TRAFFIC IMPACT ANALYSIS

26 WESTON AVENUE
SOMERVILLE, MA

OCTOBER, 2010

Prepared for

26 Weston Avenue DevCo, LLC

Prepared by

Design Consultants, Inc.

265 Medford Street **Tel. # (617) 776-3350**
Somerville, MA 02143

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Executive Summary

This report assesses the traffic impacts associated with the proposed development of 17 residential townhouse/condominiums to be located at 26 Weston Avenue in Somerville, MA. The report evaluates the projects traffic impacts on the following study area intersections:

- Broadway/Weston Avenue
- Clarendon Avenue/Weston Avenue
- Weston Avenue/Weston Manor Res. Dr/ATM Dr
- Weston Avenue/Site Driveway

The study includes an inventory and analysis of existing conditions, an estimation of site generated traffic and an evaluation of future 2015 design year 'No-Build' and 'Build' conditions at the studied intersections.

The proposed residential development will generate 7 vehicle trips in the AM peak hour, 9 in the PM peak hour and 100 trips daily. The peak hour trips have been distributed onto the study area based upon existing peak hour travel patterns and the desire to reach surrounding major routes.

The relatively low volumes generated by the proposed development during the peak hours will have little measureable impacts on traffic flows along Weston Avenue and the surrounding roadways. No changes in Level of Service will occur at the study area intersections.

Peak hour directional site traffic (6 vehicles per hour) will amount to approximately one vehicle every ten minutes at the proposed residential driveway. It should also be noted that these peak hour site trips may be reduced due to the nearby MBTA Red Line station at Davis Square that will encourage residents at the site to use transit for their commute trips.

1.0 Introduction

This report assesses the traffic impacts associated with the proposed development of 17 residential townhouse/condominiums to be located at 26 Weston Avenue in Somerville, MA (see Figure 1 - Locus Plan). Institute of Transportation Engineers (ITE) trip generation rates and standard traffic engineering practice and procedures have been utilized in this traffic impact study.

2.0 Methodology

This traffic assessment has been prepared in accordance with the ITE's Traffic Impact Analyses for Site Development. (An ITE recommended practice).

The study includes the following:

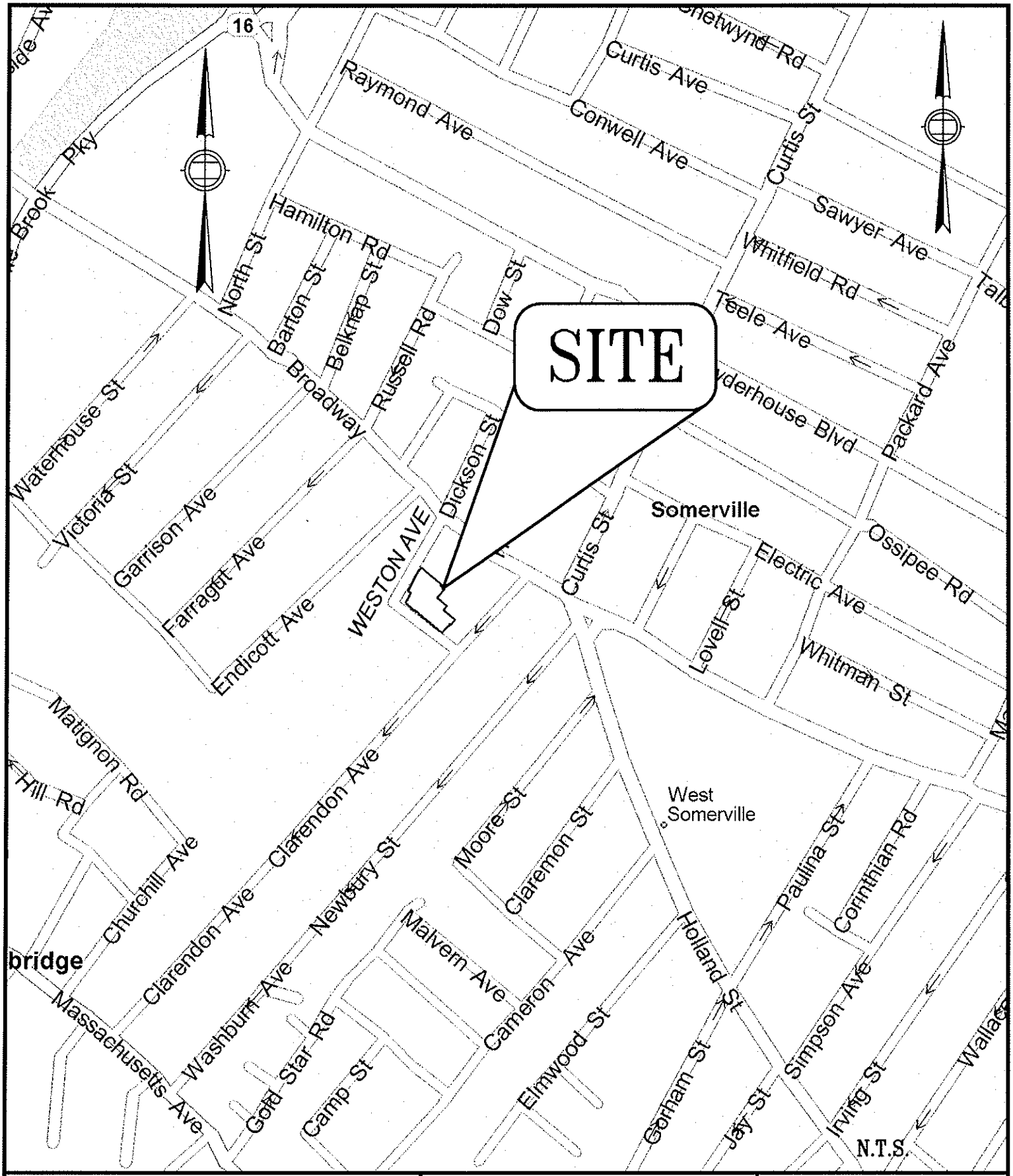
- An inventory and analysis of existing conditions for the study area intersections
- An estimation of daily and peak hour trips generated by the proposed development
- The distribution of AM and PM peak hour site generated traffic at the study area intersections
- An evaluation of future 2015 'No-Build' and 'Build' conditions at the study area intersections

3.0 Proposed Development

The project proponent proposes to construct 17 townhouse/condominiums located on the northeast side of Weston Avenue, south of Broadway in Somerville, MA. (See Figure 1 – Locus Map). The proposed project will remove existing structures on the site and construct the proposed residential building. On-site parking for residents (30 stalls) will be provided, utilizing the existing access driveway onto Weston Avenue. Three parking spaces for visitors will be provided at an adjacent lot off Weston Avenue. A preliminary landscape plan for the proposed development, prepared by Blair Hines Design Associates dated October 6, 2010 was submitted to the City of Somerville Planning Board. (See Appendix A)

Current Site Activity

The current site is occupied by a 21,625 square foot building that houses retail, office and light industrial space. Parking is provided for approximately 12 vehicles on the site via the existing driveway off Weston Avenue. The property has an access and parking easement for eight parking spaces at the adjacent Weston View Condominium lot off Weston Avenue. Overall site activity is somewhat reduced due to the current vacancy of the available office space in the building (approximately 10,000 square feet that historically accommodated up to 22 employees during busier times).



Design Consultants, Inc. Consulting Engineers and Surveyors DESIGN CONSULTANTS BUILDING 265 MEDFORD STREET SOMERVILLE, MA 02143 (617) 776-3350	26 WESTON AVE SOMERVILLE, MA	LOCUS PLAN FIGURE 1

4.0 Study Area

The study area for this traffic assessment includes the following intersections:

- Broadway/Weston Avenue
- Clarendon Avenue/Weston Avenue
- Weston Avenue/Weston Manor Dr/ATM Dr
- Weston Avenue/Site Driveway

All of the above-noted intersections are unsignalized. See Figure 2 for study area intersections.

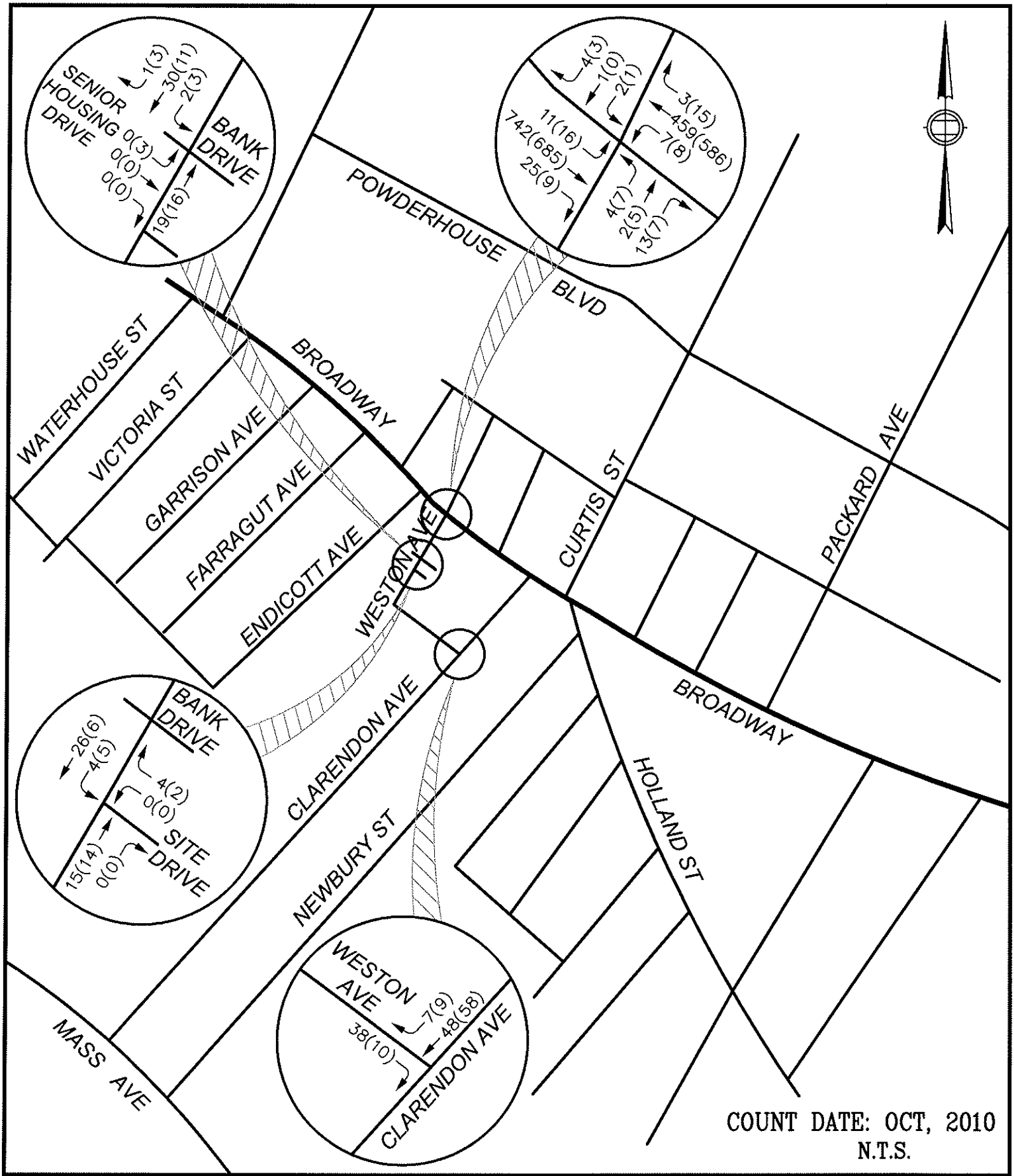
5.0 Roadway Network

Broadway is a minor urban arterial with on-street parking that provides for east-west travel through the City of Somerville. In the site vicinity, Broadway is undivided, provides for two travel lanes (one in each direction) and on-street parking on both sides. In nearby Teele Square, Broadway intersects with Holland Street, with traffic signal control. Posted speed limits along Broadway are 30 mph. Near-side bus stops are provided at the intersection with Weston Avenue (MBTA Routes 87, 88 and 89)

Clarendon Avenue is a local residential street with on-street parking. It extends as a one-way road southwest from its unsignalized intersection with Broadway to Massachusetts Avenue in Cambridge, a distance of approximately 2,000 feet.

Weston Avenue is a two-way local private roadway that provides for traffic access and circulation between Broadway and Clarendon Avenue, as well as on-street residential parking on the south side of the street. The southbound direction has posted SLOW signing and a 15 mph limit.

Dickson Street is a local residential street with on-street parking that extends for one-block north of Broadway to Fairmount Avenue.



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26 WESTON AVE
SOMERVILLE, MA

EXIST 2010 PEAK HOUR
TRAFFIC VOLUME
AM(PM)

FIGURE 2

Broadway @ Weston Ave/Dickson Street

Approximately 150 feet north of the proposed access to the project site is the Broadway/Weston Avenue/ intersection. This 4-legged intersection is unsignalized with posted stop sign control for the two local side streets, Weston Avenue and Dickson Street. Both side streets are approximately 26 feet wide, providing for one general purpose lane in each direction. The Broadway approaches are each one general purpose lane approximately 11 feet wide with a 10 foot-wide striped shoulder/parking lane. Pedestrian crosswalks and ADA ramps are provided across each leg with the exception of the west side crossing Broadway. The crosswalk on the east side crossing Broadway is enhanced with sidewalk extensions and push button actuated flashers. Abutting land uses are mixed with a bank on the southeast corner, retail on the southwest corner, and residential along the north side of Broadway.

Weston Avenue @ Clarendon Avenue

Approximately 75 feet east of the development site is the Weston Avenue/Clarendon Avenue intersection. This 3-legged intersection is unsignalized with stop control for the Weston Avenue approach. The eastbound Weston Avenue approach is approximately 12 feet wide, allowing for right turns only. One-way southbound Clarendon Avenue is about 27 feet wide, providing for a single lane approach with parking on both sides. Land use is the vicinity is residential.

Existing Site Driveway off Weston Avenue

Approximately 150 south of the Broadway/Weston Avenue intersection is the existing site driveway intersection onto Weston Avenue. This 3-way intersection is just south of the adjacent 4-way intersection of West Manor senior center driveway and the entrance to the ATM Bank off of Weston Avenue. All of the approaches to these unsignalized intersections allow for single general-purpose lanes.

Traffic Volumes

Traffic volumes, including bicycle and pedestrian counts, were recorded at the study area intersections from 7-9 AM and 4-6 PM on typical weekdays during the month of October, 2010. The counts for the existing site driveway also included activity at the nearby bank and senior center facility driveways off of Weston Avenue. This count data is provided in Appendix B.

The recorded peak hour volumes were undertaken during the peak fall season when students (as well as most workers) are in the city. The counts were not adjusted for average annual conditions in order to provide a conservative 'worst case' for impact analysis. The resulting 2010 peak hour volumes are shown in Figure 2.

7.0 Existing Traffic Operations

DCI has performed capacity analyses to determine traffic operations (Levels-of-Service) at the study area intersections under existing 2010 peak hour conditions. Level-of-Service (LOS) is the standard technique used in traffic engineering to measure traffic flows and delays at intersections. Levels-of-Service are given letter designations with 'A' at best, with little or no delays to 'F' at worst, with forced flow conditions. Levels-of-Service were determined by performing capacity analyses utilizing HCS analysis software.

Definitions of Levels-of-Service at unsignalized intersections are presented in the 2000 Highway Capacity Manual and the following tables define the relationship between Level-of-Service and control delay.

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (sec)	Qualitative Description
A	≤ 10	Good progression, few stops and short cycle lengths.
B	> 10-20	Good progression and/or short cycle lengths; more vehicle stops.
C	> 20-35	Fair progression and/or longer cycle lengths; some cycle failures; significant portion of vehicles must stop.
D	> 35-55	Congestion becomes noticeable; high-volume-to-capacity ratio; longer delays; noticeable cycle failures.
E	> 55-80	At or beyond limit of acceptable delay; poor progression; long cycles; high volumes; long queues.
F	> 80	Unacceptable to drivers. Arrival volumes greater than discharge capacity; long cycle lengths; unstable-unpredictable flows.

SOURCE: Transportation Research Board 2000.

Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle (sec)	Impact on Minor Street Traffic
A	≤ 10	Little or no delay
B	> 10-15	Short traffic delays
C	> 15-25	Average traffic delays
D	> 25-35	Long traffic delays
E	> 35-50	Very long traffic delays
F	> 50	Unacceptable traffic delays to most drivers

SOURCE: Transportation Research Board 2000.

Delays and Levels-of-Service for study area intersections are in the following Table 'A'.

TABLE A
EXISTING CONDITIONS

UNSIGNALIZED INTERSECTIONS						
Location/Movement	Existing Condition					
	AM Peak Hour			PM Peak Hour		
	V/C (1)	Delay (2)	LOS (3)	V/C	Delay	LOS
Broadway/Weston Ave						
Broadway EB Left/Thru	.01	8.5	A	.02	9.0	A
Broadway WB Left/Thru	.01	9.9	A	.01	9.5	A
Weston Ave NB LTR	.11	26.7	D	.18	41.6	E
Dickson St SB LTR	.04	24.9	C	.02	24.3	C
Clarendon/Weston Ave						
Clarendon Ave SB RT	0.0	7.2	A	0.0	7.2	A
Weston Ave EB Right	.04	8.7	A	.01	8.7	A
Weston/Res/ATM Drive						
Weston Ave NB LTR	0.0	7.3	A	0.0	7.2	A
Weston Ave SB LTR	0.0	7.3	A	0.0	7.3	A
Residential Dr EB LTR	0.0	8.5	A	0.0	8.9	A
ATM Drive WB LTR	0.0	8.5	A	0.0	8.5	A
Weston Ave/Site Drive						
Weston Ave SB LT	0.0	7.2	A	0.0	7.2	A
Site Drive WB Turns	0.0	8.5	A	0.0	8.4	A

(1) Volume/Capacity Ratio
(2) Control Delay in Seconds
(3) Level-of-Service

At the unsignalized intersections within the study area, all traffic movements are LOS 'A' (indicative of little or no delay for traffic movements),with the exception of the following approach locations/peak hour time periods:

- The northbound approach along Weston Avenue at Broadway operates at LOS 'D' during the AM and LOS 'E' during the PM peak hour. LOS D/E is indicative of longer traffic delays during the peak hour commute period that is considered to be acceptable for urban traffic conditions.
- The southbound approach along Dickson Street at Broadway operates at LOS 'C' during the PM peak hour. LOS 'C' represents average delays.

9.0 Future Traffic Volumes

The existing 2010 study area peak hour volumes have been increased by an annual growth factor of 1% per year to account for general background traffic growth to develop future 2015 peak hour volumes (five-year projection). This conservative assumption accounts for the peak hour traffic volumes that may be generated by background traffic growth. No specific planned developments were identified for the study area. The projected 2015 'No-Build' condition is shown on Figure 3.

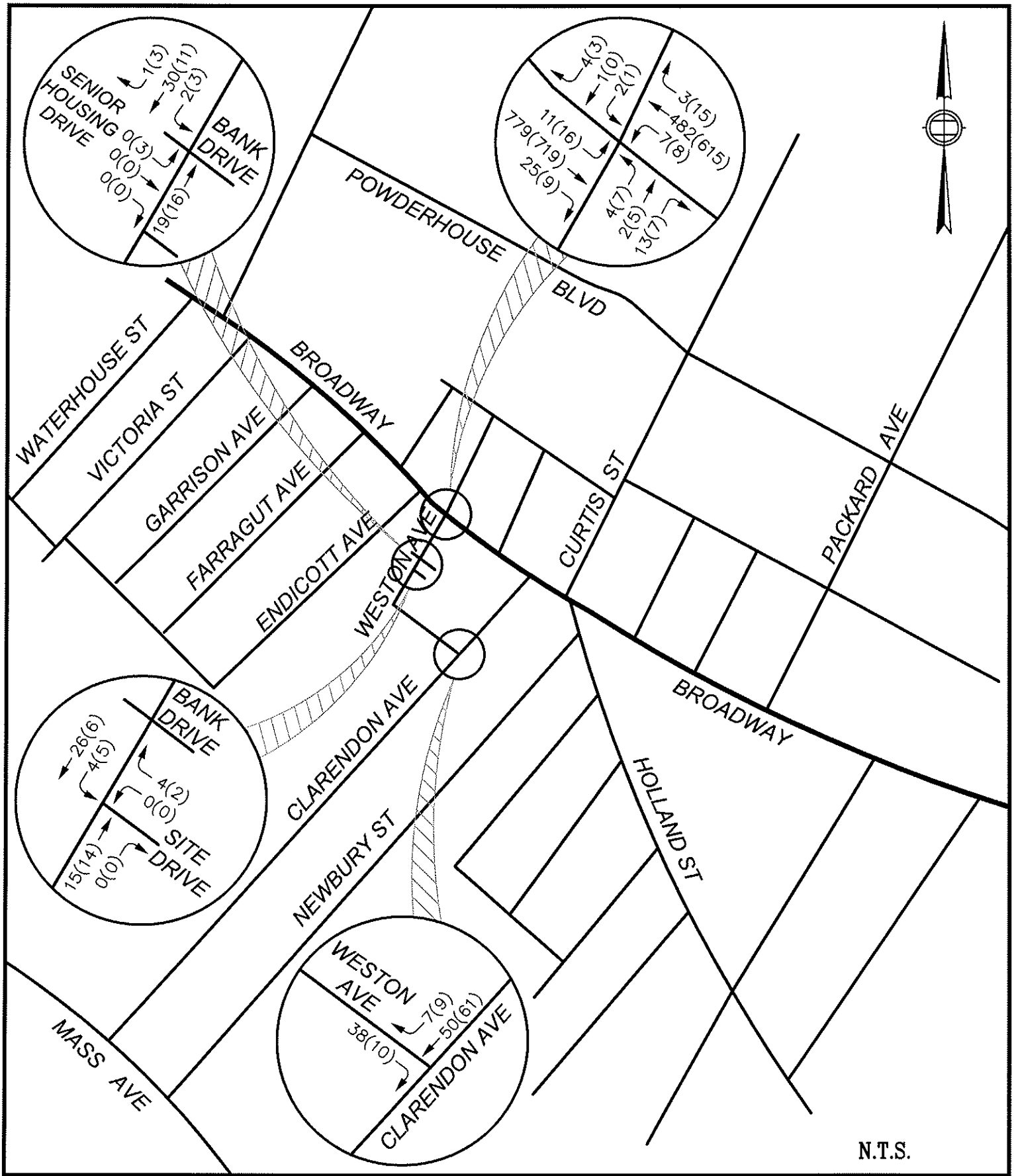
10.0 Trip Generation and Distribution

DCI has estimated the daily and peak hour site generated trips based upon trip rates presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual – 8th Edition. The information in this document has been obtained from the research and experiences of transportation engineering and planning professionals. The data is based on more than 4,800 trip generation studies submitted to ITE by public agencies; consulting firms; universities and colleges; developers; associations; and local sections, districts and student chapters of ITE. The published rates are intended for planners, transportation professionals, zoning boards and others who are interested in estimated the number of vehicle trips generated by a proposed development.

For a specific land use, the Trip Generation Manual provides trip generation rates and equations for daily and peak hour time periods for the generator and the traditional commuting peak hours of the adjacent street traffic (that is, 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on weekdays). The average trips generation rates represent weighed averages from studies conducted throughout the United States and Canada since the 1960's. Data was primarily collected at suburban locations having little or no transit service, nearby pedestrian amenities, or travel demand management (TDM) programs. The rates may be modified to reflect the presence of public transportation service, ridesharing, or other TDM measures; enhanced pedestrian and bicycle trip-making opportunities; or other special characteristics of the site or surrounding area.

For this residential project, ITE Land Use 230 for Residential Condominium/Townhouse was used. The data is a combination of condominiums/townhouses that are low-rise or high-rise development. The number of dwelling uses is the independent variable of choice because it is readily available, easy to project and has a high correlation with average weekday vehicle trip ends. The peak hour of the generator typically coincides with the peak hour of the adjacent street traffic. The ITE data was based on surveys between the mid-1970s and the 2000s throughout the United States and Canada.

The following table identifies the trip generation for the proposed 17 residential condominium units. The data reflects use of the average rate versus a fitted curve equation. The fitted curve equation is typically applied for larger size developments (the



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2015 NO-BUILD PEAK HOUR TRAFFIC VOLUME AM(PM)

FIGURE 3

average size of development for Land Use 230 is 179 dwelling units for weekday trips, higher for peak hour trips).

17 Units **Residential Condominium/Townhouse** Land Use 230		
Daily	AM Peak Hour	PM Peak Hour
In – 50	In – 1	In – 6
Out – 50	Out – 6	Out – 3
Total – 100	Total – 7	Total – 9

The development plan eliminates the existing 21,625 square feet of commercial use on the site. Peak hour counts for this activity (refer to Figure 2) show a similar activity for the proposed residential use with a total of 8 peak hour trips in the AM and 7 peak hour trips in the PM. The net changes to the surrounding area traffic condition during the peak hour periods will therefore be minimal.

During off-peak periods, the proposed residential use is typically one-half the peak hour activity. This compares to the existing commercial use that is typically equal to or greater than peak hour activity. Therefore it is anticipated that the proposed residential development will result in reduced traffic activity during off-peak periods.

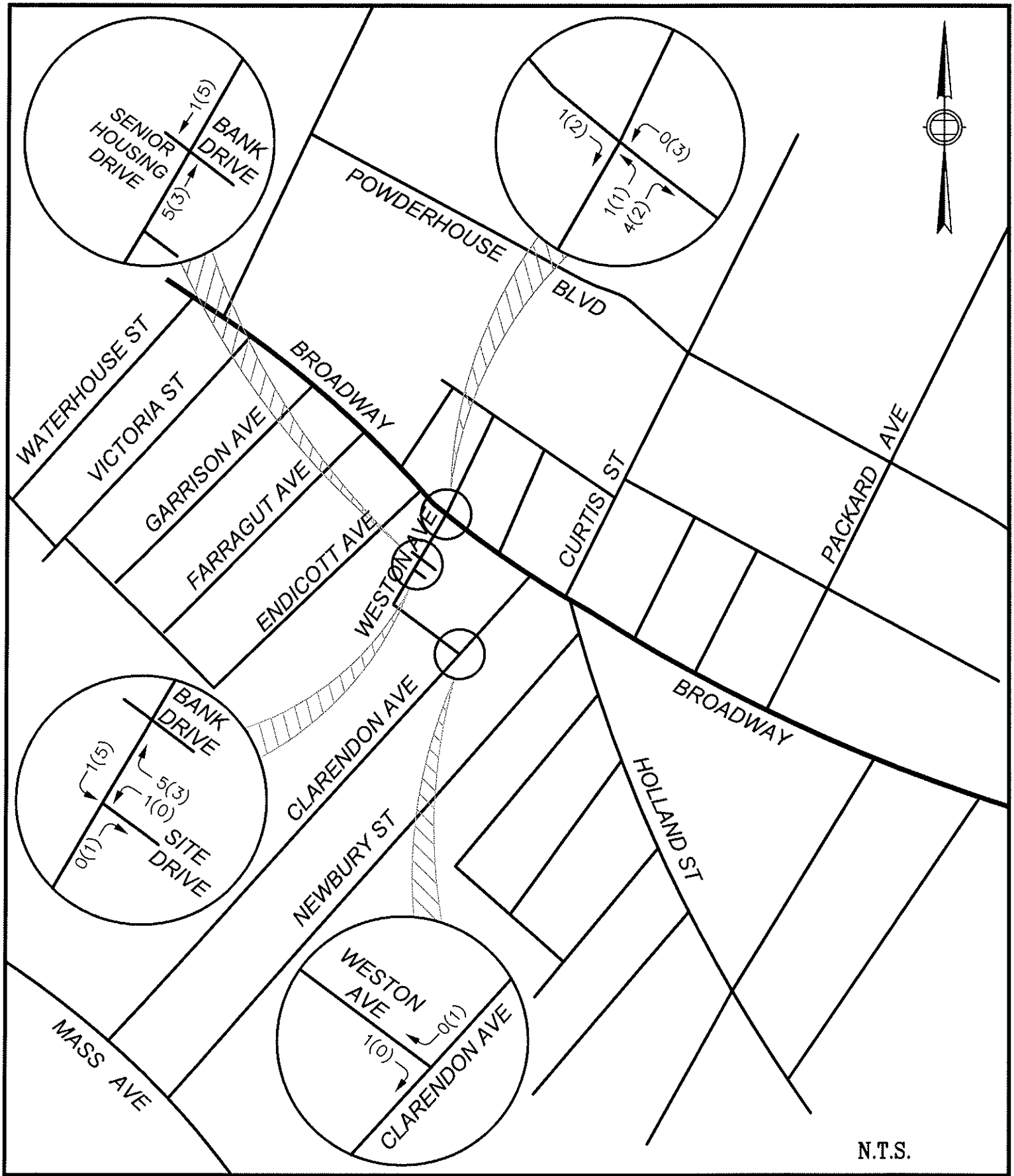
It should be noted that if the existing vacant site office space was fully occupied, the proposed development would result in a decrease of vehicle traffic throughout the day.

The site-generated trips have not been reduced due to other modes of transportation (such as walking, transit or bicycling) in order to present a conservative analysis for potential traffic impact. Otherwise, a reduction would be appropriate due to the proximity of Davis Square and the MBTA Red Line Station.

The site generated peak hour trips have been distributed on the study area intersections based upon existing travel patterns within the study area and routes to major arterials in the area. These site generated peak hour trips are shown on Figure 4. The site generated peak hour trips have been added to the 2015 No-Build volumes, less the existing commercial site traffic and the resulting 2015 Build peak hour volumes are shown in Figure 5.

11.0 Traffic Impacts

In order to evaluate the traffic impacts associated with the proposed development, it is necessary to compute and compare delays and Levels-of-Service for 2015 'No-Build' and 'Build' scenarios. This is shown on the following Table B.



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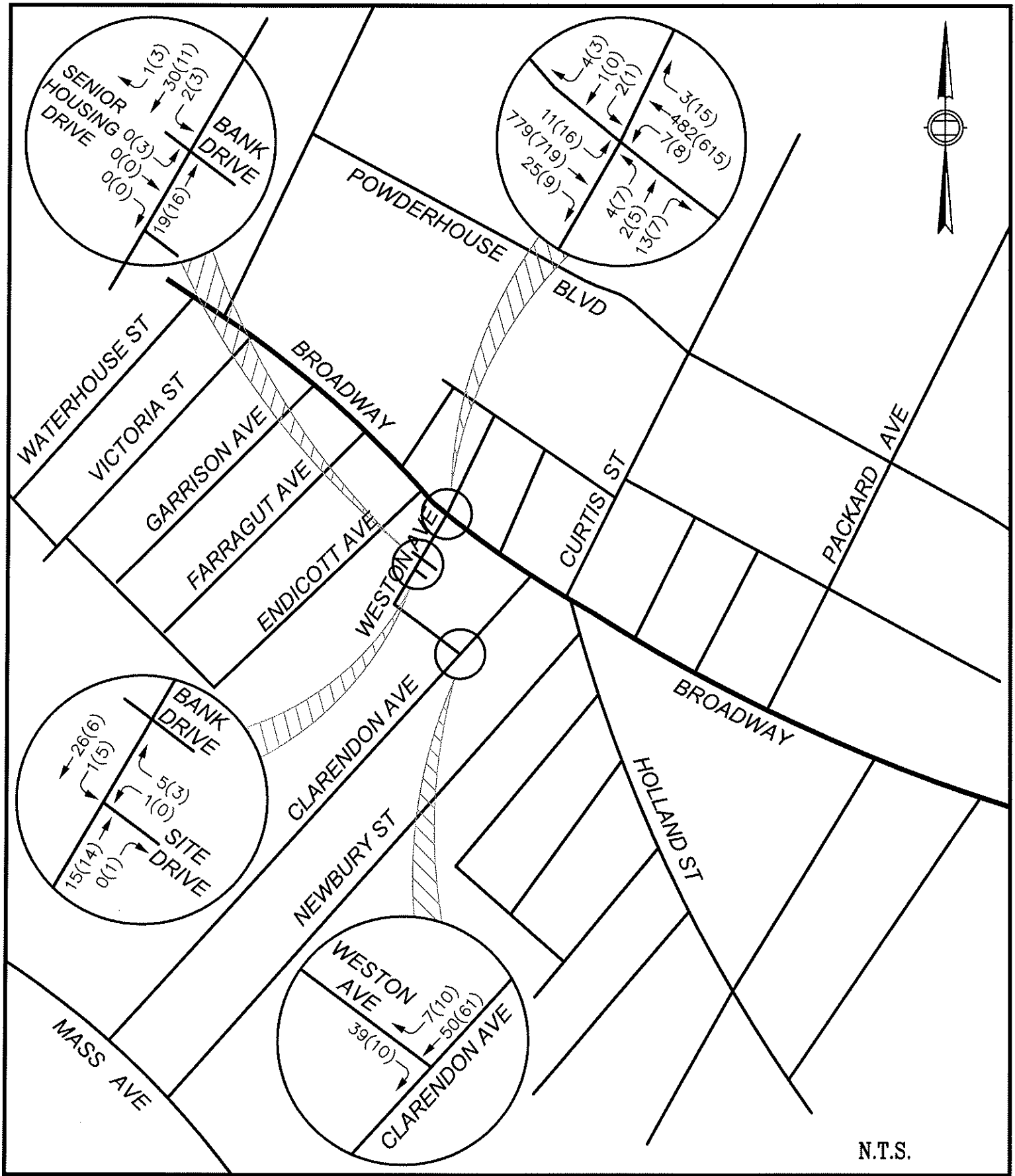
DISTRIBUTION OF SITE-GENERATED TRIPS AM(PM)

FIGURE 4



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2015 BUILD
PEAK HOUR
TRAFFIC VOLUME
AM(PM)

FIGURE 5

TABLE B

LEVEL OF SERVICE
UNSIGNALIZED INTERSECTIONS

Location/ Movement	2015 No-Build						2015 Build					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	V/C (1)	Delay (2)	LOS (3)	V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
Broadway/Weston												
Broadway EB	.01	8.5	A	.02	9.1	A	.01	8.5	A	.02	9.1	A
Broadway WB	.01	10.0	B	.01	9.6	A	.01	10.0	B	.01	9.6	A
Weston Ave NB	.12	28.8	D	.20	46.7	E	.13	28.4	D	.20	45.7	E
Dickson St SB	.04	26.9	D	.02	26.2	D	.04	26.9	D	.02	26.2	D
Clarendon/Weston												
Clarendon SB	0.0	7.2	A	0.0	7.2	A	0.0	7.2	A	0.0	7.2	A
Weston Ave EB	.04	8.8	A	.01	8.7	A	.04	8.8	A	0.1	8.7	A
Weston/Res/ATM												
Weston Ave NB	0.0	7.3	A	0.0	7.2	A	0.0	7.3	A	0.0	7.2	A
Weston Ave SB	0.0	7.3	A	0.0	7.3	A	0.0	7.3	A	0.0	7.2	A
Residential Dr EB	0.0	8.5	A	0.0	8.8	A	0.0	8.5	A	0.0	8.8	A
ATM Dr WB	0.0	8.5	A	0.0	8.5	A	0.0	8.5	A	0.0	8.5	A
Weston/Site Drive												
Weston Ave SB	0.0	7.2	A	0.0	7.2	A	0.0	7.2	A	0.0	7.2	A
Site Drive WB	0.0	8.5	A	0.0	8.4	A	0.0	8.5	A	0.0	8.4	A

(1) Volume/Capacity Ratio
(2) Control Delay in Seconds
(3) Level-of-Service

As seen on Table B, no changes in Level-of-Service occur at the study intersections from No-Build to Build conditions. The results show that the increase (or decrease) in average delays will be one second or less for all traffic movements.

12.0 Sight Distance

Sight distances along Weston Avenue at the proposed site drive intersection were field measured to and from the point where vehicles will stop prior to entering the Weston Avenue traffic flows. Safe stopping distance enables a driver on the major road to perceive and react accordingly to a vehicle moving from the minor road to the major road. The values are based upon driver perception and reaction time and the braking distance for wet level pavement. Stopping sight distance is measured from an eye height of 3.5 feet to an object (vehicle) in the roadway. The AASHTO (1) safe stopping distance requirement is 120 feet for the 20 mph operating speed along Summer Street.

Sight distance at the site driveway will be in excess of the minimum 120-foot stopping sight distance for Weston Avenue. This is due to the straight horizontal and relatively flat vertical alignment of Weston Avenue along the site frontage, combined with the 10 foot setback of the proposed residential building from the back of sidewalk.

13.0 Conclusions

The proposed residential site development at 26 Weston Avenue will generate 7 vehicle trips in the AM peak hour, 9 trips in the PM peak hour and 100 trips per day.

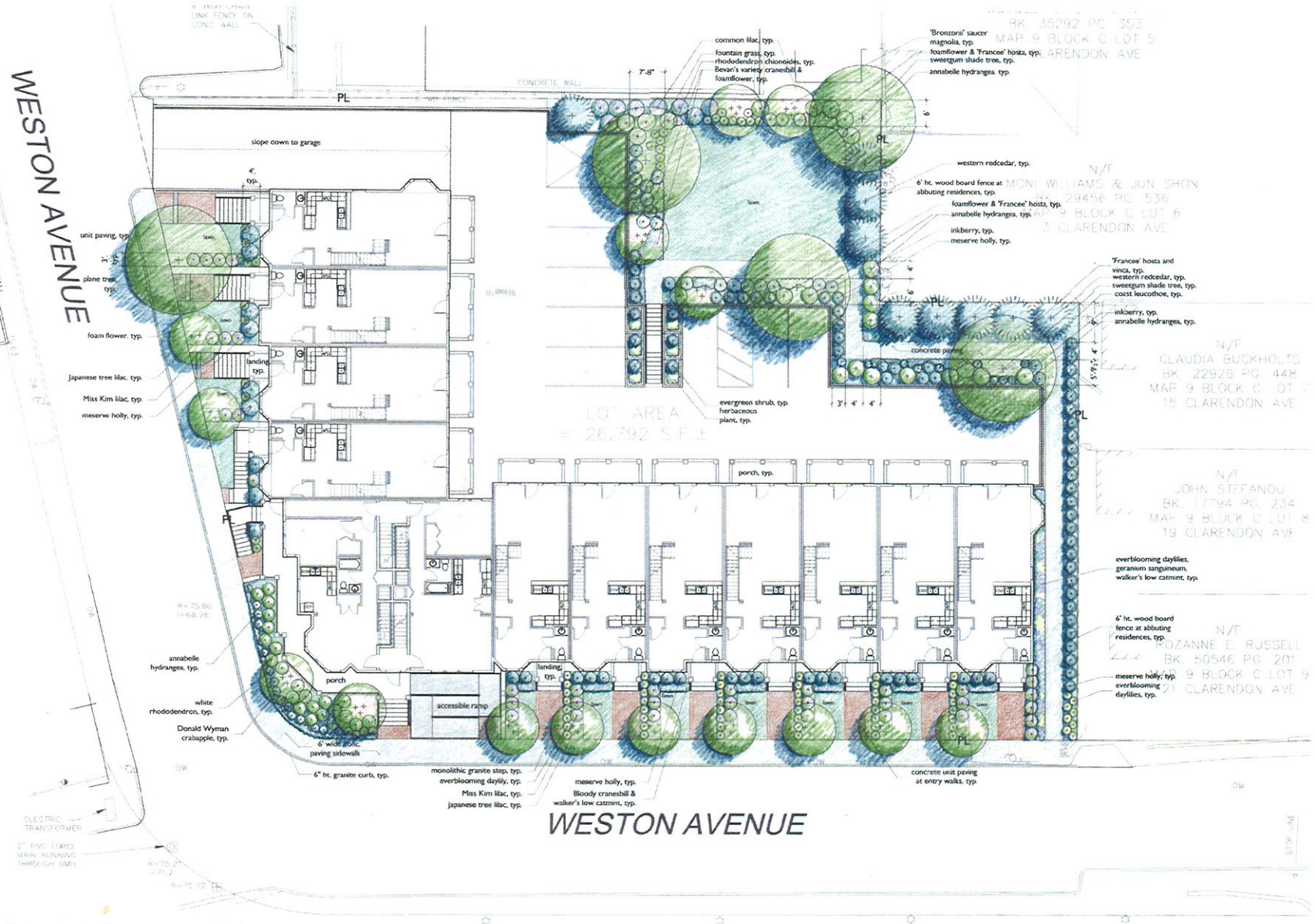
The low volumes generated by the proposed development during the peak hours will have little measureable impacts on traffic flows along Broadway, Weston Avenue and the surrounding roadways. Peak hour directional site traffic (6 vehicles per hour) will amount to approximately one vehicle every ten minutes at the residential driveway. It should also be noted that these peak hour site trips may be reduced due to the nearby MBTA Red Line station at Davis Square. The convenient bus stop and feeder service along Broadway will encourage residents at the site to use transit for their work commute.

Trip generation studies published by ITE show that peak hour rates for residential development coincide with the peak commute periods of adjacent traffic from 7:00 to 9:00 AM and 4:00 to 6:00 PM. Site traffic during off-peak periods will therefore be somewhat lower throughout the day and also reflect the lower traffic volumes on the adjacent roadways (typically about one half of peak hour activity).

(1) American Association of State and Highway Transportation Officials

APPENDIX

A – Preliminary Landscape Plan
B – Traffic Count Data
C – HCS Analysis
    1. 2010 Existing Conditions
    2. 2015 No-Build Conditions
    3. 2015 Build Conditions
D – Trip Generation



Blair Hines Design Associates
LANDSCAPE ARCHITECTS

WESTON AVENUE RESIDENCES, SOMERVILLE, MA

ILLUSTRATIVE LANDSCAPE PLAN - scale: 1" = 10' 6 Oct. 2010

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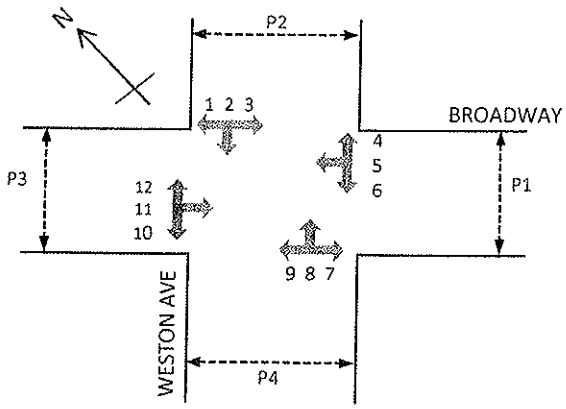
LOCATION: BROADWAY/WESTON AVE
TIME: 7:00-9:00 AM
DATE: 10/7/2010
WEATHER: PARTLY SUNNY

PROJ NO.: 2010-041
SHEET NO: 1
CALCULATED BY: STEPHEN SIMOGLOU
NOTES: COUNT TAKEN FROM WESTON AVE (NEXT TO BANK)

TIME	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
7:15 AM	2	0	0	1	110	0	1	0	0	3	152	3	272
7:30 AM	1	1	1	0	101	2	4	0	2	11	177	8	308
7:45 AM	4	0	1	0	121	1	3	1	1	1	172	5	310
8:00 AM	0	0	1	1	107	2	1	0	1	8	195	1	317
8:15 AM	0	1	0	1	115	0	2	0	0	8	189	2	318
8:30 AM	0	0	0	1	116	4	7	1	2	8	186	3	328
8:45 AM	2	0	1	0	86	4	3	0	1	5	195	2	299
9:00 AM	0	0	0	1	96	0	2	0	6	8	175	3	291
Peak Hour	**4**	**1**	**2**	**3**	**459**	**7**	**13**	**2**	**4**	**25**	**742**	**11**	**1273**

(7:30 AM - 8:30 AM)



	Pedestrians	Bicycles
P1	34	0
P2	34	12
P3	3	0
P4	98	35

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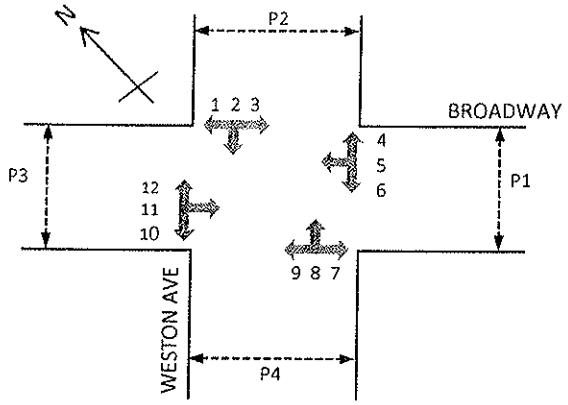
LOCATION: BROADWAY/WESTON AVE
TIME: 4:00-6:00 PM
DATE: 10/5/2010
WEATHER: CLOUDY/MIST

PROJ NO.: 2010-041
SHEET NO: 2
CALCULATED BY: STEPHEN SIMOGLOU
NOTES: COUNT TAKEN FROM WESTON AVE (NEXT TO BANK)

TIME	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
4:15 PM	1	0	0	2	132	4	3	4	1	4	116	2	269
4:30 PM	1	0	0	1	129	5	4	0	3	7	150	1	301
4:45 PM	0	2	0	1	147	2	7	0	2	0	152	1	314
5:00 PM	0	0	0	3	148	2	1	3	1	0	143	5	306
5:15 PM	1	0	0	5	131	2	2	0	1	2	167	6	317
5:30 PM	0	0	0	1	174	3	4	1	0	6	176	5	370
5:45 PM	2	0	1	4	130	2	0	3	3	0	168	2	315
6:00 PM	0	0	0	5	151	1	1	1	3	1	174	3	340
Peak Hour	**3**	**0**	**1**	**15**	**586**	**8**	**7**	**5**	**7**	**9**	**685**	**16**	**1342**

(5:00 PM - 6:00 PM)



	Pedestrians	Bicycles
P1	24	1
P2	74	16
P3	2	0
P4	93	14

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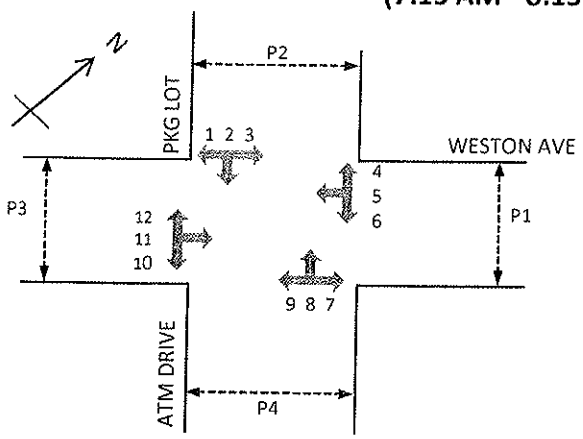
LOCATION: WESTON AVE/ ATM DR/ PKG LOT
PROJ NO.: 2010-041
TIME: 7:00-9:00 AM
SHEET NO: 3
DATE: 10/14/2010
CALCULATED BY: STEPHEN SIMOGLOU
WEATHER: SUNNY
NOTES: COUNT TAKEN FROM BANK PKG LOT

TIME	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
7:15 AM	0	0	0	0	2	0	0	0	0	0	3	0	5
7:30 AM	0	0	0	0	12	0	0	0	0	0	4	0	16
7:45 AM	0	0	0	0	17	0	0	0	0	0	4	0	21
8:00 AM	0	0	0	1	2	1	0	0	0	0	5	0	9
8:15 AM	0	0	0	0	9	1	0	0	0	0	0	0	10
8:30 AM	0	0	0	1	3	1	0	0	0	0	6	0	11
8:45 AM	0	0	0	0	7	2	0	0	0	0	2	0	11
9:00 AM	0	0	1	0	14	2	0	0	0	0	2	0	19
Peak Hour	**0**	**0**	**0**	**1**	**40**	**2**	**0**	**0**	**0**	**0**	**13**	**0**	**56**

(7:15 AM - 8:15 AM)



	Pedestrians	Bicycles
P1	0	0
P2	10	2
P3	0	0
P4	2	0

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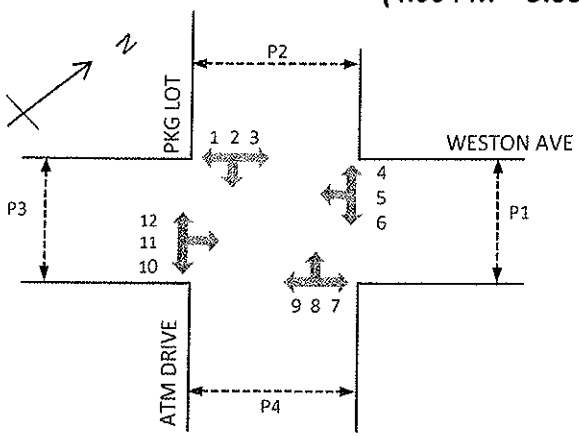
265 MEDFORD ST · SOMERVILLE, MA 02147 · (617) 776-3350

LOCATION: WESTON AVE/ ATM DR/ PKG LOT
PROJ NO.: 2010-041
TIME: 4:00-6:00 PM
SHEET NO: 4
DATE: 10/14/2010
CALCULATED BY: STEPHEN SIMOGLOU
WEATHER: CLOUDY/WINDY
NOTES: COUNT TAKEN FROM BANK PKG LOT

TIME	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
4:15 PM	0	0	1	1	8	3	0	0	0	0	7	0	20
4:30 PM	0	0	0	1	5	0	0	0	0	0	12	0	18
4:45 PM	0	0	1	1	1	0	0	0	0	0	7	0	10
5:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	2
5:15 PM	0	0	1	0	1	2	0	0	0	0	1	0	5
5:30 PM	0	0	1	0	3	3	0	0	0	0	2	0	9
5:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
6:00 PM	0	0	1	0	1	1	0	0	0	0	3	0	6
Peak Hour	**0**	**0**	**3**	**3**	**15**	**3**	**0**	**0**	**0**	**0**	**26**	**0**	**50**

(4:00 PM - 5:00 PM)



	Pedestrians	Bicycles
P1	0	0
P2	14	0
P3	0	0
P4	2	0

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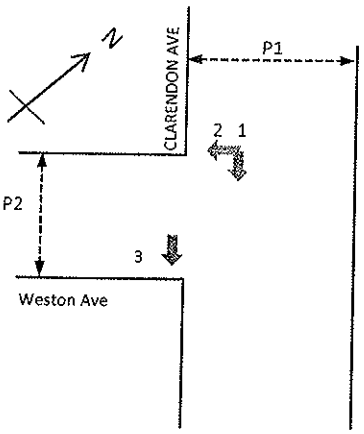
LOCATION: Clarendon Ave, Weston Ave
PROJ NO.: 2010-041
TIME: 7:00 - 9:00 AM
SHEET NO: 1
DATE: 10/7/2010
CALCULATED BY: Steve Wen
WEATHER: Sunny
NOTES:

TIME		1		2		3		TOTAL
7:15 AM		19		1		2		22
7:30 AM		49		2		10		61
7:45 AM		31		3		12		46
8:00 AM		37		1		6		44
8:15 AM		30		1		10		41
8:30 AM		27		4		6		37
8:45 AM		29		2		2		33
9:00 AM		24		1		2		27
Peak Hour	**0**	**147**	**0**	**7**	**0**	**38**	**0**	**192**

(7:15 AM - 8:15 AM)



Pedestrians		Bicycles
P1	5	1
P2	28	3

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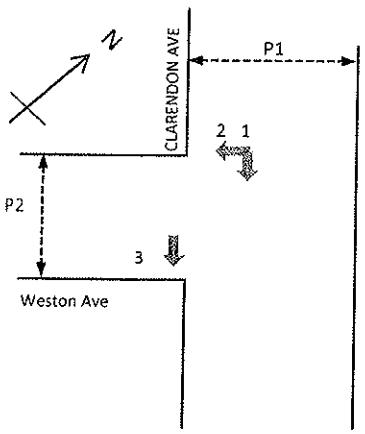
LOCATION: Clarendon Ave, Weston Ave
PROJ NO.: 2010-041
TIME: 4:00 - 6:00 PM
SHEET NO: 2
DATE: 10/5/2010
CALCULATED BY: Steve Wen
WEATHER: RAINY
NOTES:

TIME		1		2		3		TOTAL
4:15 AM		11		3		2		16
4:30 AM		16		2		2		20
4:45 AM		12		3		2		17
5:00 AM		14		0		0		14
5:15 AM		17		3		2		22
5:30 AM		14		0		3		17
5:45 AM		15		3		2		20
6:00 AM		12		3		3		18
Peak Hour	**0**	**58**	**0**	**9**	**0**	**10**	**0**	**77**

(4:00 PM - 5:00 PM)

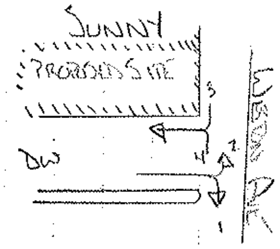


Pedestrians		Bicycles
P1	0	0
P2	19	0

DESIGN CONSULTANTS, INC.
Design Consultants Building
265 Medford Street Suite 308
SOMERVILLE, MA 02143
(617) 776-3350
FAX (617) 776-7710

JOB 2010-041
SHEET NO. 1 OF 1
CALCULATED BY Stephen Simmons DATE 10/18/10
CHECKED BY DATE
SCALE

10/18/10
7:30 AM-8:30 AM
SUNNY



~ ABOUT 4 VEHICLES IN LOT AT START OF SURVEY

MOVEMENT	1	2	3	4	TOTAL
730-745	I			II	3
745-800					
800-815	II			I	3
815-830	I			I	2
TOTAL	4			4	

10/18/10
4:00 PM-5:00 PM
PARTLY SUNNY

~ 6 VEHICLES IN LOT AT START OF SURVEY

MOVEMENT	1	2	3	4	TOTAL
4:00-4:15				I	1
4:15-4:30	I				1
4:30-4:45				III	3
4:45-5:00	I			I	2
TOTAL	2			5	

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	DRI
Agency/Co.	DCI
Date Performed	10/15/2010
Analysis Time Period	AM Peak Hour

Site Information

Intersection	Broadway & Weston Avenue
Jurisdiction	Somerville, MA
Analysis Year	2010

Project Description: 26 Weston Avenue - Existing 2010 Condition

East/West Street: Broadway | North/South Street: Weston/Dickson

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	11	742	25	7	459	3
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	12	824	27	7	510	3
Proportion of heavy vehicles, P_{HV}	1	--	--	1	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	4	2	13	2	1	4
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate (veh/h)	4	2	15	2	1	4
Proportion of heavy vehicles, P_{HV}	1	1	1	1	1	1
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
Volume, v (vph)	12	7		21			7	
Capacity, c_m (vph)	1052	747		187			188	
v/c ratio	0.01	0.01		0.11			0.04	
Queue length (95%)	0.03	0.03		0.37			0.12	
Control Delay (s/veh)	8.5	9.9		26.7			24.9	
LOS	A	A		D			C	
Approach delay (s/veh)	--	--	26.7			24.9		
Approach LOS	--	--	D			C		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	DRI
Agency/Co.	DCI
Date Performed	10/18/2010
Analysis Time Period	PM Peak Hour

Site Information

Intersection	Broadway & Weston Avenue
Jurisdiction	Somerville, MA
Analysis Year	2010

Project Description: 26 Weston Avenue - Existing 2010 Condition

East/West Street: Broadway | North/South Street: Weston/Dickson

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	16	685	9	8	586	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	17	761	10	8	651	16
Proportion of heavy vehicles, P_{HV}	1	--	--	1	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	7	5	7	1	0	3
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate (veh/h)	8	5	8	1	0	3
Proportion of heavy vehicles, P_{HV}	1	1	1	1	1	1
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
Volume, v (vph)	17	8		21			4	
Capacity, c_m (vph)	924	814		119			191	
v/c ratio	0.02	0.01		0.18			0.02	
Queue length (95%)	0.06	0.03		0.61			0.06	
Control Delay (s/veh)	9.0	9.5		41.6			24.3	
LOS	A	A		E			C	
Approach delay (s/veh)	--	--	41.6			24.3		
Approach LOS	--	--	E			C		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Avenue/Bank/Res Dr
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	AM Peak Hour		

Project Description	26 Weston Avenue - Existing 2010 Condition
East/West Street: Sen Res DR/ATM Entry	North/South Street: Weston Avenue
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	19	0	2	30	1
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	22	0	2	35	1
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

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

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	0	2		1			1	
C (m) (vph)	1581	1600		1039			1038	
v/c	0.00	0.00		0.00			0.00	
95% queue length	0.00	0.00		0.00			0.00	
Control Delay	7.3	7.3		8.5			8.5	
LOS	A	A		A			A	
Approach Delay	--	--	8.5			8.5		
Approach LOS	--	--	A			A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Avenue/Bank/Res Dr*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*PM Peak Hour*		

Project Description	*26 Weston Avenue - Existing 2010 Condition*
East/West Street:	*Sen Res DR/ATM Entry*
North/South Street:	*Weston Avenue*
Intersection Orientation:	*North-South*
Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*16*	*0*	*3*	*11*	*3*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*18*	*0*	*3*	*12*	*3*
Percent Heavy Vehicles	*1*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*1*	*3*	*0*	*0*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*1*	*3*	*0*	*0*
Percent Heavy Vehicles	*1*	*1*	*0*	*1*	*1*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*0*	*3*		*1*			*3*	
C (m) (vph)	*1609*	*1605*		*1044*			*945*	
v/c	*0.00*	*0.00*		*0.00*			*0.00*	
95% queue length	*0.00*	*0.01*		*0.00*			*0.01*	
Control Delay	*7.2*	*7.2*		*8.5*			*8.8*	
LOS	*A*	*A*		*A*			*A*	
Approach Delay	--	--	*8.5*			*8.8*		
Approach LOS	--	--	*A*			*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Ave/Clarendon Ave*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*AM Peak Hour*		
Project Description	*26 Weston Avenue - Existing 2010 Condition*		
East/West Street:	*Weston Avenue*	North/South Street:	*Clarendon Avenue*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*48*	*7*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*56*	*8*
Percent Heavy Vehicles	*0*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*38*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*44*
Percent Heavy Vehicles	*0*	*0*	*0*	*1*	*1*	*1*
Percent Grade (%)		*0*			*-10*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*1*	*0*
Configuration					*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*					*LTR*	
v (vph)	*0*	*0*					*44*	
C (m) (vph)	*1551*	*1630*					*1004*	
v/c	*0.00*	*0.00*					*0.04*	
95% queue length	*0.00*	*0.00*					*0.14*	
Control Delay	*7.3*	*7.2*					*8.7*	
LOS	*A*	*A*					*A*	
Approach Delay	--	--				*8.7*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Ave/Clarendon Ave*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*PM Peak Hour*		
Project Description	*26 Weston Avenue - Existing 2010 Condition*		
East/West Street:	*Weston Avenue*	North/South Street:	*Clarendon Avenue*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*58*	*9*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*68*	*10*
Percent Heavy Vehicles	*0*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

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

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*					*LTR*	
v (vph)	*0*	*0*					*11*	
C (m) (vph)	*1533*	*1630*					*987*	
v/c	*0.00*	*0.00*					*0.01*	
95% queue length	*0.00*	*0.00*					*0.03*	
Control Delay	*7.3*	*7.2*					*8.7*	
LOS	*A*	*A*					*A*	
Approach Delay	--	--				*8.7*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Avenue/Site Dr*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*AM Peak Hour*		
Project Description	*26 Weston Avenue - Existing 2010 Condition*		
East/West Street:	*Site Dr*	North/South Street:	*Weston Avenue*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*15*	*0*	*4*	*26*	*0*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*17*	*0*	*4*	*30*	*0*
Percent Heavy Vehicles	*1*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*4*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*4*	*0*	*0*	*0*
Percent Heavy Vehicles	*1*	*1*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*0*	*0*
Configuration		*LTR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*				
v (vph)	*0*	*4*		*4*				
C (m) (vph)	*1589*	*1607*		*1045*				
v/c	*0.00*	*0.00*		*0.00*				
95% queue length	*0.00*	*0.01*		*0.01*				
Control Delay	*7.3*	*7.2*		*8.5*				
LOS	*A*	*A*		*A*				
Approach Delay	--	--	*8.5*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Avenue/Site Dr
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	PM Peak Hour		
Project Description	26 Weston Avenue - Existing 2010 Condition		
East/West Street:	Site Dr	North/South Street:	Weston Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	14	0	5	6	0
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	16	0	5	7	0
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	2	0	0	0
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	0	2	0	0	0
Percent Heavy Vehicles	1	1	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR				
v (vph)	0	5		2				
C (m) (vph)	1620	1608		1047				
v/c	0.00	0.00		0.00				
95% queue length	0.00	0.01		0.01				
Control Delay	7.2	7.2		8.4				
LOS	A	A		A				
Approach Delay	--	--	8.4					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*DRI*
Agency/Co.	*DCI*
Date Performed	*10/15/2010*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Broadway & Weston Avenue*
Jurisdiction	*Somerville, MA*
Analysis Year	*2010*

Project Description *26 Weston Avenue - Proj 2015 No-Build Condition*

East/West Street: *Broadway* | North/South Street: *Weston/Dickson*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*11*	*779*	*25*	*7*	*482*	*3*
Peak-hour factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate (veh/h)	*12*	*865*	*27*	*7*	*535*	*3*
Proportion of heavy vehicles, P_{HV}	*1*	--	--	*1*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*1*			*1*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*4*	*2*	*13*	*2*	*1*	*4*
Peak-hour factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate (veh/h)	*4*	*2*	*15*	*2*	*1*	*4*
Proportion of heavy vehicles, P_{HV}	*1*	*1*	*1*	*1*	*1*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*12*	*7*		*21*			*7*	
Capacity, c_m (vph)	*1030*	*721*		*172*			*171*	
v/c ratio	*0.01*	*0.01*		*0.12*			*0.04*	
Queue length (95%)	*0.04*	*0.03*		*0.41*			*0.13*	
Control Delay (s/veh)	*8.5*	*10.0*		*28.8*			*26.9*	
LOS	*A*	*B*		*D*			*D*	
Approach delay (s/veh)	--	--	*28.8*			*26.9*		
Approach LOS	--	--	*D*			*D*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	DRI
Agency/Co.	DCI
Date Performed	10/18/2010
Analysis Time Period	PM Peak Hour

Site Information

Intersection	Broadway & Weston Avenue
Jurisdiction	Somerville, MA
Analysis Year	2010

Project Description: 26 Weston Avenue - Proj 2015 No-Build Condition

East/West Street: Broadway | North/South Street: Weston/Dickson

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	16	719	9	8	615	15
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	17	798	10	8	683	16
Proportion of heavy vehicles, P_{HV}	1	--	--	1	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	7	5	7	1	0	3
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate (veh/h)	8	5	8	1	0	3
Proportion of heavy vehicles, P_{HV}	1	1	1	1	1	1
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
Volume, v (vph)	17	8		21			4	
Capacity, c_m (vph)	899	789		107			174	
v/c ratio	0.02	0.01		0.20			0.02	
Queue length (95%)	0.06	0.03		0.69			0.07	
Control Delay (s/veh)	9.1	9.6		46.7			26.2	
LOS	A	A		E			D	
Approach delay (s/veh)	--	--	46.7			26.2		
Approach LOS	--	--	E			D		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Avenue/Bank/Res Dr*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*AM Peak Hour*		

Project Description *26 Weston Avenue - Proj No-Build 2015 Condition*

East/West Street: *Sen Res DR/ATM Entry* | North/South Street: *Weston Avenue*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*19*	*0*	*2*	*30*	*1*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*22*	*0*	*2*	*35*	*1*
Percent Heavy Vehicles	*1*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

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

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*0*	*2*		*1*			*1*	
C (m) (vph)	*1581*	*1600*		*1039*			*1038*	
v/c	*0.00*	*0.00*		*0.00*			*0.00*	
95% queue length	*0.00*	*0.00*		*0.00*			*0.00*	
Control Delay	*7.3*	*7.3*		*8.5*			*8.5*	
LOS	*A*	*A*		*A*			*A*	
Approach Delay	--	--	*8.5*			*8.5*		
Approach LOS	--	--	*A*			*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Avenue/Bank/Res Dr
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	PM Peak Hour		

Project Description	26 Weston Avenue - Proj No-Build 2015 Condition
East/West Street:	Sen Res DR/ATM Entry
North/South Street:	Weston Avenue
Intersection Orientation:	North-South
Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	16	0	3	11	3
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	18	0	3	12	3
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	1	3	0	0
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	0	1	3	0	0
Percent Heavy Vehicles	1	1	0	1	1	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	0	3		1			3	
C (m) (vph)	1609	1605		1044			945	
v/c	0.00	0.00		0.00			0.00	
95% queue length	0.00	0.01		0.00			0.01	
Control Delay	7.2	7.2		8.5			8.8	
LOS	A	A		A			A	
Approach Delay	--	--	8.5			8.8		
Approach LOS	--	--	A			A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Ave/Clarendon Ave*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*AM Peak Hour*		
Project Description	*26 Weston Avenue - Proj 2015 No-Build Condition*		
East/West Street:	*Weston Avenue*	North/South Street:	*Clarendon Avenue*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*50*	*7*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*58*	*8*
Percent Heavy Vehicles	*0*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*38*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*44*
Percent Heavy Vehicles	*0*	*0*	*0*	*1*	*1*	*1*
Percent Grade (%)		*0*			*-10*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*1*	*0*
Configuration					*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*					*LTR*	
v (vph)	*0*	*0*					*44*	
C (m) (vph)	*1549*	*1630*					*1001*	
v/c	*0.00*	*0.00*					*0.04*	
95% queue length	*0.00*	*0.00*					*0.14*	
Control Delay	*7.3*	*7.2*					*8.8*	
LOS	*A*	*A*					*A*	
Approach Delay	--	--					*8.8*	
Approach LOS	--	--					*A*	

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Ave/Clarendon Ave
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	PM Peak Hour		

Project Description: 26 Weston Avenue - Proj 2015 No-Build Condition

East/West Street: Weston Avenue | North/South Street: Clarendon Avenue

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	0	0	0	61	9
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	0	0	0	71	10
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

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

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR					LTR	
v (vph)	0	0					11	
C (m) (vph)	1529	1630					984	
v/c	0.00	0.00					0.01	
95% queue length	0.00	0.00					0.03	
Control Delay	7.4	7.2					8.7	
LOS	A	A					A	
Approach Delay	--	--				8.7		
Approach LOS	--	--				A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Avenue/Site Dr*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*AM Peak Hour*		
Project Description	*26 Weston Avenue - Proj No Build 2015 Condition*		
East/West Street:	*Site Dr*	North/South Street:	*Weston Avenue*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*15*	*0*	*4*	*26*	*0*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*17*	*0*	*4*	*30*	*0*
Percent Heavy Vehicles	*1*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*4*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*4*	*0*	*0*	*0*
Percent Heavy Vehicles	*1*	*1*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*0*	*0*
Configuration		*LTR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*				
v (vph)	*0*	*4*		*4*				
C (m) (vph)	*1589*	*1607*		*1045*				
v/c	*0.00*	*0.00*		*0.00*				
95% queue length	*0.00*	*0.01*		*0.01*				
Control Delay	*7.3*	*7.2*		*8.5*				
LOS	*A*	*A*		*A*				
Approach Delay	--	--	*8.5*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Avenue/Site Dr
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	PM Peak Hour		
Project Description	26 Weston Avenue - Proj No Build 2015 Condition		
East/West Street:	Site Dr	North/South Street:	Weston Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	14	0	5	6	0
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	16	0	5	7	0
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	2	0	0	0
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	0	2	0	0	0
Percent Heavy Vehicles	1	1	0	0	0	0
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR				
v (vph)	0	5		2				
C (m) (vph)	1620	1608		1047				
v/c	0.00	0.00		0.00				
95% queue length	0.00	0.01		0.01				
Control Delay	7.2	7.2		8.4				
LOS	A	A		A				
Approach Delay	--	--	8.4					
Approach LOS	--	--	A					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	DRI
Agency/Co.	DCI
Date Performed	10/15/2010
Analysis Time Period	AM Peak Hour

Site Information

Intersection	Broadway & Weston Avenue
Jurisdiction	Somerville, MA
Analysis Year	2010

Project Description: 26 Weston Avenue - Proj 2015 Build Condition

East/West Street: Broadway | North/South Street: Weston/Dickson

Intersection Orientation: East-West | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	11	779	22	7	482	3
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Hourly Flow Rate (veh/h)	12	865	24	7	535	3
Proportion of heavy vehicles, P_{HV}	1	--	--	1	--	--
Median type	Undivided					
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		1			1	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	4	2	14	2	1	4
Peak-hour factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate (veh/h)	4	2	16	2	1	4
Proportion of heavy vehicles, P_{HV}	1	1	1	1	1	1
Percent grade (%)	0			0		
Flared approach		N			N	
Storage		0			0	
RT Channelized?			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
Volume, v (vph)	12	7		22			7	
Capacity, c_m (vph)	1030	723		176			171	
v/c ratio	0.01	0.01		0.13			0.04	
Queue length (95%)	0.04	0.03		0.42			0.13	
Control Delay (s/veh)	8.5	10.0		28.4			26.9	
LOS	A	B		D			D	
Approach delay (s/veh)	--	--	28.4			26.9		
Approach LOS	--	--	D			D		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*DRI*
Agency/Co.	*DCI*
Date Performed	*10/18/2010*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Broadway & Weston Avenue*
Jurisdiction	*Somerville, MA*
Analysis Year	*2010*

Project Description *26 Weston Avenue - Proj 2015 Build Condition*

East/West Street: *Broadway* | North/South Street: *Weston/Dickson*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*16*	*719*	*9*	*8*	*615*	*15*
Peak-hour factor, PHF	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate (veh/h)	*17*	*798*	*10*	*8*	*683*	*16*
Proportion of heavy vehicles, P_{HV}	*1*	--	--	*1*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*1*			*1*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*7*	*5*	*8*	*1*	*0*	*3*
Peak-hour factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate (veh/h)	*8*	*5*	*9*	*1*	*0*	*3*
Proportion of heavy vehicles, P_{HV}	*1*	*1*	*1*	*1*	*1*	*1*
Percent grade (%)	*0*			*0*		
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*17*	*8*		*22*			*4*	
Capacity, c_m (vph)	*899*	*789*		*110*			*174*	
v/c ratio	*0.02*	*0.01*		*0.20*			*0.02*	
Queue length (95%)	*0.06*	*0.03*		*0.70*			*0.07*	
Control Delay (s/veh)	*9.1*	*9.6*		*45.7*			*26.2*	
LOS	*A*	*A*		*E*			*D*	
Approach delay (s/veh)	--	--	*45.7*			*26.2*		
Approach LOS	--	--	*E*			*D*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Avenue/Bank/Res Dr
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	AM Peak Hour		

Project Description	26 Weston Avenue - Proj Build 2015 Condition
East/West Street:	Sen Res DR/ATM Entry
North/South Street:	Weston Avenue
Intersection Orientation:	North-South
Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	19	0	2	27	1
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	22	0	2	31	1
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

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

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (vph)	0	2		1			1	
C (m) (vph)	1587	1600		1039			1043	
v/c	0.00	0.00		0.00			0.00	
95% queue length	0.00	0.00		0.00			0.00	
Control Delay	7.3	7.3		8.5			8.5	
LOS	A	A		A			A	
Approach Delay	--	--	8.5			8.5		
Approach LOS	--	--	A			A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Avenue/Bank/Res Dr*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*PM Peak Hour*		

Project Description	*26 Weston Avenue - Proj 2015 Build Condition*
East/West Street:	*Sen Res DR/ATM Entry*
North/South Street:	*Weston Avenue*
Intersection Orientation:	*North-South*
Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*16*	*0*	*3*	*11*	*3*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*18*	*0*	*3*	*12*	*3*
Percent Heavy Vehicles	*1*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*1*	*3*	*0*	*0*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*1*	*3*	*0*	*0*
Percent Heavy Vehicles	*1*	*1*	*0*	*1*	*1*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
v (vph)	*0*	*3*		*1*			*3*	
C (m) (vph)	*1609*	*1605*		*1044*			*945*	
v/c	*0.00*	*0.00*		*0.00*			*0.00*	
95% queue length	*0.00*	*0.01*		*0.00*			*0.01*	
Control Delay	*7.2*	*7.2*		*8.5*			*8.8*	
LOS	*A*	*A*		*A*			*A*	
Approach Delay	--	--	*8.5*			*8.8*		
Approach LOS	--	--	*A*			*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Ave/Clarendon Ave*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*AM Peak Hour*		
Project Description	*26 Weston Avenue - Proj 2015 Build Condition*		
East/West Street:	*Weston Avenue*	North/South Street:	*Clarendon Avenue*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*50*	*7*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*58*	*8*
Percent Heavy Vehicles	*0*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*0*	*0*	*0*	*0*	*0*	*39*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*0*	*0*	*0*	*0*	*45*
Percent Heavy Vehicles	*0*	*0*	*0*	*1*	*1*	*1*
Percent Grade (%)		*0*			*-10*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*1*	*0*
Configuration					*LTR*	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*					*LTR*	
v (vph)	*0*	*0*					*45*	
C (m) (vph)	*1549*	*1630*					*1001*	
v/c	*0.00*	*0.00*					*0.04*	
95% queue length	*0.00*	*0.00*					*0.14*	
Control Delay	*7.3*	*7.2*					*8.8*	
LOS	*A*	*A*					*A*	
Approach Delay	--	--				*8.8*		
Approach LOS	--	--				*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Ave/Clarendon Ave
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	PM Peak Hour		

Project Description: 26 Weston Avenue - Proj 2015 Build Condition

East/West Street: Weston Avenue | North/South Street: Clarendon Avenue

Intersection Orientation: North-South | Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	0	0	0	61	10
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	0	0	0	71	11
Percent Heavy Vehicles	0	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

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

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR					LTR	
v (vph)	0	0					11	
C (m) (vph)	1528	1630					984	
v/c	0.00	0.00					0.01	
95% queue length	0.00	0.00					0.03	
Control Delay	7.4	7.2					8.7	
LOS	A	A					A	
Approach Delay	--	--				8.7		
Approach LOS	--	--				A		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*DRI*	Intersection	*Weston Avenue/Site Dr*
Agency/Co.	*DCI*	Jurisdiction	*Somerville, MA*
Date Performed	*10/15/2010*	Analysis Year	*2010*
Analysis Time Period	*AM Peak Hour*		
Project Description	*26 Weston Avenue - Proj Build 2015 Condition*		
East/West Street:	*Site Dr*	North/South Street:	*Weston Avenue*
Intersection Orientation:	*North-South*	Study Period (hrs):	*0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*15*	*0*	*1*	*26*	*0*
Peak-Hour Factor, PHF	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*	*0.85*
Hourly Flow Rate, HFR	*0*	*17*	*0*	*1*	*30*	*0*
Percent Heavy Vehicles	*1*	--	--	*1*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

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

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*				
v (vph)	*0*	*1*		*6*				
C (m) (vph)	*1589*	*1607*		*1029*				
v/c	*0.00*	*0.00*		*0.01*				
95% queue length	*0.00*	*0.00*		*0.02*				
Control Delay	*7.3*	*7.2*		*8.5*				
LOS	*A*	*A*		*A*				
Approach Delay	--	--	*8.5*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	DRI	Intersection	Weston Avenue/Site Dr
Agency/Co.	DCI	Jurisdiction	Somerville, MA
Date Performed	10/15/2010	Analysis Year	2010
Analysis Time Period	PM Peak Hour		
Project Description	26 Weston Avenue - Proj Build 2015 Condition		
East/West Street:	Site Dr	North/South Street:	Weston Avenue
Intersection Orientation:	North-South	Study Period (hrs):	0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	14	1	5	6	0
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	16	1	5	7	0
Percent Heavy Vehicles	1	--	--	1	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	3	0	0	0
Peak-Hour Factor, PHF	0.85	0.85	0.85	0.85	0.85	0.85
Hourly Flow Rate, HFR	0	0	3	0	0	0
Percent Heavy Vehicles	1	1	0	0	0	0
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	0	0
Configuration		LTR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR				
v (vph)	0	5		3				
C (m) (vph)	1620	1607		1047				
v/c	0.00	0.00		0.00				
95% queue length	0.00	0.01		0.01				
Control Delay	7.2	7.2		8.4				
LOS	A	A		A				
Approach Delay	--	--	8.4					
Approach LOS	--	--	A					

Residential Condominium/Townhouse
(230)

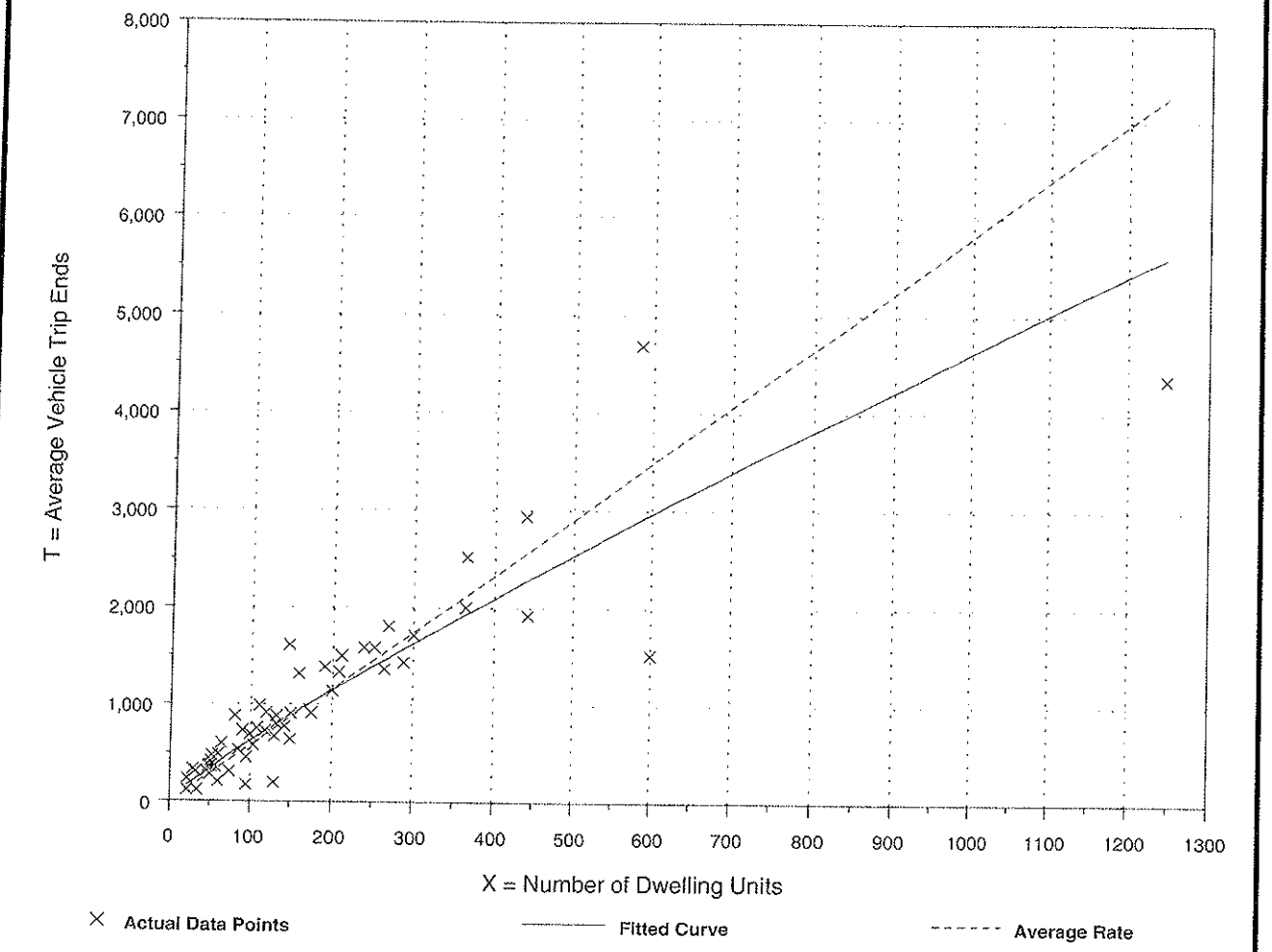
Average Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Number of Studies: 56
Avg. Number of Dwelling Units: 179
Directional Distribution: 50% entering, 50% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
5.81	1.53 - 11.79	3.11

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.87 Ln(X) + 2.46

R^2 = 0.80

Residential Condominium/Townhouse
(230)

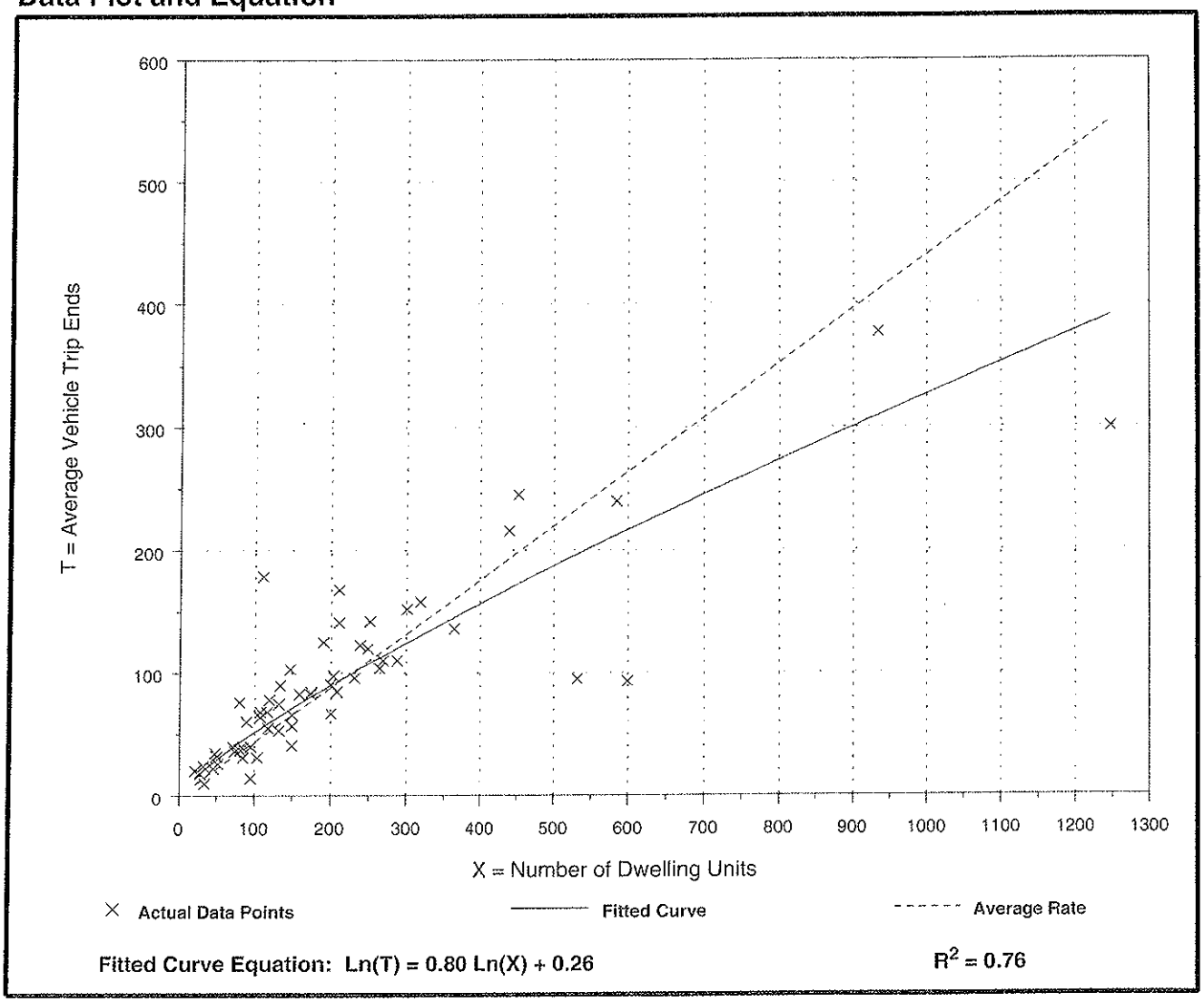
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 59
Avg. Number of Dwelling Units: 213
Directional Distribution: 17% entering, 83% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.15 - 1.61	0.69

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.80 Ln(X) + 0.26

R^2 = 0.76

Residential Condominium/Townhouse
(230)

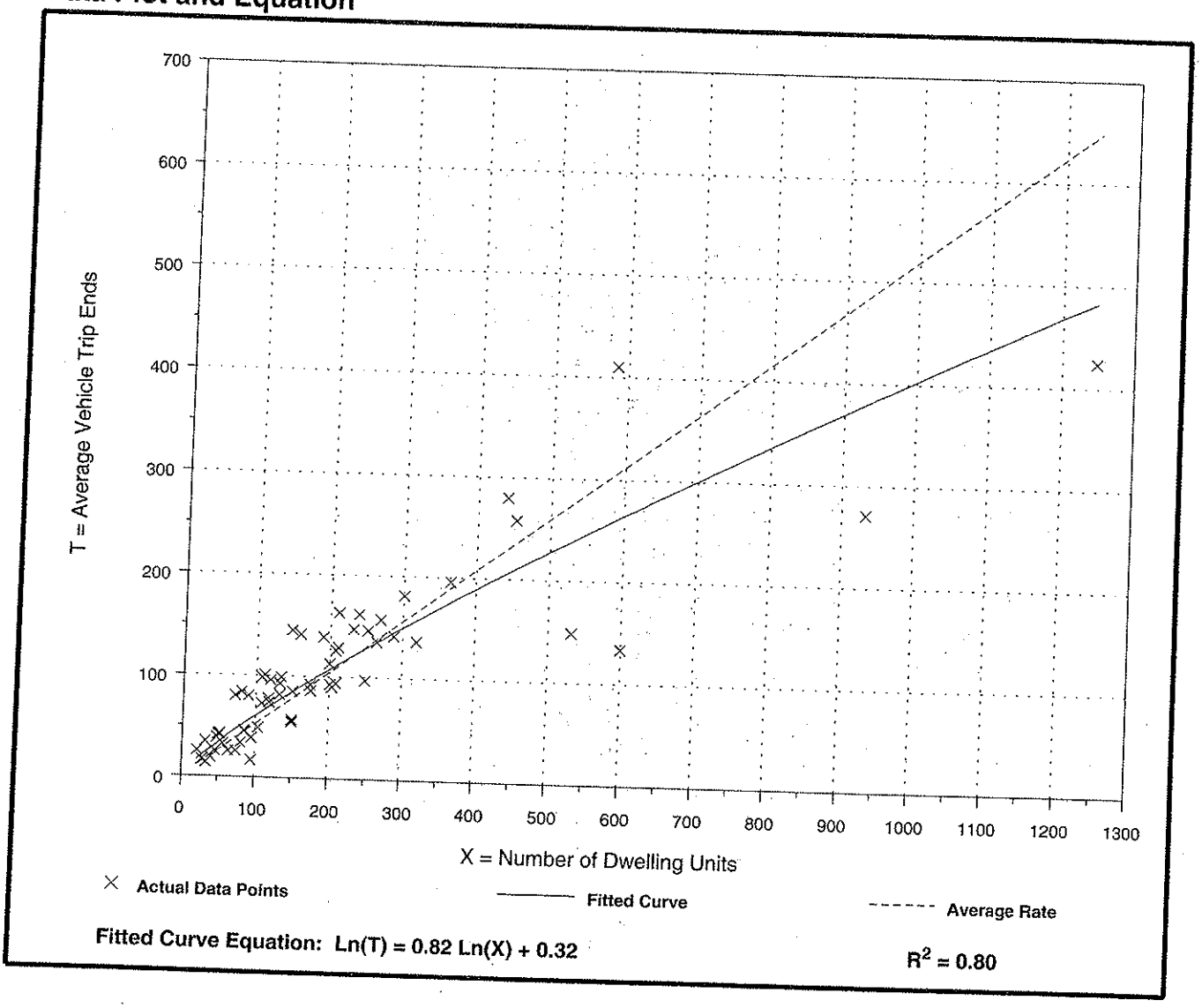
Average Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 62
Avg. Number of Dwelling Units: 205
Directional Distribution: 67% entering, 33% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.18 - 1.24	0.75

Data Plot and Equation



Fitted Curve Equation: $Ln(T) = 0.82\ Ln(X) + 0.32$

$R^2 = 0.80$