

# Proposed Baldwin 2 Section PK–8 School Brookline, Massachusetts

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## Transportation Impact Assessment

Prepared by:



December 4, 2018

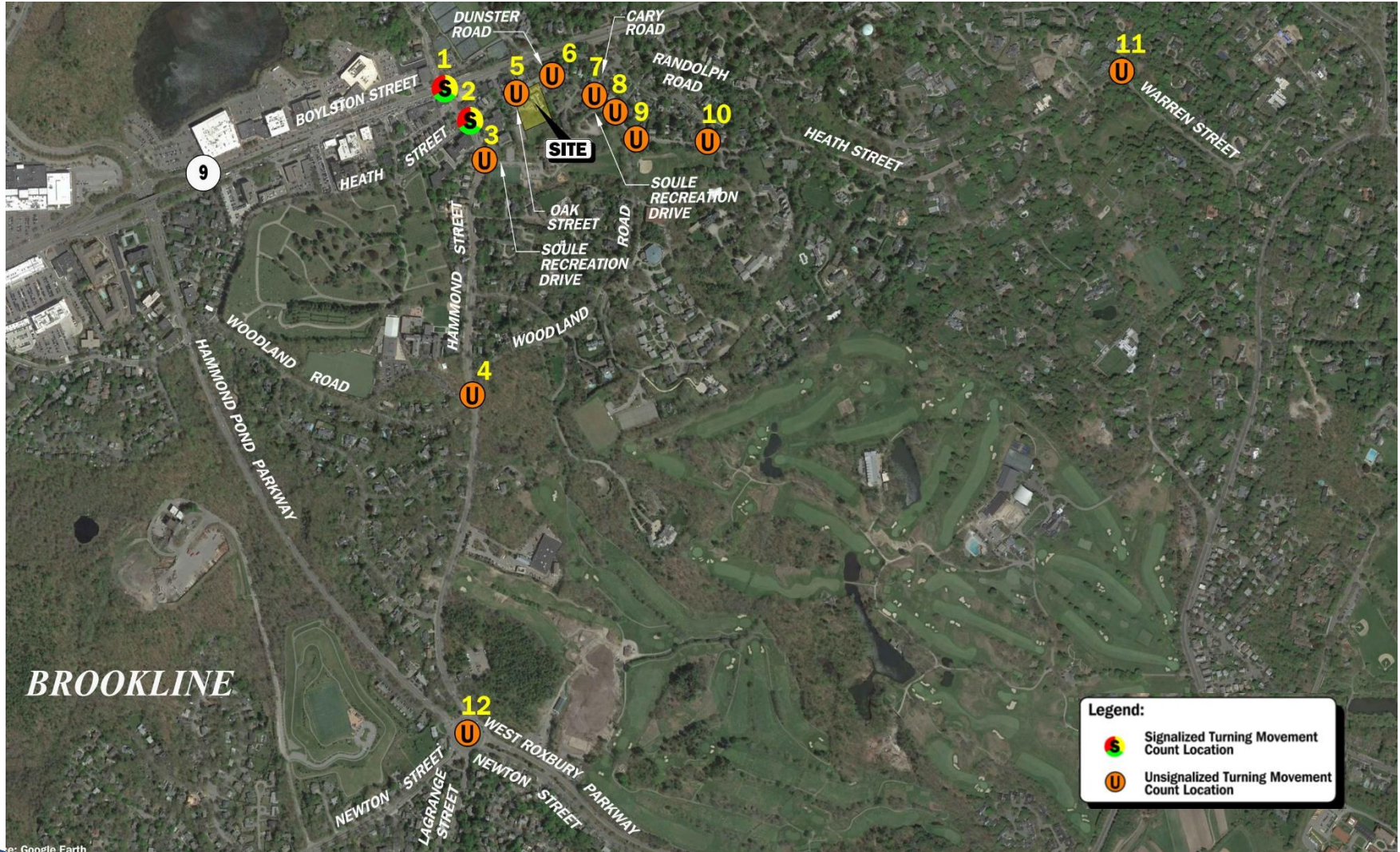
# Traffic Agenda Items

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- Area of Study
- Existing Condition Data Gathered
- Projected Conditions
- Recommendations
- Conclusions



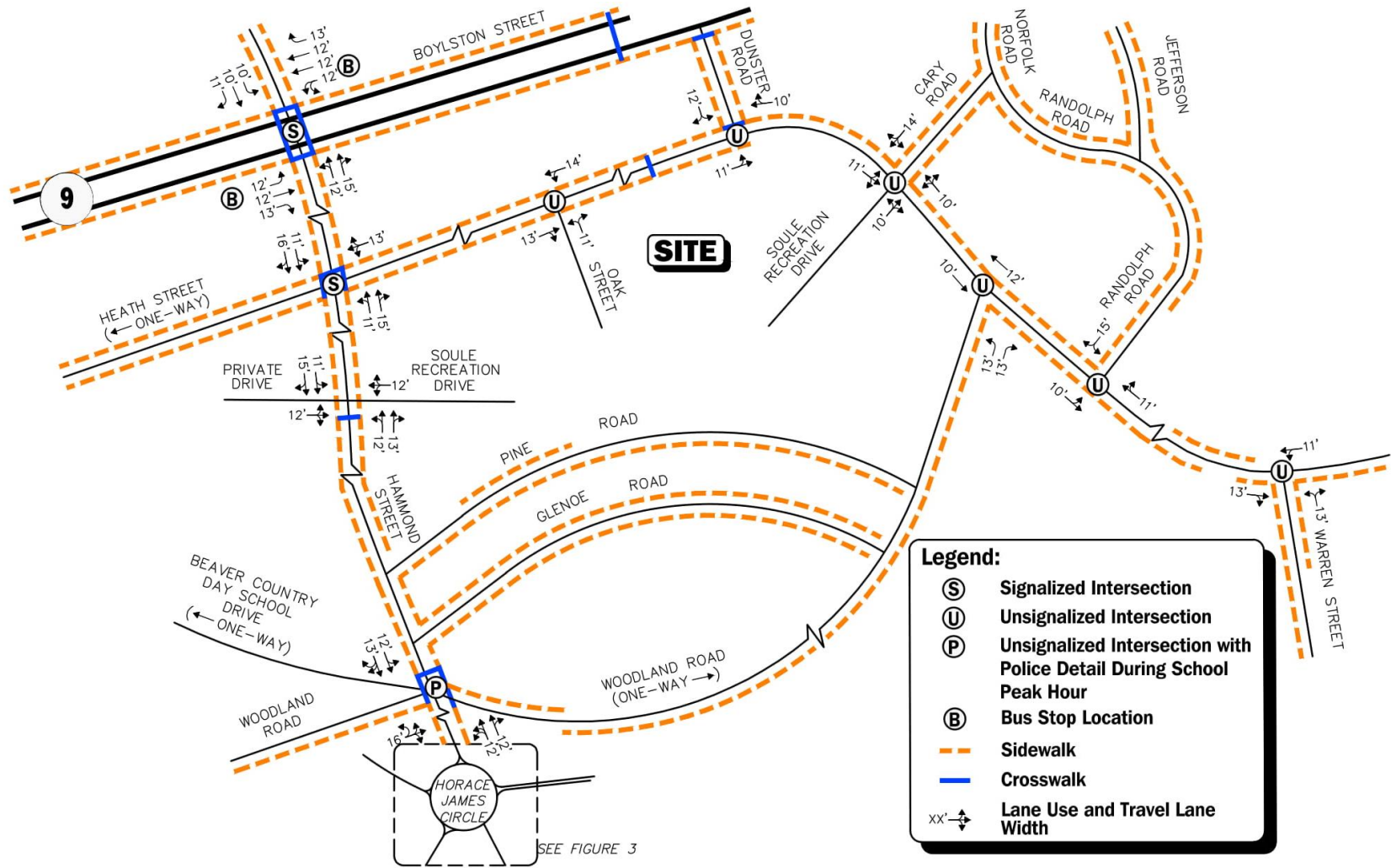
# Site Location and Study Area Map



Source: Google Earth

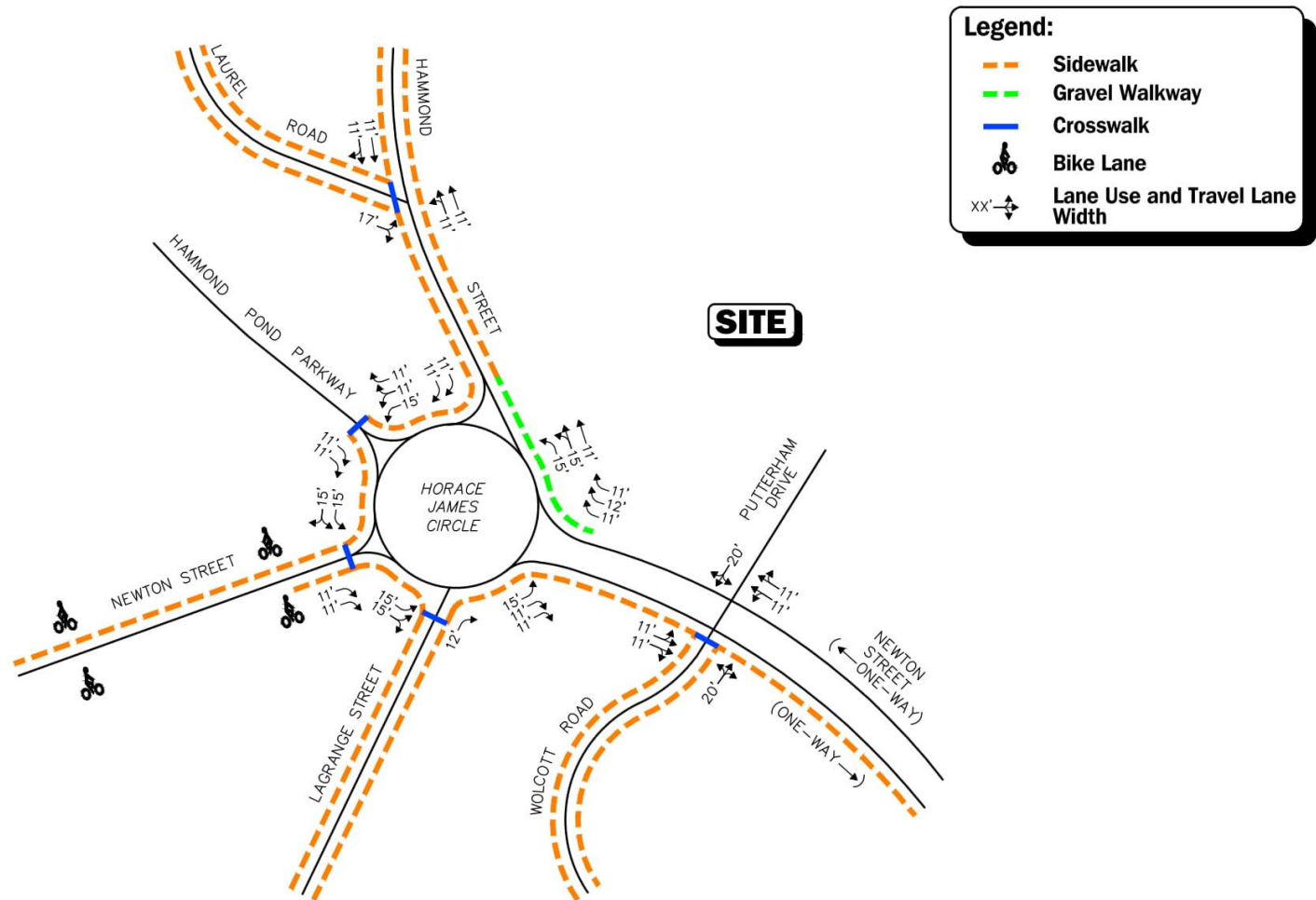


# Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities

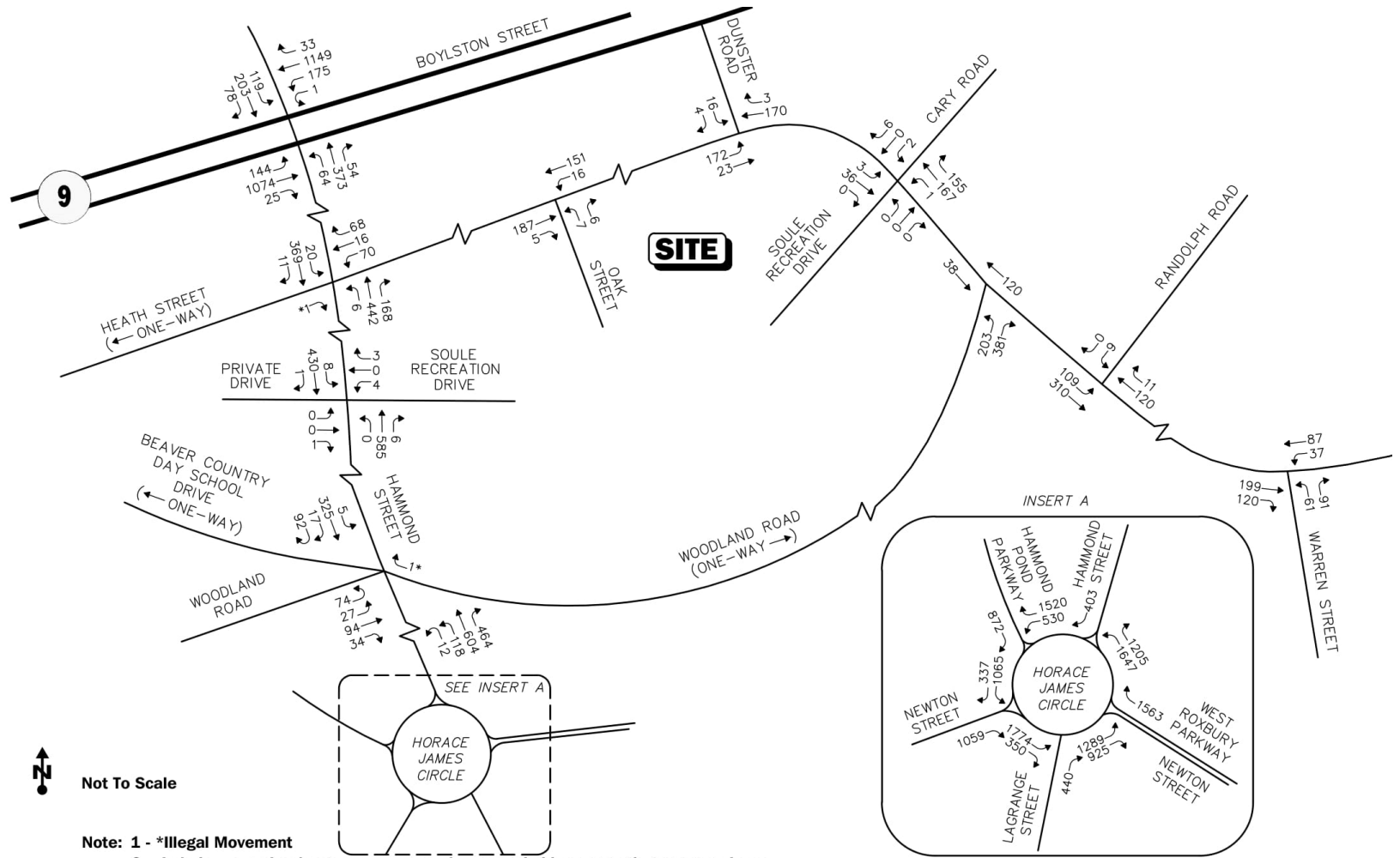




# Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities

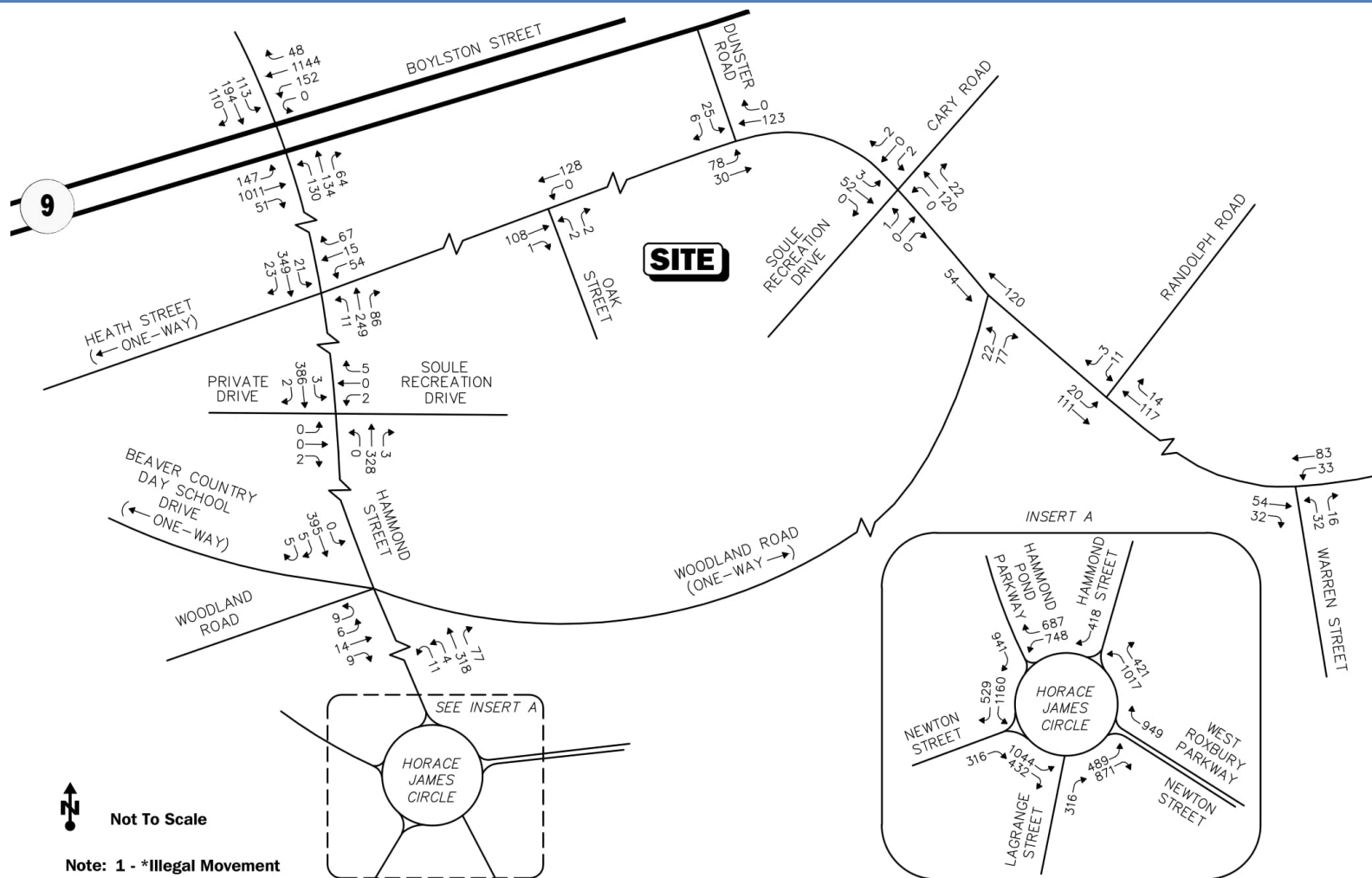


# 2018 Existing Conditions – Weekday Morning School Peak Hour Traffic Volumes ( 7:00-8:00 AM)





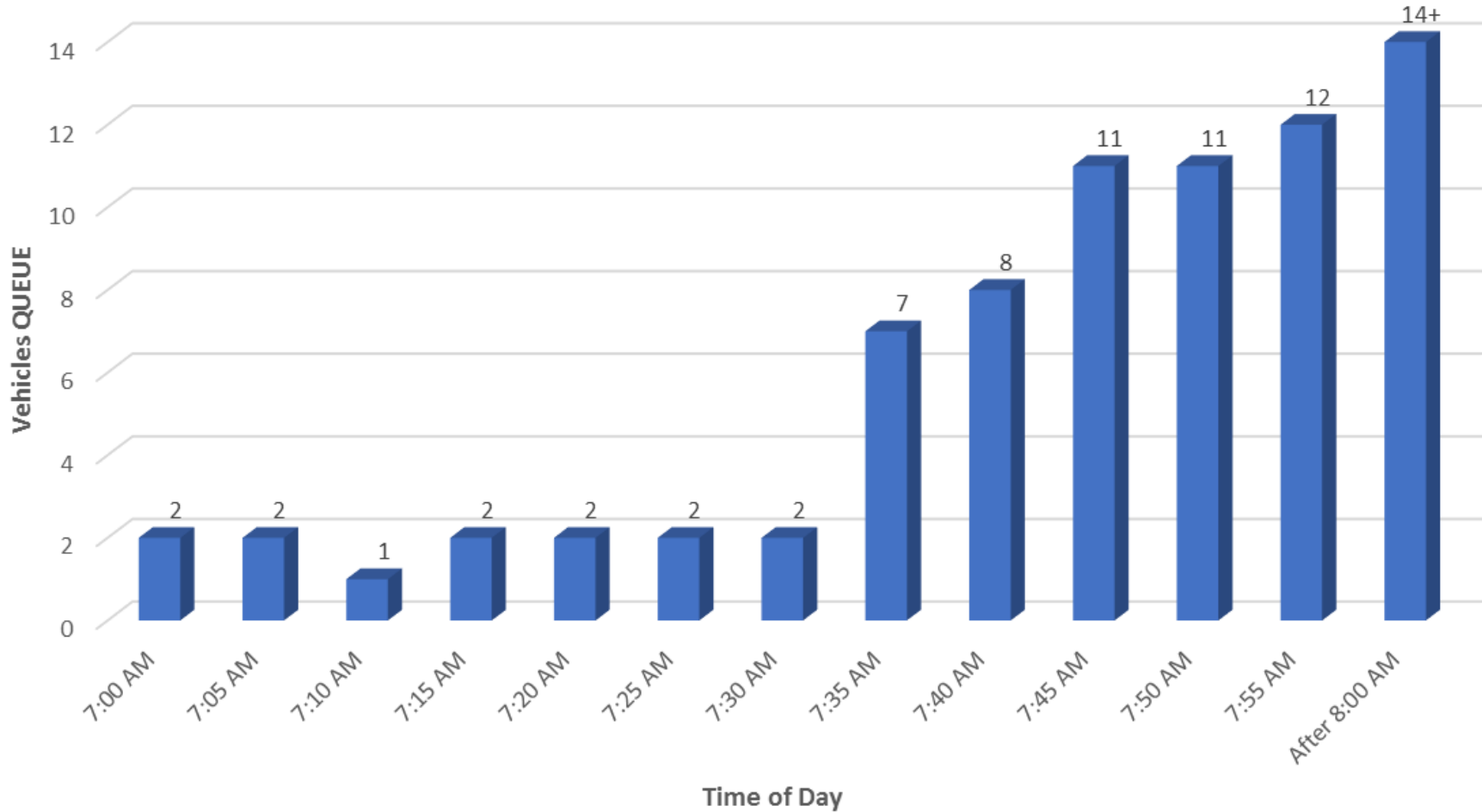
# 2018 Existing Conditions – Weekday Evening School Peak Hour Traffic Volumes ( 1:30-2:30 PM)



**Not To Scale**

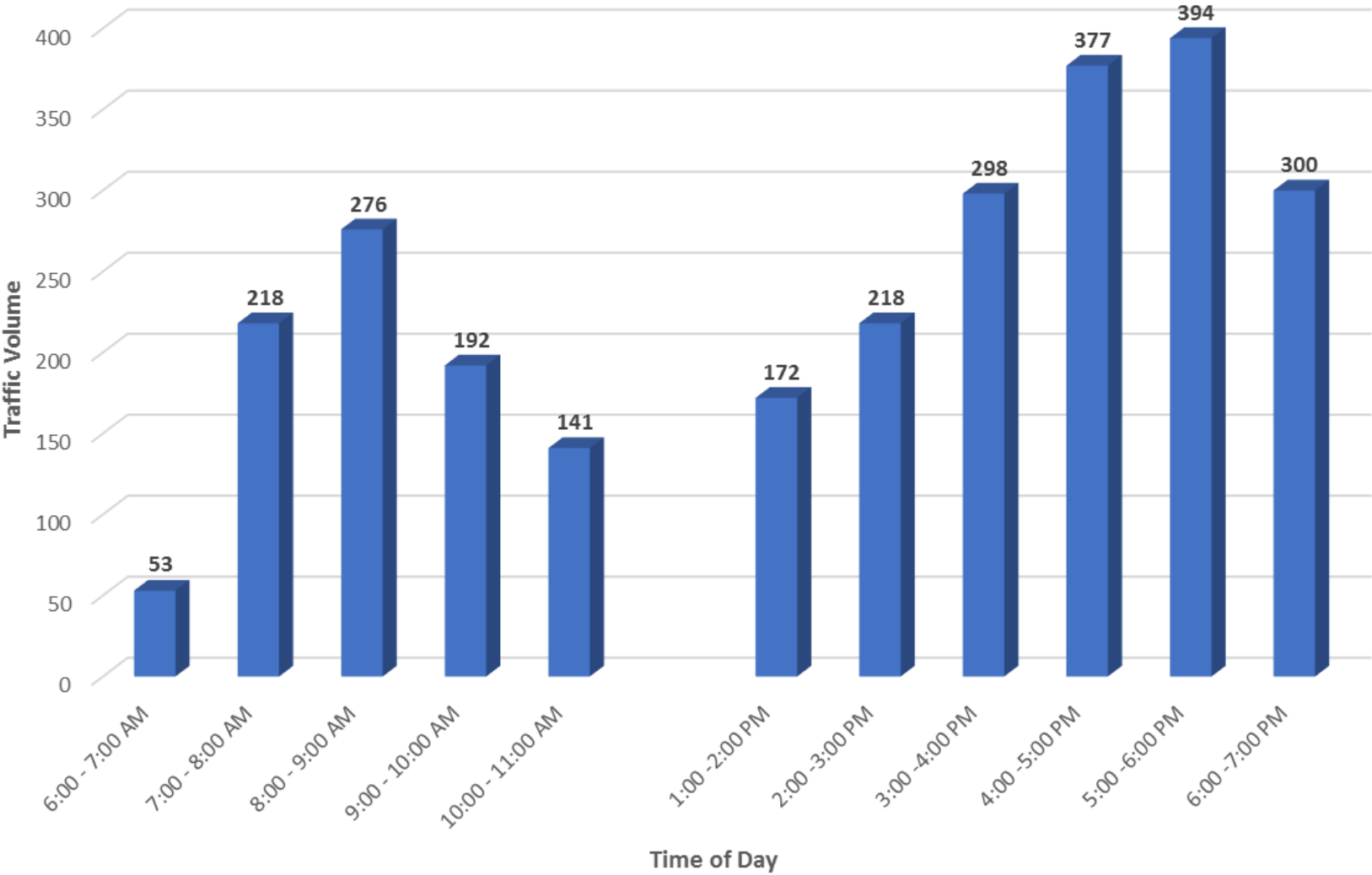
**Note:** 1 - \*Illegal Movement  
2 - Imbalances exist due to numerous curb cuts and side streets that are not shown.

# Vehicle Queues on Heath Street Weekday Morning, October 16, 2018





# Existing Heath Street Traffic Count



# Trip Generation Summary

## ASSUMPTIONS

- 453 Students
- 86 Staff ( 74 arrive in peak hour 1.0 staff per car)
- 4% Daily absenteeism
- 25 students bus with METCO ( Arriving by Bus)
- 30 RISE students (9 Vans)
- 45 Brookline Early Education Program students (Arrive after 8:00 AM)
- 120 students bus (2 Buses)
- 50 students walk<sup>1</sup>
- Student car occupancy of 1.45 student/car

<sup>1</sup> This is a conservative estimate. 195 K-8 children live within 0.5 miles of the site, so the number of children who walk to school when it opens will be higher.

**Result: 121 Cars in the Morning, 70 Cars in the Afternoon**

## Car Drop-Off Trip Generation Comparison

Time Period	Car Drop-off (800 Students)	Car Drop-off (600 Students)	Car Drop-off (453 Students)
<b>Weekday Morning Peak Hour:</b>			
<b>Entering</b>	330	232	121
<b>Exiting</b>	330	232	121
<b>Total</b>	660	464	242

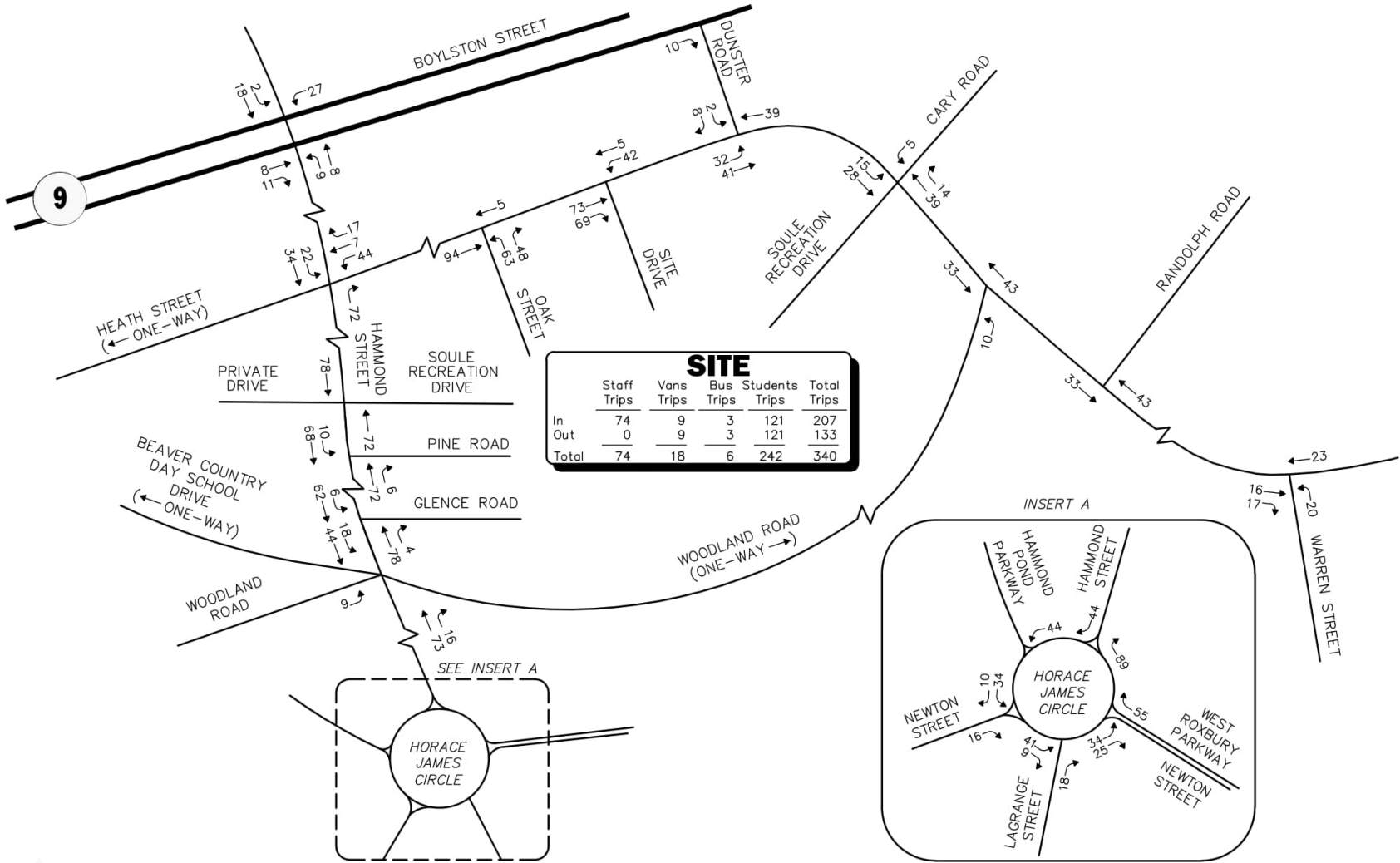


# Trip Generation Summary

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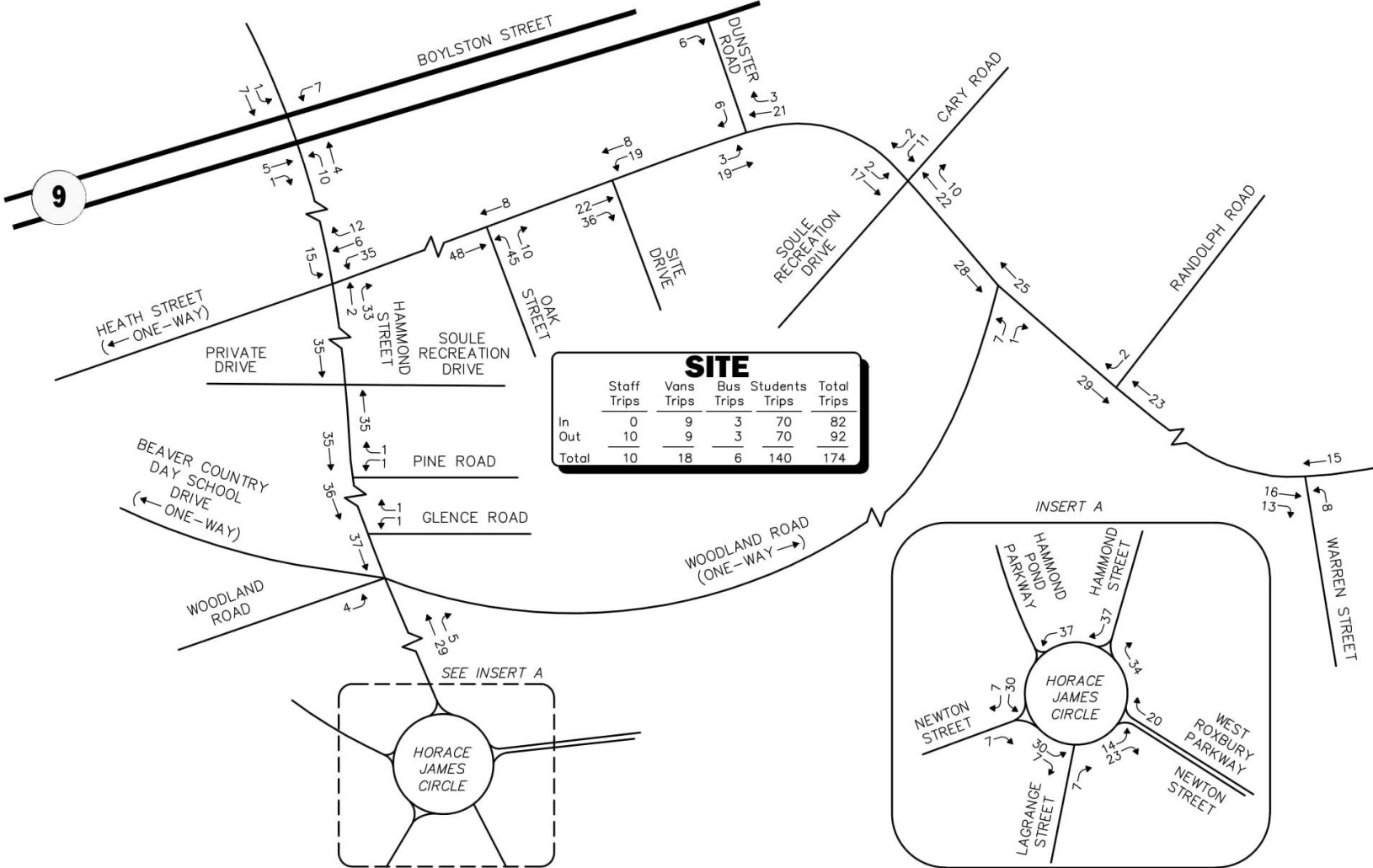
Time Period	Staff	Vans	Buses	Car Drop-off/ Pick-up	Total Trips
<b>Weekday Morning Peak Hour:</b>					
Entering	74	9	3	121	207
Exiting	<u>0</u>	<u>9</u>	<u>3</u>	<u>121</u>	<u>133</u>
Total	74	18	6	242	340
<b>Weekday Afternoon Peak Hour:</b>					
Entering	0	9	3	70	82
Exiting	<u>10</u>	<u>9</u>	<u>3</u>	<u>70</u>	<u>92</u>
Total	10	18	6	140	174

# Projected Trip Generation – Weekday Morning



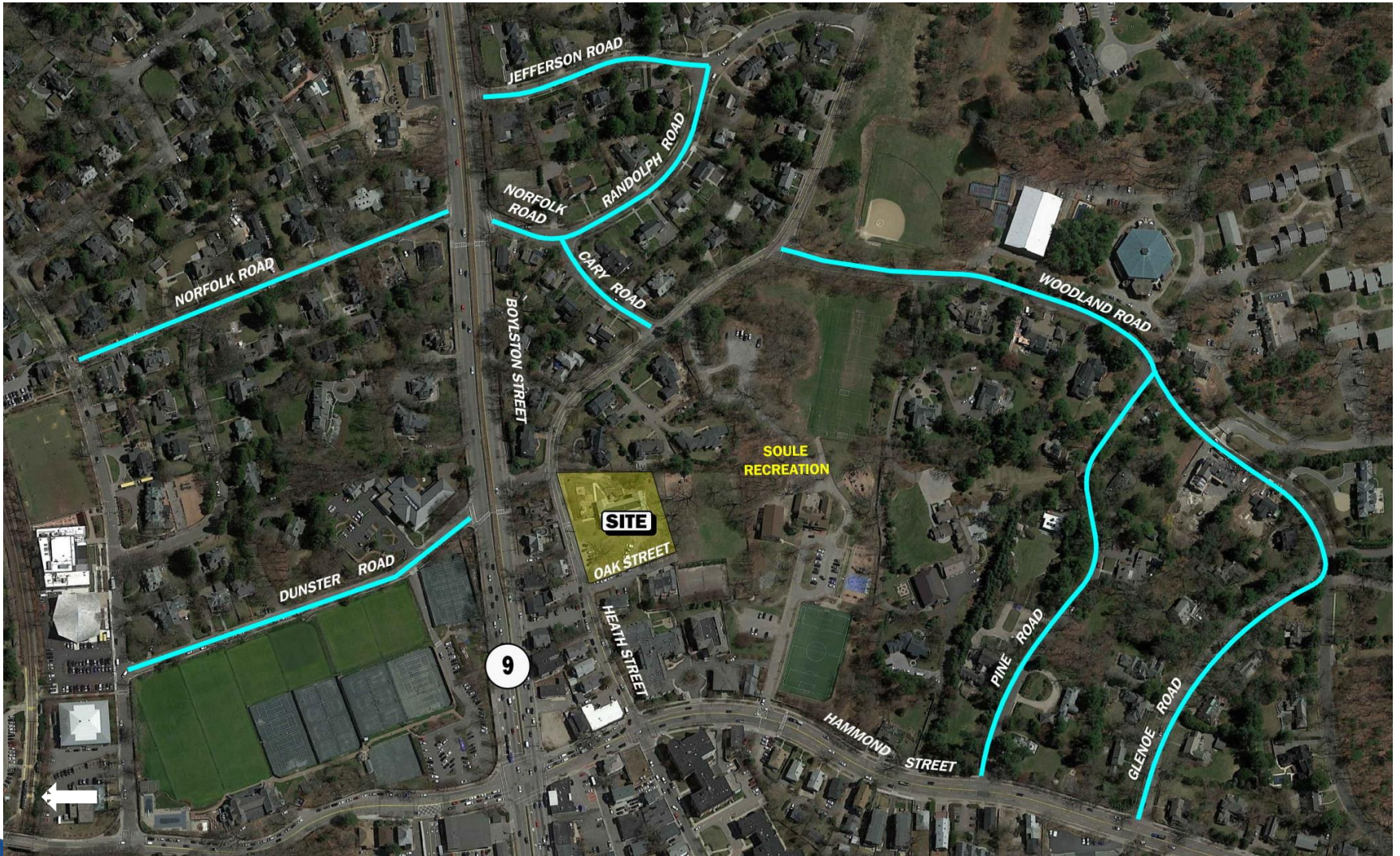


# Projected Trip Generation – Weekday Evening





# Teachers On-Street Parking





# Parent On-Street Parking





# Recommendations

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## Project Area Access

- The Main Driveway Off Heath Street
- A Bus Drop-off Area is Proposed on Site Off Heath Street
- Earlier Start Time

## Off-Site

### Hammond Street at Route 9 and Hammond Street at Heath Street

- This Intersection Should Be Retimed and Coordinated with Route 9 Signal
- Exclusive Pedestrian phase at Hammond Street at Heath Street

### Crossing Guards

- Heath Street at Oak Street (School Exit)
- Hammond Street At Heath Street
- Soule Recreation Drive
- Norfolk Road

### Area Sidewalk Upgrades

# Recommendations

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## School Drop-Off and Pick-Up Traffic Management Plan

- Crossing Guard Control
- School Staff Should Be Stationed at The Drop-off
- A Designated Drop-off/Pick-up Area
- A Lane Along the Entryway Will Remain Unobstructed
- Parents and Caregivers Will Be Given Information on School Drop-off and Pick-up Times and Procedures

# Recommendations

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## Pedestrian Improvement

### New crosswalks

- Heath Street
- Hammond Street

### Sidewalks entering the site

- Heath Street

### Rectangular Rapid Flashing Beacon

- Hammond Street Near Soule School
- Route 9 at Dunster Road

### Pedestrian Signal

- Route 9 at Norfolk Road

## Busing/ Vans

- 120 Students ( 2 Buses)
- 25 METCO Students ( 1 Bus)
- 30 RISE Students ( 9 Vans)

# Recommendations

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## Bicycle Considerations

- Bicycle Racks Should Be Provided – Interior/Exterior
- Shower Facilities
  - Bicycle Consideration By the Town:
    - Heath Street
    - Woodland Road

## Transit Usage

- Promote staff usage
- Town TDM plan

## Traffic Monitoring

Within three months after school opening and annually

- Pedestrian safety
- Crossing guards
- Level of student busing

## Construction Management Plan

A detailed Construction Management Plan should be prepared and reviewed by the Town



# Recommendations Pedestrian Access and School Signage Plan



# School Comparisons

	Proposed Baldwin School	Runkle School	Lincoln School	Driscoll School
Students	453	581	581	632
Buses (Students in Buses)	2(120)	4(15)	4(18)	2(20)
Estimated Walkers	50	132	140	425
Teachers	86	132	113	99
Neighborhood Street Teacher Parking	86	120	33	53
Traffic Generation <sup>a</sup>				
Weekday Morning period	340	355	272	305
Weekday Afternoon period	174	142	193	165
Queueing Area	on-site	Druce Street	Kennard Road	Washington St./ Westbourne Terrace
Delays	2-3 minutes	2-5 minutes	3-5 minutes	3-5 minutes

# Summary

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## SUMMARY

- Safe Environment Can Be Maintained
- Delays and Queues – Limited to Short Periods (10–20 Minutes)
- School Traffic Before Existing Peak
- Traffic Conditions Will Be Manageable

Qualitative Assessment: Good Site for New School

Neighborhood Impact: Comparable to Existing Schools



HEATH ST.

ENTRANCE DRIVE

OAK ST.

HAMMOND ST.

PROPOSED  
BALDWIN SCHOOL  
OUTLINE OF  
EXISTING SCHOOL  
HVAC ENCLOSURE  
BEYOND

+50

+54

+52

+33

+40

