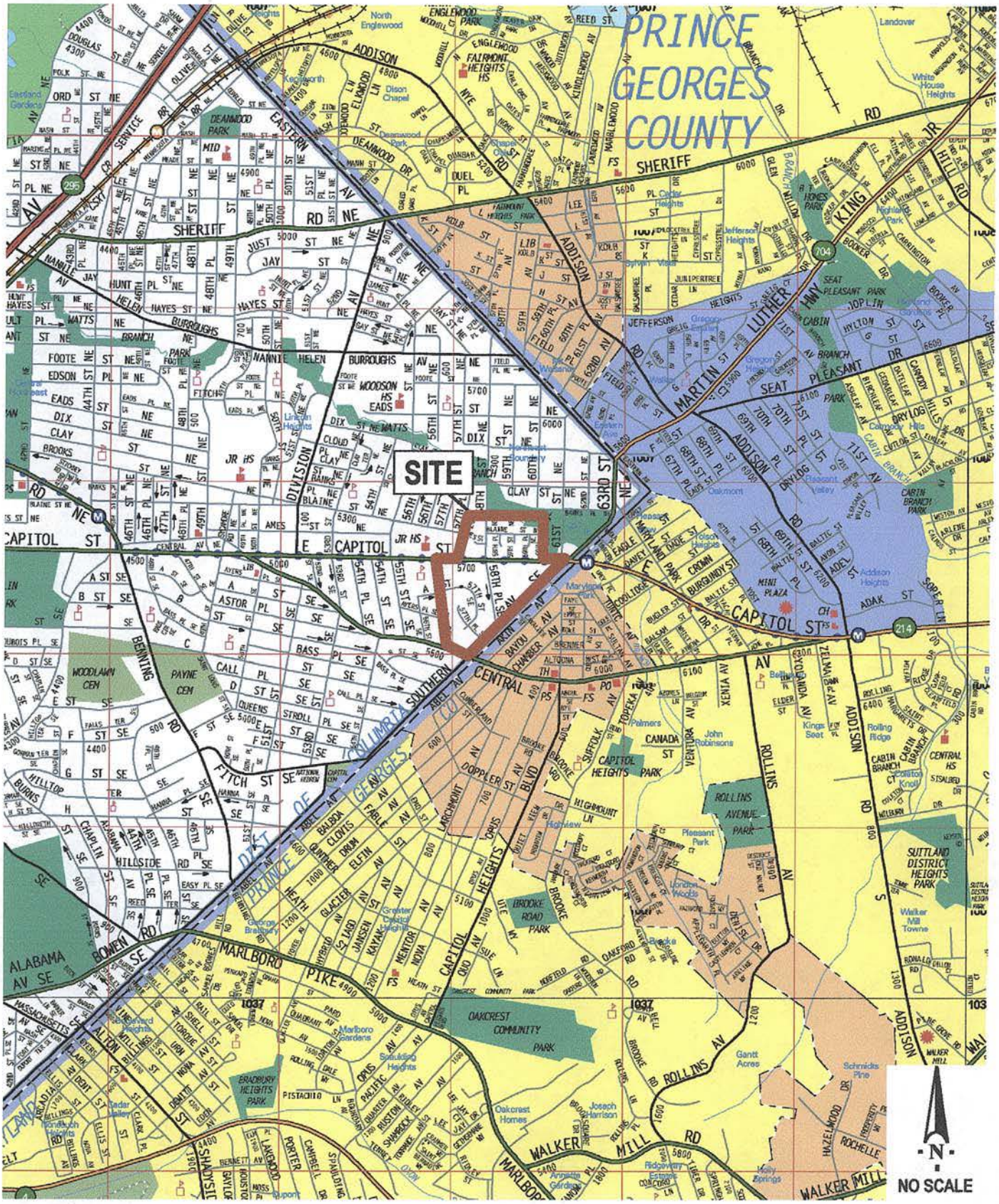
(a) The development site is directly accessible from East Capitol Street/Central Avenue, a major corridor providing access to Downtown Washington, DC and Prince George's County, as well as the diverse land uses, sporting and visitor attractions which these areas provide;

(b) The proposed development is situated adjacent to the Capitol Heights Metrorail Station on the Washington Metropolitan Area Transit Authority (WMATA) Blue Line;

(c) The site is located in close proximity to a number of public schools; and

(d) The development will include local-serving retail, office and community center/day care uses.

The above factors would significantly reduce vehicle trip generation, particularly during the morning and afternoon peak periods. These factors are further considered in the relevant sections of this report.



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EXHIBIT 1:

SITE LOCATION MAP

New East Capitol Development, Washington, DC

1.2 Study Purpose and Scope

This study was prepared as supporting documentation to the Applicant's Planned Unit Development application. The purpose and key elements of the study are to assess the following:

(a) Existing roadway and traffic conditions within the immediate area of the subject site;

(b) Future background traffic conditions, based on a generalized examination of planned developments within the sub-area, and potential annual growth in through traffic along the key study area roadways;

(c) The traffic impact of the proposed physical and operational changes, considering existing and planned transportation facilities, site trip generation, access and on-site circulation;

(d) A generalized assessment of the impacts of proposed roadway closures and relocations, in order to satisfy the City's requirements that such changes would not adversely impact the public's interest; and

(e) Any capacity, safety, or operational constraints to the proposed development, as well as potential measures to mitigate such constraints, where appropriate.

The methodology used in this analysis is in accordance with the current general guidelines followed by the District of Columbia Division of Transportation in support of the Large Tract Review process. The study area and other key parameters considered were also discussed with the staff of the Division's Office of Intermodal Planning. Appendix A presents correspondence outlining the scope of the study.

1.3 Report Organization and Summary

This report is organized into six (6) sections. Section 2 evaluates existing roadway and traffic conditions. Section 3 addresses projected growth in traffic due to the impact of approved developments within the general study area, as well as potential growth in through traffic along the key study area roadways. Section 4 analyzes the traffic impact of the Applicant's development proposal, and assesses related site access, circulation and parking provisions. Section 5 presents the mitigation strategies for any capacity, operational and safety concerns that may result due to the development. Section 6 summarizes the study findings and makes recommendations, where appropriate, to mitigate any potential transportation impacts identified.

The study has concluded that the existing study area road network and proposed changes can adequately accommodate the Applicant's development proposal. The study area intersections currently operate at quite acceptable levels of service. The proposed development would result in a low to moderate increase in trip generation for the subject site, due primarily to the proposed land use mix and the proximity of the site to the Capitol Heights Metrorail Station. The incremental trip generation would be well distributed within the study area. In addition, the development proposal includes several roadway improvements that would significantly enhance vehicular/pedestrian access and circulation. Based on the above considerations, the future study area road network, including the proposed infrastructure improvements, would operate at acceptable levels of service, upon full build-out of the subject site. The proposed development would therefore satisfy the City's adequate public facilities requirements, and would not have any appreciable adverse impacts on the health, safety, and welfare of the general public.

2.0 EXISTING ROADWAY AND TRAFFIC CONDITIONS

2.1 Existing Land Use and Zoning

The proposed development site is zoned Residential (R-2/R-5); and is primarily occupied with high-rise apartments and multi-family townhouse land uses. The adjacent areas consist primarily of multi-family residential units. Other key land uses within the immediate areas, include the W. Bruce Evans Middle School, Shadd Elementary School and several other schools (to the west), the Watts Branch Park (to the north), and the Capitol Heights Metrorail Station (to the east).

2.2 Existing Study Area Road Network

Based on our discussion with the District of Columbia Division of Transportation (DC-DOT) (Office of Intermodal Planning), a roadway network consisting of twelve (12) intersections was identified for evaluation in our study. These intersections are as follows:

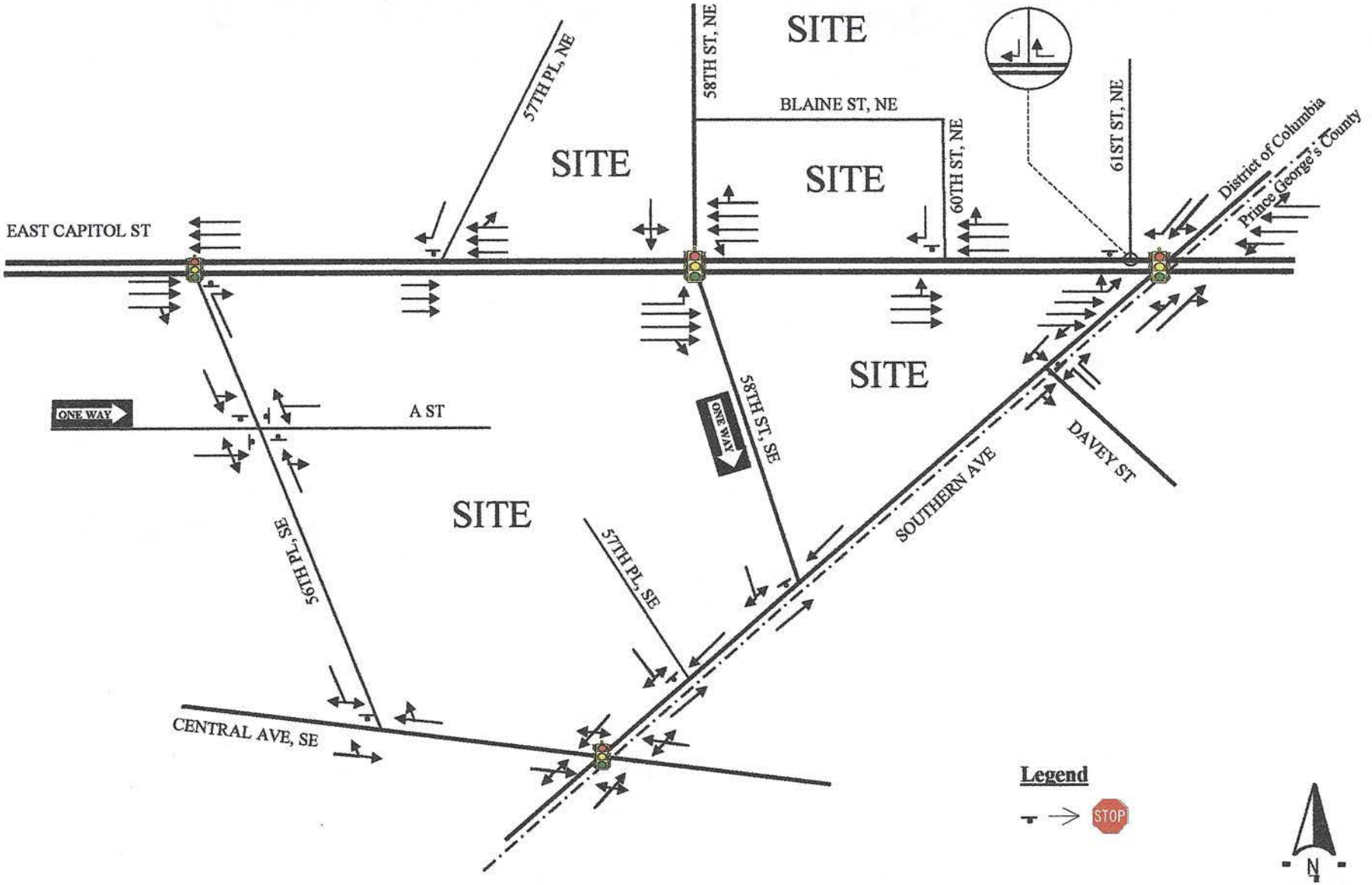
1) East Capitol St. @ Southern Ave
2) East Capitol St. @ 61st St., NE
3) East Capitol St. @ 60th St., NE
4) East Capitol St. @ 58th St., NE/SE
5) East Capitol St. @ 57th Pl., NE
6) East Capitol St. @ 56th Pl., SE
7) 56th Place @ A Street, SE
8) Southern Ave @ 58th St., SE
9) Southern Ave @ Central Ave, SE
10) Southern Ave @ Davey Street, SE
11) Southern Ave @ 56th Pl., SE
12) Southern Ave @ 57th Pl., SE

The physical and functional characteristics of the key study area roadways are described below:

- **East Capitol Street:** This is a six-lane divided principal arterial on the City's Highway System. The facility runs east-west through the study area; and connects the City's Central Business District (to the east), and suburban locations within the State of Maryland (to the west) via its extension as Central Avenue (MD 214). East Capitol Street serves significant commuter traffic. Parking is allowed on both sides of this roadway, except in the westbound direction during the morning peak period, and in the eastbound direction during the afternoon peak period. In the vicinity of the proposed development area, East Capitol Street serves Average Daily Traffic (ADT) volumes in the range of 37,500 vehicles. The posted speed limit is 30 MPH.

- **Southern Avenue:** This is a major arterial on the City's Highway System. The facility runs northeast to southwest along the Washington, DC/State of Maryland boundary; and serves ADT volumes in the range of 22,000 vehicles. The posted speed limit is 25 MPH.

The other study area roadways are all classified as local streets on the City's Highway System. All streets serve two-way traffic, except 58th Street, which is one-way, southbound, south of East Capitol Street. These roadways serve Average Daily Traffic volumes ranging from 7,000 along 58th Street, to 9,000 along Central Avenue. The posted speed along all roadways is 25 MPH. Exhibit 2 shows the lane configuration and



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EXHIBIT 2:

EXISTING ROADWAY LANE CONFIGUATION - STUDY AREA ROAD NETWORK

New East Capitol Development, Washington, DC

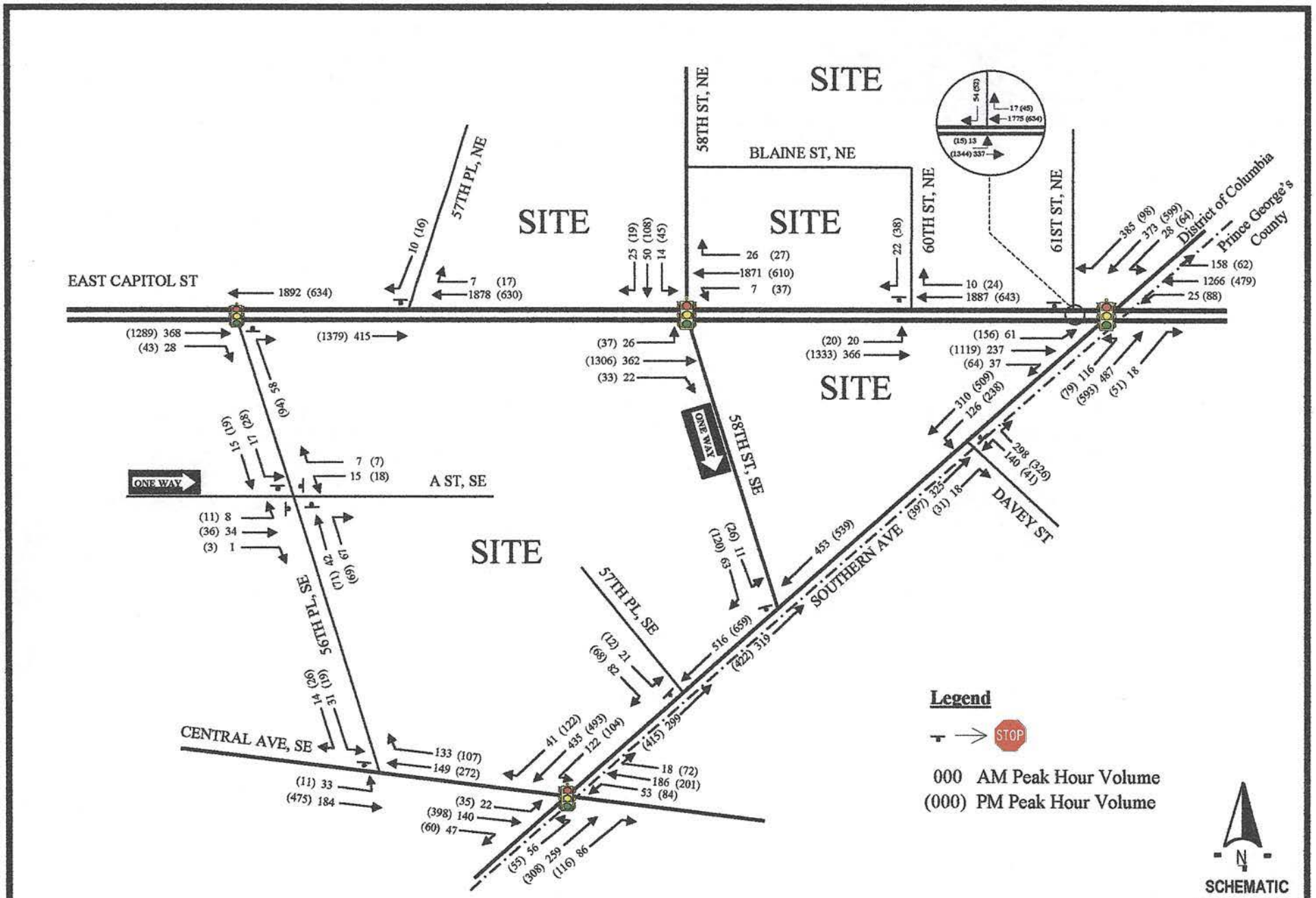
2.3 Existing Traffic Situation

Field observations were made of existing weekday traffic flow conditions within the general study area during the morning and afternoon peak periods. In addition, peak period turning movement counts were undertaken at the study area intersections during the period June to September, 2001. Based on these counts, the morning and afternoon peak hours were determined to be generally 7:30 – 8:30 AM and 5:00 – 6:00 PM, respectively.

Exhibit 3 shows the morning and afternoon peak hour volumes. The count summaries are presented in Appendix B. In accordance with the City's guidelines, the existing peak hour volumes were analyzed using the Highway Capacity Manual (HCM) procedures. The results show that the study area intersections currently operate at acceptable levels of service during both the morning and afternoon peak hours.

Level of Service is a qualitative measure that describes operational conditions within a traffic stream or at an intersection, and reflects their perception by drivers and other roadway users. Principal considerations are factors such as speed and travel time, delay, freedom of 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 "F" representing worst conditions. Level of Service "D" is generally considered by the District of Columbia as the minimum acceptable standard for planning and design purposes. Appendix C-0 shows the Levels of Service and associated delay ranges for signalized and unsignalized intersections.

The computed levels of service are summarized in Table 1 on page 8. The capacity analysis worksheets are included as Appendix C.



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EXHIBIT 3:

EXISTING PEAK HOUR TRAFFIC TURNING MOVEMENT VOLUMES

New East Capitol Development, Washington, DC

TABLE 1

SUMMARY OF CAPACITY ANALYSIS RESULTS – EXISTING TRAFFIC SITUATION

Intersections	AM Peak Hour		PM Peak Hour	
	Level of Service	Average Delay (Secs.)	Level of Service	Average Delay (Secs.)
1) East Capitol St @ Southern Ave*	C	26.2	C	29.0
2) East Capitol St @ 61st St, NE**	B	10.4	A	9.0
3) East Capitol St @ 60th St, NE**	B	14.0	A	9.5
4) East Capitol St @ 58th St.*	C	20.3	B	12.1
5) East Capitol St @ 57th Pl, NE**	B	12.5	B	10.5
6) East Capitol St @ 56th Pl, SE*	A	4.9	A	4.3
7) Southern Ave @ Davey St, SE**	D	27.2	D	25.0
8) Southern Ave @ 58th St, SE**	B	13.3	C	18.9
9) Southern Ave @ 57th Pl, SE**	B	13.5	C	16.3
10) Southern Ave @ Central Ave, SE*	C	25.3	D	35.3
11) Central Avenue @ 56th Pl, SE**	B	11.7	B	13.5
12) 56th Pl, @ A St, SE**	A	7.36	A	7.62

* Signalized intersection. Associated results indicate the operational efficiency of the entire intersection.

** Unsignalized intersection. Associated results indicate the operational efficiency of the worst intersection approach.

Source: O. R. George & Associates.

2.4 Existing Safety Situation

In order to assess the traffic safety situation within the study area, accident data was obtained from the District of Columbia Division of Transportation (DC-DOT) Bureau of Traffic Services, for the key study area intersections. This data covered the most recent three-year period, i.e., 1997 - 1999. Copies of the accident data summaries are included as Appendix D. Review of this data indicates that there are currently no significant safety deficiencies at the study area intersections, warranting further analysis and evaluation.

Based on the above, it can be concluded that the existing roadway network currently operates without any significant operational, capacity and safety deficiencies, from the perspective of the City's planning standards.

3.0 BACKGROUND TRAFFIC SITUATION

Current plans call for the build-out of the East Capitol Dwellings mixed-use project by the year 2006. Therefore, for the purposes of this analysis, the year 2006 was considered the "design year". Based on the City's guidelines and procedures, the year 2006 background traffic conditions would consist of the following elements:

(a) Potential increase in through traffic based on historical growth trends; and

(b) Traffic generation from approved developments within the local impact area, which are planned to be built-out by the completion of the subject development.

As discussed earlier, traffic volumes on the key study area roadways through which the subject development will be accessed, have experienced a marginal increase in recent years. In keeping with this trend, a growth factor of two percent (2.0%) per year was applied to the existing traffic volumes, unto the year 2006. The 2006 base year traffic situation, reflecting this growth is included as Appendix E.

The "Economic Development Map" of the District of Columbia Office of the Deputy Mayor for Planning and Economic Development was reviewed to determine the land use developments planned or approved for the immediate study area. It was determined that no significant developments are planned that would have a significant impact on the local roadway network. The study therefore assumes that developments outside the immediate area would be covered by the growth factor noted in the previous paragraph.

Based on the above considerations, the projected year 2006 background traffic situation would be the same as the year 2006 "base" traffic volumes presented in Appendix E. Given the favorable levels of service computed for the existing traffic situation, the year 2006 base/background traffic situation was not analyzed separately. The impact of the projected growth is incorporated in the future total traffic situation discussed in Section 4 of this report.

4.0 FUTURE TRAFFIC SITUATION

4.1 Proposed Development Plan

As noted earlier, current plans call for the redevelopment of an improved area which straddles East Capitol Street just west of the Southern Avenue boundary of the District of Columbia. The existing and proposed land uses are as follows:

Land Use Type	Density	
	Existing	Future
• Residential		
- Single Family Detached	4	15 units
- Townhouse/Semi Detached/Grand Houses	576	230 units
- Apartment	530	120 units
- Elderly Housing	-	150 units
(Total Residential)	**1,110**	**515 units**
• Commercial		
- Supermarket	-	50,000 GSF
- Shopping Center	-	50,000 GSF
- Restaurant	-	6,400 GSF
(Total Commercial)	-	**106,400 GSF**
• Community Center (with day care)	-	15,000 GSF

GSF = Gross Square Feet

The proposed development would provide a total of 1,100 parking spaces, consisting of 875 ± off-street spaces and 225 ± on-street spaces. These spaces are further broken down below by land use type; and are compared with the parking space requirements stipulated by the Zoning Regulations.

REQUIRED VS. PROPOSED PARKING SPACES

General Land Use Category	Required Parking	Proposed/Available Parking
Residential	515	668
Commercial	336	401
Community Center	31	31
TOTAL	**882**	**1,100**

Source: A & R Development Corporation, DCMR Title 11-Zoning, and O. R. George & Associates.

The data presented in the table above clearly indicates that the parking provided for the various land uses would be quite adequate. In particular, this would minimize the potential for parking overflow from the proposed commercial land uses, onto the residential streets.

Exhibit 4 was developed to illustrate the development proposal, relative to the key access points. As noted earlier, primary access to the subject development site is currently provided off East Capitol Street and Southern Avenue, and via a number of local/residential streets. The proposed development plan calls for several roadway modifications and improvements. The changes are as follows:

A. <u>North of East Capitol Street</u>

i) Closure of Blaine Street, N.E., between 58th and 60th Streets, including three (3) connecting courts to the south of this roadway.

ii) Closure of 60th Street, N.E., between East Capitol Street and Blaine Street.

iii) Relocation of Blaine Street (Item A.i) further to the north, and 60th Street (Item A.ii) further to the east.

iv) Closure of Ames Street, between 57th Place and 58th Street, N.E.

v) Extension of Blaine Street between 58th Street and 57th Place, N.E.

vi) Provision of a full (signalized) access point and a partial (right-in/right-out) access point off East Capitol Street to the proposed commercial land uses.

vii) Provision of a right-in/right-out access point between 57th Place and 58th Street, N.E., to serve the proposed restaurant use.

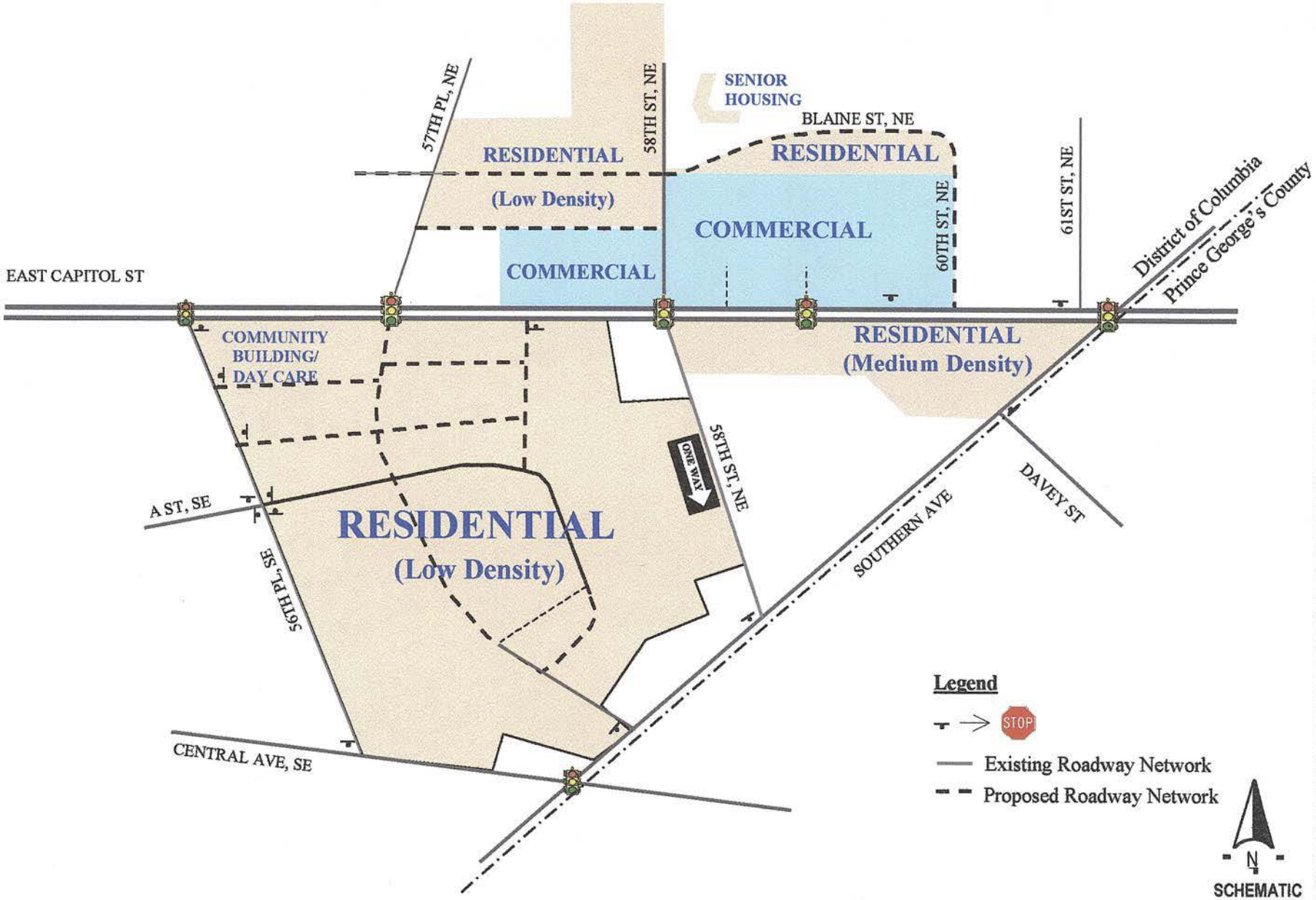
B. <u>South of East Capitol Street</u>

i) Extension of 57th Place south of East Capitol Street to Southern Avenue; and provision of signalized control and left-turn bays along East Capitol Street at the 57th Place intersection.

ii) Provision of two (2) access points along 56th Place, to the north of A Street, S.E., to serve the community/daycare and residential uses.

iii) Provision of a right-in/right-out access point along East Capitol Street, between 57th Place and 58th Street, S.E.

As discussed earlier, the Applicant's proposal for the roadway closures noted above, would require approval by the City Council. The issues of property rights and related access considerations are outside the scope of this study. However, it is apparent that, given the proposal to demolish all of the existing improvements which are currently accessed via the above roadways, these facilities would no longer be needed for "street and alley purposes".



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EXHIBIT 4:
PROPOSED SITE LAYOUT AND ACCESS SITUATION
New East Capitol Development, Washington, DC

4.2 Trip Generation

Estimates of weekday vehicle trip generation for the proposed development will reflect the location of the site, relative to the adjacent Capitol Heights Metrorail Station, as well as to Metrobus service along East Capitol Street and Southern Avenue. Trip generation will also reflect the mixed-use character of the future development, notably the commercial and elderly housing components, as well as the proximity of the development to a number of public schools, libraries and other neighborhood facilities.

The D.C. Division of Transportation typically require that the trip rates recommended by the Institute of Transportation Engineers be utilized in conducting traffic impact assessments. One element of this assessment pertains to the determination of the level of incremental trips that can be expected from the future site, when compared with the existing use. Table 2 and 3 present the projected trip rates and productions, respectively. Appropriate adjustments are included to reflect the impact of pass-by trips based upon the land use characteristics noted above, and in earlier sections of this report. Based on the Institute of Transportation Engineers (ITE), *Trip Generation Manual* (1997 Edition), "Pass-By" trips are attracted from through traffic passing the site on an adjacent street(s).

TABLE 2

TRIP GENERATION RATES – PROPOSED EAST CAPITOL DWELLINGS DEVELOPMENT

Trip Rates	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
▪ Trips/S-F-D. Unit	0.19	0.56	0.75	0.65	0.36	1.01
▪ Trips/Townhouse	0.17	0.49	0.66	0.47	0.36	0.83
▪ Trips/Low-Rise Apartments	0.09	0.38	0.47	0.38	0.20	0.58
▪ Trips/High-Rise Apartments	0.08	0.22	0.30	0.21	0.14	0.35
▪ Trips/Elderly Housing Unit	0.04	0.03	0.07	0.06	0.04	0.10
▪ Trips/1,000 GSF Shopping Ctr.	0.63	0.40	1.03	1.80	1.94	3.74
– *With 60% Pass-By Trip Reduction*	*0.25*	*0.16*	*0.41*	*0.72*	*0.78*	*1.50*
▪ Trips/1,000 GSF Supermarket	1.98	1.27	3.25	5.87	5.64	11.51
– *With 50% Pass-By Trip Reduction*	*0.99*	*0.64*	*1.63*	*2.94*	*2.82*	*5.76*
▪ Trips/1,000 GSF Fast Food Restaurant Without Drive Thru Window	26.32	17.55	43.87	13.34	12.81	26.15
– *With 70% Pass-By Trip Reduction*	*7.90*	*5.26*	*13.16*	*4.00*	*3.84*	*7.84*
▪ Trips/1,000 GSF Community/Day Care Center	6.74	5.97	12.71	6.20	7.00	13.20
– *With 65% Pass-By Trip Reduction*	*2.36*	*2.09*	*4.45*	*2.17*	*2.45*	*4.62*

S-F-D = Single-Family-Detached Residential

GSF = Gross Square Feet

Note: Residential trip rates do not reflect transit reduction factors.

Source: ITE Trip Generation Manual (5th/1991 & 6th/1997 Editions) and O. R. George & Associates.

TABLE 3

COMPARATIVE TRIP GENERATION - EXISTING VS. PROPOSED LAND USES

Trip Generation	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
A. Existing Uses						
▪ 530 High Rise Apts.	42	117	159	111	74	185
▪ 576 Townhouses.	98	282	380	271	207	478
▪ 4 S.F.D's	1	2	3	3	1	4
Total (Existing)	141	401	542	385	282	667
- With 40% Assumed Transit Usage	*85*	*241*	*326*	*231*	*169*	*400*
B. Proposed Uses						
▪ 15 S-F-D Residential Unit	3	8	11	10	5	15
▪ 230 Town Houses/Semi Detached/Grand Houses	39	113	152	108	83	191
▪ 120 Low Rise Apartments	11	46	57	46	24	70
▪ 150 Elderly Housing Units	6	5	11	9	6	15
▪ 50,000 GSF Supermarket	50	32	82	147	141	288
▪ 50,000 GSF Shopping Ctr.	35	9	44	27	48	75
▪ 6,400 GSF Restaurant	51	34	85	26	25	51
▪ 15,000 GSF Community/ Day Care Center	35	31	66	33	36	69
Total (Proposed)	230	278	508	406	368	774
- With 40% Assumed Transit Usage Applied to Residential Uses Only	*196*	*208*	*404*	*335*	*311*	*646*
C. Net New Trips	**+111**	**-33**	**+78**	**+104**	**+142**	**+246**

Source: ITE Trip Generation Manual (5th/1991 & 6th/1997 Editions) and O. R. George & Associates.

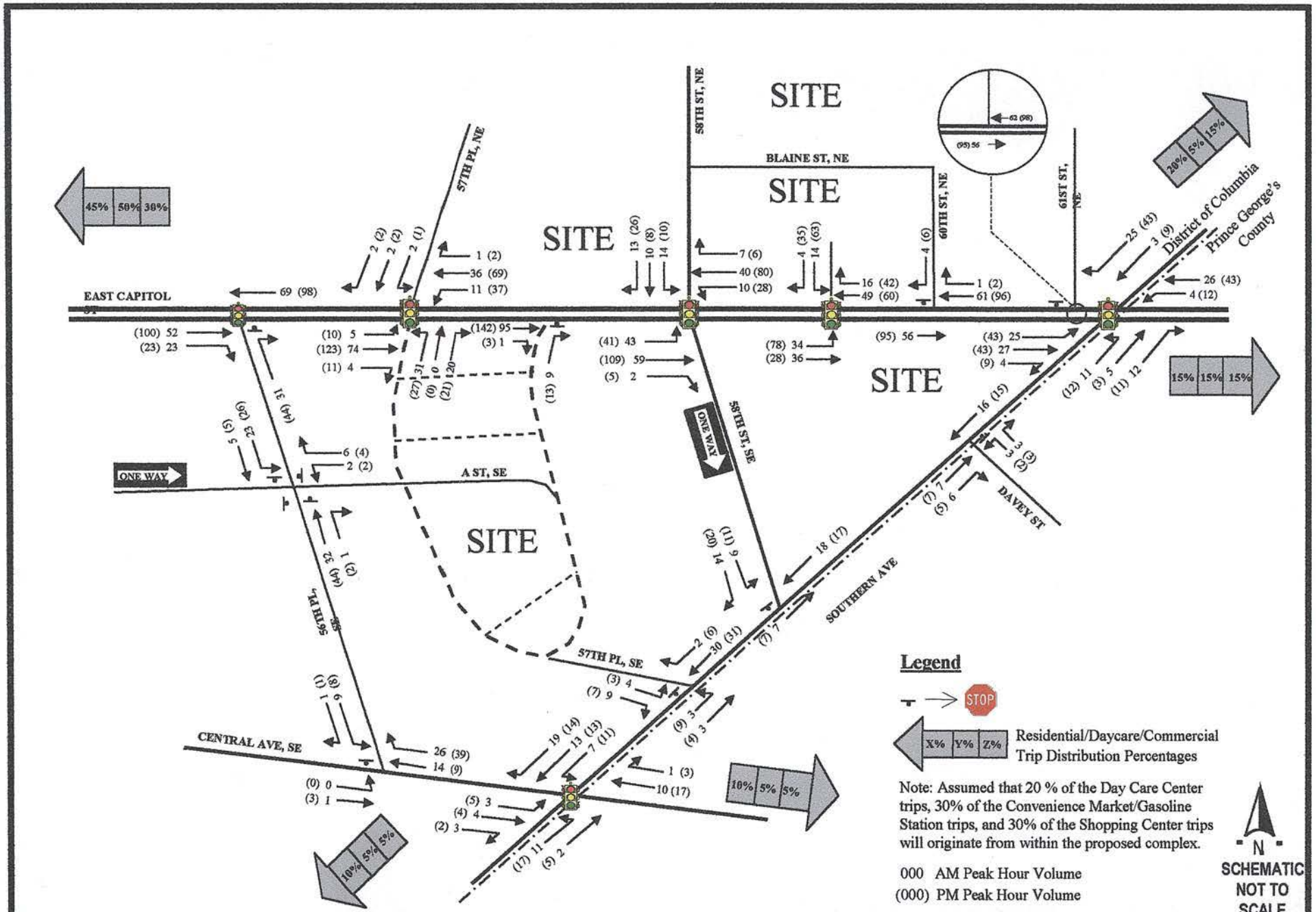
4.3 Trip Distribution and Traffic Assignment

As noted earlier, the proposed development would consist of residential, commercial and community center land uses. The peak hour trip generation and distribution patterns for the residential component are related primarily to the location of the site relative to regional employment opportunities and associated travel patterns. Accordingly, the projected trip generation for the residential component of the proposed development would be heavily oriented towards areas such as the Washington, DC central employment core to the west, and the suburban Maryland and Virginia areas to the north, east and south. The commercial component of the proposed development will primarily be community serving, with some travel from the sub-region.

Based on the above, a significant proportion of the site trips will originate from within the local study area, via vehicular and non-motorized modes, as well as from existing traffic streams along the East Capitol Street/Central Avenue corridor. Trip distribution patterns for the proposed residential and commercial land uses were developed, considering the factors presented above, as well as the observed traffic patterns and the location of the site in relationship to the regional roadway network. The distribution patterns assumed for the three (3) primary land use components of the future development are illustrated graphically on Exhibit 5.

4.4 Capacity Analysis – Year 2006 Total Traffic Situation

The year 2006 total traffic situation was derived by combining the traffic assignment for the proposed development (Exhibit 5) with existing traffic volumes factored to reflect growth in through traffic (Appendix E). The year 2006 total traffic situation is illustrated in Exhibit 6 (on page 19). These volumes were analyzed using the same procedures as for the existing traffic situation. The resulting levels of service are presented in Table 4 on page 20. The capacity analysis worksheets for this situation are presented in Appendix F. The results show that the study area road network would continue to operate acceptably, with Level-of-Service D or better, at all intersections considered.



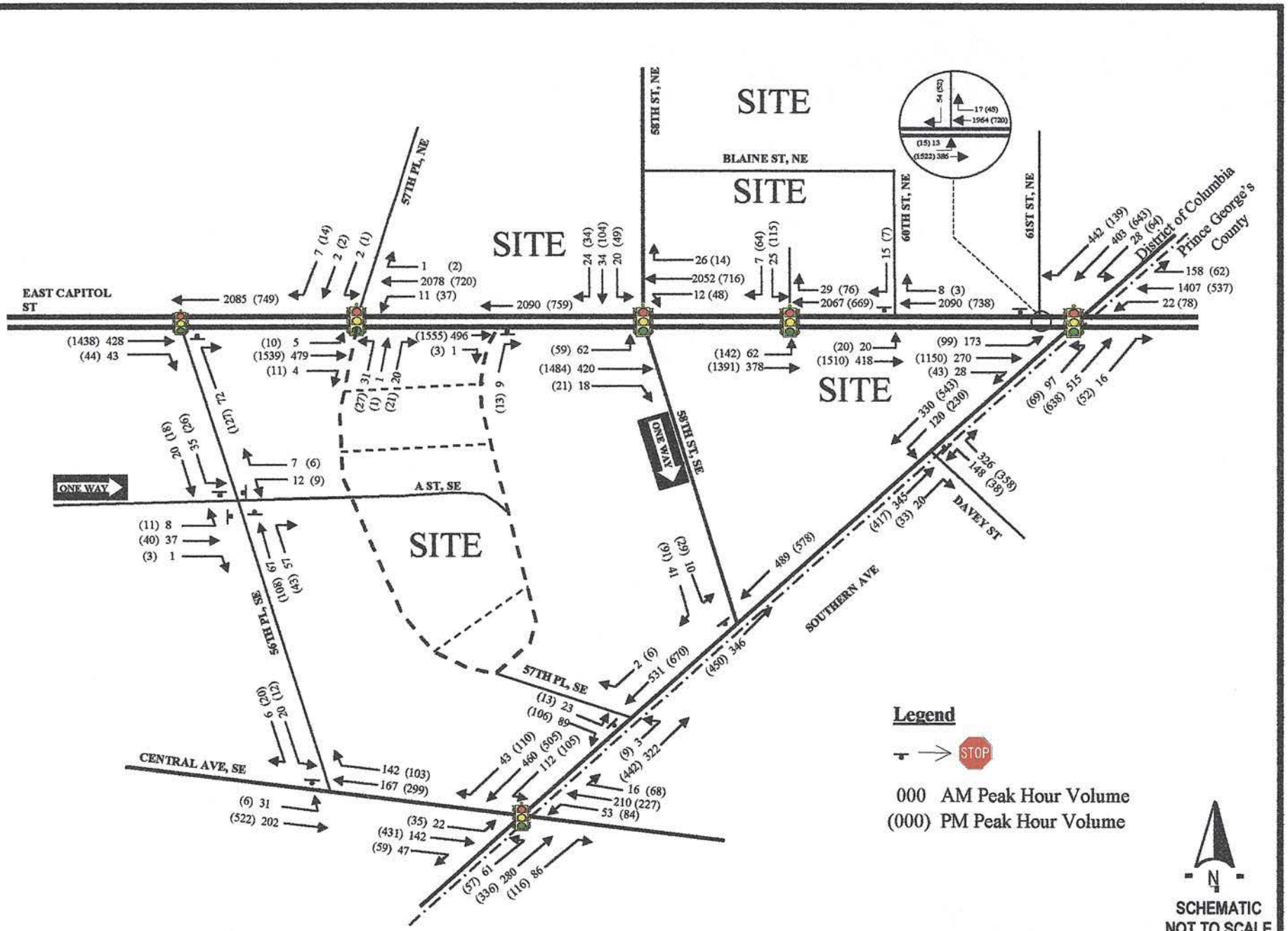
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EXHIBIT 5:

PROJECTED PEAK HOUR TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

New East Capitol Development, Washington, DC



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EXHIBIT 6:

PROJECTED YEAR 2006 PEAK HOUR VOLUMES (Including Subject Development)

New East Capitol Development, Washington, DC

TABLE 4

SUMMARY OF CAPACITY ANALYSIS RESULTS – PROJECTED 2006 TOTAL TRAFFIC SITUATION (INCLUDING THE SUBJECT DEVELOPMENT)

	AM Peak Hour		PM Peak Hour	
Intersections	Level of Service	Average Delay (Secs.)	Level of Service	Average Delay (Secs.)
1) East Capitol St @ Southern Ave*	C	29.1	C	31.3
2) East Capitol St @ 61st Street, NE**	B	11.0	A	9.1
3) East Capitol St @ 60th Street, NE**	B	14.5	B	10.9
4) East Capitol St @ 58th Street*	C	26.4	B	13.0
5) East Capitol St @ 57th Pl, NE*	A	6.4	A	5.1
6) East Capitol St @ 56th Pl, SE*	A	5.7	A	5.2
7) Southern Ave @ Davey Street**	D	32.3	D	28.1
8) Southern Ave @ 58th Street, SE**	B	13.6	C	20.0
9) Southern Ave @ 57th Pl, SE**	B	14.4	C	18.7
10) Southern Ave @ Central Ave, SE*	C	28.0	D	36.9
11) Central Ave @ 56th Pl, SE**	B	11.9	B	13.4
12) 56th Pl, @ A Street, SE**	A	7.59	A	7.98
13) East Capitol St @ Proposed Shopping Center Entrance*	B	11.6	A	8.1

* Signalized intersection. Associated results indicate the operational efficiency of the entire intersection.

** Unsignalized intersection. Associated results indicate the operational efficiency of the worst intersection approach.

Source: O. R. George & Associates.

5.0 TRAFFIC IMPACT ASSESSMENT AND MITIGATION STRATEGIES

5.1 Assessment Summary

The purpose of this traffic study is to support the subject New East Capitol Planned Unit Development application. One of the objectives of this application process is to determine whether it is appropriate to grant additional development densities in return for public amenities and benefits. The proposed development will significantly reduce the level of residential development from what had previously existed on the subject site. However, with the proposed commercial/retail land uses, the subject development would generate a low to moderate volume of "new trips", as shown in Table 3 on page 16

The projected increase in trip generation, as noted above, would be due to several factors. As noted earlier, the site is within easy walking distance to the Capitol Heights Metrorail Station; and several Metrobus routes traverse East Capitol Street and Southern Avenue, adjacent to the subject site. Based on the location of the proposed development, significant proportion of the commercial site trips would be "pass-by" trips, i.e. trips attracted from through traffic that would be passing the site on the adjacent roadways. It is also noted that the site location is favorable, relative to the regional distribution of employment opportunities, which would attract most of the site trips during the morning and afternoon peak periods. Some of the study area trips would also utilize the "reverse commute" direction of the major roadways, making for a more favorable use of the transportation system. The latter two (2) factors would cause the projected "new trips" to be well distributed, resulting in a minimal impact on the study area roadway network. This was illustrated by the capacity analysis results presented in Table 4 (on page 20), which indicated that the study area roadway network would operate acceptably, upon built-out of the proposed development.

5.2 Mitigation Strategies

As noted above, this study has determined that the proposed development would have a minimal impact on the study area roadway network. This finding is based on the implementation of the roadway and traffic control improvements illustrated by the development site plan, and noted in Section 4.1 of this study. It is also noted that the development site plan calls for all the internal roadways to be two-way, except for 58th Street, south of East Capitol Street, which would remain one-way southbound. This could result in some "cut-through" usage of 57th Place, between East Capitol Street and Southern Avenue within the new residential community. The need for appropriate traffic calming measures to address this and related safety issues.

Based on the above, this study recommends that the Applicant pursue the following matters with the relevant departments of the District of Columbia Division of Transportation:

a) Provision of a new full-access intersection (with auxiliary turn lanes, signalized control and pedestrian crossing facilities) at the main entrance to the proposed shopping center complex.

b) Provision of a new right-in/right-out access intersection (with an exclusive inbound right turn lane) along East Capitol Street at the secondary entranceway for the proposed East Capitol Market Place.

c) Provision of a new right-in/right-out access intersection (with an exclusive inbound right turn lane) along East Capitol Street at the entranceway for the proposed restaurant site.

d) Provision of a full access intersection (with auxiliary turn lanes, signalized control and pedestrian crossing facilities) for East Capitol Street at 57th Place.

e) Provision of a new right-in/right-out access intersection along the south side of East Capitol Street, between 57th Place and 58th Street, S.E.

f) Provision of two (2) access points along the east side of 56th Place, S.E., between A Street and East Capitol Street. (The northern access point would serve the proposed community/day care center building.)

g) Provision of an access point along the east side of 58th Street, S.E., south of East Capitol Street, to serve the proposed "grand houses". (The site plan calls for this access point to be connected to an existing alleyway, running generally north-south, and connecting with 58th Street further to the south.)

h) Implementation of traffic calming measures, including multi-way stop signs, speed humps, etc., along 57th Place between East Capitol Street and Southern Avenue, S.E.

5.3 Road Closure Considerations

As noted earlier (in Section 4.1 of this study), the subject application proposes the redevelopment of an improved area. This would necessitate the closure/abandonment of several existing roadway segments. Section 504 of District of Columbia Law 12-86 "Omnibus Reform Amendment Action of 1998" stipulates that the City *"may close all or part of any street or alley which is determined.....to be unnecessary for street and alley purposes"*. In the context of this regulation, the following should be noted:

a) The land uses currently abutting the identified roadway segments would be demolished to facilitate the planned redevelopment; and

b) The proposed (future) roadway network, including the roadway relocations, new entry/exit points and traffic control improvements noted earlier, would enhance access to the study area and vicinal neighborhoods.

Based on the above, the proposed roadway closures would not have any adverse impacts on the study area and vicinity. The closures would also be in the public interest, and would conform to the City's stipulations regarding streets and alleyways.

6.0 SUMMARY OF FINDINGS AND CONCLUSION

6.1 Summary of Findings

This study has examined the potential impacts of the proposed New East Capitol Planned Unit Development. The study was performed in accordance with the general guidelines of the District of Columbia, regarding the evaluation of the transportation impacts of development proposals, under the "Large Tract Review" process. The principal findings of the study are as follows:

a) The defined study area roadway network currently operates at acceptable levels of service, during both the morning and afternoon peak periods.

b) The design year (2006) background traffic conditions considered potential growth in through traffic along the key study area roadways. Based on the City's Economic Development Map, and telephone discussions with the Maryland-National Capital Park and Planning Commission (Prince George's County) staff, no planned/approved background developments were identified for consideration in the year 2006 traffic forecasts.

c) The proposed development would result in a low to moderate increase in the study area trip generation, as shown in the table following:

COMPARATIVE PEAK HOUR TRIP GENERATION - EXISTING VS. PROPOSED LAND USES

	AM Peak Hour			PM Peak Hour		
Category	**In**	**Out**	**Total**	**In**	**Out**	**Total**
• Existing Land Uses	85	241	326	231	169	400
• Proposed Development	196	208	404	335	311	646
• Net Trips	+ 111	- 33	+ 78	+ 104	+ 142	+ 246

d) The study area roadway network would continue to operate at acceptable Levels of Service during both the morning and afternoon peak hours, upon build-out of the proposed development.

e) The proposed development would provide 1,100 ± off- and on-street parking spaces. This supply would significantly exceed the number of spaces required by the City's municipal regulations; and would be distributed to adequately serve the projected demands for the various land uses.

f) The development proposal calls for the implementation of several roadway improvements to enhance vehicular and pedestrian access, circulation and safety within the study area. These improvements were noted in Section 5 of this study.

6.2 Conclusion

Based on the foregoing data, discussions and analysis, this study has determined that the New East Capitol Planned Unit Development can be accommodated without any appreciable adverse traffic impacts on the study area. The study area roadway network currently operates within the City's acceptable planning standards, during the morning and afternoon peak hours; and would continue to do so upon build-out of the proposed development. The proposal would therefore satisfy the City's requirements for adequate public facilities, and would not be "objectionable" either from the perspective of potential traffic and parking impacts, or the health, safety and general welfare of the adjacent communities. In addition, the development necessitates the provision of several roadway improvements that would enhance vehicular and pedestrian access, circulation and safety within the area. These improvements were discussed in Section 5.0 of this report.

<<<<<<< >>>>>>>

Ref: C:\My Doc\Projects\A & R Development\Report\East Capitol Dwellings Development

APPENDIX

A

CORRESPONDENCE WITH DPW INTERMODAL
PLANNING DIVISION STAFF

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers - Transportation Planners

10210 Greenbelt Rd., Ste. 310
Greenbelt, Maryland 20706-2218

Tel: (301) 794-7700
Fax: (301) 794-4400
orgassoc@aol.com

FAX COVER SHEET

TO: **Mr. Abdoulaye Bah**
Office of Intermodal Planning, DC-DPW FAX No.: **(202) 671- 0617**

FROM: **Osborne George/Cullen Elias** DATE: **11/02/01**

REGARDING: PROJECT NAME: **New East Capitol Dwellings - Planned Unit Development**

NUMBER:

NUMBER OF PAGES INCLUDING COVER: **3**

COMMENTS:

Greetings Mr. Bah:

Please find attached the scoping agreement for the New East Capitol Dwellings Planned Unit Development. If you have any further questions please contact us. *Thank you.*

Osborne/Cullen

ORIGINAL BEING SENT: YES [ ] NO [X] MAIL [ ] COURIER [ ] OTHER:

The contents of this facsimile are privileged and confidential information intended only for the use of the individual or organization named above. If you have received this message and are not the intended recipient, you are strictly prohibited from disseminating, distributing or copying this communication in any way. If you have received this communication in error, please notify the sender immediately by telephone and return the original message to the above address via U.S. Postal Service. Thank you!

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

10210 Greenbelt Road, Suite 310 • Greenbelt, MD 20706-2218
Tel: (301) 794-7700 Fax: (301) 794-4400
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November 2, 2001

Mr. Abdoulaye Bah, Senior Transportation Engineer
Office of Intermodal Planning
District of Columbia Departmentof Public Works
2000 14th Street, N.W., 7th Floor
Washington, D.C. 20009

Re: East Capitol Dwellings Planned Unit Development Application

Dear Mr. Bah:

Further to our recent telephone conversation, we hereby confirm that we have been retained by the Applicant, A & R DEVELOPMENT, to prepare a traffic impact study in support of the referenced application. The purpose of this letter is to confirm the project background discussed, and the study parameters agreed upon.

As background, please note that the subject application is for the redevelopment of an improved residential area situated along East Capitol Street, between 56th Place, S.E., (to the west) and 61st Place, N.E./Southern Avenue (to the east), in the eastern section of the City. The proposed development site is situated immediately west of the Capitol Heights Metrorail Station. The Applicant proposes to redevelop the site with a mixed-use community, comprising significantly less residential units, as well as a shopping center, convenience market with gasoline pumps and a community center/day care facility. It is projected that a significant number of the prospective residential trips would be via transit, utilizing the adjacent Metrorail Station and the Metrobus routes along East Capitol Street and Southern Avenue. It is also projected that a significant number of trips attracted to the proposed shopping center will originate from within the proposed development.

Based on the above considerations, we propose to focus our study on the roadway network defined by the following twelve (12) intersections:

1) East Capitol St. at Southern Ave.
2) East Capitol St. at 61st St., NE.
3) East Capitol St. at 60th St., NE.
4) East Capitol St. at 58th St.
5) East Capitol St. at 57th Pl., NE
6) East Capitol St. at 56th Pl., SE.
7) Southern Ave. at Davey St., SE.
8) Southern Ave. at 58th St., SE.
9) Southern Ave. at 57th Pl., SE.
10) Southern Ave. at Central Ave., SE.
11) Central Ave. at 56th Pl., SE.
12) 56th Pl., at A St., SE.

Consideration of traffic growth trends and background developments will be used in projecting future traffic conditions, in accordance with your Department's usual requirements.

Please let me know if you have any comments in response to the above, or information that could be useful to our study. *Thanks for your usual cooperation and assistance in this matter.*

Sincerely,
O. R. GEORGE & ASSOCIATES, INC.

Osborne R. George
President

ORG/gw

cc: Ms. Cheryl Parker Hamilton, Director, A & R Development.
Cynthia A. Giordano, Esquire, Arnold & Porter.

Corr\abdoulaye bah – dc - dpw

APPENDIX

B

TRAFFIC TURNING MOVEMENT COUNT SUMMARIES
EXISTING TRAFFIC SITUATION

O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@ECS
Site Code : 55555555
Start Date: 10/02/01
Page : 1

Total Traffic

	E CAPITOL ST From East				56TH PL SE From South				E CAPITOL ST From West				
End Time	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Intrvl. Total
10/02/01													
07:15	0	453	0	453	0	5	0	5	72	2	0	74	532
07:30	0	454	0	454	0	9	0	9	82	4	0	86	549
07:45	0	489	0	489	0	13	0	13	86	7	0	93	595
08:00	0	501	0	501	0	17	0	17	92	5	0	97	615
Hour	0	1897	0	1897	0	44	0	44	332	18	0	350	2291
08:15	0	435	0	435	0	16	0	16	83	9	0	92	543
08:30	0	467	0	467	0	12	0	12	107	7	0	114	593
08:45	0	446	0	446	0	11	0	11	97	6	0	103	560
09:00	0	493	0	493	0	7	0	7	92	8	0	100	600
Hour	0	1841	0	1841	0	46	0	46	379	30	0	409	2296
[BREAK]													
16:15	0	152	0	152	0	14	0	14	275	4	0	279	445
16:30	0	139	0	139	0	17	0	17	320	5	0	325	481
16:45	0	161	0	161	0	21	0	21	299	8	0	307	489
17:00	0	143	0	143	0	19	0	19	321	7	0	328	490
Hour	0	595	0	595	0	71	0	71	1215	24	0	1239	1905
17:15	0	144	0	144	0	22	0	22	296	9	0	305	471
17:30	0	164	0	164	0	23	0	23	316	13	0	329	516
17:45	0	151	0	151	0	25	0	25	317	11	0	328	504
18:00	0	175	0	175	0	24	0	24	360	10	0	370	569
Hour	0	634	0	634	0	94	0	94	1289	43	0	1332	2060
Total	0	4967	0	4967	0	255	0	255	3215	115	0	3330	8552
% Apr.	-	100.0	-	-	-	100.0	-	-	96.5	3.4	-	-	-
% Int.	-	58.0	-	-	-	2.9	-	-	37.5	1.3	-	-	-

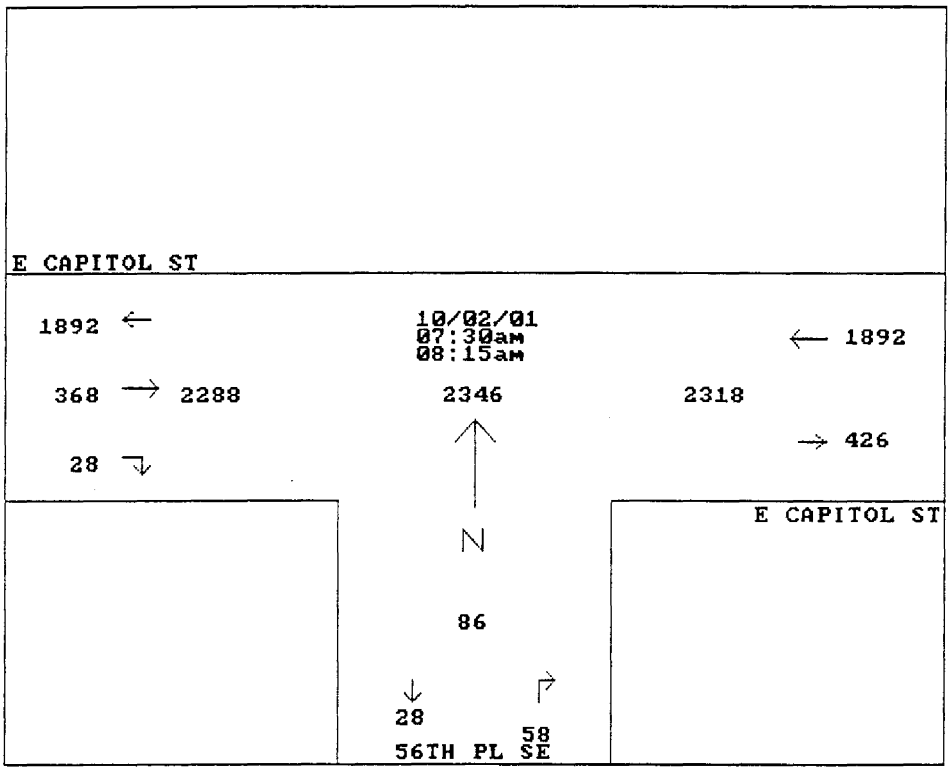
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@ECS
Site Code : 55555555
Start Date: 10/02/01

Total Traffic

End Time	E CAPITOL ST From East				56TH PL SE From South				E CAPITOL ST From West				Intrvl.
	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01													
Time	07:30				07:30				07:30				
Vol.	0	1892	0:30		0	58	0		368	28	0		
Pct.	0.0	100.0	0.0		0.0	100.0	0.0		92.9	7.0	0.0		
Total	1892				58				396				
High	07:45				07:45				08:15				
Vol.	0	501	0		0	17	0		107	7	0		
Total	501				17				114				
PHF	0.944				0.852				0.868				



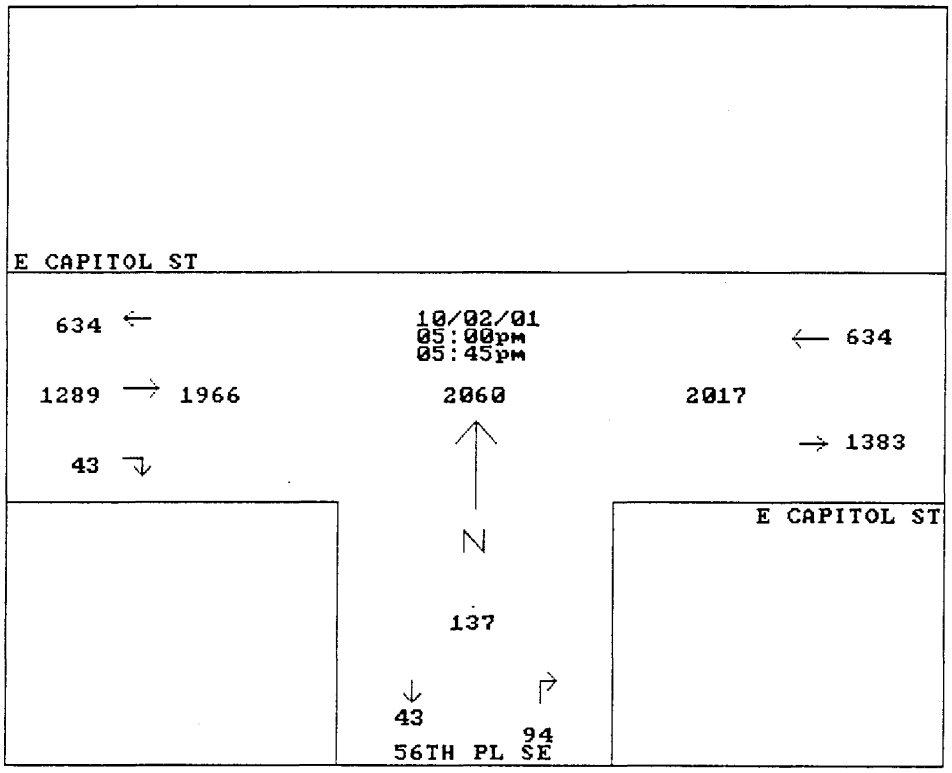
O.R.George & Associates, Inc
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Tel: (301)794-7700 Fax: (301)794-4400

Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@ECS
Site Code : 55555555
Start Date: 10/02/01

Total Traffic

End Time	E CAPITOL ST From East				56TH PL SE From South				E CAPITOL ST From West				Intrvl.
	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01													
Time	17:00				17:00				17:00				
Vol.	0	634	0:00		0	94	0		1289	43	0		
Pct.	0.0	100.0	0.0		0.0	100.0	0.0		96.7	3.2	0.0		
Total	634				94				1332				
High	17:45				17:30				17:45				
Vol.	0	175	0		0	25	0		360	10	0		
Total	175				25				370				
PHF	0.905				0.940				0.900				



O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA OS-AS
Board :D4-1907
City/County:Washington D.C.
Weather :Warm/Clear/Dry

Study Name: EAS@57TH
Site Code : 20571907
Start Date: 06/19/01

Total Traffic

	57th Place From North				East Capitol Street From East				East Capitol Street From West				
End Time	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
06/19/01													
07:15	0	1	0	1	452	2	0	454	0	75	0	75	530
07:30	0	2	0	2	468	1	0	469	0	87	0	87	558
07:45	0	3	0	3	490	1	0	491	0	97	0	97	591
08:00	0	4	0	4	500	3	0	503	0	104	0	104	611
Hour	0	10	0	10	1910	7	0	1917	0	363	0	363	2290
08:15	0	2	0	2	435	3	0	438	0	100	0	100	540
08:30	0	3	0	3	453	3	0	456	0	114	0	114	573
08:45	0	2	0	2	447	3	0	450	0	105	0	105	557
09:00	0	4	0	4	492	1	0	493	0	103	0	103	600
Hour	0	11	0	11	1827	10	0	1837	0	422	0	422	2270
[BREAK]													
16:15	0	3	0	3	153	3	0	156	0	289	0	289	448
16:30	0	3	0	3	140	7	0	147	0	336	0	336	486
16:45	0	0	0	0	160	3	0	163	0	321	0	321	484
17:00	0	0	0	0	142	1	0	143	0	342	0	342	485
Hour	0	6	0	6	595	14	0	609	0	1288	0	1288	1903
17:15	0	5	0	5	145	1	0	146	0	315	0	315	466
17:30	0	4	0	4	163	5	0	168	0	336	0	336	508
17:45	0	4	0	4	149	6	0	155	0	342	0	342	501
18:00	0	3	0	3	173	5	0	178	0	386	0	386	567
Hour	0	16	0	16	630	17	0	647	0	1379	0	1379	2042
Total	0	43	0	43	4962	48	0	5010	0	3452	0	3452	8505
% Apr.	-	100.0	-	-	99.0	0.9	-	-	-	100.0	-	-	-
% Int.	-	0.5	-	-	58.3	0.5	-	-	-	40.5	-	-	-

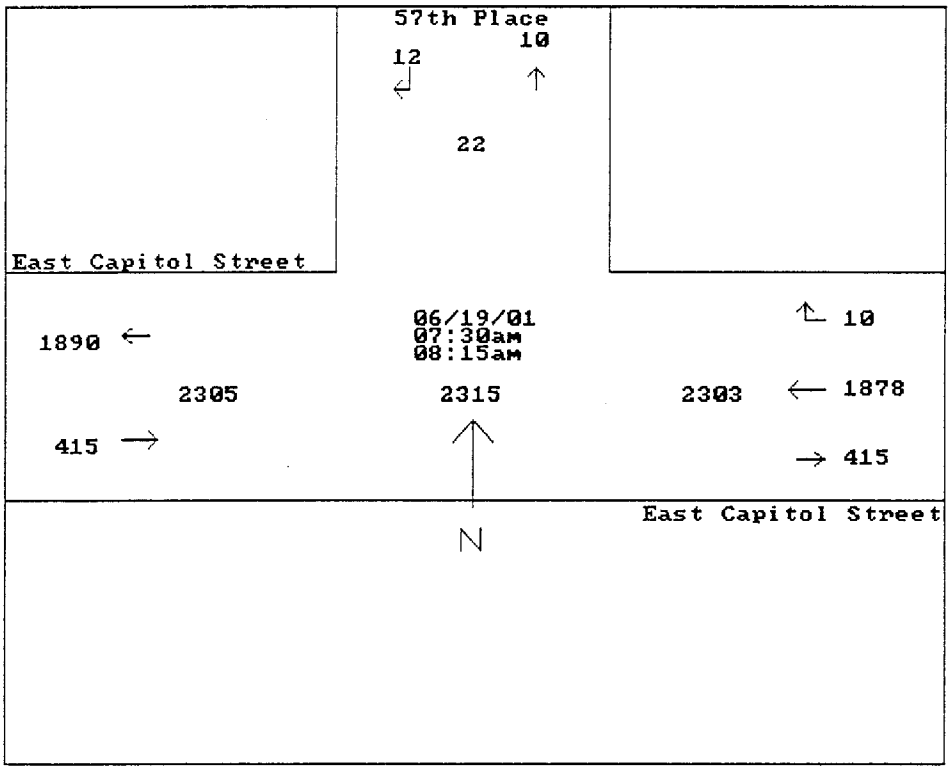
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
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Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA OS-AS
Board :D4-1907
City/County:Washington D.C.
Weather :Warm/Clear/Dry

Study Name: EAS@57TH
Site Code : 20571907
Start Date: 06/19/01

Total Traffic

	57th Place From North				East Capitol Street From East				East Capitol Street From West				
End Time	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 06/19/01 to 08:45 on 06/19/01													
Time	07:30				07:30				07:30				
Vol.	0	12	0:30		1878	10	0		0	415	0		
Pct.	0.0	100.0	0.0		99.4	0.5	0.0		0.0	100.0	0.0		
Total	12				1888				415				
High	07:45				07:45				08:15				
Vol.	0	4	0		500	3	0		0	114	0		
Total	4				503				114				
PHF	0.750				0.938				0.910				



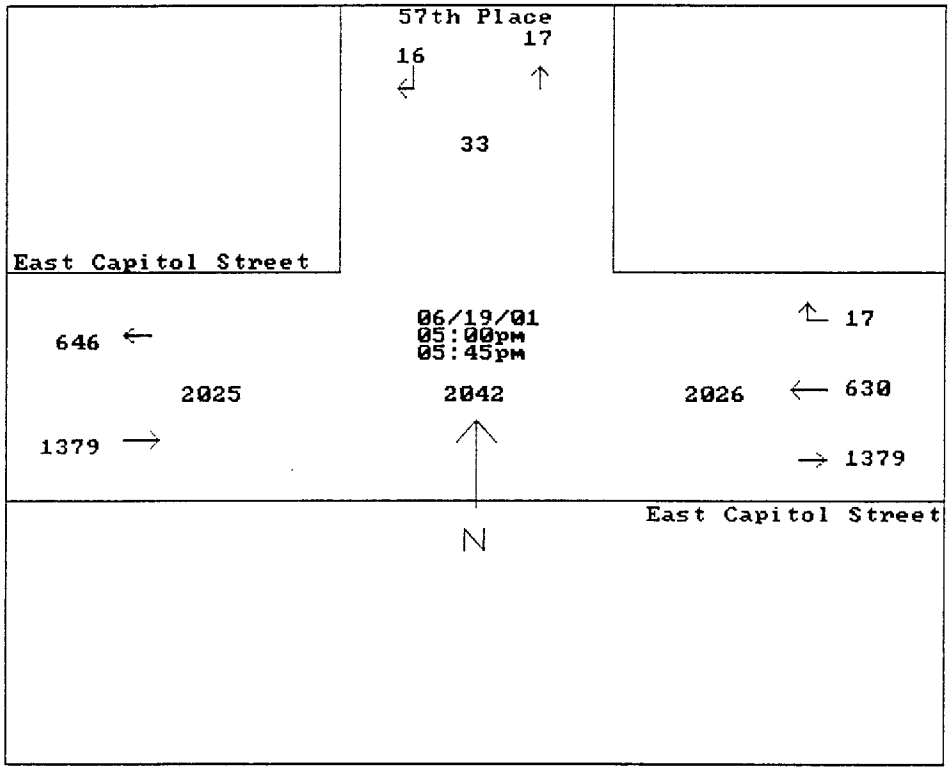
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA OS-AS
Board :D4-1907
City/County:Washington D.C.
Weather :Warm/Clear/Dry

Study Name: EAS@57TH
Site Code : 20571907
Start Date: 06/19/01

Total Traffic

End Time	57th Place From North Left	Right	U-Turn	Apprch. Total	East Capitol Street From East Thru	Right	U-Turn	Apprch. Total	East Capitol Street From West Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 06/19/01 to 17:45 on 06/19/01													
Time	17:00				17:00				17:00				
Vol.	0	16	0:00		630	17	0		0	1379	0		
Pct.	0.0	100.0	0.0		97.3	2.6	0.0		0.0	100.0	0.0		
Total	16				647				1379				
High	17:00				17:45				17:45				
Vol.	0	5	0		173	5	0		0	386	0		
Total	5				178				386				
PHF	0.800				0.908				0.893				



O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-LM
Board :D4-1607
City/County:Washington D.C.
Weather :Hot/Clear/Dry

Study Name: EAS@58TH
Site Code : 55555555
Start Date: 06/19/01

Total Traffic

	58th St. NE					58th St. SE					East Capitol St. NE					East Capitol St. NE					
	From North					From South					From East					From West					
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
06/19/01																					
07:15	4	5	8	0	17	0	0	0	0	0	1	427	1	0	429	2	67	5	1	75	521
07:30	3	16	6	0	25	0	0	0	0	0	3	462	3	1	469	2	86	1	0	89	583
07:45	4	9	10	0	23	0	0	0	0	0	2	485	6	0	493	7	79	5	0	91	607
08:00	2	14	5	0	21	0	0	0	0	0	1	447	5	0	453	6	91	4	2	103	577
Hour	13	44	29	0	86	0	0	0	0	0	7	1821	15	1	1844	17	323	15	3	358	2288
08:15	3	12	6	0	21	0	0	0	0	0	3	491	9	2	505	4	95	4	1	104	630
08:30	5	15	4	0	24	0	0	0	0	0	1	448	6	0	455	9	97	9	2	117	596
08:45	3	11	3	0	17	0	0	0	0	0	1	437	3	1	442	6	85	4	2	97	556
09:00	4	5	8	0	17	0	0	0	0	0	4	479	6	4	493	5	86	3	3	97	607
Hour	15	43	21	0	79	0	0	0	0	0	9	1855	24	7	1895	24	363	20	8	415	2389
[BREAK																					
16:15	10	15	4	0	29	0	0	0	0	0	2	149	5	3	159	8	271	9	0	288	476
16:30	10	23	10	0	43	0	0	0	0	0	4	130	9	1	144	7	320	8	1	336	523
16:45	9	22	5	0	36	0	0	0	0	0	5	155	6	4	170	8	302	11	1	322	528
17:00	11	16	8	0	35	0	0	0	0	0	8	134	4	2	148	16	322	3	1	342	525
Hour	40	76	27	0	143	0	0	0	0	0	19	568	24	10	621	39	1215	31	3	1288	2052
17:15	15	21	2	0	38	0	0	0	0	0	11	142	10	0	163	7	303	5	1	316	517
17:30	9	28	8	0	45	0	0	0	0	0	7	155	7	0	169	10	317	8	1	336	550
17:45	11	30	3	0	44	0	0	0	0	0	8	146	5	2	161	8	320	13	2	343	548
18:00	10	29	6	0	45	0	0	0	0	0	11	167	5	0	183	12	366	7	1	386	614
Hour	45	108	19	0	172	0	0	0	0	0	37	610	27	2	676	37	1306	33	5	1381	2229
Total	113	271	96	0	480	0	0	0	0	0	72	4854	90	20	5036	117	3207	99	19	3442	8958
% Apr.	23.5	56.4	20.0	-	-	-	-	-	-	-	1.4	96.3	1.7	0.3	-	3.3	93.1	2.8	0.5	-	-
% Int.	1.2	3.0	1.0	-	-	-	-	-	-	-	0.8	54.1	1.0	0.2	-	1.3	35.8	1.1	0.2	-	-

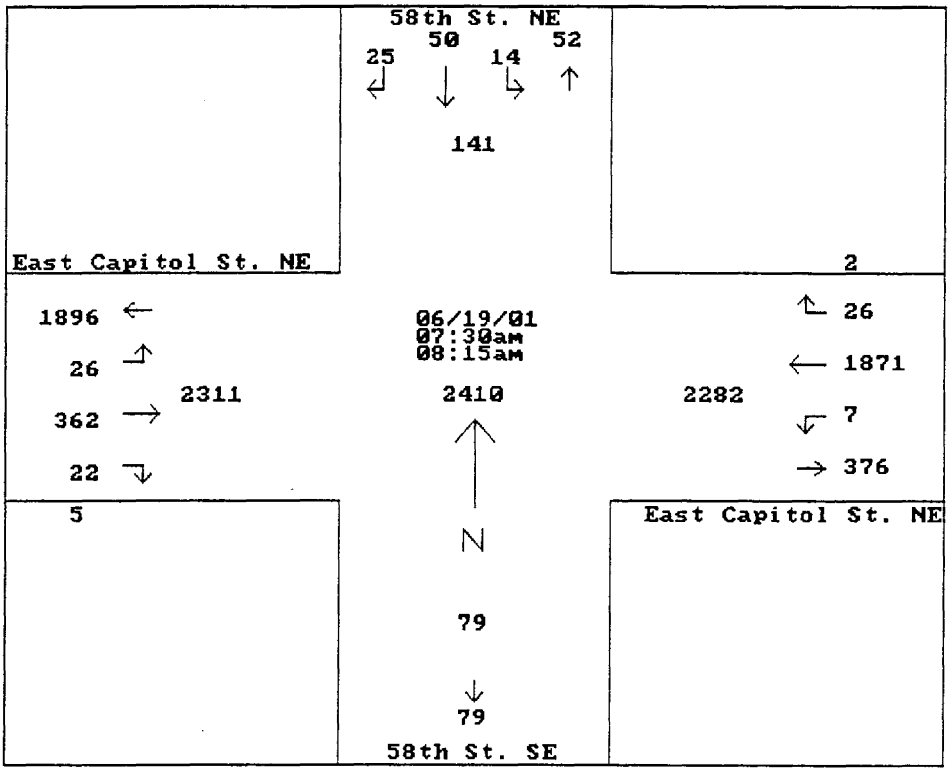
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-LM
Board :D4-1607
City/County:Washington D.C.
Weather :Hot/Clear/Dry

Study Name: EAS@58TH
Site Code : 55555555
Start Date: 06/19/01

Total Traffic

	58th St. NE From North					58th St. SE From South					East Capitol St. NE From East					East Capitol St. NE From West					
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 06/19/01 to 08:45 on 06/19/01																					
Time	07:30					07:30					07:30					07:30					
Vol.	14	50	25	0		0	0	0	0		7	1871	26	2		26	362	22	5		
Pct.	15.7	56.1	28.0	0.0		0.0	0.0	0.0	0.0		0.3	98.1	1.3	0.1		6.2	87.2	5.3	1.2		
Total	89					0					1906					415					
High	08:15					08:00					08:00					08:15					
Vol.	5	15	4	0		0	0	0	0		3	491	9	2		9	97	9	2		
Total	24					0					505					117					
PHF	0.927					0.000					0.943					0.886					



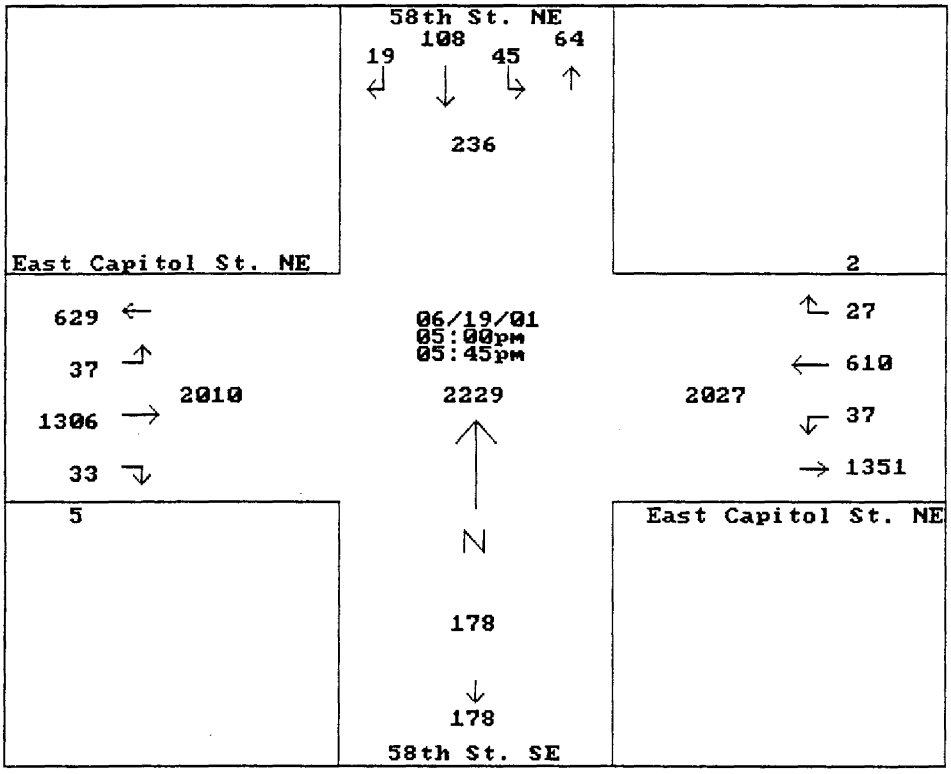
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Counted by :ORGA-LM
Board :D4-1607
City/County:Washington D.C.
Weather :Hot/Clear/Dry

Study Name: EAS@58TH
Site Code : 55555555
Start Date: 06/19/01

Total Traffic

	58th St. NE From North					58th St. SE From South					East Capitol St. NE From East					East Capitol St. NE From West					
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 06/19/01 to 17:45 on 06/19/01																					
Time	17:00					17:00					17:00					17:00					
Vol.	45	108	19	0		0	0	0	0		37	610	27	2		37	1306	33	5		
Pct.	26.1	62.7	11.0	0.0		0.0	0.0	0.0	0.0		5.4	90.2	3.9	0.2		2.6	94.5	2.3	0.3		
Total	172					0					676					1381					
High	17:15					17:45					17:45					17:45					
Vol.	9	28	8	0		0	0	0	0		11	167	5	0		12	366	7	1		
Total	45					0					183					386					
PHF	0.955					0.000					0.923					0.894					



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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: ECS@60ST
Site Code : 77777777
Start Date: 10/02/01
Page : 1

Total Traffic

	60TH ST NE From North				E CAPITOL ST From East				E CAPITOL ST From West				
End Time	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
10/02/01													
07:15	0	2	0	2	449	0	0	449	1	70	0	71	522
07:30	0	5	0	5	432	2	0	434	3	85	0	88	527
07:45	0	3	0	3	488	1	0	489	4	87	0	91	583
08:00	0	6	0	6	447	2	0	449	3	99	0	102	557
Hour	0	16	0	16	1816	5	0	1821	11	341	0	352	2189
08:15	0	6	0	6	465	3	0	468	6	85	0	91	565
08:30	0	7	0	7	487	4	0	491	7	95	0	102	600
08:45	0	5	0	5	440	5	0	445	5	79	0	84	534
09:00	0	6	0	6	487	2	0	489	4	94	0	98	593
Hour	0	24	0	24	1879	14	0	1893	22	353	0	375	2292
[BREAK]													
16:15	0	4	0	4	153	3	0	156	1	282	0	283	443
16:30	0	7	0	7	138	5	0	143	3	300	0	303	453
16:45	0	6	0	6	160	6	0	166	2	307	0	309	481
17:00	0	9	0	9	141	4	0	145	3	331	0	334	488
Hour	0	26	0	26	592	18	0	610	9	1220	0	1229	1865
17:15	0	8	0	8	161	8	0	169	6	313	0	319	496
17:30	0	11	0	11	160	7	0	167	4	322	0	326	504
17:45	0	9	0	9	152	5	0	157	5	326	0	331	497
18:00	0	10	0	10	170	4	0	174	5	372	0	377	561
Hour	0	38	0	38	643	24	0	667	20	1333	0	1353	2058
Total	0	104	0	104	4930	61	0	4991	62	3247	0	3309	8404
% Apr.	-	100.0	-	-	98.7	1.2	-	-	1.8	98.1	-	-	-
% Int.	-	1.2	-	-	58.6	0.7	-	-	0.7	38.6	-	-	-

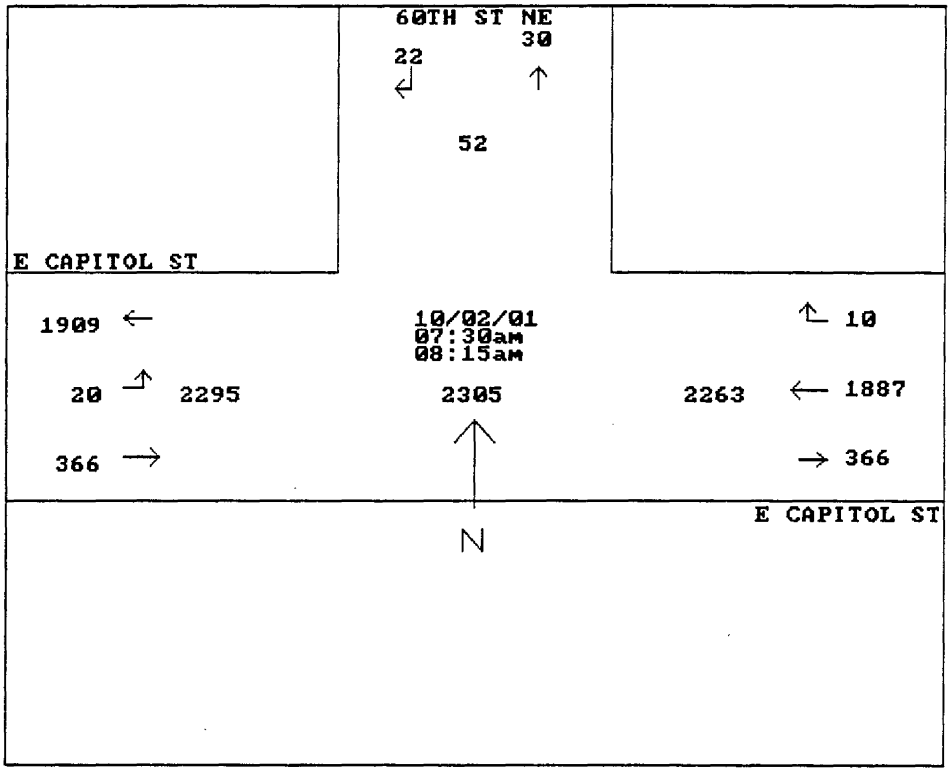
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: ECS@60ST
Site Code : 77777777
Start Date: 10/02/01

Total Traffic

End Time	60TH ST NE From North Left	Right	U-Turn	Apprch. Total	E CAPITOL ST From East Thru	Right	U-Turn	Apprch. Total	E CAPITOL ST From West Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01													
Time	07:30				07:30				07:30				
Vol.	0	22	0	30	1887	10	0		20	366	0		
Pct.	0.0	100.0	0.0		99.4	0.5	0.0		5.1	94.8	0.0		
Total	22				1897				386				
High	08:15				08:15				07:45				
Vol.	0	7	0		487	4	0		3	99	0		
Total	7				491				102				
PHF	0.785				0.965				0.946				



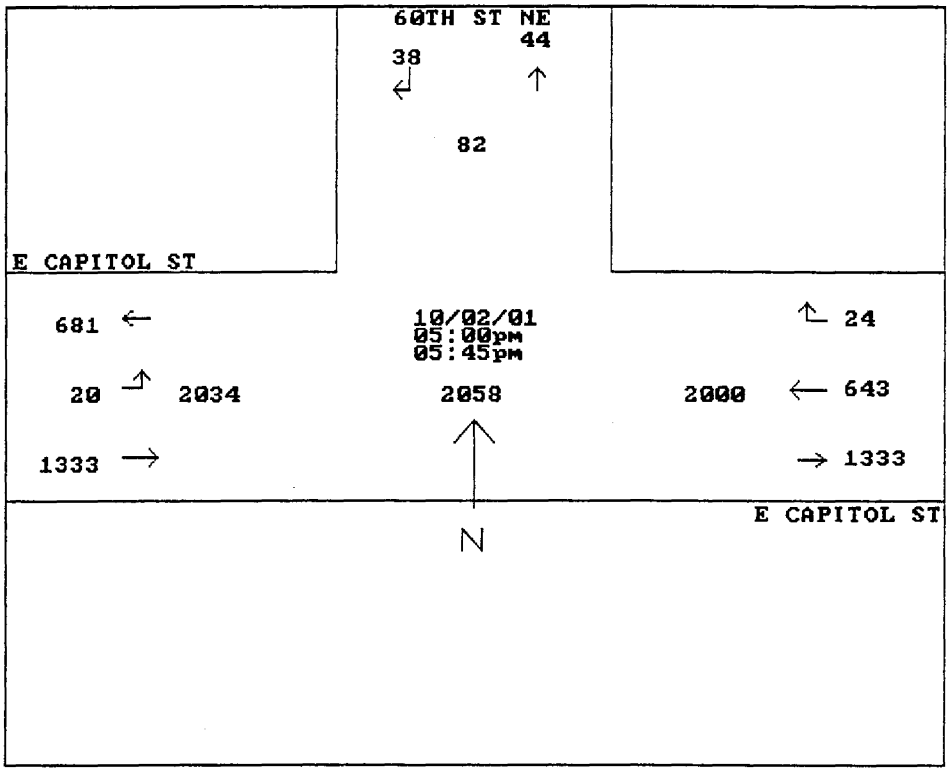
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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: ECS@60ST
Site Code : 77777777
Start Date: 10/02/01

Total Traffic

End Time	60TH ST NE From North Left	Right	U-Turn	Apprch. Total	E CAPITOL ST From East Thru	Right	U-Turn	Apprch. Total	E CAPITOL ST From West Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01													
Time	17:00				17:00				17:00				
Vol.	0	38	0:00		643	24	0		20	1333	0		
Pct.	0.0	100.0	0.0		96.4	3.5	0.0		1.4	98.5	0.0		
Total	38				667				1353				
High	17:15				17:45				17:45				
Vol.	0	11	0		170	4	0		5	372	0		
Total	11				174				377				
PHF	0.863				0.958				0.897				



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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: ECS@61ST
Site Code : 66666666
Start Date: 10/02/01

Total Traffic

End Time	61ST ST NE From North				E CAPITOL ST From East				E CAPITOL ST From West				Intrvl.
	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Total
10/02/01													
07:15	0	9	0	9	400	1	0	401	1	71	0	72	482
07:30	0	11	0	11	435	2	0	437	3	80	0	83	531
07:45	0	16	0	16	468	4	0	472	3	79	0	82	570
08:00	0	14	0	14	423	5	0	428	4	87	0	91	533
Hour	0	50	0	50	1726	12	0	1738	11	317	0	328	2116
08:15	0	10	0	10	428	3	0	431	4	81	0	85	526
08:30	0	14	0	14	456	5	0	461	2	90	0	92	567
08:45	0	12	0	12	442	4	0	446	6	86	0	92	550
09:00	0	12	0	12	391	6	0	397	5	92	0	97	506
Hour	0	48	0	48	1717	18	0	1735	17	349	0	366	2149
[BREAK]													
16:15	0	10	0	10	147	10	0	157	3	281	0	284	451
16:30	0	14	0	14	130	9	0	139	2	302	0	304	457
16:45	0	17	0	17	150	11	0	161	5	304	0	309	487
17:00	0	12	0	12	141	11	0	152	3	333	0	336	500
Hour	0	53	0	53	568	41	0	609	13	1220	0	1233	1895
17:15	0	14	0	14	155	14	0	169	4	316	0	320	503
17:30	0	11	0	11	162	12	0	174	5	322	0	327	512
17:45	0	15	0	15	146	10	0	156	2	331	0	333	504
18:00	0	12	0	12	171	9	0	180	4	375	0	379	571
Hour	0	52	0	52	634	45	0	679	15	1344	0	1359	2090
Total	0	203	0	203	4645	116	0	4761	56	3230	0	3286	8250
% Apr.	-	100.0	-	-	97.5	2.4	-	-	1.7	98.2	-	-	-
% Int.	-	2.4	-	-	56.3	1.4	-	-	0.6	39.1	-	-	-

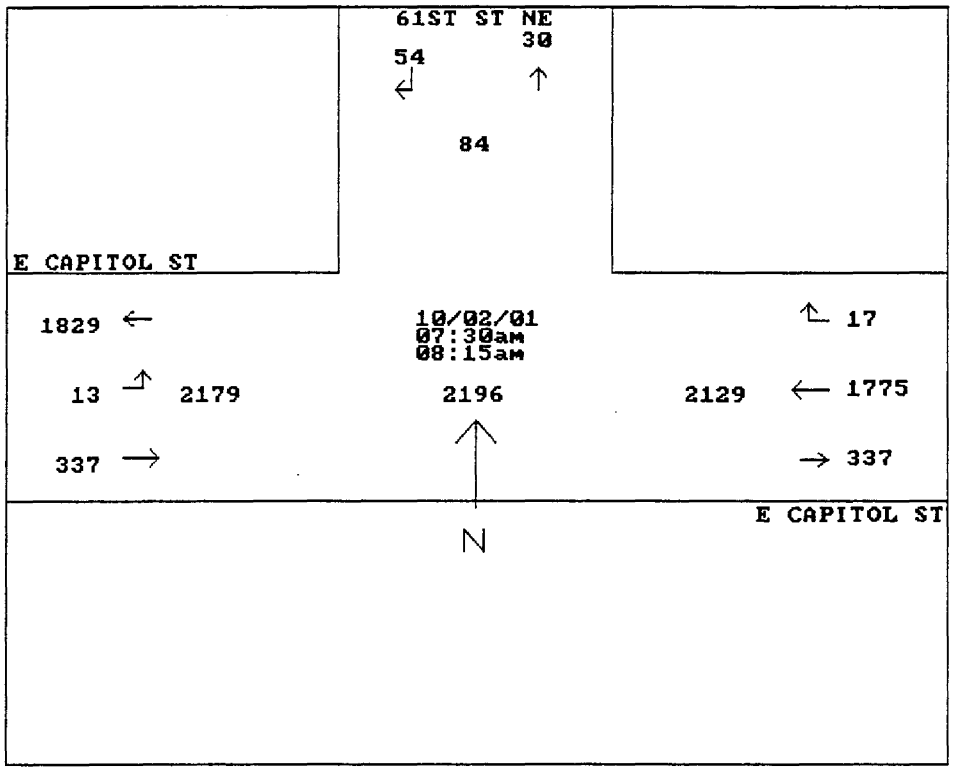
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: ECS@61ST
Site Code : 66666666
Start Date: 10/02/01

Total Traffic

	61ST ST NE From North				E CAPITOL ST From East				E CAPITOL ST From West				
End Time	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01													
Time	07:30				07:30				07:30				
Vol.	0	54	0:30		1775	17	0		13	337	0		
Pct.	0.0	100.0	0.0		99.0	0.9	0.0		3.7	96.2	0.0		
Total	54				1792				350				
High	07:30				07:30				08:15				
Vol.	0	16	0		468	4	0		2	90	0		
Total	16				472				92				
PHF	0.843				0.949				0.951				



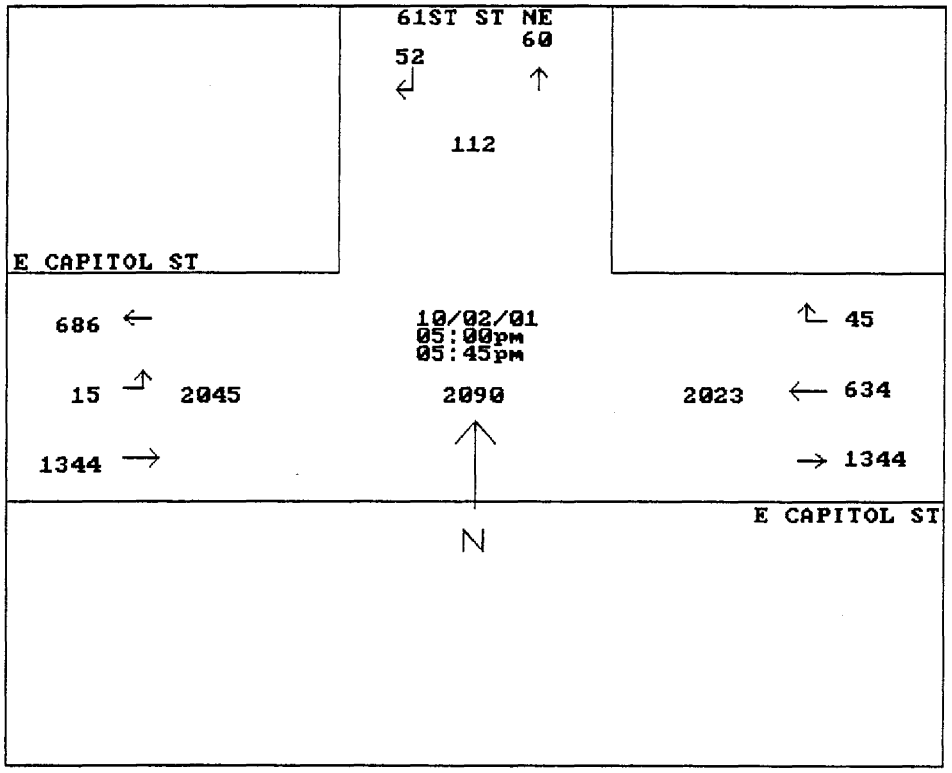
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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: ECS@61ST
Site Code : 66666666
Start Date: 10/02/01

Total Traffic

	61ST ST NE From North				E CAPITOL ST From East				E CAPITOL ST From West				
End Time	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01													
Time	17:00				17:00				17:00				
Vol.	0	52	0:00		634	45	0		15	1344	0		
Pct.	0.0	100.0	0.0		93.3	6.6	0.0		1.1	98.8	0.0		
Total	52				679				1359				
High	17:30				17:45				17:45				
Vol.	0	15	0		171	9	0		4	375	0		
Total	15				180				379				
PHF	0.866				0.943				0.896				



O.R.George & Associates, Inc

Counted by :ORGA-EE, NL
Board :D4-2236, D4-1576
City/County:Washington D.C.
Weather :Warm/Clear/Dry

10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Study Name: EA@SOUTH
Site Code : 22282236
Start Date: 06/19/01
Page : 1

Passenger Vehicles

	Southern Ave From North					E. Capitol St From East					Southern Ave From South					E. Capitol St From West					
End Time	Left	Thru	RightU-Turn		Aprch Total	Left	Thru	RightU-Turn		Aprch Total	Left	Thru	RightU-Turn		Aprch Total	Left	Thru	RightU-Turn		Aprch Total	Intvl Total
06/19/01																					
07:15	10	60	75	0	145	0	381	14	4	399	27	91	10	0	128	14	52	5	0	71	743
07:30	11	74	107	4	196	3	322	35	1	361	28	101	0	0	129	11	61	6	1	79	765
07:45	6	78	99	10	193	3	323	41	3	370	49	119	5	0	173	14	56	9	0	79	815
08:00	9	93	108	0	210	1	299	59	5	364	20	117	6	0	143	16	60	9	0	85	802
Hour	36	305	389	14	744	7	1325	149	13	1494	124	428	21	0	573	55	229	29	1	314	3125
08:15	7	98	80	0	185	9	323	25	5	362	28	134	3	0	165	19	60	4	0	83	795
08:30	6	104	98	0	208	12	321	33	0	366	19	117	4	0	140	12	61	15	1	89	803
08:45	7	106	67	2	182	8	346	17	1	372	34	129	3	0	166	10	71	3	0	84	804
09:00	10	86	82	1	179	11	298	16	0	325	19	165	1	3	188	14	67	8	2	91	783
Hour	30	394	327	3	754	40	1288	91	6	1425	100	545	11	3	659	55	259	30	3	347	3185
[BREAK																					
16:15	7	109	27	1	144	14	103	21	6	144	17	97	11	0	125	41	229	15	0	285	698
16:30	16	124	17	0	157	7	102	13	3	125	12	124	9	0	145	40	259	6	0	305	732
16:45	14	136	24	1	175	15	111	10	0	136	22	137	12	0	171	30	261	11	2	304	786
17:00	13	120	17	0	150	17	105	9	0	131	16	122	7	5	150	37	276	12	4	329	760
Hour	50	489	85	2	626	53	421	53	9	536	67	480	39	5	591	148	1025	44	6	1223	2976
17:15	12	141	19	1	173	24	118	14	6	162	14	130	16	0	160	30	266	18	0	314	809
17:30	14	180	26	3	223	24	128	15	1	168	16	147	13	0	176	43	270	12	0	325	892
17:45	19	129	24	0	172	18	106	15	0	139	23	159	9	0	191	32	279	17	0	328	830
18:00	19	149	29	1	198	22	127	18	4	171	26	157	13	2	198	51	304	17	4	376	943
Hour	64	599	98	5	766	88	479	62	11	640	79	593	51	2	725	156	1119	64	4	1343	3474
Total	180	1787	899	24	2890	188	3513	355	39	4095	370	2046	122	10	2548	414	2632	167	14	3227	12760
% Apr.	6.2	61.8	31.1	0.8	-	4.5	85.7	8.6	0.9	-	14.5	80.2	4.7	0.3	-	12.8	81.5	5.1	0.4	-	-
% Int.	1.4	14.0	7.0	0.1	-	1.4	27.5	2.7	0.3	-	2.8	16.0	0.9	-	-	3.2	20.6	1.3	0.1	-	-

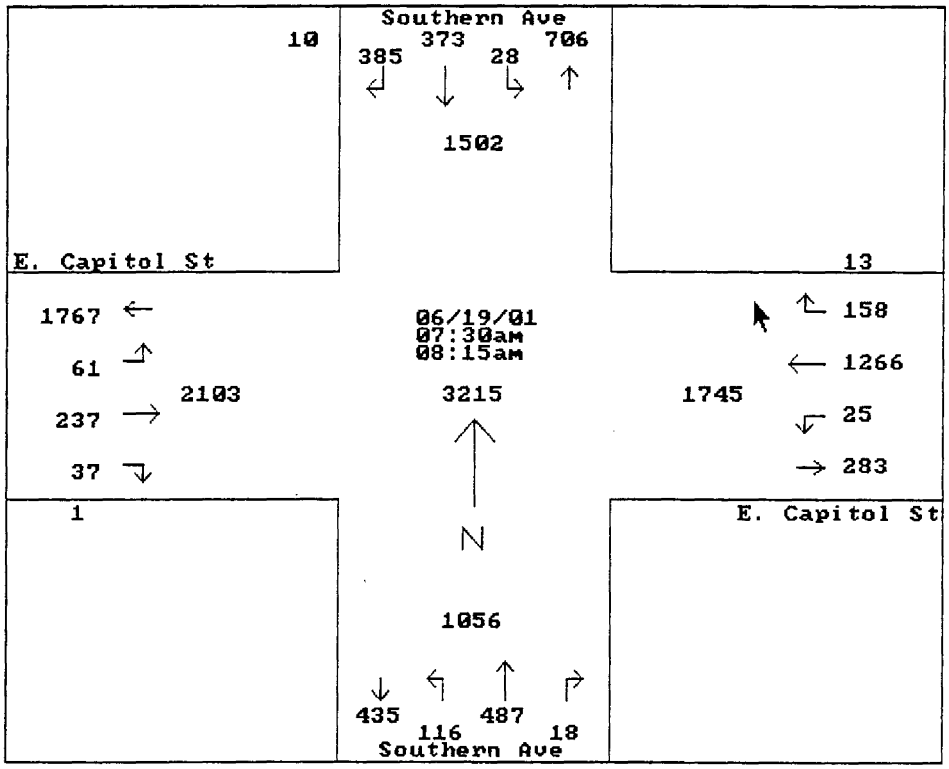
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
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Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-EE, NL
Board :D4-2236, D4-1576
City/County:Washington D.C.
Weather :Warm/Clear/Dry

Study Name: EA@SOUTH
Site Code : 22282236
Start Date: 06/19/01

Passenger Vehicles

	Southern Ave From North					E. Capitol St From East					Southern Ave From South					E. Capitol St From West				
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 06/19/01 to 08:45 on 06/19/01																				
Time	07:30					07:30					07:30					07:30				
Vol.	28	373	385	10		25	1266	158	13		116	487	18	0		61	237	37	1	
Pct.	3.5	46.8	48.3	1.2		1.7	86.5	10.8	0.8		18.6	78.4	2.8	0.0		18.1	70.5	11.0	0.2	
Total	796					1462					621					336				
High	07:45					07:30					07:30					08:15				
Vol.	9	93	108	0		3	323	41	3		49	119	5	0		12	61	15	1	
Total	210					370					173					89				
PHF	0.947					0.987					0.897					0.943				



O.R.George & Associates, Inc

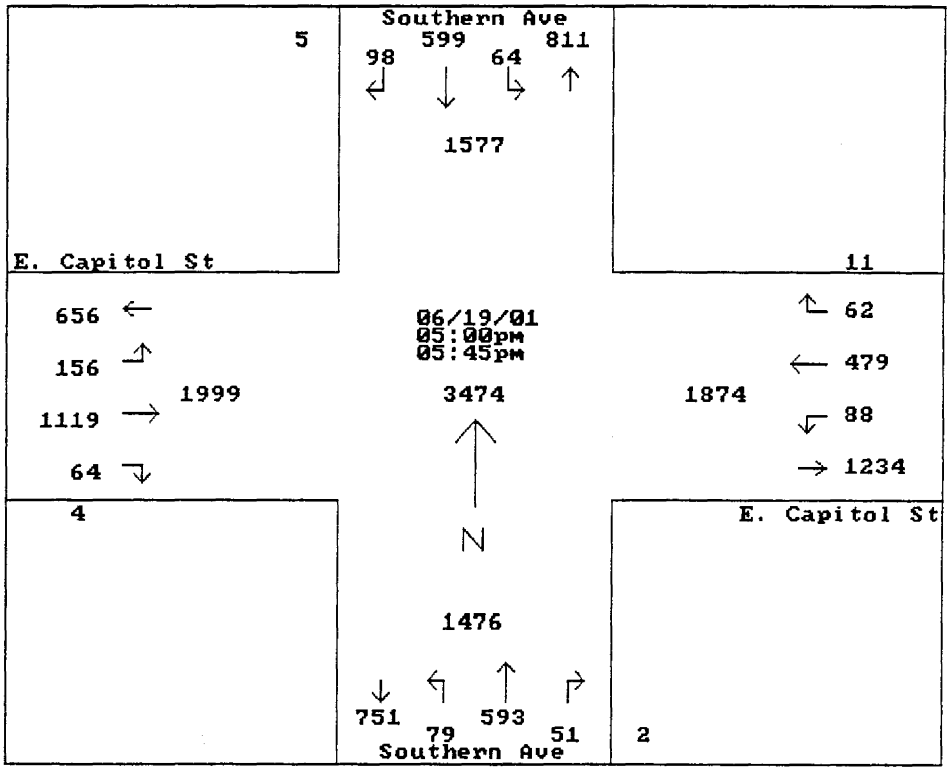
Counted by :ORGA-EE, NL
Board :D4-2236, D4-1576
City/County:Washington D.C.
Weather :Warm/Clear/Dry

10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Study Name: EA@SOUTH
Site Code : 22282236
Start Date: 06/19/01

Passenger Vehicles

	Southern Ave From North					E. Capitol St From East					Southern Ave From South					E. Capitol St From West				
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 06/19/01 to 17:45 on 06/19/01																				
Time	17:00					17:00					17:00					17:00				
Vol.	64	599	98	5		88	479	62	11		79	593	51	2		156	1119	64	4	
Pct.	8.3	78.1	12.7	0.6		13.7	74.8	9.6	1.7		10.8	81.7	7.0	0.2		11.6	83.3	4.7	0.2	
Total	766					640					725					1343				
High	17:15					17:45					17:45					17:45				
Vol.	14	180	26	3		22	127	18	4		26	157	13	2		51	304	17	4	
Total.	223					171					198					376				
PHF	0.858					0.935					0.915					0.892				



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Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-OH, JAA
Board :D4-1908, D4-2241
City/County:Washington D.C.
Weather :Warm/Clear/Dry

Study Name: DAVE@SOU
Site Code : 23541908
Start Date: 06/20/01

Total Traffic

End	Southern Ave From North				Southern Ave From South				Davey Street From East				
Time	Left	Thru	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Intrvl. Total
06/20/01													
07:15	27	34	0	61	54	7	0	61	27	82	0	109	231
07:30	40	48	0	88	59	11	0	70	36	85	0	121	279
07:45	29	66	0	95	75	5	0	80	37	94	0	131	306
08:00	27	72	0	99	81	7	0	88	47	71	0	118	305
Hour	123	220	0	343	269	30	0	299	147	332	0	479	1121
08:15	32	84	0	116	77	3	0	80	32	71	0	103	299
08:30	38	88	0	126	92	3	0	95	24	62	0	86	307
08:45	37	78	0	115	86	3	0	89	19	64	0	83	287
09:00	31	58	0	89	98	3	0	101	9	53	0	62	252
Hour	138	308	0	446	353	12	0	365	84	250	0	334	1145
[BREAK]													
16:15	53	92	0	145	63	7	0	70	5	44	0	49	264
16:30	45	98	0	143	78	3	0	81	6	54	0	60	284
16:45	51	109	0	160	90	5	0	95	9	67	0	76	331
17:00	57	126	0	183	98	7	0	105	9	69	0	78	366
Hour	206	425	0	631	329	22	0	351	29	234	0	263	1245
17:15	59	111	0	170	104	6	0	110	12	71	0	83	363
17:30	61	128	0	189	96	8	0	104	11	77	0	88	381
17:45	61	134	0	195	96	10	0	106	9	82	0	91	392
18:00	57	136	0	193	101	7	0	108	9	96	0	105	406
Hour	238	509	0	747	397	31	0	428	41	326	0	367	1542
Total	705	1462	0	2167	1348	95	0	1443	301	1142	0	1443	5053
% Apr.	32.5	67.4	-	-	93.4	6.5	-	-	20.8	79.1	-	-	-
% Int.	13.9	28.9	-	-	26.6	1.8	-	-	5.9	22.6	-	-	-

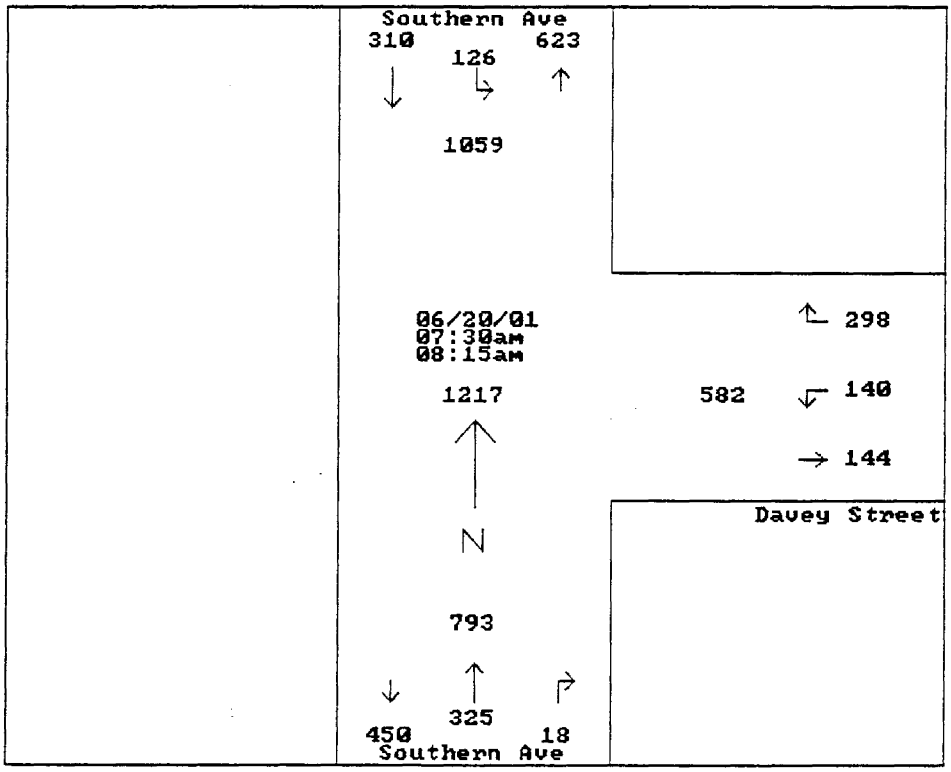
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-OH, JAA
Board :D4-1908, D4-2241
City/County:Washington D.C.
Weather :Warm/Clear/Dry

Study Name: DAVE@SOU
Site Code : 23541908
Start Date: 06/20/01

Total Traffic

End Time	Southern Ave From North Left	Thru	U-Turn	Apprch. Total	Southern Ave From South Thru	Right	U-Turn	Apprch. Total	Davey Street From East Left	Right	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 06/20/01 to 08:45 on 06/20/01													
Time	07:30				07:30				07:30				
Vol.	126	310	0:30		325	18	0		140	298	0		
Pct.	28.8	71.1	0.0		94.7	5.2	0.0		31.9	68.0	0.0		
Total	436				343				438				
High	08:15				08:15				07:30				
Vol.	38	88	0		92	3	0		37	94	0		
Total	126				95				131				
PHF	0.865				0.902				0.835				



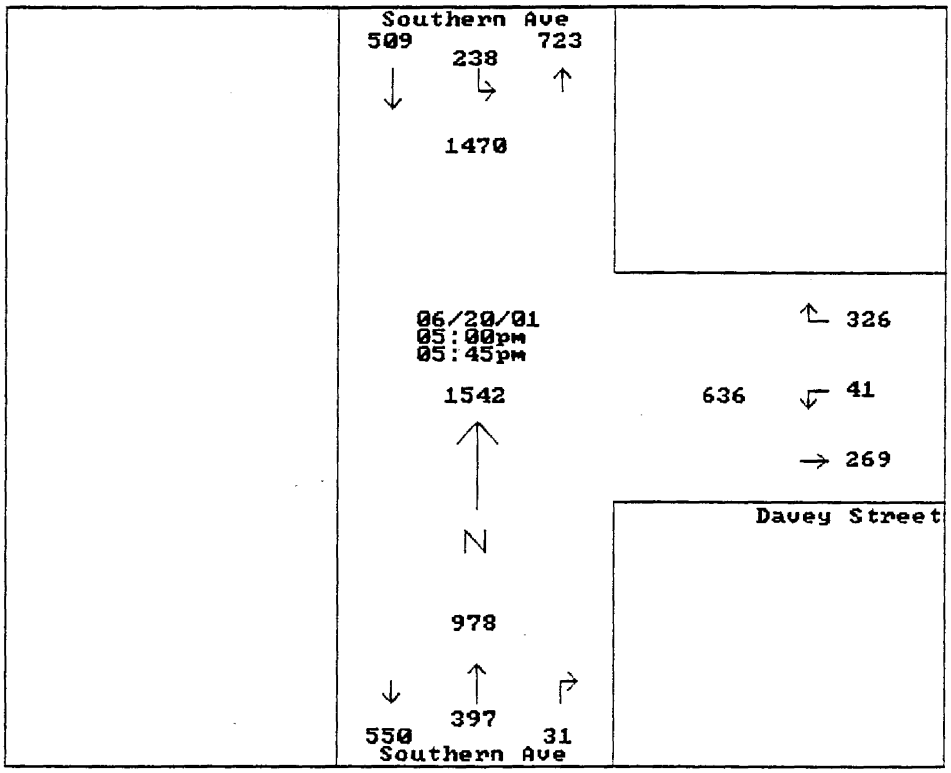
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Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-OH, JAA
Board :D4-1908, D4-2241
City/County:Washington D.C.
Weather :Warm/Clear/Dry

Study Name: DAVE@SOU
Site Code : 23541908
Start Date: 06/20/01

Total Traffic

End Time	Southern Ave From North Left	Thru	U-Turn	Apprch. Total	Southern Ave From South Thru	Right	U-Turn	Apprch. Total	Davey Street From East Left	Right	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 06/20/01 to 17:45 on 06/20/01													
Time	17:00				17:00				17:00				
Vol.	238	509	0:00		397	31	0		41	326	0		
Pct.	31.8	68.1	0.0		92.7	7.2	0.0		11.1	88.8	0.0		
Total	747				428				367				
High	17:30				17:00				17:45				
Vol.	61	134	0		104	6	0		9	96	0		
Total	195				110				105				
PHF	0.957				0.972				0.873				



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Counted by :ORGA-AA
Board :D4-2237
City/County:Washington D.C.
Weather :Hot/Clear/Dry

Study Name: SOUT@58T
Site Code : 24272237
Start Date: 06/20/01

Total Traffic

	Southern Ave. SE From North				Southern Ave. SE From South				58th St SE From West				
End Time	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Intrvl. Total
06/20/01													
07:15	67	0	0	67	0	53	1	54	2	9	0	11	132
07:30	88	0	0	88	0	70	0	70	2	17	0	19	177
07:45	104	0	0	104	0	77	1	78	1	14	0	15	197
08:00	119	0	2	121	0	84	0	84	1	13	0	14	219
Hour	378	0	2	380	0	284	2	286	6	53	0	59	725
08:15	115	0	0	115	0	73	0	73	4	15	0	19	207
08:30	115	0	2	117	0	85	0	85	5	21	0	26	228
08:45	102	0	0	102	0	73	0	73	3	13	0	16	191
09:00	55	0	2	57	0	95	0	95	1	10	0	11	163
Hour	387	0	4	391	0	326	0	326	13	59	0	72	789
[BREAK]	----------				----------				----------				-------
16:15	97	0	0	97	0	73	3	76	3	25	0	28	201
16:30	101	0	0	101	0	94	1	95	2	33	0	35	231
16:45	95	0	1	96	0	74	0	74	7	30	0	37	207
17:00	100	0	1	101	0	89	0	89	0	22	0	22	212
Hour	393	0	2	395	0	330	4	334	12	110	0	122	851
17:15	141	0	0	141	0	117	1	118	6	22	0	28	287
17:30	146	0	0	146	0	104	0	104	10	26	0	36	286
17:45	134	0	0	134	0	101	1	102	7	38	0	45	281
18:00	118	0	1	119	0	100	2	102	3	34	0	37	258
Hour	539	0	1	540	0	422	4	426	26	120	0	146	1112
Total	1697	0	9	1706	0	1362	10	1372	57	342	0	399	3477
% Apr.	99.4	-	0.5	-	-	99.2	0.7	-	14.2	85.7	-	-	-
% Int.	48.8	-	0.2	-	-	39.1	0.2	-	1.6	9.8	-	-	-

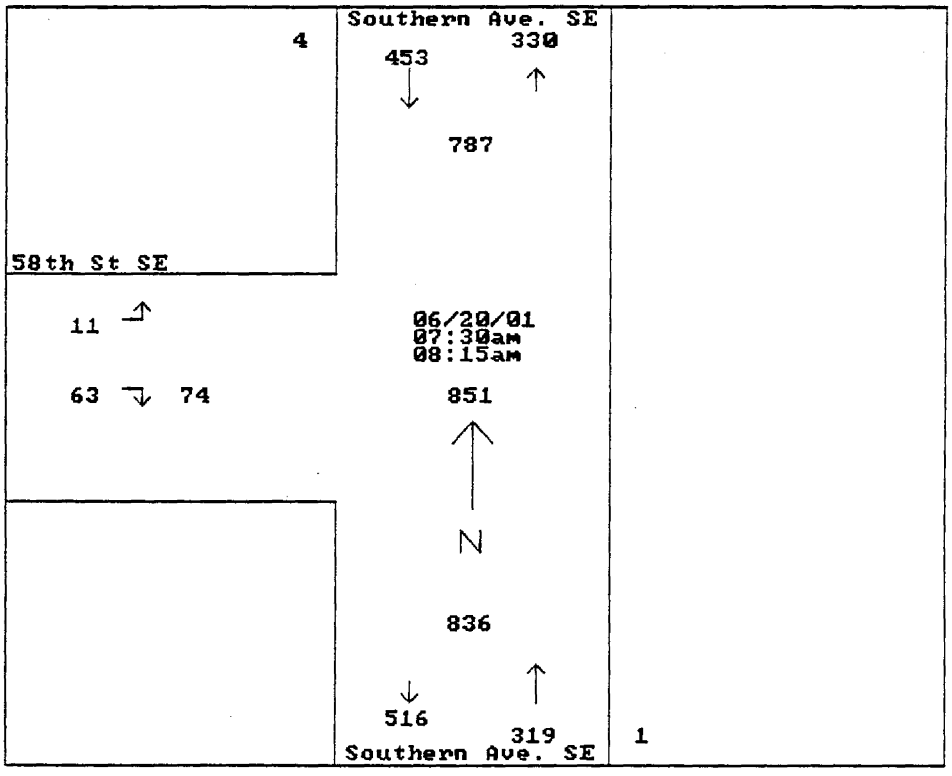
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-AA
Board :D4-2237
City/County:Washington D.C.
Weather :Hot/Clear/Dry

Study Name: SOUT@58T
Site Code : 24272237
Start Date: 06/20/01

Total Traffic

End Time	Southern Ave. SE From North Thru	Right	U-Turn	Apprch. Total	Southern Ave. SE From South Left	Thru	U-Turn	Apprch. Total	58th St SE From West Left	Right	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 06/20/01 to 08:45 on 06/20/01													
Time	07:30				07:30				07:30				
Vol.	453	0	4:30		0	319	1		11	63	0		
Pct.	99.1	0.0	0.8		0.0	99.6	0.3		14.8	85.1	0.0		
Total	457				320				74				
High	07:45				08:15				08:15				
Vol.	119	0	2		0	85	0		5	21	0		
Total	121				85				26				
PHF	0.944				0.941				0.711				



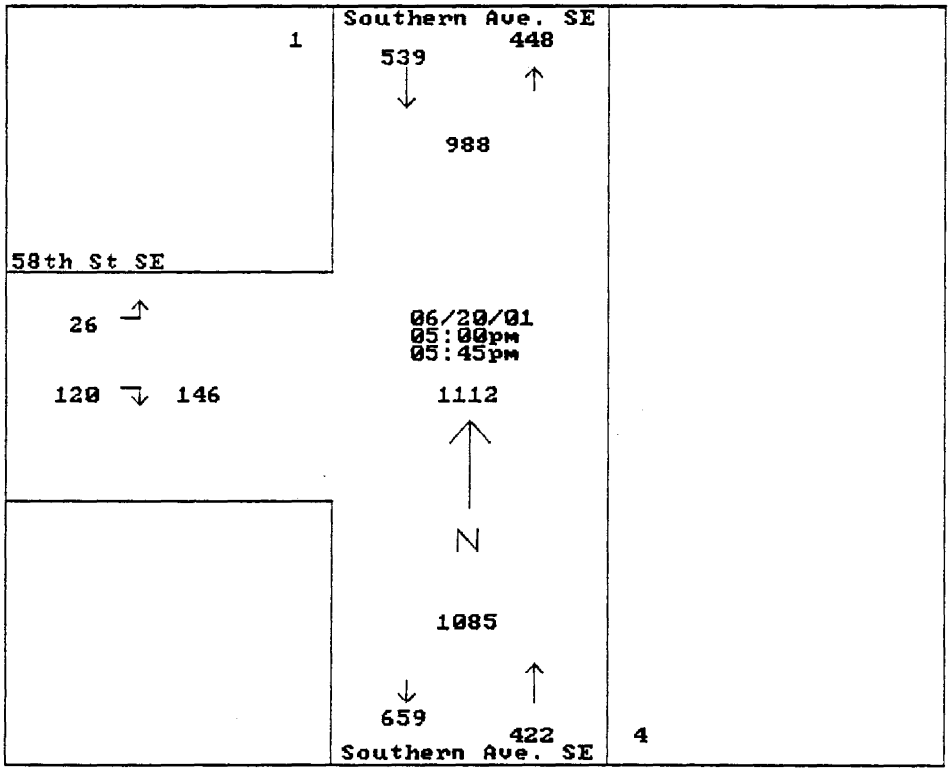
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by :ORGA-AA
Board :D4-2237
City/County:Washington D.C.
Weather :Hot/Clear/Dry

Study Name: SOUT@58T
Site Code : 24272237
Start Date: 06/20/01

Total Traffic

End Time	Southern Ave. SE From North				Southern Ave. SE From South				58th St SE From West				Intrvl.
	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 06/20/01 to 17:45 on 06/20/01													
Time	17:00				17:00				17:00				
Vol.	539	0	1:00		0	422	4		26	120	0		
Pct.	99.8	0.0	0.1		0.0	99.0	0.9		17.8	82.1	0.0		
Total	540				426				146				
High	17:15				17:00				17:30				
Vol.	146	0	0		0	117	1		7	38	0		
Total	146				118				45				
PHF	0.924				0.902				0.811				



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Counted by : ORGA/KM
Board : D1-0904
City/County: Washington, DC
Weather : Warm/Clear/Sunny

Study Name: SAV@57PL
Site Code : 10180112
Start Date: 10/02/01

Total Traffic

	Southern Avenue From North				Southern Avenue From South				57th Place, SE From West				
End Time	Thru	Rght	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Left	Rght	U-Turn	Apprch. Total	Intrvl. Total
10/02/01													
07:15	76	0	0	76	0	52	0	52	2	12	0	14	142
07:30	105	0	0	105	0	69	0	69	1	14	0	15	189
07:45	118	0	0	118	0	74	0	74	3	20	0	23	215
08:00	132	0	0	132	0	79	0	79	6	22	0	28	239
Hour	431	0	0	431	0	274	0	274	12	68	0	80	785
08:15	130	0	0	130	0	68	0	68	5	19	0	24	222
08:30	136	0	0	136	0	78	0	78	7	21	0	28	242
08:45	115	0	0	115	0	67	0	67	6	16	0	22	204
09:00	65	0	0	65	0	93	0	93	4	15	0	19	177
Hour	446	0	0	446	0	306	0	306	22	71	0	93	845
[BREAK]													
16:15	122	0	0	122	0	72	0	72	4	15	0	19	213
16:30	134	0	0	134	0	89	0	89	6	16	0	22	245
16:45	125	0	0	125	0	69	0	69	7	21	0	28	222
17:00	122	0	0	122	0	83	0	83	5	19	0	24	229
Hour	503	0	0	503	0	313	0	313	22	71	0	93	909
17:15	163	0	0	163	0	112	0	112	6	22	0	28	303
17:30	172	0	0	172	0	101	0	101	3	20	0	23	296
17:45	172	0	0	172	0	100	0	100	1	14	0	15	287
18:00	152	0	0	152	0	102	0	102	2	12	0	14	268
Hour	659	0	0	659	0	415	0	415	12	68	0	80	1154
Total	2039	0	0	2039	0	1308	0	1308	68	278	0	346	3693
% Apr.	100.0	-	-	-	-	100.0	-	-	19.6	80.3	-	-	-
% Int.	55.2	-	-	-	-	35.4	-	-	1.8	7.5	-	-	-

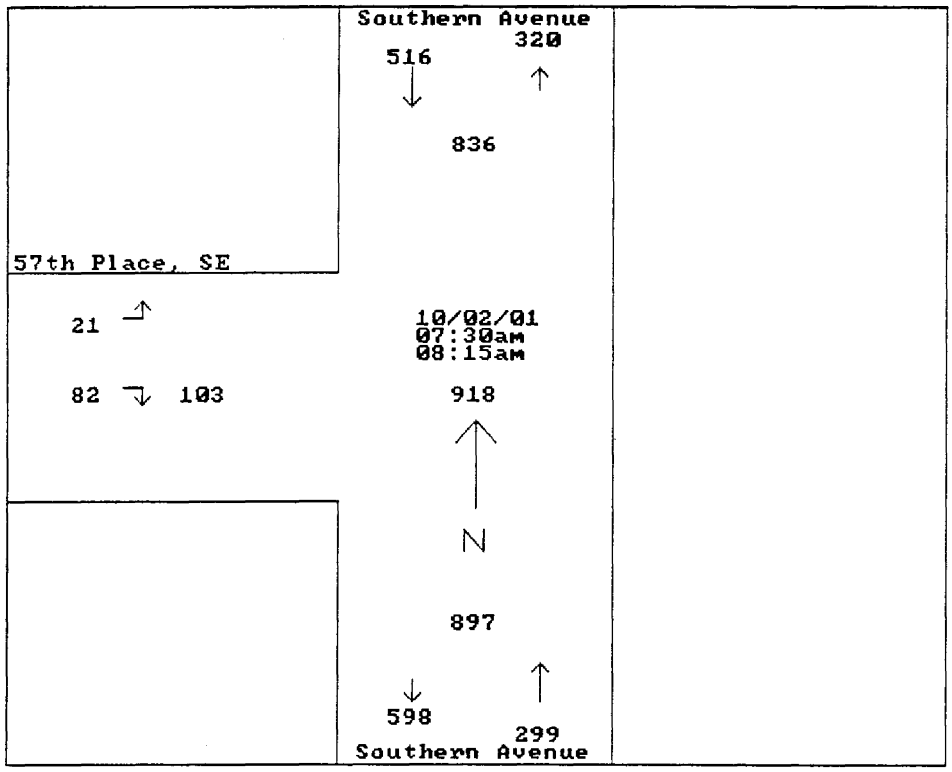
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
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Tel: (301)794-7700 Fax: (301)794-4400

Counted by : ORGA/KM
Board : D1-0904
City/County: Washington, DC
Weather : Warm/Clear/Sunny

Study Name: SAV@57PL
Site Code : 10180112
Start Date: 10/02/01

Total Traffic

End Time	Southern Avenue From North Thru	Rght	U-Turn	Apprch. Total	Southern Avenue From South Left	Thru	U-Turn	Apprch. Total	57th Place, SE From West Left	Rght	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01													
Time	07:30				07:30				07:30				
Vol.	516	0	0:30		0	299	0		21	82	0		
Pct.	100.0	0.0	0.0		0.0	100.0	0.0		20.3	79.6	0.0		
Total	516				299				103				
High	08:15				07:45				07:45				
Vol.	136	0	0		0	79	0		6	22	0		
Total	136				79				28				
PHF	0.948				0.946				0.919				



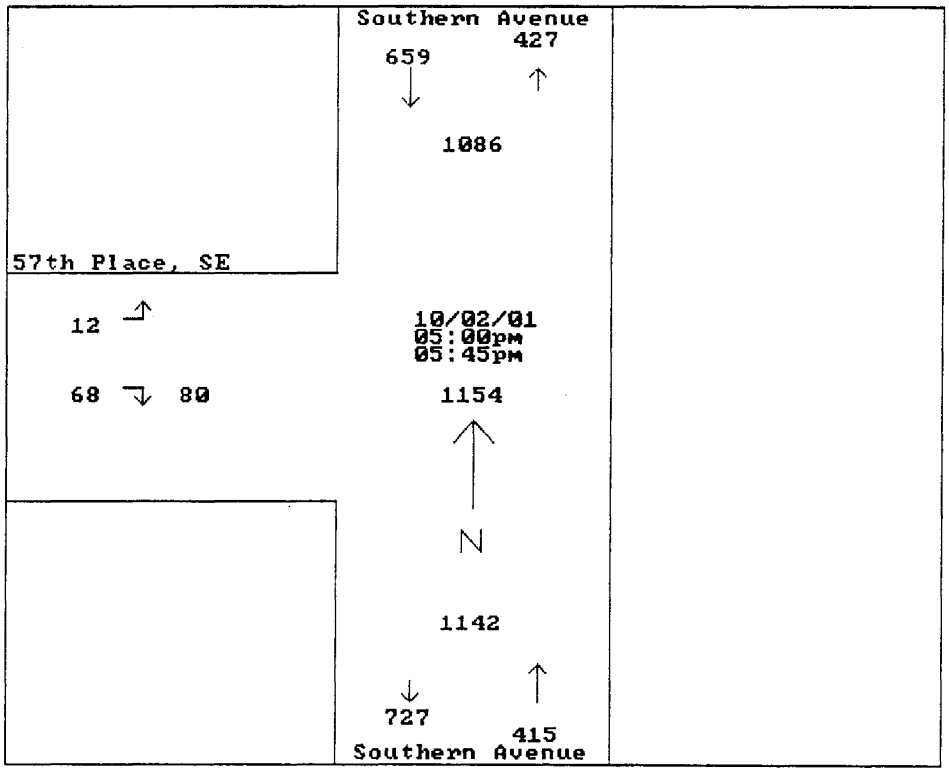
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10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by : ORGA/KM
Board : D1-0904
City/County: Washington, DC
Weather : Warm/Clear/Sunny

Study Name: SAV@57PL
Site Code : 10180112
Start Date: 10/02/01

Total Traffic

End Time	Southern Avenue From North Thru	Rght	U-Turn	Apprch. Total	Southern Avenue From South Left	Thru	U-Turn	Apprch. Total	57th Place, SE From West Left	Rght	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01													
Time	17:00				17:00				17:00				
Vol.	659	0	0:00		0	415	0		12	68	0		
Pct.	100.0	0.0	0.0		0.0	100.0	0.0		15.0	85.0	0.0		
Total	659				415				80				
High	17:15				17:00				17:00				
Vol.	172	0	0		0	112	0		6	22	0		
Total	172				112				28				
PHF	0.957				0.926				0.714				



O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: SAV@CAV
Site Code : 88888888
Start Date: 10/02/01

Total Traffic

	SOUTHERN AVE From North					CENTRAL AVE From East					SOUTHERN AVE From South					CENTRAL AVE From West					
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
10/02/01																					
07:15	18	64	6	0	88	9	36	4	0	49	11	44	15	0	70	4	19	9	0	32	239
07:30	23	87	7	0	117	11	41	6	0	58	15	58	18	0	91	5	25	12	0	42	308
07:45	28	100	9	0	137	14	48	5	0	67	14	64	25	0	103	5	36	12	0	53	360
08:00	32	112	11	0	155	10	39	5	0	54	12	68	20	0	100	6	28	10	0	44	353
Hour	101	363	33	0	497	44	164	20	0	228	52	234	78	0	364	20	108	43	0	171	1260
08:15	31	109	10	0	150	15	46	4	0	65	13	59	19	0	91	5	35	14	0	54	360
08:30	31	114	11	0	156	14	53	4	0	71	17	68	22	0	107	6	41	11	0	58	392
08:45	26	95	9	0	130	12	47	5	0	64	10	58	16	0	84	4	30	10	0	44	322
09:00	17	58	5	0	80	14	51	8	0	73	16	78	14	0	108	7	33	11	0	51	312
Hour	105	376	35	0	516	55	197	21	0	273	56	263	71	0	390	22	139	46	0	207	1386
[BREAK]																					
16:15	21	92	23	0	136	15	38	12	0	65	13	54	21	0	88	6	80	12	0	98	387
16:30	23	103	26	0	152	21	41	14	0	76	11	67	19	0	97	8	82	11	0	101	426
16:45	24	100	24	0	148	18	50	9	0	77	12	53	29	0	94	7	96	16	0	119	438
17:00	25	96	25	0	146	20	46	12	0	78	14	65	26	0	105	6	105	14	0	125	454
Hour	93	391	98	0	582	74	175	47	0	296	50	239	95	0	384	27	363	53	0	443	1705
17:15	26	124	31	0	181	19	53	18	0	90	13	84	33	0	130	10	103	15	0	128	529
17:30	29	130	33	0	192	22	49	19	0	90	16	74	26	0	116	8	94	17	0	119	517
17:45	26	127	30	0	183	19	52	17	0	88	14	75	32	0	121	8	102	14	0	124	516
18:00	23	112	28	0	163	24	47	18	0	89	12	75	25	0	112	9	99	14	0	122	486
Hour	104	493	122	0	719	84	201	72	0	357	55	308	116	0	479	35	398	60	0	493	2048
Total	403	1623	288	0	2314	257	737	160	0	1154	213	1044	360	0	1617	104	1008	202	0	1314	6399
% Apr.	17.4	70.1	12.4	-	-	22.2	63.8	13.8	-	-	13.1	64.5	22.2	-	-	7.9	76.7	15.3	-	-	-
% Int.	6.2	25.3	4.5	-	-	4.0	11.5	2.5	-	-	3.3	16.3	5.6	-	-	1.6	15.7	3.1	-	-	-

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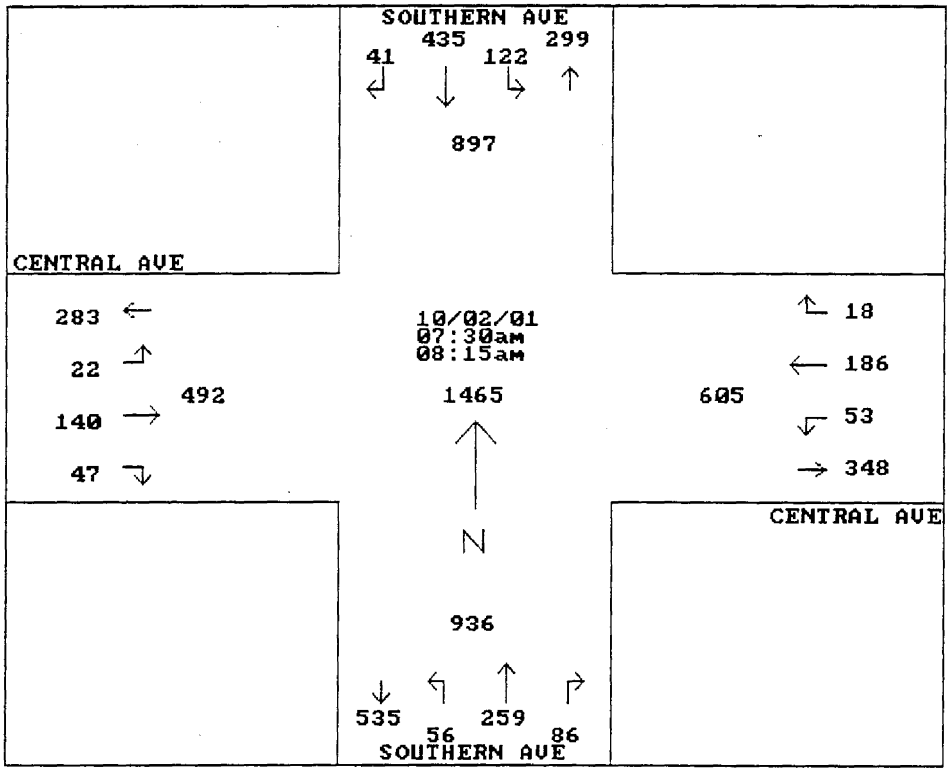
Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

10210 Greenbelt Road, Suite 310
Greenbelt, MD 20706
Tel: (301)794-7700 Fax: (301)794-4400

Study Name: SAV@CAV
Site Code : 88888888
Start Date: 10/02/01

Total Traffic

	SOUTHERN AVE From North					CENTRAL AVE From East					SOUTHERN AVE From South					CENTRAL AVE From West					
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01																					
Time	07:30					07:30					07:30					07:30					
Vol.	122	435	41	0		53	186	18	0		56	259	86	0		22	140	47	0		
Pct.	20.4	72.7	6.8	0.0		20.6	72.3	7.0	0.0		13.9	64.5	21.4	0.0		10.5	66.9	22.4	0.0		
Total	598					257					401					209					
High	08:15					08:15					08:15					08:15					
Vol.	31	114	11	0		14	53	4	0		17	68	22	0		6	41	11	0		
Total	156					71					107					58					
PHF	0.958					0.904					0.936					0.900					



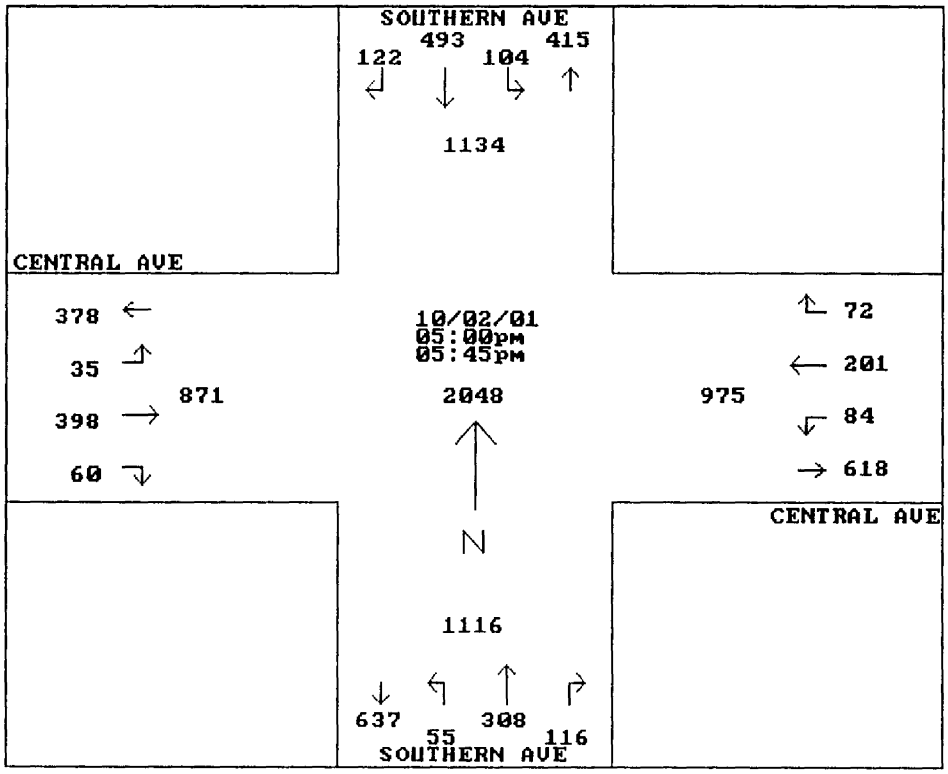
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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: SAV@CAV
Site Code : 88888888
Start Date: 10/02/01

Total Traffic

	SOUTHERN AVE From North					CENTRAL AVE From East					SOUTHERN AVE From South					CENTRAL AVE From West					
End Time	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Left	Thru	Right	U-Turn	Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01																					
Time	17:00					17:00					17:00					17:00					
Vol.	104	493	122	0		84	201	72	0		55	308	116	0		35	398	60	0		
Pct.	14.4	68.5	16.9	0.0		23.5	56.3	20.1	0.0		11.4	64.3	24.2	0.0		7.0	80.7	12.1	0.0		
Total	719					357					479					493					
High	17:15					17:00					17:00					17:00					
Vol.	29	130	33	0		19	53	18	0		13	84	33	0		10	103	15	0		
Total	192					90					130					128					
PHF	0.936					0.991					0.921					0.962					



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City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@CAV
Site Code : 99999999
Start Date: 10/02/01
Page : 1

Total Traffic

	56TH PL SE From North				CENTRAL AVE From East				CENTRAL AVE From West				
End Time	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Intrvl. Total
10/02/01													
07:15	8	3	0	11	28	26	0	54	5	23	0	28	93
07:30	5	3	0	8	33	30	0	63	4	34	0	38	109
07:45	9	2	0	11	38	33	0	71	10	42	0	52	134
08:00	7	4	0	11	38	34	0	72	9	44	0	53	136
Hour	29	12	0	41	137	123	0	260	28	143	0	171	472
08:15	8	3	0	11	36	33	0	69	7	45	0	52	132
08:30	7	5	0	12	37	33	0	70	7	53	0	60	142
08:45	6	4	0	10	35	32	0	67	6	37	0	43	120
09:00	4	4	0	8	33	30	0	63	8	39	0	47	118
Hour	25	16	0	41	141	128	0	269	28	174	0	202	512
{BREAK}													
16:15	1	3	0	4	57	17	0	74	1	96	0	97	175
16:30	1	4	0	5	60	18	0	78	0	100	0	100	183
16:45	4	6	0	10	72	22	0	94	1	115	0	116	220
17:00	3	5	0	8	60	25	0	85	2	123	0	125	218
Hour	9	18	0	27	249	82	0	331	4	434	0	438	796
17:15	4	5	0	9	68	29	0	97	4	118	0	122	228
17:30	6	8	0	14	69	30	0	99	2	114	0	116	229
17:45	5	7	0	12	74	22	0	96	2	120	0	122	230
18:00	4	6	0	10	61	26	0	87	3	123	0	126	223
Hour	19	26	0	45	272	107	0	379	11	475	0	486	910
Total	82	72	0	154	799	440	0	1239	71	1226	0	1297	2690
% Apr.	53.2	46.7	-	-	64.4	35.5	-	-	5.4	94.5	-	-	-
% Int.	3.0	2.6	-	-	29.7	16.3	-	-	2.6	45.5	-	-	-

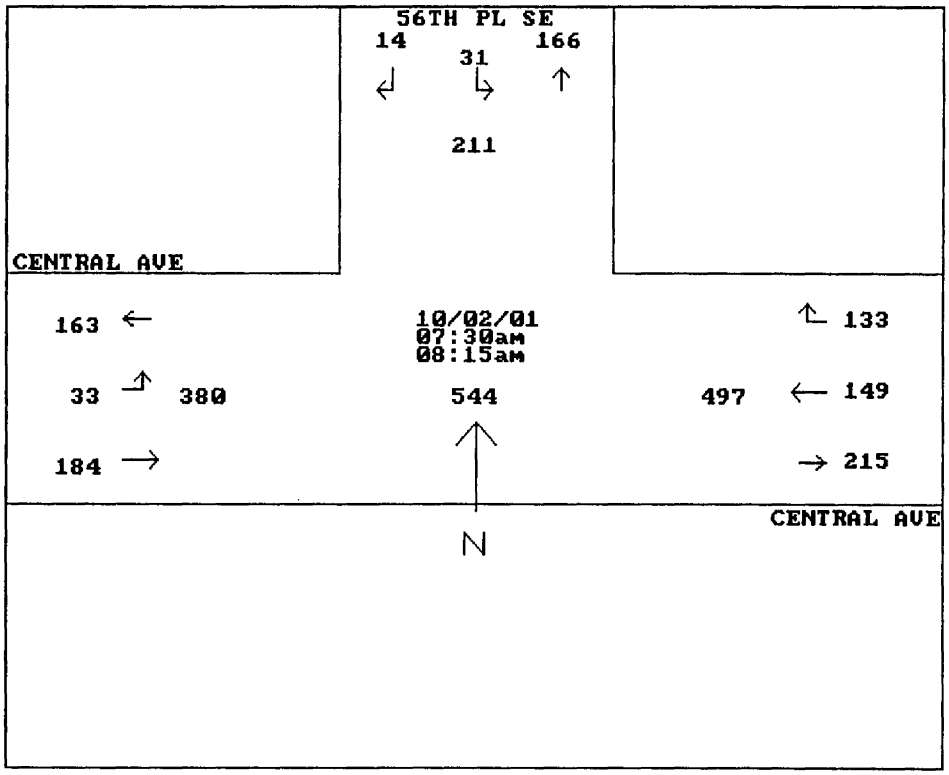
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Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@CAV
Site Code : 99999999
Start Date: 10/02/01

Total Traffic

End Time	56TH PL SE From North				CENTRAL AVE From East				CENTRAL AVE From West				Intrvl.
	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01													
Time	07:30				07:30				07:30				
Vol.	31	14	0:30		149	133	0		33	184	0		
Pct.	68.8	31.1	0.0		52.8	47.1	0.0		15.2	84.7	0.0		
Total	45				282				217				
High	08:15				07:45				08:15				
Vol.	7	5	0		38	34	0		7	53	0		
Total	12				72				60				
PHF	0.937				0.979				0.904				



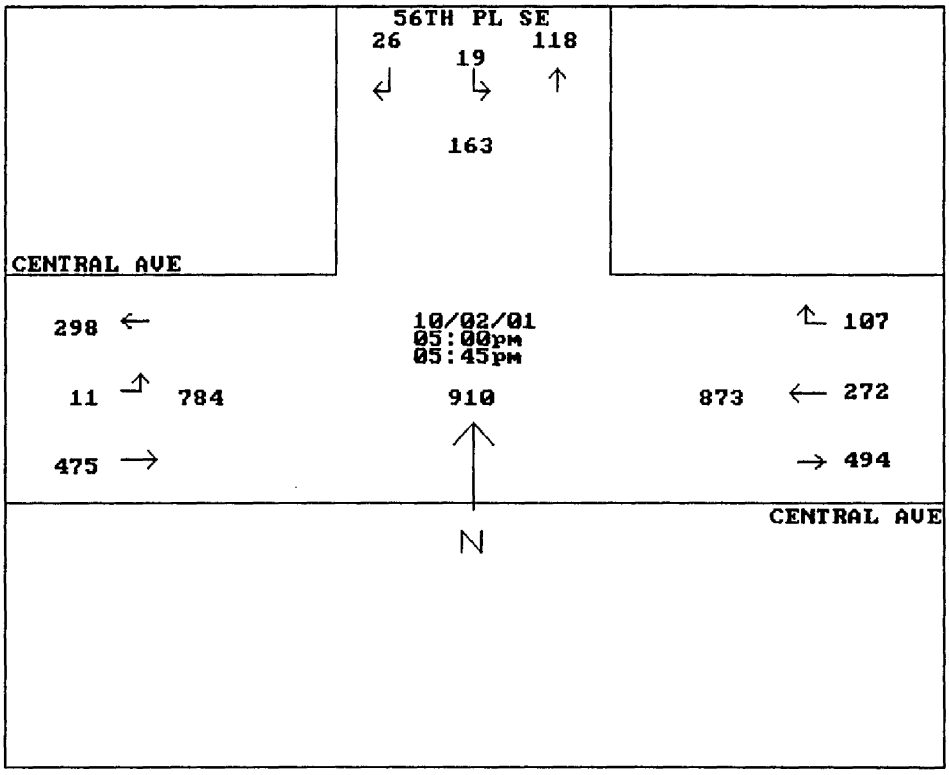
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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@CAV
Site Code : 99999999
Start Date: 10/02/01

Total Traffic

End Time	56TH PL SE From North				CENTRAL AVE From East				CENTRAL AVE From West				Intrvl.
	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Left	Thru	U-Turn	Apprch. Total	Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01													
Time	17:00				17:00				17:00				
Vol.	19	26	0:00		272	107	0		11	475	0		
Pct.	42.2	57.7	0.0		71.7	28.2	0.0		2.2	97.7	0.0		
Total	45				379				486				
High	17:15				17:15				17:45				
Vol.	6	8	0		69	30	0		3	123	0		
Total	14				99				126				
PHF	0.803				0.957				0.964				



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Counted by : ORGA/KM
Board : D1-0904
City/County: Washington, DC
Weather : Sunny/Clear/Warm

Study Name: 56PL@AST
Site Code : 10020113
Start Date: 10/02/01

Total Traffic

	56th Place, SE From North					A Street From East					56th Place, SE From South					A Street From West					
End Time	Left	Thru	RghtU-Turn		Aprch Total	Left	Thru	RghtU-Turn		Aprch Total	Left	Thru	RghtU-Turn		Aprch Total	Left	Thru	RghtU-Turn		Aprch Total	Intvl Total
10/02/01																					
07:15	2	2	0	0	4	1	0	1	0	2	0	4	9	0	13	1	2	1	0	4	23
07:30	5	4	0	0	9	2	0	0	0	2	0	6	8	0	14	0	4	0	0	4	29
07:45	4	4	0	0	8	3	0	2	0	5	0	7	13	0	20	2	8	0	0	10	43
08:00	3	2	0	0	5	4	0	2	0	6	0	11	19	0	30	3	7	0	0	10	51
Hour	14	12	0	0	26	10	0	5	0	15	0	28	49	0	77	6	21	1	0	28	146
08:15	6	5	0	0	11	3	0	1	0	4	0	13	17	0	30	2	9	1	0	12	57
08:30	4	4	0	0	8	5	0	2	0	7	0	11	18	0	29	1	10	0	0	11	55
08:45	3	1	0	0	4	2	0	0	0	2	0	5	11	0	16	1	6	0	0	7	29
09:00	5	5	0	0	10	2	0	1	0	3	0	4	9	0	13	1	5	1	0	7	33
Hour	18	15	0	0	33	12	0	4	0	16	0	33	55	0	88	5	30	2	0	37	174
[BREAK]																					
16:15	2	2	0	0	4	2	0	1	0	3	0	6	8	0	14	1	2	1	0	4	25
16:30	3	4	0	0	7	1	0	0	0	1	0	8	7	0	15	1	3	0	0	4	27
16:45	6	4	0	0	10	3	0	2	0	5	0	9	9	0	18	2	4	1	0	7	40
17:00	4	4	0	0	8	2	0	1	0	3	0	10	11	0	21	1	6	0	0	7	39
Hour	15	14	0	0	29	8	0	4	0	12	0	33	35	0	68	5	15	2	0	22	131
17:15	5	5	0	0	10	4	0	1	0	5	0	14	14	0	28	2	9	2	0	13	56
17:30	9	6	0	0	15	5	0	3	0	8	0	17	18	0	35	3	10	0	0	13	71
17:45	8	4	0	0	12	3	0	2	0	5	0	19	19	0	38	4	8	0	0	12	67
18:00	6	4	0	0	10	6	0	1	0	7	0	21	18	0	39	2	9	1	0	12	68
Hour	28	19	0	0	47	18	0	7	0	25	0	71	69	0	140	11	36	3	0	50	262
Total	75	60	0	0	135	48	0	20	0	68	0	165	208	0	373	27	102	8	0	137	713
% Apr.	55.5	44.4	-	-	-	70.5	-	29.4	-	-	-	44.2	55.7	-	-	19.7	74.4	5.8	-	-	-
% Int.	10.5	8.4	-	-	-	6.7	-	2.8	-	-	-	23.1	29.1	-	-	3.7	14.3	1.1	-	-	-

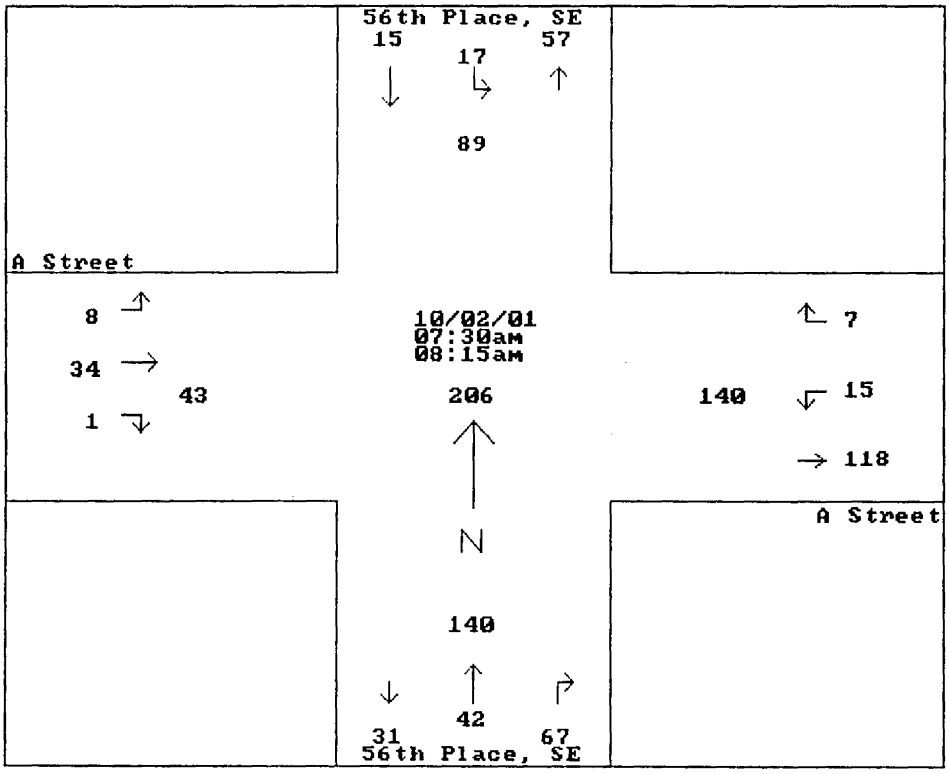
O.R.George & Associates, Inc
10210 Greenbelt Road, Suite 310
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Tel: (301)794-7700 Fax: (301)794-4400

Counted by : ORGA/KM
Board : D1-0904
City/County: Washington, DC
Weather : Sunny/Clear/Warm

Study Name: 56PL@AST
Site Code : 10020113
Start Date: 10/02/01

Total Traffic

	56th Place, SE From North				A Street From East				56th Place, SE From South				A Street From West				
End Time	Left	Thru	RghtU-Turn	Aprch Total	Left	Thru	RghtU-Turn	Aprch Total	Left	Thru	RghtU-Turn	Aprch Total	Left	Thru	RghtU-Turn	Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01																	
Time	07:30				07:30				07:30				07:30				
Vol.	17	15	0	0	15	0	7	0	0	42	67	0	8	34	1	0	
Pct.	53.1	46.8	0.0	0.0	68.1	0.0	31.8	0.0	0.0	38.5	61.4	0.0	18.6	79.0	2.3	0.0	
Total	32				22				109				43				
High	08:00				08:15				07:45				08:00				
Vol.	6	5	0	0	5	0	2	0	0	11	19	0	2	9	1	0	
Total	11				7				30				12				
PHF	0.727				0.785				0.908				0.895				



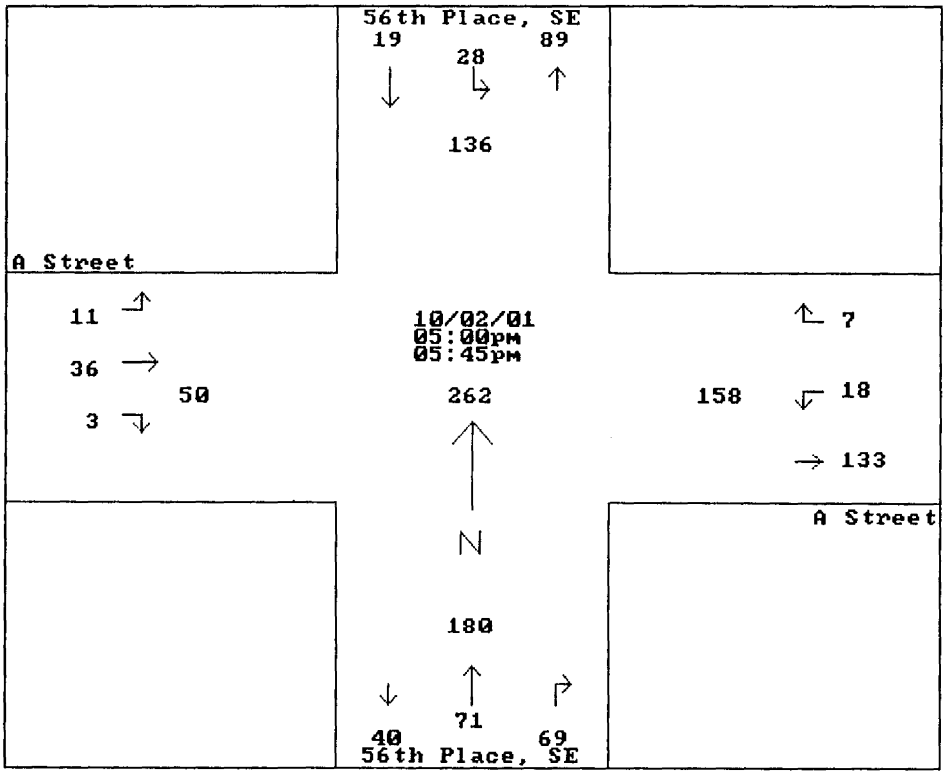
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Counted by : ORGA/KM
Board : D1-0904
City/County: Washington, DC
Weather : Sunny/Clear/Warm

Study Name: 56PL@AST
Site Code : 10020113
Start Date: 10/02/01

Total Traffic

	56th Place, SE From North					A Street From East					56th Place, SE From South					A Street From West				
End Time	Left	Thru	RghtU-Turn		Aprch Total	Left	Thru	RghtU-Turn		Aprch Total	Left	Thru	RghtU-Turn		Aprch Total	Left	Thru	RghtU-Turn		Aprch Total	Intvl Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01																				
Time	17:00					17:00					17:00					17:00				
Vol.	28	19	0	0		18	0	7	0		0	71	69	0		11	36	3	0	
Pct.	59.5	40.4	0.0	0.0		72.0	0.0	28.0	0.0		0.0	50.7	49.2	0.0		22.0	72.0	6.0	0.0	
Total	47					25					140					50				
High	17:15					17:15					17:45					17:15				
Vol.	9	6	0	0		5	0	3	0		0	21	18	0		3	10	0	0	
Total	15					8					39					13				
PHF	0.783					0.781					0.897					0.961				



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Counted by : KM
Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@ECS
Site Code : 55555555
Start Date: 10/02/01
Page : 1

Total Traffic

	E CAPITOL ST From East				56TH PL SE From South				E CAPITOL ST From West				
End Time	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Intrvl. Total
10/02/01													
07:15	0	453	0	453	0	5	0	5	72	2	0	74	532
07:30	0	454	0	454	0	9	0	9	82	4	0	86	549
07:45	0	489	0	489	0	13	0	13	86	7	0	93	595
08:00	0	501	0	501	0	17	0	17	92	5	0	97	615
Hour	0	1897	0	1897	0	44	0	44	332	18	0	350	2291
08:15	0	435	0	435	0	16	0	16	83	9	0	92	543
08:30	0	467	0	467	0	12	0	12	107	7	0	114	593
08:45	0	446	0	446	0	11	0	11	97	6	0	103	560
09:00	0	493	0	493	0	7	0	7	92	8	0	100	600
Hour	0	1841	0	1841	0	46	0	46	379	30	0	409	2296
[BREAK]													
16:15	0	152	0	152	0	14	0	14	275	4	0	279	445
16:30	0	139	0	139	0	17	0	17	320	5	0	325	481
16:45	0	161	0	161	0	21	0	21	299	8	0	307	489
17:00	0	143	0	143	0	19	0	19	321	7	0	328	490
Hour	0	595	0	595	0	71	0	71	1215	24	0	1239	1905
17:15	0	144	0	144	0	22	0	22	296	9	0	305	471
17:30	0	164	0	164	0	23	0	23	316	13	0	329	516
17:45	0	151	0	151	0	25	0	25	317	11	0	328	504
18:00	0	175	0	175	0	24	0	24	360	10	0	370	569
Hour	0	634	0	634	0	94	0	94	1289	43	0	1332	2060
Total	0	4967	0	4967	0	255	0	255	3215	115	0	3330	8552
% Apr.	-	100.0	-	-	-	100.0	-	-	96.5	3.4	-	-	-
% Int.	-	58.0	-	-	-	2.9	-	-	37.5	1.3	-	-	-

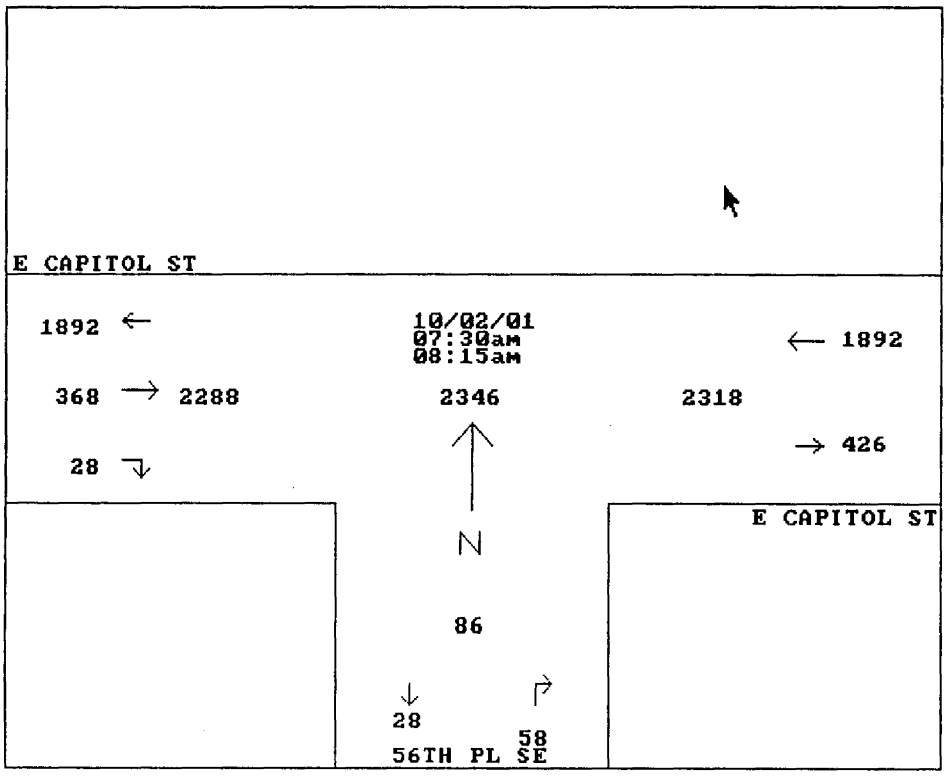
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Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@ECS
Site Code : 55555555
Start Date: 10/02/01

Total Traffic

	E CAPITOL ST From East				56TH PL SE From South				E CAPITOL ST From West				
End Time	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 07:00 on 10/02/01 to 08:45 on 10/02/01													
Time	07:30				07:30				07:30				
Vol.	0	1892	0:30		0	58	0		368	28	0		
Pct.	0.0	100.0	0.0		0.0	100.0	0.0		92.9	7.0	0.0		
Total	1892				58				396				
High	07:45				07:45				08:15				
Vol.	0	501	0		0	17	0		107	7	0		
Total	501				17				114				
PHF	0.944				0.852				0.868				



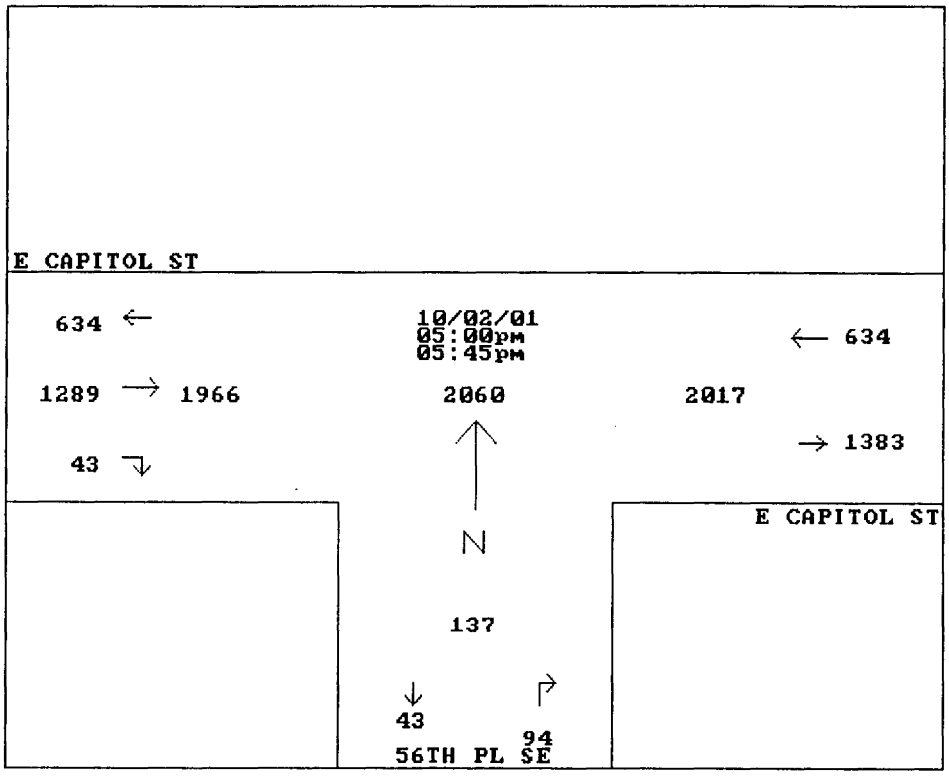
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Board : D1-0904
City/County: WASHINGTON, DC
Weather : CLEAR/SUNNY

Study Name: 56PL@ECS
Site Code : 55555555
Start Date: 10/02/01

Total Traffic

	E CAPITOL ST From East				56TH PL SE From South				E CAPITOL ST From West				
End Time	Left	Thru	U-Turn	Apprch. Total	Left	Right	U-Turn	Apprch. Total	Thru	Right	U-Turn	Apprch. Total	Intrvl. Total
Peak Hour Analysis By Entire Intersection for the Period: 16:00 on 10/02/01 to 17:45 on 10/02/01													
Time	17:00				17:00				17:00				
Vol.	0	634	0:00		0	94	0		1289	43	0		
Pct.	0.0	100.0	0.0		0.0	100.0	0.0		96.7	3.2	0.0		
Total	634				94				1332				
High	17:45				17:30				17:45				
Vol.	0	175	0		0	25	0		360	10	0		
Total	175				25				370				
PHF	0.905				0.940				0.900				



APPENDIX

C

CAPACITY ANALYSIS WORKSHEETS
EXISTING TRAFFIC CONDITIONS

CAPACITY ANALYSIS LEVEL OF SERVICE AND DELAY RANGES (In Sec.) FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

	Average Delay Per Vehicle (Sec.)	
LOS*	**Signalized**	**Unsignalized**
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

* LOS = Level of Service

Source: Highway Capacity Manual [2000 Edition].

HCS: Signalized Intersections Release 3.2

Inter: East Capitol St @ 56th PL
Analyst: ORGA/KM
Date: 10/5/2001 AM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM
N/S St: 56th PL

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	3	0	0	0	1	0	0	0
LGConfig		TR			T				R			
Volume		368	28		1892				58			
Lane Width		11.0			11.0				14.0			
RTOR Vol			25						30			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left					NB	Left				
	Thru	P					Thru				
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left					SB	Left				
	Thru	P					Thru				
	Right						Right				
	Peds						Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		60.0						11.0			
Yellow		4.0						3.0			
All Red		1.0						1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	3576	4768	0.12	0.750	2.8	A	2.8	A
Westbound								
T	3580	4773	0.56	0.750	4.9	A	4.9	A
Northbound								
							32.5	C
R	187	1357	0.18	0.138	32.5	C		
Southbound								

Intersection Delay = 4.9 (sec/veh) Intersection LOS = A

HCS: Signalized Intersections Release 3.2

Inter: East Capitol St @ 56th PL
Analyst: ORGA/KM
Date: 10/5/2001 PM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM
N/S St: 56th PL

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	3	0	0	0	1	0	0	0
LGConfig		TR			T				R			
Volume		1289	43		634				94			
Lane Width		11.0			11.0				14.0			
RTOR Vol			39						50			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru	P				Thru			
Right					Right			
Peds					Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	60.0				11.0			
Yellow	4.0				3.0			
All Red	1.0				1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	3578	4771	0.40	0.750	3.9	A	3.9	A
Westbound								
T	3580	4773	0.20	0.750	3.1	A	3.1	A
Northbound								
R	187	1357	0.25	0.138	34.0	C	34.0	C
Southbound								

Intersection Delay = 4.3 (sec/veh) Intersection LOS = A

TWO-WAY STOP CONTROL SUMMARY

Intersection:	East Capitol St @ 57th PL
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/8/2001 AM Peak Hour
East/West Street:	East Capitol Street
North/South Street:	
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		415			1878	10
Hourly Flow Rate, HFR		473			2002	10
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes		2			2	1
Configuration		T			T	R
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume						12
Hourly Flow Rate, HFR						16
Percent Heavy Vehicles						0
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								16
C(m) (vph)								495
v/c								0.03
95% queue length								0.00
Control Delay								12.5
LOS								B
Approach Delay							12.5	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Intersection:	East Capitol St @ 57th PL
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/8/2001 PM Peak Hour
East/West Street:	East Capitol Street
North/South Street:	
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		1379			630	17
Hourly Flow Rate, HFR		1544			693	18
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						No
Lanes		2			2	1
Configuration		T			T	R
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume						16
Hourly Flow Rate, HFR						19
Percent Heavy Vehicles						0
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config								R
v (vph)								19
C(m) (vph)								671
v/c								0.03
95% queue length								0.00
Control Delay								10.5
LOS								B
Approach Delay							10.5	
Approach LOS							B	

HCS: Signalized Intersections Release 3.2

Inter: E Capitol St @ 58th St
Analyst: ORGA/KM
Date: 10/5/2001 AM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM
N/S St: 58th Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	0	0	0	0	1	0
LGConfig	L	TR		L	TR						LTR	
Volume	26	362	22	7	1871	26				14	50	25
Lane Width	10.0	10.0		10.0	10.0						15.0	
RTOR Vol			11			13						13

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left	P			
Thru	P				Thru	P			
Right	P				Right	P			
Peds	X				Peds	X			
WB Left	P				SB Left	P			
Thru	P				Thru	P			
Right	P				Right	P			
Peds	X				Peds	X			
NB Right					EB Right				
SB Right					WB Right				
Green	40.0					30.0			
Yellow	4.0					4.0			
All Red	1.0					1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	90	177	0.32	0.500	21.1	C		
TR	2295	4589	0.18	0.500	11.2	B	11.8	B
Westbound								
L	441	881	0.02	0.500	10.1	B		
TR	2302	4604	0.87	0.500	22.4	C	22.4	C
Northbound								
Southbound								
LTR	603	1607	0.14	0.375	16.9	B	16.9	B

Intersection Delay = 20.3 (sec/veh) Intersection LOS = C

HCS: Signalized Intersections Release 3.2

Inter: E Capitol St @ 58th St
Analyst: ORGA/KM
Date: 10/5/2001 PM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM
N/S St: 58th Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	0	0	0	0	1	0
LGConfig	L	TR		L	TR						LTR	
Volume	37	1306	33	37	610	27				45	108	19
Lane Width	10.0	10.0		10.0	10.0						15.0	
RTOR Vol			16			13						10

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds	X				Peds X			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds	X				Peds X			
NB Right					EB Right			
SB Right					WB Right			
Green	45.0				25.0			
Yellow	4.0				4.0			
All Red	1.0				1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	377	671	0.11	0.563	8.7	A		
TR	2588	4600	0.57	0.563	12.2	B	12.1	B
Westbound								
L	128	228	0.31	0.563	15.6	B		
TR	2584	4593	0.26	0.563	9.2	A	9.6	A
Northbound								
Southbound								
LTR	503	1609	0.34	0.313	22.9	C	22.9	C

Intersection Delay = 12.1 (sec/veh) Intersection LOS = B

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection: E Capitol St @ 60th St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 10/9/2001 AM Peak Hour
East/West Street: East Capitol Street
North/South Street: 60th Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	20	366			1887	10
Hourly Flow Rate, HFR	21	386			1955	10
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?						No
Lanes	1	2		2	1	
Configuration		L	T		T	R
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume					22	
Hourly Flow Rate, HFR					28	
Percent Heavy Vehicles					0	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L						R	
v (vph)	21						28	
C(m) (vph)	322						427	
v/c	0.07						0.07	
95% queue length	0.08						0.09	
Control Delay	17.0						14.0	
LOS	C						B	
Approach Delay							14.0	
Approach LOS							B	

HCS: Unsignalized Intersections Release 3.2

Mr. Osborne R George
O R George & Associates

TWO-WAY STOP CONTROL SUMMARY

Intersection:	E Capitol St @ 60th St
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/9/2001 PM Peak Hour
East/West Street:	East Capitol Street
North/South Street:	
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	20	1333			643	24
Hourly Flow Rate, HFR	22	1486			671	25
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?						No
Lanes	1	2			2	1
Configuration	L	T			T	R
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume						38
Hourly Flow Rate, HFR						44
Percent Heavy Vehicles						0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L							R
v (vph)	22							44
C(m) (vph)	1271							848
v/c	0.02							0.05
95% queue length	0.00							0.01
Control Delay	7.9							9.5
LOS	A							A
Approach Delay							9.5	
Approach LOS							A	

TWO-WAY STOP CONTROL SUMMARY

Intersection:	E Capitol St @ 61st St
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/5/2001 AM Peak Hour
East/West Street:	East Capitol Street
North/South Street:	61st Street NE
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	13	337	37		1775	17
Hourly Flow Rate, HFR	13	354	38		1870	17
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes	1	2	1		2	1
Configuration	L	T	R		T	R
Upstream Signal?		No			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume						54
Hourly Flow Rate, HFR						64
Percent Heavy Vehicles						0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L							R
v (vph)	13							64
C(m) (vph)	415							732
v/c	0.03							0.09
95% queue length	0.00							0.22
Control Delay	14.0							10.4
LOS	B							B
Approach Delay							10.4	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Intersection:	E Capitol St @ 61st St
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/5/2001 PM Peak Hour
East/West Street:	East Capitol Street
North/South Street:	61st Street NE
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	15	1344	64		634	45
Hourly Flow Rate, HFR	16	1499	71		672	47
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes	1	2	1		2	1
Configuration	L	T	R		T	R
Upstream Signal?		No			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume						52
Hourly Flow Rate, HFR						60
Percent Heavy Vehicles						0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes					1	
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L							R
v (vph)	16							60
C(m) (vph)	1020							954
v/c	0.02							0.06
95% queue length	0.00							0.08
Control Delay	8.6							9.0
LOS	A							A
Approach Delay							9.0	
Approach LOS							A	

HCS: Signalized Intersections Release 3.2

Inter: E Capitol Street @ Southern Av City/St: Washington, DC
Analyst: ORGA/KM Proj #: A & R Development
Date: 10/2/2001 AM Peak Hour Period: 7:30 AM to 8:30 AM
E/W St: East Capitol Street N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	0	3	1	0	2	0	0	1	1
LGConfig	L	TR			LT	R		LTR			LT	R
Volume	61	237	37	25	1266	158	116	487	18	28	373	385
Lane Width	10.0	10.0			10.0	10.0		10.0			11.0	11.0
RTOR Vol			30			158			10			15

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P	P			NB Left	P			
Thru	P	P			Thru	P			
Right	P	P			Right	P			
Peds		X			Peds	X			
WB Left		P			SB Left	P			
Thru		P			Thru	P			
Right		P			Right	P			
Peds		X			Peds	X			
NB Right					EB Right				
SB Right					WB Right				
Green	8.0	30.0				30.0			
Yellow	2.0	4.0				4.0			
All Red	0.0	1.0				1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	216		0.30	0.500	16.4	B		
TR	2275	4550	0.11	0.500	10.7	B	11.8	B
Westbound								
LT	1688	4501	0.77	0.375	25.6	C	25.6	C
R	480	1281	0.00	0.375	15.6	B		
Northbound								
LTR	800	2132	0.85	0.375	34.0	C	34.0	C
Southbound								
LT	637	1699	0.67	0.375	26.3	C	26.5	C
R	585	1561	0.67	0.375	26.8	C		

Intersection Delay = 26.2 (sec/veh) Intersection LOS = C

HCS: Signalized Intersections Release 3.2

Inter: E Capitol Street @ Southern Av City/St: Washington, DC
Analyst: ORGA/KM Proj #: A & R Development
Date: 10/2/2001 PM Peak Hour Period: 5:00 PM to 6:00 PM
E/W St: East Capitol Street N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	0	3	1	0	2	0	0	1	1
LGConfig	L	TR		DefL		T	R		LTR			LT
Volume	156	1119	64	88	479	62	79	593	51	64	599	98
Lane Width	10.0	10.0		12.0	10.0	10.0		10.0			11.0	11.0
RTOR Vol			50			62			25			25

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left		P			NB	Left	P			
	Thru		P				Thru	P			
	Right		P				Right	P			
	Peds		X				Peds	X			
WB	Left		P			SB	Left	P			
	Thru		P				Thru	P			
	Right		P				Right	P			
	Peds		X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		6.0	25.0					39.0			
Yellow		0.0	4.0					4.0			
All Red		0.0	1.0					1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	277		0.63	0.388	31.8	C		
TR	1767	4560	0.72	0.387	23.4	C	24.4	C
Westbound								
DefL	95	304	0.99	0.313	116.9	F		
T	1053	3369	0.49	0.313	23.9	C	38.3	D
R	400	1281	0.00	0.313	18.9	B		
Northbound								
LTR	1013	2077	0.75	0.488	21.7	C	21.7	C
Southbound								
LT	768	1575	0.94	0.488	40.0	D	37.1	D
R	761	1561	0.10	0.488	11.3	B		

Intersection Delay = 29.0 (sec/veh) Intersection LOS = C

TWO-WAY STOP CONTROL SUMMARY

Intersection:	Southern Ave @ Davey St
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/2/2001 AM Peak Hour
East/West Street:	Davey Street
North/South Street:	Southern Avenue
Intersection Orientation: NS	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		325	18	126	310	
Hourly Flow Rate, HFR		360	19	145	358	
Percent Heavy Vehicles		--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1 0		0 1		
Configuration		TR		LT		
Upstream Signal?		No			Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	140		298			
Hourly Flow Rate, HFR	167		356			
Percent Heavy Vehicles	0		0			
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?						
Storage						
RT Channelized?			No			
Lanes	1		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 Config		LT	L		R			
v (vph)		145	167		356			
C(m) (vph)		1191	234		680			
v/c		0.12	0.71		0.52			
95% queue length		0.41	4.28		3.16			
Control Delay		8.4	51.3		16.0			
LOS		A	F		C			
Approach Delay				27.2				
Approach LOS				D				

TWO-WAY STOP CONTROL SUMMARY

Intersection:	Southern Ave @ Davey St
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/2/2001 PM Peak Hour
East/West Street:	Davey Street
North/South Street:	Southern Avenue
Intersection Orientation: NS	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		397	31	238	509	
Hourly Flow Rate, HFR		408	31	248	531	
Percent Heavy Vehicles		--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR	LT		
Upstream Signal?		No			Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	41		326			
Hourly Flow Rate, HFR	46		373			
Percent Heavy Vehicles	0		0			
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			
Lanes	1		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 Config		LT	L		R			
v (vph)		248	46		373			
C(m) (vph)		1132	92		634			
v/c		0.22	0.50		0.59			
95% queue length		0.93	1.80		3.86			
Control Delay		9.1	78.1		18.5			
LOS		A	F		C			
Approach Delay			25.0+					
Approach LOS			D					

TWO-WAY STOP CONTROL SUMMARY

Intersection:	Southern Ave @ 58th St
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/5/2001 AM Peak Hour
East/West Street:	58th Street
North/South Street:	Southern Avenue
Intersection Orientation: NS	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		319			453	
Hourly Flow Rate, HFR		339			479	
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		Yes			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				11		63
Hourly Flow Rate, HFR				15		88
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config							LR	
v (vph)							103	
C(m) (vph)							536	
v/c							0.19	
95% queue length							0.75	
Control Delay							13.3	
LOS							B	
Approach Delay							13.3	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Intersection:	Southern Ave @ 58th St
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/5/2001 PM Peak Hour
East/West Street:	58th Street
North/South Street:	Southern Avenue
Intersection Orientation: NS	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		422			539	
Hourly Flow Rate, HFR		467			583	
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		Yes			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				26		120
Hourly Flow Rate, HFR				32		147
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config							LR	
v (vph)							179	
C(m) (vph)							436	
v/c							0.41	
95% queue length							2.04	
Control Delay							18.9	
LOS							C	
Approach Delay							18.9	
Approach LOS							C	

TWO-WAY STOP CONTROL SUMMARY

Intersection:	57th Place @ Southern Avenue
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/05/2001 Morning Peak Hour
East/West Street:	57th Place
North/South Street:	Southern Avenue
Intersection Orientation: NS	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		299			516	
Hourly Flow Rate, HFR		316			544	
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				21		82
Hourly Flow Rate, HFR				22		89
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config							LR	
v (vph)							111	
C(m) (vph)							533	
v/c							0.21	
95% queue length							0.84	
Control Delay							13.5	
LOS							B	
Approach Delay							13.5	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Intersection:	57th Place @ Southern Avenue
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/05/2001 Evening Peak Hour
East/West Street:	57th Place
North/South Street:	Southern Avenue
Intersection Orientation: NS	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		415			659	
Hourly Flow Rate, HFR		448			688	
Percent Heavy Vehicles		--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				12		68
Hourly Flow Rate, HFR				16		95
Percent Heavy Vehicles				0		0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes				0		0
Configuration					LR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config							LR	
v (vph)							111	
C(m) (vph)							430	
v/c							0.26	
95% queue length							1.09	
Control Delay							16.3	
LOS							C	
Approach Delay							16.3	
Approach LOS							C	

HCS: Signalized Intersections Release 3.2

Inter: Southern Ave @ Central Ave
Analyst: ORGA/KM
Date: 10/8/2001 AM Peak Hour
E/W St: Central Avenue

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM
N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	22	140	47	53	186	18	56	259	86	122	435	41
Lane Width		13.0			13.0			15.0			12.0	
RTOR Vol			24			16			43			31

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4			5	6	7	8
EB Left	P				NB	Left	P			
Thru	P					Thru	P			
Right	P					Right	P			
Peds	X					Peds	X			
WB Left	P				SB	Left	P			
Thru	P					Thru	P			
Right	P					Right	P			
Peds	X					Peds	X			
NB Right					EB	Right				
SB Right					WB	Right				
Green	33.0						41.0			
Yellow	2.0						2.0			
All Red	1.0						1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	682	1653	0.30	0.412	16.9	B	16.9	B
Westbound								
LTR	574	1392	0.47	0.412	19.8	B	19.8	B
Northbound								
LTR	824	1608	0.46	0.512	14.3	B	14.3	B
Southbound								
LTR	644	1256	0.92	0.512	37.9	D	37.9	D

Intersection Delay = 25.3 (sec/veh) Intersection LOS = C

HCS: Signalized Intersections Release 3.2

Inter: Southern Ave @ Central Ave
Analyst: ORGA/KM
Date: 10/8/2001 PM Peak Hour
E/W St: Central Avenue

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM
N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	35	398	60	84	201	72	55	308	116	104	493	122
Lane Width		13.0			13.0			15.0			12.0	
RTOR Vol			30			38			58			91

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		33.0						41.0			
Yellow		2.0						2.0			
All Red		1.0						1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	693	1680	0.69	0.412	25.0	C	25.0	C
Westbound								
LTR	477	1157	0.68	0.412	26.6	C	26.6	C
Northbound								
LTR	829	1617	0.55	0.512	15.9	B	15.9	B
Southbound								
LTR	654	1276	1.02	0.512	60.2	E	60.2	E

Intersection Delay = 35.3 (sec/veh) Intersection LOS = D

TWO-WAY STOP CONTROL SUMMARY

Intersection:	Central Avenue @ 56th Pl
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/8/2001 AM Peak Period
East/West Street:	Central Avenue
North/South Street:	56th PL
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	33	184			149	133
Hourly Flow Rate, HFR	36	203			152	135
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1			1	0
Configuration		LT				TR
Upstream Signal?		No			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				31	0	14
Hourly Flow Rate, HFR				33	0	14
Percent Heavy Vehicles				0	0	0
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes				0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LTR	
v (vph)	36						47	
C(m) (vph)	1287						588	
v/c	0.03						0.08	
95% queue length	0.00						0.17	
Control Delay	7.9						11.7	
LOS	A						B	
Approach Delay							11.7	
Approach LOS							B	

TWO-WAY STOP CONTROL SUMMARY

Intersection:	Central Avenue @ 56th Pl
Analyst:	ORGA/KM
Project No.:	A & R Development
Date:	10/8/2001 PM Peak Period
East/West Street:	Central Avenue
North/South Street:	56th PL
Intersection Orientation: EW	Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	11	475			272	107
Hourly Flow Rate, HFR	11	492			284	111
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1			1	0
Configuration		LT				TR
Upstream Signal?		No			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume				19	0	26
Hourly Flow Rate, HFR				23	0	32
Percent Heavy Vehicles				0	0	0
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes				0	1	0
Configuration					LTR	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT						LTR	
v (vph)	11						55	
C(m) (vph)	1175						478	
v/c	0.01						0.12	
95% queue length	0.00						0.35	
Control Delay	8.1						13.5	
LOS	A						B	
Approach Delay							13.5	
Approach LOS							B	

% Thrus Left Lane

HCS: Unsignalized Intersections Release 3.2

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

City/State:	Washington, DC
City/State:	Washington, DC
Project No.:	A & R Development
Project No.:	A & R Development
Time period Analyzed:	7:30 AM to 8:30 AM
East/West Street:	A Street
North/South Street:	56th Place, SE
North/South Street:	56th Place, SE

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R
% Thrus Left Lane												
% Thrus Left Lane												

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
PHF	0.89		0.79		0.91		0.73	
Flow Rate	46		27		119		43	
% Heavy Veh	0		0		0		0	
% Heavy Veh	0		0		0		0	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound L1	Eastbound L2	Westbound L1	Westbound L2	Northbound L1	Northbound L2	Southbound L1	Southbound L2
Total in Lane	46		27		119		43	
Left-Turn	8		19		0		23	
Right-Turn	1		8		73		0	
Prop. Left-Turns	0.2		0.7		0.0		0.5	
Prop. Right-Turns	0.0		0.3		0.6		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Geometry Group	1		1		1		1	
Adjustments Table 10-40:								
hLT-adj	0.2		0.2		0.2		0.2	

hRT-adj	-0.6	-0.6	-0.6	-0.6
hadj, computed	0.0	-0.0	-0.4	0.1
hadj, computed	0.0	-0.0	-0.4	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound	Westbound	Northbound	Southbound
Flow rate	46	27	119	43
Flow rate	46	27	119	43
x, initial	0.04	0.02	0.11	0.04
hd, final value	4.27	4.23	3.73	4.27
x, final value	0.05	0.03	0.12	0.05
x, final value	0.05	0.03	0.12	0.05
Service Time	2.3	2.2	1.7	2.3
Service Time	2.3	2.2	1.7	2.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	46		27		119		43	
Service Time	2.3		2.2		1.7		2.3	
Utilization, x	0.05		0.03		0.12		0.05	
Dep. headway, hd	4.27		4.23		3.73		4.27	
Capacity	296		277		369		293	
Delay	7.51		7.37		7.26		7.50	
LOS	A		A		A		A	
LOS	A		A		A		A	
Approach:								
Delay	7.51		7.37		7.26		7.50	
LOS	A		A		A		A	
Intersection Delay 7.36			Intersection LOS A					

% Thrus Left Lane

HCS: Unsignalized Intersections Release 3.2

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

City/State:	Washington, DC
City/State:	Washington, DC
Project No.:	A & R Development
Project No.:	A & R Development
Time period Analyzed:	5:00 PM to 6:00 PM
East/West Street:	A Street
North/South Street:	56th Place, SE
North/South Street:	56th Place, SE

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
% Thrus Left Lane												
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
PHF	0.96		0.78		0.90		0.78	
Flow Rate	51		31		154		59	
% Heavy Veh	0		0		0		0	
% Heavy Veh	0		0		0		0	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Total in Lane	51		31		154		59	
Left-Turn	11		23		0		35	
Right-Turn	3		8		76		0	
Prop. Left-Turns	0.2		0.7		0.0		0.6	
Prop. Right-Turns	0.1		0.3		0.5		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Geometry Group	1		1		1		1	
Adjustments Table 10-40:								
hLT-adj	0.2		0.2		0.2		0.2	

hRT-adj	-0.6	-0.6	-0.6	-0.6
hadj, computed	0.0	-0.0	-0.3	0.1
hadj, computed	0.0	-0.0	-0.3	0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound	Westbound	Northbound	Southbound
Flow rate	51	31	154	59
Flow rate	51	31	154	59
x, initial	0.05	0.03	0.14	0.05
hd, final value	4.37	4.37	3.84	4.34
x, final value	0.06	0.04	0.16	0.07
x, final value	0.06	0.04	0.16	0.07
Service Time	2.4	2.4	1.8	2.3
Service Time	2.4	2.4	1.8	2.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	51		31		154		59	
Service Time	2.4		2.4		1.8		2.3	
Utilization, x	0.06		0.04		0.16		0.07	
Dep. headway, hd	4.37		4.37		3.84		4.34	
Capacity	301		281		404		309	
Delay	7.66		7.55		7.60		7.67	
LOS	A		A		A		A	
LOS	A		A		A		A	
Approach:								
Delay	7.66		7.55		7.60		7.67	
LOS	A		A		A		A	
Intersection Delay	7.62		Intersection LOS		A			

APPENDIX

D

ACCIDENT DATA RECORDS

DCDPW: Accident Summary Report (R-4

Date: 10/23/01
Prepared By: ya

Location: Quadrant:

SOUTHERN AVE And **CENTRAL AVE** **OTH**

Summary for the time period of: **1/1/97** To: **12/31/99**

Total Number of Accident **27**

Total Number of Injuries **13**

Contributing Factors:

Driver:		Vehicle:		Roadway:		Unknown:	
15	55.56%	0	0.00%	2	7.41%	7	25.93%

Collision Types:

Right Angle	Left Turn:	Right Turn:	Rear End:	Side Swiped:	Head On:	Parked
5	4	0	8	6	0	2

Fixed Object	Ran Off Road:	Pedestrian:	Backing	Non Collision:	Other:
0	1	0	0	0	2

Accident Times:

Time	Number	Percent
07:30-09:30	2	7.41%
09:30-11:30	4	14.81%
11:30-13:30	1	3.70%
13:30-16:00	1	3.70%
16:00-18:30	4	14.81%
18:30-07:30	15	55.56%
Weekday:	15	55.56%
Weekend:	12	44.44%

DCDPW: Accident Summary Report (R-4

Date: 10/23/01
Prepared By: ya

Location: Quadrant:

SOUTHERN AVE And **58TH ST** **OTH**

Summary for the time period of: **1/1/97** To: **12/31/99**

Total Number of Accident **8**

Total Number of Injuries **3**

Contributing Factors:

Driver:		Vehicle:		Roadway:		Unknown:	
8	100.00%	0	0.00%	0	0.00%	0	0.00%

Collision Types:

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

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

Accident Times:

Time	Number	Percent
07:30-09:30	0	0.00%
09:30-11:30	0	0.00%
11:30-13:30	0	0.00%
13:30-16:00	0	0.00%
16:00-18:30	0	0.00%
18:30-07:30	8	100.00%
Weekday:	7	87.50%
Weekend:	1	12.50%

DCDPW: Accident Summary Report (R-4

Date: 10/23/01
Prepared By: ya

Location: Quadrant:

EAST CAPITOL ST And **56TH PL** **OTH**

Summary for the time period of: **1/1/97** To: **12/31/99**

Total Number of Accident 3

Total Number of Injuries 4

Contributing Factors:

Driver:		Vehicle:		Roadway:		Unknown:	
2	66.67%	0	0.00%	0	0.00%	1	33.33%

Collision Types:

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

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

Accident Times:

Time	Number	Percent
07:30-09:30	1	33.33%
09:30-11:30	1	33.33%
11:30-13:30	0	0.00%
13:30-16:00	0	0.00%
16:00-18:30	0	0.00%
18:30-07:30	1	33.33%
Weekday:	2	66.67%
Weekend:	1	33.33%

DCDPW: Accident Summary Report (R-4

Date: 10/23/01
Prepared By:
ya

Location: Quadrant:

EAST CAPITOL ST And 58TH ST OTH

Summary for the time period of: 1/1/97 To: 12/31/99

Total Number of Accident 26

Total Number of Injuries 17

Contributing Factors:

Driver:		Vehicle:		Roadway:		Unknown:	
16	61.54%	0	0.00%	2	7.69%	8	30.77%

Collision Types:

Right Angle	Left Turn:	Right Turn:	Rear End:	Side Swiped:	Head On:	Parked
3	2	0	8	3	2	3

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

Accident Times:

Time	Number	Percent
07:30-09:30	4	15.38%
09:30-11:30	1	3.85%
11:30-13:30	2	7.69%
13:30-16:00	3	11.54%
16:00-18:30	7	26.92%
18:30-07:30	9	34.62%
Weekday:	18	69.23%
Weekend:	8	30.77%

DCDPW: Accident Summary Report (R-4

Date: 10/23/01
Prepared By: ya

Location: EAST CAPITOL ST And 60TH ST

Quadrant: OTH

Summary for the time period of: 1/1/97 To: 12/31/99

Total Number of Accident: 4

Total Number of Injuries: 0

Contributing Factors:

Driver:		Vehicle:		Roadway:		Unknown:	
2	50.00%	0	0.00%	0	0.00%	2	50.00%

Collision Types:

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

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

Accident Times:

Time	Number	Percent
07:30-09:30	0	0.00%
09:30-11:30	2	50.00%
11:30-13:30	1	25.00%
13:30-16:00	0	0.00%
16:00-18:30	0	0.00%
18:30-07:30	1	25.00%
Weekday:	3	75.00%
Weekend:	1	25.00%

DCDPW: Accident Summary Report (R-4

Date: 10/23/01
Prepared By:
ya

Location: Quadrant:

EAST CAPITOL ST And **61ST ST** **OTH**

Summary for the time period of: **1/1/97** To: **12/31/99**

Total Number of Accident **2**

Total Number of Injuries **0**

Contributing Factors:

Driver:	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
1	0	0	1	0	0	0

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

Accident Times:

Time	Number	Percent
07:30-09:30	1	50.00%
09:30-11:30	0	0.00%
11:30-13:30	0	0.00%
13:30-16:00	0	0.00%
16:00-18:30	0	0.00%
18:30-07:30	1	50.00%
Weekday:	2	100.00%
Weekend:	0	0.00%

DCDPW: Accident Summary Report (R-4

Date: 10/23/01
Prepared By:
ya

Location: Quadrant:

EAST CAPITOL ST And SOUTHERN AVE OTH

Summary for the time period of: 1/1/97 To: 12/31/99

Total Number of Accident 37

Total Number of Injuries 34

Contributing Factors:

Driver:		Vehicle:		Roadway:		Unknown:	
15	40.54%	2	5.41%	2	5.41%	15	40.54%

Collision Types:

Right Angle	Left Turn:	Right Turn:	Rear End:	Side Swiped:	Head On:	Parked
12	9	0	10	3	1	1

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

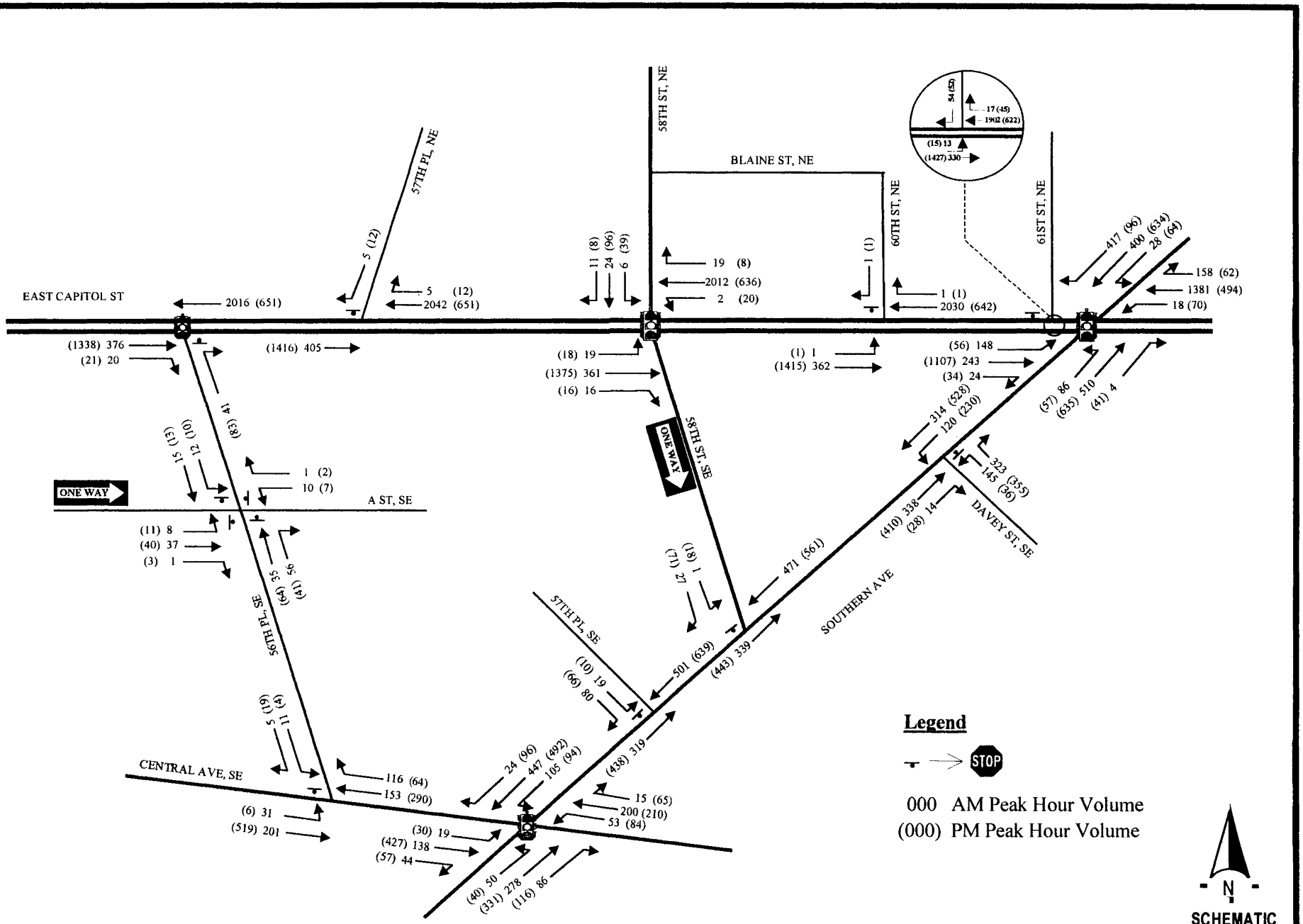
Accident Times:

Time	Number	Percent
07:30-09:30	1	2.70%
09:30-11:30	3	8.11%
11:30-13:30	4	10.81%
13:30-16:00	5	13.51%
16:00-18:30	7	18.92%
18:30-07:30	17	45.95%
Weekday:	24	64.86%
Weekend:	13	35.14%

APPENDIX

E

YEAR 2006 BASE TRAFFIC SITUATION



O. R. GEORGE &ASSOCIATES, INC.

Traffic Engineers - Transportation Planners

EXHIBIT E1:

YEAR 2006 BACKGROUND TRAFFIC SITUATION

East Capitol Dwellings Development, Washington, DC

E-1

APPENDIX

F

CAPACITY ANALYSIS WORKSHEETS - PROJECTED
YEAR 2006 TOTAL TRAFFIC SITUATION

HCS: Signalized Intersections Release 3.2

Inter: East Capitol St @ 56th PL
Analyst: ORGA/KM
Date: 27/3/2002 AM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM Future
N/S St: 56th PL, SE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	3	0	0	0	1	0	0	0
LGConfig		TR			T				R			
Volume		428	43		2085				72			
Lane Width		11.0			11.0				14.0			
RTOR Vol			63						20			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru		P			Thru			
Right		P			Right	P		
Peds		X			Peds	X		
WB Left					SB Left			
Thru		P			Thru			
Right					Right			
Peds					Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green		60.0				11.0		
Yellow		4.0				3.0		
All Red		1.0				1.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	3580	4773	0.14	0.750	2.9	A	2.9	A
Westbound								
T	3580	4773	0.62	0.750	5.5	A	5.5	A
Northbound								
R	187	1357	0.33	0.138	35.7	D	35.7	D
Southbound								

Intersection Delay = 5.7 (sec/veh) Intersection LOS = A

HCS: Signalized Intersections Release 3.2

Inter: East Capitol St @ 56th PL
Analyst: ORGA/KM
Date: 27/3/2002 PM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM Future
N/S St: 56th PL, SE

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	3	0	0	3	0	0	0	1	0	0	0
LGConfig		TR			T				R			
Volume		1438	44		749				127			
Lane Width		11.0			11.0				14.0			
RTOR Vol			66						40			

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left					NB Left			
Thru	P				Thru			
Right	P				Right	P		
Peds	X				Peds	X		
WB Left					SB Left			
Thru	P				Thru			
Right					Right			
Peds					Peds	X		
NB Right					EB Right			
SB Right					WB Right			
Green	60.0					11.0		
Yellow	4.0					3.0		
All Red	1.0					1.0		

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
TR	3580	4773	0.45	0.750	4.2	A	4.2	A
Westbound								
T	3580	4773	0.23	0.750	3.2	A	3.2	A
Northbound								
R	187	1357	0.50	0.138	41.1	D	41.1	D
Southbound								

Intersection Delay = 5.2 (sec/veh) Intersection LOS = A

HCS: Signalized Intersections Release 3.2

Inter: East Capitol St@57th PL
Analyst: ORGA/KM
Date: 27/3/02 AM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM Future
N/S St: 57th Place

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	1	1	0	0	1	0
LGConfig	L	TR		L	TR		L	TR			LTR	
Volume	5	479	4	11	2078	1	31	1	20	2	2	7
Lane Width	11.0	11.0		12.0	11.0		12.0	12.0			12.0	
RTOR Vol			2			1			10			3

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P				NB Left	P			
Thru	P				Thru	P			
Right	P				Right	P			
Peds	X				Peds	X			
WB Left	P				SB Left	P			
Thru	P				Thru	P			
Right	P				Right	P			
Peds	X				Peds	X			
NB Right					EB Right				
SB Right					WB Right				
Green	58.0					12.0			
Yellow	4.0					4.0			
All Red	1.0					1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	90	111	0.07	0.725	4.6	A		
TR	3609	4978	0.15	0.725	3.5	A	3.5	A
Westbound								
L	534	737	0.02	0.725	3.2	A		
TR	3611	4981	0.64	0.725	6.5	A	6.5	A
Northbound								
L	215	1430	0.16	0.150	31.2	C		
TR	246	1639	0.05	0.150	29.5	C	30.7	C
Southbound								
LTR	227	1510	0.04	0.150	29.3	C	29.3	C

Intersection Delay = 6.4 (sec/veh) Intersection LOS = A

HCS: Signalized Intersections Release 3.2

Inter: East Capitol St@57th PL
Analyst: ORGA/KM
Date: 27/3/02 PM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM Future
N/S St: 57th Place

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	1	1	0	0	1	0
LGConfig	L	TR		L	TR		L	TR			LTR	
Volume	10	1539	11	37	720	2	27	1	21	1	2	14
Lane Width	11.0	11.0		12.0	11.0		12.0	12.0			12.0	
RTOR Vol			0			7			25			7

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		58.0						12.0			
Yellow		4.0						4.0			
All Red		1.0						1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	393	542	0.03	0.725	3.2	A		
TR	3607	4975	0.48	0.725	5.1	A	5.1	A
Westbound								
L	136	187	0.30	0.725	9.5	A		
TR	3611	4981	0.22	0.725	3.7	A	4.0	A
Northbound								
L	214	1426	0.14	0.150	30.9	C		
TR	285	1900	0.00	0.150	28.9	C	30.8	C
Southbound								
LTR	225	1500	0.05	0.150	29.5	C	29.5	C

Intersection Delay = 5.1 (sec/veh) Intersection LOS = A

HCS: Signalized Intersections Release 3.2

Inter: E Capitol St @ 58th St
Analyst: ORGA/KM
Date: 27/3/2002 AM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM Future
N/S St: 58th Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	0	0	0	0	1	0
LGConfig	L	TR		L	TR						LTR	
Volume	62	420	18	12	2052	26				20	34	24
Lane Width	10.0	10.0		10.0	10.0						15.0	
RTOR Vol			12			20						16

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		40.0						30.0			
Yellow		4.0						4.0			
All Red		1.0						1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	90	177	0.78	0.500	63.8	E		
TR	2299	4598	0.21	0.500	11.4	B	18.0	B
Westbound								
L	415	829	0.03	0.500	10.3	B		
TR	2304	4607	0.95	0.500	28.9	C	28.8	C
Northbound								
Southbound								
LTR	592	1579	0.11	0.375	16.7	B	16.7	B

Intersection Delay = 26.4 (sec/veh) Intersection LOS = C

HCS: Signalized Intersections Release 3.2

Inter: E Capitol St @ 58th St
Analyst: ORGA/KM
Date: 27/3/2002 PM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM Future
N/S St: 58th Street

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	1	3	0	0	0	0	0	1	0
LGConfig	L	TR		L	TR						LTR	
Volume	59	1484	21	48	716	14				49	104	34
Lane Width	10.0	10.0		10.0	10.0						15.0	
RTOR Vol			11			35						30

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		45.0						25.0			
Yellow		4.0						4.0			
All Red		1.0						1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	333	592	0.20	0.563	9.9	A		
TR	2590	4604	0.65	0.563	13.3	B	13.1	B
Westbound								
L	96	170	0.54	0.563	31.2	C		
TR	2593	4609	0.30	0.563	9.5	A	10.9	B
Northbound								
Southbound								
LTR	503	1608	0.33	0.313	22.8	C	22.8	C

Intersection Delay = 13.0 (sec/veh) Intersection LOS = B

HCS: Signalized Intersections Release 3.2

Inter: E Capitol St@Shopping Center
Analyst: ORGA/KM
Date: 27/3/02 AM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM Future
N/S St: Shopping Center Entrance

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	0	3	0	0	0	0	0	0	0
LGConfig	L	T			TR						LR	
Volume	62	378			2067	29				25		7
Lane Width	11.0	11.0			11.0						12.0	
RTOR Vol						10						6

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P	P			NB	Left				
	Thru	P	P				Thru				
	Right	P	P				Right				
	Peds						Peds	X			
WB	Left					SB	Left	P			
	Thru		P				Thru				
	Right		P				Right	P			
	Peds						Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		7.0	50.0					14.0			
Yellow		2.0	2.0					2.0			
All Red		1.0	1.0					1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	267		0.26	0.750	10.8	B		
T	3580	4773	0.12	0.750	2.8	A	3.9	A
Westbound								
TR	2979	4767	0.78	0.625	13.0	B	13.0	B
Northbound								
Southbound								
LR	229	1309	0.13	0.175	29.0	C	29.0	C

Intersection Delay = 11.6 (sec/veh) Intersection LOS = B

HCS: Signalized Intersections Release 3.2

Inter: E Capitol St@Shopping Center
Analyst: ORGA/KM
Date: 27/3/02 PM Peak Hour
E/W St: East Capitol Street

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM Future
N/S St: Shopping Center Entrance

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	0	3	0	0	0	0	0	0	0
LGConfig	L	T			TR						LR	
Volume	142	1391			669	76				115		64
Lane Width	11.0	11.0			11.0						12.0	
RTOR Vol						28						22

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P	P			NB	Left				
	Thru	P	P				Thru				
	Right	P	P				Right				
	Peds						Peds	X			
WB	Left					SB	Left	P			
	Thru		P				Thru				
	Right		P				Right	P			
	Peds						Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		7.0	50.0					14.0			
Yellow		2.0	2.0					2.0			
All Red		1.0	1.0					1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	534		0.30	0.750	4.4	A		
T	3580	4773	0.43	0.750	4.1	A	4.1	A
Westbound								
TR	2953	4725	0.27	0.625	7.0	A	7.0	A
Northbound								
Southbound								
LR	230	1315	0.76	0.175	52.3	D	52.3	D

Intersection Delay = 8.1 (sec/veh) Intersection LOS = A

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection: E Capitol St @ 60th St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 AM Peak Hour Future
East/West Street: East Capitol Street
North/South Street: 60th Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	20	418			2090	8
Hourly Flow Rate, HFR	21	441			2165	8
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?						No
Lanes	1	2		2	1	
Configuration		L	T		T	R
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume					15	
Hourly Flow Rate, HFR					19	
Percent Heavy Vehicles					0	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L						R	
v (vph)	21						19	
C(m) (vph)	261						409	
v/c	0.08						0.05	
95% queue length	0.16						0.00	
Control Delay	20.0						14.2	
LOS	C						B	
Approach Delay							14.2	
Approach LOS							B	

HCS: Unsignalized Intersections Release 3.2

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection: E Capitol St @ 60th St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 PM Peak Hour Future
East/West Street: East Capitol Street
North/South Street: 60th Street
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	20	1510			738	3
Hourly Flow Rate, HFR	22	1683			770	3
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?						No
Lanes	1	2			2	1
Configuration		L	T		T	R
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume					7	
Hourly Flow Rate, HFR					8	
Percent Heavy Vehicles					0	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L						R	
v (vph)	22						8	
C(m) (vph)	851						619	
v/c	0.03						0.01	
95% queue length	0.00						0.00	
Control Delay	9.3						10.9	
LOS	A						B	
Approach Delay							10.9	
Approach LOS							B	

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection: E Capitol St @ 61st St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 AM Peak Hour
East/West Street: East Capitol Street
North/South Street: 61st Street NE
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	13	358	28		1964	17
Hourly Flow Rate, HFR	13	376	29		2069	17
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes	1	2	1		2	1
Configuration		L	T R		T	R
Upstream Signal?			No			Yes

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume					54	
Hourly Flow Rate, HFR					64	
Percent Heavy Vehicles					0	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?					No	
Lanes				1		
Configuration					R	

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L						R	
v (vph)	13						64	
C(m) (vph)	348						660	
v/c	0.04						0.10	
95% queue length	0.00						0.27	
Control Delay	15.7						11.0	
LOS	C						B	
Approach Delay							11.0	
Approach LOS							B	

HCS: Unsignalized Intersections Release 3.2

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TWO-WAY STOP CONTROL SUMMARY

Intersection: E Capitol St @ 61st St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 PM Peak Hour
East/West Street: East Capitol Street
North/South Street: 61st Street NE
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	15	1479	43		720	45
Hourly Flow Rate, HFR	16	1650	47		763	47
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Raised curb					
RT Channelized?			No			No
Lanes	1	2	1		2	1
Configuration		L	T R		T	R
Upstream Signal?			No			Yes

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume					52	
Hourly Flow Rate, HFR					60	
Percent Heavy Vehicles					0	
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?						
Storage						
RT Channelized?						No
Lanes				1		
Configuration						R

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	L						R	
v (vph)	16						60	
C(m) (vph)	959						943	
v/c	0.02						0.06	
95% queue length	0.00						0.08	
Control Delay	8.8						9.1	
LOS	A						A	
Approach Delay							9.1	
Approach LOS							A	

F-12

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HCS: Signalized Intersections Release 3.2

Inter: E Capitol Street @ Southern Av City/St: Washington, DC
Analyst: ORGA/KM Proj #: A & R Development
Date: 27/3/2002 AM Peak Hour Period: 7:30 AM to 8:30 AM Future
E/W St: East Capitol Street N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	0	3	1	0	2	0	0	1	1
LGConfig	L	TR			LT	R		LTR			LT	R
Volume	173	270	28	22	1407	158	97	515	16	28	403	442
Lane Width	10.0	10.0			10.0	10.0		10.0			11.0	11.0
RTOR Vol			28			158			8			100

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P	P			NB	Left	P			
	Thru	P	P				Thru	P			
	Right	P	P				Right	P			
	Peds		X				Peds	X			
WB	Left		P			SB	Left	P			
	Thru		P				Thru	P			
	Right		P				Right	P			
	Peds		X				Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		8.0	30.0					30.0			
Yellow		2.0	4.0					4.0			
All Red		0.0	1.0					1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	216		0.85	0.500	47.0	D		
TR	2284	4568	0.13	0.500	10.8	B	24.9	C
Westbound								
LT	1691	4510	0.86	0.375	28.8	C	28.8	C
R	480	1281	0.00	0.375	15.6	B		
Northbound								
LTR	796	2123	0.87	0.375	35.3	D	35.3	D
Southbound								
LT	640	1706	0.71	0.375	28.0	C	26.7	C
R	585	1561	0.62	0.375	25.2	C		

Intersection Delay = 29.1 (sec/veh) Intersection LOS = C

HCS: Signalized Intersections Release 3.2

Inter: E Capitol Street @ Southern Av City/St: Washington, DC
Analyst: ORGA/KM Proj #: A & R Development
Date: 27/3/2002 PM Peak Hour Period: 5:00 PM to 6:00 PM Future
E/W St: East Capitol Street N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	1	3	0	0	3	1	0	2	0	0	1	1
LGConfig	L	TR			LT	R		LTR			LT	R
Volume	99	1150	43	78	537	62	69	638	52	64	643	139
Lane Width	10.0	10.0			10.0	10.0		10.0			11.0	11.0
RTOR Vol			37			62			26			75

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4		5	6	7	8
EB Left	P	P			NB Left	P			
Thru	P	P			Thru	P			
Right	P	P			Right	P			
Peds		X			Peds	X			
WB Left		P			SB Left	P			
Thru		P			Thru	P			
Right		P			Right	P			
Peds		X			Peds	X			
NB Right					EB Right				
SB Right					WB Right				
Green	6.0	25.0				39.0			
Yellow	0.0	4.0				4.0			
All Red	0.0	1.0				1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
L	220		0.50	0.388	28.8	C		
TR	1769	4565	0.73	0.387	23.7	C	24.1	C
Westbound								
LT	1023	3272	0.64	0.313	26.8	C	26.8	C
R	400	1281	0.00	0.313	18.9	B		
Northbound								
LTR	1010	2071	0.79	0.488	23.5	C	23.5	C
Southbound								
LT	754	1546	1.02	0.488	58.4	E	54.4	D
R	761	1561	0.09	0.488	11.2	B		

Intersection Delay = 31.3 (sec/veh) Intersection LOS = C

TWO-WAY STOP CONTROL SUMMARY

Intersection: Southern Ave @ Davey St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 AM Peak Hour Future
East/West Street: Davey Street
North/South Street: Southern Avenue, S.E.
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		345	20	120	330	
Hourly Flow Rate, HFR		382	22	138	381	
Percent Heavy Vehicles		--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes	1	0		0	1	
Configuration		TR			LT	
Upstream Signal?		No			Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	148		326			
Hourly Flow Rate, HFR	177		390			
Percent Heavy Vehicles	0		0			
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			
Lanes	1		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 Config		LT	L		R			
v (vph)		138	177		390			
C(m) (vph)		1166	223		660			
v/c		0.12	0.79		0.59			
95% queue length		0.39	5.09		3.91			
Control Delay		8.5	63.7		18.0			
LOS		A	F		C			
Approach Delay				32.3				
Approach LOS				D				

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TWO-WAY STOP CONTROL SUMMARY

Intersection: Southern Ave @ Davey St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 PM Peak Hour Future
East/West Street: Davey Street
North/South Street: Southern Avenue
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		417	33	230	543	
Hourly Flow Rate, HFR		429	33	240	567	
Percent Heavy Vehicles		--	--	0	--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1	0	0	1	
Configuration			TR		LT	
Upstream Signal?			No		Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	38		358			
Hourly Flow Rate, HFR	43		410			
Percent Heavy Vehicles	0		0			
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?						
Storage						
RT Channelized?			No			
Lanes	1		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 Config		LT	L		R			
v (vph)	240		43		410			
C(m) (vph)	1110		82		617			
v/c	0.22		0.52		0.66			
95% queue length	0.92		1.83		4.89			
Control Delay	9.1		89.6		21.6			
LOS	A		F		C			
Approach Delay				28.1				
Approach LOS				D				

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TWO-WAY STOP CONTROL SUMMARY

Intersection: Southern Ave @ 58th St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 AM Peak Hour Future
East/West Street: 58th Street
North/South Street: Southern Avenue
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		346			489	
Hourly Flow Rate, HFR		367			518	
Percent Heavy Vehicles	--	--			--	--
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		Yes			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			10		41	
Hourly Flow Rate, HFR			14		57	
Percent Heavy Vehicles			0		0	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes			0		0	
Configuration			LR			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config						LR		
v (vph)						71		
C(m) (vph)						488		
v/c						0.15		
95% queue length						0.51		
Control Delay						13.6		
LOS						B		
Approach Delay						13.6		
Approach LOS						B		

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TWO-WAY STOP CONTROL SUMMARY

Intersection: Southern Ave @ 58th St
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 PM Peak Hour Future
East/West Street: 58th Street
North/South Street: Southern Avenue
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		450			578	
Hourly Flow Rate, HFR		498			625	
Percent Heavy Vehicles	--	--		--	--	
Median Type	Undivided					
RT Channelized?						
Lanes		1			1	
Configuration		T			T	
Upstream Signal?		Yes			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			29		91	
Hourly Flow Rate, HFR			35		112	
Percent Heavy Vehicles			0		0	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes			0		0	
Configuration			LR			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config					LR			
v (vph)					147			
C(m) (vph)					385			
v/c					0.38			
95% queue length					1.81			
Control Delay					20.0			
LOS					C			
Approach Delay					20.0			
Approach LOS					C			

HCS: Unsignalized Intersections Release 3.2

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection: 57th Place @ Southern Avenue
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 AM Peak Hour Future
East/West Street: 57th Place
North/South Street: Southern Avenue
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	3	322			531	2
Hourly Flow Rate, HFR	3	340			560	2
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1		1	0	
Configuration		LT			TR	
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume		23			89	
Hourly Flow Rate, HFR		25			96	
Percent Heavy Vehicles		0			0	
Percent Grade (%)	0			0		
Median Storage 1						
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes		0		0		
Configuration				LR		

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT					LR		
v (vph)	3					121		
C(m) (vph)	1029					502		
v/c	0.00					0.24		
95% queue length	0.00					1.01		
Control Delay	8.5					14.4		
LOS	A					B		
Approach Delay						14.4		
Approach LOS						B		

HCS: Unsignalized Intersections Release 3.2

HCS: Unsignalized Intersections Release 3.2

TWO-WAY STOP CONTROL SUMMARY

Intersection: 57th Place @ Southern Avenue
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 PM Peak Hour Future
East/West Street: 57th Place
North/South Street: Southern Avenue
Intersection Orientation: NS Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	9	422			670	6
Hourly Flow Rate, HFR	9	455			700	6
Percent Heavy Vehicles	0	--	--		--	--
Median Type	Undivided					
RT Channelized?						
Lanes	0	1		1	0	
Configuration		LT			TR	
Upstream Signal?		Yes			Yes	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			13		106	
Hourly Flow Rate, HFR			18		148	
Percent Heavy Vehicles			0		0	
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes			0		0	
Configuration			LR			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT				LR			
v (vph)	9				166			
C(m) (vph)	892				427			
v/c	0.01				0.39			
95% queue length	0.00				1.88			
Control Delay	9.1				18.7			
LOS	A				C			
Approach Delay					18.7			
Approach LOS					C			

HCS: Unsignalized Intersections Release 3.2

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HCS: Signalized Intersections Release 3.2

Inter: Southern Ave @ Central Ave
Analyst: ORGA/KM
Date: 27/3/2002 AM Peak Hour
E/W St: Central Avenue

City/St: Washington, DC
Proj #: A & R Development
Period: 7:30 AM to 8:30 AM Future
N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	22	142	47	53	210	16	61	280	86	112	460	43
Lane Width		13.0			13.0			15.0			12.0	
RTOR Vol			26			7			43			20

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination	1	2	3	4	5	6	7	8
EB Left	P				NB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds	X				Peds X			
WB Left	P				SB Left P			
Thru	P				Thru P			
Right	P				Right P			
Peds	X				Peds X			
NB Right					EB Right			
SB Right					WB Right			
Green	33.0				41.0			
Yellow	2.0				2.0			
All Red	1.0				1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	681	1651	0.30	0.412	16.9	B	16.9	B
Westbound								
LTR	578	1402	0.52	0.412	21.0	C	21.0	C
Northbound								
LTR	817	1594	0.50	0.512	15.0	B	15.0	B
Southbound								
LTR	652	1272	0.95	0.512	43.6	D	43.6	D

Intersection Delay = 28.0 (sec/veh) Intersection LOS = C

HCS: Signalized Intersections Release 3.2

Inter: Southern Ave @ Central Ave
Analyst: ORGA/KM
Date: 27/3/2002 PM Peak Hour
E/W St: Central Avenue

City/St: Washington, DC
Proj #: A & R Development
Period: 5:00 PM to 6:00 PM Future
N/S St: Southern Avenue

SIGNALIZED INTERSECTION SUMMARY

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
No. Lanes	0	1	0	0	1	0	0	1	0	0	1	0
LGConfig		LTR			LTR			LTR			LTR	
Volume	35	431	59	84	227	68	57	336	116	105	505	110
Lane Width		13.0			13.0			15.0			12.0	
RTOR Vol			30			38			58			91

Duration 0.25 Area Type: All other areas

Signal Operations

Phase Combination		1	2	3	4			5	6	7	8
EB	Left	P				NB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
WB	Left	P				SB	Left	P			
	Thru	P					Thru	P			
	Right	P					Right	P			
	Peds	X					Peds	X			
NB	Right					EB	Right				
SB	Right					WB	Right				
Green		34.0						40.0			
Yellow		2.0						2.0			
All Red		1.0						1.0			

Cycle Length: 80.0 secs

Intersection Performance Summary

Appr/ Lane Grp	Lane Group Capacity	Adj Sat Flow Rate (s)	Ratios v/c	Ratios g/C	Lane Group Delay	Lane Group LOS	Approach Delay	Approach LOS
Eastbound								
LTR	715	1683	0.72	0.425	25.2	C	25.2	C
Westbound								
LTR	495	1165	0.69	0.425	26.6	C	26.6	C
Northbound								
LTR	812	1624	0.60	0.500	17.6	B	17.6	B
Southbound								
LTR	631	1261	1.04	0.500	66.1	E	66.1	E

Intersection Delay = 36.9 (sec/veh) Intersection LOS = D

TWO-WAY STOP CONTROL SUMMARY

Intersection: Central Avenue @ 56th Pl
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 AM Peak Period Futur
East/West Street: Central Avenue
North/South Street: 56th PL
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	31	202		167	142	
Hourly Flow Rate, HFR	34	223		170	145	
Percent Heavy Vehicles	0	--	--	--	--	
Median Type	Undivided					
RT Channelized?						
Lanes	0	1		1	0	
Configuration		LT			TR	
Upstream Signal?		No			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume		20			6	
Hourly Flow Rate, HFR		21			6	
Percent Heavy Vehicles		0			0	
Percent Grade (%)		0			0	
Median Storage 1						
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes		0		0		
Configuration				LR		

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT					LR		
v (vph)	34					27		
C(m) (vph)	1257					545		
v/c	0.03					0.05		
95% queue length	0.00					0.00		
Control Delay	7.9					11.9		
LOS	A					B		
Approach Delay						11.9		
Approach LOS						B		

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TWO-WAY STOP CONTROL SUMMARY

Intersection: Central Avenue @ 56th Pl
Analyst: ORGA/KM
Project No.: A & R Development
Date: 27/3/2002 PM Peak Hour Future
East/West Street: Central Avenue
North/South Street: 56th PL, SE
Intersection Orientation: EW Study period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street: Approach	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	6	522		299	103	
Hourly Flow Rate, HFR	6	541		312	107	
Percent Heavy Vehicles	0	--	--	--	--	
Median Type	Undivided					
RT Channelized?						
Lanes	0	1		1	0	
Configuration		LT			TR	
Upstream Signal?		No			Yes	

Minor Street: Approach	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume			12		20	
Hourly Flow Rate, HFR			14		24	
Percent Heavy Vehicles			0		0	
Percent Grade (%)		0			0	
Median Storage	1					
Flared Approach: Exists?					No	
Storage						
RT Channelized?						
Lanes			0		0	
Configuration			LR			

Delay, Queue Length, and Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LT					LR		
v (vph)	6					38		
C(m) (vph)	1151					467		
v/c	0.01					0.08		
95% queue length	0.00					0.18		
Control Delay	8.1					13.4		
LOS	A					B		
Approach Delay						13.4		
Approach LOS						B		

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% Thrus Left Lane

HCS: Unsignalized Intersections Release 3.2

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Intersection: 56th Place @ A Street
City/State: Washington, DC
Analyst: ORGA/KM
Project No.: A & R Development
Time period Analyzed: 7:30 AM to 8:30 AM Future
Date: 27/3/2002 AM Peak Hour Future
East/West Street: A Street, SE
North/South Street: 56th Place, SE

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	37	1	12	0	7	0	67	57	35	20	0

% Thrus Left Lane

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
PHF	0.89		0.79		0.91		0.73	
Flow Rate	50		23		135		75	
% Heavy Veh	0		0		0		0	
% Heavy Veh	0		0		0		0	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Total in Lane	50		23		135		75	
Left-Turn	8		15		0		48	
Right-Turn	1		8		62		0	
Prop. Left-Turns	0.2		0.7		0.0		0.6	
Prop. Right-Turns	0.0		0.3		0.5		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Geometry Group	1		1		1		1	
Adjustments Table 10-40:								
hLT-adj	0.2		0.2		0.2		0.2	
hRT-adj	-0.6		-0.6		-0.6		-0.6	
hadj, computed	0.0		-0.1		-0.3		0.1	
hadj, computed	0.0		-0.1		-0.3		0.1	

Worksheet 4 - Departure Headway and Service Time

	Eastbound	Westbound	Northbound	Southbound
Flow rate	50	23	135	75
Flow rate	50	23	135	75
x, initial	0.04	0.02	0.12	0.07
hd, final value	4.37	4.30	3.86	4.31
x, final value	0.06	0.03	0.14	0.09
x, final value	0.06	0.03	0.14	0.09
Service Time	2.4	2.3	1.9	2.3
Service Time	2.4	2.3	1.9	2.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	50		23		135		75	
Service Time	2.4		2.3		1.9		2.3	
Utilization, x	0.06		0.03		0.14		0.09	
Dep. headway, hd	4.37		4.30		3.86		4.31	
Capacity	300		273		385		325	
Delay	7.65		7.42		7.51		7.73	
LOS	A		A		A		A	
LOS	A		A		A		A	
Approach:								
Delay	7.65		7.42		7.51		7.73	
LOS	A		A		A		A	

Intersection Delay 7.59 Intersection LOS A

% Thrus Left Lane

HCS: Unsignalized Intersections Release 3.2

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Intersection: 56th Place @ A Street
City/State: Washington, DC
Analyst: ORGA/KM
Project No.: A & R Development
Time period Analyzed: 5:00 PM to 6:00 PM
Date: 27/3/2002 PM Peak Hour Future
East/West Street: A Street, SE
North/South Street: 56th Place, SE

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	11	40	3	9	0	6	0	108	43	26	81	0

% Thrus Left Lane

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
PHF	0.96		0.78		0.90		0.78	
Flow Rate	55		18		167		136	
% Heavy Veh	0		0		0		0	
% Heavy Veh	0		0		0		0	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 0.25 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Total in Lane	55		18		167		136	
Left-Turn	11		11		0		33	
Right-Turn	3		7		47		0	
Prop. Left-Turns	0.2		0.6		0.0		0.2	
Prop. Right-Turns	0.1		0.4		0.3		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
Geometry Group	1		1		1		1	
Adjustments Table 10-40:								
hLT-adj	0.2		0.2		0.2		0.2	
hRT-adj	-0.6		-0.6		-0.6		-0.6	
hadj, computed	0.0		-0.1		-0.2		0.0	
hadj, computed	0.0		-0.1		-0.2		0.0	

Worksheet 4 - Departure Headway and Service Time

	Eastbound	Westbound	Northbound	Southbound
Flow rate	55	18	167	136
Flow rate	55	18	167	136
x, initial	0.05	0.02	0.15	0.12
hd, final value	4.55	4.48	4.03	4.27
x, final value	0.07	0.02	0.19	0.16
x, final value	0.07	0.02	0.19	0.16
Service Time	2.6	2.5	2.0	2.3
Service Time	2.6	2.5	2.0	2.3

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	55		18		167		136	
Service Time	2.6		2.5		2.0		2.3	
Utilization, x	0.07		0.02		0.19		0.16	
Dep. headway, hd	4.55		4.48		4.03		4.27	
Capacity	305		268		417		386	
Delay	7.89		7.58		7.96		8.09	
LOS	A		A		A		A	
LOS	A		A		A		A	
Approach:								
Delay	7.89		7.58		7.96		8.09	
LOS	A		A		A		A	

Intersection Delay 7.98 Intersection LOS A