



WELLS + ASSOCIATES

MEMORANDUM

TO Jamie Henson DDOT

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DATE September 21 2009

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RE Transportation Impact Analysis for Square 776 (Zoning Commission Case No 06 01B)

OVERVIEW

In January 2006 Wells + Associates submitted a Transportation Impact Study (TIS) in conjunction with a Planned Unit Development (PUD) application (Zoning Commission Order No 06 01) filed by Steuart Investment Company and Steuart H Street LLC for a 60 870 SF site generally bounded by Eye Street on the north H Street on the south 3rd Street on the west, and 4th Street on the east in the northeast section of Washington DC (see Figure 1) The PUD application at that time requested the property be rezoned from the C 2 A (Community Business Center) District to the C 2 B (Community Business Center) District The PUD and related map amendment subsequently were approved by the Zoning Commission on October 16 2006 Zoning Commission Order 06 01 was adopted on December 11 2006 and became final on October 12 2007

The analysis for the January 2006 TIS was based on development of a 61 964 square feet (SF) of grocery store and 9 551 SF of retail space in addition to 232 residential units On April 27 2006 an addendum was presented which analyzed a modified development program of a 63 135 SF grocery store 5 958 SF of retail space and 232 residential units In addition the addendum reflected the use of a 60 percent non auto mode split for the retail uses instead of the 65 percent non auto mode split that was used in the January 2006 TIS

Due to changes in the market conditions since that time a new PUD application (Zoning Commission Case No 06 01B) which proposes construction of a scaled back project, has been submitted by the Applicant This application requests consolidated review and approval to construct approximately 212 residential units on five floors above 46 455 square feet (SF) of ground level retail that includes a 41 390 SF grocery store with a 3 000 SF internal loading dock area Figure 2 shows the layout of the site as now proposed

Access to the 270 underground parking spaces would be provided by a full movement driveway on 3rd Street as was the case in the previously approved PUD Likewise loading for the grocery store would continue to take place from 3rd Street Residential loading would continue to be provided off of 4th Street

This transportation impact analysis was requested by the Applicant to determine the impact the changes in the development program would have on the roadway network as analyzed in the April 2006 Addendum. On August 17 2009 Wells + Associates met with representatives from DDOT to determine the appropriate scope of work for updating the traffic analyses. As agreed upon during that meeting Wells + Associates has prepared this memorandum to supplement the January 2006 TIS and the April 2006 Addendum. This memorandum includes 2013 conditions **without** any new development on the site and it includes 2013 conditions **with the new development program** as outlined in the new PUD application. These analyses were updated from the April 2006 Addendum to reflect the new development program as described in more detail in the following sections.

SITE TRIP GENERATION

TOTAL TRIPS

As stated previously the new PUD application proposes to construct approximately 212 apartments on five floors above 46 455 SF of ground level retail that includes a 41 390 SF grocery store with a 3 000 SF internal loading dock area. The total number of site trips anticipated to be generated by the proposed development was estimated based on the Institute of Transportation (ITE) Trip Generation manual (Seventh Edition) consistent with the January 2006 TIS and the April 2006 Addendum. ITE Land Use Code 220 (Apartment) was used for the residential land uses with the number of dwelling units as the independent variable. The 44 390 SF grocery store (including the internal loading dock area) was generated using ITE Land Use Code 850 (Supermarket). ITE Land Use Code 814 (Specialty Retail) was used for the remaining 2 065 SF of retail space. The square footage was used as the independent variable for the retail components.

Table I presents the number of site trips for each land use. As proposed the revised development program would generate 260 total AM peak hour trips and 651 total PM peak hour trips.

NON-AUTO MODE SPLIT

A portion of the trips generated by the proposed development would be made via non auto modes of transportation. The percentage of site generated trips that would utilize public transportation is dependent on the proximity of the site to transit stops and the degree to which the use of public transit is encouraged such as by implementation of a transportation demand management (TDM) program. Additionally because the grocery store is intended to be a neighborhood serving grocery store a substantial portion of the trips to and from the grocery store would be made on foot or by bicycle.

In order to account for these alternate modes of transportation a 50 percent non auto reduction was taken for the residential land uses and a 55 percent non auto reduction was applied for the retail land uses. Data from the 2000 U.S. Census Bureau substantiate this estimation.

Accordingly 137 AM peak hour trips and 351 PM peak hour trips are projected to be made by non auto modes of transportation as shown on Table I.

Table I
Trip Generation Summary

LAND USE TRIP TYPE	AM PEAK HOUR			PM PEAK HOUR		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Apartment (Land Use Code 220) – 212 Dwelling Units						
Total Trips ¹	22	86	108	87	47	134
Non-auto Mode Split (50%)	11	43	54	44	23	67
External Vehicle Trips	11	43	54	43	24	67
Supermarket (Land Use Code 850) – 44,390 Square Feet						
Total Trips ¹	88	56	144	250	241	491
Non auto Mode Split (55%)	48	31	79	138	132	270
External Vehicle Trips	40	25	65	112	109	221
Pass by Trips (36%)	14	9	23	40	39	79
New External Vehicle Trips	26	16	42	72	70	142
Specialty Retail (Land Use Code 814) – 2 065 Square Feet						
Total Trips ^{1 2}	4	4	8	11	15	26
Non auto Mode Split (55%)	2	2	4	6	8	14
External Vehicle Trips	2	2	4	5	7	12
Pass by Trips (34%)	1	1	2	2	2	4
New External Vehicle Trips	1	1	2	3	5	8
Total Trips	113	147	260	349	302	651
Non-auto Mode Split	61	76	137	188	163	351
External Vehicle Trips	52	71	123	161	139	300
Pass by Trips	15	10	25	42	41	83
New External Vehicle Trips	37	61	98	119	98	217

¹ Vehicle trips generated using Institute of Transportation Engineers (ITE) Trip Generation Seventh Edition

² AM rate of adjacent street determined from proportion of AM rate of generator to PM rate of generator applied to PM rate of adjacent street

PASS BY TRIPS

A portion of the trips entering and leaving retail and service establishments are vehicles using adjacent roads to reach a different destination but stop at the site in passing. This is called a pass by trip and is defined by the Trip Generation Handbook as a trip in which the retail or service destination is the secondary part of a primary trip such as a work to shopping to home trip. An example of a pass by trip would be one in which a driver stops at the grocery store on his/her way home from work.

Typical pass by trip percentages for various land uses are published by ITE in the Trip Generation Handbook. In accordance with ITE, a pass by rate of 36 percent was applied to the proposed grocery store and 34 percent was applied to the remaining retail use during the AM and PM peak hours. Accordingly, 25 AM peak hour pass by trips and 84 PM peak hour pass by trips are expected to occur.

NEW EXTERNAL VEHICLE TRIPS

The number of new external vehicle trips added to the adjacent roadways was calculated by subtracting the number of pass by trips from the number of total external vehicle trips. The proposed development therefore would generate an estimated 98 new AM peak hour external vehicular site trips and 216 new PM peak hour external vehicular site trips.

TRIP GENERATION COMPARISON TO APRIL 2006 ADDENDUM

The April 2006 Addendum indicated that the development program associated with Zoning Commission Order No. 06-01 would have generated 183 AM peak hour external vehicular site trips and 385 PM peak hour external vehicular site trips. Therefore, the new scaled down development program would result in significantly fewer site trips added to the surrounding roadway network. In fact, the new development program would result in 60 (or 33 percent) fewer trips during the AM peak hour and 85 (or 22 percent) fewer trips during the PM peak hour compared to the development program analyzed in the April 2006 Addendum.

SITE TRIP DISTRIBUTION AND ASSIGNMENT

NEW SITE TRIP DISTRIBUTION

The distribution of new peak hour residential and retail site trips was based on existing traffic patterns in the study area.

For the residential component, the following distributions were utilized for the new site trips, consistent with the January 2006 TIS and April 2006 Addendum:

- 25% to/from the north on 3rd Street
- 10% to/from the south on 3rd Street
- 5% to/from the north on 4th Street
- 10% to/from the west on Eye Street
- 15% to/from the east on H Street
- 35% to/from the west on H Street

For the retail components, the following distributions were utilized for the new site trips, consistent with the January 2006 TIS and April 2006 Addendum:

- 3% to/from the north on 3rd Street
- 15% to/from the south on 3rd Street
- 2% to/from the north on 4th Street
- 25% to/from the west on Eye Street
- 20% to/from the east on H Street
- 35% to/from the west on H Street

PASS BY SITE TRIP DISTRIBUTION

Pass by site trips associated with the retail uses were assumed to be diverted from 3rd Street. Therefore the pass by site trip distributions were based on the current directional flow on the corridor. Accordingly during the AM peak hour 30 percent of the pass by trips were assumed to come from the north on 3rd Street and proceed south after stopping at the site. Resultantly 70 percent of the pass by trips during the AM peak hour were assumed to come from the south on 3rd Street and continue north after stopping at the site. During the PM peak hour 55 percent of the pass by trips were assumed to come from the north on 3rd Street and proceed south after stopping at the site. Resultantly 45 percent of the pass by trips during the PM peak hour were assumed to come from the south on 3rd Street and continue north after stopping at the site.

SITE TRIP ASSIGNMENTS

The site generated traffic volumes were assigned to the public roadway network according to the directional distributions previously described. The resulting site traffic assignments are shown on Figure 3.

FUTURE TRAFFIC CONDITIONS

TRAFFIC VOLUMES

The existing traffic volumes for the study intersections were taken directly from the January 2006 TIS. In order to develop background traffic forecasts that is future traffic forecasts without development of the subject property a composite of existing traffic traffic associated with pipeline developments in the site vicinity and increases in traffic associated with regional growth was developed.

To account for increases in regional traffic a 1½ percent annual compounded growth rate was applied to baseline traffic volumes in the study area consistent with the January 2006 TIS and April 2006 Addendum. This growth accounts for regional traffic growth outside the immediate vicinity of the site. The 2013 resulting volumes are shown on Figure 4.

Consistent with the January 2006 TIS and April 2006 Addendum traffic volumes from the various pipeline developments (Station Place 830 1st Street, Senate Square 318 Eye Street, and Capitol Square) were included in the future traffic forecasts. The combined peak hour site trips associated with the pipelines are shown on Figure 5. The factored traffic volumes shown on Figure 4 were combined with the pipeline development traffic assignments shown on Figure 5 to yield the 2013 background traffic forecasts shown on Figure 6.

To obtain 2013 total future peak hour forecasts with the proposed development as now proposed the site traffic assignments shown on Figure 3 were added to the 2013 background traffic forecasts shown on Figure 6. The resulting 2013 total future peak hour traffic forecasts are shown on Figure 7.

OPERATIONAL ANALYSIS

Capacity analyses for the 2013 background conditions were performed using the forecasts shown on Figure 6 and the lane use and traffic controls shown on Figure 8¹. Likewise the capacity analyses for the 2013 total future conditions under the revised development plan were performed using the forecasts shown on Figure 7 and the lane use and traffic controls shown on Figure 9. The 2013 conditions without and with the development of the site under the revised development plan are presented in Table 2. Synchro worksheets are included in Attachment I for 2013 background conditions and in Attachment II for 2013 total future conditions.

As shown in Table 2, all intersections would operate at acceptable levels of service in 2013 without the proposed development with the exception of the 4th Street/H Street and 3rd Street/H Street intersections.

With the proposed development levels of service at the study intersections largely would remain unchanged. The sole exception would be at the 3rd Street/H Street intersection where the traffic associated with the proposed development would have an impact on the northbound and southbound approaches of the intersection. In order to offset the impact of the proposed development, signal timing adjustments could be made at the 3rd Street/H Street intersection. The results of the improvement analyses are shown in Table 2 and are included in Attachment III.

The proposed timing adjustments at the 3rd Street/H Street intersection involve shifting green time only. The side street phase (i.e. northbound/southbound) was given an additional one second of green time from the advanced eastbound phase during the AM peak hour and an additional five seconds of green time from the mainline phase (i.e. eastbound/southbound) during the PM peak hour.

Table 2
2013 Summary of Intersection Levels of Service

INTERSECTION	2013 BACKGROUND CONDITIONS		2013 TOTAL FUTURE CONDITIONS		2013 TOTAL FUTURE CONDITIONS WITH IMPROVEMENTS	
	AM	PM	AM	PM	AM	PM
1 3rd Street/Eye Street						
EBLTR	A [9.6]	B [11.3]	A [9.6]	B [12.2]	A [9.6]	B [12.2]
NBLTR	B [11.8]	B [11.4]	B [12.2]	B [12.6]	B [12.2]	B [12.6]
SBLTR	B [10.2]	B [11.5]	A [9.9]	B [12.3]	A [9.9]	B [12.3]
2 Eye Street/North Alley						
EBLTR	A [0.5]	A [0.1]	A [0.5]	A [0.1]	A [0.5]	A [0.1]
NBTR	A [9.3]	A [0.0]	A [9.3]	A [0.0]	A [9.3]	A [0.0]
SBLT	A [0.0]	A [9.9]	A [0.0]	A [9.9]	A [0.0]	A [9.9]
3 4th Street/Eye Street						
EBTR	B [13.6]	C [16.8]	B [13.7]	C [17.1]	B [13.7]	C [17.1]
SBLT	A [0.3]	A [0.9]	A [0.3]	A [0.9]	A [0.3]	A [0.9]
[x x] = unsignalized intersection control delay in sec/veh (x x) = signalized intersection control delay in sec/veh						

¹ The lane use and traffic controls shown on Figure 8 reflect 2013 conditions after completion of the H Street Reconstruction Project, which currently is under construction and scheduled to be completed in 2011.

Table 2 (Continued)
2013 Summary of Intersection Levels of Service

INTERSECTION	2013 BACKGROUND CONDITIONS		2013 TOTAL FUTURE CONDITIONS		2013 TOTAL FUTURE CONDITIONS WITH IMPROVEMENTS	
	AM	PM	AM	PM	AM	PM
4 4th Street/East Alley						
EBR	A [0 0]	A [0 0]	A [0 0]	A (0 0)	A [0 0]	A (0 0)
WBLT	B [12 2]	B [11 9]	B [12 2]	B [11 9]	B [12 2]	B [11 9]
SBLTR	A [0 0]	A [0 0]	A [0 0]	A (0 0)	A [0 0]	A (0 0)
5 4th Street/H Street						
EBTR	A (8 1)	A (4 0)	A (8 5)	A (4 0)	A (8 2)	A (3 1)
WBLT	B (14 7)	A (6 0)	B (14 8)	A (6 1)	B (14 8)	A (6 1)
SBLTR	D (49 6)	F (96 2)	D (49 8)	F (98 6)	D (49 8)	F (98 6)
Overall	B (19 0)	B (18 6)	B (19 1)	B (18 8)	B (19 0)	B (18 3)
6 H Street/South Alley						
EBLT	A [0 0]	A [0 0]	N/A	N/A	N/A	N/A
SBLR	A [9 6]	B [10 7]	N/A	N/A	N/A	N/A
7 3rd Street/H Street						
EBLTR	A (5 1)	B (12 1)	A (5 2)	B (13 4)	A (5 6)	B (17 8)
WBLTR	D (48 1)	A (9 5)	D (49 7)	A (9 7)	D (49 7)	B (12 7)
NBLTR	F (83 3)	D (35 1)	F (101 6)	D (36 7)	F (81 6)	C (30 0)
SBLTR	D (46 9)	E (55 5)	E (60 8)	F (108 0)	D (54 1)	D (54 2)
Overall	D (43 4)	B (17 4)	D (47 1)	C (25 3)	D (45 0)	C (21 7)
8 3rd Street/West Alley						
EBLTR	B [11 1]	A [0 0]	B [11 2]	A [0 0]	B [11 2]	A [0 0]
WBLTR	B [12 6]	B [13 5]	N/A	N/A	N/A	N/A
NBLTR	A [0 2]	A [0 0]	A [0 1]	A [0 0]	A [0 1]	A [0 0]
SBLTR	A [0 0]	A [0 0]	A [0 0]	A [0 0]	A [0 0]	A [0 0]
9 3rd Street/Garage Entrance						
WBLR	N/A	N/A	B [13 1]	C [17 0]	B [13 1]	C [16 9]
SBLT	N/A	N/A	A [0 7]	A [2 0]	A [0 7]	A [2 0]
[x x] = unsignalized intersection control delay in sec/veh (x x) = signalized intersection control delay in sec/veh						

PROPORTIONAL IMPACT ANALYSIS

In order to determine the amount of traffic on the surrounding roadways that is attributable to the proposed PUD at the off site intersections a proportional impact assessment was conducted. That is the total future traffic volumes were compared to the background traffic volumes to determine the impact of adding the site trips to the study intersections. Table 3 displays the results of the proportional impact analysis.

Table 3
Proportional Impact Analysis

Intersection	AM Peak	PM Peak
3 ^d Street/Eye Street	4.2%	8.0%
4 th Street/Eye Street	<1%	1.1%
4 th Street/H Street	<1%	1.8%
3 ^d Street/H Street	2.1%	5.0%

Site impacts of five percent or less are low and generally reflect negligible effects on traffic operations and delays. Site impacts between five and 15 percent generally are considered moderate and minor effects on traffic operations and delays could be expected. Site impacts of more than 15 percent generally are considered significant.

As shown in Table 3, the proportional impact at the majority of the off-site intersections is expected to be insignificant.

H STREET NE CORRIDOR TRANSPORTATION STUDY²

In 2003, DDOT launched a program to plan for and implement transportation improvements to the H Street NE Corridor, a 1.5-mile stretch along H Street and Benning Road east of North Capitol Street and west of 17th Street NE. The report includes recommendations to enhance transportation facilities in the short term and the long term. The purpose of the study was to develop a plan for the Corridor that would recommend balanced design and management strategies that encourage the efficient and safe movement of all users and:

- Increase short- and long-term transit connectivity
- Improve safety and efficiency of movement for pedestrians and bicyclists
- Support and manage existing and future demand for parking
- Reinforce a sense of place and uniqueness through creative urban and streetscape design and public art, and create a safe, inviting, and interesting public realm that supports diversity in use and activities
- Improve vehicular connectivity while still meeting the needs of pedestrians, bicyclists, transit vehicles and riders, and commercial loading

The study recommended the following short-term improvements within the site vicinity:

- Restripe and retime all approach legs, evaluate and address poor LOS along H Street at its intersections with 3rd Street and 4th Street
- Restripe crosswalk on 3rd Street north of H Street
- Extend bike lane along 4th Street from the Capitol Hill area to north of H Street, and
- Provide a bike rack on the east side of 4th Street south of H Street

² H Street NE Corridor Transportation and Streetscape Study Recommendations Report, District of Columbia, August 2004
[<http://ddot.dc.gov/ddot/cwp/view.a,1249,q,561606.asp>]

The study recommended the following long term improvements within the site vicinity

- Install crosswalks at all signalized intersections
- Construct bulb outs at the 5th Street 8th Street and 13th Street intersections to provide more sidewalk area at these intersections and accommodate transit stops
- Add X2 bus service to improve peak hour bus service with the goal of achieving headways that are shorter than 7 minutes and
- Add enhanced transit stops at various locations including at the 5th Street intersection

RECONSTRUCTION OF H STREET NE³

DDOT currently is in the process of reconstructing H Street NE between 3rd Street and 14th Street. The reconstruction project began in December 2008 and has an anticipated completion date of July 2011.

Work on the project includes

- Reconstruction of the travel lanes and parking areas with composite pavements new brick gutter and granite curbs adjacent to the sidewalk
- Sidewalk restoration featuring exposed aggregate sidewalks surface treatment, providing a safer more pedestrian friendly sidewalk
- Installation of improved streetlight system which primarily provides illumination of the pedestrian areas
- Improvement of traffic signals at all H Street intersections and installation of uniform pedestrian signal heads. Adjustment of intersection signal intervals to coincide with the magnitude of the pedestrian activity
- Construction of bulb outs at the 5th 8th & 13th Streets intersections to provide more sidewalk area at intersection with transit stops and high pedestrian volume
- Improvement of signing and pavement markings crosswalks wheel chair ramps and driveway entrances
- Improvement of storm drain pipes catch basins and connecting pipes inlet basins and fire hydrants
- Upgrades to water main lines
- Rebuilding existing Manholes with new manhole covers
- Planting new trees with root zone treatment and tree boxes wide enough to maximize for soil volume and amount of water runoff that is crucial for the health of the urban trees
- Installation of trolley tracks from the intersection of Oklahoma Avenue and Benning Road to 3rd Street along H Street on the eastbound and westbound lanes adjacent to the curb and
- Coordination with multiple utility companies performing construction activities within the project limits

³ District Department of Transportation Reconstruction of H Street NE
[<http://ddot.dc.gov/ddot/cwp/view,a,1416,q,645788.asp>]

As noted above trolley tracks are being installed as part of the H Street reconstruction DDOT anticipates that trolleys will be operational in five to seven years Stops are proposed along H Street at 5th 8th and 13th Street and along Benning Road at Bladensburg Road/Maryland Avenue/H Street, 19th Street, and Oklahoma Avenue

PARKING AND LOADING

According to the District of Columbia Municipal Regulations (DCMR) one (1) parking space for each 3 dwelling units and one (1) parking space for each additional 750 SF of gross floor area in excess of 3 000 SF is required in the C 2 B zoning district A total of 124 parking spaces (70 residential spaces and 54 retail spaces) are required for the proposed PUD The proposed PUD would provide a total of 146 residential parking spaces and 124 retail parking spaces

Although it is anticipated that half of the residents will utilize non auto modes of transportation during peak hour travel past experience has shown that those residents still may own cars for weekend or off peak travel and therefore would need a parking space

The retail parking largely is dictated by potential tenants There is a commitment to provide a grocery store as a condition to the PUD Therefore reducing the number of retail parking spaces is not feasible since a reduced number of parking spaces would not satisfy potential grocer tenants

Furthermore based on experience with similar cases parking is a concern of the citizens in the community Specifically they are concerned that parking will spill out onto the neighboring streets Ensuring that sufficient parking is provided on site will help alleviate community concerns regarding parking

Loading for the grocery store would take place from 3rd Street Two 55 foot loading berths two 200 SF platforms (inside the grocery store) and a 20 foot service space are proposed for the grocery store Residential loading would be provided off of 4th Street One 55 foot berth one 200 SF platform and one 20 foot service space are proposed for the residential component and the remaining retail use The trucks will back into the appropriate loading areas as shown on the diagrams included in Attachment IV

PEDESTRIAN AND BICYCLE CONSIDERATIONS

PEDESTRIANS

Within the study area sidewalks generally are present along both sides of H Street, Eye Street, 3rd Street, and 4th Street As described above H Street currently is under reconstruction including the sidewalks The pedestrian experience will be improved significantly as a result of the improvements currently being made as part of the H Street reconstruction project Specifically the reconstructed sidewalks will provide a safer and more pedestrian friendly environment, new street lights will provide better illumination crosswalks and handicap ramps will be improved and enhancements to traffic signals will provide uniform signal heads for pedestrians as well as timings appropriate for the volume of pedestrians present at each intersection

As part of the proposed development, the sidewalks along the 3rd Street and 4th Street frontage will be reconstructed

The District of Columbia Pedestrian Master Plan (April 2009) strives to make Washington, D C safer and more walkable by improving sidewalks, roadway crossings, and the quality of the pedestrian environment as well as by ensuring that the District's policies and procedures support walking. The plan provides an overview of existing pedestrian conditions, recommends new pedestrian projects and programs, establishes performance measures, and provides a plan for implementation through 2018.

According to the Plan, within the study area, H Street contains areas of moderate pedestrian activity and pedestrian deficiency and 4th Street has moderately low pedestrian activity and pedestrian deficiencies.

As part of the plan, eight priority corridors (one in each ward) were identified based on areas of heavy pedestrian traffic and deficient walking conditions. The priority corridor in Ward 6 is M Street from 6th Street, SW to 8th Street, SE and, therefore, is outside of the study area. No specific improvements to roadways in the study area were outlined in the plan.

BICYCLES

A bike lane currently exists on 4th Street between New York Avenue and M Street and on 6th Street between New York Avenue and Virginia Avenue. A bike lane also is present along D Street between 3rd Street and 13th Street.

DDOT published a District of Columbia Bicycle Master Plan in April 2005. That document evaluates existing bicycling facilities, policies, and other bicycle-related matters. It also establishes goals, makes recommendations for achieving those goals, and presents an implementation plan.

According to the Master Plan, the Bicycle Level of Service (BLOS) on 4th Street is BLOS "D" and the BLOS on H Street is BLOS "E". BLOS are not available for 3rd Street or Eye Street.

Additionally, the Plan reports the number of bicycle crashes that occurred between 2000 and 2002. One bicycle crash occurred at the Eye Street/3rd Street intersection during the three-year period. No bicycle crashes occurred at any of the remaining study intersections during the three-year period.

SmartBike is an automated bicycle rental or bicycle sharing system now available in the Washington, D C area. Approximately 120 bicycles are available at 10 locations in the greater downtown D C area. Currently, the closest SmartBike docking station is located in Judiciary Square on the southeast corner of the 4th Street/E Street, NW intersection, which is approximately one mile from the subject site.

To utilize a SmartBike, a membership must first be purchased online or over the phone (annual membership subscription is \$40) and then a membership card is utilized to release a bicycle from the docking station. The bicycle must be returned to any of the 10 docking stations in the City within three hours.

Bicycle parking will be provided on-site. In accordance with the District of Columbia Municipal Regulations, the minimum number of spaces provided will be equal to five percent of the total vehicle parking.

ZIPCAR

Similar to SmartBike, Zipcar is an automated car rental or car sharing system in the Washington, D C area. Zipcar users must fill out an application online and then would receive a Zipcard, which enables them to reserve Zipcars at any of the locations. Users pay either an hourly or daily rental fee to utilize the car for their reserved time slot. Cars must be returned to the same designated parking space at which it was picked up. There are six Zipcar locations within a 3-block radius of the site.

PUBLIC TRANSPORTATION

The Union Station Metro Station is located 3 blocks (or approximately 900 feet) southwest of the subject site. The Union Station Metro Station has 23 bike racks. There are 2,194 parking spaces provided at the station.

The subject site is served by three Metrobus routes. The Hospital Center Line (Metrobus Route D8), the Benning Road Line (Metrobus Route X1), and the Benning Road-H Street Line (Metrobus Route X2) provide bus service in the study area.

Route D8 provides service to the Rhode Island Avenue-Brentwood Metro Station and the Union Station Metro Station. Route X1 provides service to the Minnesota Avenue Metro Station. Route X2 provides service to the Minnesota Avenue Metro Station, the Gallery Place-Chinatown Metro Station, and the McPherson Square Metro Station.

In addition to the Metrobus routes, the H Street Business Cooperative launched a shuttle service that provides service between the Gallery Place Metro Station and the Minnesota Avenue Metro Station. The H Street shuttle service is provided for patrons heading to H Street, NE to art and nightlife destinations and runs seven evenings a week from 5:00 PM until 12:00 AM Sunday through Thursday and until 3:00 AM Friday and Saturday.

TRANSPORTATION MANAGEMENT PLAN

The Applicant, Steuart Investment Company, is committed to providing a Transportation Management Plan (TMP) in an effort to decrease reliance on the personal automobile and encourage the use of transit, ridesharing, bicycling and walking. To that end, the following TDM components will be employed:

- Transportation Coordinator - A Transportation Management Coordinator (TMC) will be designated to implement the TDM program and advise residents, tenants, and employees of the availability and location of the TDM coordinator and program at least once a year. The position may be part of other duties assigned to the individual.
- Freight Manager - A member of on-site management will serve as the freight operation manager, assuring that loading dock traffic will be monitored. Freight duties may be part of other duties assigned to that individual.
- Transit Incentives - Information on Metrorail, Metrobus, and other public transportation facilities, services, routes, schedules, and fares will be provided. Information regarding free guaranteed rides home in cases of emergency also will be provided. Additionally, at the time of initial lease/sales, SmarTrip cards would be provided to residents.

- Website – Website hotlinks to CommuterConnections.com and goDCgo.com would be provided on the property management website
- Bicycle Storage – Storage facilities for bicycles would be provided for residents in the parking structure. Bicycle parking, in accordance with DC zoning requirements, would be provided on the site. Additional U-shaped bike racks will be provided on sidewalks along the perimeter of the site.
- Telecommuting Incentives – All residential units would be pre-wired with broadband, high capacity data/network connections to facilitate telecommuting. Additionally, through property management, access to copier, fax, and internet service would be available to residents.
- Information Dissemination – Information regarding Metrorail and Metrobus, and other public transportation facilities, routes, schedules and fares would be provided to new residents moving onto the property and would be presented at the time of closing for either purchase or lease of a unit.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations of this traffic evaluation are as follows:

- The revised development program will generate 33 percent fewer trips during the AM peak hour and 22 percent fewer trips during the PM peak hour compared to the development program analyzed in conjunction with the original PUD approval.
- Traffic associated with the proposed development would have a largely negligible impact on the study intersections. Minor impacts at the 3rd Street/H Street intersection could be mitigated by implementation of minor timing adjustments.
- DDOT's H Street reconstruction project includes reconstruction of the roadway and sidewalks between 3rd Street and 14th Street. The project includes significant improvements and enhancements that will create a more pedestrian friendly environment.
- In order to reduce the reliance on automobiles, the applicant will employ several TDM strategies aimed at encouraging the use of public transportation, bicycling, and other alternative modes of transportation.

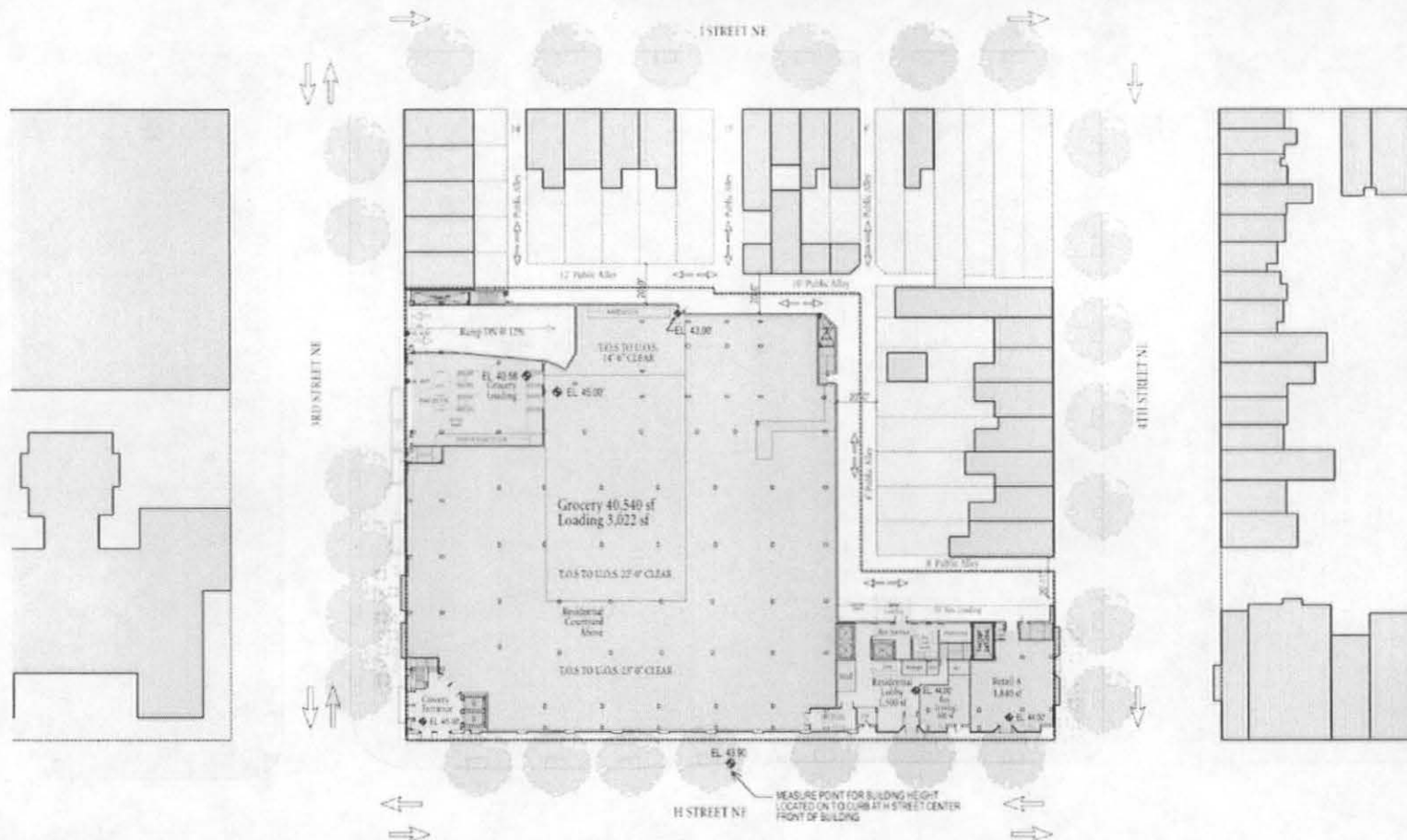
We hope that this memorandum provides you with sufficient information regarding the traffic impact of the proposed PUD application. Should you require any additional information, please do not hesitate to contact us at (724) 933-9010, jmilanovich@mjlwells.com, or jmstanton@mjlwells.com.

Figures



Figure 1
Site Location Map





Note: The site plan shows the building footprint and site work. Changes to the site plan affecting the exterior envelope or the layout of the site shall be noted on the site plan.

Circulation Plan

STUART INVESTMENT COMPANY
G. R. T. GALLAGHER AND PARTNERS, INC.

July 15, 2008

T01

3RD AND H STREETS NE-SQUARE 776

Figure 2
Site Concept Plan



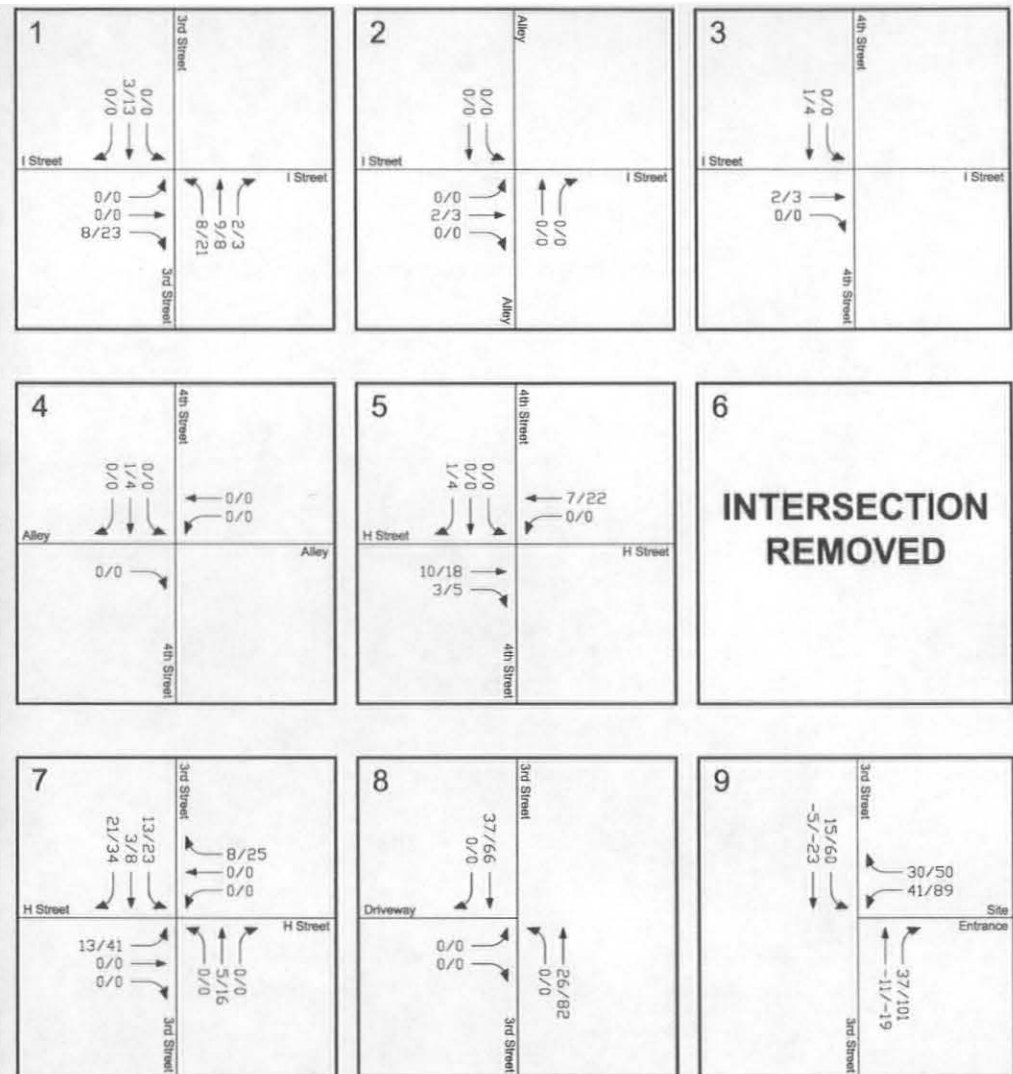


Figure 3
Site Traffic Assignments

AM PM
PH PM
000/000



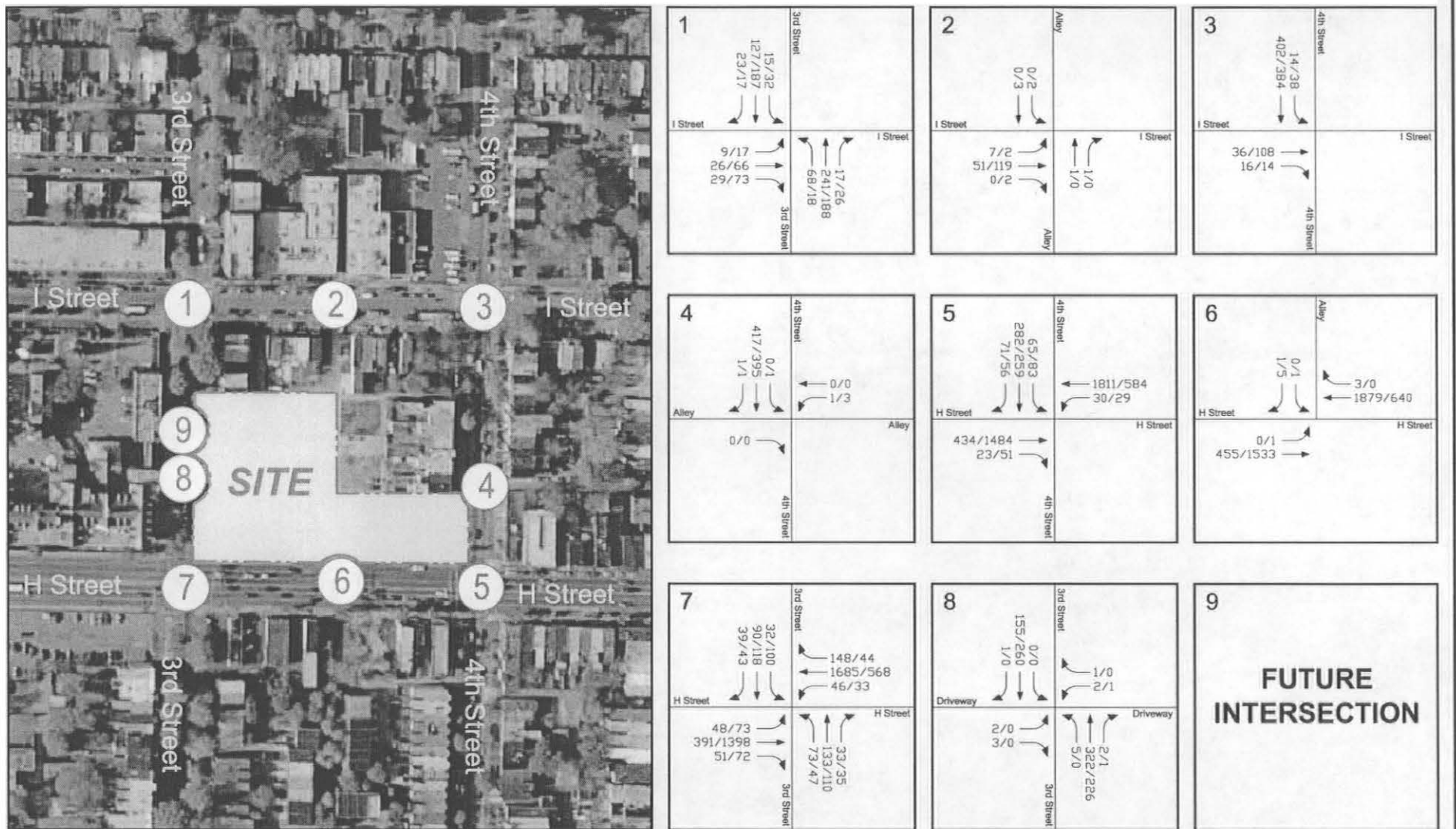


Figure 4
Existing Peak Hour Traffic Volumes with Regional Growth (2013)

AM PEAK HOUR
PM PEAK HOUR
000/000



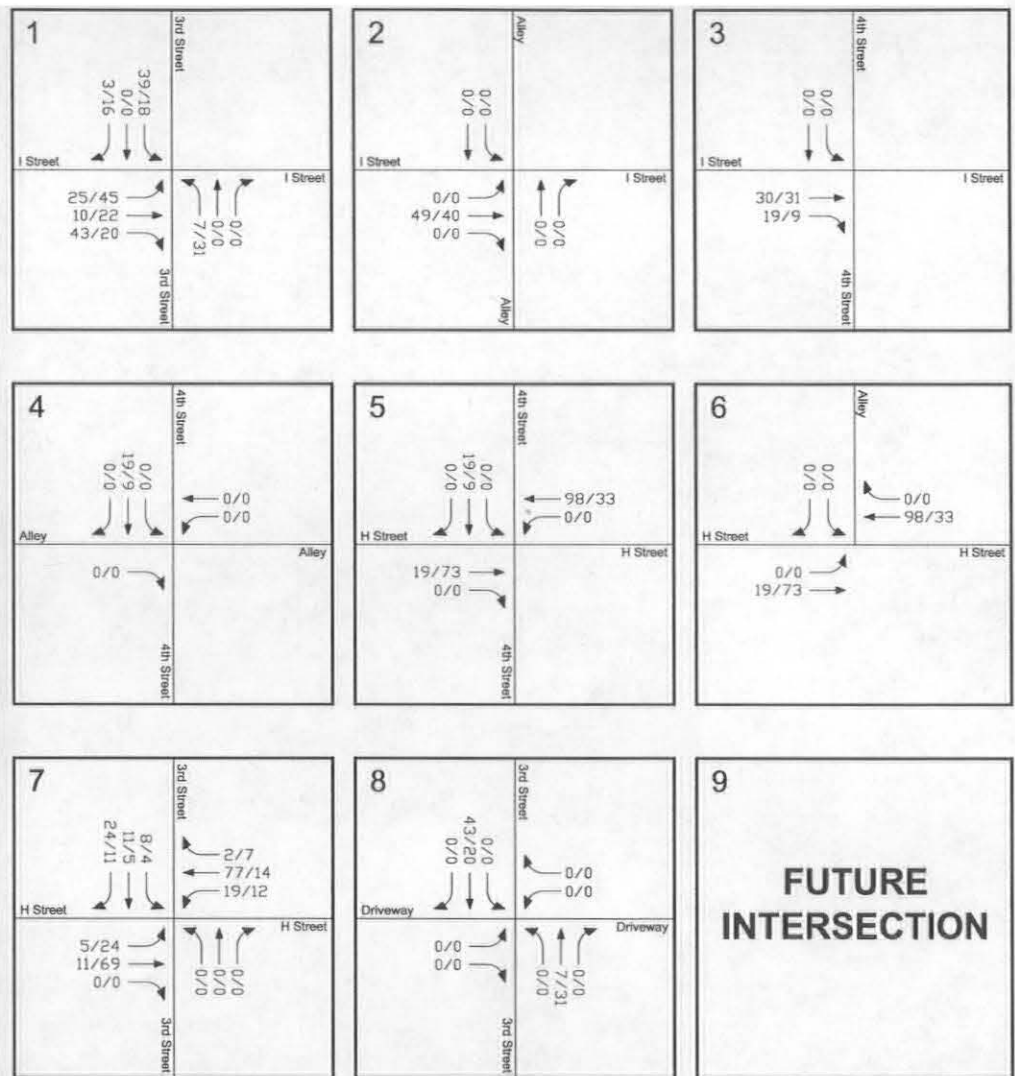


Figure 5
Pipeline Development Traffic Assignments

AM PEAK HOUR
PM PEAK HOUR
000/000



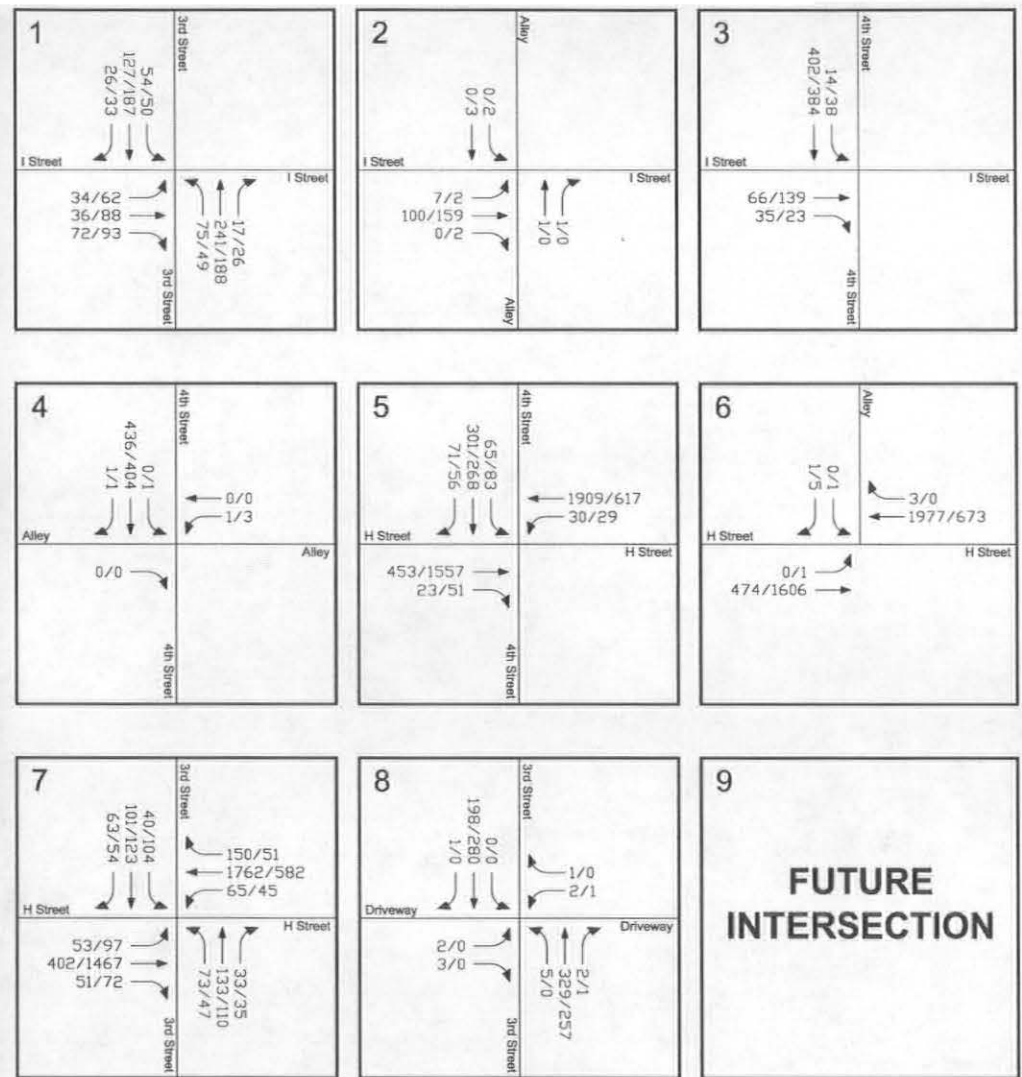


Figure 6
2013 Background Peak Hour Traffic Forecasts

AM Peak Hour
PM Peak Hour
000/000



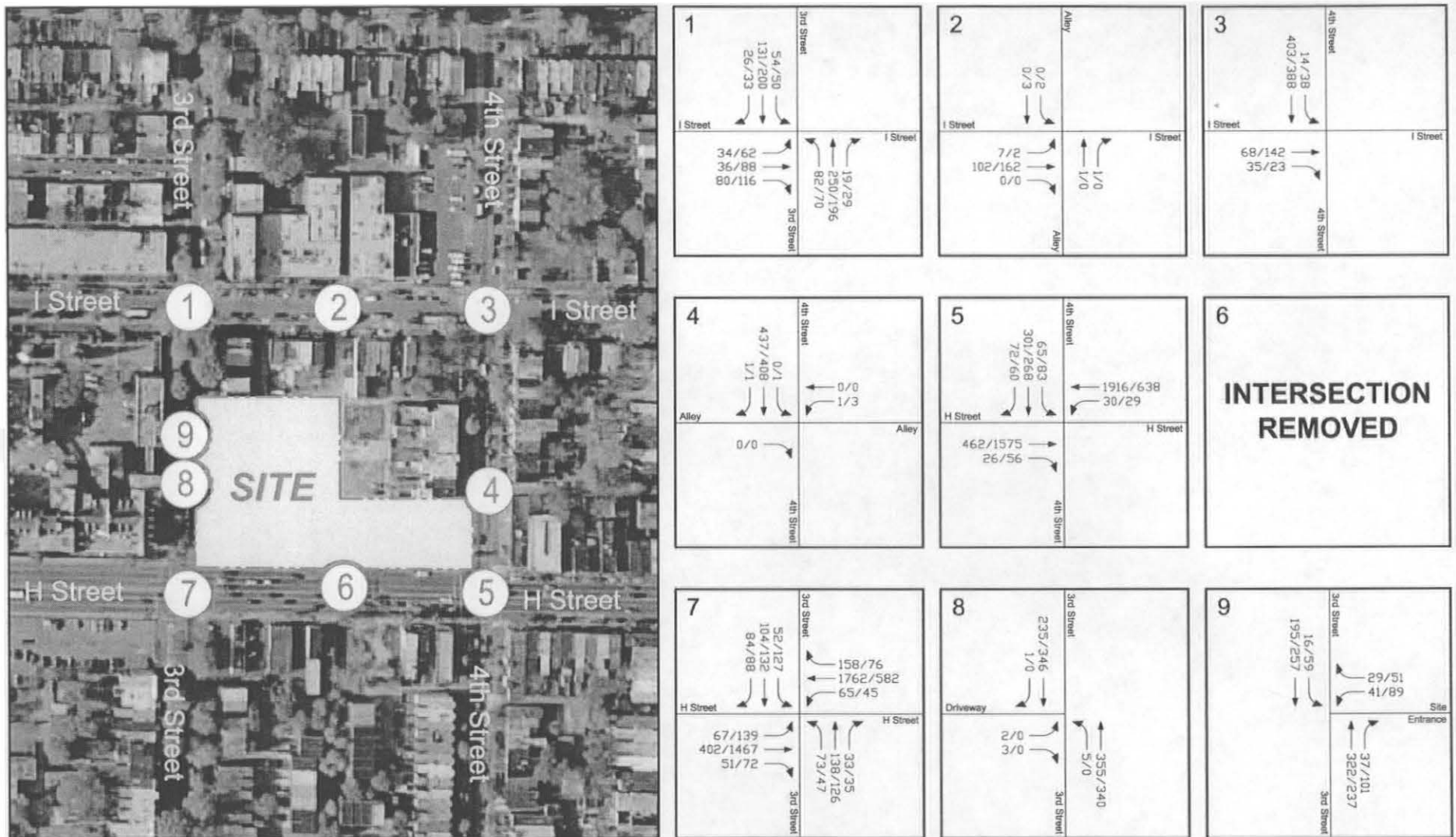


Figure 7
2013 Total Future Peak Hour Traffic Forecasts

AM Peak Hour
PM Peak Hour
000/000



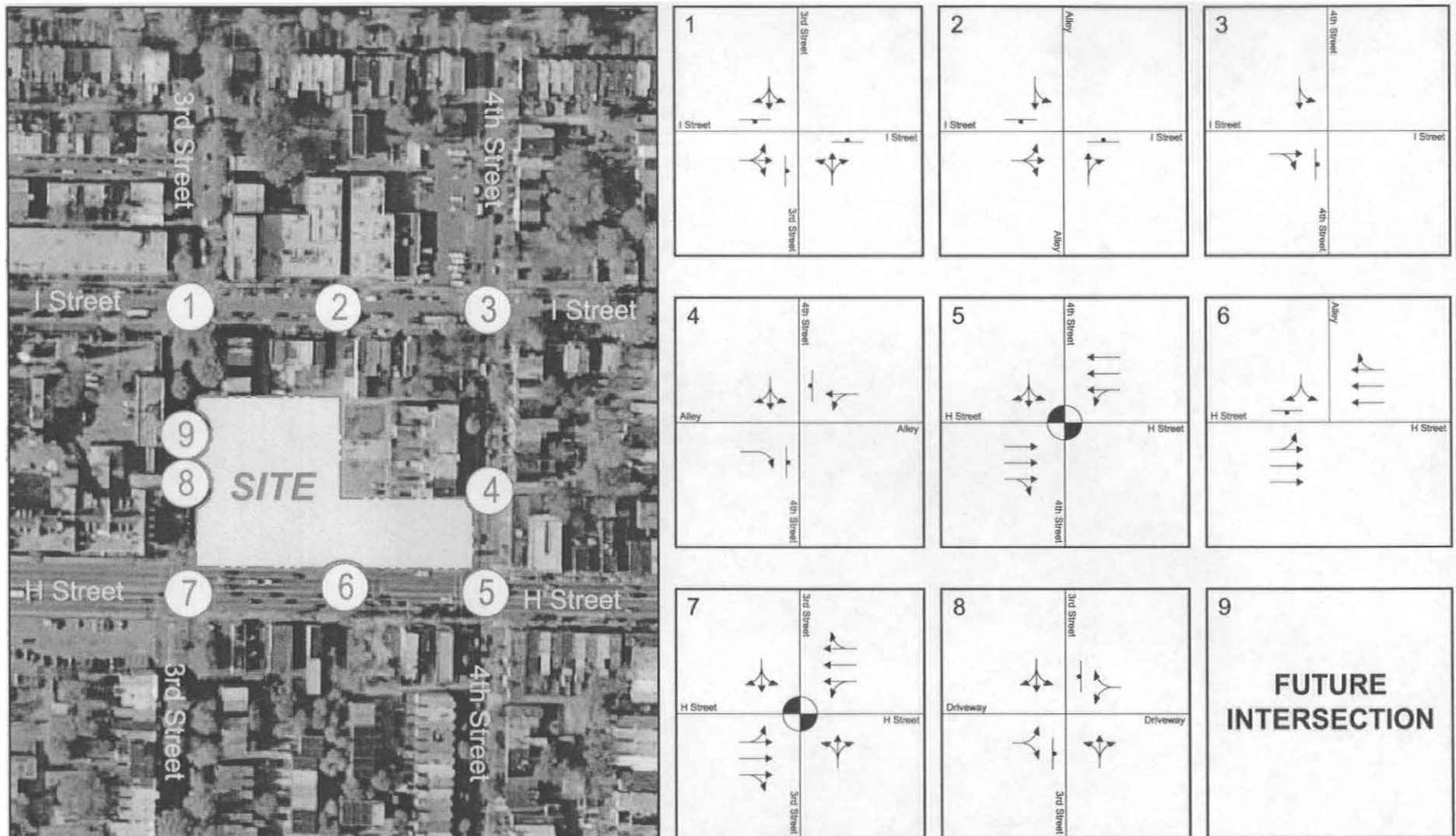


Figure 8
Existing Lane Use and Traffic Control

Represents One Travel Lane
 Signalized Intersection
 Stop Sign
 North

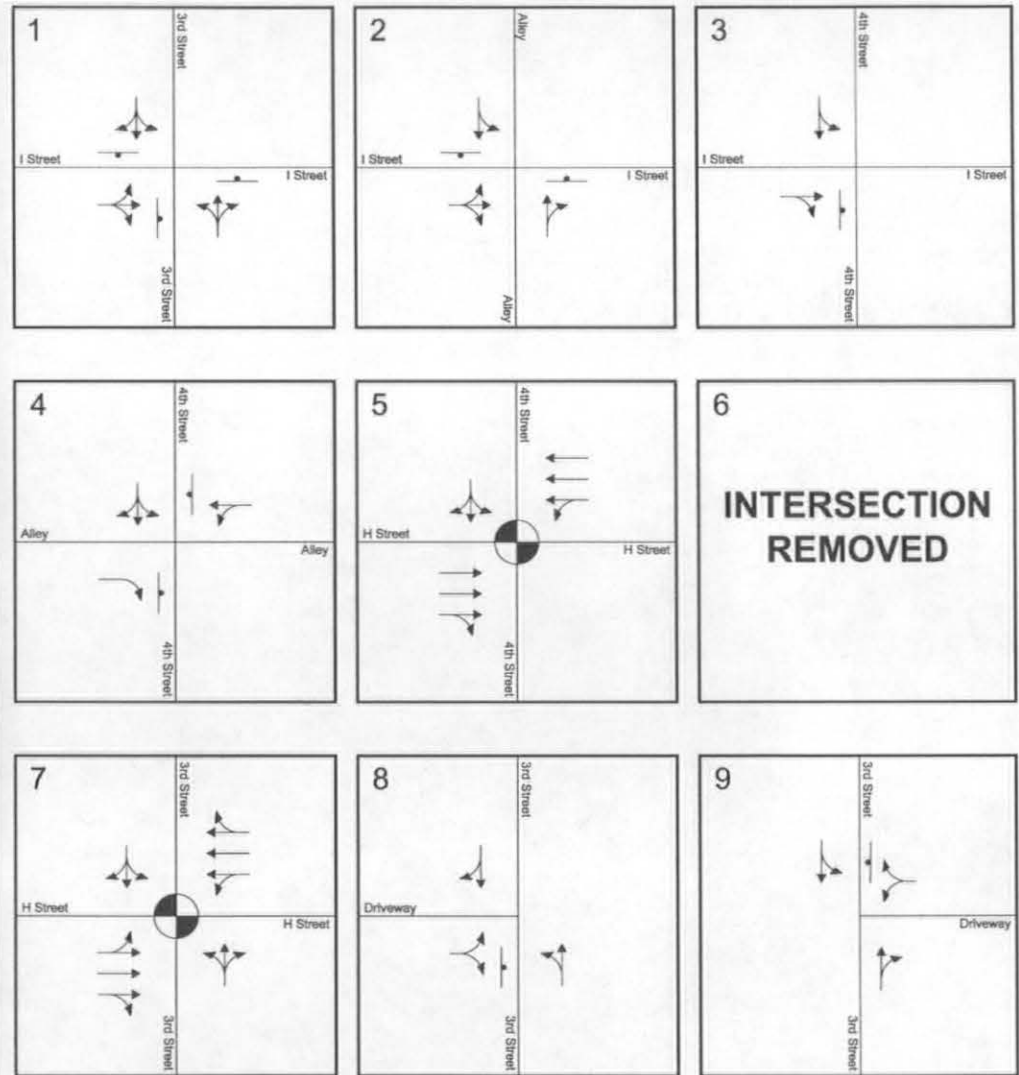


Figure 9
Future Lane Use and Traffic Control

