

OCTOBER 10, 2025

Christopher J. Ryan, AICP  
Director of Planning and Building  
Town of Belmont  
Homer Municipal Building  
19 Moore Street, Belmont, Massachusetts 02478

RE: Transportation Impact Assessment – Downtown Belmont Zoning Changes

Dear Mr. Ryan,

BSC Group, Inc. (BSC) has completed our analysis of the estimated traffic impacts on the downtown area as a result of the potential change in zoning of several parcels. This memorandum will summarize and document the methodology and findings of our traffic analysis.

## Project Overview

The Town of Belmont (the Town) is considering changing the zoning of several parcels in the downtown area to allow for a broader range of land uses. This Traffic Impact Assessment (TIA) was performed to estimate the effects of these zoning changes on traffic flow in the downtown area, with a particular emphasis on the following two intersections:

- Concord Avenue/ Channing Road at Leonard Street
- Common Street at Concord Avenue

Information regarding various buildout scenarios being used by the Town for fiscal and parking analyses can be found on the Town's website at <https://www.belmont-ma.gov/2178/Buildout-and-Fiscal-Impact-Analysis>.

The Town provided BSC with the following half buildout scenario for evaluation, which is consistent with buildout scenarios being used for both the fiscal and parking analyses. The half buildout scenario assumes that up to 50% of the potentially rezoned properties are redeveloped to take advantage of the proposed zoning changes.

**Table 1: Half Buildout Scenario**

Land Use	Quantity
Residential	258 units
Office	97,004 SF
Retail/ Services	141,438 SF
Hotel	179 rooms

As part of a separate project, BSC is working with the Town and the Massachusetts Department of Transportation (MassDOT) to design interconnected traffic signals at these two intersections, located immediately to the north and south of the railroad bridge across Concord Avenue. Design is being funded through MassDOT's Local Bottleneck Reduction Program. This TIA examines the following future scenarios:

- 2035 No-Build without traffic signals
- 2035 Half buildout without traffic signals
- 2035 No-Build with traffic signals
- 2035 Half buildout with traffic signals

### Existing Traffic Volumes

BSC procured turning movement counts (TMCs) at the following intersections for use in this study and the traffic signal design:

- Concord Avenue/ Channing Road at Leonard Street
- Common Street at Concord Avenue
- Concord Avenue at Pleasant Street
- Leonard Street at Alexander Avenue
- Clifton Street at Leonard Street

The 2025 Existing traffic volumes at these study intersections are shown in Figure A-1 in the Attachments.

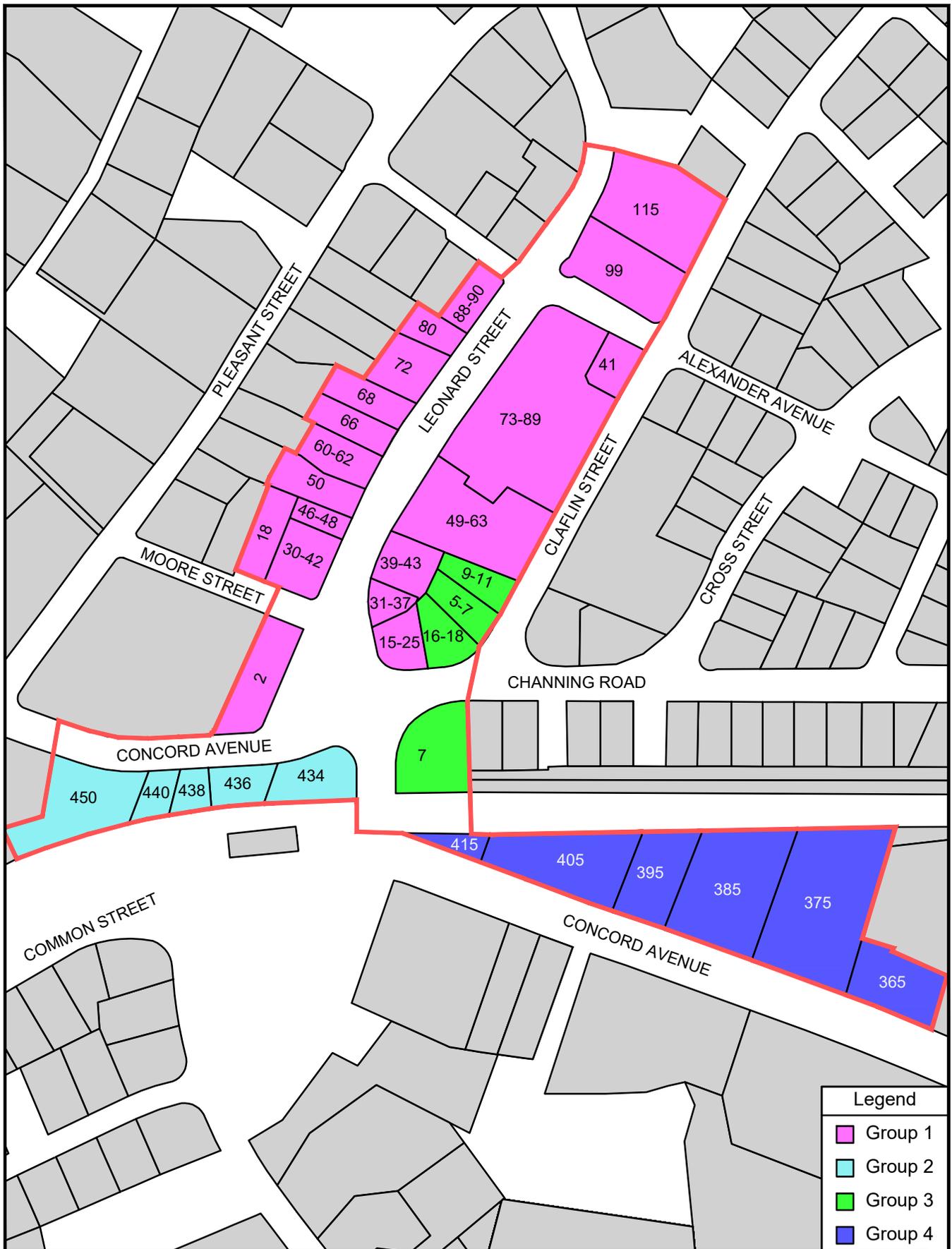
### No-Build Traffic Volumes

No Build volumes for the year 2035 were developed by applying a background growth rate of 0.5% per year to the existing traffic volumes. This growth rate was developed through an examination of historical traffic volumes in the study area. No-Build 2035 traffic volumes are shown in Figure A-2 in the Attachments.

### Trip Generation

To estimate the number of trips expected to be generated by the half buildout scenario, BSC selected parcels within the zoning reform limits whose potential buildout areas summed up to approximately the same totals as provided by the Town in its half buildout scenario. The parcels were divided into four distinct groups based on their locations, as shown in **Figure 1**.

Group 1 represents the parcels located along Leonard Street; Group 2 represents the parcels on Concord Street west of Leonard Street; Group 3 represents the parcels on Channing Road east of Leonard Street; Group 4 represents the parcels located on Concord Avenue east of Common Street (south of the railroad tracks).



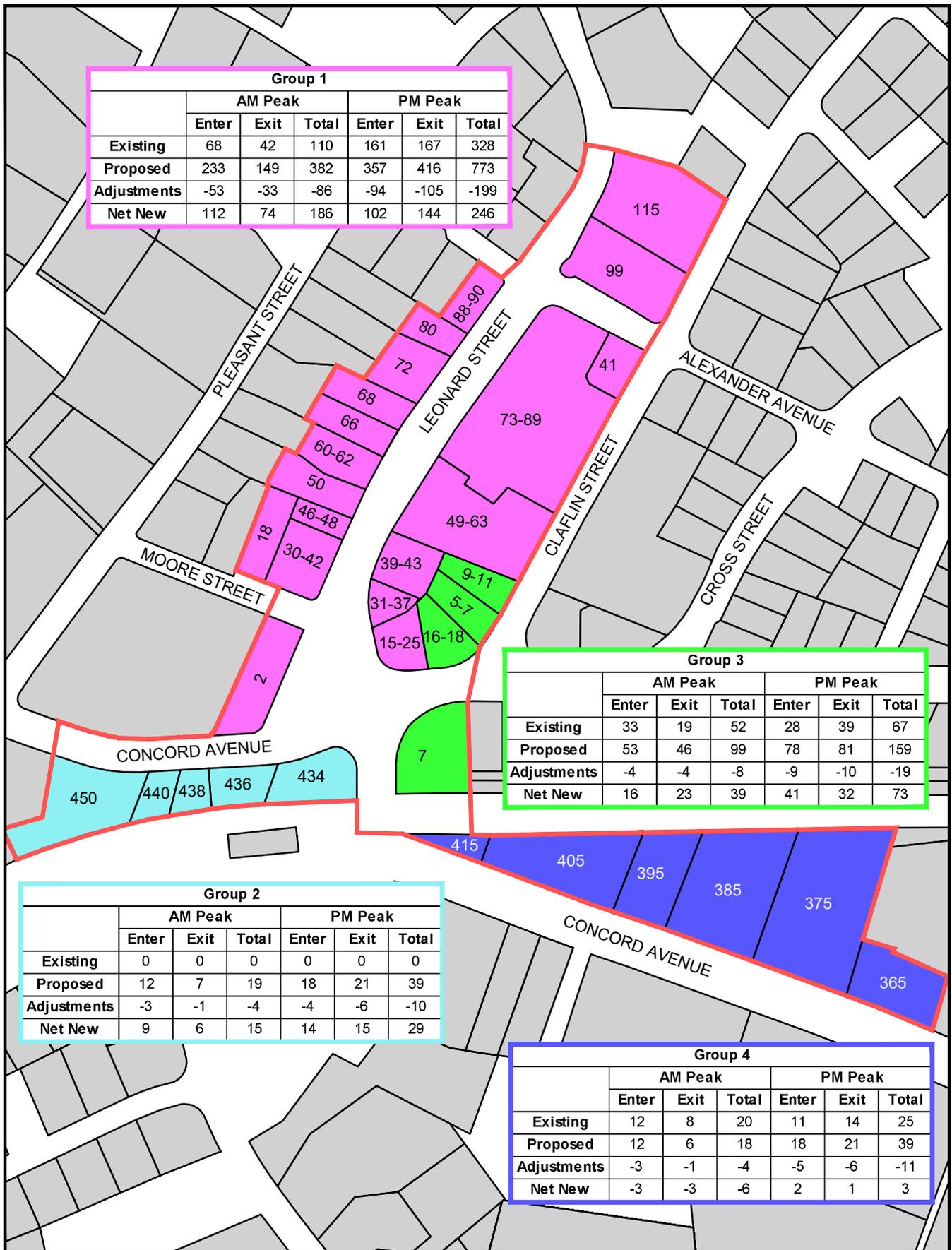
Proposed Zoning Change Limits  
 Belmont Center  
 Belmont, Massachusetts

Figure 1  
 Not to Scale

The following methodology was used to develop the estimated number of trips to be generated by each group of parcels:

1. Estimated the number of trips generated by the parcels under existing conditions based on building size and land use.
2. Estimated the number of trips expected to be generated by the parcels under the half buildout scenario using the ITE Trip Generation Manual. The following land use codes (LUCs) were utilized for proposed conditions:
  - a. LUC 220: Multifamily Housing Low-Rise
  - b. LUC 821: Shopping Plaza
  - c. LUC 710: General Office Building
  - d. LUC 310: Hotel
3. Applied a mode split adjustment to Office and Residential trips based on latest census data. The most recent census data shows that approximately 15% of those living and working in this area of Belmont travel to work by means other than single-vehicle trips. This is primarily due to the proximity to public transportation, with an MBTA commuter rail stop located in the project area, MBTA bus stops located along Concord Avenue, and the MBTA Alewife Station located less than 2 miles east of the downtown area.
4. Applied a pass-by reduction to commercial trips based on ITE guidance. A pass-by trip is a vehicle that is already traveling on a roadway to reach its primary destination, but stops at a site along the way without diverting its overall route. Pass-by percentages for different land uses are provided in the trip generation calculations in the Attachments. Based on data provided by ITE, a 40% pass-by rate can be applied to trips entering and exiting LUC 821. To provide a conservative analysis, a 30% pass-by rate was used.
5. Generated Net New trips by subtracting existing trips from adjusted proposed trips.

The detailed trip generation calculations for each group of parcels are shown in the Attachments and summarized in **Figure 2**. Table 2 summarizes the total trips generated for the half buildout scenario.



Trip Generation - Half Buildout Scenario  
 Belmont Center  
 Belmont, Massachusetts

Figure 2  
 Not to Scale

**Table 2: Total Trip Generation – Half Buildout Scenario**

		AM Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total
<b>Existing</b>	<b>Residential</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Commercial</b>	<b>113</b>	<b>69</b>	<b>182</b>	<b>200</b>	<b>220</b>	<b>420</b>
	<b>Office</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Hotel</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total</b>	<b>113</b>	<b>69</b>	<b>182</b>	<b>200</b>	<b>220</b>	<b>420</b>
<b>Proposed - Unadjusted</b>	<b>Residential</b>	<b>26</b>	<b>79</b>	<b>105</b>	<b>83</b>	<b>51</b>	<b>134</b>
	<b>Commercial</b>	<b>137</b>	<b>84</b>	<b>221</b>	<b>324</b>	<b>338</b>	<b>662</b>
	<b>Office</b>	<b>115</b>	<b>16</b>	<b>131</b>	<b>21</b>	<b>109</b>	<b>130</b>
	<b>Hotel</b>	<b>32</b>	<b>29</b>	<b>61</b>	<b>43</b>	<b>41</b>	<b>84</b>
	<b>Total</b>	<b>310</b>	<b>208</b>	<b>518</b>	<b>471</b>	<b>539</b>	<b>1010</b>
<b>Adjustments</b>	<b>Residential (mode split)</b>	<b>-3</b>	<b>-12</b>	<b>-15</b>	<b>-12</b>	<b>-7</b>	<b>-19</b>
	<b>Commercial (pass-by)</b>	<b>-42</b>	<b>-25</b>	<b>-67</b>	<b>-97</b>	<b>-103</b>	<b>-200</b>
	<b>Office (mode split)</b>	<b>-18</b>	<b>-2</b>	<b>-20</b>	<b>-3</b>	<b>-17</b>	<b>-20</b>
	<b>Hotel (none)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>Total</b>	<b>-63</b>	<b>-39</b>	<b>-102</b>	<b>-112</b>	<b>-127</b>	<b>-239</b>
<b>Proposed - Adjusted</b>	<b>Residential</b>	<b>23</b>	<b>67</b>	<b>90</b>	<b>71</b>	<b>44</b>	<b>115</b>
	<b>Commercial</b>	<b>95</b>	<b>59</b>	<b>154</b>	<b>227</b>	<b>235</b>	<b>462</b>
	<b>Office</b>	<b>97</b>	<b>14</b>	<b>111</b>	<b>18</b>	<b>92</b>	<b>110</b>
	<b>Hotel</b>	<b>32</b>	<b>29</b>	<b>61</b>	<b>43</b>	<b>41</b>	<b>84</b>
	<b>Total</b>	<b>247</b>	<b>169</b>	<b>416</b>	<b>359</b>	<b>412</b>	<b>771</b>
<b>Net New</b>	<b>Residential</b>	<b>23</b>	<b>67</b>	<b>90</b>	<b>71</b>	<b>44</b>	<b>115</b>
	<b>Commercial</b>	<b>-18</b>	<b>-10</b>	<b>-28</b>	<b>27</b>	<b>15</b>	<b>42</b>
	<b>Office</b>	<b>97</b>	<b>14</b>	<b>111</b>	<b>18</b>	<b>92</b>	<b>110</b>
	<b>Hotel</b>	<b>32</b>	<b>29</b>	<b>61</b>	<b>43</b>	<b>41</b>	<b>84</b>
	<b>Total</b>	<b>134</b>	<b>100</b>	<b>234</b>	<b>159</b>	<b>192</b>	<b>351</b>

As shown in Table 2, the half buildout scenario is expected to result in 234 net new trips (134 entering, 100 exiting) during the morning peak hour and 351 (159 entering, 192 exiting) during the evening peak hour. It should be noted that the Town plans to implement Transportation Demand Management (TDM) measures as part of the zoning change initiative. TDM measures would include reduced parking requirements, requirement of bicycle parking, provision of transit passes to building residents and employees, and other such measures aimed at reducing the prevalence of single-occupancy vehicle trips. It is anticipated that implementation of TDM would likely further reduce the trips anticipated to be generated by the zoning changes.

**Trip Distribution**

The net new trips expected to be generated by each group of parcels were distributed throughout the study intersections. The office and residential trips were distributed based on recent census Journey-to-Work data, using the home locations of those who work in Belmont and the work locations of those

who live in Belmont. Trips to and from hotel and commercial land uses were distributed based on existing travel patterns. Trip distribution calculations are provided and shown in Figures A-3 through A-10 in the Attachments.

**Build Traffic Volumes**

2035 Build Condition traffic volumes were generated by adding the net new trips from the half buildout scenario to the 2035 No-Build Traffic Volumes. Build traffic volumes are shown on Figure A-11 in the Attachments.

**Level of Service Analysis**

To understand the potential impacts of these additional traffic volumes on the study intersections, capacity analyses were performed for the intersections of Concord Avenue with Channing Road and Common Street for the following scenarios:

- 2035 No-Build without traffic signals
- 2035 Half buildout without traffic signals
- 2035 No-Build with traffic signals
- 2035 Half buildout with traffic signals

Tables 3 and 4 show the results of the Level of Service Analysis for both the AM and PM peak hours under each of these scenarios. Detailed capacity analysis results are provided in the Attachments.

**Table 3: Level of Service Analysis: Morning Peak Hour**

	2035 No-Build Conditions (Unsignalized)		2035 Build Conditions (Unsignalized)		2035 No-Build Conditions (Signalized)		2035 Build Conditions (Signalized)	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
<b>Concord Avenue/ Channing Road at Leonard Street</b>								
Concord Avenue EB L/T	12.2	B	13.8	B	82.7	F	77.7	F
Concord Avenue EB R	71.3	F	77.0	F	38.6	D	32.9	D
Channing Road WB L/T/R	34.3	C	37.7	C	141.7	F	137.5	F
Concord Avenue NB L	45.2	D	48.7	D	18.2	B	19.1	B
Concord Avenue NB TR	388.6	F	458.9	F	9.7	A	9.5	A
Leonard Street SB L/T/R	457.4	F	540.7	F	84.6	F	85.7	F
<b>Overall</b>	<b>269.8</b>	<b>F</b>	<b>318.8</b>	<b>F</b>	<b>42.4</b>	<b>D</b>	<b>41.8</b>	<b>D</b>
<b>Common Street at Concord Avenue</b>								
Common Street EB L	218.4	F	248.6	F	114.5	F	130.8	F
Common Street EB T	11.9	B	11.9	B	57.1	E	50.5	E
Concord Avenue WB T	15.0	C	15.2	C	131.4	F	120	F
Concord Avenue WB R	88.3	F	112.9	F	57.4	E	53.8	E
Concord Avenue SB L	110.7	F	135.5	F	16.9	B	15.1	B
Concord Avenue SB R	270.9	F	292.3	F	12.3	B	12.6	B
<b>Overall</b>	<b>168.9</b>	<b>F</b>	<b>191.2</b>	<b>F</b>	<b>56.6</b>	<b>E</b>	<b>57.6</b>	<b>E</b>

**Table 4: Level of Service Analysis: Evening Peak Hour**

	2035 No-Build Conditions (Unsignalized)		2035 Build Conditions (Unsignalized)		2035 No-Build Conditions (Signalized)		2035 Build Conditions (Signalized)	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
<b>Concord Avenue/ Channing Road at Leonard Street</b>								
Concord Avenue EB L/T	12.2	B	13.8	B	82.7	F	77.7	F
Concord Avenue EB R	71.3	F	77.0	F	38.6	D	32.9	D
Channing Road WB L/T/R	34.3	C	37.7	C	141.7	F	137.5	F
Concord Avenue NB L	45.2	D	48.7	D	18.2	B	19.1	B
Concord Avenue NB TR	388.6	F	458.9	F	9.7	A	9.5	A
Leonard Street SB L/T/R	457.4	F	540.7	F	84.6	F	85.7	F
<b>Overall</b>	<b>269.8</b>	<b>F</b>	<b>318.8</b>	<b>F</b>	<b>42.4</b>	<b>D</b>	<b>41.8</b>	<b>D</b>
<b>Common Street at Concord Avenue</b>								
Common Street EB L	218.4	F	248.6	F	114.5	F	130.8	F
Common Street EB T	11.9	B	11.9	B	57.1	E	50.5	E
Concord Avenue WB T	15.0	C	15.2	C	131.4	F	120	F
Concord Avenue WB R	88.3	F	112.9	F	57.4	E	53.8	E
Concord Avenue SB L	110.7	F	135.5	F	16.9	B	15.1	B
Concord Avenue SB R	270.9	F	292.3	F	12.3	B	12.6	B
<b>Overall</b>	<b>168.9</b>	<b>F</b>	<b>191.2</b>	<b>F</b>	<b>56.6</b>	<b>E</b>	<b>57.6</b>	<b>E</b>

As shown in Tables 3 and 4, if traffic signals are not installed, the intersections are expected to operate at LOS F with several minutes of delay on some approaches regardless of whether the zoning changes take place.

During the morning peak hour, under signalized conditions, the intersections are expected to operate at LOS D under both No-Build and Build conditions, with overall delays expected to be nearly identical under both conditions.

During the evening peak hour, under signalized conditions, the overall delay is expected to be similar at the Concord Avenue/ Channing Road at Leonard Street intersection under both No-Build and Build conditions. The overall delay at the Common Street and Concord Avenue intersection is expected to increase by nearly 15 seconds with the addition of the volumes generated by the half buildout scenario. Most notably, the Concord Ave westbound approach delays are expected to increase by approximately 50 seconds for the through and right turn movements.

**One-Way Pairs Evaluation**

As part of an ongoing effort to improve traffic flow and multimodal accommodations in the Downtown area, the Town has requested that BSC conduct a high-level evaluation of the possibility of converting Leonard Street and Claflin Street to one-way streets, with Leonard Street allowing vehicular traffic only in the southbound direction and Claflin Street allowing vehicular traffic only in the northbound direction. Converting these streets from two-way traffic to one-way traffic will likely redistribute traffic to other intersections within and adjacent to the downtown area, and adversely impact certain movements at nearby intersections. For example, a traffic signal would need to be installed at the intersection of Leonard Street and Alexander Avenue to facilitate the additional traffic that would be diverted to the Alexander Avenue westbound approach. Intersections that would likely be impacted by the one-way conversion include:

- Leonard Street at Concord Avenue/ Channing Road
- Leonard Street at Alexander Avenue
- Pleasant Street at Concord Avenue
- Pleasant Street at Leonard Street
- Cross Street at Alexander Avenue

Previous traffic studies indicate that the majority of traffic traveling through the downtown area is made up of regional traffic passing through Belmont to reach primary destinations elsewhere. Further analysis of this potential one-way conversion would require in-depth traffic analysis, including the collection of traffic volumes at intersections and along roadways that are likely to be affected.

### Conclusion

Based on the half buildout scenario provided by the Town, it is anticipated that approximately 234 net new trips (134 entering, 100 exiting) in the AM peak hour and 351 net new trips (159 entering, 192 exiting) in the PM peak hour would be generated if 50% of the potentially rezoned properties are redeveloped to take advantage of the proposed zoning changes.

The capacity analysis of the two study intersections indicates that regardless of zoning changes, the intersections are expected to operate at LOS F in the future year 2035 if left unsignalized. With the installation of traffic signals, which are currently being designed as a separate project, the intersections are expected to operate at LOS D/E in year 2035 with or without the zoning changes. Under the signalized condition, the zoning changes are not expected to impact intersection operations in the AM peak hour. Up to 15 seconds of additional delay is expected in the PM peak hour on certain approaches under the half buildout scenario with traffic signals.

Please feel free to contact Amy Allen at (617) 896-4566 or [aallen@bscgroup.com](mailto:aallen@bscgroup.com) should you have any questions on the information provided in this report.

Sincerely,

BSC Group, Inc.



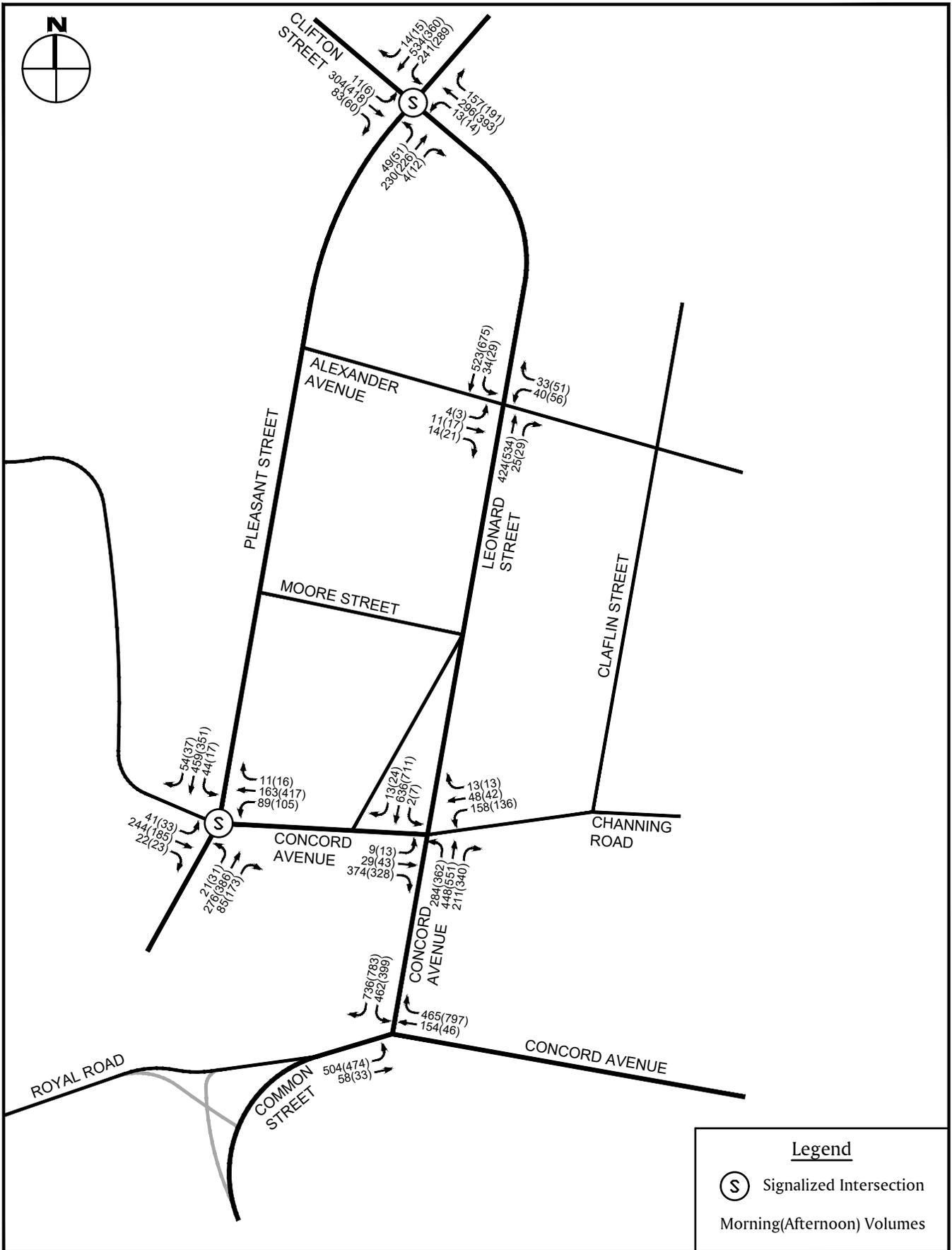
Amy Allen, P.E., PTOE  
Project Manager

## Attachments

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- Traffic Volume Figures
- Trip Generation Calculations
- Trip Distribution Calculations
- Capacity Analysis Results

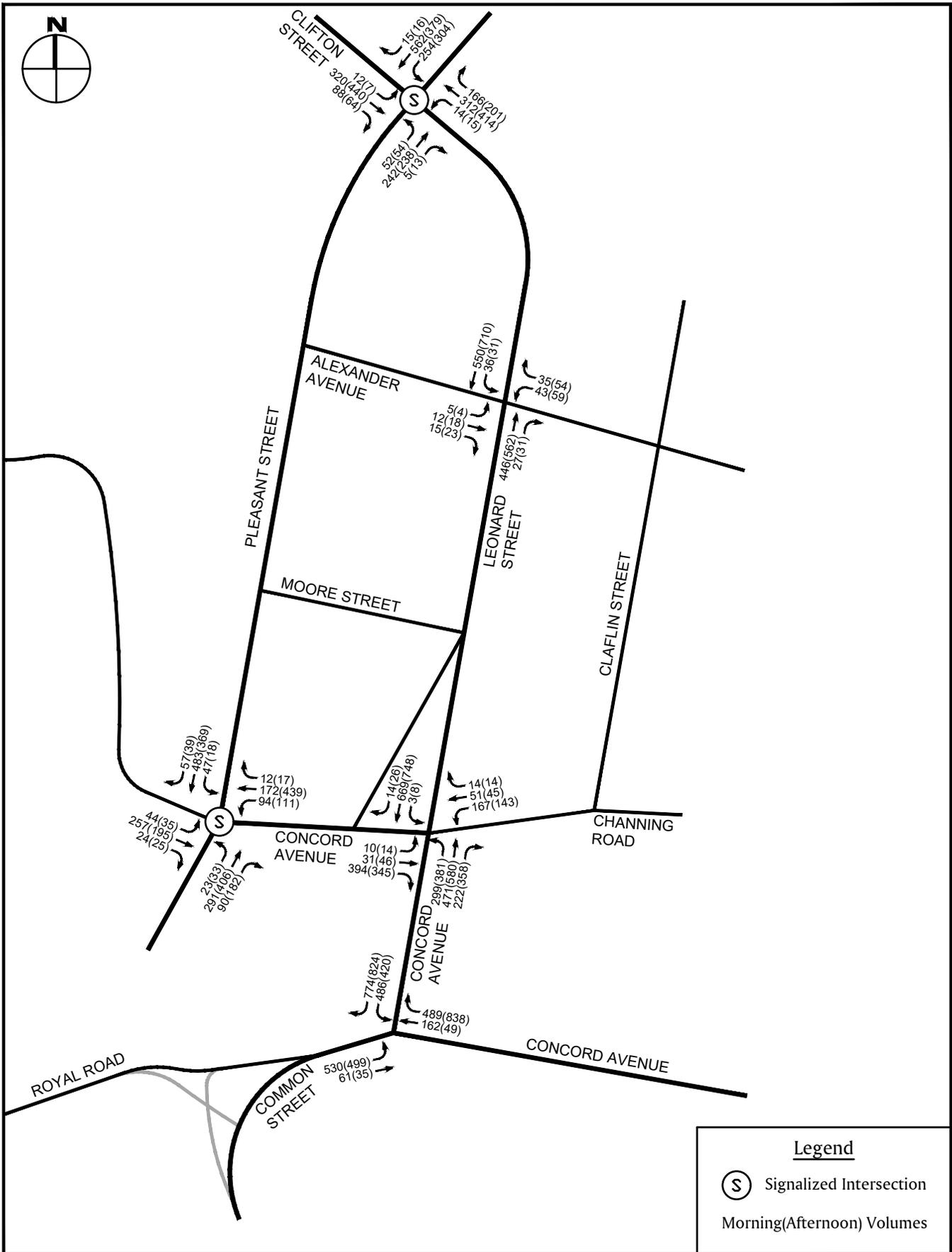
## Traffic Volume Figures



2025 Existing Conditions Weekday Peak Hour Traffic Volumes  
 Belmont Center  
 Belmont, Massachusetts

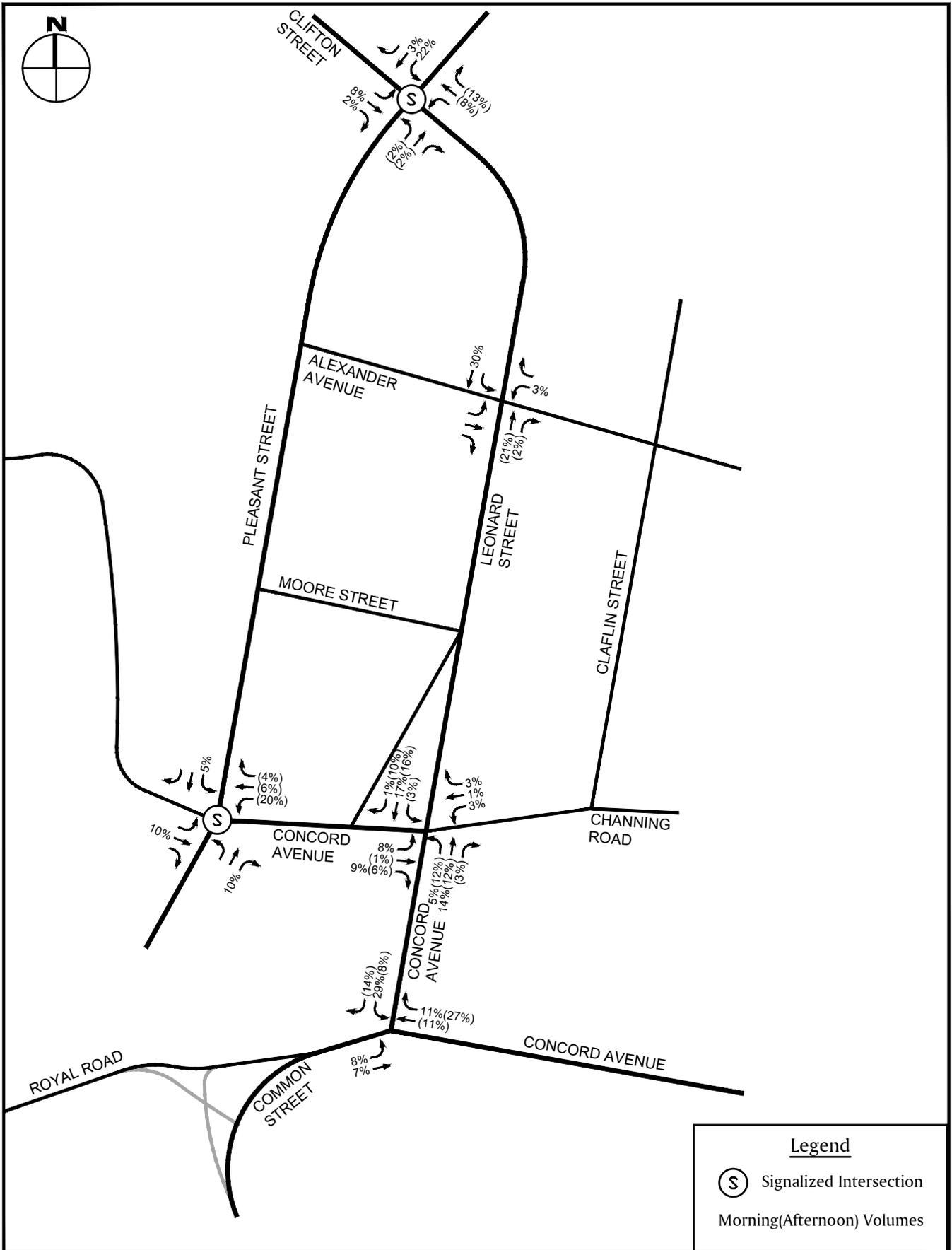
Figure A-1  
 Not to Scale





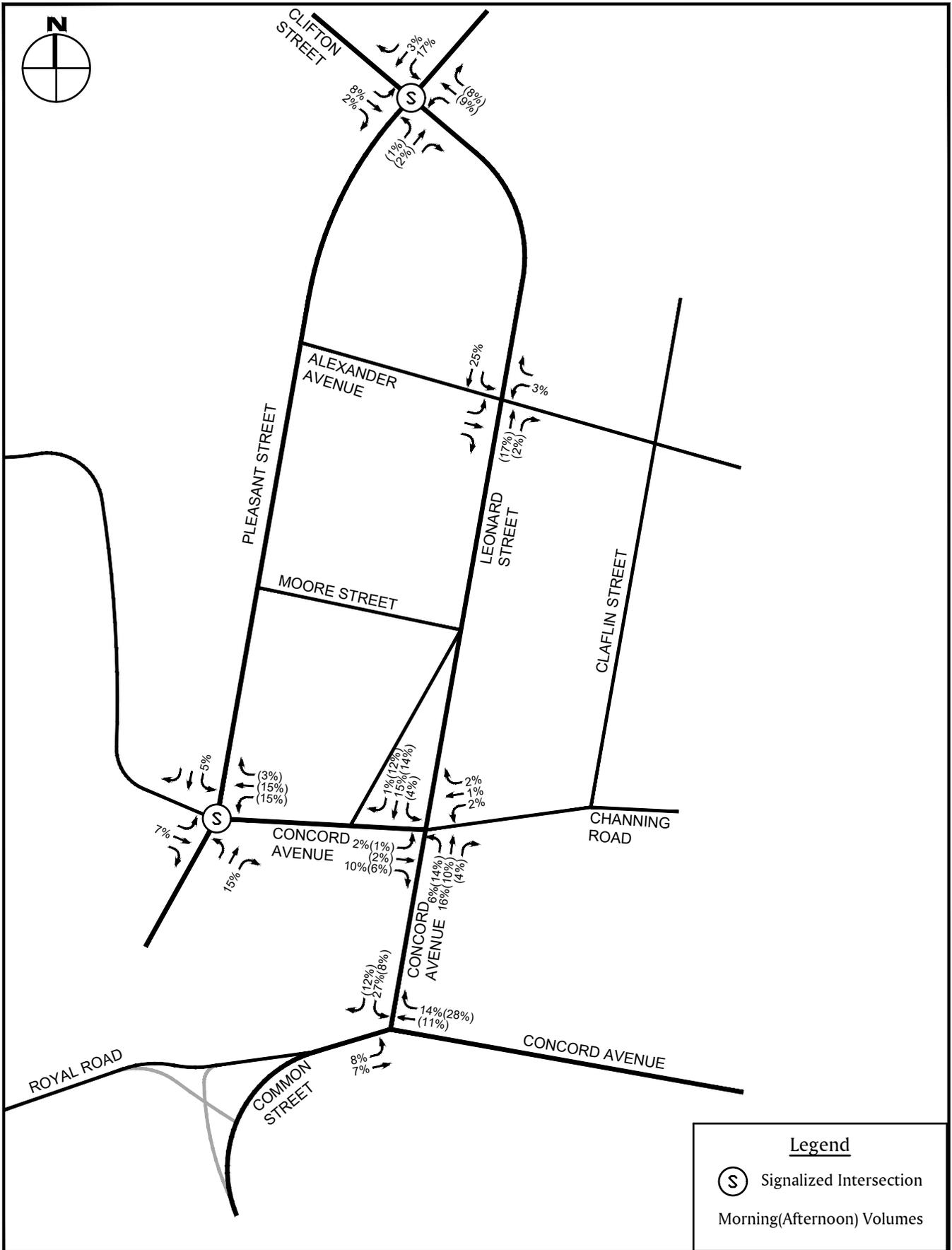
2035 No-Build Conditions Weekday Peak Hour Traffic Volumes  
 Belmont Center  
 Belmont, Massachusetts

Figure A-2  
 Not to Scale



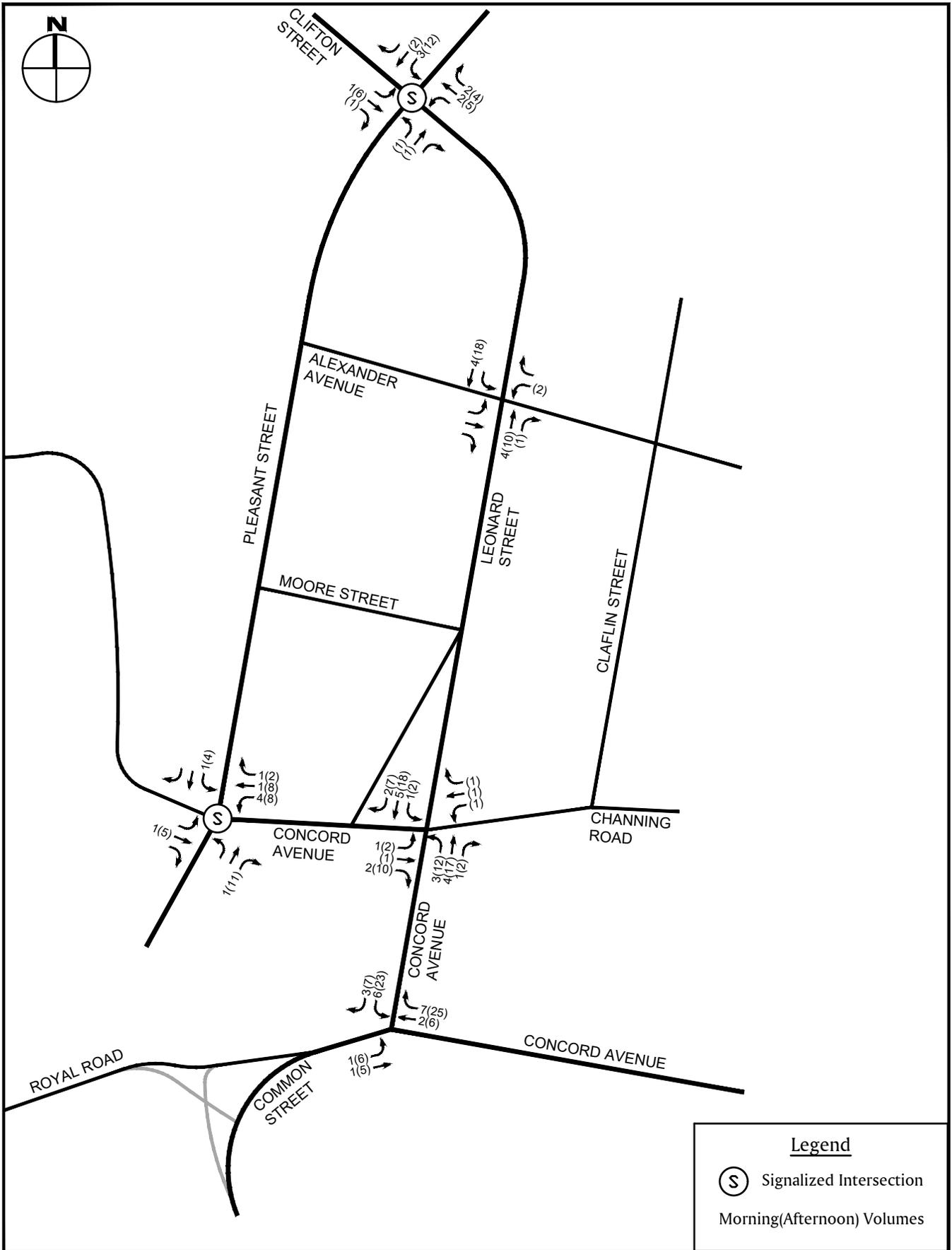
Commercial/Hotel Trip Distribution - Weekday Morning  
 Belmont Center  
 Belmont, Massachusetts

Figure A-3  
 Not to Scale



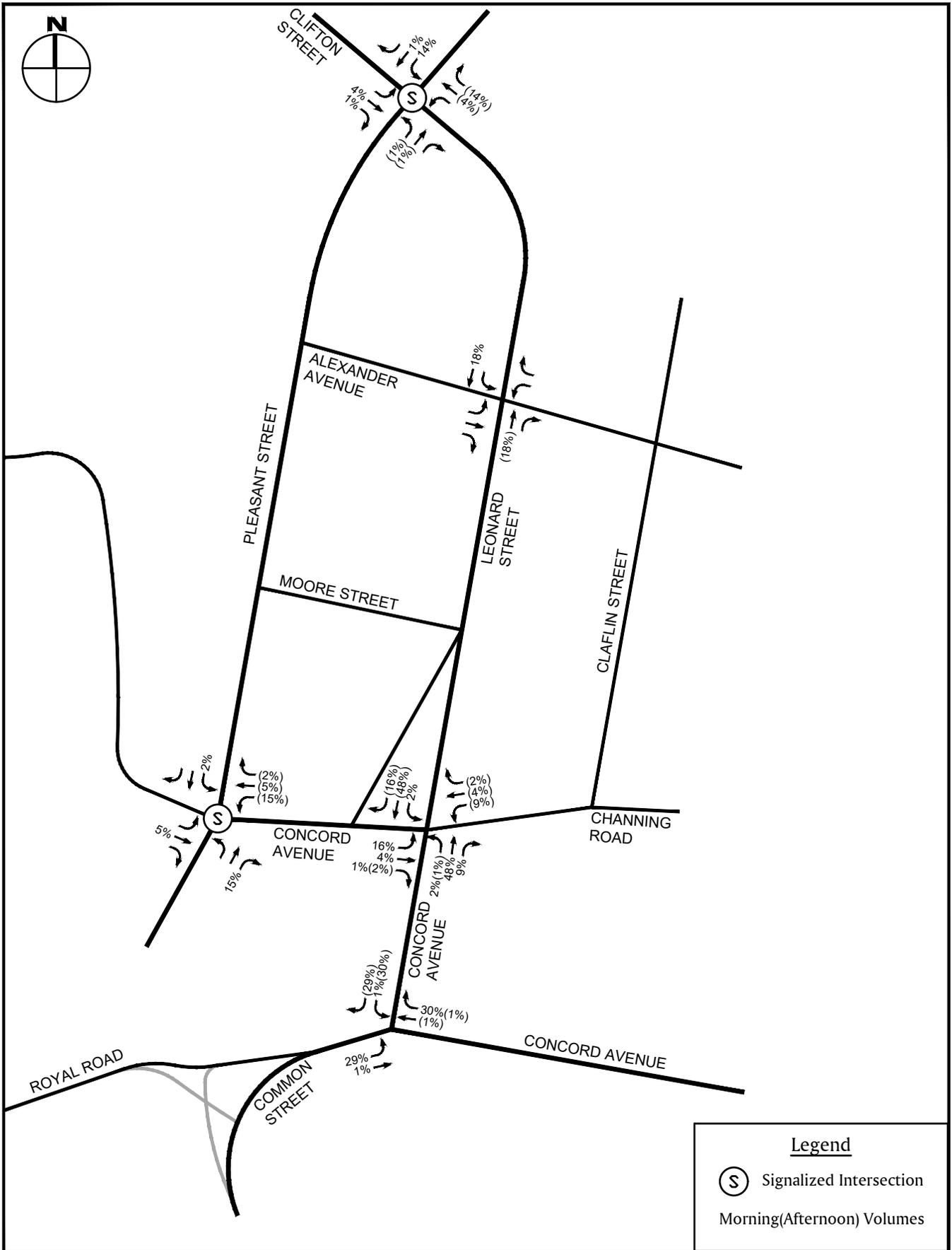
Commercial/Hotel Trip Distribution - Weekday Evening  
 Belmont Center  
 Belmont, Massachusetts

Figure A-4  
 Not to Scale



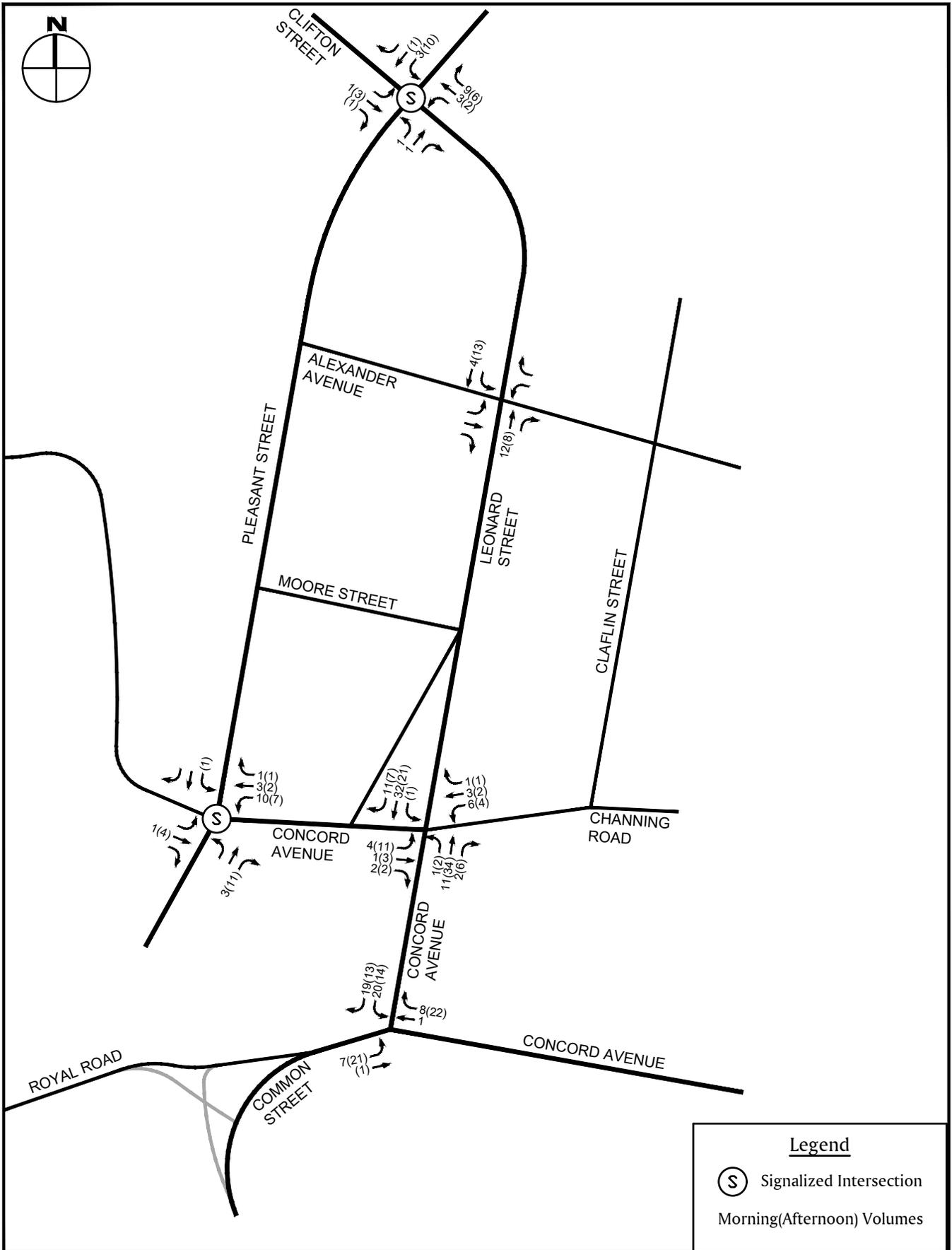
Commercial/Hotel Half Buildout Trips  
 Belmont Center  
 Belmont, Massachusetts

Figure A-5  
 Not to Scale



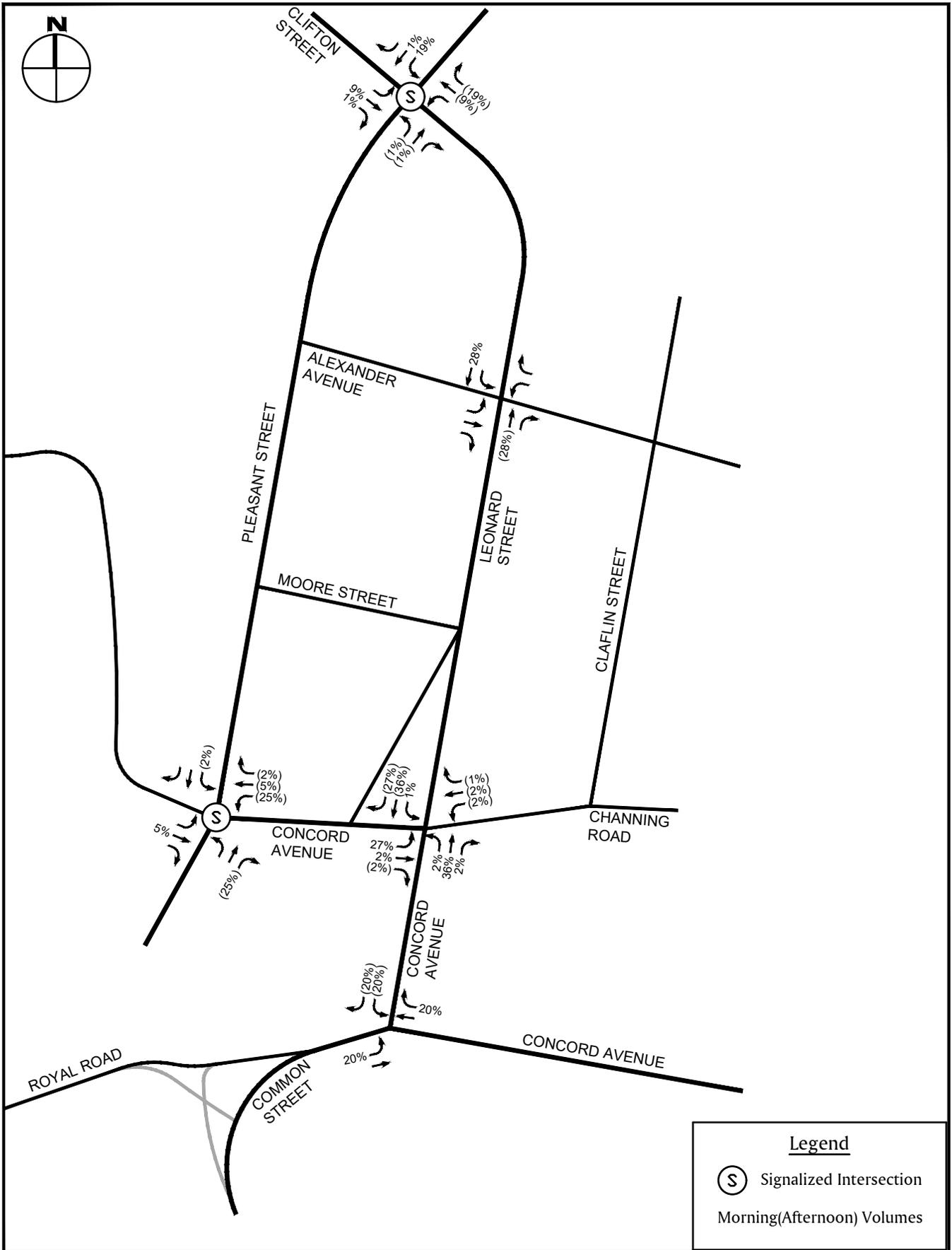
Residential Trip Distribution  
 Belmont Center  
 Belmont, Massachusetts

Figure A-6  
 Not to Scale



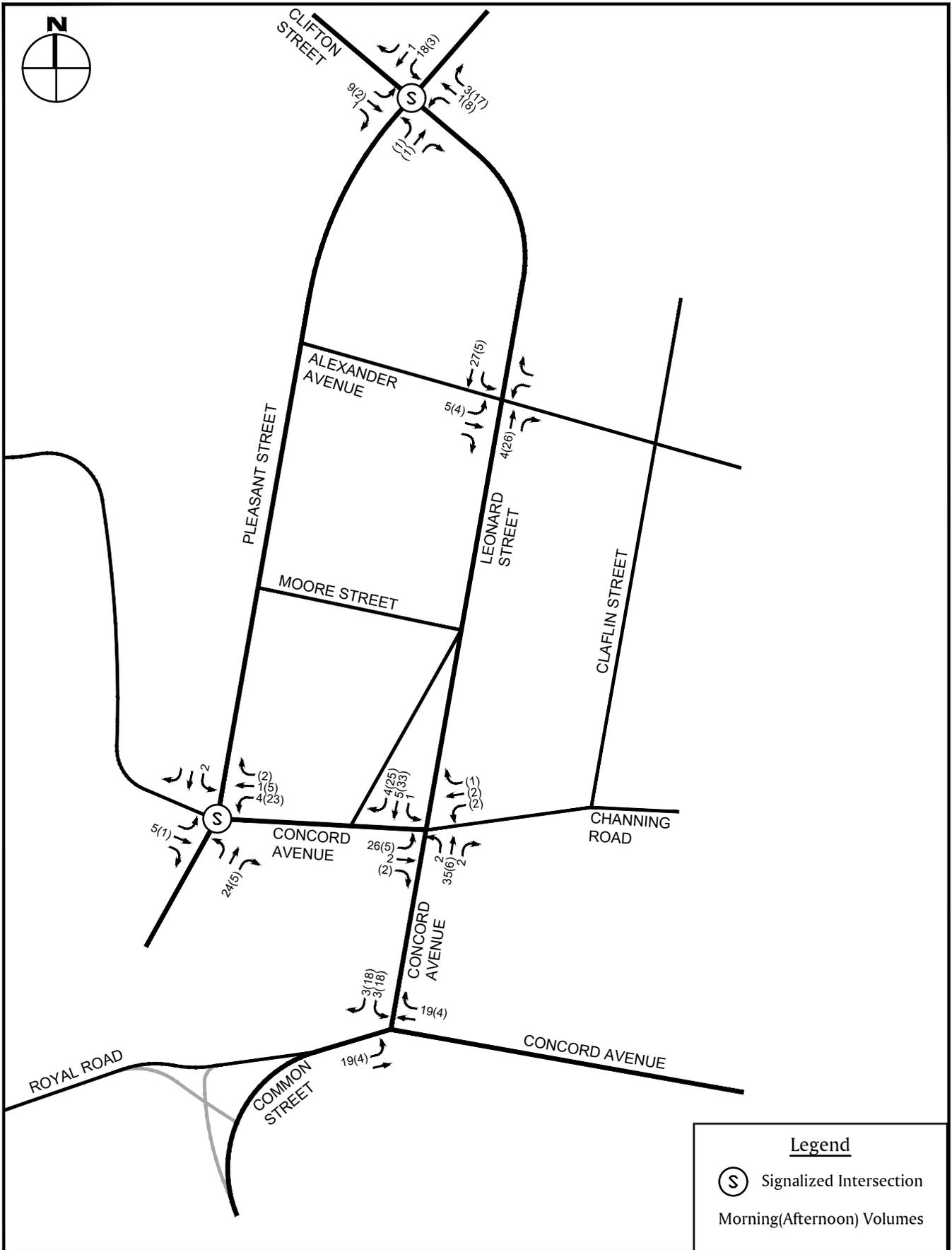
Residential Half Buildout Trips  
 Belmont Center  
 Belmont, Massachusetts

Figure A-7  
 Not to Scale



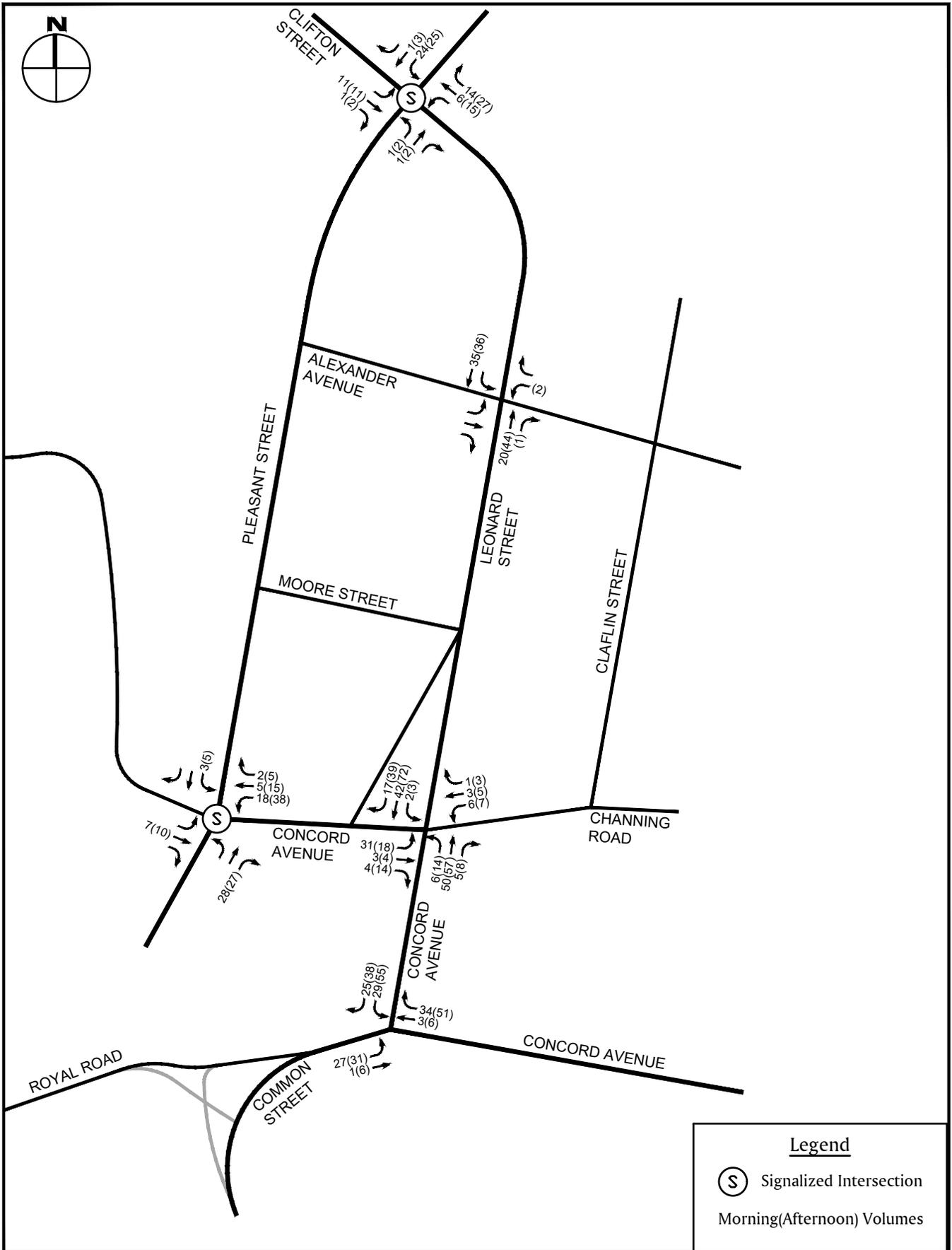
Office Trip Distribution  
 Belmont Center  
 Belmont, Massachusetts

Figure A-8  
 Not to Scale



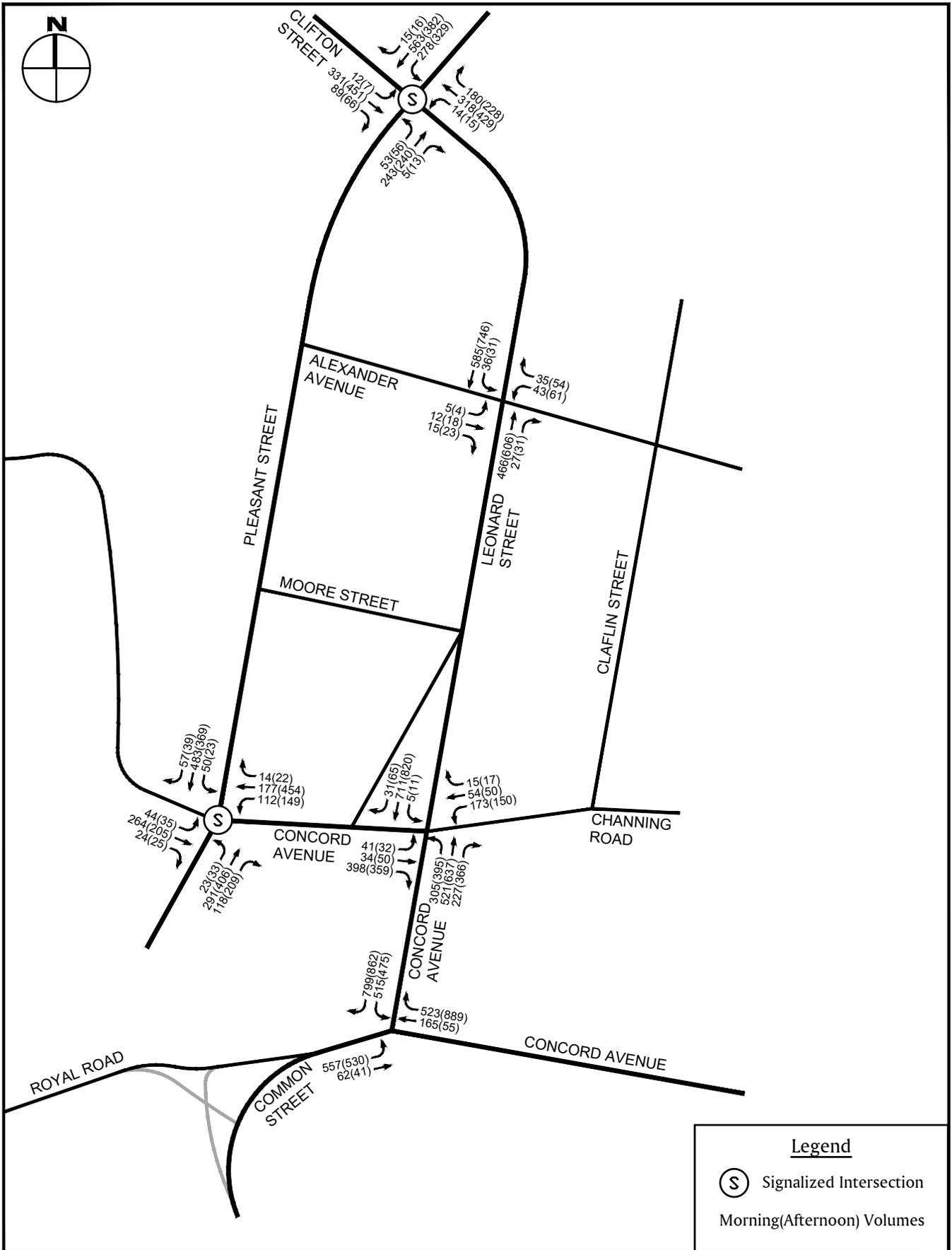
Office Half Buildout Trips  
Belmont Center  
Belmont, Massachusetts

Figure A-9  
Not to Scale



Total Half Buildout Net New Trips  
 Belmont Center  
 Belmont, Massachusetts

Figure A-10  
 Not to Scale



2035 Build Conditions Weekday Peak Hour Traffic Volumes  
 Belmont Center  
 Belmont, Massachusetts

Figure A-11  
 Not to Scale



## Trip Generation Calculations

## Trip Generation - ITE Trip Generation Manual, 12th Edition

### Group 1

Land Use	Size	AM Peak		PM Peak	
		Enter	Exit	Enter	Exit
220 Multifamily Housing Low-Rise (units)	210	21	65	68	41
821 Shopping Plaza - no supermarket (1,000 SF)	116.151	115	70	271	282
710 General Office Building (1,000 SF)	80.8973	97	14	18	93
310 Hotel (rooms)	0	0	0	0	0

### Group 2

Land Use	Size	AM Peak		PM Peak	
		Enter	Exit	Enter	Exit
220 Multifamily Housing Low-Rise (units)	9	1	3	3	2
821 Shopping Plaza - no supermarket (1,000 SF)	6.0875	6	4	14	15
710 General Office Building (1,000 SF)	4.3343	5	0	1	4
310 Hotel (rooms)	0	0	0	0	0

### Group 3

Land Use	Size	AM Peak		PM Peak	
		Enter	Exit	Enter	Exit
220 Multifamily Housing Low-Rise (units)	32	3	10	10	7
821 Shopping Plaza - no supermarket (1,000 SF)	10.25	10	6	24	25
710 General Office Building (1,000 SF)	7.298	8	1	1	8
310 Hotel (rooms)	179	32	29	43	41

### Group 4

Land Use	Size	AM Peak		PM Peak	
		Enter	Exit	Enter	Exit
220 Multifamily Housing Low-Rise (units)	6	1	1	2	1
821 Shopping Plaza - no supermarket (1,000 SF)	6.48125	6	4	15	16
710 General Office Building (1,000 SF)	4.61465	5	1	1	4
310 Hotel (rooms)	0	0	0	0	0

### Total

Land Use	Size	AM Peak		PM Peak	
		Enter	Exit	Enter	Exit
220 Multifamily Housing Low-Rise (units)	257.00	26	79	83	51
821 Shopping Plaza - no supermarket (1,000 SF)	138.97	137	84	324	338
710 General Office Building (1,000 SF)	97.14	115	16	21	109
310 Hotel (rooms)	179.00	32	29	43	41
<b>Total Prop Trips</b>		<b>310</b>	<b>208</b>	<b>471</b>	<b>539</b>

**Total Proposed Trips**

Land Use	Group	AM Peak		PM Peak	
		Enter	Exit	Enter	Exit
Residential	1	21	65	68	41
Commercial/ Hotel		115	70	271	282
Office		97	14	18	93
<b>Total</b>		233	149	357	416
Residential	2	1	3	3	2
Commercial/ Hotel		6	4	14	15
Office		5	0	1	4
<b>Total</b>		12	7	18	21
Residential	3	3	10	10	7
Commercial/ Hotel		42	35	67	66
Office		8	1	1	8
<b>Total</b>		53	46	78	81
Residential	4	1	1	2	1
Commercial/ Hotel		6	4	15	16
Office		5	1	1	4
<b>Total</b>		12	6	18	21
	<b>Total</b>	<b>310</b>	<b>208</b>	<b>471</b>	<b>539</b>

**Means of travel to work**

**Source: United States Census Bureau, 2022**

<b>Tract</b>	<b>3571</b>	<b>3572</b>	<b>3578</b>	<b>Average</b>
<b>Drove alone</b>	41%	53%	57%	50%
<b>Carpool</b>	5%	1%	4%	3%
<b>Transit</b>	11%	9%	7%	<b>9%</b>
<b>Bicycle</b>	2%	6%	2%	3%
<b>Walked</b>	2%	3%	3%	3%
<b>Other</b>	1%	1%	1%	1%
<b>Worked at home</b>	37%	27%	26%	30%

**Transit/bike/walk**      15%      18%      12%      **15%**  
**Use 15% for mode split adjustment**

### Vehicle Pass-By Rates by Land Use

Source: ITE Trip Generation Manual , 12th Edition

Land Use Code	821								
Land Use	Shopping Plaza (40 - 150k)								
Setting	General Urban/Suburban								
Time Period	Weekday PM Peak Period								
# Data Sites	15								
Average Pass-By Rate	40% <span style="color: red; font-weight: bold;">← use 30% to be conservative</span>								
	Pass-By Characteristics for Individual Sites								
	GLA (000)	State or Province	Survey Year	# Interviews	Pass-By Trip (%)	Non-Pass-By Trips			Adj Street Peak Hour Volume
					Primary (%)	Diverted (%)	Total (%)		
45	Florida	1992	844	56	24	20	44	—	30
50	Florida	1992	555	41	41	18	59	—	30
52	Florida	1995	665	42	33	25	58	—	30
53	Florida	1993	162	59	—	—	41	—	30
57.23	Kentucky	1993	247	31	53	16	69	2659	34
60	Florida	1995	1583	40	38	22	60	—	30
69.4	Kentucky	1993	109	25	42	33	75	1559	34
77	Florida	1992	365	46	—	—	54	—	30
78	Florida	1991	702	55	23	22	45	—	30
82	Florida	1992	336	34	—	—	66	—	30
92.857	Kentucky	1993	133	22	50	28	78	3555	34
100.888	Kentucky	1993	281	28	50	22	72	2111	34
121.54	Kentucky	1993	210	53	30	17	47	2636	34
144	New Jersey	1990	176	32	44	24	68	—	24
146.8	Kentucky	1993	—	36	39	25	64	—	34

Group 1							
		AM Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total
<b>Existing</b>	Residential	0	0	0	0	0	0
	Commercial	68	42	110	161	167	328
	Office	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
	Total	68	42	110	161	167	328
<b>Proposed</b>	Residential	21	65	86	68	41	109
	Commercial	115	70	185	271	282	553
	Office	97	14	111	18	93	111
	Hotel	0	0	0	0	0	0
	Total	233	149	382	357	416	773
<b>Adjustments</b>	Residential (mode split)	-3	-10	-13	-10	-6	-16
	Commercial (pass-by)	-35	-21	-56	-81	-85	-166
	Office (mode split)	-15	-2	-17	-3	-14	-17
	Hotel (none)	0	0	0	0	0	0
	Total	-53	-33	-86	-94	-105	-199
<b>Proposed - Adjusted</b>	Residential	18	55	73	58	35	93
	Commercial	80	49	129	190	197	387
	Office	82	12	94	15	79	94
	Hotel	0	0	0	0	0	0
	Total	180	116	296	263	311	574
<b>Net New</b>	Residential	18	55	73	58	35	93
	Commercial	12	7	19	29	30	59
	Office	82	12	94	15	79	94
	Hotel	0	0	0	0	0	0
	Total	112	74	186	102	144	246

Group 2							
		AM Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total
<b>Existing</b>	Residential	0	0	0	0	0	0
	Commercial	0	0	0	0	0	0
	Office	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
	Total	0	0	0	0	0	0
<b>Proposed</b>	Residential	1	3	4	3	2	5
	Commercial	6	4	10	14	15	29
	Office	5	0	5	1	4	5
	Hotel	0	0	0	0	0	0
	Total	12	7	19	18	21	39
<b>Adjustments</b>	Residential (mode split)	0	0	0	0	0	0
	Commercial (pass-by)	-2	-1	-3	-4	-5	-9
	Office (mode split)	-1	0	-1	0	-1	-1
	Hotel (none)	0	0	0	0	0	0
	Total	-3	-1	-4	-4	-6	-10
<b>Proposed - Adjusted</b>	Residential	1	3	4	3	2	5
	Commercial	4	3	7	10	10	20
	Office	4	0	4	1	3	4
	Hotel	0	0	0	0	0	0
	Total	9	6	15	14	15	29
<b>Net New</b>	Residential	1	3	4	3	2	5
	Commercial	4	3	7	10	10	20
	Office	4	0	4	1	3	4
	Hotel	0	0	0	0	0	0
	Total	9	6	15	14	15	29

Group 3							
		AM Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total
<b>Existing</b>	Residential	0	0	0	0	0	0
	Commercial	33	19	52	28	39	67
	Office	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
	Total	33	19	52	28	39	67
<b>Proposed</b>	Residential	3	10	13	10	7	17
	Commercial	10	6	16	24	25	49
	Office	8	1	9	1	8	9
	Hotel	32	29	61	43	41	84
	Total	53	46	99	78	81	159
<b>Adjustments</b>	Residential (mode split)	0	-2	-2	-2	-1	-3
	Commercial (pass-by)	-3	-2	-5	-7	-8	-15
	Office (mode split)	-1	0	-1	0	-1	-1
	Hotel (none)	0	0	0	0	0	0
	Total	-4	-4	-8	-9	-10	-19
<b>Proposed - Adjusted</b>	Residential	3	8	11	8	6	14
	Commercial	7	4	11	17	17	34
	Office	7	1	8	1	7	8
	Hotel	32	29	61	43	41	84
	Total	49	42	91	69	71	140
<b>Net New</b>	Residential	3	8	11	8	6	14
	Commercial	-26	-15	-41	-11	-22	-33
	Office	7	1	8	1	7	8
	Hotel	32	29	61	43	41	84
	Total	16	23	39	41	32	73

Group 4							
		AM Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total
<b>Existing</b>	Residential	0	0	0	0	0	0
	Commercial	12	8	20	11	14	25
	Office	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
	Total	12	8	20	11	14	25
<b>Proposed</b>	Residential	1	1	2	2	1	3
	Commercial	6	4	10	15	16	31
	Office	5	1	6	1	4	5
	Hotel	0	0	0	0	0	0
	Total	12	6	18	18	21	39
<b>Adjustments</b>	Residential (mode split)	0	0	0	0	0	0
	Commercial (pass-by)	-2	-1	-3	-5	-5	-10
	Office (mode split)	-1	0	-1	0	-1	-1
	Hotel (none)	0	0	0	0	0	0
	Total	-3	-1	-4	-5	-6	-11
<b>Proposed - Adjusted</b>	Residential	1	1	2	2	1	3
	Commercial	4	3	7	10	11	21
	Office	4	1	5	1	3	4
	Hotel	0	0	0	0	0	0
	Total	9	5	14	13	15	28
<b>Net New</b>	Residential	1	1	2	2	1	3
	Commercial	-8	-5	-13	-1	-3	-4
	Office	4	1	5	1	3	4
	Hotel	0	0	0	0	0	0
	Total	-3	-3	-6	2	1	3

		Total					
		AM Peak			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total
<b>Existing</b>	Residential	0	0	0	0	0	0
	Commercial	113	69	182	200	220	420
	Office	0	0	0	0	0	0
	Hotel	0	0	0	0	0	0
	Total	113	69	182	200	220	420
<b>Proposed</b>	Residential	26	79	105	83	51	134
	Commercial	137	84	221	324	338	662
	Office	115	16	131	21	109	130
	Hotel	32	29	61	43	41	84
	Total	310	208	518	471	539	1010
<b>Adjustments</b>	Residential (mode split)	-3	-12	-15	-12	-7	-19
	Commercial (pass-by)	-42	-25	-67	-97	-103	-200
	Office (mode split)	-18	-2	-20	-3	-17	-20
	Hotel (none)	0	0	0	0	0	0
	Total	-63	-39	-102	-112	-127	-239
<b>Proposed - Adjusted</b>	Residential	23	67	90	71	44	115
	Commercial	95	59	154	227	235	462
	Office	97	14	111	18	92	110
	Hotel	32	29	61	43	41	84
	Total	247	169	416	359	412	771
<b>Net New</b>	Residential	23	67	90	71	44	115
	Commercial	-18	-10	-28	27	15	42
	Office	97	14	111	18	92	110
	Hotel	32	29	61	43	41	84
	Total	134	100	234	159	192	351

## Trip Distribution Calculations

**Workers living in Belmont MA (top 10 destinations) - use for RESIDENTIAL**

Source: United States Census Bureau, 2022

Destination	# workers	Concord EB to/from East	Concord to/from west		Leonard to/from North		Common to/from South
			Pleasant to/from South	Concord to/from West	Clifton to/from North	Pleasant to/from North	
Boston	4061	34%				33%	33%
Cambridge	2568	50%					50%
Belmont	960	25%	15%	10%	15%	10%	25%
Waltham	664		100%				
Newton	445		100%				
Watertown	399		50%				50%
Lexington	350			50%	50%		
Burlington	257			50%	50%		
Somerville	235	50%				50%	
Framingham	186				33%		67%
<b>Total</b>	<b>10125</b>	<b>3022</b>	<b>1453</b>	<b>400</b>	<b>509</b>	<b>1554</b>	<b>3188</b>
		<b>30%</b>	<b>14%</b>	<b>4%</b>	<b>5%</b>	<b>15%</b>	<b>31%</b>
	<b>SAY</b>	<b>30%</b>	<b>15%</b>	<b>5%</b>	<b>5%</b>	<b>15%</b>	<b>30%</b>

**People working in Belmont (top 10 residences) - use for OFFICE**

Source: United States Census Bureau, 2022

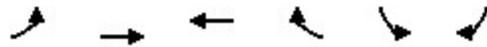
Residence	# workers	Concord EB to/from East	Concord to/from west		Leonard to/from North		Common to/from South
			Pleasant to/from South	Concord to/from West	Clifton to/from North	Pleasant to/from North	
Belmont	960	25%	15%	10%	15%	10%	25%
Boston	827	34%				33%	33%
Waltham	443		100%				
Watertown	326		50%				50%
Cambridge	296	50%					50%
Arlington	291				50%	50%	
Newton	203		100%				
Somerville	203	50%				50%	
Medford	183					100%	
Woburn	119				50%	50%	
<b>Total</b>	<b>3851</b>	<b>771</b>	<b>953</b>	<b>96</b>	<b>349</b>	<b>858</b>	<b>824</b>
		<b>20%</b>	<b>25%</b>	<b>2%</b>	<b>9%</b>	<b>22%</b>	<b>21%</b>
	<b>SAY</b>	<b>20%</b>	<b>25%</b>	<b>5%</b>	<b>10%</b>	<b>20%</b>	<b>20%</b>

## Capacity Analysis Results

# HCM Unsignalized Intersection Capacity Analysis

## 1: Common Street & Concord Avenue

10/10/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Yield	Yield		Yield	
Traffic Volume (vph)	530	61	162	489	486	774
Future Volume (vph)	530	61	162	489	486	774
Peak Hour Factor	0.92	0.92	0.92	0.92	0.98	0.98
Hourly flow rate (vph)	576	66	176	532	496	790
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	576	66	176	532	496	790
Volume Left (vph)	576	0	0	0	496	0
Volume Right (vph)	0	0	0	532	0	790
Hadj (s)	0.53	0.29	0.12	-0.67	0.52	-0.68
Departure Headway (s)	8.8	8.5	8.1	7.3	8.2	7.0
Degree Utilization, x	1.40	0.16	0.39	1.08	1.13	1.54
Capacity (veh/h)	421	414	439	503	442	517
Control Delay (s/veh)	218.4	11.9	15.0	88.3	110.7	270.9
Approach Delay (s/veh)	197.2		70.1		209.1	
Approach LOS	F		F		F	
Intersection Summary						
Delay			168.9			
Level of Service			F			
Intersection Capacity Utilization			74.8%		ICU Level of Service	D
Analysis Period (min)			15			

# HCM Unsignalized Intersection Capacity Analysis

## 9: Concord Avenue

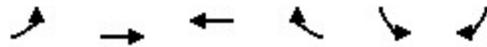
10/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Yield			Yield	
Traffic Volume (vph)	10	31	394	167	51	14	299	471	222	3	669	14
Future Volume (vph)	10	31	394	167	51	14	299	471	222	3	669	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92
Hourly flow rate (vph)	11	34	428	182	55	15	315	496	234	3	727	15
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1						
Volume Total (vph)	45	428	252	315	730	745						
Volume Left (vph)	11	0	182	315	0	3						
Volume Right (vph)	0	428	15	0	234	15						
Hadj (s)	0.16	-0.68	0.15	0.53	-0.18	0.07						
Departure Headway (s)	9.2	8.4	10.1	9.6	8.9	9.4						
Degree Utilization, x	0.12	1.00	0.71	0.84	1.80	1.95						
Capacity (veh/h)	384	428	347	372	411	389						
Control Delay (s/veh)	12.2	71.3	34.3	45.2	388.6	457.4						
Approach Delay (s/veh)	65.7		34.3	285.1		457.4						
Approach LOS	F		D	F		F						
Intersection Summary												
Delay			269.8									
Level of Service			F									
Intersection Capacity Utilization			104.0%		ICU Level of Service		G					
Analysis Period (min)			15									

# HCM Unsignalized Intersection Capacity Analysis

## 1: Common Street & Concord Avenue

10/10/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Yield	Yield		Yield	
Traffic Volume (vph)	499	35	49	838	420	824
Future Volume (vph)	499	35	49	838	420	824
Peak Hour Factor	0.96	0.96	0.92	0.92	0.98	0.98
Hourly flow rate (vph)	520	36	53	911	429	841
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	520	36	53	911	429	841
Volume Left (vph)	520	0	0	0	429	0
Volume Right (vph)	0	0	0	911	0	841
Hadj (s)	0.53	0.41	0.20	-0.68	0.52	-0.68
Departure Headway (s)	8.4	8.3	8.0	7.1	8.1	6.9
Degree Utilization, x	1.21	0.08	0.12	1.81	0.96	1.61
Capacity (veh/h)	435	428	439	510	441	527
Control Delay (s/veh)	140.5	10.8	10.9	387.3	61.6	301.3
Approach Delay (s/veh)	132.1		366.6		220.3	
Approach LOS	F		F		F	
Intersection Summary						
Delay			253.3			
Level of Service			F			
Intersection Capacity Utilization			86.2%		ICU Level of Service	E
Analysis Period (min)			15			

# HCM Unsignalized Intersection Capacity Analysis

## 9: Concord Avenue

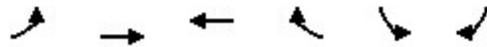
10/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Yield			Yield	
Traffic Volume (vph)	14	46	345	143	45	14	381	580	358	8	748	26
Future Volume (vph)	14	46	345	143	45	14	381	580	358	8	748	26
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Hourly flow rate (vph)	15	50	375	155	49	15	405	617	381	9	813	28
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1						
Volume Total (vph)	65	375	219	405	998	850						
Volume Left (vph)	15	0	155	405	0	9						
Volume Right (vph)	0	375	15	0	381	28						
Hadj (s)	0.24	-0.68	0.15	0.52	-0.24	0.00						
Departure Headway (s)	9.2	8.2	9.9	9.1	8.3	8.8						
Degree Utilization, x	0.17	0.86	0.60	1.02	2.31	2.09						
Capacity (veh/h)	387	432	348	405	441	415						
Control Delay (s/veh)	12.8	43.0	27.0	80.5	613.0	517.1						
Approach Delay (s/veh)	38.5		27.0	459.3		517.1						
Approach LOS	E		D	F		F						
Intersection Summary												
Delay			380.0									
Level of Service			F									
Intersection Capacity Utilization			121.6%	ICU Level of Service		H						
Analysis Period (min)			15									

# HCM Unsignalized Intersection Capacity Analysis

## 1: Common Street & Concord Avenue

10/10/2025

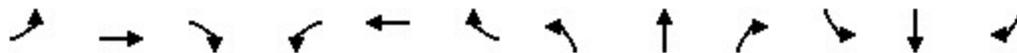


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↖	↖	↖	↖
Sign Control		Yield	Yield		Yield	
Traffic Volume (vph)	557	62	165	523	515	799
Future Volume (vph)	557	62	165	523	515	799
Peak Hour Factor	0.92	0.92	0.92	0.92	0.98	0.98
Hourly flow rate (vph)	605	67	179	568	526	815
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	605	67	179	568	526	815
Volume Left (vph)	605	0	0	0	526	0
Volume Right (vph)	0	0	0	568	0	815
Hadj (s)	0.53	0.29	0.12	-0.67	0.52	-0.68
Departure Headway (s)	8.8	8.5	8.1	7.3	8.2	7.0
Degree Utilization, x	1.47	0.16	0.40	1.15	1.20	1.59
Capacity (veh/h)	422	414	439	498	444	517
Control Delay (s/veh)	248.6	11.9	15.2	112.9	135.5	292.3
Approach Delay (s/veh)	225.0		89.5		230.8	
Approach LOS	F		F		F	
Intersection Summary						
Delay			191.2			
Level of Service			F			
Intersection Capacity Utilization			78.1%		ICU Level of Service	D
Analysis Period (min)			15			

# HCM Unsignalized Intersection Capacity Analysis

## 9: Concord Avenue

10/10/2025



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↔		↖	↗			↔	
Sign Control		Stop			Stop			Yield			Yield	
Traffic Volume (vph)	41	34	398	173	54	15	305	521	227	5	711	31
Future Volume (vph)	41	34	398	173	54	15	305	521	227	5	711	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.95	0.95	0.95	0.92	0.92	0.92
Hourly flow rate (vph)	45	37	433	188	59	16	321	548	239	5	773	34

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1
Volume Total (vph)	82	433	263	321	787	812
Volume Left (vph)	45	0	188	321	0	5
Volume Right (vph)	0	433	16	0	239	34
Hadj (s)	0.30	-0.68	0.15	0.53	-0.17	0.05
Departure Headway (s)	9.4	8.5	10.2	9.6	9.0	9.5
Degree Utilization, x	0.22	1.02	0.74	0.86	1.96	2.14
Capacity (veh/h)	377	433	347	360	408	387
Control Delay (s/veh)	13.8	77.0	37.7	48.7	458.9	540.7
Approach Delay (s/veh)	66.9		37.7	340.1		540.7
Approach LOS	F		E	F		F

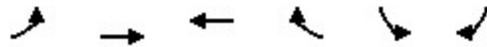
### Intersection Summary

Delay	318.8
Level of Service	F
Intersection Capacity Utilization	110.8%
ICU Level of Service	H
Analysis Period (min)	15

# HCM Unsignalized Intersection Capacity Analysis

## 1: Common Street & Concord Avenue

10/10/2025



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Yield	Yield		Yield	
Traffic Volume (vph)	530	41	55	889	475	862
Future Volume (vph)	530	41	55	889	475	862
Peak Hour Factor	0.96	0.96	0.92	0.92	0.98	0.98
Hourly flow rate (vph)	552	43	60	966	485	880
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total (vph)	552	43	60	966	485	880
Volume Left (vph)	552	0	0	0	485	0
Volume Right (vph)	0	0	0	966	0	880
Hadj (s)	0.53	0.41	0.20	-0.68	0.52	-0.68
Departure Headway (s)	8.5	8.3	8.1	7.2	8.1	6.9
Degree Utilization, x	1.30	0.10	0.13	1.93	1.09	1.69
Capacity (veh/h)	434	425	436	507	455	526
Control Delay (s/veh)	173.8	11.0	11.1	443.0	96.8	335.1
Approach Delay (s/veh)	162.0		417.7		250.4	
Approach LOS	F		F		F	
Intersection Summary						
Delay		290.3				
Level of Service		F				
Intersection Capacity Utilization		91.1%		ICU Level of Service	F	
Analysis Period (min)		15				

# HCM Unsignalized Intersection Capacity Analysis

## 9: Concord Avenue

10/10/2025

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Yield			Yield	
Traffic Volume (vph)	32	50	359	150	50	17	395	637	366	11	820	65
Future Volume (vph)	32	50	359	150	50	17	395	637	366	11	820	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.94	0.94	0.94	0.92	0.92	0.92
Hourly flow rate (vph)	35	54	390	163	54	18	420	678	389	12	891	71
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1						
Volume Total (vph)	89	390	235	420	1067	974						
Volume Left (vph)	35	0	163	420	0	12						
Volume Right (vph)	0	390	18	0	389	71						
Hadj (s)	0.30	-0.68	0.14	0.52	-0.23	-0.02						
Departure Headway (s)	9.3	8.3	10.0	9.3	8.5	9.0						
Degree Utilization, x	0.23	0.90	0.66	1.08	2.53	2.45						
Capacity (veh/h)	381	421	347	396	431	407						
Control Delay (s/veh)	13.9	50.4	30.2	99.6	713.0	677.9						
Approach Delay (s/veh)	43.6		30.2	539.8		677.9						
Approach LOS	E		D	F		F						
Intersection Summary												
Delay			469.6									
Level of Service			F									
Intersection Capacity Utilization			132.2%		ICU Level of Service					H		
Analysis Period (min)			15									

1: Common Street & Concord Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	17.6	19.4	0.5	0.0	0.7	5.8
Total Del/Veh (s)	114.5	57.1	131.4	57.4	16.9	5.4	12.3	56.6

9: Concord Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	75.2	82.7	38.6	141.7	126.4	99.9	18.2	9.7	6.8	84.6	67.8	60.8

9: Concord Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	42.4

Total Network Performance

Denied Del/Veh (s)	237.1
Total Del/Veh (s)	162.2

1: Common Street & Concord Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	19.4	24.3	0.1	0.0	0.3	10.2
Total Del/Veh (s)	183.8	40.8	88.9	62.3	10.3	1.5	15.1	65.7

9: Concord Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Total Del/Veh (s)	54.7	55.6	26.4	170.7	146.0	148.8	18.9	12.1	9.2	96.6	78.5	56.2

9: Concord Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	40.3

Total Network Performance

Denied Del/Veh (s)	412.6
Total Del/Veh (s)	183.1

1: Common Street & Concord Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	6.2	9.1	1.1	0.0	1.2	3.1
Total Del/Veh (s)	130.8	50.5	120.0	53.8	15.1	4.3	12.6	57.6

9: Concord Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Del/Veh (s)	72.1	77.7	32.9	137.5	124.8	125.9	19.1	9.5	7.2	85.7	68.6	60.0

9: Concord Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	41.8

Total Network Performance

Denied Del/Veh (s)	288.7
Total Del/Veh (s)	161.5

1: Common Street & Concord Avenue Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	163.8	196.4	0.1	0.0	0.2	81.7
Total Del/Veh (s)	145.6	49.8	140.7	112.4	15.7	6.3	12.9	80.6

9: Concord Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	76.8	84.5	30.2	152.3	142.5	133.8	19.7	12.1	8.9	106.1	73.9	67.8

9: Concord Avenue Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	41.2

Total Network Performance

Denied Del/Veh (s)	456.0
Total Del/Veh (s)	186.3