ENVIRONMENTAL NOTIFICATION FORM

MAYNARD CROSSING
129 PARKER STREET (ROUTE 27)
MAYNARD, MASSACHUSETTS

SUBMITTED TO:

EXECUTIVE OFFICE OF ENERGY
AND ENVIRONMENTAL AFFAIRS
100 CAMBRIDGE STREET, SUITE 900
BOSTON, MA 02114
ATTN: MEPA OFFICE

SUBMITTED BY:

CAPITAL GROUP PROPERTIES

259 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772

PREPARED BY:

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772

IN ASSOCIATION WITH:

GREEN INTERNATIONAL AFFILIATES, INC.
GODDARD CONSULTING, LLC
ON SITE ENGINEERING INC.
WATERMAN ASSOCIATES, INC.

MARCH 30, 2017

BOHLER ENGINEERING

W161189

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Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

For Office Use Only

EEA#: _____

MEPA Analyst: _____

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: **Maynard Crossing**		
Street Address: **129 Parker Street (Route 27)**		
Municipality: **Maynard**	Watershed: **SuAsCo River Watershed**	
Universal Transverse Mercator Coordinates:	Latitude: **42° 25' 06.08" N** Longitude: **71° 27' 01.14" W**	
Estimated commencement date: **Fall 2017**	Estimated completion date: **Fall 2022**	
Project Type: **Redevelopment**	Status of project design: **80** %complete	
Proponent: **Capital Group Properties**		
Street Address: **259 Turnpike Road, Suite 100**		
Municipality: **Southborough**	State: **MA**	Zip Code: **01772**
Name of Contact Person: **Matthew D. Smith**		
Firm/Agency: **Bohler Engineering**	Street Address: **352 Turnpike Road**	
Municipality: **Southborough**	State: **MA**	Zip Code: **01772**
Phone: **508-480-9900**	Fax: **508-480-9080**	E-mail: **msmith@bohlereng.com**

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
☒Yes ☐No

301 CMR 11.03 (b)(a)(b): Generation of 3,000 or more new ADT. It is noted that there are no required state permits or actions associated with traffic as Parker Street is Town owned and maintained.

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:

a Single EIR? (see 301 CMR 11.06(8))	☐Yes ☒No
a Special Review Procedure? (see 301CMR 11.09)	☐Yes ☒No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☐Yes ☒No
a Phase I Waiver? (see 301 CMR 11.11)	☐Yes ☒No

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?

301 CMR 11.03 (6)(a)(6): Generation of 3,000 or more new ADT

301 CMR 11.03 (1)(b)(1): Alteration of 25 or more acres of land
(1)(b)(2): Creation of 5 or more acres of impervious area
(2)(b)(2): Greater than two (2) acres of disturbance of Designated Priority Habitat
(6)(b)(2)(b): Cutting of 5 or more public shade trees

Which State Agency Permits will the project require?

MA Division of Fisheries & Wildlife

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

The project will be privately financed.

Summary of Project Size & Environmental Impacts*	Existing	Change	Total
LAND			
Total site acreage	58.0		
New acres of land altered		6	
Acres of impervious area	27.0	9.0	36.0
Square feet of new bordering vegetated wetlands alteration		800 +/-	
Square feet of new other wetland alteration		0	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	550,000 GSF	+91,000 GSF	641,000 GSF
Number of housing units	0	+323	323 (180 Apartment Units & 143 Continuing Care Housing Units)
Maximum height (feet)	< 40'	±0-15'	55'
TRANSPORTATION			
Vehicle trips per day	0**	14,710 (Sat) 10,258 (weekday)	14,710 (Sat) 10,258 (weekday)
Parking spaces	±2,193	-421	±1,772
WASTEWATER			
Water Use (Gallons per day)	49,500	53,243	102,743
Water withdrawal (GPD)	49,500	53,243	102,743
Wastewater generation/treatment (GPD)	45,000	48,403	98,403
Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0	0	0

* Existing impacts correspond to site conditions prior to the beginning of demolition in 2013 of existing site buildings and features at the 129 Parker Street property, as shown on a plan entitled "Record Conditions Plan – Definitive Site Plan – Maynard Lifestyle Center," prepared by Meridian Associates, Inc., dated January 18, 2008. Demolition of existing buildings is currently ongoing.

**It is notable that the project was formally used by Digital Corporation and generated an estimated 6,075 vehicle trips per day on a week day and 1,350 vehicle trips per day on a Saturday. These trips were not counted against the total change as the Site has been vacant for over fifteen (15) years.

Has this project been filed with MEPA before?
☐ Yes (EEA #_____) ☒No

Has any project on this site been filed with MEPA before?
☐ Yes (EEA #_____) ☒No

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site:

The project consists of the redevelopment of an existing lot located at 129 Parker Street in Maynard, Massachusetts (hereinafter identified as "the Site"). The Site is further identified as Map #25, Parcels #152 and #152-1 on the Town of Maynard's Tax Assessor's maps. The 58-acre Site, was previously utilized as a Digital Corporation facility and is situated on the westerly side of Parker Street (Route 27), and is located within the Industrial District, Neighborhood Business Overlay District (NBOD) and Water Supply Protection District (Zone II). The existing site consists of three (3) buildings, parking lots, pedestrian walkways, and a stormwater basin located in the central and eastern portions of the property. It is noted that demolition of the Digital Corporation buildings started in 2013 and is currently ongoing. The western portion of the property is undeveloped and contains woodland areas and bordering vegetated wetlands. The western portion of the site is also designated as a Priority Habitat for the Blandings Turtle, a state listed threatened species. Additional information is provided in the Project Descriptions below and in the Rare Species section of this filing.

The property is bordered by single family residences to the north, Parker Street and single family residences to the east, single family residences and designated open space to the south, as well as the Maynard High School, and designated open space to the west.

Describe the proposed project and its programmatic and physical elements:

Capital Group Properties (the Proponent) is developing Maynard Crossing, a proposed mixed-use, retail and residential development at 129 Parker Street (Route 27) during the second half of 2017. The commercial project will give the Town a destination center for residents and visitors alike with much needed amenities of grocery, retail shops, restaurants, medical services, daycare, fitness, senior living and multi-family rental units. The project is accessible to Route 128 & Interstate 495 via Route 117 and Route 2 via Route 27 and is approximately 2.5 miles south of the commuter rail stop in Acton.

The project proposes to raze the existing buildings and associated infrastructure with the exception of a one-story building located in the northwest portion of the site which will be reutilized as part of the development. The project will consist of the construction of three (3) multi-family apartment buildings with garages, a clubhouse/office and a fitness center, 143 continuing care retirement units, along with 293,540 SF of multi-use buildings with restaurants, grocery store, banks, retail and commercial businesses. The project will include other related site amenities including 1,772 surface parking spaces, pedestrian walkways, a pedestrian bridge, bus stop, utilities, stormwater management components, landscaping and lighting.

The project is a result of many years of master planning efforts with the Town of Maynard including rezoning and the creation of a new Neighborhood Business Overlay District at Town Meeting for the planned development. These efforts originally started in 2006 and the applicant began working with the Town in 2012 to develop the plan as proposed. The Applicant and the Town have also entered into a Memorandum of Agreement (MOA) that outline several parameters for the development as well as mutually agreed upon mitigation requirements. The MOA is included in the Appendix G of this filing.

The majority of the project will be located within existing developed areas but will result in six (6) acres of new land alteration. The majority of the work will be outside the 100-foot buffer zone to the abutting wetlands, however, there will be approximately 3.5 acres of alteration to the existing Blanding's Turtle habitat. Mitigation will be provided by setting aside six (6) acres of land in a permanent conservation restriction, installation of a turtle barrier and nesting habitat creation and management. These items are detailed further below and in the Rare Species section of this filing.

The proposed project is anticipated to generate 14,710 total vehicle trips on a Saturday and 10,258 trips per typical weekday. Trips generated by the former Digital facility have not been accounted for as the site has been dormant for many years. Mitigation for traffic impacts will be provided by the installation of a traffic signal at the project site drive along with additional off-site improvements as agreed to in the MOA and detailed further below:

- Parker Street will be widened to accommodate a northbound exclusive left-turn lane and a southbound exclusive right-turn lane;
- Offsite improvements at the signalized intersection of Parker Street / Great Road (Route 117) including vehicle detection and pedestrian signals;
- Offsite improvements at the intersection of Parker Street (Route 27) with Powder Mill Road (Route 62) and Waltham Street including the installation of a vehicle detection system; and
- Offsite improvements at the intersections of Parker Street (Route 27) at Old Marlboro Road, Old Marlboro Road at B Street/Marlboro Street, and Old Marlboro Road at Great Road (Route 117) including the reconstruction to form T-intersections with more conventional geometry

The proposed project will increase the amount of impervious cover on site by approximately nine (9) acres. The resulting increase in stormwater runoff will be mitigated through the construction of a new stormwater management system. The system will include deep sump catch basins, a surface basin, underground infiltration basins and a proprietary treatment unit for water quality treatment prior to discharge to the wetland system located in the western portion of the site. The basins will serve to attenuate post-development rates to less than pre-development rates while providing infiltration of stormwater runoff. The stormwater management system has been designed to meet or exceed the Massachusetts Stormwater Standards. It is notable that a large portion of the southern and western parts of the existing site flow to existing catch basins and discharge to the aforementioned wetland system with little to no treatment. The proposed system will provide a substantial improvement to on site storm water quality.

The project will provide new on-site utility systems that will be serviced by existing municipal water and sewer systems located in Parker Street. The project is estimated to generate 98,403 GPD of sewer demand and 102,743 GPD of water demand. Based upon preliminary conversations with the Maynard Water Department there is sufficient water capacity in the area to service the proposed development. Refuse will be handled by on site dumpster and recycling containers located throughout the site. Refuse pickup will be contracted by a private waste disposal company. In addition, buildings will incorporate sprinkler systems as required by the Massachusetts State Building Code.

In addition to the above, as part of the MOA the proponent has agreed to provide significant monetary mitigation funds to the Town of Maynard to address the proposed projects impact on town services including: one million dollars ($1,000,000.00) for deposit into an appropriate fund established by the Town Treasurer, two-hundred and sixty thousand dollars ($260,000.00) to a traffic improvement fund, and fifty thousand dollars ($50,000.00) for other infrastructure improvements including water and sewer connections.

NOTE: The project description should summarize both the project's direct and indirect impacts (includin construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, an reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

"Prior Development – Digital Corporation Site"
The site is currently underutilized in its existing state and has been vacant for over fifteen (15) years since Digital Corporation left the Site. Being vacant for such a lengthy period is evidence that simple re-tenanting of the existing buildings for an office park or the like is not a viable economic alternative for the Site. Therefore, the Town has gone through a lengthy master planning process aimed at encouraging redevelopment of the Site. This process is detailed in the alternative sections below.

Ad Hoc Committee Recommended Alternative
As noted previously, the project site has been the subject of extensive redevelopment and master planning efforts by the Town of Maynard since 2006 including the establishment of a Neighborhood Business Overlay District at Town Meeting for the planned development. In 2013, the applicant became involved in the planning efforts with the Town, and in November 2013 the Town commissioned a 129 Parker Street Ad Hoc Committee to advance the ongoing planning process between the Town, the applicant and the Maynard residents. The Committee was made up of Town officials and citizens.

The proponent looked at over twenty-five (25) different development scenarios for redevelopment of the Site. Eventually these scenarios were narrowed down to eleven (11) options that were presented to the Committee in December 2013. The development options presented to the Ad Hoc Committee centered around redevelopment of the site and integration of a new mixed-use development which was an overall objective of the Town. These options included residential apartments, senior living, restaurants, and retail uses.

The Committee held twelve (12) public hearings and worked with the Town as well as the proponent to review the development scenarios considering a multitude of items including, but not limited to, the following:

- Proposed uses to be allowed on the property including integration of rental housing units and senior living;
- Affordable housing component;
- Impacts on abutting neighborhoods;
- General Site design;
- Pedestrian access and amenities;
- Building heights and setbacks;
- Landscape screening;
- Fiscal Impacts;
- Traffic Impacts; and
- Permitting Process

Ultimately the Committee selected one of the development scenarios to recommend to the Selectmen in March 2014 consisting of 250,000 SF of commercial space, 250 multi-family residential units situated amongst six 96) buildings and 100 senior assisted living units. The plan also included 1,950 parking spaces, driveways and associated amenities. A copy of the Ad Hoc Committee Recommended Alternative is included in Appendix E of this filing, and the impacts expected from same are summarized in Table 1 herein.

"Preferred Alternative"
Subsequent to the Ad Hoc Committee review and recommendations the applicant and the Town of Maynard have worked together to ultimately arrive at a final master plan approval in 2016. The submitted Preferred Alternative is reflective of the approved Master Plan and consists of the construction of three (3) multi-family apartment buildings with garages, a clubhouse/office and a fitness center, 143 continuing care retirement units, along with 293,540 SF of multi-use buildings with restaurants, grocery store, banks, retail and commercial businesses. The project will include other related site amenities including 1,772 surface parking spaces, pedestrian walkways, a pedestrian bridge, bus stop, utilities, stormwater management components, landscaping

and lighting. The Preferred Alternative plans are included in Appendix I of this filing.

It is notable that the Ad Hoc Committee alternative included work within the 100-foot buffer zone to the wetland area in the western portion of the site. The preferred alternative removes this encroachment as requested by Massachusetts Division of Fisheries and Wildlife as it is significant to maintain the buffer for the Blanding's Turtle species on site.

In addition, as part of the master plan process the Applicant and the Town have also entered into a Memorandum of Agreement (MOA) that outline several parameters for the development as well as mutually agreed upon mitigation requirements. The MOA is included in Appendix G of this filing. A comparison summary of development impacts for each alternative is listed in the table below.

Table 1 - Alternatives Analysis Summary

Alternatives Analysis Summaries of Project Size and Environmental Impacts	**Prior Development – Digital Corporation**	**Preferred Alternative**	**Ad Hoc Committee Recommended Alternative**
Total Site Acreage	58.0	58.0	58.0
New Acres of Land Altered	N/A	6.0	8.1
Acres of Impervious Area	27.0	36.0	34.7
SF of new bordering vegetated wetlands alteration	0	800 +/-	800 +/-
Gross Square Footage	550,000	641,000	702,000
Number of Housing Units	0	180 Apartment 143 Continuing Care	250 Multi Family 100 Continuing Care
Maximum Height (feet)	< 40'	55'	55'
Vehicle Trips Per Day	0	10,258 (weekday daily) 14,710 (Saturday daily)	11,000 (weekday daily) 16,175 (Saturday daily)
Parking Spaces	2,193	1,772	1,950
Water use (GPD)	49,500	102,743	98,450
Water Withdrawal (GPD)	49,500	102,743	98,450
Wastewater generation (GPD	45,000	98,403	89,500
Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0	0	0

NOTE: *The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

The proposes project includes a variety of measures designed to mitigate the projects impacts as outlined below.

Rare Species Mitigation

The Master Developer has been working with the Massachusetts Division of Fisheries and Wildlife for three (3) years to implement the necessary mitigation measures required for the proposed project. These mitigation measures include the following and are further detailed in the Rare Species Section of the filing:

- Setting aside approximately six (6) acres of land located on the western side of the site in permanent
- conservation restriction;
- Construction of a permanent turtle barrier fence along the western and southern portions of the project to prevent turtle migration into the develop property;
- Creation of Turtle Nesting Habitat Plan that includes 1.1 acres of designated area to the west of the development along with associated long term monitoring and maintenance;
- Implementation of a Turtle Protection Plan prior to and during construction including the installation of a temporary turtle barrier
- Creation and implementing of an Operations and Maintenance Plan

Traffic Mitigation

A Traffic Impact and Access Study (TIAS) for the 129 Parker Street Property was prepared by Green International Affiliates, Inc., dated January 2017. The TIAS indicates that the proposed project could be supported by the study area roadways with several improvements to the transportation infrastructure to improve safety, traffic operating conditions, and to encourage alternative modes of transportation. This mitigation includes the following and are further detailed in the Traffic Section of the filing:

- A traffic signal is proposed at the intersection of Parker Street (Route 27) with the Primary Site Drive;
- Parker Street will be widened to accommodate a northbound exclusive left-turn lane and a southbound exclusive right-turn lane;
- Offsite improvements at the signalized intersection of Parker Street / Great Road (Route 117) including vehicle detection and pedestrian signals;
- Offsite improvements at the intersection of Parker Street (Route 27) with Powder Mill Road (Route 62) and Waltham Street including the installation of a vehicle detection system; and
- Offsite improvements at the intersections of Parker Street (Route 27) at Old Marlboro Road, Old
- Marlboro Road at B Street/Marlboro Street, and Old Marlboro Road at Great Road (Route 117)including the reconstruction to form T-intersections with more conventional geometry.
- Consistency with Town of Maynard's Complete Streets policy including the following items in the development:
    - Bike lanes
    - Bike racks
    - Pedestrian connectivity to Parker Street
    - On-site bus stop

Stormwater Mitigation

The proposed project will increase the amount of impervious cover on site by approximately nine (9) acres. The resulted increase in runoff will be mitigated through the construction of a new stormwater management system. The system will include a deep sump catch basins, a surface basin, underground infiltration basins and a proprietary treatment unit for water quality treatment prior to discharge to the wetland system located in the western portion of the site. The basins will serve to attenuate post-development rates to less than pre-development rates while providing infiltration of stormwater runoff. The stormwater management system has been designed to meet or exceed the Massachusetts Stormwater Standards. It is notable that a large portion of the southern and western parts of the existing site flow to existing catch basins and discharge to the aforementioned wetland system with little to no treatment. The proposed system will provide a substantial improvement to on site water quality.

Miscellaneous Town of Maynard Mitigation

In addition to the above, as part of the MOA the proponent has agreed to provide significant monetary mitigation funds to the Town of Maynard to address the proposed projects impact on town services including: one million dollars ($1,000,000.00) for deposit into an appropriate fund established by the Town Treasurer, two-hundred and sixty thousand dollars ($260,000.00) to a traffic improvement fund, and fifty thousand dollars ($50,000.00) for other infrastructure improvements including water and sewer connections.

If the project is proposed to be constructed in phases, please describe each phase:

The grocery store pad is anticipated to be constructed first followed by site work on the north side retail, the multi-family site and the senior living site. It is expected that the work will be ongoing at the site for all projects simultaneously. The roadway improvements will be ongoing throughout the construction process but are anticipated to be substantially complete by fall of 2018. The goal is to have spaces for the first tenants turned over in late 2018.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN:

Is the project within or adjacent to an Area of Critical Environmental Concern?

☐Yes (Specify: _____)

☒No

if yes, does the ACEC have an approved Resource Management Plan? ___ Yes ___ No;

If yes, describe how the project complies with this plan.

_____

Will there be stormwater runoff or discharge to the designated ACEC? ___ Yes **X** No;

If yes, describe and assess the potential impacts of such stormwater runoff/discharge to the designated ACEC.

RARE SPECIES:

Does the project site include Estimated and/or Priority Habitat of State-Listed Rare Species? (see http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/priority_habitat_home.htm)

☒Yes (Specify: (**PH 687 / EH 648: Blanding's Turtle**) ☐No

HISTORICAL /ARCHAEOLOGICAL RESOURCES:

Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

☐Yes (Specify_____) ☒No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? ☐Yes (Specify_____) ☐No

WATER RESOURCES:

Is there an Outstanding Resource Water (ORW) on or within a half-mile radius of the project site? ___Yes **X** No; if yes, identify the ORW and its location.

(NOTE: Outstanding Resource Waters include Class A public water supplies, their tributaries, and bordering wetlands; active and inactive reservoirs approved by MassDEP; certain waters within Areas of Critical Environmental Concern, and certified vernal pools. Outstanding resource waters are listed in the Surface Water Quality Standards, 314 CMR 4.00.)

Are there any impaired water bodies on or within a half-mile radius of the project site? ___Yes **X** No; if yes, identify the water body and pollutant(s) causing the impairment: _____.

Is the project within a medium or high stress basin, as established by the Massachusetts Water Resources Commission? **X** Yes ___No

The site is in the SuAsCo watershed, a medium stressed basin.

STORMWATER MANAGEMENT:

Generally describe the project's stormwater impacts and measures that the project will take to comply with the standards found in MassDEP's Stormwater Management Regulations:

The proposed project will incorporate improvements to the existing stormwater management system to mitigate flows and to improve the quality of stormwater runoff discharging to wetlands onsite. These improvements include the installation of deep sump hooded catch basins, improvements to the existing stormwater pond located onsite and the installation of a proprietary stormwater treatment unit prior to discharge to wetlands. New landscaped areas are proposed onsite that will help to mitigate flows and treat runoff. Improvements made to the existing pond will service to attenuate post-development runoff rates to equal to or less than the pre-development condition, as well as provide additional treatment and groundwater recharge. Rooftop runoff from buildings will be directed to underground infiltration basins to encourage infiltration. The best management practices (BMP's) incorporated into the proposed stormwater management system have been designed to meet the total suspended solid (TSS) removal requirements as set forth in the Standards. In addition, a Stormwater Operation and Maintenance (O&M) Plan has been developed and includes scheduled pavement sweepings and periodic inspections of stormwater management structures. See below for a description of how the project proposes to comply with the MassDEP Stormwater Standards as applicable for a redevelopment.

Standard #1: No New Untreated Discharges:
The project has been designed so that all impervious areas, including building roof and paved parking/driveway areas, shall be collected and passed through the closed drainage system for treatment prior to discharge.

Standard #2: Peak Rate Attenuation
The proposed stormwater management system is designed to ensure that the post-development peak rates of runoff are below pre-development conditions for the 2-, 10-, 25- and 100-year storm events at the design point.

Standard #3: Recharge
Runoff from several rooftops will be collected and diverted to one of three (3) infiltration basins to provide groundwater recharge. The project as proposed will involve the creation of approximately nine (9) acres of new impervious area and required to infiltrate approximately 19,515 cubic feet of stormwater as defined by the Standards. The proposed infiltration basins will provide over 19,515 cubic feet of volume below the lowest outlet in order to promote groundwater recharge.

Standard #4: Water Quality:
Water quality treatment is provided by the installation of deep sump hooded catch basins and a hydrodynamic separation water quality unit. A minimum of 80% TSS removal is proposed, and calculations are included in the Drainage Report. Water quality treatment will occur after detention in the open stormwater pond; therefore, the proprietary water quality unit has been sized based on the outflow rate from the pond for 1-inch of rainfall. It is notable that the water quality unit will be treating not only the runoff from the project site, but also the runoff from the off-site areas. This will provide substantial improvement to the quality of runoff discharging to the wetlands over the existing condition.

Standard #5: Land Uses with Higher Potential Pollutant Loads
The proposed project is considered a Land Use with Higher Potential Pollutant Loads (LUHPPL). Accordingly, the stormwater management system includes a water quality unit (oil-grit separator) prior to discharge and a Long-Term Pollution Prevention Plan has been developed and is included in the Drainage Report.

Standard #6: Critical Areas
A portion of the site is located within a Zone II associated with an offsite drinking water well located in the southwest corner of the site. Accordingly, the drainage system has been designed to provide water quality

treatment for the outflow from the pond for 1-inch of rainfall.

Standard #7: Redevelopment
The project consists of a redevelopment as defined under the Standards and has been designed in accordance with all ten standards as may be applicable to redevelopment and as noted herein.

Standard #8: Construction Period Pollution Prevention and Erosion and Sedimentation Control
The proposed project will provide construction period erosion and sedimentation controls as indicated within the Site Development Plans prepared by Bohler Engineering, dated February 15, 2017. The controls include a proposed construction entrance, protection for stormwater inlets, protection around temporary material stock piles and various other techniques. Additionally, the project is required to file a Notice of Intent with the US EPA and implement a Stormwater Pollution Prevention Plan (SWPPP) during the construction period. The SWPPP will be prepared prior to the start of construction and will be implemented by the site contractor under the guidance and responsibility of the project's proponent.

Standard 9: Operation and Maintenance (O&M) Plan
An Operation and Maintenance (O&M) Plan for the site has been prepared and submitted to the Town of Maynard with the municipal filings. The O&M Plan outlines procedures and time tables for the long term and maintenance of the proposed stormwater management system, including initial inspections upon completion of construction, and periodic monitoring of the system components, in accordance with established practices and the manufacturer's recommendations. The O&M Plan includes a list of responsible parties for inspections and maintenance.

Standard 10: Prohibition of Illicit Discharges
The proposed stormwater management system will only convey allowable non-stormwater discharges (firefighting waters, irrigation, air conditioning condensates, etc.) and will not contain any illicit discharges from prohibited sources. An Illicit Discharge Statement is included in the Drainage Report.

MASSACHUSETTS CONTINGENCY PLAN:
Has the project site been, or is it currently being, regulated under M.G.L.c.21E or the Massachusetts Contingency Plan? ___Yes **X** No
if yes, please describe the current status of the site (including Release Tracking Number (RTN), cleanup phase, and Response Action Outcome classification):_____

Is there an Activity and Use Limitation (AUL) on any portion of the project site? ___Yes **X** No;
if yes, describe which portion of the site and how the project will be consistent with the AUL: _____

Are you aware of any Reportable Conditions at the property that have not yet been assigned an RTN?
___Yes **X** No; if yes, please describe: _____

SOLID AND HAZARDOUS WASTE:

If the project will generate solid waste during demolition or construction, describe alternatives considered for re-use, recycling, and disposal of, e.g., asphalt, brick, concrete, gypsum, metal, wood:

Demolition is ongoing onsite with materials being recycled in accordance with DEP requirements where appropriate. Demolition of paving and concrete areas in the future are expected to be recycled for pavement base for on or offsite use.

(NOTE: Asphalt pavement, brick, concrete and metal are banned from disposal at Massachusetts landfills and waste combustion facilities and wood is banned from disposal at Massachusetts landfills. See 310 CMR 19.017 for the complete list of banned materials.)

Will your project disturb asbestos containing materials? ___Yes **X** No;
if yes, please consult state asbestos requirements at http://mass.gov/MassDEP/air/asbhom01.htm

Describe anti-idling and other measures to limit emissions from construction equipment:

The proponent will make the following reasonable efforts to minimize impacts associated with construction efforts:

- Equipment will not needlessly idle on site during construction.
- Enclosures or barriers will be provided on small equipment that operates continuously.
- Equipment used throughout construction will be maintained properly with particular attention put to proper operation of equipment mufflers.

DESIGNATED WILD AND SCENIC RIVER:

Is this project site located wholly or partially within a defined river corridor of a federally designated Wild and Scenic River or a state designated Scenic River? ___ Yes **X** No;
if yes, specify name of river and designation:

If yes, does the project have the potential to impact any of the "outstandingly remarkable" resources of a federally Wild and Scenic River or the stated purpose of a state designated Scenic River?
Yes ___ No ___ ; if yes, specify name of river and designation: _____;
if yes, will the project will result in any impacts to any of the designated "outstandingly remarkable" resources of the Wild and Scenic River or the stated purposes of a Scenic River.
Yes ___ No ___ ;
if yes,describe the potential impacts to one or more of the "outstandingly remarkable" resources or stated purposes and mitigation measures proposed.

ATTACHMENTS:

1. List of all attachments to this document.
2. U.S.G.S. map (good quality color copy, 8-½ x 11 inches or larger, at a scale of 1:24,000) indicating the project location and boundaries.
3. Plan, at an appropriate scale, of existing conditions on the project site and its immediate environs, showing all known structures, roadways and parking lots, railroad rights-of-way, wetlands and water bodies, wooded areas, farmland, steep slopes, public open spaces, and major utilities.
4. Plan, at an appropriate scale, depicting environmental constraints on or adjacent to the project site such as Priority and/or Estimated Habitat of state-listed rare species, Areas of Critical Environmental Concern, Chapter 91 jurisdictional areas, Article 97 lands, wetland resource area delineations, water supply protection areas, and historic resources and/or districts.
5. Plan, at an appropriate scale, of proposed conditions upon completion of project (if construction of the project is proposed to be phased, there should be a site plan showing conditions upon the completion of each phase).
6. List of all agencies and persons to whom the proponent circulated the ENF, in accordance with 301 CMR 11.16(2).
7. List of municipal and federal permits and reviews required by the project, as applicable.

LAND SECTION – all proponents must fill out this section

I. Thresholds / Permits

A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1)
X Yes ___ No; if yes, specify each threshold:

CMR 301 11.03 (1)(b)(1): Direct alteration of 25 or more acres of land
(1)(b)(2): Creation of five or more acres of impervious area.

II. Impacts and Permits

A. Describe, in acres, the current and proposed character of the project site, as follows:

	Existing	Change	Total
Footprint of buildings	8	+1.5	9.5
Internal roadways	6.9	+4.5	11.4
Parking and other paved areas	12.1	+3	15.1
Other altered areas	14.3	-3	11.3
Undeveloped areas	16.7	-6	10.7
Total: Project Site Acreage	58	0	58

B. Has any part of the project site been in active agricultural use in the last five years?
___ Yes **X** No; if yes, how many acres of land in agricultural use (with prime state or locally important agricultural soils) will be converted to nonagricultural use?

C. Is any part of the project site currently or proposed to be in active forestry use?
___ Yes **X** No; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a forest management plan approved by the Department of Conservation and Recreation:

D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97? ___ Yes **X** No; if yes, describe:

E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction?
___ Yes **X** No; if yes, does the project involve the release or modification of such restriction?
___ Yes ___ No; if yes, describe:

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? ___ Yes **X** No; if yes, describe:

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? ___Yes **X** No; if yes, describe:

III. Consistency

A. Identify the current municipal comprehensive land use plan
Title: **Maynard Master Plan** Date: **1991-2006**
Title: **Community Development Principles** Date: **None**

B. Describe the project's consistency with that plan with regard to:

1) Economic Development

The Master Plan outlines community goals and objectives that are a vital part of the growth and future of Maynard. The Plan encourages economic activities which will have a net financial benefit to the town without adverse environmental or other impacts, such as recognizing that limited amounts of higher density housing will provide tax income to the town, and that encouraging activities on current sites will contribute to the tax base of the community.

The Town of Maynard Community Development Principles includes ten (10) principles that were established to ensure that the best interests of the community are factored into discussions relating to proposed planning and developments efforts in town. The project is consistent with the following referenced principles while the remaining principles are not project applicable.

#1 – Concentrate Development and Integrate Uses
#3 – Redevelop and Reuse
#4 – Use Natural Resources Wisely
#5 – Expand Housing Opportunities
#6 – Provide a Variety of Transportation Choices
#8 – Protect Land and Ecosystems (See Open Space Impacts below)
#10 – Manage Infrastructure Effectively (see Adequacy of Infrastructure below)

2) Adequacy of Infrastructure

The site and vicinity are well served by transportation, water and sewer infrastructure. Additionally, the project will enhance that infrastructure by providing the following:

- Contribution of two-hundred and sixty thousand dollars ($260,000.00) to a traffic improvement fund
- Contribution fifty thousand dollars ($50,000.00) for other infrastructure improvements including water and sewer connections
- Conveying a portion of land to the Town of Maynard for development of a new well field on the adjacent property to the south.
- A traffic signal is proposed at the intersection of Parker Street (Route 27) with the Primary Site Drive;
- Parker Street will be widened to accommodate a northbound exclusive left-turn lane and a southbound exclusive right-turn lane;
- Offsite improvements at the signalized intersection of Parker Street / Great Road (Route 117) including vehicle detection and pedestrian signals;
- Offsite improvements at the intersection of Parker Street (Route 27) with Powder Mill Road (Route 62) and Waltham Street including the installation of a vehicle detection system; and
- Offsite improvements at the intersections of Parker Street (Route 27) at Old Marlboro Road, Old Marlboro Road at B Street/Marlboro Street, and Old Marlboro Road at Great Road (Route 117) including the reconstruction to form T-intersections with more conventional geometry.
- Consistency with Town of Maynard's Complete Streets policy including the following items in the development:
    - Bike lanes
    - Bike racks

- o Pedestrian connectivity to Parker Street
- o On-site bus stop

3) Open Space Impacts

Section IV of the Master Plan is a "Guide Plan for Future Land Use" for the Town of Maynard. This Plan is a long range projection for the potential for land development for various uses, takes into consideration the capacity of the town to accommodate growth and its impacts, as well as the towns desire to meet future needs for housing, industrial, commercial, etc.

The Applicant has agreed to provide approximately six (6) acres of designated open space on the western side of the property into a conservation restriction as part of the project. The conservation restriction area will also include a nesting habitat for the Blanding's Turtle as further outlined in the Rare Species Section of this application. In addition, the proposed project plans to extend sidewalks and walkways throughout the site to provide pedestrian connections to the various uses onsite with the external sidewalk network along Parker Street.

4) Compatibility with Adjacent Land Uses

The Guide Plan for Future Land Use offers alternative uses for vacant commercial and industrial land areas, and specifically indicates a recommendation to reduce the potential for substantial industrial development adjacent to the Digital Facility. Since the property changed ownership, the site has been underutilized and would benefit from shifting from an industrial development to a mixed use redevelopment; ultimately aligning with the recommendations previously and more recently set in place by the Town of Maynard.

The Guide Plan for Future Land Use indicates that the former Digital's Parker Street Facility, an Industrial zoned property, abuts open space/recreation uses to the southwest and west, high density residential uses to the north, low density residential to the southeast, and Parker Street (Route 27) to the east. As noted above, the project has been in the master planning process with the Town for several years. This planning process has included the establishment of a Neighborhood Business Overlay Zone to allow for a mix of uses that will be compatible with the surrounding neighborhoods while meeting the Town's objectives noted in the Economic Development Section above. Given the high residential density zone to the north, and Route 27 located to the east, the site is a good location for redevelopment from an industrial use to a mixed-use that incorporates residential and senior living opportunities.

In addition, the Town indicates promoting the acquisition of land adjacent to or part of existing resource areas to create continuous protected greenbelt zones. As indicated above, six (6) acres of land located to the west of the project will be permanently protected as a conservation restriction. The proposed conservation restriction area directly abuts the open space land/use to the southwest of the site.

C. Identify the current Regional Policy Plan of the applicable Regional Planning Agency (RPA)

RPA: **Metropolitan Area Planning Council (MAPC)**
Sub-region: **MAPC's Minuteman Advisory Group on Interlocal Coordination (MAGIC)**

Title: **Maynard Housing Production Plan**
Prepared by: **Metropolitan Area Planning Council (MAPC)**

Date: **Approved by Maynard Board of Selectmen & Planning Board 12/10/15**
Date: **Approved by Mass Dept. of Housing & Community Development 2/24/16**

D. Describe the project's consistency with that plan with regard to:

1) Economic Development

The Department of Housing and Community Development (DHCD) approved the Town of Maynard Housing Production Plan (HPP) on February 24, 2016. The effective date of the plan is January 14, 2016, and has a five-year term that will expire on January 13, 2021.

A housing needs and demand assessment was initiated by the Town of Maynard with the MAPC in July of 2014 and Phase 2 of this work continued in 2015. The goal of this plan is to adopt more varied housing stock and increase housing affordability in town to residents with varied income levels and at different stages of life, and position Maynard to work towards compliance under M.G.L. Chapter 40B. As indicated in the report, less than 15% of the land is vacant and developable, and tending to be scattered parcels. It is expected that new housing will be infill development, redevelopment, and the result of teardowns.

Historic permitting patterns indicate that the rate of production of single- and multifamily units at a range of price points will not meet the projected demand. More than a third of Maynard households are low income and cost burdened. In 2012, Maynard had the second highest rate of foreclosures in the MAGIC sub-region. Town discussions began to focus on the need for greater housing affordability and senior housing, the need to encourage a variety of housing types and models, where housing development and redevelopment should be focused in town, and how to improve and reuse existing housing stock due to a lack of developable land. In order to address these needs, the following goals were developed:

Goal #1: Work to Preserve & Advance Housing Affordability in Town to Reduce the Number of Local Cost-burden Households

Goal #2: Adopt Zoning Changes to Allow for Housing Choices & Flexible Approaches to Achieve Housing Affordability

Goal #3: Address Unmet Housing Needs Through Programming

Goal #4: Build Town Awareness of Housing Demand, Issues & Activities

As part of the master planning process the Applicant entered into a Memorandum of Agreement (MOA) with the Town. The MOA outlined a mix of housing within the development including 180 residential apartment units, of which twenty-two (22) will be affordable, and 143 continuing care retirement units. The mix of housing stock and inclusion of affordable housing directly align with the goals and objectives noted above.

2) Adequacy of Infrastructure

The site and vicinity are well served by transportation, water and sewer infrastructure. additionally, the project will enhance that infrastructure by providing the following:

- Contribution of two-hundred and sixty thousand dollars ($260,000.00) to a traffic improvement fund

- Contribution fifty thousand dollars ($50,000.00) for other infrastructure improvements including water and sewer connections
- Conveying a portion of land to the Town of Maynard for development of a new well field on the adjacent property to the south.
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- Offsite improvements at the intersection of Parker Street (Route 27) with Powder Mill Road (Route 62) and Waltham Street including the installation of a vehicle detection system; and
- Offsite improvements at the intersections of Parker Street (Route 27) at Old Marlboro Road, Old Marlboro Road at B Street/Marlboro Street, and Old Marlboro Road at Great Road (Route 117) including the reconstruction to form T-intersections with more conventional geometry.
- Consistency with Town of Maynard's Complete Streets policy including the following items in the development:
    - Bike lanes
    - Bike racks
    - Pedestrian connectivity to Parker Street
    - On-site bus stop

3) Open Space Impacts

As indicated above, there is insufficient land available for further housing production in town aside from now-vacant sites or other land uses with redevelopment potential. Mixed use development is constrained in Maynard, therefore the project as proposed introduces an opportunity to redevelop an existing underutilized developed site and incorporate a mixed-use program that addresses the housing needs of the Town.

In addition, the Applicant has agreed to provide approximately six (6) acres of designated open space on the western side of the property into a conservation restriction as part of the project. The conservation restriction area will also include a nesting habitat for the Blanding's Turtle as further outlined in the Rare Species Section of this application.

RARE SPECIES SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **rare species or habitat** (see 301 CMR 11.03(2))? **X** Yes ___ No; if yes, specify, in quantitative terms:

Approximately 3.5 acres of Blanding's Turtle habitat altered.

(NOTE: If you are uncertain, it is recommended that you consult with the Natural Heritage and Endangered Species Program (NHESP) prior to submitting the ENF.)

B. Does the project require any state permits related to **rare species or habitat**? **X** Yes ___ No
MA Division of Fisheries and Wildlife

C. Does the project site fall within mapped rare species habitat (Priority or Estimated Habitat?) in the current Massachusetts Natural Heritage Atlas (attach relevant page)? **X** Yes ___ No.

D. If you answered "No" to all questions A, B and C, proceed to the **Wetlands, Waterways, and Tidelands Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Rare Species section below.

II. Impacts and Permits

A. Does the project site fall within Priority or Estimated Habitat in the current Massachusetts Natural Heritage Atlas (attach relevant page)? **X** Yes ___ No. If yes,

1. Have you consulted with the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP)? **X** Yes ___No; if yes, have you received a determination as to whether the project will result in the "take" of a rare species? **X** Yes ___ No; if yes, attach the letter of determination to this submission.

Determination letter dated 3/2/17 provided in Appendix F of this filing.

2. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? **X** Yes ___ No; if yes, provide a summary of proposed measures to minimize and mitigate rare species impacts

The applicant has been working with NHESP and USFWS over the past three (3) years to implement the appropriate mitigation measures required for the proposed project. It is noted that the proposed barrier will run along the western and southern sides of the site. The turtle habitat mitigation area will be developed between the barrier and the wetlands.

The following is a summary of the project's proposed mitigation for meeting performance standards for issuance of a Conservation and Management Permit (CMP). The proposed mitigation has been designed in consultation with NHESP:

1) Onsite Land Protection

The Permit holder will deed to the Town of Maynard approximately six (6) acres of land located to the west of the Project to be permanently protected as a Conservation Restriction.

2) Turtle Barrier

The Project design includes a permanent turtle barrier fence along the western and southern portions of the project. The barrier design consists of 2,635 linear feet of six (6) foot high chain link fence with three (3) feet of wire mesh at the bottom to prevent the turtles from crossing into the developed property.

3) Turtle Nesting Habitat Creation & Management Plan (TNP)

A Turtle Nesting Habitat Plan (TNP) will take place within a 1.1-acre area designated to the west of the development. The TNP includes the creation, management, maintenance and long-term monitoring of designated Blanding's turtle nesting habitat.

The overall goal of the TNP is to provide an area of dedicated, managed nesting habitat that contains a mosaic of habitat features known to be utilized by Blanding's for sheltering and nesting. The area will undergo an initial vegetation removal treatment, followed by the addition of sandy soils and nesting habitat creation and maintenance.

The Permit Holder will be responsible for implementation of the TNP, including all initial vegetation management, nesting habitat creation and long-term maintenance. Habitat management activities will be supervised by a wildlife biologist to be approved in writing by the Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife ("the Division").

4) Turtle Protection Plan

The Permit Holder will undertake a Turtle Protection Plan (TPP) prior to and during construction. The TPP will be overseen and conducted by an NHESP-approved wildlife biologist. The TPP will involve installation of a temporary turtle barrier along the western and southern limit of work prior to May 1, 2017 (the nesting season for Blanding's turtles), followed by the construction of the permanent turtle barrier between October 15, 2017 and the 2018 active season.

Prior to the start of construction, the biologist will give an educational presentation to the construction personnel regarding the life history and identification of the Blanding's turtle. In the event that any turtles are encountered during construction, the personnel will be trained in the steps to take in order to prevent any harm to the animals.

5) Operations & Maintenance Plan (O&M Plan)

The Permit Holder will be responsible for adhering to an Operations & Maintenance Plan. Activities within the western edge of the project will be restricted as to type of activity and timing of any activity. Signs indicating that the area is a "Sensitive Ecological Protection Area" or similar will be posted along the edge of the work area.

In addition, the applicant looks forward to working with NHESP to complete the following:

- Preparation of a Conservation Restriction Plan
- Preparation of Nesting Habitat Creation and Management Plan
- Preparation of a Declaration of Restriction
- Development of an escrow account for long term monitoring and management of the habitat area.

3. Which rare species are known to occur within the Priority or Estimated Habitat?

Blanding's Turtle

4. Has the site been surveyed for rare species in accordance with the Massachusetts Endangered Species Act? ___ Yes **X** No

4. If your project is within Estimated Habitat, have you filed a Notice of Intent or received an Order of Conditions for this project? ___ Yes **X** No; if yes, did you send a copy of the Notice of Intent to the Natural Heritage and Endangered Species Program, in accordance with the Wetlands Protection Act regulations? ___ Yes ___ No

B. Will the project "take" an endangered, threatened, and/or species of special concern in accordance with M.G.L. c.131A (see also 321 CMR 10.04)? **X** Yes ___ No; if yes, provide a summary of proposed measures to minimize and mitigate impacts to significant habitat:

The applicant has been working with NHESP and USFWS over the past three (3) years to implement the appropriate mitigation measures required for the proposed project. It is noted that the proposed barrier will run along the western and southern sides of the site. The turtle habitat mitigation area will be developed between the barrier and the wetlands.

The following is a summary of the project's proposed mitigation for meeting performance standards for issuance of a Conservation and Management Permit (CMP). The proposed mitigation has been designed in consultation with NHESP:

1) Onsite Land Protection

The Permit holder will deed to the Town of Maynard approximately six (6) acres of land located to the west of the Project to be permanently protected as a Conservation Restriction.

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The Project design includes a permanent turtle barrier fence along the western and southern portions of the project. The barrier design consists of 2,635 linear feet of six (6) foot high chain link fence with three (3) feet of wire mesh at the bottom to prevent the turtles from crossing into the developed property.

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The overall goal of the TNP is to provide an area of dedicated, managed nesting habitat that contains a mosaic of habitat features known to be utilized by Blanding's for sheltering and nesting. The area will undergo an initial vegetation removal treatment, followed by the addition of sandy soils and nesting habitat creation and maintenance.

The Permit Holder will be responsible for implementation of the TNP, including all initial vegetation management, nesting habitat creation and long-term maintenance. Habitat management activities will be supervised by a wildlife biologist to be approved in writing by the Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries and Wildlife ("the Division").

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Prior to the start of construction, the biologist will give an educational presentation to the construction personnel regarding the life history and identification of the Blanding's turtle. In the event that any turtles are encountered during construction, the personnel

will be trained in the steps to take in order to prevent any harm to the animals.

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In addition, the applicant looks forward to working with NHESP to complete the following:

- Preparation of a Conservation Restriction Plan
- Preparation of Nesting Habitat Creation and Management Plan
- Preparation of a Declaration of Restriction
- Development of an escrow account for long term monitoring and management of the habitat area.

WETLANDS, WATERWAYS, AND TIDELANDS SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wetlands, waterways, and tidelands** (see 301 CMR 11.03(3))? ___ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits (or a local Order of Conditions) related to **wetlands, waterways, or tidelands**? **X** Yes ___ No; if yes, specify which permit:

Order of Conditions (State and Local)

C. If you answered "No" to both questions A and B, proceed to the **Water Supply Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wetlands, Waterways, and Tidelands Section below.

II. Wetlands Impacts and Permits

A. Does the project require a new or amended Order of Conditions under the Wetlands Protection Act (M.G.L. c.131A)? **X** Yes ___ No; if yes, has a Notice of Intent been filed? ___ Yes **X** No; if yes, list the date and MassDEP file number: _____; if yes, has a local Order of Conditions been issued? ___ Yes ___ No; Was the Order of Conditions appealed? ___ Yes ___ No. Will the project require a Variance from the Wetlands regulations? ___ Yes **X** No.

B. Describe any proposed permanent or temporary impacts to wetland resource areas located on the project site:

Approximately 800SF of "F" series BVW is proposed to be permanently altered for road widening at the main access driveway to the site.

C. Estimate the extent and type of impact that the project will have on wetland resources, and indicate whether the impacts are temporary or permanent:

Coastal Wetlands	Area (square feet) or Length (linear feet)	Temporary or Permanent Impact?
Land Under the Ocean		
Designated Port Areas		
Coastal Beaches		
Coastal Dunes		
Barrier Beaches		
Coastal Banks		
Rocky Intertidal Shores		
Salt Marshes		
Land Under Salt Ponds		
Land Containing Shellfish		
Fish Runs		
Land Subject to Coastal Storm Flowage		
Inland Wetlands		
Bank (If)		
Bordering Vegetated Wetlands	800± SF	Permanent
Isolated Vegetated Wetlands		
Land under Water		
Isolated Land Subject to Flooding		
Borderi ng Land Subject to Flooding		
Riverfront Area		

D. Is any part of the project:

1. proposed as a **limited project**? ___ Yes X No; if yes, what is the area (in sf)?____
2. the construction or alteration of a **dam**? ___ Yes X No; if yes, describe:
3. fill or structure in a **velocity zone** or **regulatory floodway**? ___ Yes X No
4. dredging or disposal of dredged material? ___ Yes X No; if yes, describe the volume of dredged material and the proposed disposal site:
5. a discharge to an **Outstanding Resource Water (ORW)** or an **Area of Critical Environmental Concern (ACEC)**? ___ Yes X No
6. subject to a wetlands restriction order? ___ Yes X No; if yes, identify the area (in sf):
7. located in buffer zones? X Yes ___No; if yes, how much (in sf) 79,500 SF

E. Will the project:

1. be subject to a local wetlands ordinance or bylaw? X Yes ___ No
2. alter any federally-protected wetlands not regulated under state law? ___ Yes X No; if yes, what is the area (sf)?

III. Waterways and Tidelands Impacts and Permits

A. Does the project site contain waterways or tidelands (including filled former tidelands) that are subject to the Waterways Act, M.G.L.c.91? ___ Yes X No; if yes, is there a current Chapter 91 License or Permit affecting the project site? ___ Yes ___ No; if yes, list the date and license or permit number and provide a copy of the historic map used to determine extent of filled tidelands:

B. Does the project require a new or modified license or permit under M.G.L.c.91? ___ Yes X No; if yes, how many acres of the project site subject to M.G.L.c.91 will be for non-water-dependent use? Current ___ Change ___ Total ___
If yes, how many square feet of solid fill or pile-supported structures (in sf)?

C. For non-water-dependent use projects, indicate the following:
Area of filled tidelands on the site:_____
Area of filled tidelands covered by buildings:_____
For portions of site on filled tidelands, list ground floor uses and area of each use:
_____
Does the project include new non-water-dependent uses located over flowed tidelands?
Yes ___ No ___
Height of building on filled tidelands_____

Also show the following on a site plan: Mean High Water, Mean Low Water, Water-dependent Use Zone, location of uses within buildings on tidelands, and interior and exterior areas and facilities dedicated for public use, and historic high and historic low water marks.

D. Is the project located on landlocked tidelands? ___ Yes X No; if yes, describe the project's impact on the public's right to access, use and enjoy jurisdictional tidelands and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

E. Is the project located in an area where low groundwater levels have been identified by a municipality or by a state or federal agency as a threat to building foundations? ___Yes X No; if yes, describe the project's impact on groundwater levels and describe measures the project will implement to avoid, minimize or mitigate any adverse impact:

F. Is the project non-water-dependent **and** located on landlocked tidelands **or** waterways or tidelands subject to the Waterways Act **and** subject to a mandatory EIR? ___ Yes X No;
(NOTE: If yes, then the project will be subject to Public Benefit Review and

Determination.)

G. Does the project include dredging? ___ Yes **X** No; if yes, answer the following questions:
What type of dredging? Improvement ___ Maintenance ___ Both ____
What is the proposed dredge volume, in cubic yards (cys) _____
What is the proposed dredge footprint ____length (ft) ___width (ft)____depth (ft);
Will dredging impact the following resource areas?
Intertidal Yes__ No__; if yes, ___ sq ft
Outstanding Resource Waters Yes__ No__; if yes, ___ sq ft
Other resource area (i.e. shellfish beds, eel grass beds) Yes__ No__; if yes __ sq ft
If yes to any of the above, have you evaluated appropriate and practicable steps to: 1) avoidance; 2) if avoidance is not possible, minimization; 3) if either avoidance or minimize is not possible, mitigation?
If no to any of the above, what information or documentation was used to support this determination?
Provide a comprehensive analysis of practicable alternatives for improvement dredging in accordance with 314 CMR 9.07(1)(b). Physical and chemical data of the sediment shall be included in the comprehensive analysis.
Sediment Characterization
Existing gradation analysis results? __Yes ___No: if yes, provide results.
Existing chemical results for parameters listed in 314 CMR 9.07(2)(b)6? ___Yes ____No; if yes, provide results.
Do you have sufficient information to evaluate feasibility of the following management options for dredged sediment? If yes, check the appropriate option.

Beach Nourishment ___
Unconfined Ocean Disposal ___
Confined Disposal:
Confined Aquatic Disposal (CAD) ___
Confined Disposal Facility (CDF) ___
Landfill Reuse in accordance with COMM-97-001 ___
Shoreline Placement ___
Upland Material Reuse____
In-State landfill disposal____
Out-of-state landfill disposal ____
(NOTE: This information is required for a 401 Water Quality Certification.)

IV. Consistency:
A. Does the project have effects on the coastal resources or uses, and/or is the project located within the Coastal Zone? ___ Yes **X** No; if yes, describe these effects and the projects consistency with the policies of the Office of Coastal Zone Management:

B. Is the project located within an area subject to a Municipal Harbor Plan? ___ Yes **X** No; if yes, identify the Municipal Harbor Plan and describe the project's consistency with that plan:

WATER SUPPLY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **water supply** (see 301 CMR 11.03(4))? ___ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **water supply**? ___ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Wastewater Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Water Supply Section below.

II. Impacts and Permits

A. Describe, in gallons per day (gpd), the volume and source of water use for existing and proposed activities at the project site:

	Existing	Change	Total
Municipal or regional water supply	_____	_____	_____
Withdrawal from groundwater	_____	_____	_____
Withdrawal from surface water	_____	_____	_____
Interbasin transfer	_____	_____	_____

(NOTE: Interbasin Transfer approval will be required if the basin and community where the proposed water supply source is located is different from the basin and community where the wastewater from the source will be discharged.)

B. If the source is a municipal or regional supply, has the municipality or region indicated that there is adequate capacity in the system to accommodate the project? ___ Yes ___ No

C. If the project involves a new or expanded withdrawal from a groundwater or surface water source, has a pumping test been conducted? ___ Yes ___ No; if yes, attach a map of the drilling sites and a summary of the alternatives considered and the results. _____

D. What is the currently permitted withdrawal at the proposed water supply source (in gallons per day)? _____Will the project require an increase in that withdrawal? ___Yes ___No; if yes, then how much of an increase (gpd)? _____

E. Does the project site currently contain a water supply well, a drinking water treatment facility, water main, or other water supply facility, or will the project involve construction of a new facility? ___ Yes ___No. If yes, describe existing and proposed water supply facilities at the project site:

	Permitted Flow	Existing Avg Daily Flow	Project Flow	Total
Capacity of water supply well(s) (gpd)	_____	_____	_____	_____
Capacity of water treatment plant (gpd)	_____	_____	_____	_____

F. If the project involves a new interbasin transfer of water, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or proposed?

G. Does the project involve:

1. new water service by the Massachusetts Water Resources Authority or other agency of the Commonwealth to a municipality or water district? ___ Yes ___ No
2. a Watershed Protection Act variance? ___ Yes ___ No; if yes, how many acres of alteration?
3. a non-bridged stream crossing 1,000 or less feet upstream of a public surface drinking water supply for purpose of forest harvesting activities? ___ Yes ___ No

III. Consistency

Describe the project's consistency with water conservation plans or other plans to enhance water resources, quality, facilities and services:

WASTEWATER SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **wastewater** (see 301 CMR 11.03(5))? ___ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **wastewater**? ___ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Transportation -- Traffic Generation Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Wastewater Section below.

II. Impacts and Permits

A. Describe the volume (in gallons per day) and type of disposal of wastewater generation for existing and proposed activities at the project site (calculate according to 310 CMR 15.00 for septic systems or 314 CMR 7.00 for sewer systems):

	Existing	Change	Total
Discharge of sanitary wastewater			
Discharge of industrial wastewater			
TOTAL			

	Existing	Change	Total
Discharge to groundwater			
Discharge to outstanding resource water			
Discharge to surface water			
Discharge to municipal or regional wastewater facility			
TOTAL			

B. Is the existing collection system at or near its capacity? ___ Yes ___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

C. Is the existing wastewater disposal facility at or near its permitted capacity? ___ Yes___ No; if yes, then describe the measures to be undertaken to accommodate the project's wastewater flows:

D. Does the project site currently contain a wastewater treatment facility, sewer main, or other wastewater disposal facility, or will the project involve construction of a new facility? ___ Yes ___ No; if yes, describe as follows:

	Permitted	Existing Avg Daily Flow	Project Flow	Total
Wastewater treatment plant capacity (in gallons per day)				

E. If the project requires an interbasin transfer of wastewater, which basins are involved, what is the direction of the transfer, and is the interbasin transfer existing or new?

(NOTE: Interbasin Transfer approval may be needed if the basin and community where wastewater will be discharged is different from the basin and community where the source of water supply is located.)

F. Does the project involve new sewer service by the Massachusetts Water Resources Authority (MWRA) or other Agency of the Commonwealth to a municipality or sewer district? ___ Yes ___ No

G. Is there an existing facility, or is a new facility proposed at the project site for the storage, treatment, processing, combustion or disposal of sewage sludge, sludge ash, grit, screenings, wastewater reuse (gray water) or other sewage residual materials? ___ Yes ___ No; if yes, what is the capacity (tons per day):

	Existing	Change	Total
Storage	_____	_____	_____
Treatment	_____	_____	_____
Processing	_____	_____	_____
Combustion	_____	_____	_____
Disposal	_____	_____	_____

H. Describe the water conservation measures to be undertaken by the project, and other wastewater mitigation, such as infiltration and inflow removal.

III. Consistency

A. Describe measures that the proponent will take to comply with applicable state, regional, and local plans and policies related to wastewater management:

B. If the project requires a sewer extension permit, is that extension included in a comprehensive wastewater management plan? ___ Yes ___ No; if yes, indicate the EEA number for the plan and whether the project site is within a sewer service area recommended or approved in that plan:

TRANSPORTATION SECTION (TRAFFIC GENERATION)

I. Thresholds / Permit

A. Will the project meet or exceed any review thresholds related to **traffic generation** (see 301 CMR 11.03(6))? **X** Yes ___ No; if yes, specify, in quantitative terms:

Approximately 10,258 new vehicle trips are expected to the generated by the project on weekdays and approximately 14,710 new vehicle trips are expected on Saturdays.

C. Does the project require any state permits related to **state-controlled roadways**? ___ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Roadways and Other Transportation Facilities Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Traffic Generation Section below.

II. Traffic Impacts and Permits

A. Describe existing and proposed vehicular traffic generated by activities at the project site:

	Existing	Change	Total
Number of parking spaces	2,193	-421	1772
Number of vehicle trips per day	0	14,710 (Sat)	14,710 (Sat)
ITE Land Use Code(s):	N/A	220, 252, 492, 710, 820	

B. What is the estimated average daily traffic on roadways serving the site?

Roadway	Existing	Change	Total
1. Parker Street (weekday)	11,288	7,181	18,469
2. Parker Street (weekend)	8,537	10,297	18,834

D. If applicable, describe proposed mitigation measures on state-controlled roadways that the project proponent will implement:

N/A. The project is not in the vicinity of any state-controlled roadways.

E. How will the project implement and/or promote the use of transit, pedestrian and bicycle facilities and services to provide access to and from the project site?

Sidewalk will be constructed both along the internal site drives and along the west side of Parker Street (Route 27) between the southern limit of the site frontage and the intersection with Field Street. This will connect to existing sidewalks along Parker Street. There will also be an extensive network of sidewalks and walkways within the project site, and a pedestrian connection will be provided at the northwest corner of the site to connect with Maynard High School (as requested by the Town). The pedestrian crossing at Field Street will be equipped with Rectangular Rapid Flashing Beacons (RRFB's). Countdown pedestrian signals are proposed at the signalized intersection of Parker Street (Route 27) with Great Road (Route 117). Bicycle lanes are proposed along the primary site driveway and along both directions of Parker Street (Route 27) in along the site's frontage. Bicycle storage racks are proposed at convenient locations throughout the project site. An onsite bus stop is proposed near the residential portion of the project site to provide convenient bus/shuttle access connections to destinations within Maynard and Acton/Concord (such as the South Acton Commuter Rail Station).

The project is also consistent with Town of Maynard's Complete Streets policy including the following items in the development:

- Bike lanes
- Bike racks

- Pedestrian connectivity to Parker Street
- On-site bus stop

C. Is there a Transportation Management Association (TMA) that provides transportation demand management (TDM) services in the area of the project site? ____ Yes **X** No; if yes, describe if and how will the project will participate in the TMA:

D. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation facilities? ____ Yes **X** No; if yes, generally describe:

E. If the project will penetrate approach airspace of a nearby airport, has the proponent filed a Massachusetts Aeronautics Commission Airspace Review Form (780 CMR 111.7) and a Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) (CFR Title 14 Part 77.13, forms 7460-1 and 7460-2)? N/A

III. Consistency

Describe measures that the proponent will take to comply with municipal, regional, state, and federal plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services:

The bicycle and pedestrian improvements proposed as part of this project are consistent with the Town's Complete Streets policy.

TRANSPORTATION SECTION (ROADWAYS AND OTHER TRANSPORTATION FACILITIES)

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **roadways or other transportation facilities** (see 301 CMR 11.03(6))? **X** Yes ___ No; if yes, specify, in quantitative terms:

The project proposes to widen Parker Street in the vicinity of the site driveway, and five (5) trees over fourteen (14) in will be removed within the existing public Right-of-Way.

B. Does the project require any state permits related to **roadways or other transportation facilities**? ___ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Energy Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Roadways Section below.

II. Transportation Facility Impacts

A. Describe existing and proposed transportation facilities in the immediate vicinity of the project site:

Parker Street (Route 27) is a two lane undivided road with one travel lane for each direction of traffic. It is under the jurisdiction of the Town of Maynard and it is classified as an urban principal arterial near the project site. Parker Street has signalized intersections with Great Road (Route 117) and Waltham Street/Powder Mill Road (Route 62) within the study area. The posted speed limit along Parker Street (Route 27) is 20 mph on the immediate approaches to the intersection with Great Road (Route 117), 30 mph north of the intersection with Great Road (Route 117), and 35 mph south of the intersection with Great Road (Route 117). An asphalt sidewalk is present along the west side of Parker Street (Route 27) north of the development project site.

Great Road (Route 117) is a two lane undivided road functioning as an urban principal arterial west of Parker Street (Route 27) and an urban minor arterial east of Parker Street (Route 27). It is under the jurisdiction of the Town of Maynard and has signalized intersections with Main Street (Route 62) and Parker Street (Route 27) within the study area. Great Road (Route 117) provides access to the Town's Public Schools, including Maynard High School, Fowler Middle School, and Green Meadow Elementary School, approximately 800 feet west of Parker Street (Route 27). The speed limit on Great Road (Route 117) in the study area is 35 mph, with a 20 mph school zone in effect during drop-off and pick-up hours. A 2-foot shoulder and a sidewalk are provided along both sides of Great Road (Route 117).

A 5-foot bicycle lane on Parker Street is proposed along the site frontage. Bicycle lanes will be provided internally within the site and bicycle storage racks will be installed on site.

Along the site frontage on the west side of Parker Street (Route 27), a sidewalk is proposed to be constructed. A network of sidewalks on-site will connect to the existing sidewalk network.

A traffic signal is proposed at the intersection of Parker Street (Route 27) with the Primary Site Drive and Parker Street will be widened to accommodate a northbound exclusive left-turn lane and a southbound exclusive right-turn lane. An auxiliary unsignalized access driveway approximately 600 feet north of the Primary Site Drive is proposed to be provided only accommodating vehicles entering the site from the north. A rectangular rapid flashing beacon (RRFB) is proposed at the existing marked crosswalk across Parker Street (Route 27) at North Street.

At the signalized intersection of Parker Street / Great Road (Route 117), vehicle detection is proposed and the left-turn lanes on the Parker Street (Route 27) northbound and the Great Road (Route 117) westbound approaches are proposed to be extended. New vehicle signal arrow indications will be displayed during the existing Parker Street (Route 27) northbound protected left turn phase. Countdown pedestrian signals are proposed to replace the existing outdated pedestrian signal heads, and timings for the clearance interval are proposed to be adjusted to be consistent with the latest edition of the MUTCD.

At the signalized intersection of Parker Street (Route 27) with Powder Mill Road (Route 62) and Waltham Street, a vehicle detection system is proposed to be installed for all intersection approaches.

In addition, the following three (3) off site intersections are proposed to be reconstructed to form T-intersections with more conventional geometry.

- Parker Street (Route 27) at Old Marlboro Road,
- Old Marlboro Road at B Street/Marlboro Street, and
- Old Marlboro Road at Great Road (Route 117)

B. Will the project involve any
   1. Alteration of bank or terrain (in linear feet)? N/A
   2. Cutting of living public shade trees (number)? 5
   3. Elimination of stone wall (in linear feet)? N/A

III. Consistency -- Describe the project's consistency with other federal, state, regional, and local plans and policies related to traffic, transit, pedestrian and bicycle transportation facilities and services, including consistency with the applicable regional transportation plan and the Transportation Improvements Plan (TIP), the State Bicycle Plan, and the State Pedestrian Plan:

This project is consistent with the Town of Maynard's Complete Streets Policy, which was developed in conjunction with the Metropolitan Area Planning Council and MassDOT. According to the policy, "Complete Streets improvements may be large scale, such as corridor-wide improvements that include a separated bicycle lane, new crosswalks and new bus stops; or a small scale improvement, such as a new bus shelter to encourage transit use. Other Complete Street project examples include improved street lighting, minor changes to traffic signal timings, new bicycle or pedestrian facilities, a median refuge island, or improved connection to transit. The design of a Complete Street should be context sensitive and incorporate improvements or treatments that fit with the need and within the character of a community."

The current project incorporates new pedestrian and bicycle facilities along Parker Street (Route 27) near the development project site in addition to involving upgrades to pedestrian signal timing and features at the nearby intersection of Parker Street (Route 27) with Great Road (Route 117). A proposed rectangular rapid flashing beacon (RRFB) across Parker Street (Route 27) at North Street is proposed to improve pedestrian safety and encourage people to walk to and from the development project site. An onsite bus stop is proposed near the residential portion of the project site to provide convenient bus/shuttle access connections to destinations within Maynard and Acton/Concord (such as the South Acton Commuter Rail Station).

ENERGY SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **energy** (see 301 CMR 11.03(7))? ___ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **energy**? ___ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Air Quality Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Energy Section below.

II. Impacts and Permits

A. Describe existing and proposed energy generation and transmission facilities at the project site:

	Existing	Change	Total
Capacity of electric generating facility (megawatts)	_____	_____	_____
Length of fuel line (in miles)	_____	_____	_____
Length of transmission lines (in miles)	_____	_____	_____
Capacity of transmission lines (in kilovolts)	_____	_____	_____

B. If the project involves construction or expansion of an electric generating facility, what are:

1. the facility's current and proposed fuel source(s)?
2. the facility's current and proposed cooling source(s)?

C. If the project involves construction of an electrical transmission line, will it be located on a new, unused, or abandoned right of way? ___Yes ___No; if yes, please describe:

D. Describe the project's other impacts on energy facilities and services:

III. Consistency

Describe the project's consistency with state, municipal, regional, and federal plans and policies for enhancing energy facilities and services:

AIR QUALITY SECTION

I. Thresholds

A. Will the project meet or exceed any review thresholds related to **air quality** (see 301 CMR 11.03(8))? ___ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **air quality**? ___ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Solid and Hazardous Waste Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Air Quality Section below.

II. Impacts and Permits

A. Does the project involve construction or modification of a major stationary source (see 310 CMR 7.00, Appendix A)? ___ Yes ___ No; if yes, describe existing and proposed emissions (in tons per day) of:

	Existing	Change	Total
Particulate matter	_____	_____	_____
Carbon monoxide	_____	_____	_____
Sulfur dioxide	_____	_____	_____
Volatile organic compounds	_____	_____	_____
Oxides of nitrogen	_____	_____	_____
Lead	_____	_____	_____
Any hazardous air pollutant	_____	_____	_____
Carbon dioxide	_____	_____	_____

B. Describe the project's other impacts on air resources and air quality, including noise impacts:

III. Consistency

A. Describe the project's consistency with the State Implementation Plan:

B. Describe measures that the proponent will take to comply with other federal, state, regional, and local plans and policies related to air resources and air quality:

SOLID AND HAZARDOUS WASTE SECTION

I. Thresholds / Permits

A. Will the project meet or exceed any review thresholds related to **solid or hazardous waste** (see 301 CMR 11.03(9))? ___ Yes **X** No; if yes, specify, in quantitative terms:

B. Does the project require any state permits related to **solid and hazardous waste**? ___ Yes **X** No; if yes, specify which permit:

C. If you answered "No" to both questions A and B, proceed to the **Historical and Archaeological Resources Section**. If you answered "Yes" to either question A or question B, fill out the remainder of the Solid and Hazardous Waste Section below.

II. Impacts and Permits

A. Is there any current or proposed facility at the project site for the storage, treatment, processing, combustion or disposal of solid waste? ___ Yes ___ No; if yes, what is the volume (in tons per day) of the capacity:

	Existing	Change	Total
Storage			
Treatment, processing			
Combustion			
Disposal			

B. Is there any current or proposed facility at the project site for the storage, recycling, treatment or disposal of hazardous waste? ___ Yes ___ No; if yes, what is the volume (in tons or gallons per day) of the capacity:

	Existing	Change	Total
Storage			
Recycling			
Treatment			
Disposal			

C. If the project will generate solid waste (for example, during demolition or construction), describe alternatives considered for re-use, recycling, and disposal:

D. If the project involves demolition, do any buildings to be demolished contain asbestos? ___ Yes ___ No

E. Describe the project's other solid and hazardous waste impacts (including indirect impacts):

III. Consistency

Describe measures that the proponent will take to comply with the State Solid Waste Master Plan:

HISTORICAL AND ARCHAEOLOGICAL RESOURCES SECTION

I. Thresholds / Impacts

A. Have you consulted with the Massachusetts Historical Commission? ___ Yes **X** No; if yes, attach correspondence. For project sites involving lands under water, have you consulted with the Massachusetts Board of Underwater Archaeological Resources? ____Yes ____ No; if yes, attach correspondence

B. Is any part of the project site a historic structure, or a structure within a historic district, in either case listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes **X** No; if yes, does the project involve the demolition of all or any exterior part of such historic structure? ___ Yes ___ No; if yes, please describe:

C. Is any part of the project site an archaeological site listed in the State Register of Historic Places or the Inventory of Historic and Archaeological Assets of the Commonwealth? ___ Yes **X** No; if yes, does the project involve the destruction of all or any part of such archaeological site? ___ Yes ___ No; if yes, please describe:

D. If you answered "No" to all parts of both questions A, B and C, proceed to the **Attachments and Certifications** Sections. If you answered "Yes" to any part of either question A or question B, fill out the remainder of the Historical and Archaeological Resources Section below.

II. Impacts

Describe and assess the project's impacts, direct and indirect, on listed or inventoried historical and archaeological resources:

III. Consistency

Describe measures that the proponent will take to comply with federal, state, regional, and local plans and policies related to preserving historical and archaeological resources:

CERTIFICATIONS:

1. The Public Notice of Environmental Review has been/will be published in the following newspapers in accordance with 301 CMR 11.15(1):

   (Name) MetroWest Daily News (Date) 3/23/2017

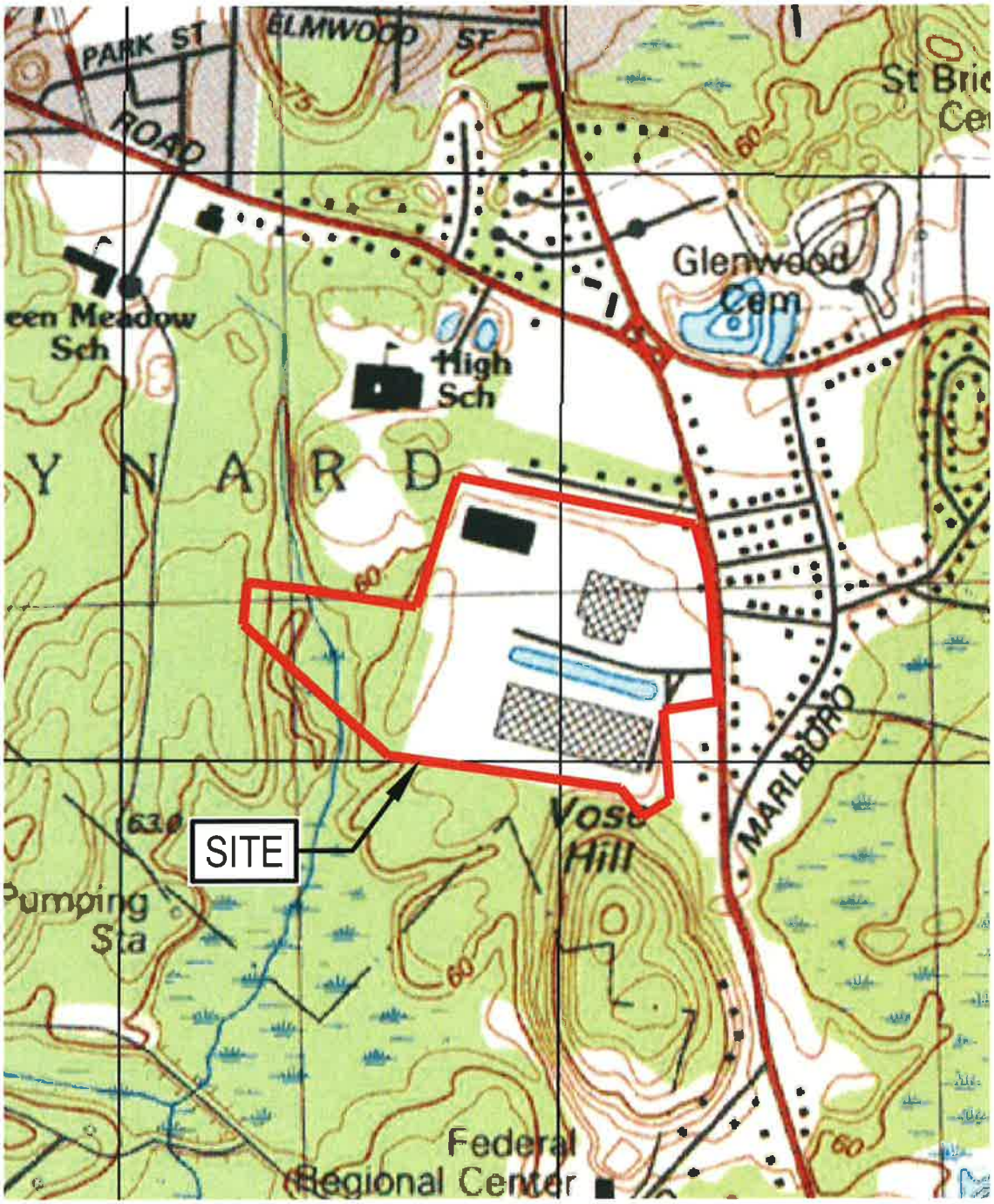
2. This form has been circulated to Agencies and Persons in accordance with 301 CMR 11.16(2).

Signatures:

Date	Signature of Responsible Officer or Proponent	Date	Signature of person preparing ENF (if different from above)
	William A. Depietri		Matthew D. Smith
	Name (print or type)		Name (print or type)
	Capital Group Properties		Bohler Engineering
	Firm/Agency		Firm/Agency
	259 Turnpike Road, Suite 100		352 Turnpike Road
	Street		Street
	Southborough, MA 01772		Southborough, MA 01772
	Municipality/State/Zip		Municipality/State/Zip
	508-326-1810		508-480-9900
	Phone		Phone

APPENDIX A - PROJECT MAPS

- USGS LOCUS MAP
- AERIAL & EXISTING CONDITIONS MAP
- FEMA FIRM MAP
- ENVIRONMENTAL CONSTRAINTS MAP
- RECORD EXISTING CONDITIONS PLAN - (11x17 Provided – Full Size available upon request)



SCALE: 1"=800'
SOURCE: MASSGIS
USGS

PROJECT: W161189

USGS LOCUS MAP

FOR

MAYNARD CROSSING

129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

DATE: 3/21/17

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SUSTAINABLE DESIGN | PERMITTING SERVICES | TRANSPORTATION SERVICES

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- NEW ENGLAND
- BOSTON, MA
- NEW YORK METRO
- NEW YORK, NY
- NEW JERSEY
- PHILADELPHIA, PA
- LEHIGH VALLEY, PA
- SOUTHEASTERN, PA
- REHOBOTH BEACH, DE
- BALTIMORE, MD
- SOUTHERN MARYLAND
- NORTHERN VIRGINIA
- CENTRAL VIRGINIA
- RALEIGH, NC
- CHARLOTTE, NC
- ATLANTA, GEORGIA
- TAMPA, FL
- SOUTH FLORIDA

SCALE: 1"=500'
SOURCE: MASSGIS
ONLINE MAP VIEWER

PROJECT: W161189

AERIAL & EXISTING CONDITIONS MAP

FOR

MAYNARD CROSSING

129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

DATE: 3/21/17

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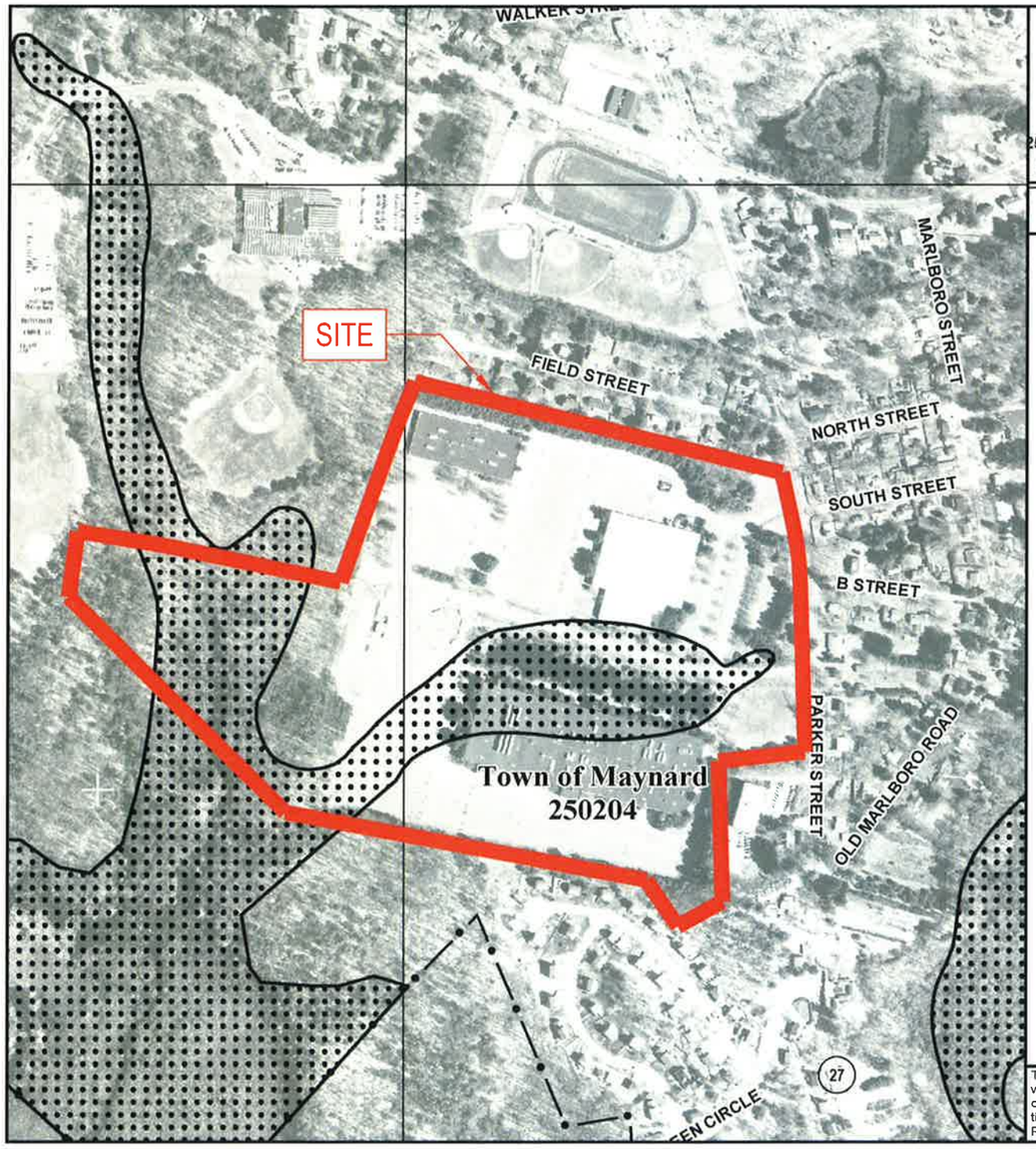
- TAMPA, FL
- SOUTH FLORIDA



MAP SCALE 1" = 500'

250 0 500 1000

FEET

METERS

NFIP

PANEL 0362F

FIRM

FLOOD INSURANCE RATE MAP

MIDDLESEX COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)

PANEL 362 OF 656

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
MAYNARD, TOWN OF	250204	0362	F
SUDBURY, TOWN OF	250217	0362	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER 25017C0362F

MAP REVISED JULY 7, 2014

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) S
INUNDATION BY THE 1% ANNUAL CHA

The 1% annual chance flood (100-year flood), also known as the ba
a 1% chance of being equaled or exceeded in any given year. The S
the area subject to flooding by the 1% annual chance flood. Areas of
include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Ele
elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of pond determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on depths determined. For areas of alluvial fan floodi
ZONE AR	Special Flood Hazard Areas formerly protected fro flood by a flood control system that was subseque AR indicates that the former flood control system protection from the 1% annual chance or greater
ZONE A99	Area to be protected from 1% annual chance floo protection system under construction; no Base Flo
ZONE V	Coastal flood zone with velocity hazard (wave acti determined.
ZONE VE	Coastal flood zone with velocity hazard (wave acti determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain a encroachment so that the 1% annual chance flood can be carried wit flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% anr average depths of less than 1 foot or with drainage a mile; and areas protected by levees from 1% annual

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chai
ZONE D	Areas in which flood hazards are undetermined, but p

COASTAL BARRIER RESOURCES SYSTEM (

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Speci

	1% Annual Chance Floodplain Boundar
	0.2% Annual Chance Floodplain Bound
	Floodway boundary
	Zone D boundary
	CBRS and OPA boundary
	Boundary dividing Special Flood Hazarc dividing Special Flood Hazard Areas of flood depths, or flood velocities.
513	Base Flood Elevation line and value; el
(EL 987)	Base Flood Elevation value where unifo feet*

*Referenced to the North American Vertical Datum of 1988

A A	Cross section line
23 23	Transect line
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to t 1983 (NAD 83) Western Hemisphere
4989000 M	1000-meter ticks: Massachusetts State (FIPS Zone 2001), Lambert Conformal
4989000 N	1000-meter Universal Transverse Merca
DX5510 ×	Bench mark (see explanation in Notes t panel)
M1.5	River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Inc

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP

N
W E
S

SCALE: 1"=500'
SOURCE: FEMA MAP DATABASE

PROJECT:

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) MAP

FOR

129 PARKER STREET

TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

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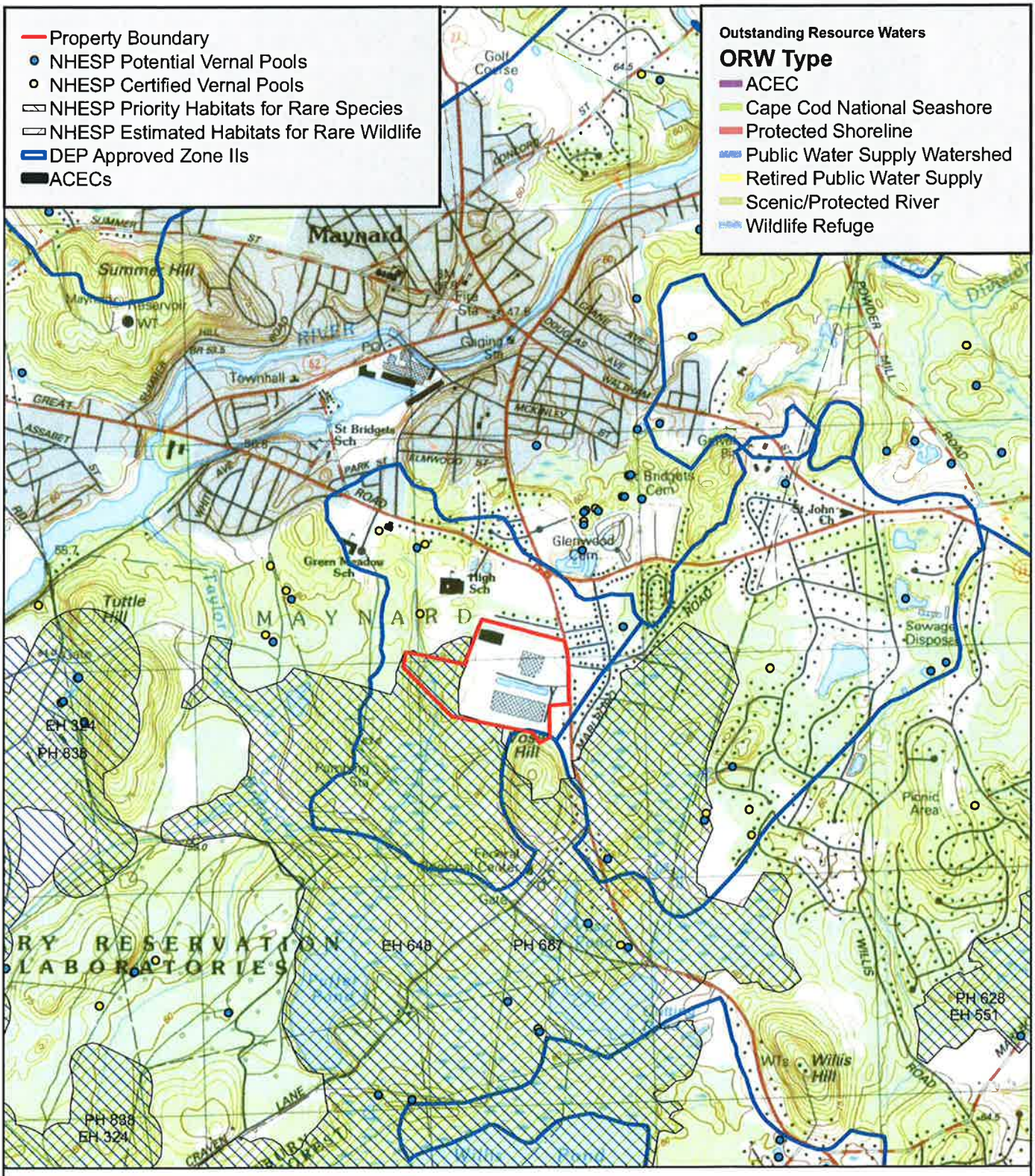
- SOUTH FLORIDA



USGS Site Locus with Environmental Constraints Overlay

129 Parker Street - Maynard, MA

N

0 500 1,000 2,000 Feet

1 inch = 2,000 feet

Date: 3/13/2017

GIS Data Source: "Office of Geographic Information (MassGIS), Commonwealth of Massachusetts Information Technology Division"

GODDARD CONSULTING
Strategic Wetland Permitting

RECORD CONDITIONS NOTES:

THE TOPOGRAPHY, SITE DETAIL & SURFACE IMPROVEMENTS DEPICTED HEREON WERE OBTAINED FROM A DIGITAL FILE PROVIDED BY THE OWNER ENTITLED "WETLAND RESOURCE PLAN – 129 PARKER STREET – MAYNARD MA." PREPARED BY HOLDEN ENGINEERING AND SURVEYING INC. DATED 07-26-06 REVISED THRU 09-07-06.

THE LOCUS PROPERTY DEPICTED IS LOCATED IN THE INDUSTRIAL ZONING DISTRICT AND THE NEIGHBORHOOD BUSINESS OVERLAY DISTRICT (NBOD).

THE LOCUS PROPERTY IS DEPICTED AS PARCEL 152 ON TOWN OF MAYNARD ASSESSOR'S MAP PAGE 25.

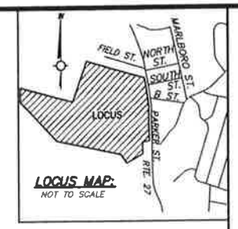
THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND ARE BASED UPON A PARTIAL FIELD SURVEY AND COMPILATION OF PLANS OF RECORD. MERIDIAN ASSOCIATES, INC. DOES NOT WARRANTY NOR GUARANTEE THE LOCATION OF ALL UTILITIES DEPICTED OR NOT DEPICTED. THE CONTRACTOR, PRIOR TO COMMENCEMENT OF CONSTRUCTION, SHALL VERIFY THE LOCATION OF ALL UTILITIES AND CONTACT DIG SAFE AT 1-888-344-7233.

THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT, VISIBLE USES OF THE LAND; HOWEVER, THIS DOES NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.

THE WETLAND FLAGS DEPICTED WERE DEMARCATED BY NEW ENGLAND ENVIRONMENTAL ASSOCIATES, INC. IN JULY OF 2006.

THE ELEVATIONS DEPICTED HEREON ARE FROM PLAN ENTITLED "WETLAND RESOURCE PLAN – 129 PARKER STREET – MAYNARD MA." PREPARED BY HOLDEN ENGINEERING AND SURVEYING INC. DATED 07-26-06 ERVISED THRU 09-07-06.

PROPERTY LINES DEPICTED HEREON ARE BASED ON COMPILED DEEDS AND PLANS OF RECORD. THIS PLAN IS NOT TO BE USED FOR THE RECONSTRUCTION OF BOUNDARY LINES OR FOR TITLE INSURANCE PURPOSES. ALL BOUNDARY LINES DEPICTED ARE APPROXIMATE ONLY. MERIDIAN ASSOCIATES INC. DID NOT PERFORM A BOUNDARY RETRACEMENT SURVEY.



LOCUS MAP:
NOT TO SCALE

APPROVED BY THE TOWN OF MAYNARD PLANNING BOARD

PLANNING BOARD MEMBER DATE

I HEREBY CERTIFY THAT NOTICE OF APPROVAL OF THIS PLAN BY THE MAYNARD PLANNING BOARD WAS RECEIVED AND RECORDED AT THIS OFFICE AND THAT NO NOTICE OF APPEAL WAS FILED IN 20 DAYS FOLLOWING SAID RECEIPT AND RECORDING.

TOWN CLERK, MAYNARD, MA. DATE

I HEREBY CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

FOR MERIDIAN ASSOCIATES, INC. DATE

REGISTRY OF DEEDS USE ONLY

SCALE: 1"=100'

100' 50' 0 100' 200' 300'

DWG No. 8275_PER01_SITE.dwg

NO.	DATE	DESCRIPTION	BY	CKD

REVISIONS

Record Conditions Plan
Definitive Site Plan
Maynard Lifestyle Center

129 Parker Street, Lots 1 & 4
Maynard, Massachusetts
Prepared For:
129 Parker Street, LLC

MERIDIAN ASSOCIATES, INC.
152 CONANT STREET
BEVERLY, MASSACHUSETTS 01915
TELEPHONE: (978) 299-0647
69 MILK STREET SUITE 302
WESTBOROUGH, MASSACHUSETTS 01581
TELEPHONE: (508) 871-7600

DATE: January 18, 2008

SCALE: 1"= 100'

PROJECT No. 8275

SHEET No. 2 of 18

APPENDIX B - CIRCULATION LIST

Circulation List

Maynard Crossing
129 Parker Street
Maynard, MA

1. Secretary Matthew A. Beaton
   Executive Office of Energy and Environmental Affairs (EEA)
   Attn: MEPA Office
   100 Cambridge Street, Suite 900 – 9th Floor
   Boston, MA 02114

2. Department of Environmental Protection Boston Office
   Commissioner's Office
   One Winter Street
   Boston, MA 02108

3. DEP/Central Regional Office
   Attn: MEPA Coordinator
   8 New Bond Street
   Worcester, MA 01606

4. Massachusetts Department of Transportation
   Public/Private Development Unit
   10 Park Plaza
   Boston, MA 02116

5. Massachusetts Department of Transportation
   District #3
   Attn: MEPA Coordinator
   403 Belmont Street
   Worcester, MA 01604

6. Massachusetts Historical Commission
   The MA Archives Building
   220 Morrissey Boulevard
   Boston, MA 02125

7. Metropolitan Area Planning Council
   60 Temple Place/6th floor
   Boston, MA 02111

8. Maynard Board of Selectmen
   Attn: Becky Mosca, Administrative Assistant
   195 Main Street
   Maynard, MA 01754

9. Maynard Planning and ZBA Division
   Attn: Bill Nemser, Town Planner
   195 Main Street
   Maynard, MA 01754

10. Maynard Conservation Division
    Attn: Michele Grenier, Conservation Administrator/Assistant Planner
    195 Main Street
    Maynard, MA 01754

11. Maynard Public Health Division
    Attn: Kelly Pawluczonek, Health Agent
    195 Main Street
    Maynard, MA 01754

12. Natural Heritage and Endangered Species Program
    Massachusetts Division of Fisheries & Wildlife
    1 Rabbit Hill Road,
    Westborough, MA 01581

APPENDIX C - LIST OF PERMITS

List of Required Permits

Maynard Crossing
129 Parker Street
Maynard, MA

Local Permits

- Special use permits from Maynard Planning Board for following uses:
  - Pharmacy Drive Thru
  - Multi-Family Dwellings
  - Continuing Care Retirement Community
- Special Permit from the Maynard Zoning Board of Appeals for work in a Zone II.
- Site Plan Approval – Maynard Planning Board
- Order of Conditions from Maynard Conservation Commission
- Building Permit – Maynard Building & Inspections Division
- Sewer and Water Connection Permits – Maynard Department of Public Works
- Road Opening Permits – Maynard Department of Public Works

State Permits

- Massachusetts Division of Fisheries and Wildlife Conservation and Management Permit

Federal Permits

- NPDES Construction General Permit

APPENDIX D – NEWSPAPER NOTICE

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

MEPA Office

100 Cambridge St., Suite 900
Boston, MA 02114
Telephone 617-626-1020

The following should be completed and submitted to a local newspaper:

PUBLIC NOTICE OF ENVIRONMENTAL REVIEW

PROJECT: Maynard Crossing

LOCATION: 129 Parker Street, Maynard, MA

PROPONENT: Capital Group Properties

The undersigned is submitting an Environmental Notification Form ("ENF") to the Secretary of Energy & Environmental Affairs on or before 3/31/17

This will initiate review of the above project pursuant to the Massachusetts Environmental Policy Act ("MEPA", M.G.L. c. 30, s.s. 61-62I). Copies of the ENF may be obtained from:
Bohler Engineering
John A. Kucich
352 Turnpike Road,
Southborough, MA 01772
508-480-9900

(Name, address, phone number of proponent or proponent's agent)

Copies of the ENF are also being sent to the Conservation Commission and Planning Board of Maynard **where they may be inspected.**

The Secretary of Energy & Environmental Affairs will publish notice of the ENF in the Environmental Monitor, will receive public comments on the project for 20 days, and will then decide, within ten days, if an environmental Impact Report is needed. A site visit and consultation session on the project may also be scheduled. All persons wishing to comment on the project, or to be notified of a site visit or consultation session, should write to the Secretary of Energy & Environmental Affairs, 100 Cambridge St., Suite 900, Boston, Massachusetts 02114, Attention: MEPA Office, referencing the above project.

By Capital Group Properties *(Proponent)*

APPENDIX E – 129 PARKER STREET AD HOC COMMITTEE RECOMMENDED ALTERNATIVE PLAN

SITE PLAN

OPTION 2B

Planner/Designer/Architect:

ci

www.ci-designinc.com

The Shoppes at Maynard Crossing

MAYNARD, MASSACHUSETTS

January 8, 2014

Owner / Developer:

C CAPITAL GROUP

APPENDIX F – MA FISH & WILDLIFE INITIAL SUBMISSION AND CORRESPONDENCE

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6300 | f: (508) 389-7890
MASS.GOV/MASSWILDLIFE

Jack Buckley, *Director*

March 2, 2017

Maynard Crossings JV LLC
259 Turnpike Road, Suite 100
Southborough, MA 01772

RE:	Applicant:	Maynard Crossings JV LLC
	Project Location:	129 Parker Street, MAYNARD
	Project Description:	Construction of a Mixed-Use Residential / Commercial Development ("Maynard Crossing")
	NHESP File No.:	**09-27463**

Dear Applicant:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") received the MESA Review Checklist, site plans entitled "Site Development Plans For: Capital Group Properties Proposed Maynard Crossing" (35 sheets; dated February 15, 2017; prepared by Bohler Engineering) and additional materials in compliance with the Massachusetts Endangered Species Act (MGL. c. 131A) and its implementing regulations (321 CMR 10.00) (MESA).

The MESA prohibits the Take of state-listed species, which includes actions that "in reference to animals, means to harass, harm, pursue, hunt, shoot, hound, kill, trap, capture, collect, process, disrupt the nesting, breeding, feeding or migratory activity or attempt to engage in any such conduct, or to assist such conduct... Disruption of nesting, breeding, feeding or migratory activity may result from, but is not limited to, the modification, degradation or destruction of habitat of state-listed wildlife species" (321 CMR 10.02).

Based on a review of the information provided and the information currently contained in our database, the proposed project will occur within the mapped *Priority* and *Estimated Habitat* of the Blanding's Turtle (*Emydoidea blandingii*), state-listed as "Threatened" according to the Massachusetts Natural Heritage Atlas (13th Edition). This species and its habitats are protected pursuant to the MESA. A Fact Sheet for this species can be found on our website, www.mass.gov/nhesp.

The project, as currently proposed, includes the construction of mixed-use residential and commercial development project on a ±60-acre property. The majority of the property is occupied by existing, previously disturbed and developed areas as shown on the site plans (Sheets 4-7; Demolition Plan "A" – "D"). In addition to redevelopment of existing developed areas, the project will result in ±3.53 acres of new disturbance to existing forest and early-successional habitats along the westerly portions of the project site. The Division has determined that this project, as proposed, **will result in a Take (321 CMR 10.18 (2)(b)) of the Blanding's Turtle** due to the permanent loss of suitable forest and early-successional habitat and interference with the feeding, breeding, nesting and migratory activities of this species.

Projects resulting in a Take of state-listed species may only be permitted if the project and proposed mitigation meet the standards for issuance of a Conservation and Management Permit (CMP; 321 CMR 10.23). In order for a project to qualify for a CMP, the project proponent must (1) avoid and minimize impacts to state-listed species to the greatest extent practical, (2) demonstrate that an insignificant portion of the local population will be impacted or that no viable alternative exists, and (3) develop and implement a conservation and management plan that provides a long-term net benefit to the conservation of the local population of the impacted species.

This Determination is a final decision of the Division of Fisheries and Wildlife pursuant to 321 CMR 10.18. Any person aggrieved by this decision shall have the right to an adjudicatory hearing at the Division pursuant to M.G.L. c. 30A, s.11 in accordance with the procedures for informal hearings set forth in 801 CMR 1.02 and 1.03. Any notice of claim for an adjudicatory hearing shall be made in writing, accompanied by a filing fee in the amount of $500.00 and the information specified in 321 CMR 10.25 (3). The notice of claim shall be sent to the Division's Director, Jack Buckley, by certified mail, hand delivered or postmarked within twenty-one (21) days of the date of the Division's Determination.

Please note that projects resulting in a Take of two (2) or more acres within *Priority Habitat* must file an Environmental Notification Form with the Massachusetts Environmental Policy Act ("MEPA") Office and complete all MEPA actions in order to proceed through the MESA permitting process, per 301 CMR 11.03 (2)(b).

Please note that no soil or vegetation disturbance, work, clearing, grading or other activities related to the subject filing shall be conducted beyond the limits of existing, previously disturbed and developed areas as shown on the site plans until the MESA permitting process is complete. If you have any questions regarding this letter, please contact Jesse Leddick, Endangered Species Review Biologist, at jesse.leddick@state.ma.us or (508) 389-6386.

Sincerely,

Thomas W. French

Thomas W. French, Ph.D.
Assistant Director

cc: Dan Wells, Goddard Consulting, LLC
Nathaniel Mahonen, Bohler Engineering

MESA PROJECT REVIEW CHECKLIST

Massachusetts Endangered Species Act M.G.L. c. 131A and Regulations (321 CMR 10.00)

Massachusetts Division of Fisheries & Wildlife
Natural Heritage & Endangered Species Program

~~~~ CONTACT INFORMATION ~~~~

If you already completed your Notice of Intent- Form 3, you can send page 1 of the NOI in place of questions 1 through 4 in this section

1. **Project Location:**

129 Parker Street	Maynard	01754
Street Address/Location	City/Town	Zip Code

Map 25, Lots 152 and 152-1

Assessors Map/Plat Number Parcel /Lot Number

2. **Applicant:**

Maynard Crossings JV LLC

First Name Last Name Company

259 Turnpike Road, Suite 100

Mailing Address

Southborough, MA 01772

City/Town State Zip Code

508-229-1808 permitting@cgpllc.net

Phone Number Fax Number Email address

3. **Property owner (if different from applicant):**

First Name Last Name Company

Mailing Address

City/Town State Zip Code

Phone Number Fax Number Email address

4. **Representative (if any):**

Goddard Consulting, LLC

Company

Dan Wells

Contact Person First Name Contact Person Last Name

291 Main Street, Suite 8

Mailing Address

Northborugh, MA 01532

City/Town State Zip Code

(508) 393-3784 dan@goddardconsultingllc.com

Phone Number Fax Number Email address

~~~~Additional Information~~~~

1. Will this project require a filing with the Conservation Commission and/or DEP? ☐No ☑ Yes
2. Will this project meet any threshold for a MA Environmental Policy Act (MEPA) filing (excluding rare species, 301 CMR 11.03 (2))? ☐ No ☑ Yes
3. Has this project previously been issued a NHESP Tracking Number (either by previous NOI Submittal or MESA Information Request Form)? ☐No ☑ Yes

If Yes - Tracking No. 09-27463

~~~~Project Description (attach separate sheet, as needed)~~~~

Please note, certain projects or activities are exempt from review, see 321 CMR 10.14. The MESA does not allow project segmentation. Your filing must reflect all anticipated work associated with the proposed project (CMR 321 10.16).

Maynard Crossing Development, a mixed residential / commercial development in an existing developed site.

~~~~Include The Following Information~~~~

The NHESP will notify the applicant within 30 days if the materials submitted do not satisfy requirements for a filing and request submission of any missing materials (321 CMR 10.18(1)).

ALL Applicants must submit:

- ☑ USGS map (1:24,000 or 1:25,000) with property boundary clearly outlined
- ☑ Project plans for entire site (including wetland Resource Areas, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work) **Submitted via email by Bohler Engineering 2/16/17**
- ☑ Assessor's map or right-of-way plan of site
- ☐ Project description **Formal project narrative to be submitted when available.**
- ☑ Statement/proof that applicant is the Record Owner or that applicant is a person authorized in writing by the record owner to submit this filing
- ☐ Photographs representative of the site **NHESP Review Biologists have walked the site.**

Projects altering* 10 or more acres, must also submit:

- ☐ A vegetation cover type map of the site
- ☐ Project plans showing Priority Habitat boundaries

The NHESP may request additional information, such as, but not limited to, species and habitat surveys, wetland reports, soil map and reports, and stormwater management reports (321 CMR 10.16).

*Alteration: Any physical alteration of land, soils, drainage or destruction of plant life, see "Project or Activity" (321 CMR 10.02).

~~~~ FILING FEES ~~~~

See Fee Schedule below

a. Total MESA Fee Paid 300.00 b. Acreage of Disturbance* 3.5 +/- c. Total Site Acreage 60 +/-

~~~~ REQUIRED SIGNATURES~~~~

I hereby certify under the penalties of perjury that the foregoing MESA filing and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

D. O'Rj 1/31/17

Signature of Property Owner/Record Owner of Property — Date

Signature of Applicant (required, if different from Owner) — Date

Please send form, required information, and filing fee (payable to "Comm. of MA - NHESP") to:

Regulatory Review
Natural Heritage & Endangered Species Program
1 Rabbit Hill Road
Westborough, MA 01581

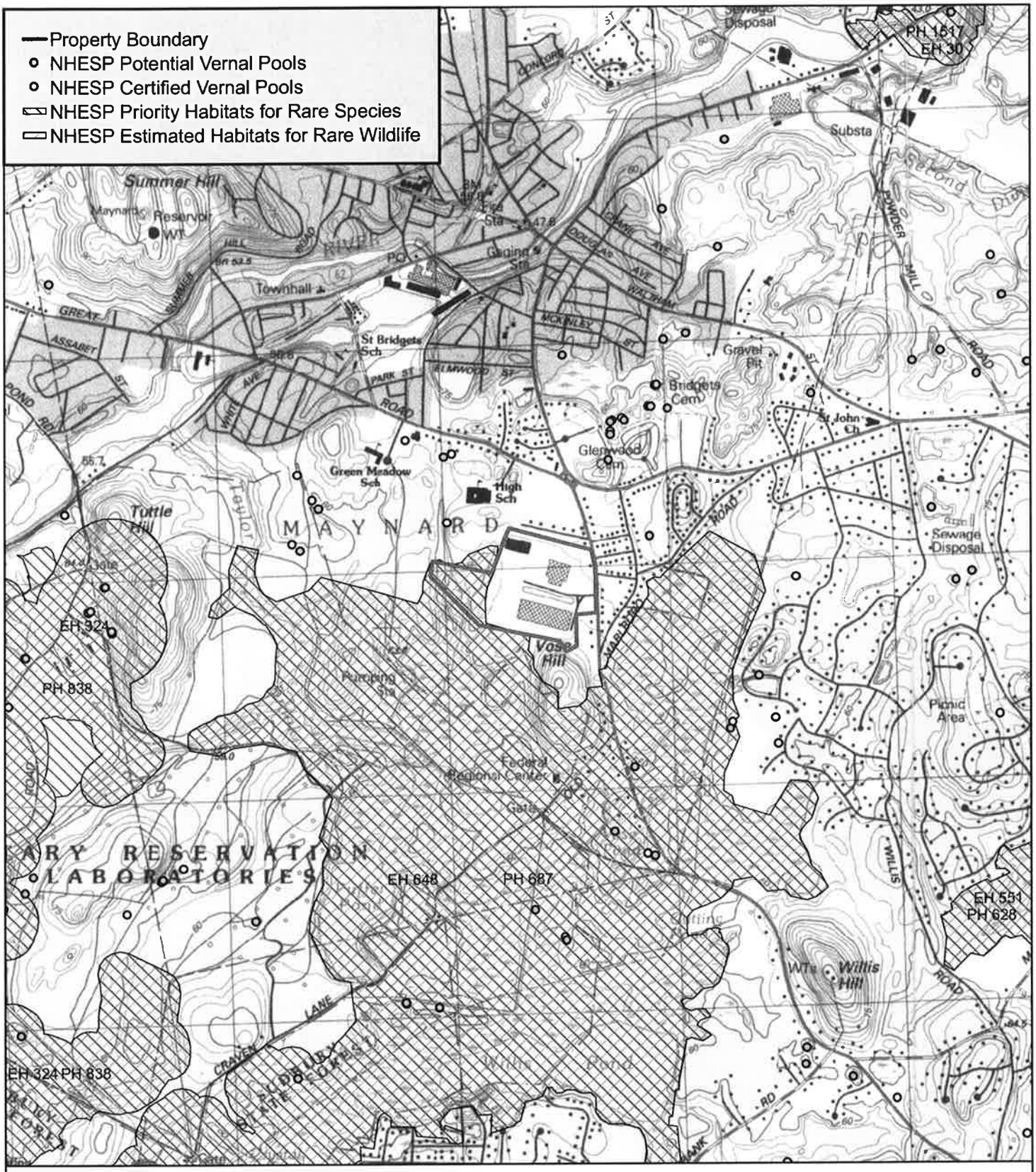
Natural Heritage & Endangered Species Program
Massachusetts Division of Fisheries & Wildlife

Questions regarding this form should be directed according to the county that the property is located:

Berkshire, Essex, Franklin, Hampshire, Hampden, Middlesex & Worcester Counties call: 508-389-6361
Barnstable, Bristol, Dukes, Nantucket, Norfolk, Plymouth & Suffolk Counties call: 508-389-6385

PROJECT REVIEWS 321 CMR 10.18			
Project Definition	**Project Criteria**	**Fee**	**Response Time**
Simple	Less than 5 acres of disturbance*	$ 300.00	60 days from determination of complete filing
Intermediate *(Moderate)*	5 to 20 acres of disturbance*	$ 1800.00	60 days from determination of complete filing
Complex	More than 20 acres of disturbance* or project requires wetlands variance	$ 4000.00	60 days from determination of complete filing
Linear	Projects greater than 1 mile in length.	$ 4000.00 per Priority Habitat intersected	60 days from determination of complete filing

* Disturbance means direct physical disturbance of the land surface or waterbody, soil and/or vegetation, if only a portion of the project site is located within Priority Habitat, indicate total area of disturbance for site as a whole.



USGS Site Locus with NHESP Overlay

129 Parker Street - Maynard, MA

N

0 500 1,000 2,000 Feet

1 inch = 2,000 feet

Date: 2/17/2017

GIS Data Source: "Office of Geographic Information (MassGIS), Commonwealth of Massachusetts Information Technology Division"

GODDARD CONSULTING LLC
Strategic Wetland Permitting

Unofficial Property Record Card - Maynard, MA

General Property Data

Parcel ID	025.0-0000-0152.0	**Account Number**	4
Prior Parcel ID	--		
Property Owner	MAYNARD CROSSINGS JV LLC	**Property Location**	129 PARKER ST
		Property Use	OFFICE-BLDG
Mailing Address	259 TURNPIKE RD STE 100	**Most Recent Sale Date**	1/23/2015
		Legal Reference	1466-70
City	SOUTHBOROUGH	**Grantor**	LSREF2 CLOVER REO 2 LLC,
Mailing State	MA **Zip** 01772	**Sale Price**	10
ParcelZoning	I	**Land Area**	40.110 acres

Current Property Assessment

Card 1 Value	Building Value	Xtra Features Value	Land Value	Total Value
	49,800	93,600	2,094,700	2,238,100

Building Description

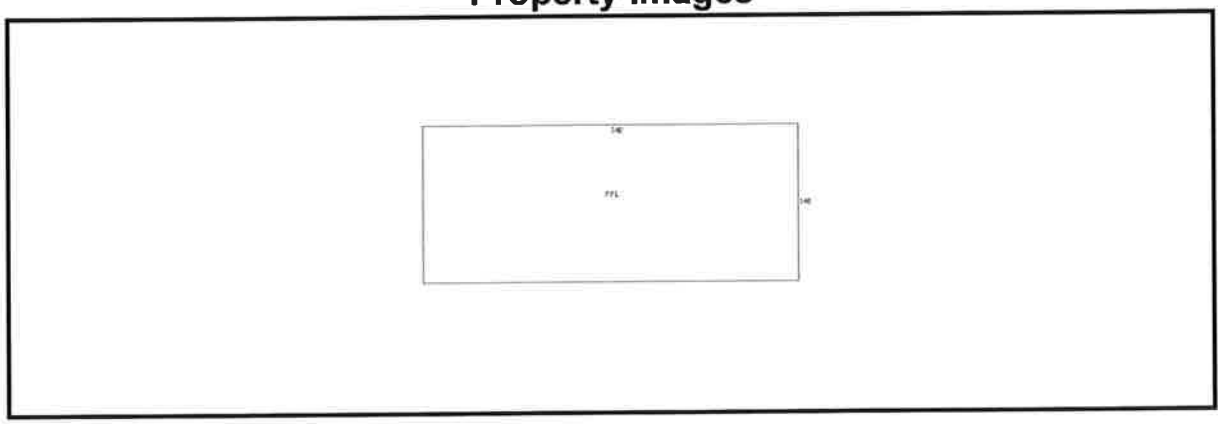
Building Style	RES/DEV	**Foundation Type**	CONCRETE	**Flooring Type**	CONCRETE
# of Living Units	1	**Frame Type**	C	**Basement Floor**	N/A
Year Built	1969	**Roof Structure**	FLAT	**Heating Type**	WRM/COOL AIR
Building Grade	UNSOUND	**Roof Cover**	ASPHALT-SHNG	**Heating Fuel**	GAS
Building Condition	Delapitated	**Siding**	STONE-VENEER	**Air Conditioning**	0%
Finished Area (SF)	50320	**Interior Walls**	MINIMUM	**# of Bsmt Garages**	0
Number Rooms	0	**# of Bedrooms**	0	**# of Full Baths**	0
# of 3/4 Baths	0	**# of 1/2 Baths**	0	**# of Other Fixtures**	0

Legal Description

Narrative Description of Property

This property contains 40.110 acres of land mainly classified as OFFICE-BLDG with a(n) RES/DEV style building, built about 1969 , having STONE-VENEER exterior and ASPHALT-SHNG roof cover, with 1 unit(s), 0 room(s), 0 bedroom(s), 0 bath(s), 0 half bath(s).

Property Images



Disclaimer: This information is believed to be correct but is subject to change and is not warranteed.


3
13
11
12
152
152-1
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2
139
151
Field St
Parker St
North St
South St
B St
Old Marlboro Rd
Bethlo Rd
128
127
126
125
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APPENDIX G – 129 PARKER STREET MEMORANDUM OF AGREEMENT

129 Parker Street Development, Maynard, Massachusetts

MEMORANDUM OF AGREEMENT
September 6, 2016

I. Preliminary Statement

This contract, executed by the Parties on September 6, 2016, shall become effective immediately upon passage by Maynard Town Meeting's approval of the Concept and Signage plans or revisions thereto, identified in Section III of this Agreement, is a "Memorandum of Agreement" ("MOA") between Maynard Crossing, JV, LLC, the property owner, its successors and assigns and the Town of Maynard ("Town of Maynard" or "Town") in accordance with Section 9.3.3 of the Neighborhood Business Overlay District ("NBOD") as codified in the Zoning By Laws of the Town of Maynard, as amended through January 2016. The Property Owner's commitments and terms listed in this MOA are offered freely and in response to the calculation of development impacts from the proposed 129 Parker Street development. This MOA shall hereafter be in full force and effect with the offers and conditions set forth below and shall supersede and replace any prior Agreements by and between the parties as it relates to the property that is subject to this Agreement.

The Parties to this MOA are:

A. The Town of Maynard, Massachusetts, by and through its Board of Selectmen. As used in this MOA, -Maynard" shall also mean the Town of Maynard as a municipal entity or its Boards, Commissions, Departments and staff, as applicable in context.

B. Maynard Crossing, JV, LLC, with a business address of 259 Turnpike Road, Southborough MA, 01772, which is the fee simple owner of the property located at 129 Parker Street, Maynard, Massachusetts and its successors, assigns, mortgagees and all others taking title in fee or less than fee or otherwise acquiring an interest to a part or all of the Property described herein (all the above hereinafter identified as "the Owner').

The property that is the subject of this MOA located at 129 Parker Street, Maynard, Massachusetts, and identified a Assessor's map number 25 and parcel numbers 152 and 152-1 ("the Property"). The legal description of the Property is attached hereto as Exhibit A.
In addition to the legal binding effect of this MOA, it is understood and agreed that the Owner will apply for various approvals from, among others, the Maynard Planning Board, that may include but not be limited to, Site Plan and Special Permit approval pursuant to the Maynard Zoning Bylaw. The Owner agrees to be bound by such terms and conditions imposed by the Planning Board; terms and conditions that are to be considered in addition to, those contained herein. Accordingly, nothing in this MOA shall be construed as authorizing development of the locus independent of the approvals required from the Planning Board pursuant to the Zoning Bylaw.

Notwithstanding the foregoing nothing in this agreement shall constitute a waiver of Owner's rights of appeal under G.L.c. 40A or otherwise as to Site Plan Review or any Special Permit.

II. RECITALS

Whereas the Owner asserts that it owns the Property in fee simple; and

Whereas Owner is proposing a mixed use development containing, without limitation as to specific final use, residential apartments, independent senior living, retail/commercial/office buildings and a supermarket (the "Project"); and

Whereas the Maynard Special Town Meeting held on June 12, 2006 approved an amendment to the Maynard Zoning Bylaw that rezoned the Property to the NBOD; and

Whereas, the June 12, 2006 approval of the NBOD authorized the then Owner and its successors to submit a "Concept Plan" regarding the proposed development of the Property to Town Meeting; and

Whereas, the NBOD significantly expands the uses allowed on the Property; and
Whereas Owner is the successor in interest of the previous owner of the Property, 129 Parker Street, LLC; and

Whereas 129 Parker Street, LLC executed a Memorandum of Agreement dated December 20, 2006 for the Property which Memorandum of Agreement remains in full force and effect; (the "2006 MOA") and

Whereas Town Meeting approved a Concept Plan dated December 12, 2006, revised December 20, 2006; and

Whereas the Planning Board of the Town of Maynard issued a Site Plan Approval and Parking Special Permit on September 8, 2009 incorporating the essential terms of the 2007 Concept Plan and the 2006 MOA which Site Plan Approval and Special Permit remain in full force and effect; and

Whereas Town Meeting further amended the NBOD Zoning Bylaw at a Special Town Meeting on January 11, 2016 through which additional uses by right and special permit were added to the NBOD; and;

Whereas Owner, pursuant to the approval by Town Meeting of the NBOD Amendment, intends to submit a revised Concept Plan and a Signage Concept Plan to Special Town Meeting in September 2016, which Revised Concept Plan and Signage Concept Plan require approval by a majority vote of the Town Meeting so as to enable the Owner to proceed to Site Plan Review and Special Permit applications as provided in the Zoning By-Law; and

Whereas, the Owner and the Town have agreed to amend the existing 2006 MOA on the terms and conditions hereinafter set forth so as to facilitate development of the Property consistently with the NBOD as amended by Special Town Meeting (January 2016) and

Whereas the Owner has agreed to mitigate the impact of the proposed project on the immediate neighborhood and the Town for its and the Town's benefit;

NOW, THEREFORE, in consideration of the Town, acting through its Board of Selectmen, supporting the NBOD Zoning Amendment at Special Town Meeting and supporting the Revised Concept Plan and Signage Concept Plan for the Project and of Owner offering to and agreeing to take and implement specific actions and to forbear from certain uses so as to offset the specific development impacts of the proposed Project, the parties hereto agree as follows, including, without limitation those voluntary offers of mitigation and use made by Owner and accepted by the Town, all as hereinafter set forth.

III. TERMS OF AGREEMENT

A. Description of Project and Revised Concept Plan.

The Project may not exceed or expand the following components, each constructed in compliance with the dimensional requirements of the Maynard Zoning Bylaw, generally, and as may be approved by the Planning Board:

1. Residential Apartments. Not more than 180 residential apartments with not more than 256 bedrooms (plus two bedrooms for each additional unit greater than 175) situated in not more than three multi unit buildings and two "carriage houses", all as shown on the plans identified below. The maximum number of units applies regardless of the permitting mechanism used to construct said dwelling units. For up to and including 175 dwelling units no fewer than seventeen (17) of the dwelling units constructed within the Project shall be made available for rent, for the longest period permitted by law, to individuals or families earning less than eighty percent (80%) of the median income of Maynard, as that figure is determined from time to time by the Commonwealth of Massachusetts ("affordable unit"). All additional dwelling units greater than 175 shall be affordable units.

2. Independent Living or Continuing Care Retirement Community. Any independent living or continuing care retirement community shall consist of not more than 143 units.

3. Retail/office/commercial space including supermarket, with a total gross floor area not to exceed 310,000 square feet.

The Project as described above is shown on the plan consisting of multiple sheets and pages dated June 28, 2016 entitled, "129 Parker Street, Maynard, MA, Concept Plan Submittal" prepared by CI Design, Inc., and includes any and all supporting materials, including, but not limited to, the Traffic Assessment dated March 9, 2016 prepared by Green International Affiliates Inc. ("the Project" or "Concept Plan", as applicable). The signage for the Project is shown on the plan consisting of multiple sheets and pages dated July 11, 2016 entitled "Maynard Commons, Retail and

Residential Graphics: Branding & Wayfinding, Revised Concept Design 4", prepared by Gamble Design, LLC.

B. Payment of Consultants and Legal Costs.

1. The Owner offers to pay the reasonable fees of review consultants (including Town Counsel and/or other attorneys) hired by the Town in connection with the Town's review and consideration of the NBOD, this Amended and Restated MOA, the Revised Concept Plan and supporting materials and applications for site plan or special permit approvals. The Town's selection of consultants and attorneys shall be subject to Owner's reasonable approval and compliant with all applicable laws, rules and regulations pertaining to the engagement of such consultants and attorneys by municipalities in connection with the development of private projects.

   As it relates to this section of the Agreement only, if the Town's costs associated with the Project exceed the sum of $20,000.00, paid on November 5, 2015 the Owner offers to pay the additional reasonable cost associated with the Project provided the Town complies with the terms of G.L. c.44, s.53G, and, provided that there is no conflict with G.L. c.44, s.53G, the Town agrees that prior to engaging a consultant, or an attorney or incurring any further costs that will be paid for by the Owner, the Town will: (i) consult with the Owner; (ii) provide the Owner with a scope of work and an estimated budget for the anticipated consultant's work; (iii) not incur any such cost, or enter into any such contract, without prior notice to and reasonable approval by the Owner; and (iv) upon request by the Owner, provide a written accounting of all costs incurred and other expenditures made by or on behalf of Owner under this Agreement.

2. In the event that there is a remaining balance in this fund after the Site Plan Approval and Special Permit processes, the Town of Maynard shall return any balance to the Owner.

3. To the extent permitted by law and public policy, the Owner shall have the right, at the Owners election, to contribute funds pursuant to G.L. c.44, s.53G to assist in the Maynard Building Department's review of plans and applications for the Project as well as to assist in determining compliance with the State Building Code and other applicable codes relating to the Project.

C. Financial Contribution.

1. The Owner offers to pay the Town of Maynard the amount of One Million Dollars ($1,000,000.00) for deposit in an appropriate fund established by the Town Treasurer to offset the anticipated direct and indirect impacts of the Project. The Town acknowledges that a payment of $100,000.00 of this total amount was paid by the prior owner, 129 Parker Street, LLC.

2. This additional financial sum of $900,000.00 ("Owner's Financial Gift") shall be conditioned upon Owner first having obtained, with all appeal periods having expired and no appeal having been filed, any and all Federal, state and local permits, licenses, orders or approvals required for the construction and use of the Project as set forth in the Revised Concept Plan and Signage Concept Plan as approved by Town Meeting (the "Necessary Approvals") and shall thereafter be paid as follows:

   a. $300,000.00 upon issuance of first Site Plan Approval or first Special Permit by the Planning Board with all appeal periods for the first Site Plan Review approval or Special Permit approval having expired and no appeal having been filed; and

   b. $200,000.00 upon issuance of first building permit for any retail building or supermarket within the Project; and

   c. $200,000.00 upon issuance of first building permit for any building within the residential apartment component of the Project; and

   d. $200,000.00 upon issuance of first building permit for any building within the Independent Living or Continuing Care Retirement Community component of the Project.

   The Owner shall make the payments as set forth in Section 2 (a-d) above should the Owner proceed with construction of the Project, in whole or in any part, notwithstanding an appeal of any permit or approval issued for the Project.

D. Infrastructure Improvements.

1. Traffic: The Owner offers to undertake the planning, design, permitting and construction of traffic mitigation improvements associated with the Project as provided below, including the updated traffic assessment ("traffic assessment") compliant with the requirements of the NBOD Bylaw as well as compliance with requirements established by MassDOT pertaining to "complete streets". The reasonable costs of said updated traffic assessment and any peer review or further revision requested following peer review shall be the responsibility of the Owner. The requirement of a "traffic assessment", above, is in addition to the requirement of completion of a comprehensive Traffic Impact and Access Study for the Project ("traffic impact and access study").

   Timing of Required Action: The "traffic impact and access study" shall be conducted prior to the Owner's submission to the Planning Board for site plan or special permit approval and said study shall accompany the first application for site plan or special permit approval. Additional off-site traffic mitigation which is identified during the Planning Board's review of site plan and special permit approvals as reasonably necessary in the sole discretion of the Planning Board, in

conjunction with the "traffic impact and access study" shall be implemented by the Owner as specified by the Planning Board.

a. "Front Door" Improvements.

These improvements shall include Parker Street/Primary Site Driveway (collectively, the "Front Door Improvements") and shall be completed by the Owner at the Owner's sole expense. These improvements shall consist of:

1) Dedicated northbound left turn lane into the Property;

2) Dedicated southbound right turn lane into the Property at the driveway approach along Parker Street;

3) "Through" traffic lanes in both north and southbound directions;

4) Constructed sidewalk in the area along Owner's property;

5) A fully permitted and operational traffic signal at primary entrance.

The Front Door Improvements shall be generally consistent with the Revised Concept Plan entitled 'Conceptual Improvement Plan-Parker Street at Site Driveways", dated 12/12/06 and prepared by Vanasse & Associates, Inc. but updated to reflect current conditions and development plans and subject to Planning Board approval as noted below, including applicability of the Town's adoption of the Commonwealth's and MassDOT's "complete streets" program.

The final scope and location of the Front Door Improvements shall be determined by the Planning Board during either the Site Plan Review or special permit process, whichever is applicable. If during the Site Plan Review or the special permit process, the Planning Board determines that the above listed traffic and pedestrian improvement are not recommended, payment for those specific improvements shall not be required. However, nothing in this paragraph removes the obligation of the Owner to pay for the completion of specific traffic improvements that the Planning Board may reasonably require for the development of a portion or all of the Property.

Owner agrees that regardless of the specific requirements of the Planning Board, the proposed traffic signal shall be installed and made operational. If during Site Plan Review or the special permit process, the Planning Board reasonably requires additional traffic, public safety and/or pedestrian improvements along the frontage of the Property, the Owner shall pay for the reasonable costs of planning, permitting, design, construction and operation of those additional improvements.

To the extent permitted by law, the Town agrees to cooperate with the Owner in seeking and expediting any and all approvals required for the Front Door Improvements and any other improvements to State owned or controlled highways as may be required under this MOA or the Project. It shall be the responsibility of Owner to pay for and obtain all necessary permits, licenses and approvals from the State.

The Owner offers to convey for no (zero) consideration in fee simple to the Town all land along the Property's frontage required for the Front Door Improvements, the same to be identified on both a plan and deed prepared by the Owner no later than the issuance of the first building permit for the Project. Nothing herein shall be construed as obligating the Town to accept said offer.

The Owner shall retain a traffic engineer(s) licensed in the Commonwealth to monitor the Front Door Improvements and its intersection every six months for a period of 24 months following the issuance of the first occupancy for any building located within the Project. Reports of this data collection and analysis shall be submitted to the Town of Maynard Planning Department.

This monitoring shall include turning movement counts conducted during the peak hours analyzed in the Project traffic study. Capacity analysis should be conducted using these volumes to evaluate the adequacy of the current signal operation in terms of delays, queues, and other relevant measures of effectiveness. The results of this monitoring shall be provided to the town with accompanying technical appendices for review. The first report is due six months from the date of the issuance of the first certificate of occupancy and every six months thereafter. If upon review of the Town, following consultation with Owner's engineer and/or consultants, it is determined that signal phasing and/or timing adjustments are required, the Owner agrees to make such changes and adjustments within three months and at Owner's expense.

Timing of Required Action: The Front Door Improvements shall be substantially completed prior to the issuance of the first final or temporary occupancy permit for any new retail building or use, for any purpose, constructed within the Property. For the purposes of this paragraph, "substantially completed" shall mean a fully-operational traffic signal with all travel lanes and pedestrian accommodations available for use.

b. Route 117/Parker Street Intersection.

The Owner shall construct additional traffic mitigation requested by the Town (as well as contained in the Judith Nitsch Report dated December 8, 2006) between 129 Parker Street and the Route 117/Parker Street intersection and additional improvements recommended by Vanasse and Associates, provided

all such improvements and mitigation measures are located within the existing right of way. The final scope and location of the 117/Parker Street Intersection shall be determined by the Planning Board during either the Site Plan Review or special permit process, whichever is applicable. The costs of the planning, permitting, design and construction of these improvements shall be paid for by the Owner. All such improvements shall be substantially completed prior to the issuance of the first building permit for any new retail building or use or residential or independent living or continuing care retirement community constructed within the Property. The Owner, at the Owner's expense shall, at the request of the Board of Selectmen or Planning Board, update the reports referenced herein. The reasonable costs of said updating shall be the responsibility of the Owner pursuant to Section III. 2 of this Agreement.

Timing of Required Action: The Route 117/Parker Street improvements shall commence within sixty (60) days following the issuance of the first final or temporary occupancy permit for any use or purpose and thereafter completed expeditiously and shall include but not be limited to:

1) the modification of the traffic signal equipment, phasing, and timing to allow for a Great Road (Route 117) westbound protected left-turn phase;

2) the replacement of existing pedestrian signal heads with countdown pedestrian signal heads, with adjustments to signal equipment, phasing, and timing as determined necessary by the Town;

3) implementation of the geometric modifications proposed by the Owner in the Preliminary Traffic impact and Access Study (PTIAS) dated August 2006;

4) reconfiguration of all pedestrian curb cuts so as to be made complaint, to the maximum extent possible and consistent with the Americans with Disabilities Act and

5) upgrading of the sidewalk to include granite curbing along the west side frontage of Owner's Property for a distance of approximately 925 linear feet.

6) If not located adjacent to Owner's land all work shall be contained within the Town right-of-way and Owner shall obtain, at Owner's expense, all permits and approval required to complete the above described improvements.

c. Other Traffic Improvements to be constructed by the Owner.

Timing of Required Action: With the exception of the improvements included in subparagraph (a), below, the Owner shall complete the following

traffic and pedestrian access improvements prior to the issuance of the first final or temporary occupancy permit for any retail building constructed within the Property. With respect to the improvements included in subparagraph (1), below, the Owner shall complete or pay for the completion of the traffic improvements within thirty (30) days following Maynard Town Meeting's approval of the Concept Plan identified in Section III.A, above. The costs of the planning, design and construction of these improvements shall be paid for by the Owner:

1) Great Road/Parker Street - Install the necessary signal equipment, including but not limited to right-turn arrow signal heads on the westbound Great Road (Route 117) approach to the intersection, with accompanying modifications of the traffic signal equipment, phasing, and timing to allow for the modified phasing proposed. The Town Administrator, acting on behalf of the Board of Selectmen, shall determine the final scope and location of the Great Road/Parker Street improvements.

2) Parker Street/Old Marlboro Road - Remove the Stop sign on the south side of Old Marlboro Road at Parker Street. Install a 'Stop Ahead' sign (MUTCD designation W3-1) facing southbound Old Marlboro Road traffic. A centerline shall be placed on Old Marlboro Road and a Stop line painted adjacent to the existing Stop sign on the north side of Old Marlboro Road. In addition, a chevron sign (MUTCD designation W1-8) shall be placed on the south side of Old Marlboro Road facing southbound traffic on Old Marlboro Road. The Owner shall submit a plan during the Site Plan Review and/or special permit process illustrating the proposed improvements. The final scope and location of the Parker Street/Old Marlboro Road improvements shall be determined by the Planning Board during either the Site Plan Review or special permit process, whichever is applicable.

3) Great Road (Route 117)/Old Marlboro Road. Signing, pavement markings and minor geometric modifications shall be undertaken to clarify lane use and any restrictions on the approaches to the intersection. The Owner shall submit a plan during Site Plan Review and/or special permit process illustrating the project limits and the proposed improvements. The final scope and location of the Great Road (Route 117)/Old Marlboro Road improvements shall be determined by the Planning Board during either the Site Plan Review or special permit process, whichever is applicable.

4) Parker/Field Street Intersection. Installation of a "pedestrian warning beacon system" as recommended by the Owner in its "Preliminary Traffic Evaluation, March 9, 2016. The final scope and location of the Great Road (Route 117)/Old Marlboro Road improvements shall be determined

by the Planning Board during either the Site Plan Review or special permit process, whichever is applicable.

E. Mitigation Funds.

In addition to all other promises made herein and any requirements imposed by the Town of Maynard or its regulatory boards, departments or commissions, the Owner covenants to contribute $260,000.00 to a Traffic Improvement Fund, which shall be established by the Town Treasurer for the purposes of mitigating the impact of the proposed development.

Timing of Required Action: The above noted payments shall be made upon the issuance of the first building permit for a building or use constructed within the Property, more fully described below:

1. $90,000.00 upon the issuance of the building permit for the proposed supermarket; and

2. $90,000.00 upon the issuance of the first building permit for any use within Building A, Building B, Building C or Building D as shown on the Revised Concept Plan; and

3. $80,000.00 upon the issuance of the first building permit for any use within Building E, Building F, Building G or Building H as shown on the Revised Concept Plan.

The above noted funds may be applied by the Town at any time deemed appropriate by the Town toward any traffic improvement determined by the Town as the Town, in its sole and exclusive judgment believes appropriate to require mitigation as a result of the Project or otherwise, including, without limitation the following improvements:

a. Parker Street/Powder Mill Road/Waltham Street - upgrade the traffic signal from pre-timed to fully actuated through the installation of vehicle detection and other required signal equipment, and coordinate the signal with the Main Street/Acton Street/Summer Street signal; upgrade the roadway surface, curbing and geometry (where possible within existing pavement limits);

b. Main Street/Acton Street/Summer Street -upgrade traffic signal from pre-timed to fully actuated (involves replacing signal controller, installation of vehicle detection, and other signal equipment as necessary);

c. Installation of vehicle detection;

d. Coordination of the Parker Street/Powder Mill Road/Waltham Street signal traffic signal with other existing traffic signals in the vicinity of that location; and

e. Nason Street/Summer Street - Replace the existing pedestrian signal heads with countdown pedestrian signals and implement a Summer Street westbound protected left-turn phase, with accompanying modifications of the traffic signal equipment, phasing, and timing to allow for the modified phasing proposed.

F. Other Infrastructure Improvements and Payments.

1. Water.

Timing of Required Action: In addition to all other promises made herein and requirements imposed by the Town of Maynard or its regulatory boards, departments or commissions, the Owner will pay, commensurate with the application for the first building permit for construction within the Property, $10,000.00 to a fund established by the Town Treasurer for, among others, the following purposes:

a. Looping the existing water main at the end of Field Street with the Property;

b. Looping the dead end water pipe on the Maynard High School locus with the Property; and

c. The completion of a Town-wide water system distribution model.

The parties agree that the Water Connection Fees presented in III.G., below, shall be applicable to the Project and paid in full commensurate with applications for building permits for each land use or portions thereof, identified in Section III.G., below. In addition, and with the exception of the Water Connection Fees presented in Section III.G., below, the parties agree that the Maynard Water Rules and Regulations and Water Meter Installation Policy shall apply to the Project, including the application fees and schedules contained therein, as revised from time to time, and that the Town reserves the right to increase the fees and schedules regarding the delivery of water as it deems in the best interests of the Town.

2. Sewer.

Timing of Required Action: In addition to all other promises made herein and requirements imposed by the Town of Maynard or its regulatory boards, departments or commissions, the Owner will pay, commensurate with the application for the first building permit for construction within the Property,

$40,000.00 to a fund established by the Town Treasurer for, among others, the following purposes:

a. Upgrade of the Marlborough Road Sewer Pumping Station; and

b. Inspection of the Town's existing sewer infrastructure, including carrying capacity to serve the Project.

The parties agree that the Sewer Connection Fees presented in Section III.G., below, shall be applicable to the Project and paid in full commensurate with applications for building permits for each land use or portions thereof, identified in Section III.G., below. In addition, and with the exception of the Sewer Connection Fees presented in Section III.G., below, the parties agree that the Town of Maynard Sewer Rules and Regulations, including the fees and schedules contained therein, as revised from time to time, shall be applicable to the Project and that the Town reserves the right to increase the fees and schedules regarding wastewater disposal as it deems in the best interests of the Town.

G. Water and Sewer Connection Fees.

Land Use	**Water Connection Fee**	**Sewer Connection Fee**
Supermarket	$5,000.00	$5,250.00
Retail, not restaurant[1]	$5,000.00	$5,250.00
Restaurant, not fast food	$5,000.00	$6,125.00
Restaurant, fast food[2]	$5,000.00	$3,500.00
Commercial	$5,000.00	$3,500.00
Multi Family Residential[3]	$450,000.00	$630,000.00
Independent Living Facility	$5,000.00	$345,000.00

With the exception of the Multi Family Residential land use, the fees identified above are based upon the fees required for a single (1) connection to and for, the proposed land use. The fees for the Independent Living facility are based upon a single connection for water and a single connection for sewer to serve no greater than 143 living units. Should additional connections be required or requested, the Town

[1] Per structure, excluding restaurant.
[2] Based upon a freestanding or attached structure.
[3] Based upon approval of 180 dwelling units. Should the Planning Board approve fewer than 180 dwelling units, the total water and sewer fees shall be $6,000.00 per dwelling unit ($2,500.00 for water and $3,500.00 for sewer).

reserves the right to require additional water and/or sewer connection fees consistent with published rate schedules in effect at that time.

H. Town Meeting Costs.

Should the Town be required to hold a Special Town Meeting for the purposes of acting upon the Owner's concept plan as discussed above and required by the NBOD Bylaw, the Owner shall pay all costs incurred by the Town for the holding of the same.

Timing of Required Action: Payment shall be made within thirty (30) days of receipt of the true costs incurred by the Town for the holding of said Special Town Meeting.

I. Conservation/Wetlands.

It is anticipated that on and off site wetland resources and adjacent buffer zones to these resources will be impacted from the development of the Property.

Timing of Required Action: To off set the impacts anticipated by development of the Property, in addition to all other promises made herein and requirements imposed by the Town of Maynard or its regulatory boards, departments or commissions, prior to the issuance of the first occupancy permit of a structure within the Property, the Owner covenants to pay for the costs of all on and off site stormwater management improvements necessitated by the development of the Property, said improvements to be determined by the Town of Maynard and to be consistent with requirements and standards of federal, state and Maynard laws and regulations.

To the extent that such use does not interfere with proposed creation of new habitat for endangered or other threatened species as may be required by the Massachusetts Division of Fisheries and Wildlife ("DFW") and otherwise subject to DFW approval, the Owner shall, grant a perpetual easement in gross, the same to run with the land, allowing the public to use the existing hiking trails which are partially located on the southwest corner of the Property as shown on the Revised Concept Plan and as may be revised from time to time by the Owner and Town Meeting. The Owner reserves the right to include all such land contained within said easement in the calculation or the land area of the Property in establishing zoning compliance (open space, lot size, density, etc.) and meeting other relevant regulatory requirements.

Timing of Required Action: Within sixty (60) days following Owner's receipt of the first site plan or special permit approval received for the Project, Owner agrees to grant a perpetual easement in gross to the Town, as described above.

J. Land Donation.

Owner offers to donate, in fee simple absolute and without cost, a portion of land as shown on a plan of land dated March 1, 2016 prepared by CAI Technologies and

identified as "400 Foot Radius Proposed New Well", sufficient to provide the Town of Maynard the land necessary to develop a new public supply well as illustrated on said plan.

Timing of Required Action: Owner agrees to provide the Town with a good and sufficient deed for said parcel within sixty (60) days following Owner's receipt of the first site plan or special permit approval received for the Project.

K. Cooperation Efforts by the Town.

1. Cooperation: The Town, acting within the respective jurisdiction of Board of Selectmen, Planning Board Conservation Commission, Building Department, Water and Sewer Department, Fire Department and Police Department shall, to the extent permitted by law and with due regard to all relevant statutes, regulations and public policy, cooperate with the Owner in all aspects of the implementation of the Project and associated offsite traffic improvements so long as the same is in compliance with permits and approvals issued by federal, state and Maynard authorities and otherwise consistent with the rules, regulations and bylaws of the Town of Maynard.

2. Prompt Review: To the extent permitted by law and with due regard to all relevant statutes, regulations and public policy, the Board of Selectmen shall facilitate prompt review of the Project and the cooperation of all Town Boards Commissions, Departments and staff in the review and implementation of the Project This provision does not require any Town Board, Commission, Department or staff to take any particular action.

L. Affordability.

In lieu of providing no fewer than 17 dwelling units (or such fewer number as the Town may ultimately approve) as affordable to qualifying renters within the Property, the Owner covenants that neither it nor its successors or assigns shall apply to develop the Property pursuant to G.L. c.40B, ss. 20-23 and, accordingly, waives any right to claim that the Town of Maynard is not "consistent with local needs" as that phrase is defined in G.L. c.40B, s.20. This covenant shall be deemed to run with the land, is intended to be a restriction on the use of the Property and, pursuant to G.L. c.184, s.26 is intended as a restriction to be held by a governmental body and intended to benefit the Town of Maynard, pursuant to G.L. c.184, s.26 for the longest period permitted by law.

Timing of Required Action: Owner shall record the above noted covenant with the Registry of Deeds within sixty (60) days following Owner's receipt of the first site plan or special permit approval received for the Project.

M. No Obligation to Build.

Neither the execution of this MOA, nor the approval of the Revised Concept Plan shall create any obligation of the Owner to construct all or any portion of the Project, provided however, that the promises, covenants and restrictions contained herein shall remain binding upon the Town and the Owner and its successors, assigns, mortgagees and all others taking title in fee or less than fee or otherwise acquiring an interest to a part or all of the Property, for the longest period permitted by law.

N. Condition Precedent to Owner's Obligations and Covenants.

Unless otherwise provided herein, the Owner's obligation to complete the agreements and promises contained in this MOA, including, without limitation the promise to make any payments of any kind whatsoever, is specifically conditioned upon and subject to Owner obtaining, with all appeal periods having expired any and all Federal, state and local, approvals, permits or orders necessary and required for the construction of the Project in substantial compliance with the Revised Concept Plan, including, without limitation, the following: NBOD Zoning Bylaw amendment; Town Meeting Concept Plan Approval of the Revised Concept Plan, Conservation Commission Order of Conditions, Planning Board Site Plan Approval, Planning Board Special Permits for Uses that require same within the NBOD, municipal and/or state road access or curb cut permits and municipal and or state sewer and water hook up and/or connection permits. In the event the Owner shall be unable, despite Owner's best efforts, including defending or prosecuting any and all appeals or taking any and all good faith appeals that are needed to be filed, to obtain any such approval or permit required for the construction of the Project as proposed, the Town and the Owner specifically agree and acknowledge that the 2006 MOA, 2007 Concept Plan and the 2009 Planning Board Site Plan Approval and Parking Special Permit remain in full force and effect and that this Memorandum of Agreement shall terminate without recourse to either party excepting only the terms of this paragraph which shall survive termination.

Notwithstanding the foregoing, this Memorandum of Agreement shall not be deemed terminated if the Owner elects to pursue development of a Project with fewer dwelling units, lesser commercial square footage or otherwise smaller in scale than that Project illustrated in the Concept Plan identified in Section III.A., above.

O. Successors and Assigns.

The Parties agree that this Agreement shall run with the Property and shall be binding upon and insure to the benefit of the Town, and the burden of the Owner and its successors in interest and assigns and all persons claiming any rights under the Owner including its successors, assigns, mortgagees and all others taking title in fee or less than fee or otherwise acquiring an interest to a part or all of the Property. The parties further agree that this MOA, once executed, may be recorded by either party in the Middlesex County Registry of Deeds against the title of the Property.

P. Adult Entertainment Uses.

The Owner covenants not to allow so-called "adult entertainment uses" on the Property or within the Project as the same is more specifically defined by G.L. c.40A, s.9A. This covenant shall be deemed to run with the land and is intended to be a restriction on the use of the Property and, pursuant to G.L. c.184, s.26 is intended as a restriction to be held by a governmental body and intended to benefit the Town of Maynard, for the longest period permitted by law.

Timing of Required Action: Owner shall record the above noted covenant with the Registry of Deeds within sixty (60) days following Owner's receipt of the first site plan or special permit approval received for the Project.

Q. Use Restrictions.

1. Notwithstanding specific provisions contained within the NBOD Zoning Bylaw which may otherwise allow for such uses by right or by special permit, in recognition of the Town's support for a coordinated and planned development within the Property consistent with the Zoning Bylaw and long range plans and planning objectives, the Owner covenants that the following uses and/or named establishments will not be permitted within the Property or constitute a portion of the Project, and to fulfill this promise, the Owner covenants that it will neither lease nor sell any portion of the Property to the following restaurants or establishments identified as follows: McDonald's, Burger King, KFC, Wendy's, Taco Bell, Chick-fil-a, Arby's and Sonic or, as the names of these establishments may be changed, from time to time. This covenant shall be deemed to run with the land and is intended to be a restriction on the use of the Property and, pursuant to G.L. c.184, s.26 is intended as a restriction to be held by a governmental body and intended to benefit the Town of Maynard, for the longest period permitted by law.

2. In addition to the covenants contained elsewhere in this Agreement, the Owner covenants that the number of drive through businesses in the Project shall be limited to four (4) and that no more than two restaurants shall provide drive through services. This covenant shall be deemed to run with the land and is intended to be a restriction on the use of the Property and, pursuant to G.L. c.184, s.26 is intended as a restriction to be held by a governmental body and intended to benefit the Town of Maynard, for the longest period permitted by law.

3. In addition to the covenants contained elsewhere in this Agreement, the Owner covenants that only one of the two individual use pads closest to Parker Street shall be used as a fast food restaurant and that there shall be no more than a total of five full service restaurants on the Property (exclusive of establishments whose primary menu items are coffee and similar beverages and related baked goods (such as Dunkin Donuts and Starbucks) or ice cream and frozen desserts (such as Ben and Jerry's and Orange Leaf). This covenant shall be deemed to run with the

land and is intended to be a restriction on the use of the Property and, pursuant to G.L. c.184, s.26 is intended as a restriction to be held by a governmental body and intended to benefit the Town of Maynard, for the longest period permitted by law.

4. In addition to the covenants contained elsewhere in this Agreement, the Owner covenants that there shall be no more than a total of 266 bedrooms in the residential component of the Project and no residential unit shall have more than two bedrooms. This covenant shall be deemed to run with the land and is intended to be a restriction on the use of the Property and, pursuant to G.L. c.184, s.26 is intended as a restriction to be held by a governmental body and intended to benefit the Town of Maynard, for the longest period permitted by law.

5. In addition to the covenants contained elsewhere in this Agreement, the Owner covenants that there shall be no more than one building in the residential component of the Project with more than three (3) stories which building shall be less than 50 feet in height. This covenant shall be deemed to run with the land and is intended to be a restriction on the use of the Property and, pursuant to G.L. c.184, s.26 is intended as a restriction to be held by a governmental body and intended to benefit the Town of Maynard, for the longest period permitted by law.

Timing of Required Action: Owner shall record the above noted covenants as set forth in Section III. Q. (1-5), above, with the Registry of Deeds within sixty (60) days following Owner's receipt of the first site plan or special permit approval received for the Project.

R. Interpretation and Amendment.

1. No modification or termination of this Agreement will be effective unless it is in writing and is signed by all Parties. To the extent authorized by General Laws, this Agreement binds and benefits all parties and any their heirs, executors, administrators, estates, officers, partners, members, officers, trustees, partners, employees, agents, principals, servants, attorneys, successors, predecessors and assigns and any representatives and any subsidiary, affiliated entities.

2. The Parties agree that this Agreement is a fully integrated document and constitute the entire agreement between them. The Parties expressly disclaim reliance on any representations, written or oral, other than those expressly contained in this Agreement.

3. The Parties and their counsel agree that each party and counsel for each party to this Agreement has reviewed and had the opportunity to revise this Agreement and accordingly, the normal rule of construction (to the effect that any ambiguities are to be resolved against the drafting party) will not be employed in any interpretation of this Agreement.

4. This Agreement shall be governed by and interpreted under the laws of the Commonwealth of Massachusetts. All covenants, agreements and protections herein contained shall be binding upon and inure to the benefit of the Parties hereto.

5. The Parties acknowledge that this Agreement shall be considered a public document pursuant to the Massachusetts Public Records Law and may be offered in evidence by either Party in any judicial or other legal proceeding to enforce any of its provisions against the other Party.

6. The Parties agree that if any term of this Agreement is to any extent invalid, illegal, or incapable of being enforced, such term shall be excluded to the extent of such invalidity, illegality or unenforceability; all other terms hereof shall remain in full force and effect.

END OF INSTRUMENT: SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereto have caused these presents to be signed in their respective name, by their proper officers and their seals to be affixed this 6th day of September, 2016.

Town of Maynard:

Chris DiSilva, Chairman

Timothy Egan, Selectman

Terrence Donovan, Selectman

David Gavin, Selectman

Jason Kreil, Selectman

Maynard Crossing, JV, LLC
By:

William A. Depietri

Attested:

Michelle Sokolowski, Town Clerk

Exhibit A to Memorandum of Agreement dated September 6, 2016

129 Parker Street, Maynard, MA

Legal Description of Locus Subject to the attached Memorandum of Agreement dated September 6, 2016:

Those two (2) parcels of land, with the buildings thereon shown as:

Lot 68 on Land Court Plan No. 8795-N, a copy of which is filed in the Registry of Deeds for the South Registry District of the Middlesex County with Certificate of Title No. 218672 in Registration Book 1223, Page 122; and

Lot 62 on Land Court Plan No. 8795-K, , a copy of which is filed in the Registry of Deeds for the South Registry District of the Middlesex County with Certificate of Title No. 125681 in Registration Book 758, Page 131.

APPENDIX H – TRAFFIC IMPACT AND ACCESS STUDY

NARRATIVE PROVIDED - APPENDICIES AVAILABLE UPON REQUEST

Traffic Impact and Access Study

129 Parker Street

Maynard Crossing

Maynard, Massachusetts

Prepared for

Capital Group Properties

January 2017

Prepared by

GREEN INTERNATIONAL AFFILIATES, INC.
Civil and Structural Engineers

Green No. 15104

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APPENDICES

1.0 INTRODUCTION AND EXECUTIVE SUMMARY

This report provides an analysis of the potential traffic and access impacts of a proposed commercial and residential development project, known as Maynard Crossing. The development project is planned to be located at 129 Parker Street in Maynard, Massachusetts, and the location is shown in Figure 1. The project proponent, Capital Group Partners, is proposing to redevelop the project site with approximately 240,490 square feet (SF) of retail space including a 68,000 SF supermarket, 30,300 SF of commercial, office, or retail space, a 20,000 SF fitness center, 180 apartment units for multi-family rental, and 143 units of senior independent living housing. The existing 50,300 SF commercial building is planned to be retained, with 20,000 SF converted into a fitness center and the remaining 30,300 SF used as commercial, office, or retail space. The currently proposed development project is somewhat smaller than similar mixed-use plans to re-develop the project site in 2006 and 2013.

Green International Affiliates, Inc. (Green) completed a Traffic Impact & Access Study (TIAS) in February 2013[1] to evaluate the most recent prior proposal to re-develop the project site. At a Special Town Meeting on January 11, 2016, the Town approved a Zoning By-Law Amendment to the Neighborhood Business Overlay District (NBOD), which includes the project site. Subsequent to the NBOD amendment, Green completed a Preliminary Traffic Evaluation (dated March 9, 2016) in conjunction with the development of the current Concept Plan for the project site. The currently proposed concept plan was approved at a Special Town Meeting on October 5, 2016.

This report builds upon and provides an update to both the 2013 TIAS and the March 2016 Preliminary Traffic Evaluation. An analysis and evaluation of the existing and future 2023 (No-Build and Build conditions) traffic volumes, roadway/site access and safety considerations are included in this report. The guidelines of the Massachusetts Department of Transportation (MassDOT), as well as considering those of the Institute of Transportation Engineers (ITE) and the regulations of the Town of Maynard were used for conducting this traffic impact and access study. The report contains descriptions of the existing characteristics of the abutting roadway network, current traffic conditions, estimated traffic impacts, and the access-egress characteristics of the proposed mixed-use development project.

EXISTING CONDITIONS

Given that the site was studied in detail in the 2013 Traffic Impact & Access Study (TIAS) and the economy has remained fairly stable over the past three years, the study area for the updated TIAS is generally consistent with that of the 2013 TIAS. Based on a request from the Town's peer reviewer during the Conceptual Plan approval stage in the Spring of 2016, two intersections were added to the study including Great Road (Route 117) at Thompson Street and Haynes Street/Brown Street (Route 27) at Concord Street. The full list of study intersections is as follows:

- Great Road (Route 117) at Main Street (Route 62)
- Great Road (Route 117) at Sudbury Street
- Great Road (Route 117) at Parker Street (Route 27)
- Great Road (Route 117) at Thompson Street
- Parker Street (Route 27) at Waltham Street/Powder Mill Road (Route 62)
- Parker Street (Route 27) at Walnut Street

[1] Green International Affiliates, Inc. Traffic Impact & Access Study: Proposed The Shoppes at Maynard Crossing, 129 Parker Street, Maynard, Massachusetts, February 2013.

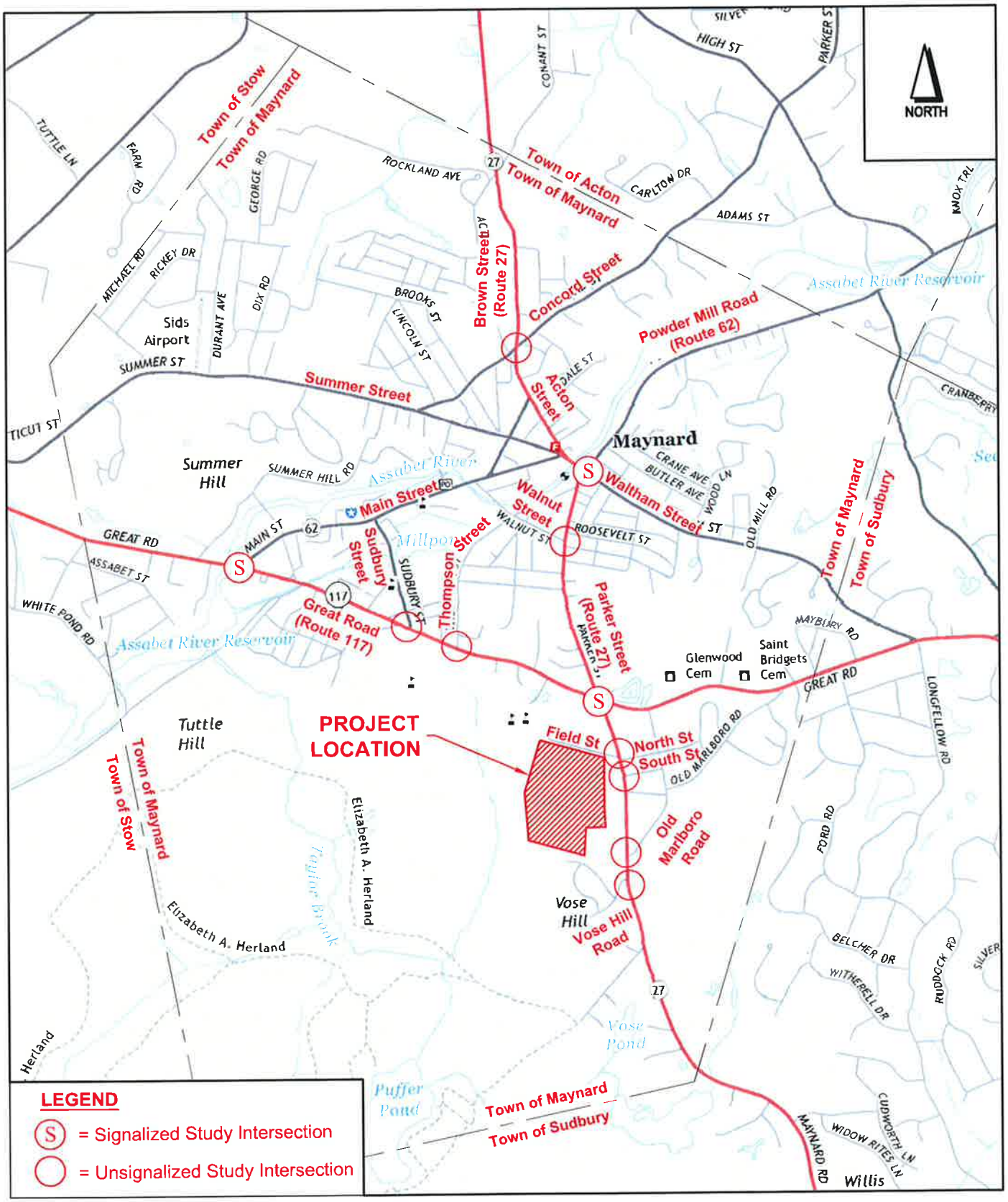
- Parker Street (Route 27) at Field Street/North Street
- Parker Street (Route 27) at South Street
- Parker Street (Route 27) at Old Marlboro Road (northern intersection)
- Parker Street (Route 27) at Vose Hill Road
- Haynes Street/Brown Street (Route 27) at Concord Street

The two major roadways serving the study area, Parker Street (Route 27) and Great Road (Route 117), were reviewed for any substantive physical changes since the 2013 TIAS was completed. The following summarizes the characteristics of these two roadways.

Parker Street (Route 27) is a two lane undivided road with one travel lane for each direction of traffic. It is under the jurisdiction of the Town of Maynard and is classified as an urban principal arterial in the vicinity of the project site. Parker Street has signalized intersections with Great Road (Route 117) and Waltham Street/Powder Mill Road (Route 62) within the study area.

Great Road (Route 117) is a two lane undivided road functioning as an urban principal arterial west of Parker Street (Route 27) and an urban minor arterial east of Parker Street (Route 27). It is under the jurisdiction of the Town of Maynard and has signalized intersections with Main Street (Route 62) and Parker Street (Route 27) within the study area. Great Road (Route 117) provides access to the Town's Public Schools, including Maynard High School, Fowler Middle School, and Green Meadow Elementary School, approximately 800 feet west of Parker Street (Route 27).

Traffic data collected on November 17-19, 2016 indicate that the daily traffic volumes on Parker Street (Route 27) and Great Road (Route 117) are approximately 11,300 and 10,700 vehicles per day (vpd), respectively, on weekdays and approximately 8,500 and 6,500 vehicles per day (vpd), respectively, on Saturdays. The weekday morning peak hour on Parker Street (Route 27) generally occurs from 7:15-8:15 AM and represents approximately 9% of the daily traffic, while the weekday morning peak hour on Great Road (Route 117) also generally occurs from 7:15-8:15 AM and represents approximately 11% of the daily traffic. The weekday afternoon peak hour on Parker Street (Route 27) generally occurs from 4:15-5:15 PM and represents approximately 9% of the daily traffic, while the weekday afternoon peak hour on Great Road (Route 117) generally occurs from 5:00-6:00 PM and represents approximately 10% of the daily traffic. The Saturday midday peak hour on Parker Street (Route 27) generally occurs from 11:15 AM-12:15 PM and represents approximately 9% of the daily traffic, while the Saturday midday peak hour on Great Road (Route 117) generally occurs from 12:15-1:15 PM and also represents approximately 9% of the daily traffic.



GREEN INTERNATIONAL AFFILIATES, INC.
CIVIL AND STRUCTURAL ENGINEERS

Figure 1
Project Location
129 Parker Street
Maynard, MA

FUTURE CONDITIONS

A seven-year timeframe was used in the analysis that is consistent with current state guidelines. For the future No-Build analysis, a 1 percent annual background growth rate was applied, based on regional traffic growth data as well as relevant site-specific developments. Traffic volume forecasts of the proposed development project were based on models published by the Institute of Transportation Engineers (ITE) and observations of similar land uses. The project is expected to generate approximately 10,258 new vehicle trips per weekday and 14,710 new vehicle trips per Saturday. On weekdays, there are expected to be approximately 371 and 930 new vehicle trips during the morning and afternoon peak hours, respectively. On Saturdays, there are expected to be approximately 1,441 new vehicle trips made during the mid-day peak hour. The trips were distributed across the study area network based on existing traffic patterns.

There are several important aspects of the traffic forecasts to note including:

- A significant portion of the site-generated trips are anticipated to be "internal" trips, as trips are made between the different on-site land uses (i.e. residential to/from retail),
- A significant amount of pass-by and diverted trips are anticipated. These are trips made by vehicles already on Parker Street and/or Great Road, and are not new trips to the roadway network,
- The project-related trips will be spread out throughout the day, and
- A sidewalk is proposed to be constructed along the west side of Parker Street (Route 27) alongside the project site and a wide shoulder is proposed to be included along Parker Street (Route 27) alongside the project site to facilitate future access for bicyclists.

Based on the analyses included in this report, a traffic control signal is proposed at the primary site driveway. With the traffic signal in place, the new intersection is expected to operate at an overall Level of Service (LOS) A, B, or C, depending on the peak hour with minimal average delays. It is noted the proposed project is anticipated to generate fewer vehicle-trips when compared with either of the two prior proposals to redevelop the project site. However, the project proponent is committed to implementing all of the previously proposed transportation improvements. Furthermore, some additional recommendations have been developed as part of this study, and are outlined in the following section.

CONCLUSIONS/RECOMMENDATIONS

This traffic report describes the analysis procedures, assumptions, and results of this traffic study. The following summarizes the traffic analysis findings:

- The proposed development is estimated to generate approximately 371 new vehicle trips during the weekday morning peak hour, 930 new vehicle trips during the weekday afternoon peak hour, and 1,441 new vehicle trips during the Saturday midday peak hour.
- The proposed traffic signal where the Primary Site Drive intersects Route 27 (Parker Street) is expected to operate safely and efficiently with minimal delays.
- Compared to the Future No Build conditions, most of the study intersections will experience modest increases in average delay and queue length. The most significant increases are expected to occur at the signalized intersection of Parker Street (Route 27) with Great Road (Route 117) and at the intersection of Parker Street (Route 27) / Powder Mill Road (Route 62) with Waltham Street.

The analysis showed the proposed project could be accommodated by the study area roadways with several improvements to the transportation infrastructure to improve safety, traffic operating conditions, and to encourage alternative modes of transportation:

- It is recommended to install a 5-foot shoulder on both sides of Parker Street (Route 27) wide enough to accommodate bicycles along the project site.
- Bicycle lanes are proposed along the primary site driveway, and safe and secure bicycle racks are proposed at convenient locations throughout the project site to encourage residents and visitors to the site to use alternate means of transportation.
- At the project site, a network of sidewalks/walkways are proposed to connect the various uses within the site and connect with the external sidewalk network.
- A sidewalk is recommended to be reconstructed on the west side of Parker Street (Route 27) along the project site.
- A Rectangular Rapid Flashing Beacon (RRFB) is proposed to be installed to facilitate a safe pedestrian crossing at the existing crosswalk across Parker Street (Route 27) at Field Street/North Street.
- It is recommended that a traffic signal be constructed at the intersection of Parker Street (Route 27) with the Primary Site Drive. An additional unsignalized access driveway is proposed approximately 600 feet north of the Primary Site Drive. This northern site driveway will be a "right-turn" entrance only driveway.
- At the Parker Street (Route 27) / Great Road (Route 117) intersection, the following transportation infrastructure improvements are recommended:
    - Minor geometric improvements are proposed, including extending the existing left-turn lanes on the Parker Street (Route 27) northbound and Great Road (Route 117) westbound approaches.
    - The existing pedestrian signal equipment is proposed to be replaced with pedestrian signal heads that provide a countdown indication during the "Flashing Don't Walk" period.
    - Vehicle detection is recommended to be installed on all approaches to the intersection. This will substantially reduce vehicle delays and 95th percentile queue lengths as compared to the existing operation.
    - Green and yellow arrow indications are recommended to be installed for the northbound and eastbound protected left turn phases.
    - Optimized traffic signal timings are proposed, including pedestrian signal timings that are consistent with the current MUTCD.
- Vehicle detection is recommended to be installed at the intersection of Route 27 (Parker Street) / Powder Mill Road (Route 62) with Waltham Street and to optimize the traffic signal timings to mitigate the impacts of the site-generated trips.
- It is recommended to reconstruct the following intersections to form more conventional perpendicular T-intersections:
    - Parker Street (Route 27) at Old Marlboro Road,
    - Old Marlboro Road at B Street and Marlboro Street, and
    - Old Marlboro Road at Great Road (Route 117)

  It is anticipated that these geometric improvements will better define the travel way, reduce conflicts, improve safety, act as traffic calming measures in the nearby residential neighborhood, and discourage cut-through traffic between Great Road and Parker Street.
- Traffic monitoring is proposed at the signalized intersection of Parker Street (Route 27) with the Primary Site Drive. The traffic monitoring will be conducted every 6 months for a period of 2

years following the initial occupancy. The goal of the traffic monitoring is to evaluate the traffic operations of the new traffic signal, and will provide an opportunity to make signal timing and/or phasing adjustments as needed.

- Traffic monitoring could be considered at the intersection of Haynes Street/Brown Street (Route 27) / Concord Street. This intersection is farther from the project site (on the opposite end of Town), and any direct impacts to traffic operations at this location are more difficult to predict. Traffic monitoring could allow a direct comparison of traffic volumes and operations before and after the project site is occupied.

In addition to the recommended mitigation discussed above, it is noted that the project proponent has committed to making significant financial contributions to the Town of Maynard. As outlined in the Memorandum of Agreement (MOA) between the Town of Maynard and the project proponent, dated September 6, 2016, the project proponent will be making a $1,000,000 financial contribution to offset the "anticipated direct and indirect impacts of the project". Furthermore, the project proponent has committed to making a $260,000 contribution to a Traffic Improvement Fund controlled by the Town of Maynard. The Traffic Improvement Fund contribution is in addition to the $1,000,000 financial contribution, and is for the express purpose of mitigating transportation impacts related to the proposed development project.

In summary, with the mitigation outlined above in place, the surrounding roadway network will be able to safely and efficiently accommodate the anticipated traffic.

2.0 EXISTING CONDITIONS

The following sections describe the existing transportation system in terms of physical and operational characteristics. The selection of the study area took into account the location and type of project and focused on the evaluation of the roadways and intersections in the vicinity of the site that will potentially be impacted by the proposed mixed-use development project.

2.1 Existing Roadway Network

The study focused on the roadway network in the vicinity of the proposed project with an emphasis on the following 11 intersections:

- Great Road (Route 117) at Parker Street (Route 27)
- Great Road (Route 117) at Main Street (Route 62)
- Great Road (Route 117) at Sudbury Street
- Great Road (Route 117) at Thompson Street
- Parker Street (Route 27) at Waltham Street/Powder Mill Road (Route 62)
- Parker Street (Route 27) at Walnut Street
- Parker Street (Route 27) at Field Street / North Street
- Parker Street (Route 27) at South Street
- Parker Street (Route 27) at Old Marlboro Road (northern intersection)
- Parker Street (Route 27) at Vose Hill Road
- Concord Street at Haynes Street at Brown Street (Route 27)

As part of this study, a field reconnaissance was conducted to verify the current physical and operational features in the study area. A description of the study roadways and intersections follows:

2.1.1 Great Road (Route 117)

Great Road (Route 117) consists of one travel lane in each direction in the vicinity of the proposed development site. It provides connections between Maynard and Stow, Bolton, and I-495 to the west and Sudbury, Concord, and I-95/Route 128 to the east. The roadway is under local jurisdiction in the vicinity of the project site. A double yellow center line separates the eastbound and westbound lanes of the road. A 2-foot shoulder is marked on each side of the road. Sidewalks exist along both sides of Great Road (Route 117) in the study area. Posted speed limits on Great Road (Route 117) in the project area were noted as 35 miles per hour (mph). All of the Town's public schools are located off of Great Road including the high school. During school drop-off and pick-up hours, a school zone speed limit of 20 mph is in place for approximately 2,400 feet in both directions starting in the west at a location 250 feet east of the intersection at Sudbury Street.

2.1.2 Parker Street (Route 27)

Parker Street (Route 27) is a two-lane, two-way road in the project area. It provides connections to Sudbury to the south and, via continuations of Route 27 such as Acton Street, to Acton and Route 2 to the north. In the vicinity of the project site, a double yellow center line separates the northbound and southbound travel lanes, and there are approximately one-foot shoulders marked on either side of the road. The posted speed limit along Parker Street (Route 27) is 35 mph south of Great Road (Route 117) and 30 mph north of Great Road (Route 117) with 20 mph posted speed limits on the immediate northbound and southbound approaches to the intersection with Great Road (Route 117). An asphalt sidewalk runs along the west side of Parker Street (Route 27) in the vicinity of the project site.

2.1.3 Great Road (Route 117) at Parker Street (Route 27)

This signalized intersection is formed by Parker Street (Route 27) crossing Great Road (Route 117). The intersection angle is at a skew. Great Road (Route 117) runs east-west while Parker Street (Route 27) runs in a north-south direction. Each approach has exclusive left-turn lanes, 12-foot wide through lanes, and channelized right-turn lanes.

Great Road (Route 117) at Parker Street (Route 27), looking west

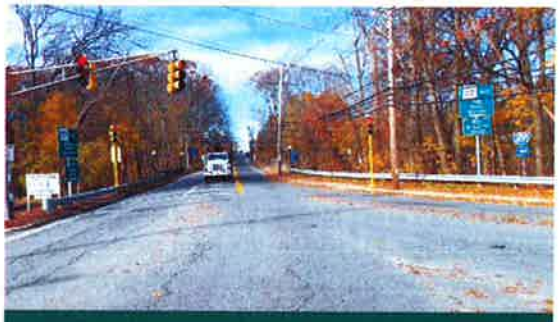
The right-turn lane of the Great Road (Route 117) eastbound approach has a right turn signal and one of the signal heads is optically programmed to reduce confusion with signal indications for through traffic. Great Road (Route 117) eastbound has an 80-foot-long left-turn lane approximately 10 feet wide and an 11-foot-wide right-turn lane. Great Road (Route 117) westbound has a right-turn lane approximately 12 feet wide and a left-turn lane approximately 11 feet wide and 90 feet long.

Parker Street (Route 27) northbound has an approximately nine-foot wide, 70-foot-long left-turn lane and a 13-foot-wide right-turn lane. Parker Street (Route 27) southbound has an approximately 16-foot wide right-turn lane and a 10-foot wide left-turn lane. Cement concrete sidewalks with granite vertical curbing are provided throughout the intersection except on the east side of the south leg and the south side of the east leg. Wheelchair ramps are provided but there are no detectable warning panels. Pedestrians cross at the

northern and western legs; each leg being serviced by a separate pushbutton-activated pedestrian crossing phase. However, the pedestrian signals do not provide accessible or countdown features. Pedestrian clearance intervals are not consistent with MUTCD guidelines for the 58-foot crossing of the west leg of Great Road (Route 117). Parker Street (Route 27) has a posted speed limit of 20 mph for both northbound and southbound approaches. The intersection is bordered by the Boys & Girls Club of Assabet Valley building in the northwest corner, the high school track in the southwest corner, houses in the southeast corner, and the Glenwood Cemetery and wooded area in the northeast corner. There is no functioning vehicle detection at the intersection, resulting in operational inefficiencies. It is also noted that the Parker Street (Route 27) northbound and Great Road (Route 117) eastbound approaches have leading protected left turn phases that are not indicated by arrows. This can result in driver confusion and potential safety concerns.

2.1.4 Great Road (Route 117) at Main Street (Route 62)

This signalized intersection is located approximately 5,800 feet to the west of the Great Road (Route 117) at Parker Street (Route 27) intersection. Great Road (Route 117) forms the east and west legs while Main Street (Route 62), intersecting and ending at Great Road at a skew, provides the north leg. In addition, a driveway serving a parking lot for a dentist's office and several other small offices at the southern end of the intersection are controlled by the traffic signal. This south leg operates as one-way northbound as indicated by a DO NOT ENTER sign. Right turns on red are not permitted from the Driveway northbound approach, nor from the Main Street (Route 62) southbound approach to the intersection.



Great Road (Route 117) at Main Street, looking west

Main Street (Route 62), like Great Road (Route 117), is a two-lane two-way road with directions separated by a double yellow center line. On the eastbound approach, Great Road (Route 117) has a through and a left-turn lane marked with left-turn arrows and "ONLY" pavement markings as well as overhead advanced lane use signs. In the westbound direction, Great Road (Route 117) has a through lane and a channelized right-turn lane, while the Main Street (Route 62) approach has an exclusive right-turn lane and an exclusive left-turn lane with left arrows and "ONLY" pavement markings. Travel lane widths are generally 10-11 feet on the eastbound Great Road (Route 117) and southbound Main Street (Route 62) approaches. The eastbound and southbound left-turn movements are serviced with protected only left-turn signals. Pedestrians cross from the northwest, northeast, and southeast corners to a center island. The crossings to the northwest and southeast corners operate on the same pedestrian pushbutton-activated phase. The crosswalk lengths of the two legs from the center island to the northwest corner and the southeast corner are approximately 39 feet and 35 feet in length, respectively. Speed limits are 35 mph along both Great Road (Route 117) and Main Street (Route 62). In the northeast quadrant of the intersection is a gas station, and in the northwest quadrant of the intersection, there are wooded areas and houses.

2.1.5 Great Road (Route 117) at Sudbury Street

Sudbury Street at Great Road (Route 117), looking south

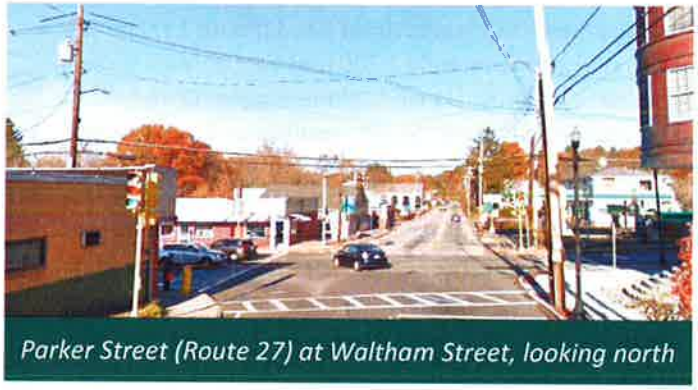
Sudbury Street intersects Great Road (Route 117) on the north side approximately 2,700 feet east of Main Street, forming a slightly skewed, three-legged unsignalized intersection. Sudbury Street southbound, the minor approach, operates under STOP control whereas Great Road (Route 117) eastbound and westbound traffic flows freely at this intersection. Visibility of the STOP sign on Sudbury Street southbound is partially obstructed by overhanging tree branches. All three approaches have a single striped lane from which through movements and/or turns are made, but the southbound Sudbury Street approach has a stop bar that changes angle in the middle of the lane and is sufficiently wide to accommodate side-by-side left-turning and right-turning vehicles. Crosswalks traverse Sudbury Street and the west leg of Great Road (Route 117). Both of the single-lane Great Road (Route 117) approaches are approximately 12 feet wide, whereas the Sudbury Street approach widens at the mouth of the intersection with an approximately 14-foot wide STOP bar for left-turning traffic and an approximately 22-foot wide STOP bar for right-turning vehicles. This intersection is abutted by houses along Sudbury Street and the westbound side of Great Road (Route 117), and due south of the intersection is a baseball field (Crowe Park, adjacent to Green Meadow Elementary School).

2.1.6 Great Road (Route 117) at Thompson Street

Great Road (Route 117) at Thompson Street, looking west

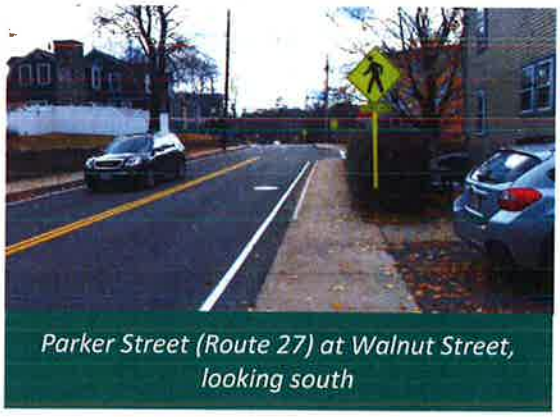
The intersection of Great Road (Route 117) at Thompson Street is a STOP-controlled intersection located approximately 750 feet east of the intersection of Great Road (Route 27) with Sudbury Street. Thompson Street forms the north leg and is STOP-controlled, while Great Road (Route 117) provides the east and west legs and operates freely. The posted speed limit on Thompson Street is 25 mph. A marked crosswalk with wheelchair ramps and detectable warning panels is provided across the north leg. Cement concrete sidewalks are present along both sides of Thompson Street in the immediate vicinity of the intersection. Asphalt sidewalks continue along both sides of Thompson Street. The travel lanes on Thompson Street are approximately 11 feet wide and are separated by a single yellow center line.

2.1.7 Parker Street (Route 27)/Powder Mill Road (Route 62) at Waltham Street


Parker Street (Route 27) at Waltham Street, looking north

At this four-legged signalized intersection, Parker Street (Route 27) forms the south leg, Powder Mill Road (Route 62) forms the north leg, and Waltham Street forms the east and west legs. Waltham Street westbound descends into the intersection at an approximately four percent slope and Parker Street (Route 27) descends down to the intersection at approximately five to six percent. Route 27 turns from Parker Street to the west leg of Waltham Street. All four approaches meet at approximately right angles. The Waltham Street (Route 27) eastbound approach provides a shared through/left-turn lane approximately 14 feet wide and a 12 foot exclusive right-turn lane. The Parker Street (Route 27) northbound approach has a single shared approach lane that is approximately 16 feet wide at the intersection. Protected left-turn phases are provided for northbound and eastbound traffic. The Waltham Street westbound approach provides a single shared 15-foot-wide lane. The Powder Mill Road (Route 62) southbound approach consists of a shared through/left-turn lane and an exclusive right-turn lane that are each approximately 11 feet wide. Both right-turn lanes have a right-turn arrow and "ONLY" pavement markings. The posted speed limit along the north leg of Powder Mill Road (Route 62) is 25 mph and the posted speed limit along the south leg of Parker Street (Route 27) is 30 mph. The east and west legs have no posted speed limit in the vicinity of the intersection. A pushbutton-activated exclusive pedestrian phase is provided. However, there are no countdown or accessible features. Curb ramps with detectable warning panels are provided on the southeast corner. Abutting land uses include a residential apartment building at the southeast corner of the intersection, a gas station at the northeast corner, small commercial businesses on the northwest corner, and a Tedeschi's convenience store and a Dunkin' Donuts occupying the southwest corner of the intersection. It is noted that the commercial building immediately adjacent to the intersection on the southwest corner has been vacant for some time.

2.1.8 Parker Street (Route 27) at Walnut Street


Parker Street (Route 27) at Walnut Street, looking south

Parker Street (Route 27) intersects Walnut Street, forming a three-legged 'T'-type unsignalized intersection approximately 1,100 feet south of the intersection with Waltham Street. Walnut Street is the minor approach, forming the west leg of the intersection and Parker Street (Route 27) runs along a north-south alignment. Parker Street (Route 27) traffic flows freely in both directions, while eastbound Walnut Street traffic is STOP controlled. Each of the approaches provides a single shared travel lane. Pavement markings on Walnut Street include a STOP bar and a crosswalk. A crosswalk also traverses Parker Street (Route 27) just north of McKinley Street. Parker Street (Route 27) has 11-foot wide lanes in this location while the Walnut Street eastbound approach is approximately 14 to 15 feet wide.

2.1.9 Parker Street (Route 27) at Field Street/North Street

Parker Street (Route 27) at Field Street/North Street, looking south

Field Street and North Street form an offset four way intersection with Parker Street (Route 27) just north of the project site. Field Street forms the west leg, North Street forms the east leg, and Parker Street (Route 27) follows a north-south alignment. Both Field Street and North Street are local residential streets, have no pavement markings, and are STOP controlled. Parker Street (Route 27) northbound and southbound traffic flows freely. Each approach consists of a single shared lane. North Street is also posted with a "DO NOT ENTER" sign with posted times of "3:30 PM – 5:30 PM." A crosswalk traverses Parker Street (Route 27) diagonally, connecting the northeast corner of Parker Street (Route 27) at North Street with the southwest corner of Parker Street (Route 27) at Field Street. Parker Street (Route 27) provides one shared approximately 11-foot wide lane at each of its approaches, while unstriped Field Street and North Street are each approximately 26 feet wide in total. Field Street serves 21 homes while North Street is one of the local streets serving the neighborhood east of the project site.

2.1.10 Parker Street (Route 27) at South Street

Parker Street (Route 27) at South Street, looking north

This unsignalized intersection has four legs with the existing secondary site drive at 129 Parker Street forming the fourth (west) leg. South Street, which forms the east leg of the intersection, is approximately 24 feet wide. Houses abut the northeast and southeast corners of the intersection. South Street eastbound is posted with a faded "Do Not Enter" sign accompanied by a smaller sign listing the times "3:30 PM – 5:30 PM." Neither the site drive nor South Street currently has pavement markings. A crosswalk traverses Parker Street (Route 27) just south of South Street. Parker Street (Route 27) provides one shared 11-foot wide travel lane in each direction. South Street is one of the local roadways serving the neighborhood east of the project site.

2.1.11 Parker Street (Route 27) at Old Marlborough Road (north)

Parker Street (Route 27) at Old Marlboro Road (north intersection), looking south

Old Marlboro Road consists of two separate sections, with the two portions being approximately 1,400 feet apart along Parker Street (Route 27). This analysis focuses on the northern intersection. The northern intersection of Parker Street (Route 27) at Old Marlboro Road is a three-legged intersection with Parker Street (Route 27) forming the north and south legs and Old Marlboro Road forming the east leg. There are no pavement markings on Old Marlboro Road at this intersection. Old Marlboro Road intersects Parker Street

(Route 27) at a skewed angle, although the roadway flares significantly at the intersection with Parker Street. The wide (70 feet) opening for Old Marlboro Road has a STOP-sign posted at each corner of the leg. This intersection is located within approximately 650 feet of the project site. Old Marlboro Road also intersects Great Road (Route 117) to the east. Old Marlborough Road serves a residential neighborhood.

2.1.12 Parker Street (Route 27) at Vose Hill Road

Parker Street (Route 27) at Vose Hill Road, looking south

Vose Hill Road forms an unsignalized intersection with Parker Street (Route 27) approximately 1,000 feet south of the project site. Vose Hill Road forms the west leg of the intersection and is STOP-controlled, while Parker Street (Route 27) forms the north and south legs, with traffic flowing freely. Vose Hill Road descends downhill at an approximately five percent grade, while the intersection is approximately perpendicular to Parker Street (Route 27). Vose Hill Road has no pavement markings or signage, but the intersection has recently been reconstructed with new wheelchair ramps, curbing, and a southward extension of the existing sidewalk along the western side of Parker Street (Route 27). Vose Hill Road is approximately 40 feet wide at the mouth of the intersection.

2.1.13 Haynes Street/Brown Street (Route 27) at Concord Street

Route 27 approaching Concord Street, looking south

Westbound approach of Concord Street at Route 27, looking south

Haynes Street/Brown Street (Route 27) intersects Concord Street at an unsignalized intersection. The Concord Street eastbound and westbound approaches are STOP-controlled, while the Route 27 northbound and southbound approaches flow freely. The intersection has significant skew, making operations awkward. During peak periods, significant queueing was observed on both Concord Street approaches. There are automotive service shops on the northwest and northeast corners. Horizontal curvature is present on the north and south legs of Route 27. However, it is noted that intersection sight distances looking in both directions from both Concord Street approaches exceed minimum and desirable distances for vehicles traveling 25-30 mph (the posted speed limit is 25 mph). Although the available sight distance is sufficient, it is an awkward intersection due to the skew; drivers need to look over their shoulders to see oncoming traffic. Marked crosswalks are provided across the south, east, and west legs of the intersection, with a sidewalk present along the east side of Route 27. The Assabet River Rail Trail (ARRT) will cross the west leg of Concord Street immediately adjacent to this intersection. The ARRT is currently under construction and is anticipated to be completed during Summer 2017.

2.2 Traffic Volumes

As part of this study, new traffic volume data were collected to form the basis of the traffic analysis. The new data were collected on Thursday, November 17, 2016 through Saturday, November 19, 2016 and included weekday peak period (7:00-9:00 AM and 4:00-6:00 PM) manual turning movement counts (TMC) and Saturday mid-day (11:00 AM – 2:00 PM) counts at each of the 11 study intersections previously described. The count program also included two (2) 72 hour Automatic Traffic Recorder (ATR) vehicle counts. One of the ATR locations was on Parker Street (Route 27) between Old Marlboro Road and B Street and the other ATR was installed on Great Road (Route 117) approximately 300 feet west of Parker Street (Route 27). The complete TMC and ATR data are included in the Appendix.

The new ATR data collected on Parker Street (Route 27) were reviewed and compared to the previous ATR data also collected on Parker Street (Route 27) in the vicinity of the site for the 2013 TIAS in November 2012 and for the Preliminary Traffic Evaluation in October 2015. Table 2.1 summarizes the changes in the ATR data on Parker Street.

Table 2.1 –Summary of Trends in Parker Street (Route 27) ATR Data

	Weekday			Saturday	
	AM Peak Hour	PM Peak Hour	Daily	Mid-Day Peak Hour	Daily
November 2012	1,156 vph	1,265 vph	14,608 vpd	934 vph	11,815 vpd
October 2015	873 vph	971 vph	10,968 vpd	711 vph	8,169 vpd
November 2016	974 vph	1,001 vph	11,288 vpd	778 vph	8,537 vpd
2012-2015 Change	-283 vph	-294 vph	-3,640 vpd	-223 vph	-3,646 vpd
2012-2015 % Change	-24%	-23%	-25%	-24%	-31%
2015-2016 Change	+101 vph	+30 vph	+320 vpd	+67 vph	+368 vpd
2015-2016 % Change	+12%	+3%	+3%	+9%	+5%
2012-2016 Change	-182 vph	-264 vph	-3,320 vpd	-156 vph	-3,278 vpd
2012-2016 % Change	-16%	-21%	-23%	-17%	-28%

Notes:
vph = vehicles per hour
vpd = vehicles per day

As shown in Table 2.1, traffic volumes have increased somewhat over the past year during all of the time periods analyzed, but 2016 traffic volumes are still down significantly from 2012 levels.

Table 2.2 summarizes the ATR data collected on Parker Street. The average weekday traffic on Parker Street (Route 27) is 11,288 vehicles per day (vpd), with 8.6% occurring during the morning peak hour and 8.9% occurring during the afternoon peak hour. The Saturday traffic on Parker Street (Route 27) was measured to be 8,537 vehicles per day (vpd), with 9.1% occurring during the mid-day peak hour. The directional distribution of traffic on Parker Street (Route 27) is approximately 40% NB / 60% SB during the weekday morning peak hour, 54% NB / 46% SB during the weekday afternoon peak hour, and 49% NB / 51% SB during the Saturday mid-day peak hour.

Table 2.2 –Summary of Parker Street (Route 27) Traffic Volumes

	AM Peak Hour	PM Peak Hour	Weekday Average	Saturday Mid-day Peak Hour	Saturday
Time Period	7:15-8:15	4:15-5:15	Daily	11:15-12:15	Daily
Traffic Volume[1]	974 vph	1,001 vph	11,288 vpd	778 vph	8,537 vpd
K-Factor[2]	8.6%	8.9%	-	9.1%	-
Directional Distribution	59.7% SB	54.4% NB	50.9% SB	50.9% SB	50.4% SB
Average Speed	34 mph NB / 32 mph SB				
85th %-ile Speed	37 mph NB / 36 mph SB				

[1] vpd = volume per day, vph = volume per hour, volumes are rounded, based on ATR data (November 17-19, 2016)
[2] percent of daily traffic that occurs during the peak hour

Table 2.3 summarizes the ATR data collected on Great Road (Route 117). The average weekday traffic on Great Road (Route 117) is 10,689 vehicles per day (vpd), with 10.6% occurring during the morning peak hour and 9.6% occurring during the afternoon peak hour. The Saturday traffic on Great Road (Route 117) was measured to be 6,529 vehicles per day (vpd), with 8.5% occurring during the mid-day peak hour. The directional distribution of traffic on Great Road (Route 117) is approximately 56% EB / 44% WB during the weekday morning peak hour, 28% EB / 72% WB during the weekday afternoon peak hour, and 49% EB / 51% WB during the Saturday mid-day peak hour.

Table 2.3 –Summary of Great Road (Route 117) Traffic Volumes

	AM Peak Hour	PM Peak Hour	Weekday Average	Saturday Mid-day Peak Hour	Saturday
Time Period	7:15-8:15	5:00-6:00	Daily	12:15-13:15	Daily
Traffic Volume[1]	1,130 vph	1,023 vph	10,689 vpd	555 vph	6,529 vpd
K-Factor[2]	10.6%	9.6%	-	8.5%	-
Directional Distribution	55.6% EB	71.5% WB	54.2% WB	51.2% WB	51.6% WB
Average Speed	28 mph EB / 28 mph WB				
85th %-ile Speed	33 mph EB / 32 mph WB				

[1] vpd = volume per day, vph = volume per hour, volumes are rounded, based on ATR data (November 17-19, 2016)
[2] percent of daily traffic that occurs during the peak hour

To develop the estimated average or typical volume conditions for analysis purposes, permanent traffic count station data maintained by the Massachusetts Department of Transportation (MassDOT) were reviewed. This review determined the seasonal variation of traffic flow on roadways in the general region and serves as the basis of any appropriate seasonal adjustments. The count stations used to observe seasonal data were Station 4172 located on Route 2 in Acton, Station 403 located on Route 2 in Concord, Station 4950 located east of Station 403 on Route 2 in Concord, Station 5 located on Route 12 in Sterling, Station 4114 located on the Lowell Connector in Chelmsford, Station 3295 located on I-190 in Sterling, Station 3293 located on I-190 in West Boylston, and Station 307 located on Route 9 in Westborough. The permanent count station data indicated that the average daily traffic volumes in November tended to be approximately 1% below annual average daily traffic volume levels. Traffic volumes recorded in the turning movement count data were therefore adjusted upward by 1% to better reflect average seasonal conditions. Figures 2 through 4 show the seasonally adjusted 2016 weekday morning peak hour, weekday afternoon peak hour, and Saturday mid-day peak hour traffic volumes respectively at each study intersection.

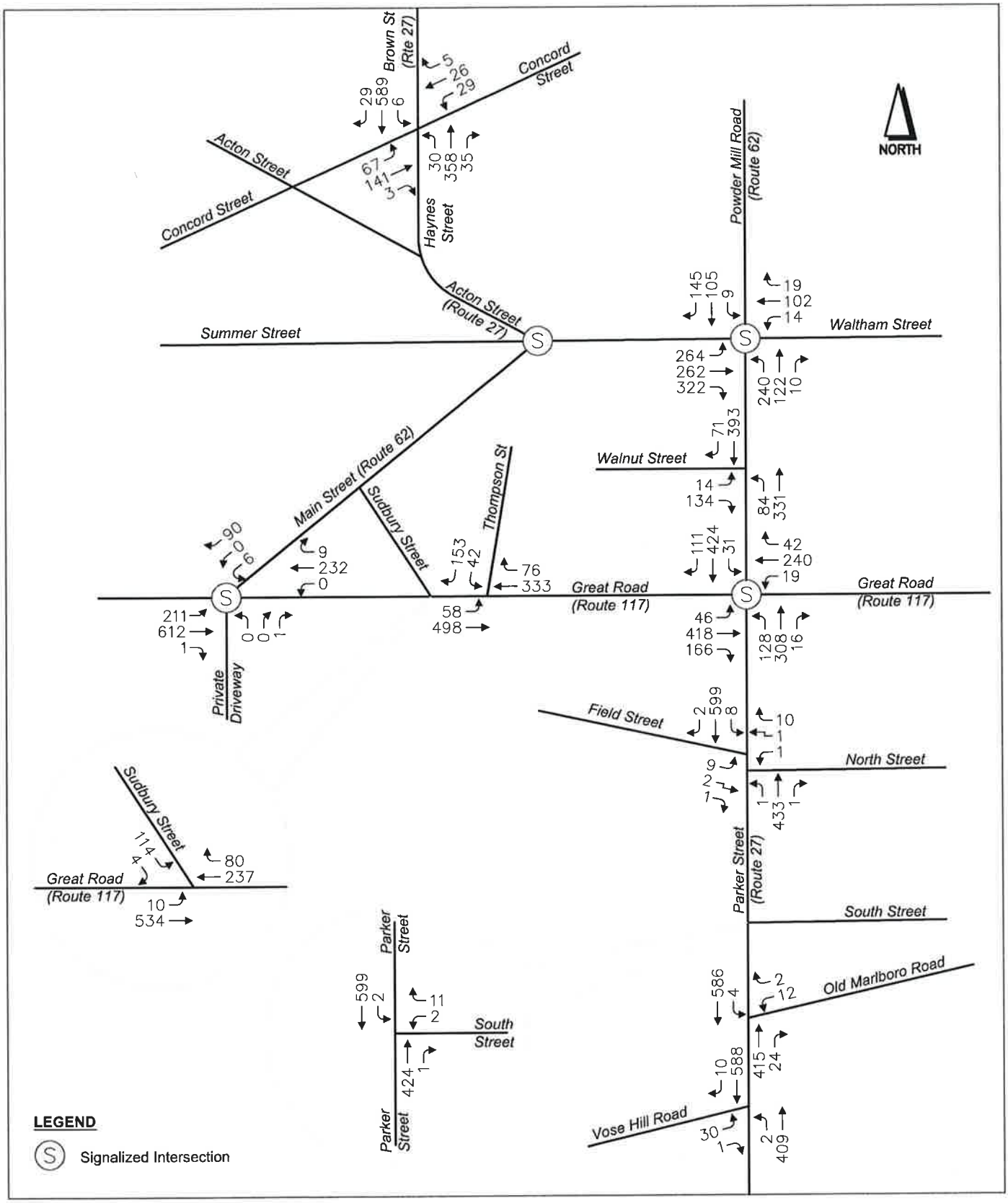


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Figure 2
2016 Existing Traffic Volumes
Weekday AM Peak Hour
129 Parker Street
Maynard, MA

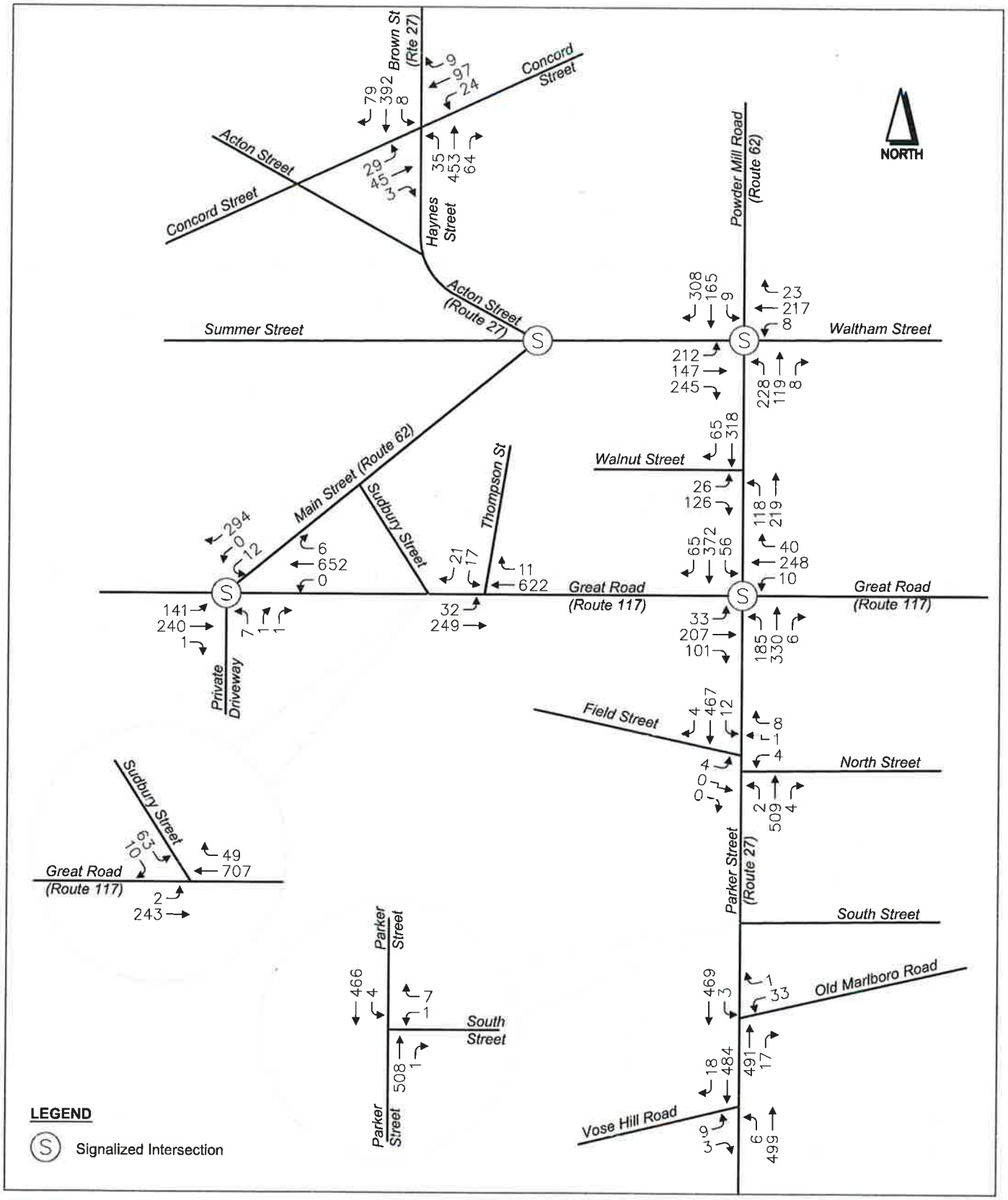

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Figure 3
2016 Existing Traffic Volumes
Weekday PM Peak Hour
129 Parker Street
Maynard, MA

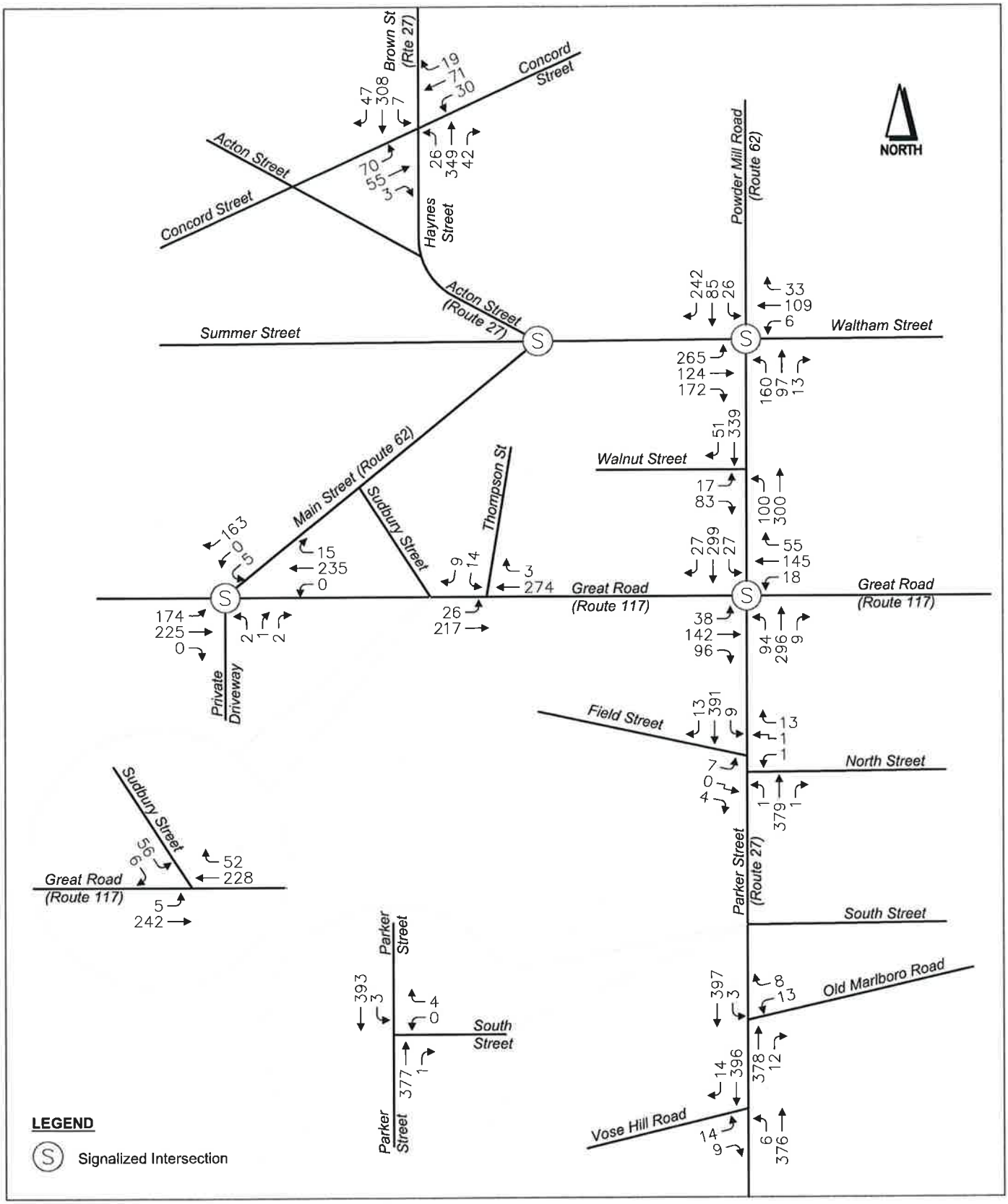

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Figure 4
2016 Existing Traffic Volumes
Saturday Midday Peak Hour
129 Parker Street
Maynard, MA

2.3 Crash Experience

The crash history of all the study intersections was obtained from the MassDOT Crash Record System (CRS) for the most recent five-year period available (2010-2014) as part of this study. The year 2014 was added to the analysis as this crash data has now become available from MassDOT and the year 2010 was added to fill out the five-year analysis requested as part of the peer review.

In addition to summarizing the data and identifying the crash characteristics, the average number of crashes reported annually and the reported crash rate were computed. The crash rate at each study intersection is measured in crashes per million entering vehicles (MEV). The standard MassDOT Crash Rate Worksheet was used to determine the crash rate at each location. The calculation of the crash rate relates the number of accidents at a location to the amount of traffic that passes through the location. It is a more comprehensive measure for identifying potentially hazardous locations compared to simple averages as it takes into account volume, although crash rates can skew higher due to low volumes. The calculated rate is compared to the MassDOT District-wide averages. Intersections experiencing crash rates greater than the averages are potentially experiencing an unusually high number or higher than expected number of crashes relative to traffic volumes at that particular location and may warrant further investigation or improvements. MassDOT District 3, which includes the Town of Maynard, has an average crash rate of 0.90 crashes per MEV for signalized intersections and 0.65 crashes per MEV for unsignalized intersections. The crash rate worksheets are included in the attached Appendix.

It is noted that there were zero reported crashes at the following study intersection during the five-year period that was examined:

- Parker Street at South Street

Table 2.4 shows that the crash rate at each study intersection as well as the intersection of the Site Drive with Parker Street (Route 27) is below the MassDOT District 3 average crash rate for the corresponding type of intersection control with the exception of the intersection of Route 27 at Concord Street, whose crash rate is approximately 34 percent higher than the MassDOT District 3 average.

In addition to the crashes listed at the study intersections in Table 2.4, several other crashes occurred within the study area:

- Parker Street (Route 27) at B Street (2013, rear-end, unreported severity)
- 140 Parker Street (Route 27) (2010, rear-end, unreported severity)
- 141 Parker Street (Route 27) (2010, rear-end, property damage only, icy roadway condition)
- Parker Street (Route 27), unspecified location (2011, rear-end, injury)

Table 2.4 - Summary of Reported Crash Data (2010-2014)

	Great Road (Route 117) at Main Street (Route 62) – Signalized					*Great Road at Parker Street (Route 27) – Signalized*					*Parker Street / Powder Mill Road (Route 62) at Waltham Street – Signalized*				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Severity															
Property Damage	1	3	1	1	2	1	1	1	1	2	4	1	2	4	9
Injury			1			1									
Fatality															
Unknown		1		1							2		1	1	
Collision Type															
Rear End		2			1	1				1	3	1		2	3
Angle	1		1				1			1	1		1	2	3
Side Swipe		1			1			1			1		1		
Head On		1											1	1	
Single Vehicle				1		1			1		1				2
Collision with Ped															
Collision with Bike			1	1											
Other/Unknown															1
Time of Day															
6:01 AM – 10:00 AM		1									3			3	3
10:01 AM – 4:00 PM	1	1	1	1	1		1			1	1	1		1	3
4:01 PM – 7:00 PM		2	1		1	1				1	1				2
7:01 PM – 6:00 AM				1		1		1	1		1		3	1	1
Roadway Conditions															
Dry	1	3	2	2	1	1	1	1	1	1	5	1	3	3	5
Wet		1			1					1	1			1	4
Snow/Ice						1								1	
Other/Unknown															
Season															
Dec-Feb		2			1	1	1	1			3	1	2	3	3
Mar-May		1								1	2				2
June-Aug	1		2	2	1				1		1				3
Sept-Nov		1				1				1			1	2	1
Light Conditions															
Daylight	1	3	2	1	1	2	1			1	6	1		3	7
Dawn/Dusk														1	1
Dark (Unlit)										1					
Dark (Lit)		1		1	1			1	1				3	1	1
Unknown															
Totals	***1***	***4***	***2***	***2***	***2***	***2***	***1***	***1***	***1***	***2***	***6***	***1***	***3***	***5***	***9***
Annual Average Crashes	2.20					1.40					4.80				
Intersection Crash Rate	***0.43***					***0.21***					***0.69***				
MassDOT District 3 Average Crash Rate	0.90					0.90					0.90				

Table 2.4 - Summary of Reported Crash Data (2010-2014)

	Parker Street (Route 27) at Old Marlboro Road – Unsignalized					*Parker Street (Route 27) at Walnut Street – Unsignalized*					*Parker Street (Route 27) at Field Street/North Street – Unsignalized*				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Severity															
Property Damage					1	2		3	1	3					1
Injury	1				1										
Fatality															
Unknown			1						1						
Collision Type															
Rear End						1		2	1	2					1
Angle								1							
Side Swipe															
Head On						1									
Single Vehicle	1		1		2										
Collision with Ped															
Collision with Bike															
Other/Unknown									1	1					
Time of Day															
6:01 AM – 10:00 AM						1									1
10:01 AM – 4:00 PM	1		1					1		1					
4:01 PM – 7:00 PM					1	1		1	2						
7:01 PM – 6:00 AM					1			1		2					
Roadway Conditions															
Dry			1		1	1		3	2	1					1
Wet	1				1	1				2					
Snow/Ice															
Other/Unknown															
Season															
Dec-Feb						1		1							
Mar-May			1		1			1	1	1					
June-Aug	1					1				1					1
Sept-Nov					1			1	1	1					
Light Conditions															
Daylight	1		1			2		1	1	1					1
Dawn/Dusk															
Dark (Unlit)					1					1					
Dark (Lit)					1			2	1	1					
Unknown															
Totals	***1***	***0***	***1***	***0***	***2***	***2***	***0***	***3***	***2***	***3***	***0***	***0***	***0***	***0***	***1***
Annual Average Crashes	0.80					2.00					0.20				
Intersection Crash Rate	***0.19***					***0.56***					***0.05***				
MassDOT District 3 Average Crash Rate	0.65					0.65					0.65				

Table 2.4 - Summary of Reported Crash Data (2010-2014)

	Parker Street (Route 27) at Vose Hill Road – Unsignalized					*Great Road (Route 117) at Thompson Street – Unsignalized*					*Brown Street/Haynes Street (Route 27) at Concord Street – Unsignalized*				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Severity															
Property Damage					1	1	2	2	2	2	4	3	2	2	6
Injury												1			
Fatality															
Unknown											1	1	1	1	
Collision Type															
Rear End						1	1	2	1	1		1	1		3
Angle							1		1		2	4	1	2	3
Side Swipe											2			1	
Head On											1				
Single Vehicle					1								1		
Collision with Ped															
Collision with Bike															
Other/Unknown										1					
Time of Day															
6:01 AM – 10:00 AM					1		1	1	1	2	1			2	
10:01 AM – 4:00 PM											1	1		1	1
4:01 PM – 7:00 PM							1	1	1		2	3	2		2
7:01 PM – 6:00 AM						1					1	1	1		3
Roadway Conditions															
Dry						1	1	1	1	2	5	5	3	1	5
Wet							1	1	1					2	1
Snow/Ice															
Other/Unknown					1										
Season															
Dec-Feb						1			1	2			1		1
Mar-May							1	1			3	2		1	1
June-Aug								1	1			3		2	3
Sept-Nov					1		1				2		2		1
Light Conditions															
Daylight					1	1	2	2	2	2	4	4	3	3	4
Dawn/Dusk												1			1
Dark (Unlit)															
Dark (Lit)											1				1
Unknown															
Totals	*0*	*0*	*0*	*0*	*1*	*1*	*2*	*2*	*2*	*2*	*5*	*5*	*3*	*3*	*6*
Annual Average Crashes	0.20					1.80					4.40				
Intersection Crash Rate	*0.05*					*0.50*					*0.87*				
MassDOT District 3 Average Crash Rate	0.65					0.65					0.65				

Table 2.4 - Summary of Reported Crash Data (2010-2014), continued

	Parker Street (Route 27) at Site Drive (#129) – Unsignalized					*Great Road (Route 117) at Sudbury Street – Unsignalized*				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Severity										
Property Damage					1					
Injury						1				
Fatality										
Unknown										
Collision Type										
Rear End										
Angle										
Side Swipe										
Head On										
Single Vehicle					1	1				
Collision with Ped										
Collision with Bike										
Other/Unknown										
Time of Day										
6:01 AM – 10:00 AM										
10:01 AM – 4:00 PM										
4:01 PM – 7:00 PM					1	1				
7:01 PM – 6:00 AM										
Roadway Conditions										
Dry										
Wet					1					
Snow/Ice										
Other/Unknown						1				
Season										
Dec-Feb					1					
Mar-May						1				
June-Aug										
Sept-Nov										
Light Conditions										
Daylight						1				
Dawn/Dusk										
Dark (Unlit)										
Dark (Lit)					1					
Unknown										
Totals	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*
Annual Average Crashes	0.20					0.20				
Intersection Crash Rate	*0.05*					*0.05*				
MassDOT District 3 Average Crash Rate	0.65					0.65				

An analysis of the crash history at the study intersections revealed the following:

- At the intersection of Parker Street (Route 27), Waltham Street, and Powder Mill Road (Route 62), a total of 24 crashes occurred from 2010-2014. No injuries were reported for these crashes, though four crashes had unknown severities. Crash types were predominantly rear end (38%) and angle (29%). There were the most crashes in December through February (50%) of any season, though only one collision (4%) involved snow/ice and five (21%) occurred at night.
- At the intersection of Brown Street/Haynes Street (Route 27) at Concord Street, a total of 22 crashes occurred from 2010-2014. Of the 22, one (5%) injury was reported and four had unknown severities. The most predominant crash types were angle (45%) and rear end (23%). The crash rate at this intersection of 0.87 per MEV is above the District 3 average for unsignalized intersections.
- All of the other study intersections experienced less than 3 crashes per year from 2010-2014. No crashes occurred at the Parker Street/South Street intersection and this intersection was therefore omitted from Table 2.3.
- The one reported crash that was reported on Parker Street (Route 27) at the Site Driveway was a single-vehicle crash on wet pavement.

3.0 PROBABLE IMPACTS OF THE PROJECT

The potential impact of the proposed development project on the roadway network within the study area was evaluated and the results are described in this section. For this study, the year 2023 was selected for the future build out analysis. This allows for a 2 year permitting-construction start and a 5 year build out/full occupancy timeframe, and is consistent with current guidelines from MassDOT.

3.1 No-Build Traffic Volumes

The future year 2023 No-Build traffic volume networks were developed with the application of a background growth rate. Other site-specific planned development projects that could generate additional traffic flow within the study network were identified.

3.1.1 Background Growth Rate

In order to determine an appropriate annual background growth rate, traffic growth and historical count trends in regard to traffic volumes across the commonwealth have been reviewed. Based upon review of local count stations, an annual growth rate of one percent (1%) per year for seven years was used to forecast future traffic volumes. Several MassDOT count stations in the larger region surrounding Maynard were used in our analysis to gain an understanding of the regional growth rates. The one percent background rates would presumably account for some of the more remote growth in the region as well as potential nearby smaller residential and business growth that could result in added traffic through the study area. The MassDOT count station data are contained in the Appendix.

3.1.2 Background Transportation Improvement Projects

The Assabet River Rail Trail is a multi-use path that will ultimately connect the communities of Marlborough, Hudson, Stow, Maynard, and Acton. The current project will connect Maynard with Stow to the southwest and the South Acton Commuter Rail Station to the north. It will also link the Maynard business district with the Assabet River National Wildlife Refuge. This represents an extension of approximately 3.4 miles. The proposed route through Maynard Center will take the Trail within 1 mile of 129 Parker Street and is expected to generate significant bicycle traffic.

The Bruce Freeman Rail Trail, a multiuse, 10-foot-wide paved path which currently extends from Lowell to Westford through Chelmsford, is currently being extended by several MassDOT projects. Phase II-A spans approximately 4.88 miles from the existing Trail's southern terminus in Westford through Carlisle and ending in Acton at the intersection of Route 2A with Wetherbee Street. Phase II-B will extend the Bruce Freeman Rail Trail an additional 1.04 miles south into Concord, terminating at Commonwealth Avenue. This trailhead will be accessible by bicycle via Route 62 and is approximately 5 miles from the project site at 129 Parker Street in Maynard. Phase III will extend the Trail to Station Road in Sudbury.

The proposed Central Massachusetts Rail Trail would intersect with the Assabet River Rail Trail in Hudson, approximately 8.6 miles from the project site.

3.1.3 Site-Specific Developments

In addition to the general background growth rate, research on other specific development projects in the vicinity of 129 Parker Street was conducted. The Towns of Maynard, Sudbury, Acton, and Stow were contacted to inquire about new development projects likely to generate traffic in the study area. The following sections summarize the current projects.

Maynard

The owner of the Mill & Main facility, located at the mill complex formerly known as Clock Tower Place in Maynard, has changed since the previous 2013 TIAS, and the future plans and vision for the Mill & Main facility have changed over the past year. The Site Plan and Special Permit request for "Phase 1 and Phase 1A" for the redevelopment of the Mill & Main Building at 12 Suite 200, Clock Tower Place was approved by the Town of Maynard Planning Board in November of 2015. This phase includes the removal of two buildings on-site, construction of new on-site building entrances, exterior renovations to several on-site buildings, and parking lot improvements including an ornamental feature of the garage. This project is a reuse of existing buildings and no additional buildings are proposed at this time. Since the 2013 TIAS, several new tenants have moved to the Mill & Main property (including Stratus Technologies, relocated from Powder Mill Rd, and Battle Road Brewery).

The Mill & Main project is currently in discussions with the Town of Maynard Planning Board and would like to make revisions to some driveway openings and landscaping. At the time of this report, a formal Site Plan application has not been filed with the Planning Board. The changes being discussed would not change the overall land use at the Mill & Main site.

In addition to Mill & Main, there are several small residential projects in Maynard, including projects along Keene Avenue, Waltham Street, and at 129 Acton Street. The 129 Acton Street development project is substantially complete at the time of this report. Both the Keene Avenue and Waltham Street residential

projects are small in nature, and are not expected to generate significant levels of new traffic on the roadway network.

Sudbury

A 30-unit subdivision has been approved called The Village at Sudbury Station, located on the northeast corner of the intersection of Concord Road with Hudson Road and Old Sudbury Road. This is not expected to generate significant traffic on Route 27 past the 129 Parker Street development project. Other development projects in Sudbury include The Coolidge (56 residential units), the Raytheon townhouses (250 units plus 55 age-restricted units), and the Avalon Meadow Walk, which includes a Whole Foods supermarket and restaurants. These development projects are all located on Route 20 (Boston Post Road), which is far enough away to be unlikely to generate significant traffic within the study area for this project.

Acton

Based on a conversation with the Acton Planning Department, there are no currently planned development projects in Acton that would be expected to generate significant traffic within the study area for this project.

Stow

Based on a conversation with the Assistant Town Planner, improvements to Route 117 in Stow have been proposed, but a study has not yet been released. There is also a proposed 3-dwelling subdivision in the southwestern part of Stow, which is not expected to generate significant traffic to the study area and a 66-unit assisted living community at 203 Boxborough Road, which is far enough away not to have a significant impact on the study area.

3.1.4 No-Build Traffic Volumes

Consequently, the 2023 No-Build traffic volumes were estimated by applying a 1% annual background traffic growth rate for seven (7) years to the existing traffic volumes in the study area. The estimated year 2023 No-Build traffic volumes projected for the weekday morning, weekday afternoon, and Saturday midday peak hours are shown in Figures 5 through 7, respectively.

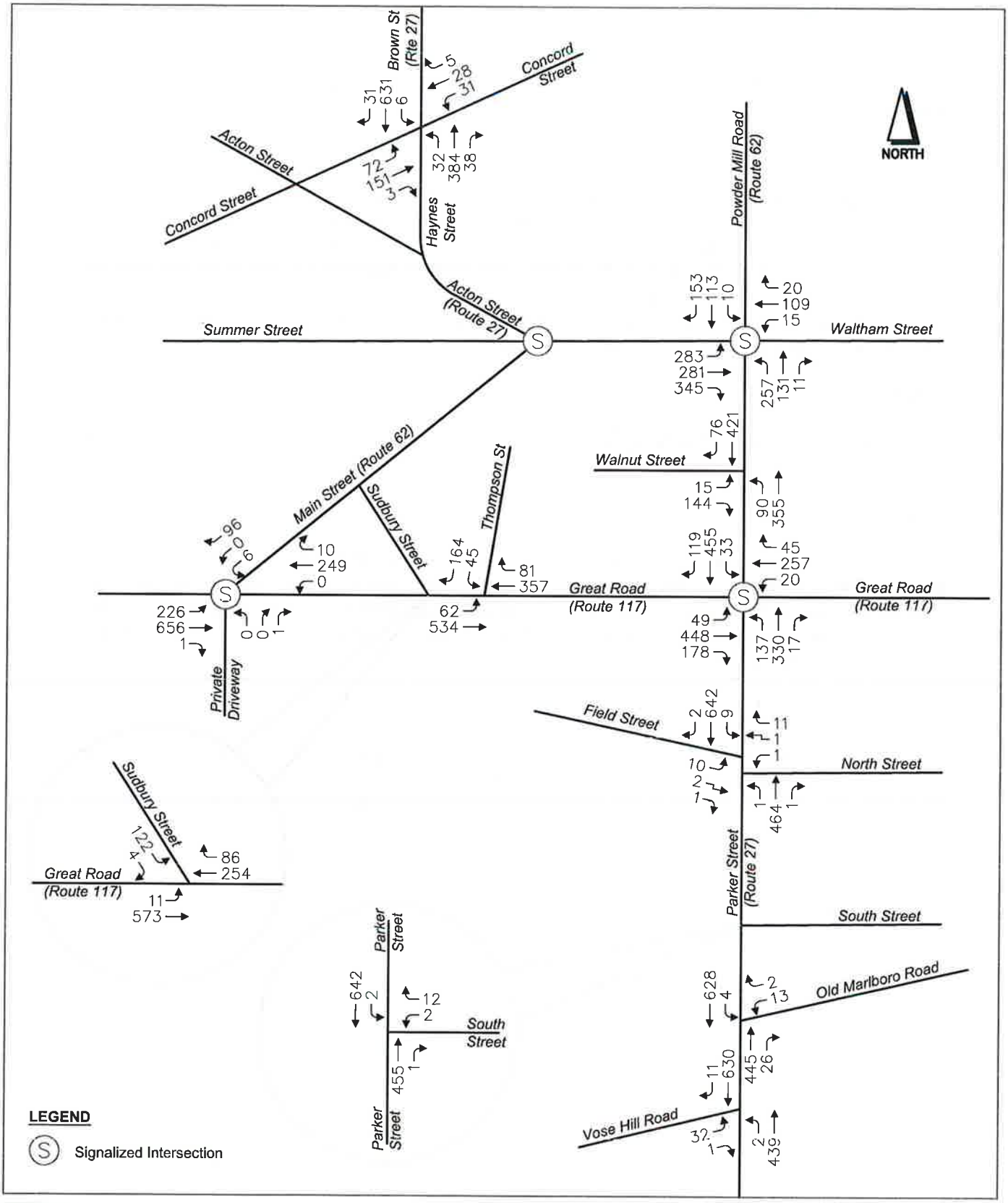

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Figure 5
2023 No Build Traffic Volumes
Weekday AM Peak Hour
129 Parker Street
Maynard, MA

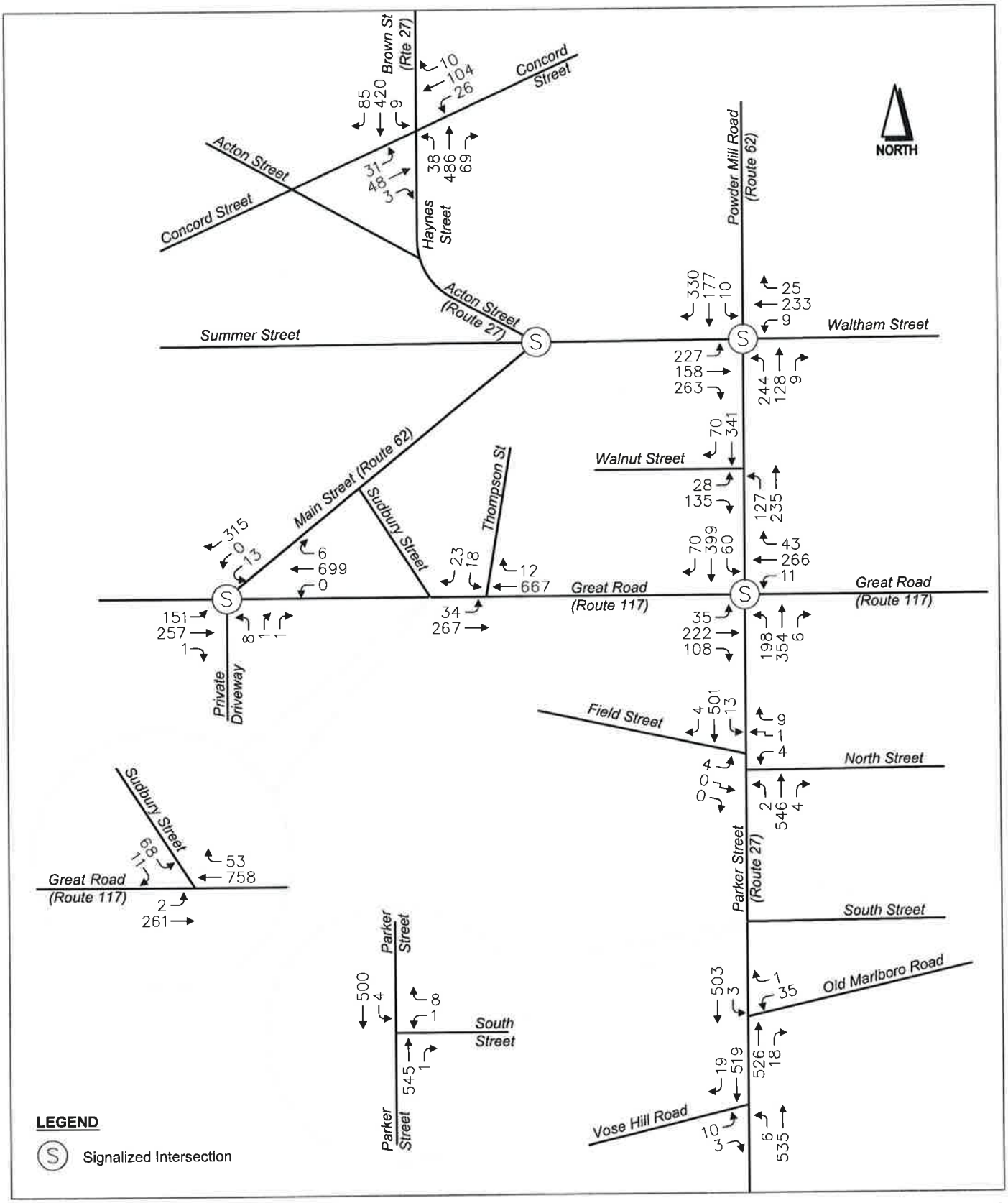

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Figure 6
2023 No Build Traffic Volumes
Weekday PM Peak Hour
129 Parker Street
Maynard, MA

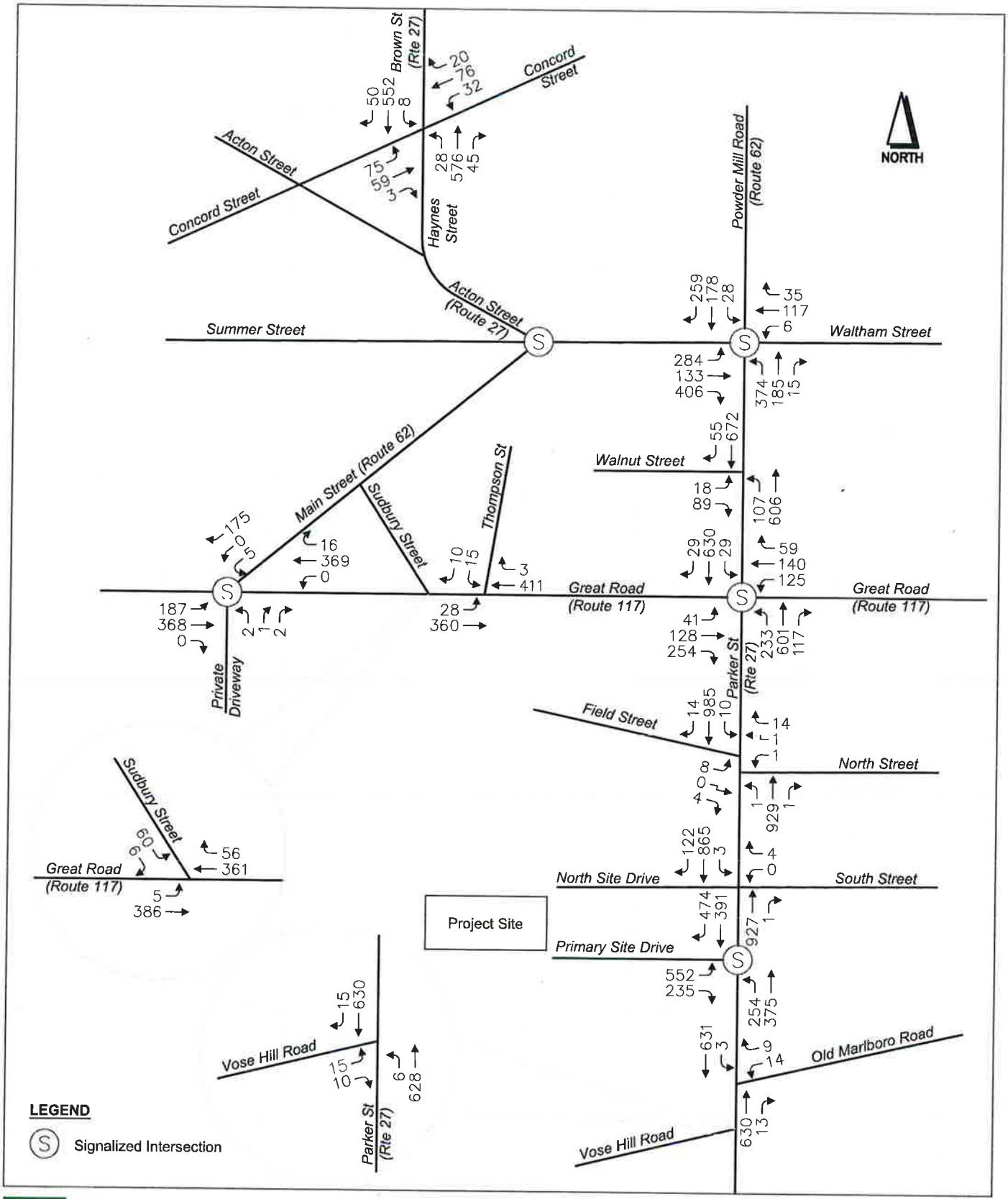

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Figure 20
2023 Build Traffic Volumes
Saturday Midday Peak Hour
129 Parker Street
Maynard, MA

3.2 Proposed Project Description/History

In 2013, Capital Group Properties (CGP) had proposed a redevelopment plan for the 129 Parker Street site. This plan varied from the previous master plan for the site that was endorsed by the Town of Maynard in 2006. The 2013 proposed plan for the mixed-use development, called the Shoppes at Maynard Crossing, was intended to include a total of 16 new buildings and one renovated building presently on-site with approximately 720,400 square feet of space. The existing 50,300 square foot commercial building was planned to be renovated and provided to the Town for their use. However, neither the 2006 or 2013 plans were ultimately advanced.

Since 2013, CGP has been working closely with the Town to develop an alternative plan that would be acceptable to both parties. The access for the new proposal is still from Parker Street (Route 27), which abuts the east side of the project site. Parker Street provides connections to the Town of Sudbury to the south and, via continuations of Route 27 such as Acton Street, to the Town of Acton and Route 2 to the north. The currently proposed plan being advanced is anticipated to include: 240,490 square feet (SF) of retail space including a 68,000 SF supermarket; 30,300 SF of commercial, office, or retail space; a 20,000 SF fitness center; 180 apartment units for multi-family rental; and 143 units of senior independent living housing. The existing commercial building is still planned to be retained, with 20,000 SF converted to a fitness center and 30,300 SF remaining as commercial, office, or retail space. In general, the new proposal, while remaining a mixed-use type development, is somewhat smaller in terms of overall size when compared to the 2013 plan. The currently proposed concept plan was approved at a Special Town Meeting on October 5, 2016.

3.3 Site Generated Traffic Volumes

In this section, an estimate of traffic to be generated by the proposed project was completed, assigned to roadways/intersections within the study area, and added to the No-Build traffic volume network to develop the Build traffic volume networks.

3.3.1 Site Trip Generation

In order to estimate the number of trips that could be generated by the proposed mixed use development project at 129 Parker Street, statistics published by the Institute of Transportation Engineers (ITE) in Trip Generation Manual[2] for similar land uses were examined. The ITE trip generation statistics represent compilations of data from studies/projects throughout the United States collected over the past 30+ years on trip generation characteristics for different types of land uses. The data has been compiled to provide transportation analysts with guidelines in forecasting daily and peak hour volumes for the specified use.

Based on a review of the ITE database, a combination of the five different proposed land uses have been selected as the most similar to the project type. These land uses correspond to Land Use Code (LUC) 220 for residential apartments; LUC 252 for a senior independent living facility; LUC 492 for the fitness club; LUC 710 for general office/commercial space; and LUC 820, which corresponds to the retail component. Calculations were first completed for each land use and the estimated vehicle trips (without adjustment) generated by the project. Adjustments related to internal capture, pass-by, and diverted traffic were then

[2] Institute of Transportation Engineers (ITE), Trip Generation Manual, Washington, D.C., 9th Edition, 2012.

applied consistent with current industry practices and MassDOT guidelines. Driveway volumes included new, pass-by, and diverted trips. Internal capture trips represent trips between different land uses on the site and do not reach the street network. Table 3.1 presents a summary of the estimated net new vehicle trips generated by the currently proposed project. Detailed trip generation calculations for each use and the internal capture worksheets are shown in the Appendix.

Table 3.1 – Trip Generation Summary

	Weekday							Saturday			
	AM Peak Hour			PM Peak Hour			Daily	Midday Peak Hour			Daily
Land Use	Enter	Exit	Total	Enter	Exit	Total		Enter	Exit	Total	
Shopping Center (240.49 KSF)											
Total trips	165	101	266	518	561	1,079	12,013	804	742	1,546	16,060
Internal Trips	4	4	8	28	47	75	582	18	34	52	526
Pass-by/Diverted Trips	44	44	88	150	150	300	3,124	95	95	190	2,202
Net New Trips	117	53	170	340	364	704	8,307	691	613	1,304	13,332
Fitness Club (20 KSF)											
Total trips	14	14	28	42	32	74	660	25	31	56	418
Internal Trips	0	0	0	2	3	5	31	1	1	2	14
Pass-by/Diverted Trips	5	5	10	10	10	20	172	3	3	6	58
Net New Trips	9	9	18	30	19	49	457	21	27	48	346
Commercial/Retail/Office (30.3 KSF)											
Total trips	65	9	74	19	93	112	530	7	6	13	76
Internal Trips	5	3	8	8	16	24	56	5	1	6	8
Net New Trips	60	6	66	11	77	88	474	2	5	7	68
Apartments (180 units)											
Total trips	18	74	92	76	41	117	1,156	46	46	92	1,126
Internal Trips	1	1	2	37	13	50	414	22	15	37	402
Net New Trips	17	73	90	39	28	67	742	24	31	55	724
Independent Living (143 units)											
Total trips	10	18	28	19	17	36	432	25	19	44	372
Internal Trips	0	1	1	9	5	14	154	11	6	17	132
Net New Trips	10	17	27	10	12	22	278	14	13	27	240
Total Net New Trips	213	158	371	430	500	930	10,258	752	689	1,441	14,710

As indicated in the table above, the new building program is expected to result in a weekday total of 10,258 net new vehicle trips over the course of a typical weekday with 5,129 entering trips and 5,129 exiting trips made in that time. During the weekday morning peak hour, it is estimated that 371 net new vehicle trips will be generated with 213 entering trips and 158 exiting trips. It is estimated that 930 net new vehicle trips will be generated during the weekday afternoon peak hour including 430 entering trips and 500 exiting trips. Saturday traffic estimates are somewhat higher than the weekday forecasts given the retail and supermarket uses. However, it is noted that the Parker Street (Route 27) volumes are substantially lower on Saturday as compared to a typical weekday.

Under the current development plan, 20,000 SF of the existing 50,300 SF commercial building located on the site is proposed to be converted to a fitness center, with the remaining 30,300 SF retained as

commercial, office, or retail space. However, the exact disposition of the existing commercial building has not yet been finalized. Another alternative is to eliminate the fitness center and commercial space from the redevelopment and convert the entire 50,300 SF to retail space. These redevelopment alternatives are estimated to decrease the number of site-generated vehicle trips by as much as 54 vehicle trips during the weekday morning peak hour, but increase the number of site-generated vehicle trips by as much as 42 vehicle trips during the weekday afternoon peak hour, and increase the estimated site-generated vehicle-trips by 184 vehicles during a typical weekday. The Saturday site-generated vehicle trips are expected to increase under both alternatives for this building, with the mid-day peak hour and daily site-generated vehicle trips increasing by as much as 146 and 1,561 vehicle trips, respectively.

In all scenarios, the expected trip generation characteristics of the current concept plan are expected to be lower than that of the previously proposed plan analyzed in the 2013 TIAS, and also lower than the previously proposed 2006 redevelopment plan. Table 3.2 provides a comparison of the current and previous trip generation estimates.

Table 3.2 – Trip Generation Comparison – Net External Trips

Proposal Plan	Weekday AM Peak Hour	Weekday PM Peak Hour	Weekday Daily	Saturday Midday Peak Hour	Saturday Daily
October 2006 Study	749	1,366	13,904	1,258	17,522
February 2013 Study	508	1,540	16,649	2,054	20,918
Current 2016 Plan	469	1,250	13,554	1,637	16,970
Change relative to 2006	-37.4%	-8.5%	-2.5%	30.1%	-3.2%
Change relative to 2013	-7.7%	-18.8%	-18.6%	-20.3%	-18.9%

Note: includes pass-by & diverted trips

Compared to the 2013 redevelopment proposal, the current trip generations are approximately 8% and 19% lower during the weekday morning and the weekday afternoon peak hours, respectively. Under the current plan, the net new weekday daily traffic is expected to be approximately 19% lower as compared with the 2013 redevelopment proposal. The current projections for net new trips are approximately 20% lower during the Saturday mid-day peak hour and approximately 19% lower in total on Saturdays.

3.3.2 Site Trip Distribution/Assignment

The trip distribution pattern that vehicles use to travel to and from the site is the same as the pattern developed in the 2013 TIAS and is displayed in Figures 8 through 10 for the residential, retail, and commercial land uses, respectively. The pass-by and diverted trip distribution is shown in Figure 11. The new trips generated by the development project during the weekday morning, weekday afternoon, and Saturday mid-day peak hours are shown in Figures 12 through 14, respectively. The project-generated pass-by and diverted trips during the weekday morning, weekday afternoon, and Saturday mid-day peak hours are shown in Figures 15 through 17, respectively.

3.3.3 Build Traffic Volumes

The peak hour site-generated traffic volumes were added to the future No-Build traffic volumes in order to establish the 2023 Build condition traffic volume networks. Figures 18 through 20 present the Build traffic volumes for the weekday morning, weekday afternoon, and Saturday mid-day peak hours, respectively.

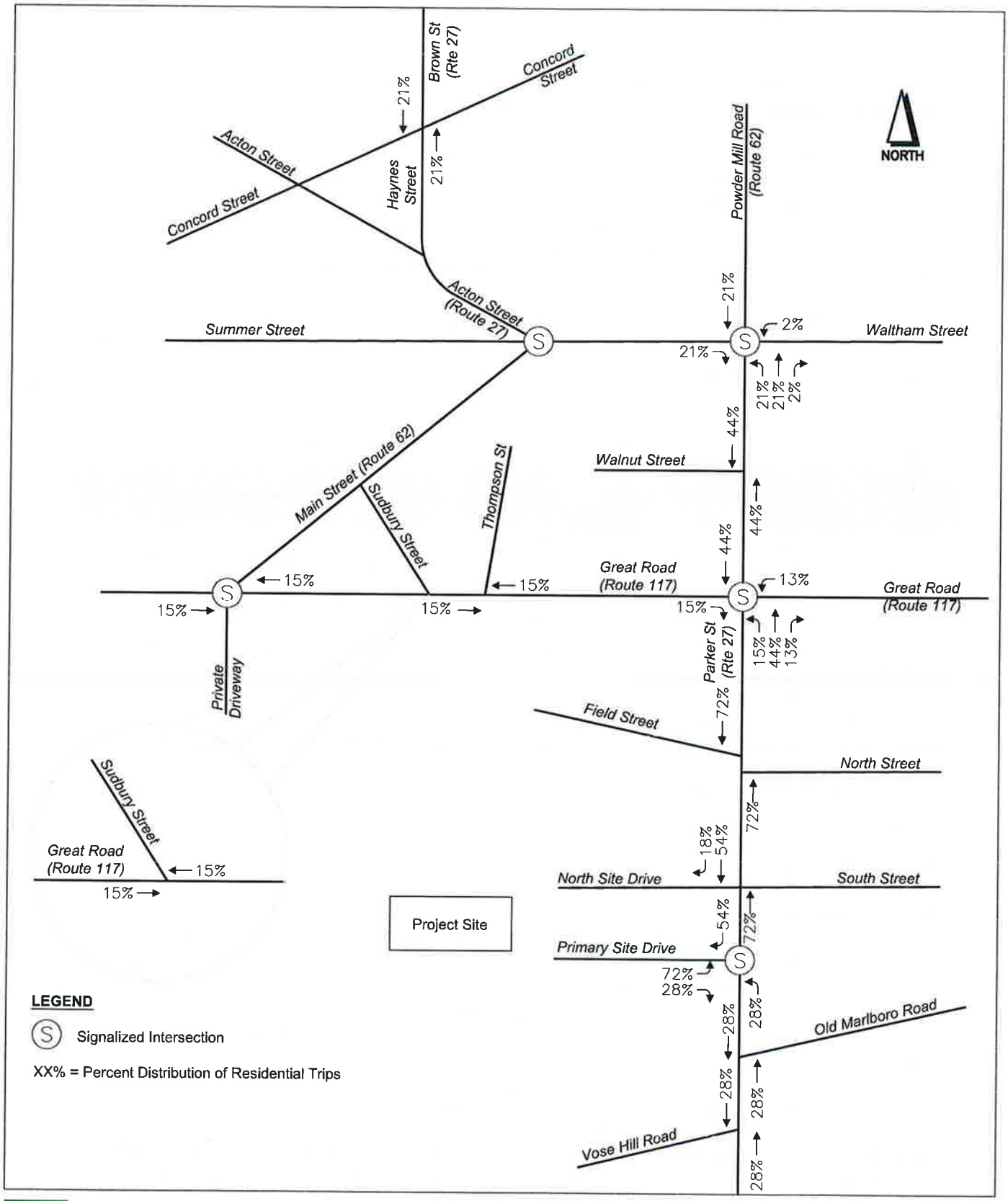

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Figure 8
Estimated Residential Trip Distribution
129 Parker Street
Maynard, MA

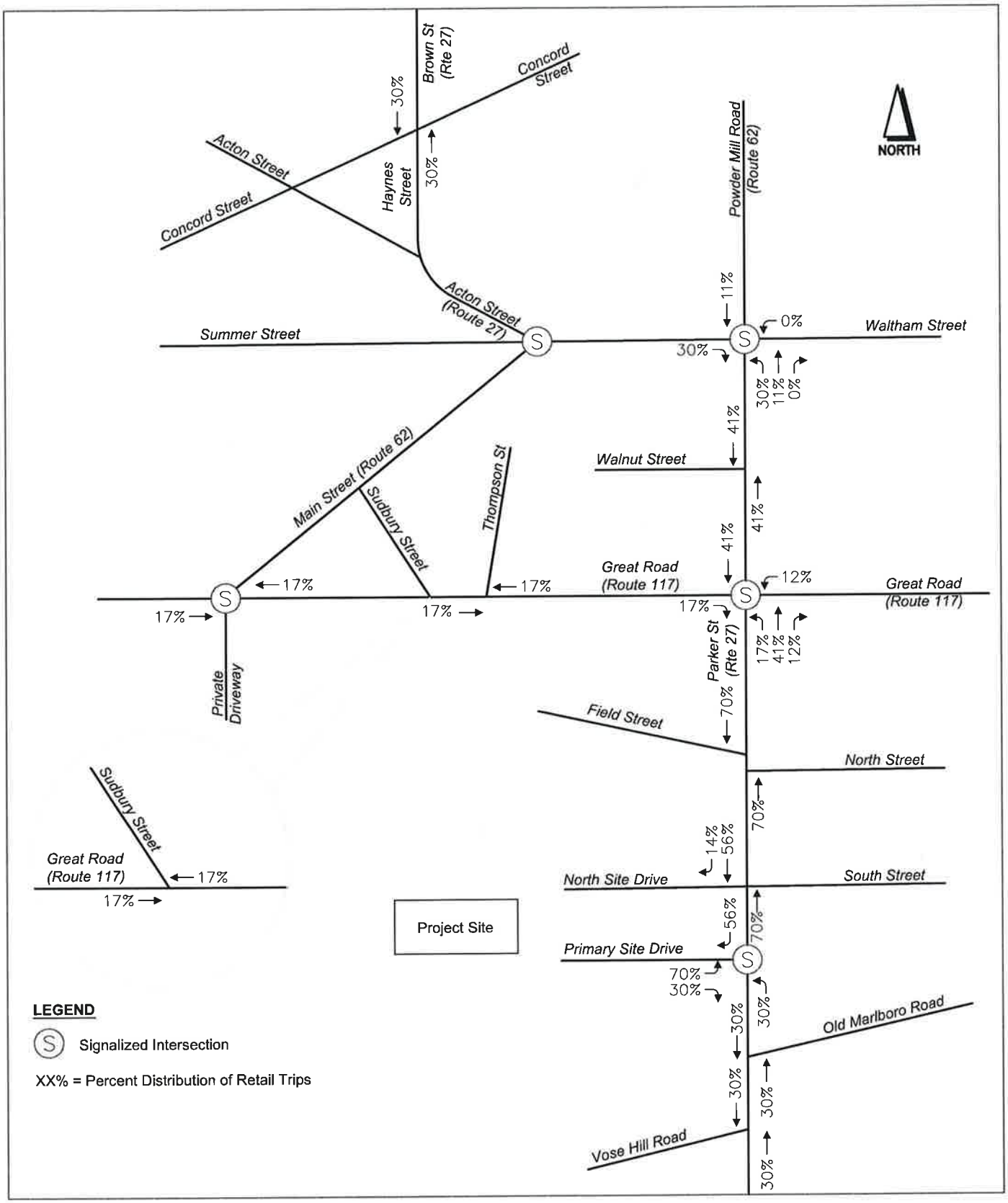

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Figure 9
Estimated Retail Trip Distribution
129 Parker Street
Maynard, MA

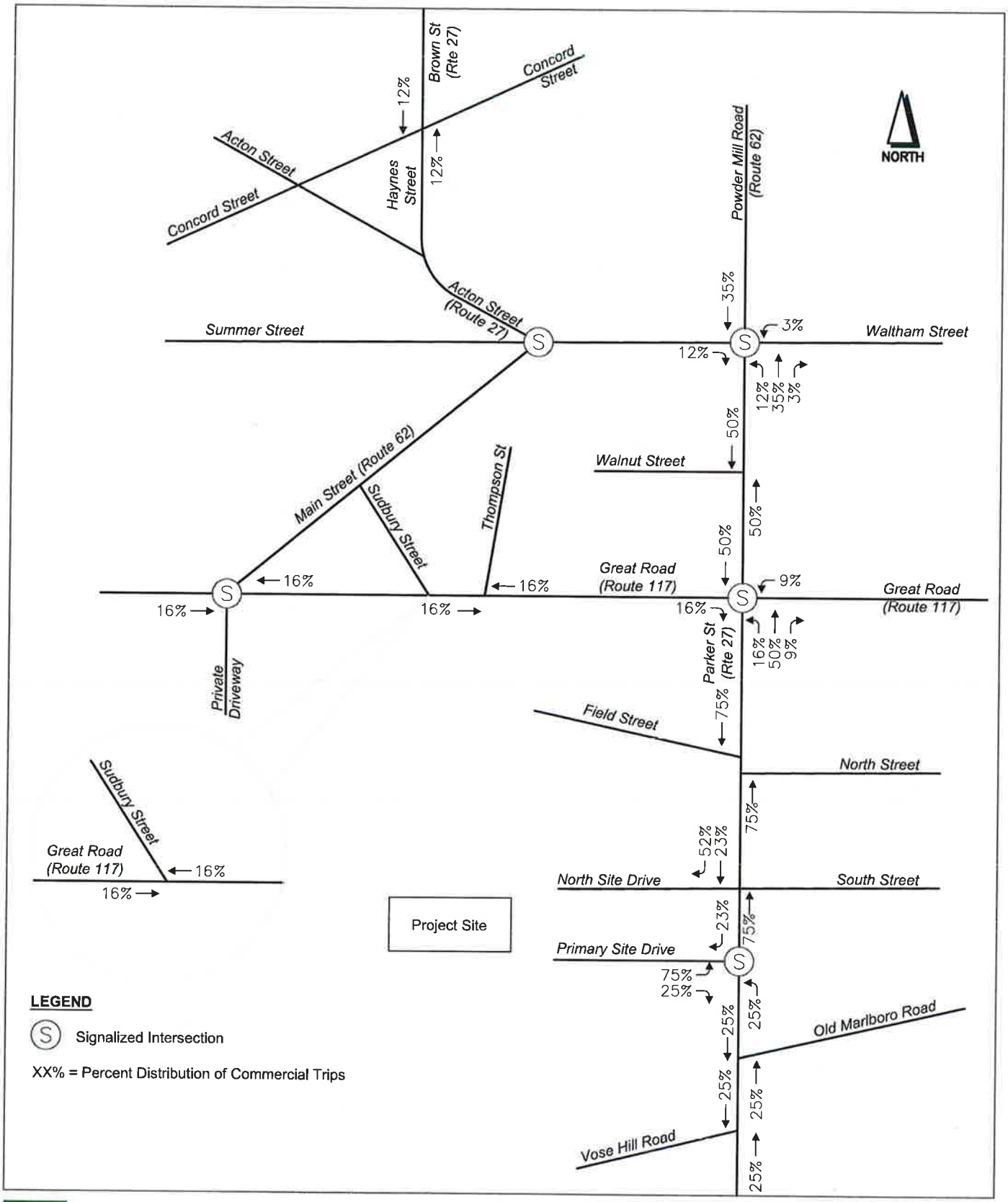

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Figure 10
Estimated Commercial Trip Distribution
129 Parker Street
Maynard, MA

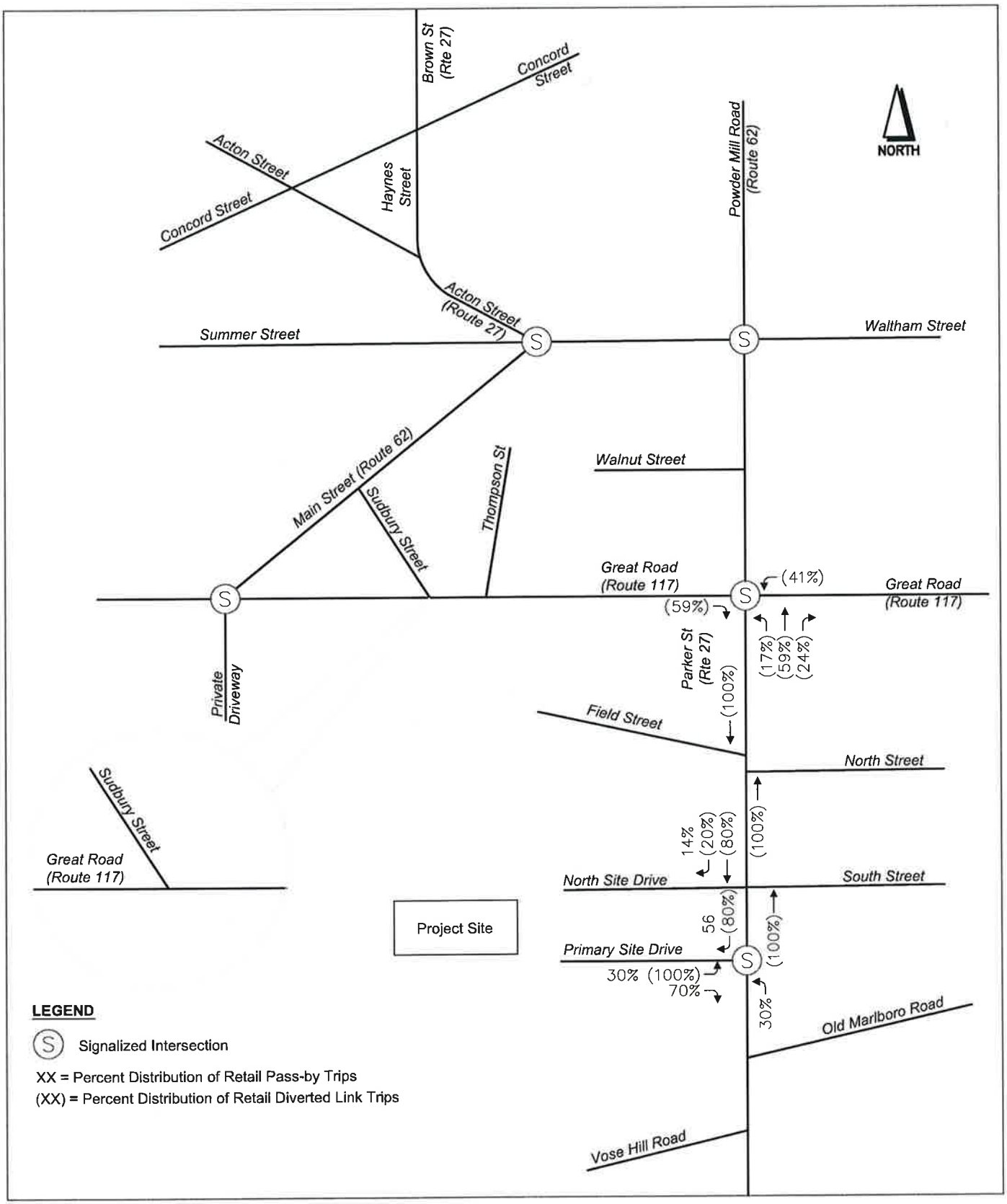

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Figure 11
Pass-by and Diverted Trip Distribution
129 Parker Street
Maynard, MA

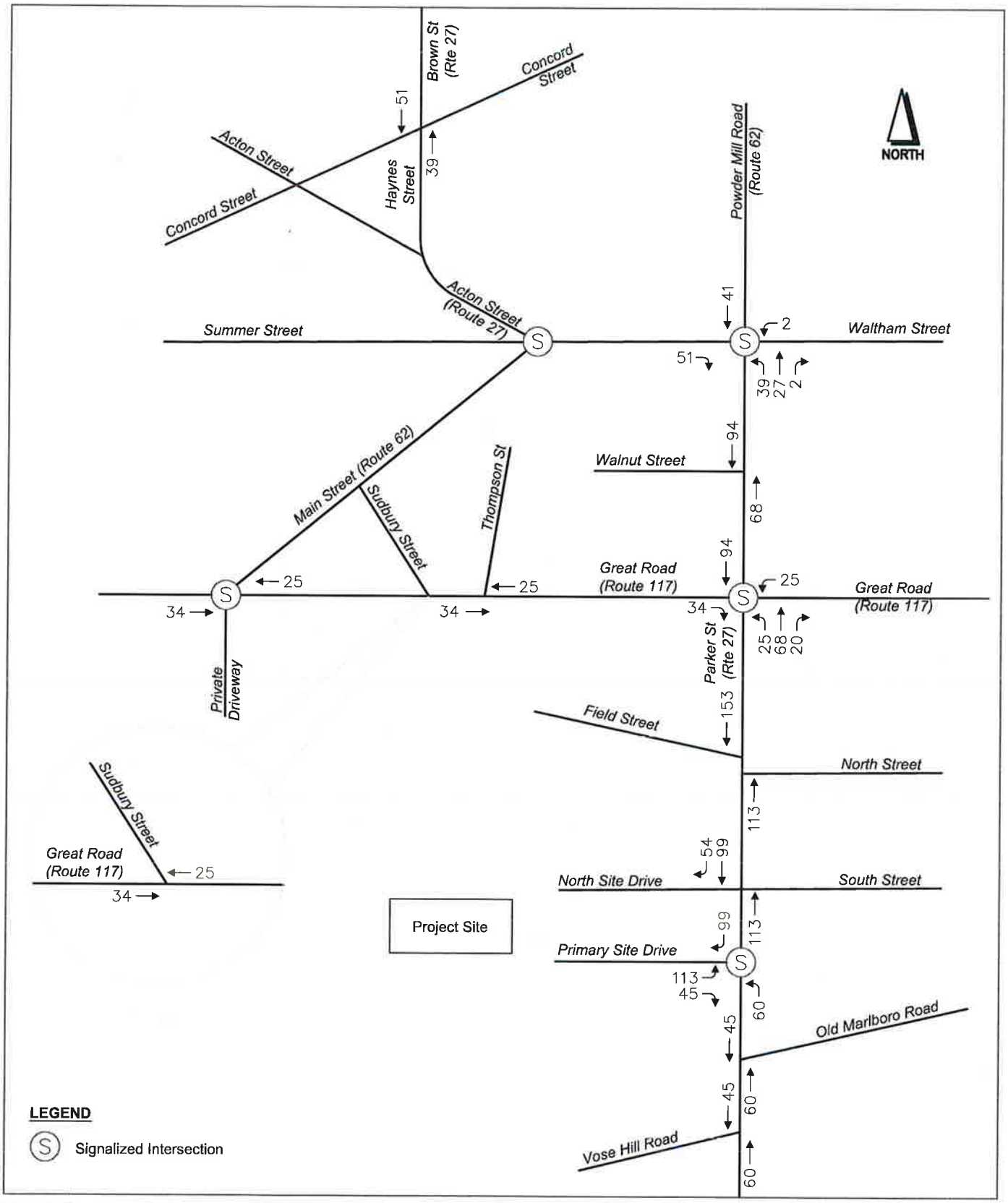

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Figure 12
New Site Trips
Weekday AM Peak Hour
129 Parker Street
Maynard, MA

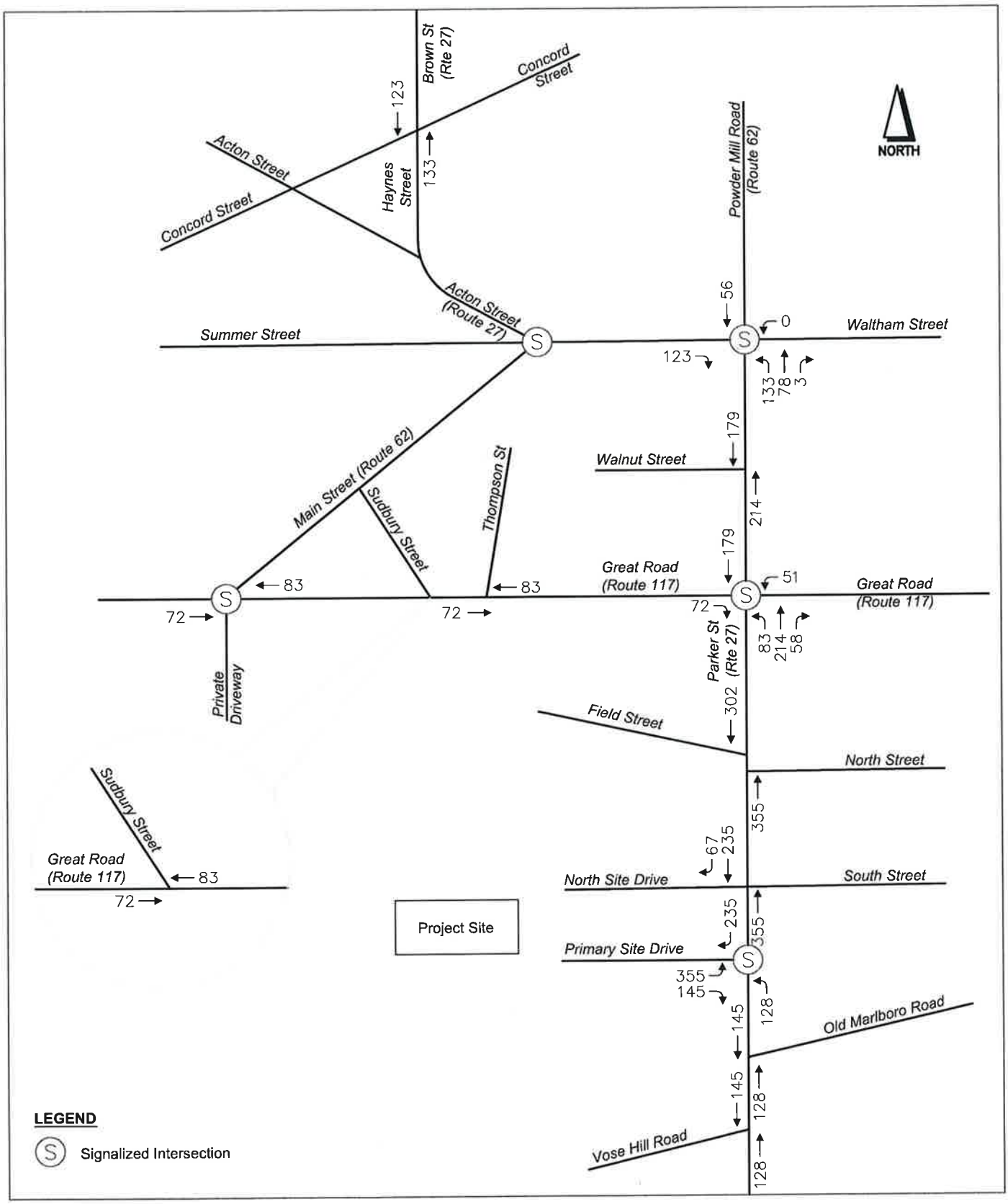

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Figure 13
New Site Trips
Weekday PM Peak Hour
129 Parker Street
Maynard, MA

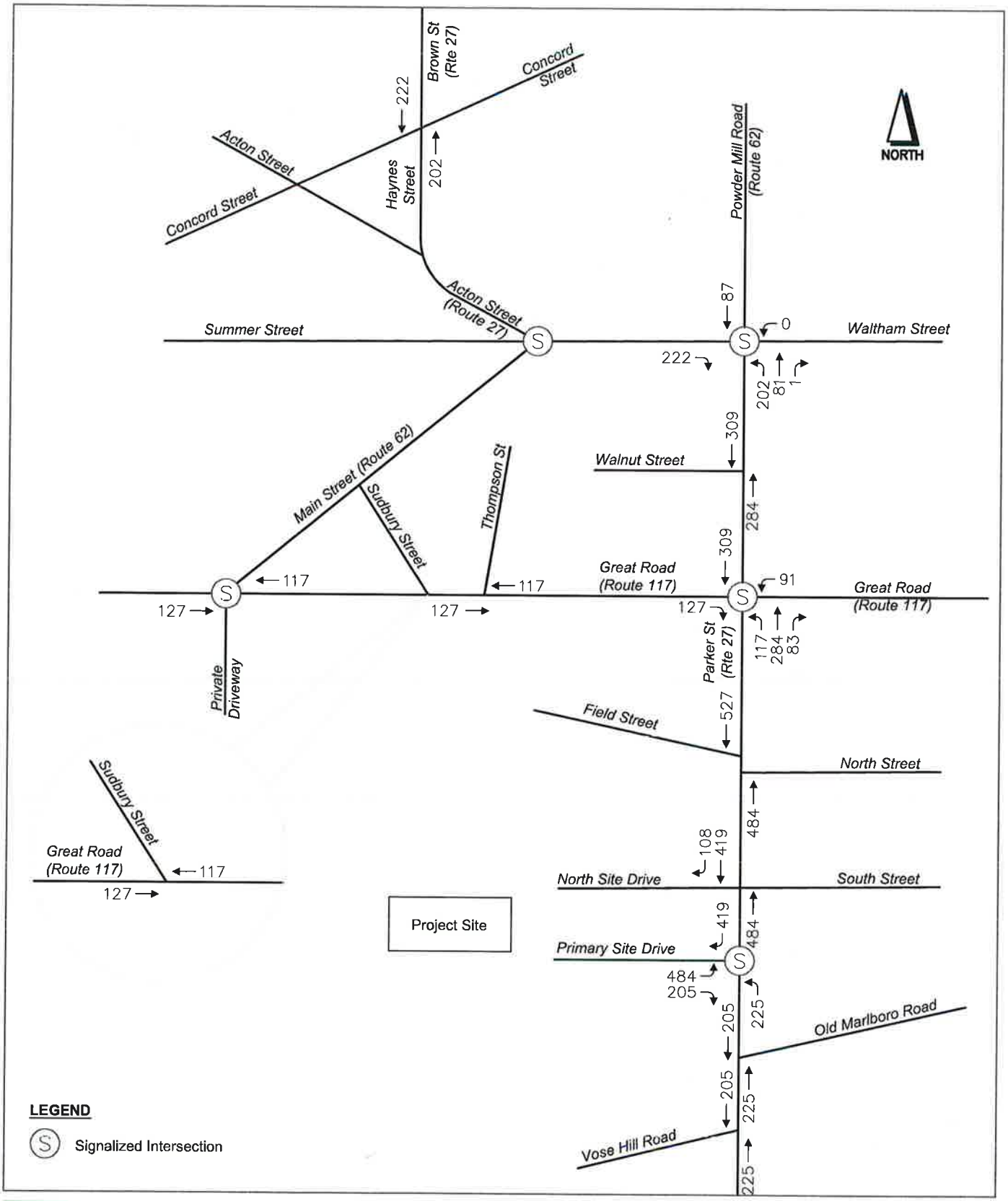

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Figure 14
New Site Trips
Saturday Midday Peak Hour
129 Parker Street
Maynard, MA

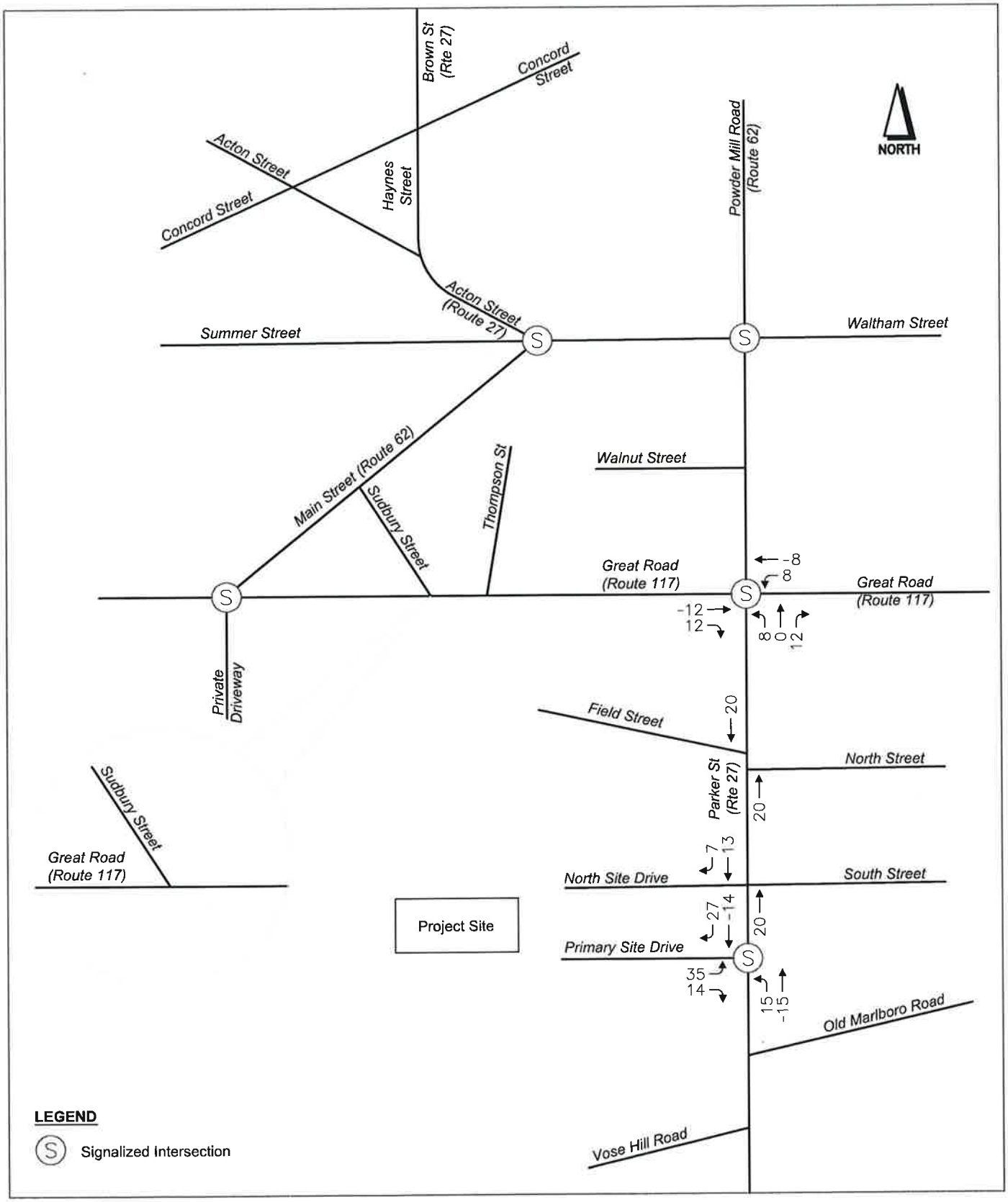

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Figure 15
Pass-by and Diverted Trips
Weekday AM Peak Hour
129 Parker Street
Maynard, MA

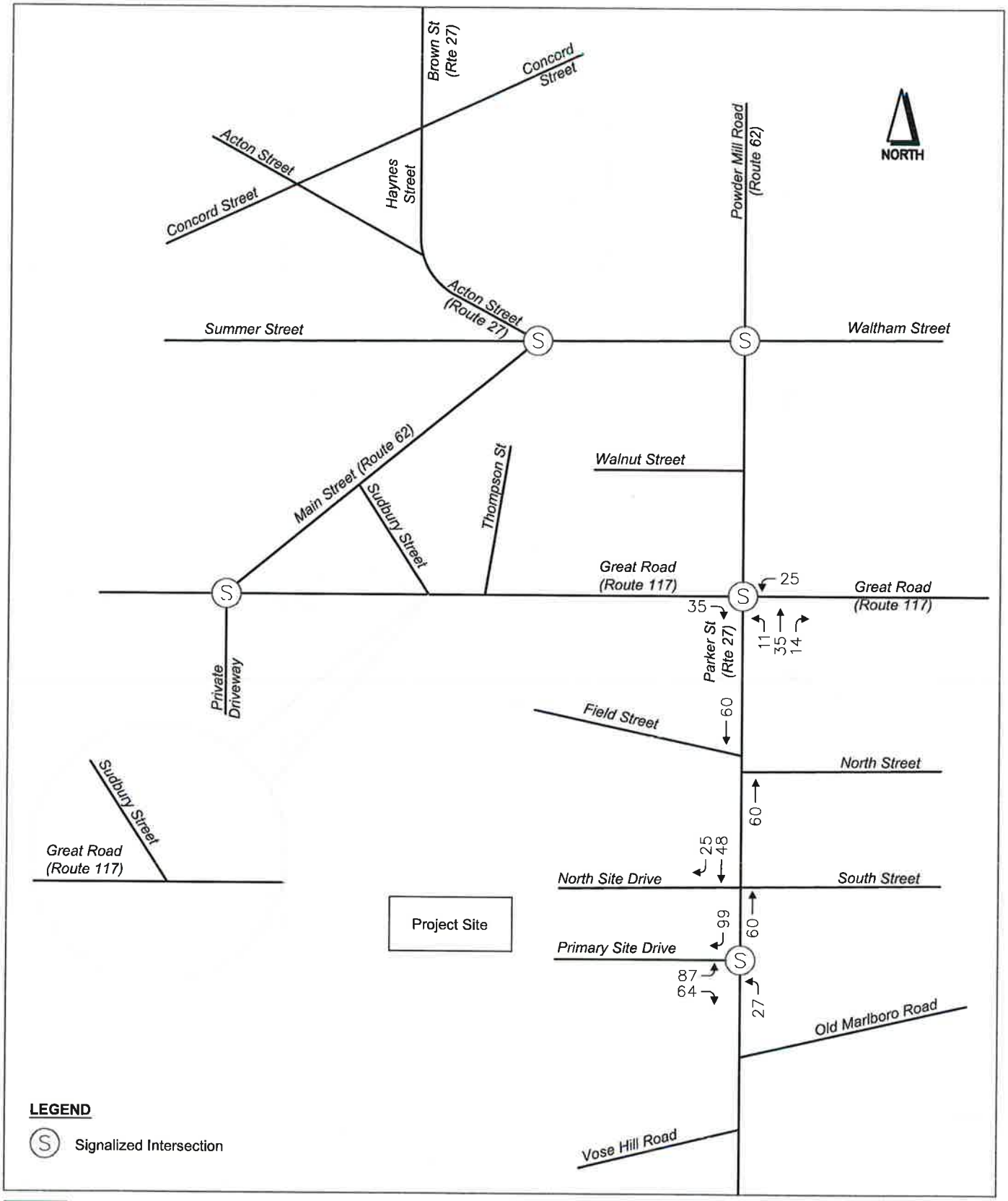

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Figure 14
Pass-by and Diverted Trips
Weekday PM Peak Hour
129 Parker Street
Maynard, MA

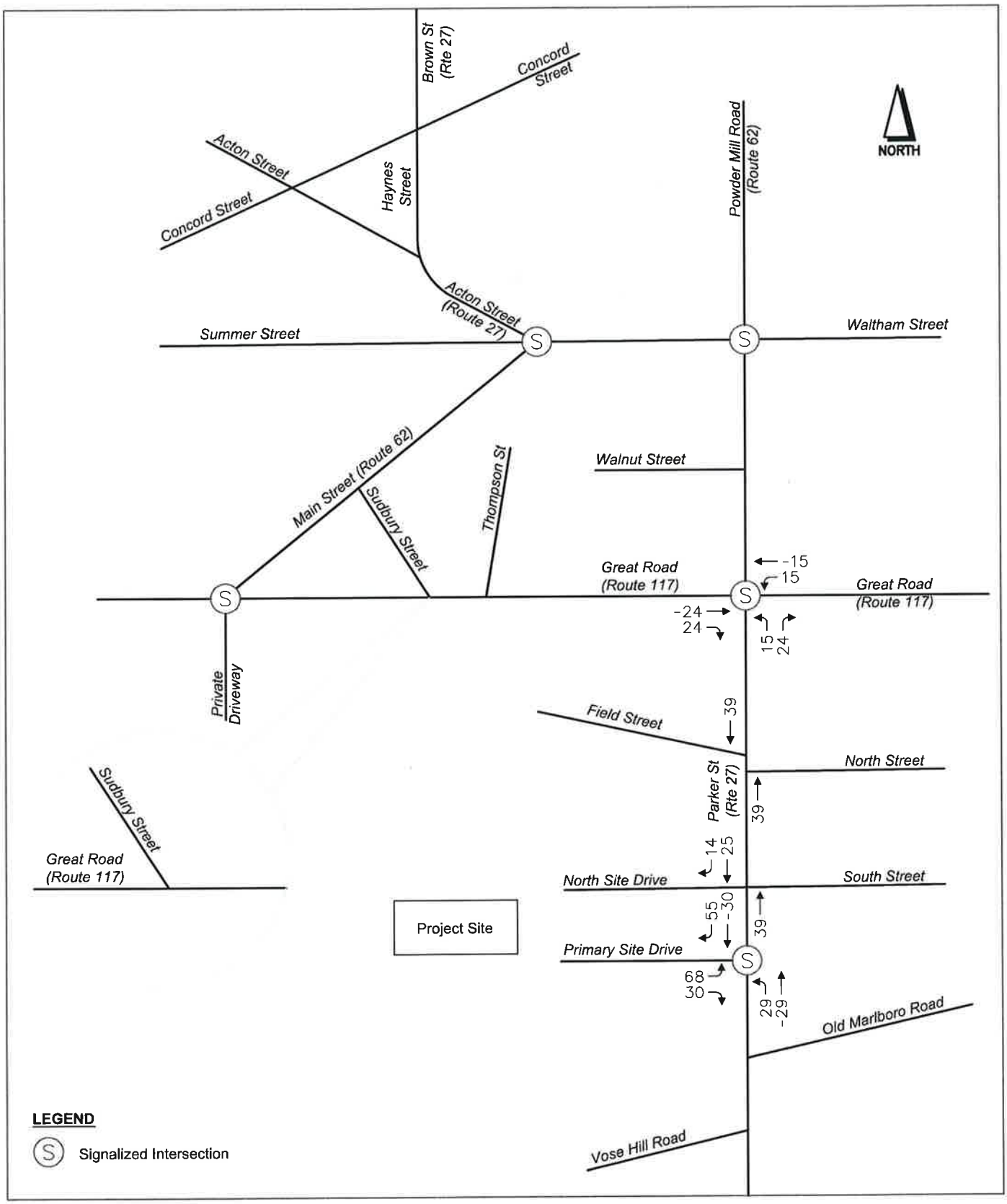

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Figure 17
Pass-by and Diverted Trips
Saturday Midday Peak Hour
129 Parker Street
Maynard, MA

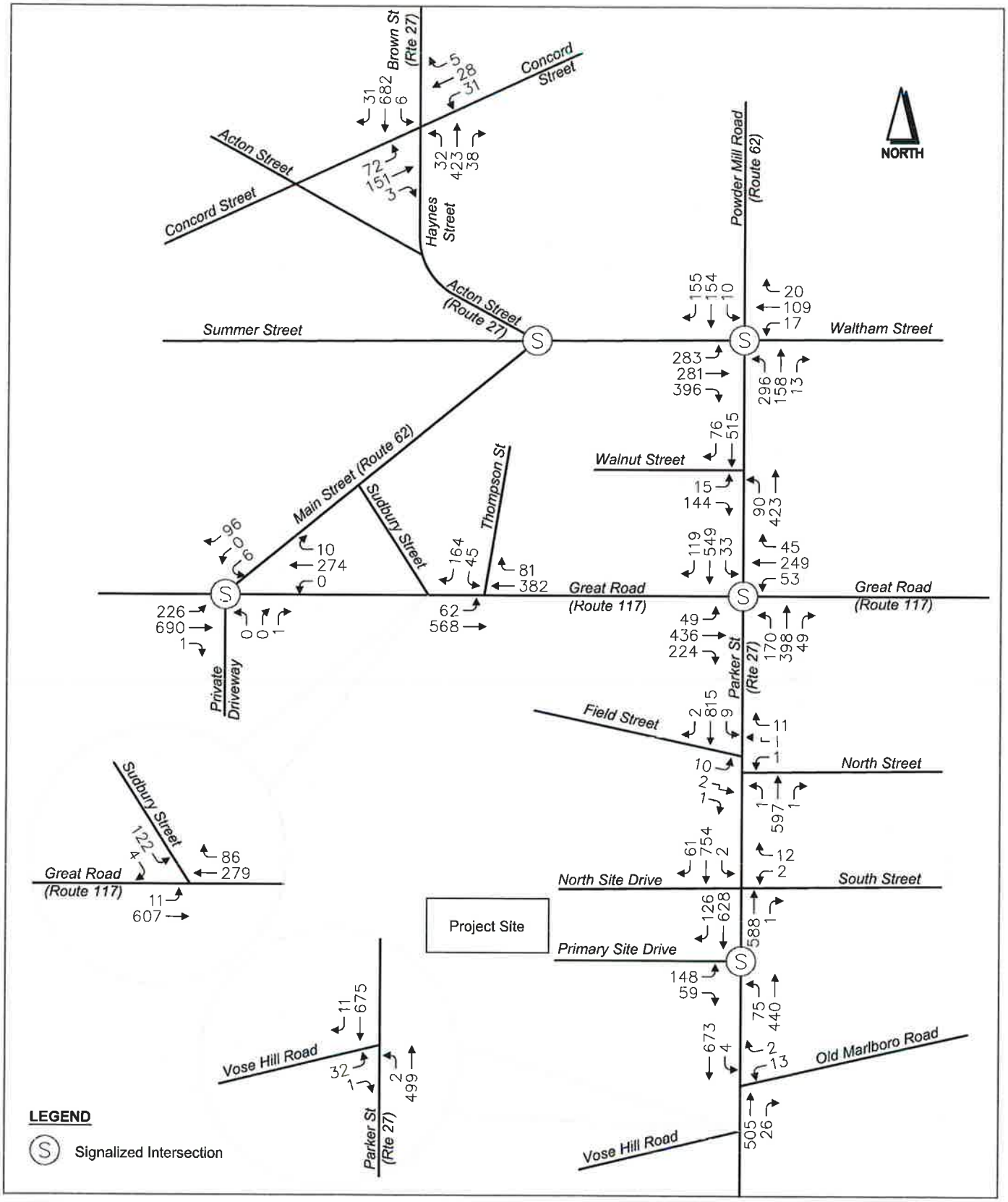

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Figure 18
2023 Build Traffic Volumes
Weekday AM Peak Hour
129 Parker Street
Maynard, MA

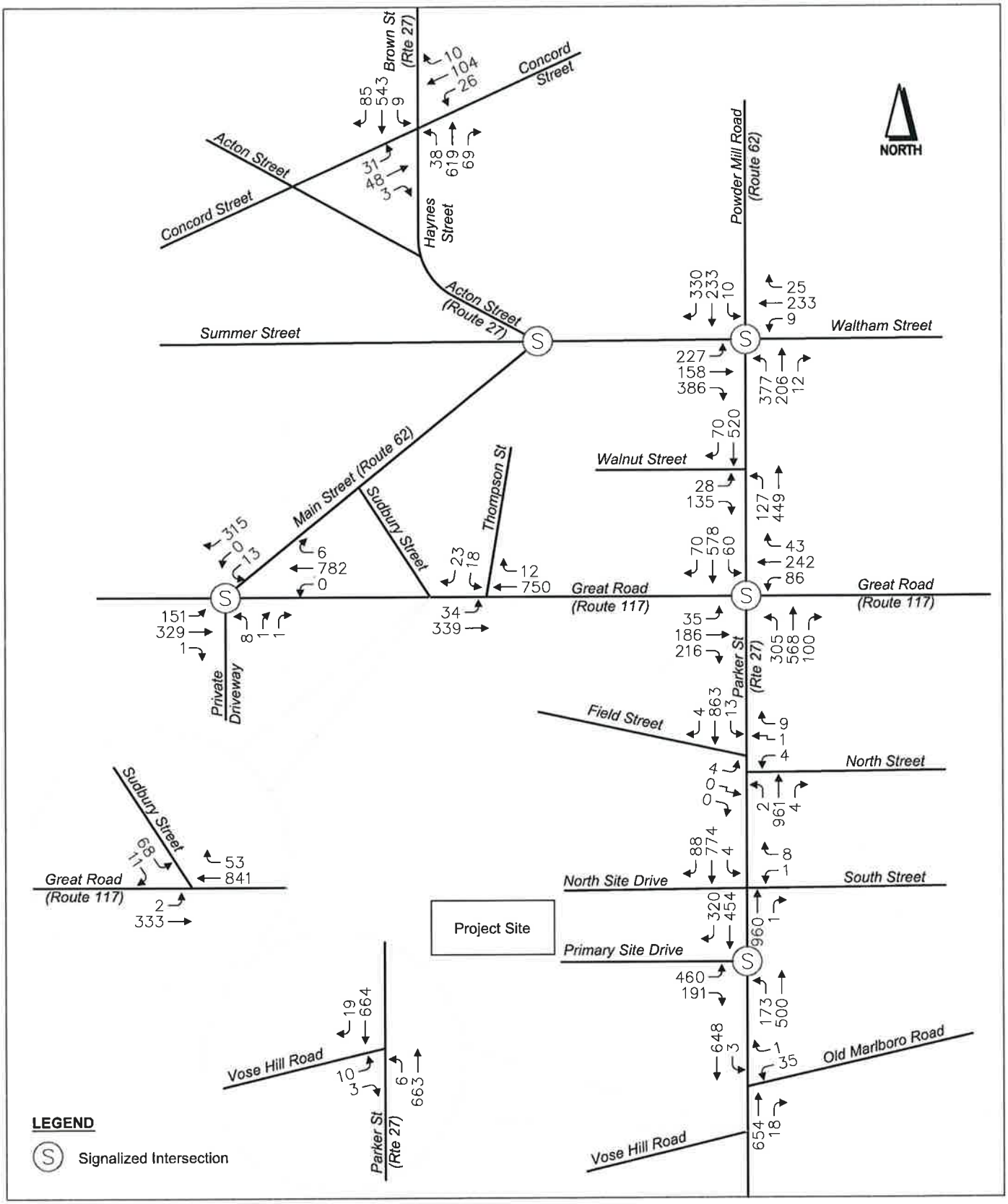

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Figure 19
2023 Build Traffic Volumes
Weekday PM Peak Hour
129 Parker Street
Maynard, MA

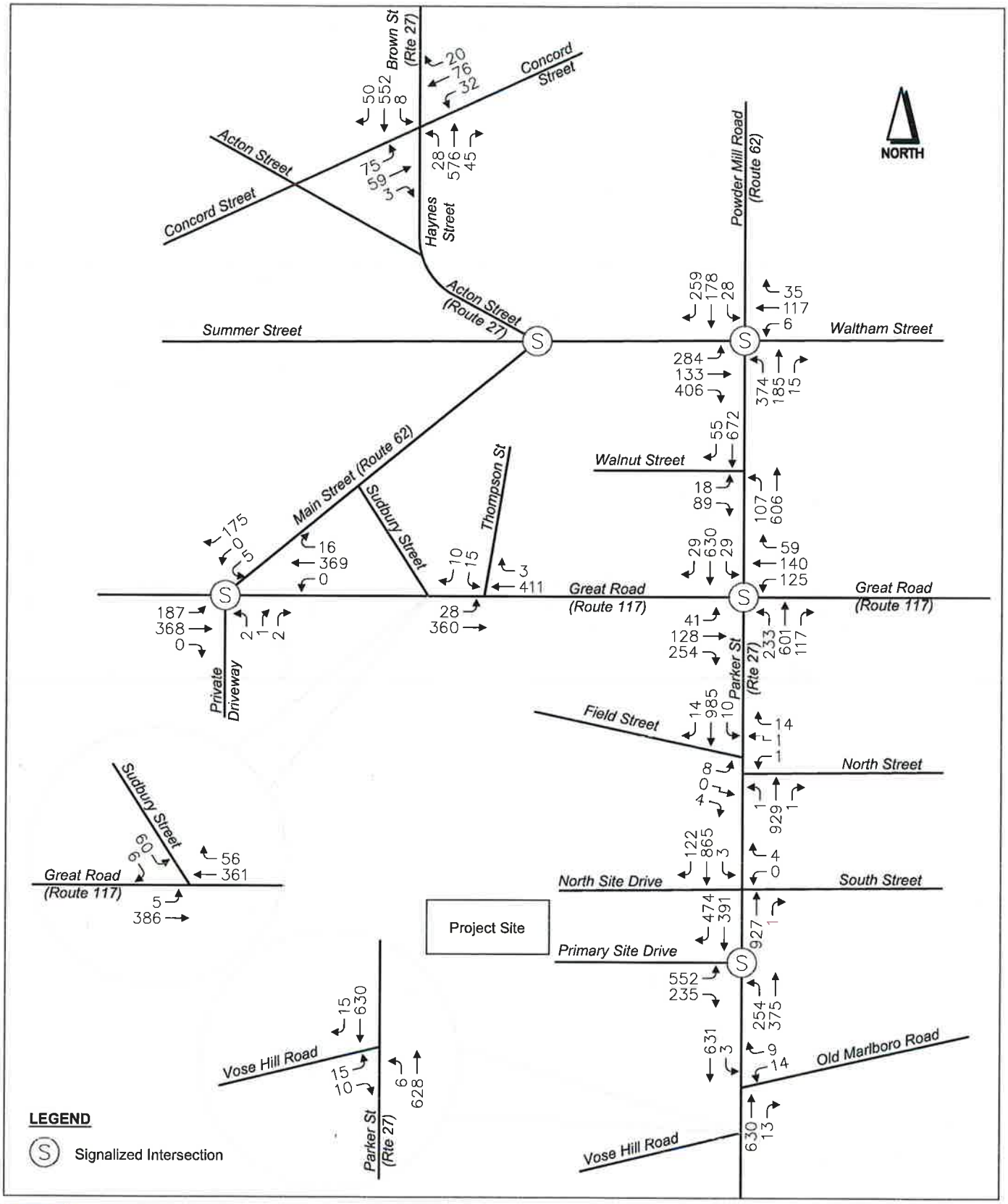

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Figure 20
2023 Build Traffic Volumes
Saturday Midday Peak Hour
129 Parker Street
Maynard, MA

4.0 TRAFFIC SIGNAL WARRANT ANALYSIS

To confirm that a traffic control signal is still justified at the intersection of the Primary Site Drive with Parker Street (Route 27), an updated traffic signal warrant analysis was performed based on the updated Parker Street (Route 27) traffic volumes. The analysis was conducted for a Saturday, when site-generated traffic volumes are estimated to peak.

Chapter 4C of the Manual on Uniform Traffic Control Devices (MUTCD) provides multiple warrants for determining if traffic signal control could be installed at an intersection. If one or more warrants is met, the installation of a traffic signal is not required but should be considered. While any of the traffic signal warrants may be used to justify a traffic signal, Warrant 1 (Eight-hour vehicular volume) generally should be satisfied prior to the installation of a traffic signal. Warrant 1 has two conditions, either of which may be used to satisfy the warrant. Condition A is Minimum Vehicular Volume and Condition B is interruption of Continuous Traffic Flow. Compared to Condition A, Condition B has a higher threshold for vehicular volume on the major street but a lower threshold for vehicular volume on the minor street. Warrant 2, Four-Hour Vehicular Volume, provides minimum thresholds of combinations of traffic volumes on the major and minor streets that must be exceeded for at least four hours per day in order for the installation of a traffic control signal to be justified. Warrant 3, Peak Hour, also provides minimum thresholds of combinations of major and minor street traffic volumes that must be exceeded for at least one hour per day in order for the installation of a traffic control signal to be justified. Warrant 3 is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

To determine hourly turning movement counts throughout the entire day, the ITE Trip Generation Manual was consulted. The Manual includes a Table identifying the proportion of the daily retail trips entering and exiting a site during each hour of the day. No such information is available for the other land uses, so for a conservative analysis, the retail trips generated were the only ones considered in the traffic signal warrant analysis. Parker Street (Route 27) traffic volumes were determined from the ATR data collected as part of this study.

The Warrant 1 analysis is shown in Table 4.1.

Table 4.1 – Signal Warrant Analysis, Parker Street at Primary Site Drive

2016 Existing and Estimated Site-Generated Traffic Volumes				
Warrant 1, Eight-Hour Vehicular Volume	Intersection Approach Volumes Parker Street (Total of Both Approaches)	Primary Site Drive Eastbound Left	Condition A Met?	Condition B Met?
Condition A Thresholds	500	150		
Condition B Thresholds	750	75		
Time Period				
12:00 AM to 1:00 AM	56	20	no	no
1:00 AM to 2:00 AM	31	20	no	no
2:00 AM to 3:00 AM	15	20	no	no
3:00 AM to 4:00 AM	13	20	no	no
4:00 AM to 5:00 AM	26	20	no	no
5:00 AM to 6:00 AM	59	20	no	no
6:00 AM to 7:00 AM	182	12	no	no
7:00 AM to 8:00 AM	306	23	no	no
8:00 AM to 9:00 AM	547	57	no	no
9:00 AM to 10:00 AM	698	125	no	no
10:00 AM to 11:00 AM	796	272	**yes**	no
11:00 AM to 12:00 PM	1,012	424	**yes**	**yes**
12:00 PM to 1:00 PM	965	527	**yes**	**yes**
1:00 PM to 2:00 PM	1,014	583	**yes**	**yes**
2:00 PM to 3:00 PM	955	668	**yes**	**yes**
3:00 PM to 4:00 PM	902	708	**yes**	**yes**
4:00 PM to 5:00 PM	831	708	**yes**	no
5:00 PM to 6:00 PM	678	640	**yes**	no
6:00 PM to 7:00 PM	516	379	no	no
7:00 PM to 8:00 PM	390	164	no	no
8:00 PM to 9:00 PM	282	125	no	no
9:00 PM to 10:00 PM	271	90	no	no
10:00 PM to 11:00 PM	210	20	no	no
11:00 PM to 12:00 AM	137	20	no	no
Number of Hours in which Condition is Met			8	5
Warrant 1 Satisfied?			**yes**	
Note: Volume thresholds are based on 2+ lanes on the Major St and 2+ lanes on the Minor St				

As indicated in the Table, the anticipated traffic volumes at the Parker Street / Primary Site Drive intersection exceeds the thresholds for Warrant 1, and a traffic signal is justified at this intersection. It is also noted that Warrant 2 (Four-hour vehicular volume) and Warrant 3 (Peak Hour Volume) are satisfied.

Detailed signal warrant analysis traffic volume calculations are shown in the Appendix.

5.0 ANALYSIS

Previous sections of this report described the current conditions of the study intersections and the development of the 2023 No-Build and 2023 Build future traffic volume projections, including the site-generated trip forecasts. Included in this section is an intersection capacity/Level of Service (LOS) analysis for the study intersections under each condition.

5.1 Intersection Capacity Analysis

The 11 study intersections were examined with regard to flow rates, capacity, and delay characteristics to determine the Level of Service (LOS), as described in the Highway Capacity Manual (HCM)[3], for the existing and future (No-Build and Build) traffic conditions. Level of Service is an indicator of operating conditions which occur on a given roadway or intersection while accommodating varying levels of traffic volumes. It is a qualitative measure that accounts for a number of operational factors including roadway geometry, speed, traffic composition, travel delay, freedom to maneuver, and driver expectation. When all of these measures are assessed and a Level of Service is assigned to a roadway or intersection, it is equivalent to presenting an "index" to the operational qualities of the section under study. Level of Service is classified into six levels that are designated 'A' through 'F' based on the control delay ranges they fall under. Additionally, a movement with a volume-to-capacity ratio of over 1.00 also operates at LOS 'F', regardless of delay. The LOS delay criteria for both unsignalized and signalized intersections are presented in Table 5.1. The thresholds of delay for signalized intersections are somewhat longer than for unsignalized intersections because drivers waiting at signalized intersections are expected to be willing to accept longer delays if they are guaranteed to have a safe time during which to cross or enter a roadway.

Table 5.1 – Level of Service Criteria for Unsignalized and Signalized Intersections

LOS	UNSIGNALIZED INTERSECTION (SEC)	SIGNALIZED INTERSECTION (SEC)
A	≤10	≤10
B	>10 and ≤15	>10 and ≤20
C	>15 and ≤25	>20 and ≤35
D	>25 and ≤35	>35 and ≤55
E	>35 and ≤50	>55 and ≤80
F	>50 or v/c ≥1.00	>80 or v/c ≥1.00

In practice, any given roadway/intersection may operate at a wide LOS range depending upon time of day, day of week, or period of year. It should be noted that for unsignalized intersections, the Level of Service is not computed for the intersection as a whole. Instead, the LOS is determined by the computed or measured control delay for each individual critical movement. This is done because the majority of traffic on the major roadway at an unsignalized intersection may travel through the intersection freely, and experience no delay at all.

[3] Transportation Research Board, Highway Capacity Manual, Washington, DC, 2010

The 11 study intersections were evaluated using the Synchro 9 computer software that implements the procedures established in the HCM 2010 to complete the analyses. Synchro is approved by MassDOT for traffic operations analysis. Using the existing roadway features and the intersection controls, traffic operations at the study intersections were evaluated for existing as well as future conditions. Analysis results are presented in Tables 5.2 through 5.7 for the study intersections. The intersection capacity analysis worksheets are provided in the Appendix.

Table 5.2 – Weekday Morning Peak Hour Analysis – Unsignalized Intersections

	Existing				2023 No Build				2023 Build			
	Delay (s)	LOS	v/c	95th % Q (ft)	Delay (s)	LOS	v/c	95th % Q (ft)	Delay (s)	LOS	v/c	95th % Q (ft)
Route 27 (Haynes Street/Brown Street) at Concord Street												
Concord St EB LTR	>80	F	1.15	275	>80	F	1.40	358	>80	F	1.62	410
Concord St WB LTR	77.0	F	0.58	70	>80	F	0.99	123	>80	F	3.47	218
Haynes St NB LTR	8.9	A	0.03	3	9.1	A	0.04	3	9.3	A	0.04	3
Brown St SB LTR	8.1	A	0.01	0	8.2	A	0.01	0	8.3	A	0.01	0
Route 27 (Parker Street) at Walnut Street												
Walnut St EB LR	15.1	C	0.31	33	16.4	C	0.36	40	19.8	C	0.42	50
Parker St NB LT	8.7	A	0.09	8	8.9	A	0.10	8	9.3	A	0.11	8
Route 117 (Great Road) at Sudbury Street												
Great Rd EB LT	8.0	A	0.01	0	8.0	A	0.01	0	8.1	A	0.01	0
Sudbury St SB L	23.9	C	0.39	45	28.1	D	0.46	58	32.1	D	0.50	65
Sudbury St SB R	9.9	A	0.01	0	10.0	B	0.01	0	10.2	B	0.01	0
Route 117 (Great Road) at Thompson Street												
Great Rd EB LT	8.4	A	0.06	5	8.5	A	0.06	5	8.6	A	0.06	5
Thompson St SB LR	19.1	C	0.46	58	22.2	C	0.53	75	24.6	C	0.56	83
Route 27 (Parker Street) at Vose Hill Road												
Vose Hill Rd EB LR	22.5	C	0.14	13	25.3	D	0.17	15	29.6	D	0.20	18
Parker St NB LT	8.9	A	0.00	0	9.0	A	0.00	0	9.2	A	0.00	0
Route 27 (Parker Street) at Old Marlboro Road												
Old Marlboro Rd WB LR	19.4	C	0.06	5	21.3	C	0.07	5	24.5	C	0.08	8
Parker St SB LT	8.3	A	0.00	0	8.5	A	0.00	0	8.7	A	0.00	0
Route 27 (Parker Street) at South Street/North Site Drive												
South St WB LR	13.1	B	0.03	3	13.6	B	0.03	3	16.7	C	0.05	3
Parker St SB LTR	8.3	A	0.00	0	8.3	A	0.00	0	8.8	A	0.00	0
Route 27 (Parker Street) at Field Street/North Street												
Field St EB LTR	25.4	D	0.07	5	28.8	D	0.09	8	47.8	E	0.14	13
North St WB LTR	13.4	B	0.03	3	13.9	B	0.03	3	17.4	C	0.05	3
Parker St NB LTR	8.8	A	0.00	0	9.0	A	0.00	0	9.7	A	0.00	0
Parker St SB LTR	8.3	A	0.01	0	8.4	A	0.01	0	8.9	A	0.01	0

Abbreviations:

EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

L=Left, T=Through, R=Right

Delay = Average delay per vehicle (measured in seconds)
LOS = Level of Service
v/c = Volume-to-Capacity Ratio
95th % Q = 95th percentile queue length (measured in feet), assumes 25 feet per vehicle

Table 5.3 – Weekday Morning Peak Hour Analysis – Signalized Intersections

	Existing					2023 No Build					2023 Build				
	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)
Great Road (Route 117) at Main Street (Route 62) / Private Driveway															
Great Rd EB L	16.3	B	0.35	52	139	17.0	B	0.37	59	155	17.2	B	0.36	61	161
Great Rd EB TR	5.7	A	0.50	74	213	5.7	A	0.52	83	234	5.7	A	0.54	91	253
Great Rd WB LT	22.0	C	0.41	65	183	22.6	C	0.42	73	208	23.7	C	0.46	87	237
Great Rd WB R	0.0	A	0.01	0	0	0.0	A	0.01	0	0	0.0	A	0.01	0	0
Driveway NB LTR	0.0	A	0.00	0	0	0.0	A	0.00	0	0	0.0	A	0.00	0	0
Main St SB L	30.0	C	0.02	2	15	32.5	C	0.02	2	16	34.7	C	0.02	2	16
Main St SB R	2.5	A	0.11	0	21	2.5	A	0.12	0	22	2.6	A	0.12	0	23
Overall	10.7	B	-	-	-	10.9	B	-	-	-	11.3	B	-	-	-
Great Road (Route 117) at Parker Street (Route 27)															
Great Rd EB L	25.7	C	0.12	28	55	25.8	C	0.13	30	59	25.8	C	0.13	30	59
Great Rd EB T	35.0	D	0.56	324	437	36.3	D	0.60	357	477	35.8	D	0.58	344	462
Great Rd EB R	7.5	A	0.19	41	74	7.9	A	0.21	46	81	8.6	A	0.26	62	104
Great Rd WB L	46.7	D	0.09	15	40	47.0	D	0.11	17	44	51.5	D	0.28	46	91
Great Rd WB T	57.7	E	0.59	227	324	59.4	E	0.64	245	348	58.6	E	0.62	237	338
Great Rd WB R	0.0	A	0.03	0	0	0.0	A	0.03	0	0	0.0	A	0.03	0	0
Parker St NB L	24.2	C	0.40	72	116	28.0	C	0.45	78	141	41.2	D	0.59	118	205
Parker St NB T	24.2	C	0.36	193	268	24.7	C	0.38	210	290	26.4	C	0.46	266	361
Parker St NB R	0.0	A	0.01	0	0	0.0	A	0.01	0	0	0.0	A	0.03	0	0
Parker St SB L	39.5	D	0.11	23	53	39.8	D	0.12	25	56	40.1	D	0.13	25	56
Parker St SB T	61.8	E	0.82	415	567	67.6	E	0.88	456	650	103.7	F	1.06	630	867
Parker St SB R	0.1	A	0.07	0	0	0.1	A	0.07	0	0	0.1	A	0.07	0	0
Overall	35.8	D	-	-	-	37.9	D	-	-	-	47.1	D	-	-	-
Parker Street (Route 27) at Primary Site Drive															
Site Drive EB L	-	-	-	-	-	-	-	-	-	-	18.7	B	0.36	30	94
Site Drive EB R	-	-	-	-	-	-	-	-	-	-	6.8	A	0.15	0	25
Parker St NB L	-	-	-	-	-	-	-	-	-	-	7.8	A	0.24	9	31
Parker St NB T	-	-	-	-	-	-	-	-	-	-	7.2	A	0.41	60	126
Parker St SB T	-	-	-	-	-	-	-	-	-	-	9.4	A	0.59	100	210
Parker St SB R	-	-	-	-	-	-	-	-	-	-	1.1	A	0.13	0	0
Overall	-	-	-	-	-	-	-	-	-	-	8.8	A	-	-	-
Parker Street (Route 27) and Powder Mill Road (Route 62) at Waltham Street															
Waltham St EB LT	23.7	C	0.75	168	264	28.8	C	0.81	186	330	28.8	C	0.81	186	330
Waltham St EB R	7.2	A	0.40	39	92	8.0	A	0.43	46	104	8.6	A	0.49	54	122
Waltham St WB LTR	24.1	C	0.31	49	96	24.5	C	0.33	53	101	24.7	C	0.34	54	103
Parker St NB LTR	29.4	C	0.77	127	245	34.7	C	0.83	140	295	76.8	F	1.04	187	418
Powder Mill Rd SB LT	25.4	C	0.29	44	87	25.8	C	0.31	47	92	27.6	C	0.42	65	119
Powder Mill Rd SB R	6.6	A	0.32	0	42	6.6	A	0.34	0	43	6.6	A	0.34	0	43
Overall	20.3	C	-	-	-	23.4	C	-	-	-	34.2	C	-	-	-

Abbreviations:

EB = Eastbound	L=Left	Delay = Average delay per vehicle (measured in seconds)
WB = Westbound	T=Through	LOS = Level of Service
NB = Northbound	R=Right	v/c = Volume-to-Capacity Ratio
SB = Southbound		50th % Q = 50th percentile queue length (measured in feet)
		95th % Q = 95th percentile queue length (measured in feet)

Table 5.4 – Weekday Afternoon Peak Hour Analysis – Unsignalized Intersections

	Existing				2023 No Build				2023 Build			
	Delay (s)	LOS	v/c	95th % Q (ft)	Delay (s)	LOS	v/c	95th % Q (ft)	Delay (s)	LOS	v/c	95th % Q (ft)
Route 27 (Haynes Street/Brown Street) at Concord Street												
Concord St EB LTR	44.4	E	0.47	55	66.7	F	0.62	80	>80	F	1.35	178
Concord St WB LTR	48.1	E	0.64	93	71.0	F	0.78	130	>80	F	1.18	220
Haynes St NB LTR	8.4	A	0.03	3	8.5	A	0.04	3	9.0	A	0.04	3
Brown St SB LTR	8.5	A	0.01	0	8.6	A	0.01	0	9.0	A	0.01	0
Route 27 (Parker Street) at Walnut Street												
Walnut St EB LR	14.6	B	0.30	33	15.8	C	0.35	38	26.7	D	0.52	70
Parker St NB LT	8.5	A	0.11	10	8.7	A	0.12	10	9.4	A	0.14	13
Route 117 (Great Road) at Sudbury Street												
Great Rd EB LT	9.3	A	0.00	0	9.5	A	0.00	0	9.9	A	0.00	0
Sudbury St SB L	22.9	C	0.24	23	33.7	D	0.36	38	33.9	D	0.36	40
Sudbury St SB R	14.0	B	0.03	3	14.7	B	0.03	3	15.9	C	0.03	3
Route 117 (Great Road) at Thompson Street												
Great Rd EB LT	9.1	A	0.04	3	9.3	A	0.04	3	9.7	A	0.05	3
Thompson St SB LR	17.3	C	0.12	10	18.8	C	0.15	13	22.2	C	0.18	15
Route 27 (Parker Street) at Vose Hill Road												
Vose Hill Rd EB LR	19.0	C	0.05	3	20.8	C	0.06	5	29.3	D	0.08	8
Parker St NB LT	8.5	A	0.01	0	8.6	A	0.01	0	9.1	A	0.01	0
Route 27 (Parker Street) at Old Marlboro Road												
Old Marlboro Rd WB LR	20.4	C	0.13	13	22.5	C	0.16	13	33.7	D	0.23	23
Parker St SB LT	8.5	A	0.00	0	8.6	A	0.00	0	9.0	A	0.00	0
Route 27 (Parker Street) at South Street/North Site Drive												
South St WB LR	13.2	B	0.02	3	13.6	B	0.02	3	25.1	D	0.05	5
Parker St SB LTR	8.5	A	0.00	0	8.6	A	0.00	0	10.4	B	0.01	0
Route 27 (Parker Street) at Field Street/North Street												
Field St EB LTR	24.6	C	0.02	3	27.4	D	0.03	3	>80	F	0.11	8
North St WB LTR	16.6	C	0.04	3	17.5	C	0.05	5	47.8	E	0.15	13
Parker St NB LTR	8.4	A	0.00	0	8.5	A	0.00	0	9.9	A	0.00	0
Parker St SB LTR	8.6	A	0.01	0	8.7	A	0.01	0	10.5	B	0.02	3

Abbreviations:

EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
L=Left, T=Through, R=Right
Delay = Average delay per vehicle (measured in seconds)
LOS = Level of Service
v/c = Volume-to-Capacity Ratio
95th % Q = 95th percentile queue length (measured in feet), assumes 25 feet per vehicle

Table 5.5 – Weekday Afternoon Peak Hour Analysis – Signalized Intersections

	Existing					2023 No Build					2023 Build				
	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)
Great Road (Route 117) at Main Street (Route 62) / Private Driveway															
Great Rd EB L	31.7	C	0.40	51	156	36.4	D	0.45	67	166	41.3	D	0.51	85	166
Great Rd EB TR	4.2	A	0.20	22	88	4.4	A	0.21	29	95	4.5	A	0.26	47	124
Great Rd WB LT	22.9	C	0.74	207	529	23.3	C	0.73	254	598	23.3	C	0.72	337	778
Great Rd WB R	0.0	A	0.00	0	0	0.0	A	0.00	0	0	0.0	A	0.00	0	0
Driveway NB LTR	40.4	D	0.07	3	22	45.0	D	0.09	5	26	47.4	D	0.12	6	26
Main St SB L	35.2	D	0.06	5	27	38.2	D	0.06	6	28	39.6	D	0.07	7	29
Main St SB R	8.4	A	0.41	25	122	11.3	B	0.46	44	153	13.9	B	0.51	67	165
Overall	17.5	B	-	-	-	18.9	B	-	-	-	19.5	B	-	-	-
Great Road (Route 117) at Parker Street (Route 27)															
Great Rd EB L	25.2	C	0.08	20	43	25.3	C	0.09	21	44	25.3	C	0.09	21	44
Great Rd EB T	28.4	C	0.27	135	198	28.7	C	0.29	147	212	27.9	C	0.24	120	179
Great Rd EB R	3.5	A	0.11	8	32	3.9	A	0.12	11	36	8.6	A	0.24	59	99
Great Rd WB L	45.3	D	0.04	8	27	45.5	D	0.05	9	28	52.1	D	0.34	75	132
Great Rd WB T	57.7	E	0.60	229	328	59.5	E	0.64	249	353	57.2	E	0.58	223	321
Great Rd WB R	0.0	A	0.03	0	0	0.0	A	0.03	0	0	0.0	A	0.03	0	0
Parker St NB L	25.9	C	0.49	106	160	27.5	C	0.55	114	171	99.5	F	1.02	278	484
Parker St NB T	24.3	C	0.37	204	280	24.9	C	0.39	223	304	31.1	C	0.63	418	551
Parker St NB R	0.0	A	0.00	0	0	0.0	A	0.00	0	0	0.1	A	0.06	0	0
Parker St SB L	41.5	D	0.20	43	84	42.0	D	0.22	46	89	44.7	D	0.29	47	93
Parker St SB T	54.1	D	0.70	340	464	56.7	E	0.74	372	503	109.4	F	1.08	661	900
Parker St SB R	0.0	A	0.04	0	0	0.0	A	0.04	0	0	0.0	A	0.04	0	0
Overall	34.6	C	-	-	-	35.8	D	-	-	-	56.3	E	-	-	-
Parker Street (Route 27) at Primary Site Drive															
Site Drive EB L	-	-	-	-	-	-	-	-	-	-	53.1	D	0.95	176	355
Site Drive EB R	-	-	-	-	-	-	-	-	-	-	3.5	A	0.28	6	35
Parker St NB L	-	-	-	-	-	-	-	-	-	-	15.8	B	0.59	32	65
Parker St NB T	-	-	-	-	-	-	-	-	-	-	12.0	B	0.56	115	190
Parker St SB T	-	-	-	-	-	-	-	-	-	-	30.1	C	0.81	152	284
Parker St SB R	-	-	-	-	-	-	-	-	-	-	1.7	A	0.33	5	22
Overall	-	-	-	-	-	-	-	-	-	-	22.9	C	-	-	-
Parker Street (Route 27) and Powder Mill Road (Route 62) at Waltham Street															
Waltham St EB LT	26.8	C	0.69	101	288	31.1	C	0.76	110	291	31.1	C	0.76	110	291
Waltham St EB R	6.4	A	0.32	13	73	7.1	A	0.35	17	85	7.8	A	0.48	26	122
Waltham St WB LTR	36.0	D	0.57	98	219	37.8	D	0.62	107	257	37.8	D	0.62	107	257
Parker St NB LTR	51.8	D	0.90	118	408	71.4	E	0.99	130	454	>120	F	1.75	406	784
Powder Mill Rd SB LT	34.8	C	0.46	68	163	35.7	D	0.50	74	175	41.1	D	0.66	100	254
Powder Mill Rd SB R	8.3	A	0.55	0	73	8.4	A	0.58	0	76	8.5	A	0.58	1	78
Overall	27.9	C	-	-	-	33.4	C	-	-	-	117.2	F	-	-	-

Abbreviations:

EB = Eastbound
WB = Westbound
NB = Northbound
SB = Southbound

L=Left
T=Through
R=Right

Delay = Average delay per vehicle (measured in seconds)
LOS = Level of Service
v/c = Volume-to-Capacity Ratio
50th % Q = 50th percentile queue length (measured in feet)
95th % Q = 95th percentile queue length (measured in feet)

Table 5.6 – Saturday Midday Peak Hour Analysis – Unsignalized Intersections

	Existing				2023 No Build				2023 Build			
	Delay (s)	LOS	v/c	95th % Q (ft)	Delay (s)	LOS	v/c	95th % Q (ft)	Delay (s)	LOS	v/c	95th % Q (ft)
Route 27 (Haynes Street/Brown Street) at Concord Street												
Concord St EB LTR	32.6	D	0.51	68	42.6	E	0.61	90	>80	F	1.43	258
Concord St WB LTR	23.6	C	0.39	45	27.9	D	0.46	58	>80	F	0.91	158
Haynes St NB LTR	8.1	A	0.02	3	8.1	A	0.02	3	8.8	A	0.03	3
Brown St SB LTR	8.1	A	0.01	0	8.2	A	0.01	0	8.8	A	0.01	0
Route 27 (Parker Street) at Walnut Street												
Walnut St EB LR	14.2	B	0.22	20	15.1	C	0.25	25	35.3	E	0.51	65
Parker St NB LT	8.5	A	0.10	8	8.7	A	0.11	10	10.1	B	0.15	13
Route 117 (Great Road) at Sudbury Street												
Great Rd EB LT	7.9	A	0.01	0	8.0	A	0.01	0	8.3	A	0.01	0
Sudbury St SB L	13.6	B	0.13	10	15.7	C	0.17	15	23.2	C	0.26	25
Sudbury St SB R	9.8	A	0.01	0	9.9	A	0.01	0	10.9	B	0.01	0
Route 117 (Great Road) at Thompson Street												
Great Rd EB LT	7.9	A	0.02	3	8.0	A	0.03	3	8.4	A	0.03	3
Thompson St SB LR	12.2	B	0.05	5	12.7	B	0.06	5	15.9	C	0.08	8
Route 27 (Parker Street) at Vose Hill Road												
Vose Hill Rd EB LR	14.1	B	0.06	5	14.8	B	0.07	5	22.8	C	0.11	10
Parker St NB LT	8.2	A	0.01	0	8.3	A	0.01	0	8.9	A	0.01	0
Route 27 (Parker Street) at Old Marlboro Road												
Old Marlboro Rd WB LR	11.7	B	0.04	3	12.2	B	0.05	3	18.9	C	0.09	8
Parker St SB LT	8.1	A	0.00	0	8.2	A	0.00	0	8.9	A	0.00	0
Route 27 (Parker Street) at South Street/North Site Drive												
South St WB LR	10.4	B	0.01	0	10.6	B	0.01	0	16.3	C	0.01	0
Parker St SB LTR	8.1	A	0.00	0	8.1	A	0.00	0	9.9	A	0.00	0
Route 27 (Parker Street) at Field Street/North Street												
Field St EB LTR	15.2	C	0.03	3	16.4	C	0.04	3	79.6	F	0.20	18
North St WB LTR	11.4	B	0.03	3	11.7	B	0.03	3	25.0	D	0.08	8
Parker St NB LTR	8.1	A	0.00	0	8.2	A	0.00	0	10.2	B	0.00	0
Parker St SB LTR	8.1	A	0.01	0	8.2	A	0.01	0	10.0	A	0.01	0

Abbreviations:

EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound
L=Left, T=Through, R=Right
Delay = Average delay per vehicle (measured in seconds)
LOS = Level of Service
v/c = Volume-to-Capacity Ratio
95th % Q = 95th percentile queue length (measured in feet), assumes 25 feet per vehicle

Table 5.7 – Saturday Midday Peak Hour Analysis – Signalized Intersections

	Existing					2023 No Build					2023 Build				
	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)
Great Road (Route 117) at Main Street (Route 62) / Private Driveway															
Great Rd EB L	20.8	C	0.39	35	142	21.7	C	0.41	40	157	24.6	C	0.42	47	177
Great Rd EB TR	6.6	A	0.23	19	104	6.4	A	0.24	20	111	6.3	A	0.34	34	171
Great Rd WB LT	21.7	C	0.47	48	184	21.8	C	0.49	54	200	22.5	C	0.58	91	303
Great Rd WB R	0.0	A	0.01	0	0	0.0	A	0.01	0	0	0.0	A	0.01	0	0
Driveway NB LTR	26.0	C	0.03	1	1	27.0	C	0.03	1	13	31.8	C	0.03	1	14
Main St SB L	20.2	C	0.01	1	1	21.4	C	0.02	1	11	27.0	C	0.02	1	13
Main St SB R	2.1	A	0.18	0	0	2.1	A	0.19	0	28	2.7	A	0.20	0	34
Overall	13.1	B	-	-	-	13.3	B	-	-	-	14.2	B	-	-	-
Great Road (Route 117) at Parker Street (Route 27)															
Great Rd EB L	25.3	C	0.08	23	47	25.4	C	0.09	25	50	25.4	C	0.09	25	50
Great Rd EB T	27.0	C	0.19	90	140	27.2	C	0.20	97	150	26.7	C	0.17	80	128
Great Rd EB R	2.1	A	0.11	0	22	2.0	A	0.12	0	23	10.7	B	0.30	88	135
Great Rd WB L	45.8	D	0.07	15	39	45.9	D	0.07	15	40	56.1	E	0.47	113	185
Great Rd WB T	50.9	D	0.35	127	198	51.4	D	0.38	137	211	50.6	D	0.34	123	191
Great Rd WB R	0.0	A	0.04	0	0	0.1	A	0.04	0	0	0.1	A	0.04	0	0
Parker St NB L	21.5	C	0.23	51	87	21.8	C	0.25	55	92	59.5	E	0.80	188	325
Parker St NB T	23.9	C	0.34	182	253	24.3	C	0.36	197	274	33.3	C	0.69	466	614
Parker St NB R	0.0	A	0.01	0	0	0.0	A	0.01	0	0	0.1	A	0.08	0	0
Parker St SB L	39.1	D	0.10	21	48	39.3	D	0.11	22	50	41.6	D	0.16	22	52
Parker St SB T	48.9	D	0.56	263	367	50.3	D	0.60	286	396	>120	F	1.19	787	1,032
Parker St SB R	0.0	A	0.02	0	0	0.0	A	0.02	0	0	0.0	A	0.02	0	0
Overall	30.4	C	-	-	-	31.0	C	-	-	-	62.3	E	-	-	-
Parker Street (Route 27) at Primary Site Drive															
Site Drive EB L	-	-	-	-	-	-	-	-	-	-	44.4	D	0.93	222	421
Site Drive EB R	-	-	-	-	-	-	-	-	-	-	3.7	A	0.30	12	43
Parker St NB L	-	-	-	-	-	-	-	-	-	-	50.6	D	0.91	64	174
Parker St NB T	-	-	-	-	-	-	-	-	-	-	13.5	B	0.47	100	165
Parker St SB T	-	-	-	-	-	-	-	-	-	-	33.0	C	0.80	147	267
Parker St SB R	-	-	-	-	-	-	-	-	-	-	4.5	A	0.50	39	72
Overall	-	-	-	-	-	-	-	-	-	-	25.6	C	-	-	-
Parker Street (Route 27) and Powder Mill Road (Route 62) at Waltham Street															
Waltham St EB LT	28.0	C	0.70	118	326	31.7	C	0.76	128	384	31.7	C	0.76	128	384
Waltham St EB R	7.5	A	0.25	13	66	8.1	A	0.27	16	74	9.6	A	0.52	38	158
Waltham St WB LTR	29.7	C	0.36	53	135	30.3	C	0.38	58	143	30.3	C	0.38	58	143
Parker St NB LTR	28.7	C	0.62	88	228	31.3	C	0.68	96	275	>120	F	1.64	396	776
Powder Mill Rd SB LT	33.2	C	0.35	44	115	33.8	C	0.38	48	123	41.6	D	0.64	88	231
Powder Mill Rd SB R	8.2	A	0.49	0	65	8.2	A	0.51	0	67	8.2	A	0.51	0	67
Overall	22.5	C	-	-	-	24.3	C	-	-	-	108.0	F	-	-	-

Abbreviations:

EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound

L=Left, T=Through, R=Right

Delay = Average delay per vehicle (measured in seconds)
LOS = Level of Service
v/c = Volume-to-Capacity Ratio
50th % Q = 50th percentile queue length (measured in feet)
95th % Q = 95th percentile queue length (measured in feet)

The intersection capacity analyses indicated the following:

- During all of the peak hours, the proposed signalized intersection of Route 27 at the Primary Site Driveway operates well, with minimal delays and short queue lengths.
- At the intersection of Brown Street/Haynes Street (Route 27)/Concord Street, the Concord Street approaches are expected to experience increased delays and queues as a result of project-related traffic on Route 27. However, relative to the No-Build conditions, the anticipated queues in the Build scenario are estimated to increase by a maximum of approximately 6-8 vehicles on the Concord Street eastbound approach, and a maximum of approximately 4-5 vehicles on the Concord Street westbound approach.
- Relative to the No-Build conditions, the Build traffic operations at the intersection of Great Road (Route 117) at Main Street (Route 62) are not expected to change significantly.
- Compared to the No-Build conditions, the Build traffic operations at the intersection of Great Road (Route 117) at Parker Street (Route 27) are expected to experience increases in delays and in queue length. Under No-Build conditions, the Parker Street (Route 27) southbound approach is expected to operate at LOS D or E, depending on the peak hour. Under Build conditions (*without* the proposed mitigation in place), this approach is expected to operate at LOS E or F. Relative to the No-Build conditions, the anticipated Parker Street (Route 27) southbound queues in the Build scenario (*without* the proposed mitigation in place) are estimated to increase by a maximum of approximately 600 feet and the anticipated Parker Street (Route 27) northbound queues are expected to increase by approximately 340 feet. **However**, the operation of this signalized intersection is anticipated to improve significantly with the proposed infrastructure improvements, as discussed in the following section.
- Compared to the No-Build conditions, the Build traffic operations at the intersection of Parker Street (Route 27) / Powder Mill Road (Route 62) at Waltham Street are expected to experience increases in delays and in queue length. Under No-Build conditions, the Parker Street (Route 27) northbound approach is expected to operate at LOS C through E depending on the peak hour. Under Build conditions (*without* the proposed mitigation in place), this approach is expected to operate at LOS F. Relative to the No-Build conditions, the anticipated Parker Street (Route 27) northbound queues in the Build scenario (*without* the proposed mitigation in place) are estimated to increase by a maximum of approximately 500 feet. **However**, the operation of this signalized intersection is anticipated to improve significantly with the proposed infrastructure improvements, as discussed in the following section.

5.2 Mitigation

5.2.1 Parker Street (Route 27) at Primary Site Drive

As part of this updated traffic impact and access study, potential locations of off-site mitigation were identified. The external intersection of the primary site drive with Parker Street (Route 27) is proposed to be placed under traffic signal control. An exclusive left-turn lane and a through lane will be provided on the Parker Street (Route 27) northbound approach; a through lane and an exclusive right-turn lane will be provided on the Parker Street (Route 27) southbound approach; and an exclusive left-turn lane and an exclusive right-turn lane will be provided on the Primary Site Drive eastbound approach. The northbound left turn was analyzed using permitted-only operation during the weekday morning peak hour and protected-permitted operation during the weekday afternoon and Saturday mid-day peak hours. This will reduce delays on Parker Street (Route 27) during the weekday morning peak hour, when only 75 vehicles are expected to make the Parker Street (Route 27) northbound left turn movement, while still safely serving

the heavier demand for this movement during the weekday afternoon and Saturday mid-day peak hours. A four-section signal head using a green arrow, a flashing yellow arrow, a solid yellow arrow, and a solid red arrow will allow for this flexibility in changing signal phasing by time-of-day. This signal head configuration has been installed over the past several years at many intersections statewide, including many in the Metrowest area. Right turn overlap phases will be provided for the Parker Street (Route 27) southbound and Primary Site Drive eastbound approaches. A sidewalk and a bicycle lane will be constructed along the property frontage on Parker Street (Route 27) and along the Primary Site Drive. A secondary site drive will exclusively serve Parker Street (Route 27) southbound traffic turning right into the development. All other movements will be accommodated using the Primary Site Drive. A conceptual drawing illustrating this design is shown in Figure 21.

5.2.2 Parker Street (Route 27) at Great Road (Route 117)

To accommodate the increasing traffic volume at the signalized intersection of Route 117 (Great Road) with Route 27 (Parker Street), left turn lanes are proposed to be lengthened on the northbound Parker Street (Route 27) and the westbound Great Road (Route 117) approaches to approximately 170 feet each. The existing cobblestone medians on the south leg of Parker Street (Route 27) and on the east leg of Great Road (Route 117) are proposed to be removed. The proposed mitigation improvements to this intersection are shown in Figure 22. The signal will be placed under actuated control, enabling the traffic signal controller to be responsive to actual traffic demands in real-time. Signal timing modifications are proposed. Table 5.8 presents a comparison of the intersection capacity analyses for the 2023 Build condition at the intersection of Parker Street (Route 27) with Great Road (Route 117) with and without mitigation during the weekday morning, weekday afternoon, and Saturday midday peak hours.

It also is worth noting that no arrow indications are currently provided at the intersection of Great Road (Route 117) and Parker Street (Route 27) despite the provision of leading protected left-turn phases for northbound and eastbound traffic. Green arrow indications for approaches with protected turn phases will be incorporated into the proposed mitigation.

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Figure 21
Site Access Conceptual Drawing
129 Parker Street
Maynard, MA

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Figure 22
Off-Site Mitigation Conceptual Drawing
Route 27 (Parker Street) at Route 117 (Great Road)
Maynard, MA

Table 5.8 – Great Road (Route 117) at Parker Street (Route 27) Mitigation Improvements

	2023 No Build					2023 Build					2023 Build with Mitigation				
	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)
Weekday Morning Peak Hour															
Great Rd EB L	25.8	C	0.13	30	59	25.8	C	0.13	30	59	15.9	B	0.20	13	34
Great Rd EB T	36.3	D	0.60	357	477	36.3	D	0.60	357	477	31.6	C	0.81	148	281
Great Rd EB R	7.9	A	0.21	46	81	8.2	A	0.24	56	97	7.0	A	0.37	25	60
Great Rd WB L	47.0	D	0.11	17	44	50.1	D	0.22	37	77	28.5	C	0.34	19	53
Great Rd WB T	59.4	E	0.64	245	348	59.4	E	0.64	245	348	36.2	D	0.69	96	213
Great Rd WB R	0.0	A	0.03	0	0	0.0	A	0.03	0	0	0.0	A	0.03	0	0
Parker St NB L	28.0	C	0.45	78	141	39.9	D	0.57	112	197	28.7	C	0.72	35	98
Parker St NB T	24.7	C	0.38	210	290	26.5	C	0.46	270	364	11.1	B	0.44	93	156
Parker St NB R	0.0	A	0.01	0	0	0.0	A	0.03	0	0	0.0	A	0.03	0	0
Parker St SB L	39.8	D	0.12	25	56	40.1	D	0.13	25	56	15.2	B	0.11	9	26
Parker St SB T	67.6	E	0.88	456	650	100.8	F	1.05	618	855	43.6	D	0.92	204	389
Parker St SB R	0.1	A	0.07	0	0	0.1	A	0.07	0	0	0.1	A	0.07	0	0
Overall Intersection	37.9	D	-	-	-	46.7	D	-	-	-	25.4	C	-	-	-
Weekday Afternoon Peak Hour															
Great Rd EB L	25.3	C	0.09	21	44	25.3	C	0.09	21	44	23.3	C	0.19	13	35
Great Rd EB T	28.7	C	0.29	147	212	28.7	C	0.29	147	212	25.1	C	0.36	78	134
Great Rd EB R	3.9	A	0.12	11	36	7.6	A	0.20	44	78	6.7	A	0.29	30	66
Great Rd WB L	45.5	D	0.05	9	28	50.1	D	0.26	54	102	40.3	D	0.49	42	88
Great Rd WB T	59.5	E	0.64	249	353	59.5	E	0.64	249	353	57.5	E	0.84	125	248
Great Rd WB R	0.0	A	0.03	0	0	0.0	A	0.03	0	0	0.0	A	0.03	0	0
Parker St NB L	27.5	C	0.55	114	171	81.3	F	0.94	242	429	36.3	D	0.82	105	242
Parker St NB T	24.9	C	0.39	223	304	31.2	C	0.63	422	556	12.2	B	0.54	164	249
Parker St NB R	0.0	A	0.00	0	0	0.0	A	0.04	0	0	0.1	A	0.06	0	0
Parker St SB L	42.0	D	0.22	46	89	44.9	D	0.29	47	93	22.3	C	0.24	22	54
Parker St SB T	56.7	E	0.74	372	503	112.1	F	1.09	671	913	55.1	E	0.96	294	501
Parker St SB R	0.0	A	0.04	0	0	0.0	A	0.04	0	0	0.0	A	0.04	0	0
Overall Intersection	35.8	D	-	-	-	55.9	E	-	-	-	30.3	C	-	-	-
Saturday Midday Peak Hour															
Great Rd EB L	25.4	C	0.09	25	50	25.4	C	0.09	25	50	23.5	C	0.18	16	41
Great Rd EB T	27.2	C	0.20	97	150	27.2	C	0.20	97	150	24.9	C	0.31	53	99
Great Rd EB R	2.0	A	0.12	0	23	10.2	B	0.27	76	121	9.6	A	0.42	40	91
Great Rd WB L	45.9	D	0.07	15	40	54.6	D	0.42	98	164	52.8	D	0.70	64	152
Great Rd WB T	51.4	D	0.38	137	211	51.4	D	0.38	137	211	36.6	D	0.50	70	128
Great Rd WB R	0.1	A	0.04	0	0	0.1	A	0.04	0	0	0.1	A	0.04	0	0
Parker St NB L	21.8	C	0.25	55	92	53.6	D	0.75	169	284	37.5	D	0.81	69	205
Parker St NB T	24.3	C	0.36	197	274	33.3	C	0.69	466	614	11.0	B	0.56	176	268
Parker St NB R	0.0	A	0.01	0	0	0.1	A	0.06	0	0	0.1	A	0.08	0	0
Parker St SB L	39.3	D	0.11	22	50	41.6	D	0.16	22	52	14.9	B	0.10	9	26
Parker St SB T	50.3	D	0.60	286	396	>120	F	1.19	789	1,034	33.6	C	0.87	289	486
Parker St SB R	0.0	A	0.02	0	0	0.0	A	0.02	0	0	0.0	A	0.02	0	0
Overall Intersection	31.0	C	-	-	-	62.6	E	-	-	-	23.2	C	-	-	-

Abbreviations:

EB = Eastbound
WB = Westbound
NB = Northbound
SB = Southbound

L=Left
T=Through
R=Right

Delay = Average delay per vehicle (measured in seconds)
LOS = Level of Service
v/c = Volume-to-Capacity Ratio
50th % Q = 50th percentile queue length (measured in feet)
95th % Q = 95th percentile queue length (measured in feet)

As shown in Table 5.8, these timing modifications greatly improve the operational efficiency of the Great Road (Route 117) at Parker Street (Route 27) intersection compared to the unmitigated Build scenario. While all movements at the intersection have reduced delays and queue lengths, particularly improved is the southbound Parker Street (Route 27) through movement, for which delays decrease by over 50 percent during all three peak hours. The overall intersection average delays are lower in the 2023 Build with Mitigation Scenario than in the 2023 No Build Scenario.

5.2.3 Great Road (Route 117) at Old Marlboro Road

The existing intersection geometry is unconventional and may cause confusion. By eliminating the roadway running along the southeast side of the island, a more typical perpendicular T-intersection can be formed. The existing residential driveways along the eliminated roadway would be extended to directly connect to Great Road (Route 117) or Old Marlboro Road, as appropriate. The conceptual plan is shown in Figure 23.

5.2.4 Old Marlboro Road at B Street and Marlboro Street

At the intersection of Old Marlboro Road with B Street, additional cut-through traffic is likely to be generated by the development project. To more clearly define travel paths through this intersection and to separate conflict points, B Street would be relocated to meet Old Marlboro Road at a perpendicular angle south of Marlboro Street, which would also be relocated to meet Old Marlboro Road at a perpendicular angle north of its intersection with B Street. It is anticipated that the proposed roadway improvements would improve safety and act as a traffic calming measure. The conceptual plan is shown in Figure 24.

5.2.5 Parker Street (Route 27) at Old Marlboro Road (northern intersection)

The east leg of the intersection of Old Marlboro Road with Parker Street (Route 27) is approximately 70 feet wide. By narrowing this width to 30 feet, turning speeds can be reduced, safety can be improved, and cut-through traffic volume can be potentially reduced. This is shown in Figure 25.

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Figure 23
Off-Site Mitigation Conceptual Drawing
Route 117 (Great Road) at Old Marlboro Road
Maynard, MA

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Figure 24
Off-Site Mitigation Conceptual Drawing
Old Marlboro Road at B Street/Marlboro Street
Maynard, MA

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Figure 25
Off-Site Mitigation Conceptual Drawing
Route 27 (Parker Street) at Old Marlboro Road
Maynard, MA

5.2.6 Parker Street (Route 27) / Powder Mill Road (Route 62) at Waltham Street Intersection

To accommodate the additional traffic expected to use the signalized intersection of Parker Street (Route 27) and Powder Mill Road (Route 62) at Waltham Street, signal timing modifications are proposed. Vehicle detection) is also proposed to be installed to improve traffic operations and allow the traffic signal controller to respond to the actual traffic demands in real-time.

Timings are proposed to be modified for this intersection. Table 5.9 presents a comparison of the intersection capacity analyses for the 2023 Build condition at the intersection of Parker Street (Route 27) / Powder Mill Road (Route 62) with Waltham Street with and without mitigation during the weekday morning, weekday afternoon, and Saturday mid-day peak hours. It is noted that the benefits of signal timing and vehicle detection are somewhat limited. A dedicated northbound left-turn lane would significantly improve traffic operations at this location, and is warranted under the existing conditions. However, there are constraints (both Right-of-Way, and existing buildings located at the back of the existing sidewalk) on both sides of Parker Street and it is not feasible to widen the roadway to accommodate an exclusive northbound left-turn lane.

Table 5.9 – Great Road (Route 117) / Powder Mill Road (Route 62) at Waltham Street Mitigation Improvements

	2023 No Build					2023 Build					2023 Build with Mitigation				
	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)	Delay (sec)	LOS	v/c	50th Q (ft)	95th Q (ft)
Weekday Morning Peak Hour															
Waltham St EB LT	28.8	C	0.81	186	330	28.8	C	0.81	186	330	34.4	C	0.86	236	431
Waltham St EB R	8.0	A	0.43	46	104	8.6	A	0.49	54	122	10.6	B	0.52	65	142
Waltham St WB LTR	24.5	C	0.33	53	101	24.7	C	0.34	54	103	12.7	B	0.18	39	74
Parker St NB LTR	34.7	C	0.83	140	295	76.8	F	1.04	187	418	41.0	D	0.89	199	388
Powder Mill Rd SB LT	25.8	C	0.31	47	92	27.6	C	0.42	65	119	13.8	B	0.22	47	85
Powder Mill Rd SB R	6.6	A	0.34	0	43	6.6	A	0.34	0	43	3.1	A	0.21	0	31
Overall	23.4	C	-	-	-	34.2	C	-	-	-	25.0	C	-	-	-
Weekday Afternoon Peak Hour															
Waltham St EB LT	31.1	C	0.76	110	291	31.1	C	0.76	110	291	75.6	E	0.96	324	540
Waltham St EB R	7.1	A	0.35	17	85	7.8	A	0.48	26	122	26.8	C	0.59	185	304
Waltham St WB LTR	37.8	D	0.62	107	257	37.8	D	0.62	107	257	73.5	E	0.78	260	405
Parker St NB LTR	71.4	E	0.99	130	454	>120	F	1.75	406	784	90.5	F	1.08	574	817
Powder Mill Rd SB LT	35.7	D	0.50	74	175	41.1	D	0.66	100	254	64.2	E	0.68	230	333
Powder Mill Rd SB R	8.4	A	0.58	0	76	8.5	A	0.58	1	78	7.5	A	0.46	37	98
Overall	33.4	C	-	-	-	117.2	F	-	-	-	59.4	E	-	-	-
Saturday Midday Peak Hour															
Waltham St EB LT	31.7	C	0.76	128	384	31.7	C	0.76	128	384	71.8	E	0.90	365	522
Waltham St EB R	8.1	A	0.27	16	74	9.6	A	0.52	38	158	30.5	C	0.64	225	354
Waltham St WB LTR	30.3	C	0.38	58	143	30.3	C	0.38	58	143	60.7	E	0.52	147	227
Parker St NB LTR	31.3	C	0.68	96	275	>120	F	1.64	396	776	79.6	F	1.04	573	816
Powder Mill Rd SB LT	33.8	C	0.38	48	123	41.6	D	0.64	88	231	77.9	E	0.79	210	351
Powder Mill Rd SB R	8.2	A	0.51	0	67	8.2	A	0.51	0	67	26.7	C	0.66	79	187
Overall	24.3	C	-	-	-	108.0	F	-	-	-	59.7	E	-	-	-

Abbreviations:

EB = Eastbound	L=Left	Delay = Average delay per vehicle (measured in seconds)
WB = Westbound	T=Through	LOS = Level of Service
NB = Northbound	R=Right	v/c = Volume-to-Capacity Ratio
SB = Southbound		50th % Q = 50th percentile queue length (measured in feet)
		95th % Q = 95th percentile queue length (measured in feet)

By implementing the recommended timing modifications in combination with the installation of vehicle actuation, the overall intersection delays can be reduced by more than 40 percent during the weekday afternoon and the Saturday mid-day peak hours.

6.0 CONCLUSIONS AND RECOMMENDATIONS

This traffic report describes the analysis procedures, assumptions, and results of this traffic study. The following summarizes the traffic analysis findings:

- The proposed development is estimated to generate approximately 371 new vehicle trips during the weekday morning peak hour, 930 new vehicle trips during the weekday afternoon peak hour, and 1,441 new vehicle trips during the Saturday mid-day peak hour.
- The proposed traffic signal where the Primary Site Drive intersects Route 27 (Parker Street) is expected to operate safely and efficiently with minimal delays.
- Compared to the Future No Build conditions, most of the study intersections will experience modest increases in average delay and queue length. The most significant increases are expected to occur at the signalized intersection of Parker Street (Route 27) with Great Road (Route 117) and at the intersection of Parker Street (Route 27) / Powder Mill Road (Route 62) with Waltham Street.

The analysis showed the proposed project could be accommodated by the study area roadways with several improvements to the transportation infrastructure to improve safety, traffic operating conditions, and to encourage alternative modes of transportation:

- It is recommended to install a 5-foot shoulder on both sides of Parker Street (Route 27) wide enough to accommodate bicycles along the project site.
- Bicycle lanes are proposed along the primary site driveway, and safe and secure bicycle racks are proposed at convenient locations throughout the project site to encourage residents and visitors to the site to use alternate means of transportation.
- At the project site, a network of sidewalks/walkways are proposed to connect the various uses within the site and connect with the external sidewalk network.
- A sidewalk is recommended to be reconstructed on the west side of Parker Street (Route 27) along the project site.
- A Rectangular Rapid Flashing Beacon (RRFB) is proposed to be installed to facilitate a safe pedestrian crossing at the existing crosswalk across Parker Street (Route 27) at Field Street/North Street.
- It is recommended that a traffic signal be constructed at the intersection of Parker Street (Route 27) with the Primary Site Drive. An additional unsignalized access driveway is proposed approximately 600 feet north of the Primary Site Drive. This northern site driveway will be a "right-turn" entrance only driveway.
- At the Parker Street (Route 27) / Great Road (Route 117) intersection, the following transportation infrastructure improvements are recommended:
    - Minor geometric improvements are proposed, including extending the existing left-turn lanes on the Parker Street (Route 27) northbound and Great Road (Route 117) westbound approaches.
    - The existing pedestrian signal equipment is proposed to be replaced with pedestrian signal heads that provide a countdown indication during the "Flashing Don't Walk" period.
    - Vehicle detection is recommended to be installed on all approaches to the intersection. This will substantially reduce vehicle delays and 95th percentile queue lengths as compared to the existing operation.

  - Green and yellow arrow indications are recommended to be installed for the northbound and eastbound protected left turn phases.
  - Optimized traffic signal timings are proposed, including pedestrian signal timings that are consistent with the current MUTCD.
- Vehicle detection is recommended to be installed at the intersection of Route 27 (Parker Street) / Powder Mill Road (Route 62) with Waltham Street and to optimize the traffic signal timings to mitigate the impacts of the site-generated trips.
- It is recommended to reconstruct the following intersections to form more conventional perpendicular T-intersections:
  - Parker Street (Route 27) at Old Marlboro Road,
  - Old Marlboro Road at B Street and Marlboro Street, and
  - Old Marlboro Road at Great Road (Route 117)

  It is anticipated that these geometric improvements will better define the travel way, reduce conflicts, improve safety, act as traffic calming measures in the nearby residential neighborhood, and discourage cut-through traffic between Great Road and Parker Street.
- Traffic monitoring is proposed at the signalized intersection of Parker Street (Route 27) with the Primary Site Drive. The traffic monitoring will be conducted every 6 months for a period of 2 years following the initial occupancy. The goal of the traffic monitoring is to evaluate the traffic operations of the new traffic signal, and will provide an opportunity to make signal timing and/or phasing adjustments as needed.
- Traffic monitoring could be considered at the intersection of Haynes Street/Brown Street (Route 27) / Concord Street. This intersection is farther from the project site (on the opposite end of Town), and any direct impacts to traffic operations at this location are more difficult to predict. Traffic monitoring could allow a direct comparison of traffic volumes and operations before and after the project site is occupied.

In addition to the recommended mitigation discussed above, it is noted that the project proponent has committed to making significant financial contributions to the Town of Maynard. As outlined in the Memorandum of Agreement (MOA) between the Town of Maynard and the project proponent, dated September 6, 2016, the project proponent will be making a $1,000,000 financial contribution to offset the "anticipated direct and indirect impacts of the project". Furthermore, the project proponent has committed to making a $260,000 contribution to a Traffic Improvement Fund controlled by the Town of Maynard. The Traffic Improvement Fund contribution is in addition to the $1,000,000 financial contribution, and is for the express purpose of mitigating transportation impacts related to the proposed development project.

In summary, with the mitigation outlined above in place, the surrounding roadway network will be able to safely and efficiently accommodate the anticipated traffic.

APPENDIX I – SITE DEVELOPMENT PLANS

11X17 PLANS PROVIDED – FULL SIZE AVAILABLE UPON REQUEST

LAND USE / ZONING INFORMATION & NOTES

1. APPLICANT
CAPITAL GROUP PROPERTIES
259 TURNPIKE ROAD, SUITE 100
SOUTHBOROUGH, MA, 01772

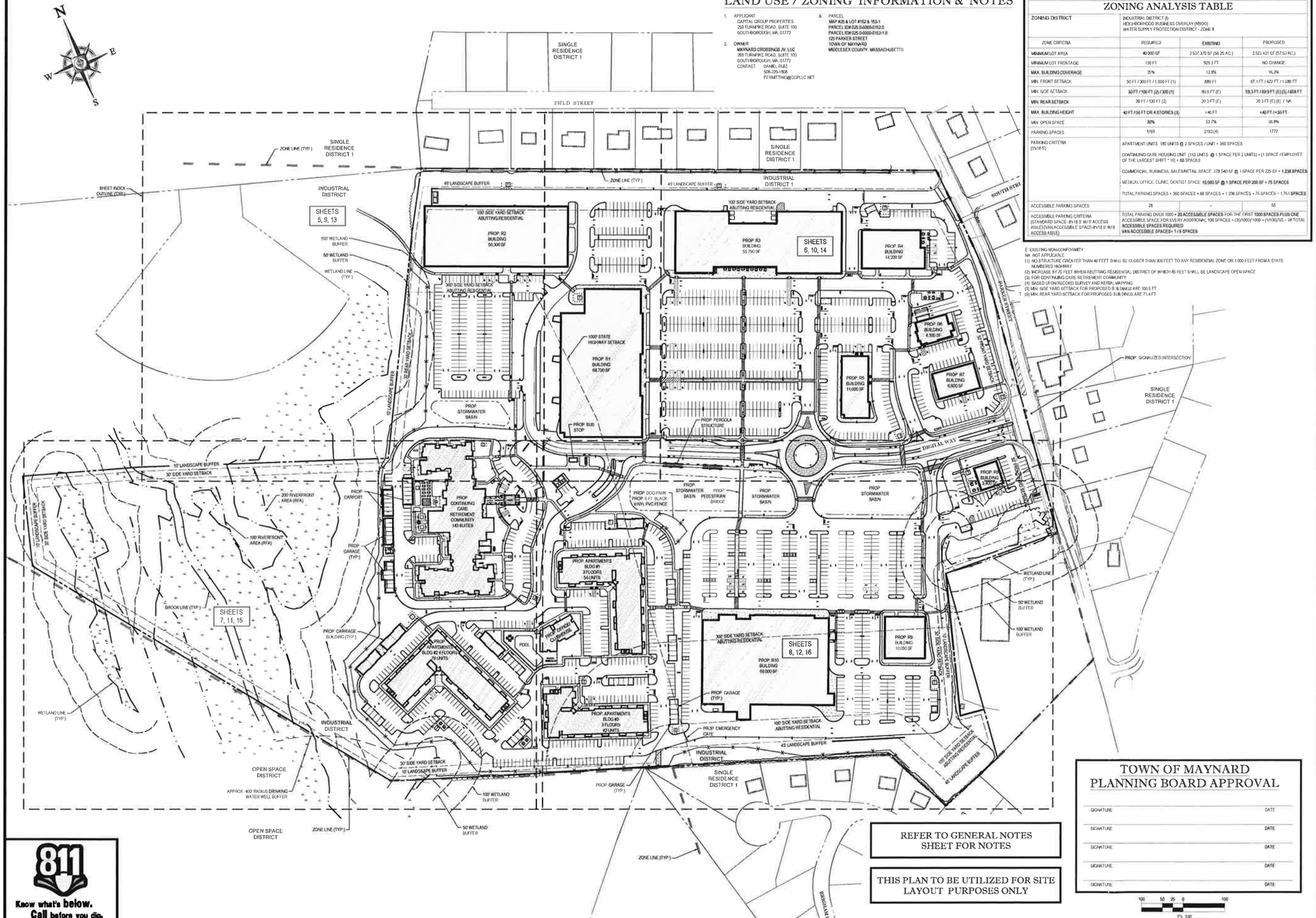
2. OWNER
MAYNARD CROSSINGS JV, LLC
259 TURNPIKE ROAD, SUITE 100
SOUTHBOROUGH, MA, 01772
CONTACT
DANIEL RUIZ
508-229-1808
PERMITTING@CGPLLC.NET

3. PARCEL
MAP #25 & LOT #152 & 152-1
PARCEL ID# 025.0-0000-0152.0
PARCEL ID# 025.0-0000-0152-1.0
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY, MASSACHUSETTS

ZONING ANALYSIS TABLE

ZONING DISTRICT	INDUSTRIAL DISTRICT (I) NEIGHBORHOOD BUSINESS OVERLAY (NBOD) WATER SUPPLY PROTECTION DISTRICT - ZONE II		
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	40,000 SF	2,537,370 SF (58.25 AC.)	2,523,431 SF (57.93 AC.)
MINIMUM LOT FRONTAGE	150 FT	929.3 FT	NO CHANGE
MAX. BUILDING COVERAGE	35%	12.8%	16.3%
MIN. FRONT SETBACK	50 FT / 300 FT / 1,000 FT (1)	689 FT	87.1 FT / 422 FT / 1,289 FT
MIN. SIDE SETBACK	30 FT / 100 FT (2) / 300 (1)	89.9 FT (E)	59.3 FT / 89.9 FT (E) (5) / 459 FT
MIN. REAR SETBACK	30 FT / 100 FT (2)	20.3 FT (E)	20.3 FT (E) (6) / NA
MAX. BUILDING HEIGHT	40 FT / 50 FT OR 4 STORIES (3)	< 40 FT	< 40 FT / < 50 FT
MIN. OPEN SPACE	30%	53.7%	38.8%
PARKING SPACES	1761	2193 (4)	1772
PARKING CRITERIA (9'x18.5')	APARTMENT UNITS 180 UNITS @ 2 SPACES / UNIT = 360 SPACES CONTINUING CARE HOUSING UNIT (143 UNITS @ 1 SPACE PER 2 UNITS) + (1 SPACE / EMPLOYEE OF THE LARGEST SHIFT (16) = 88 SPACES COMMERCIAL, BUSINESS, SALES/RETAIL SPACE: 278,540 SF @ 1 SPACE PER 225 SF = 1,238 SPACES MEDICAL OFFICE, CLINIC, DENTIST SPACE: 15,000 SF @ 1 SPACE PER 200 SF = 75 SPACES TOTAL PARKING SPACES = 360 SPACES + 88 SPACES + 1,238 SPACES + 75 SPACES = 1,761 SPACES		
ACCESSIBLE PARKING SPACES	26	-	55
ACCESSIBLE PARKING CRITERIA (STANDARD SPACE: 9'x18.5' W/ 9' ACCESS AISLE) (VAN ACCESSIBLE SPACE: 8'x18.5' W/ 8' ACCESS AISLE)	TOTAL PARKING OVER 1000 = 20 ACCESSIBLE SPACES FOR THE FIRST 1000 SPACES PLUS ONE ACCESSIBLE SPACE FOR EVERY ADDITIONAL 100 SPACES = (20/1000)*1000 + (1/100)765 = 28 TOTAL ACCESSIBLE SPACES REQUIRED VAN ACCESSIBLE SPACES= 1 / 6 SPACES		

E EXISTING NON-CONFORMITY
NA NOT APPLICABLE
(1) NO STRUCTURE GREATER THAN 40 FEET SHALL BE CLOSER THAN 300 FEET TO ANY RESIDENTIAL ZONE OR 1,000 FEET FROM A STATE NUMBERED HIGHWAY
(2) INCREASE BY 70 FEET WHEN ABUTTING RESIDENTIAL DISTRICT OF WHICH 45 FEET SHALL BE LANDSCAPE OPEN SPACE
(3) FOR CONTINUING CARE RETIREMENT COMMUNITY
(4) BASED UPON RECORD SURVEY AND AERIAL MAPPING
(5) MIN. SIDE YARD SETBACK FOR PROPOSED BUILDINGS ARE 100.5 FT
(6) MIN. REAR YARD SETBACK FOR PROPOSED BUILDINGS ARE 71.4 FT



REFER TO GENERAL NOTES SHEET FOR NOTES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

TOWN OF MAYNARD PLANNING BOARD APPROVAL

SIGNATURE	DATE
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100 50 25 0 100
1" = 100'

811 Know what's below. Call before you dig.

BOHLER ENGINEERING
SITE/CIVIL/LAND CONSULTING/ENGINEERING/ARCHITECTURE
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BOSTON, MA
NEW YORK, NY
PHILADELPHIA, PA
RALEIGH, NC
ATLANTA, GA
CHICAGO, IL
SOUTH FLORIDA
DALLAS, TX

REVISIONS

REV	DATE	COMMENT	BY
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PRELIMINARY

PROJECT No.:	W161189
DRAWN BY:	BLC/CFD
CHECKED BY:	NEM/JAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.:	W161189SS0

PROJECT:
SITE DEVELOPMENT PLANS
FOR
CAPITAL GROUP
MAYNARD CROSSING
LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

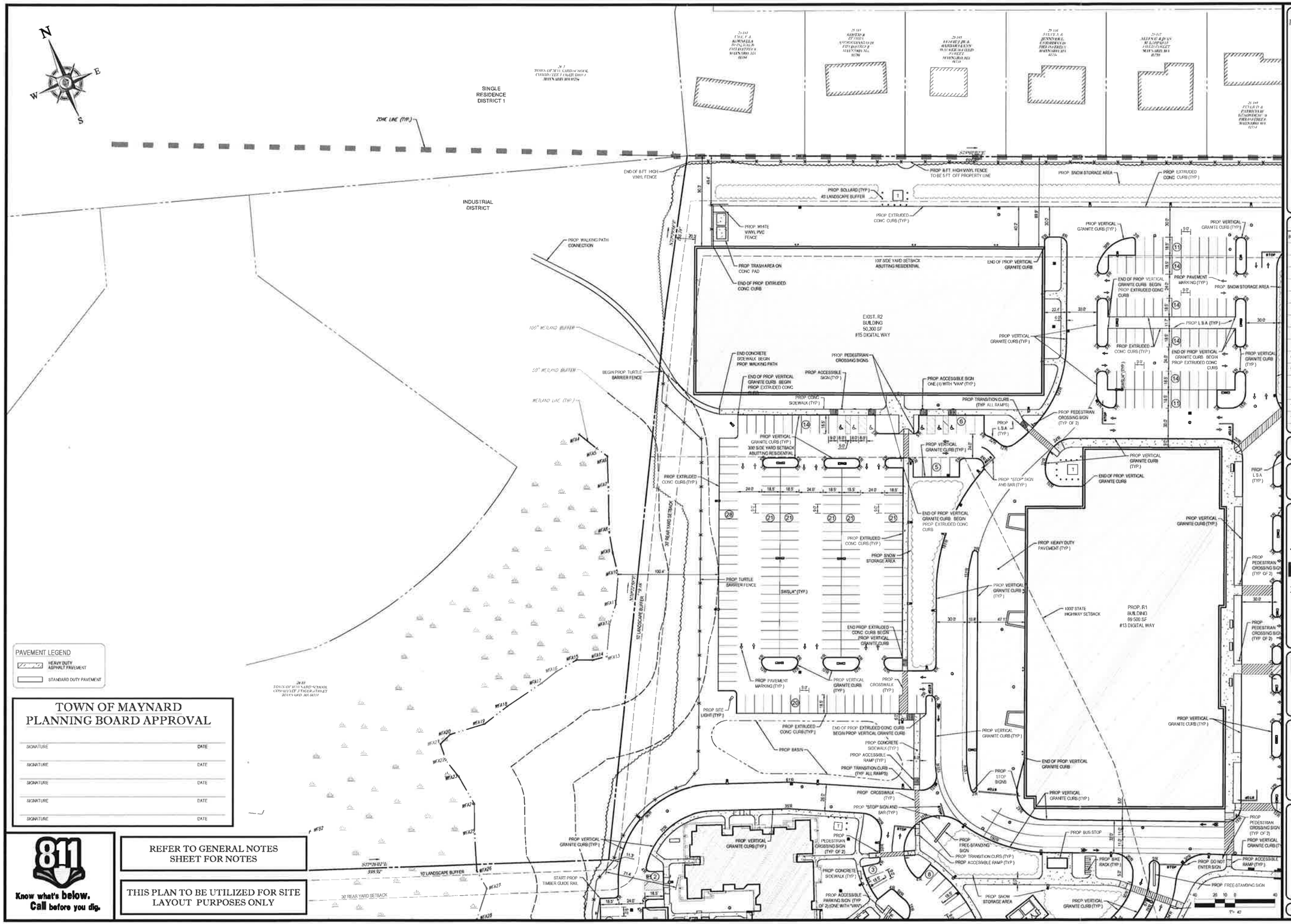
BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH, CIVIL
No. 41530
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
8
OF 35

REV 0 - 02/15/2017



PAVEMENT LEGEND

- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD DUTY PAVEMENT

TOWN OF MAYNARD PLANNING BOARD APPROVAL

SIGNATURE	DATE
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SIGNATURE	DATE

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REFER TO GENERAL NOTES SHEET FOR NOTES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

BOHLER ENGINEERING

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING ARCHITECTURE
TRANSPORTATION SERVICES
PERMITTING SERVICES
SUSTAINABLE DESIGN

- RALEIGH, NC
- CHARLOTTE, NC
- ATLANTA, GA
- AUSTIN, TX
- SOUTH FLORIDA
- DALLAS, TX
- UPSTATE NEW YORK
- BOSTON, MA
- NEW YORK, NY
- PHILADELPHIA, PA
- EASTON VALLEY, PA
- CENTRAL PENNSYLVANIA
- NEWPORT BEACH, CA
- DENVER, COLORADO
- SOUTHERN MARYLAND
- CENTRAL VIRGINIA

REVISIONS

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PRELIMINARY

PROJECT No.:	W161159
DRAWN BY:	BLC/CFD
CHECKED BY:	NEM/JAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.:	W161159SSD

PROJECT:

SITE DEVELOPMENT PLANS

FOR

CAPITAL GROUP

MAYNARD CROSSING

LOCATION OF SITE

MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

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Fax: (508) 480-9080
www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCIS
No. 41530
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:

SITE PLAN "A"

SHEET NUMBER:

9 OF 35

REV 0 - 02/15/2017

REFER TO GENERAL NOTES SHEET FOR NOTES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

TOWN OF MAYNARD PLANNING BOARD APPROVAL

SIGNATURE	DATE
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SIGNATURE	DATE
SIGNATURE	DATE

PAVEMENT LEGEND
- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD DUTY PAVEMENT

ZONE LINE (TYP.)

SINGLE RESIDENCE DISTRICT 1

INDUSTRIAL DISTRICT 1

SOUTH STREET

PARKER STREET (10,800 ADT (2004))

B STREET

DIGITAL WAY

PROP. R3 BUILDING 55,790 SF #11 DIGITAL WAY

PROP. R4 BUILDING 14,200 SF #9 DIGITAL WAY

PROP. R5 BUILDING 11,000 SF #5 DIGITAL WAY

PROP. R6 BUILDING 7,000 SF #7 DIGITAL WAY

PROP. R7 BUILDING 6,800 SF #3 DIGITAL WAY

PROP. R8 BUILDING 3,400 SF #2 DIGITAL WAY

PROP. R1 BUILDING 69,500 SF #13 DIGITAL WAY

PROPOSED TRAFFIC SIGNAL

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING ■ LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN ■ PERMITTING SERVICES ■ TRANSPORTATION SERVICES

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- NEW YORK
- SOUTHEASTERN, PA
- BOSTON, MA
- NEW YORK, NY
- LAKEWOOD, NJ
- PHILADELPHIA, PA
- CHARLOTTE, NC
- ATLANTA, GA
- AUSTIN, TX
- SOUTH FLORIDA
- DALLAS, TX
- REHOBOTH BEACH, DE
- SOUTHERN MARYLAND
- SOUTHERN NEW JERSEY
- CENTRAL VIRGINIA

REVISIONS

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PRELIMINARY

PROJECT No.:	W161185
DRAWN BY:	BLC/CFD
CHECKED BY:	NEMJAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.:	W161185SS

PROJECT:
SITE DEVELOPMENT PLANS
FOR
CAPITAL GROUP
MAYNARD CROSSING
LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

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COMMONWEALTH OF MASSACHUSETTS — JOHN A. RUCKHAUS — No. 41530 — REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:
SITE PLAN "B"

SHEET NUMBER:
10
OF 35

REV 0 - 02/15/2017

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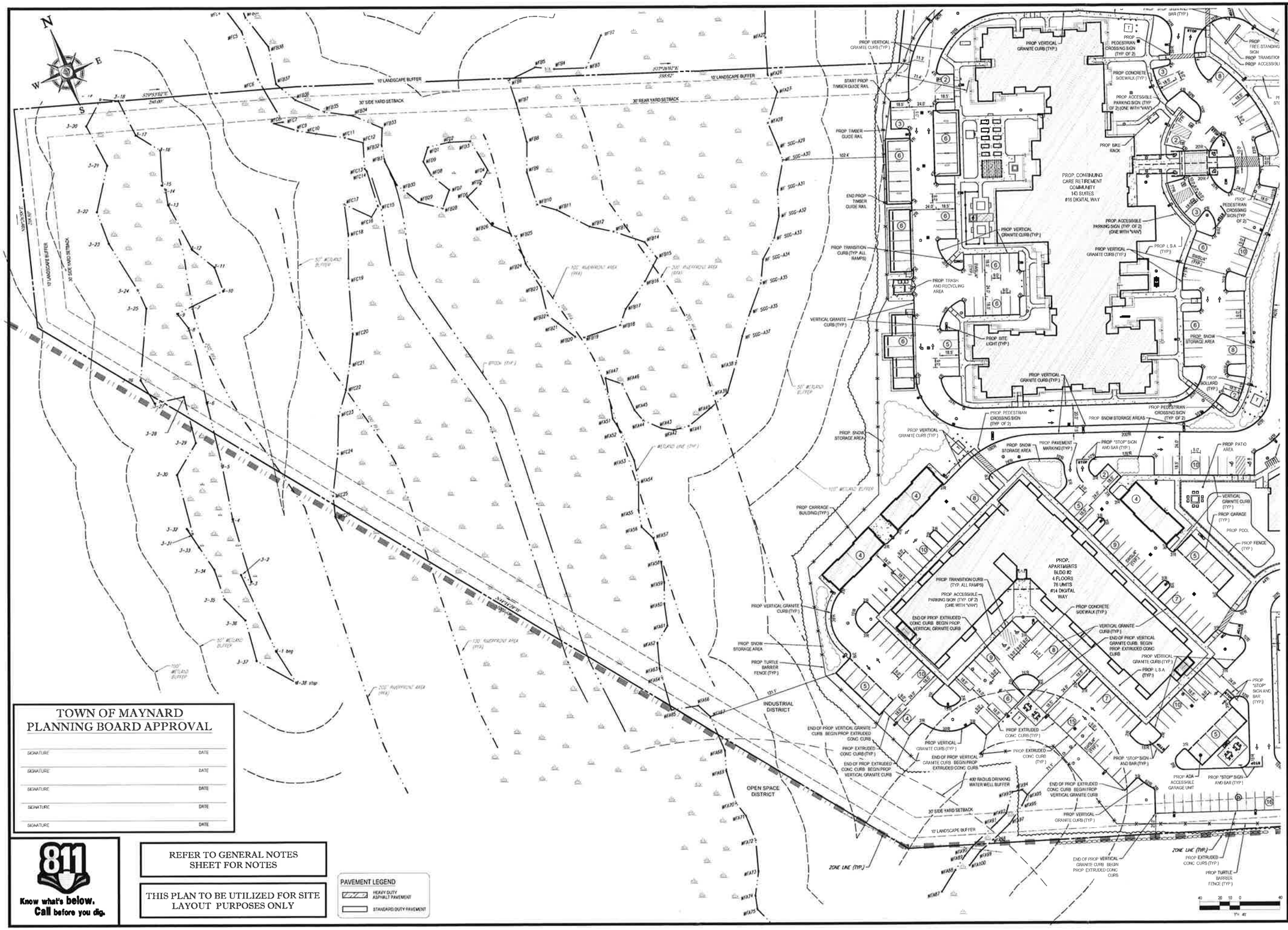

TOWN OF MAYNARD
PLANNING BOARD APPROVAL

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SIGNATURE	DATE

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Know what's below.
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REFER TO GENERAL NOTES SHEET FOR NOTES

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

PAVEMENT LEGEND
- HEAVY DUTY ASPHALT PAVEMENT
- STANDARD DUTY PAVEMENT

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- NEW YORK, NY
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- PHILADELPHIA, PA
- CHARLOTTE, NC
- RALEIGH, NC
- ATLANTA, GA
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- SOUTH FLORIDA
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- CENTRAL VIRGINIA

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PRELIMINARY

PROJECT No:	W161188
DRAWN BY:	BLC/CFD
CHECKED BY:	NEW/JAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.	W161188SSD

PROJECT:
SITE DEVELOPMENT PLANS
FOR
CAPITAL GROUP
MAYNARD CROSSING

LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

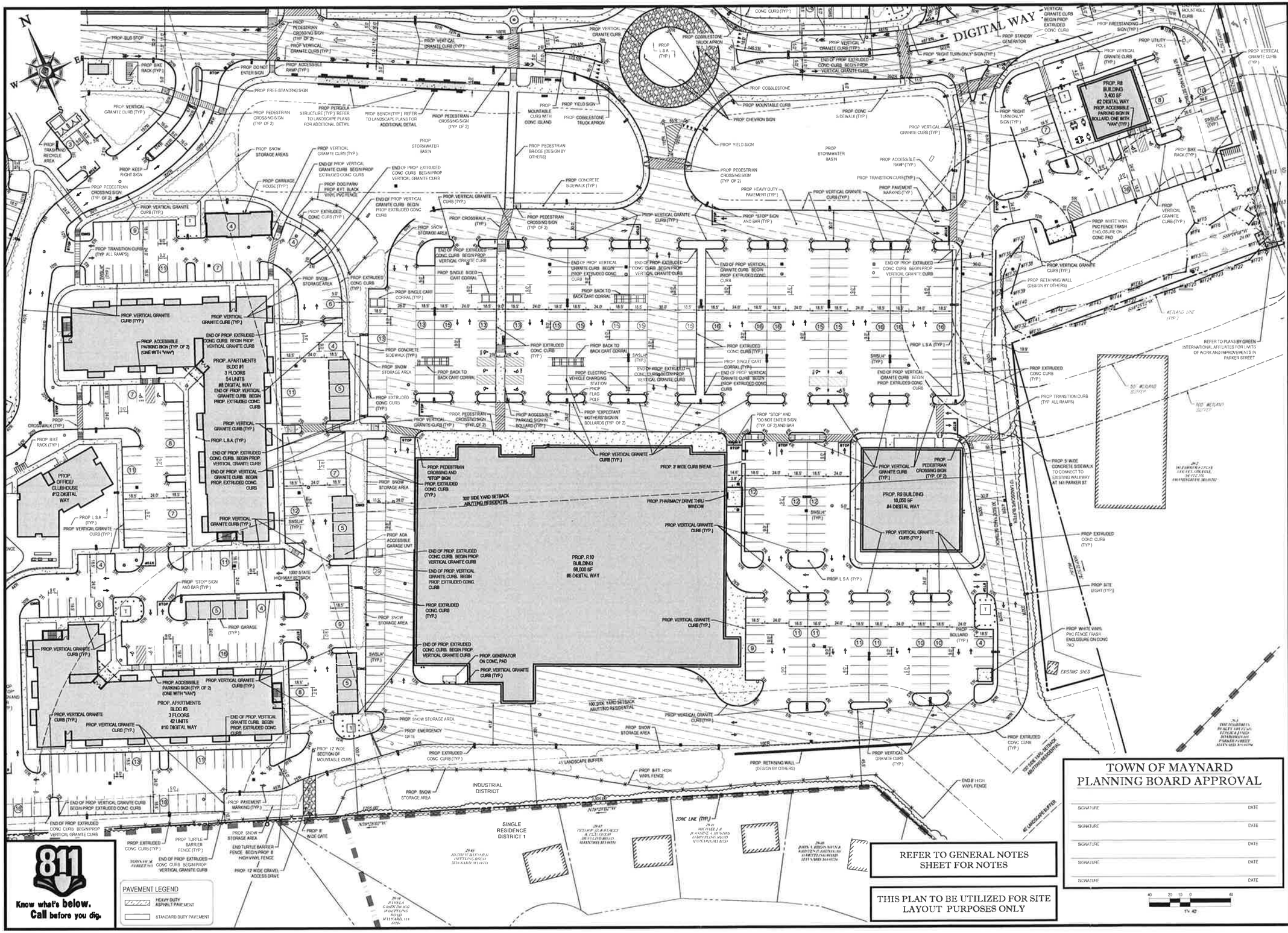
BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH
No. 41530
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:
SITE PLAN "C"

SHEET NUMBER:
11
OF 35

REV 0 - 02/15/2017



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SOUTHERN MARYLAND; BALTIMORE, MD; WASHINGTON, DC
SOUTH FLORIDA; ORLANDO, FL; MIAMI, FL
CENTRAL VIRGINIA; RICHMOND, VA

REVISIONS

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PRELIMINARY

PROJECT No.:	W161189
DRAWN BY:	BLC/CFD
CHECKED BY:	NEM/JAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.:	W161189SS0

PROJECT:
SITE DEVELOPMENT PLANS
FOR
CAPITAL GROUP
MAYNARD CROSSING
LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

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www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH, CIVIL
No. 41630
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:
SITE PLAN "D"

SHEET NUMBER:
12
OF 35

REV 0 - 02/15/2017

N
W
E
S

100' WETLAND BUFFER
50' WETLAND BUFFER
WETLAND LINE (TYP.)
WFA4
WFA5
WFA6
WFA7
WFA8
WFA9
WFA10
WFA11
WFA12
WFA13
WFA14
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WFA23
WFA24
WFA25
WFA26
WFA27
WFA28
WF SEC-A30

EXIST. R2
BUILDING
50,000 SF
#15 DIGITAL WAY
FFE= 202.5±

PROP. 12" DIA. ROOF DRAIN AT 0.5% SLOPE MIN. (TYP.)

PROP. ROOF LEADER (TYP.) SIZE AND LOCATION TO BE COORDINATED WITH ARCH / MEP PLANS

PROP. 6" HDPE DRAIN CONNECTION FROM BUILDING SURROUND COORDINATE WITH ARCH./MEP PLANS

ADA MAX. 2% SLOPE IN ANY DIRECTION (TYP.)

PROP. UNDERGROUND INFILTRATION SYSTEM #1

PROP. R1
BUILDING
69,500 SF
#13 DIGITAL WAY
FFE= 202.70

PROP. DRAIN LINE (TYP.)

PROP. BASIN

RIDGE LINE

TOWN OF MAYNARD
PLANNING BOARD APPROVAL

SIGNATURE	DATE
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SIGNATURE	DATE

REFER TO SHEET 35 FOR STORM DRAINAGE TABLE FOR ADDITIONAL INFORMATION

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES

811
Know what's below.
Call before you dig.

1" = 40'

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SOUTHEASTERN PA | CHARLOTTE, NC
NEW JERSEY | RALEIGH, NC
NEW YORK METRO | TAMPA, FL
NEW YORK, NY | BALTIMORE, MD
PHILADELPHIA, PA | SOUTHERN MARYLAND
| SOUTH FLORIDA
| CENTRAL VIRGINIA

REVISIONS

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PRELIMINARY

PROJECT No.	W161186
DRAWN BY:	BLC/CFD
CHECKED BY:	NEM/JAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.	W161186S50

PROJECT:
SITE DEVELOPMENT PLANS
FOR
CAPITAL GROUP
MAYNARD CROSSING

LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

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SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH
No. 41530
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:
GRADING & DRAINAGE PLAN "A"

SHEET NUMBER:
13
OF 35

REV 0 - 02/15/2017

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THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES

REFER TO SHEET 35 FOR STORM DRAINAGE TABLE FOR ADDITIONAL INFORMATION

TOWN OF MAYNARD PLANNING BOARD APPROVAL

SIGNATURE	DATE
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SIGNATURE	DATE

SOUTH STREET

PARKER STREET
10,800 ADT (2004)

B STREET

DIGITAL WAY

PROP. R3 BUILDING 55,700 SF #11 DIGITAL WAY FFE= 203.0

PROP. R4 BUILDING 14,200 SF #9 DIGITAL WAY FFE= 202.9

PROP. R1 BUILDING 89,500 SF #13 DIGITAL WAY FFE= 202.70

PROP. R5 BUILDING 11,000 SF #5 DIGITAL WAY FFE= 202.60

PROP. R5 BUILDING 4,900 SF #7 DIGITAL WAY FFE= 202.0

PROP. R7 BUILDING 6,800 SF #3 DIGITAL WAY FFE= 202.0

PROP. R8 BUILDING 3,400 SF #2 DIGITAL WAY FFE= 201.8

PROP. UNDERGROUND INFILTRATION SYSTEM #1

PROP. 12" DIA. ROOF DRAIN AT 0.5% SLOPE MIN. (TYP.)

PROP. ROOF LEADER (TYP.) SIZE AND LOCATION TO BE COORDINATED WITH ARCH. / MEP PLANS

PROP. 6" HDPE DRAIN CONNECTION FROM BUILDING SURROUND COORDINATE WITH ARCH./MEP PLANS

ADA MAX. 2% SLOPE IN ANY DIRECTION (TYP.)

PROP. DRAIN LINE (TYP.)

REFER TO PLANS BY GREEN INTERNATIONAL AFFILIATES FOR LIMITS OF WORK AND IMPROVEMENTS IN PARKER STREET

MAINTAIN GUTTER FLOW

PROP. 12" DIA ROOF DRAIN AT 0.5% SLOPE MIN (TYP.)

CB-10 DOUBLE GRATE

Know what's below. Call before you dig.

1" = 40'

REVISIONS

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PRELIMINARY

PROJECT No.	W161188
DRAWN BY:	BLC/CFD
CHECKED BY:	NEM/JAK
DATE	02/15/2017
SCALE	AS NOTED
CAD I.D.	W161188SS0

PROJECT:

SITE DEVELOPMENT PLANS

—FOR—

CAPITAL GROUP

MAYNARD CROSSING

LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

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352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 460-9080
www.BohlerEngineering.com

COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCZARSKI
No. 41530
REGISTERED PROFESSIONAL ENGINEER

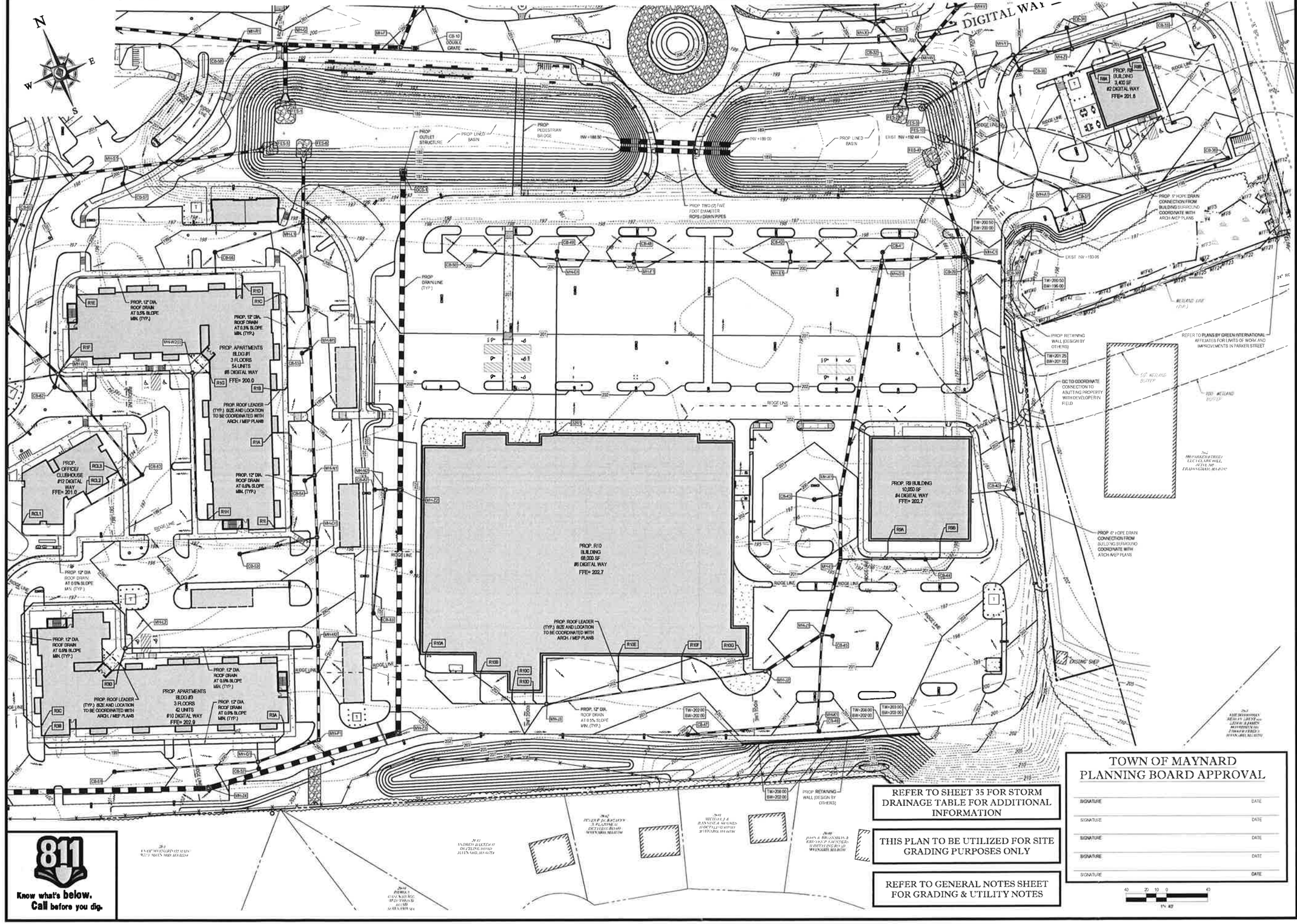
SHEET TITLE:

GRADING & DRAINAGE PLAN "B"

SHEET NUMBER:

14 OF 35

REV 0 - 02/15/2017



811
Know what's below.
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REFER TO SHEET 35 FOR STORM DRAINAGE TABLE FOR ADDITIONAL INFORMATION

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES

TOWN OF MAYNARD PLANNING BOARD APPROVAL

SIGNATURE	DATE
SIGNATURE	DATE
SIGNATURE	DATE
SIGNATURE	DATE
SIGNATURE	DATE

40 20 10 0 40
1"= 40'

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BOSTON, MA
SOUTH FLORIDA
DALLAS, TX

REVISIONS

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PRELIMINARY

PROJECT No.	W161186
DRAWN BY:	BLC/CFD
CHECKED BY:	NEM/JAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.	W161186SD

PROJECT:
SITE DEVELOPMENT PLANS
FOR
CAPITAL GROUP PROPERTIES, LLC
MAYNARD CROSSING
LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

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SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
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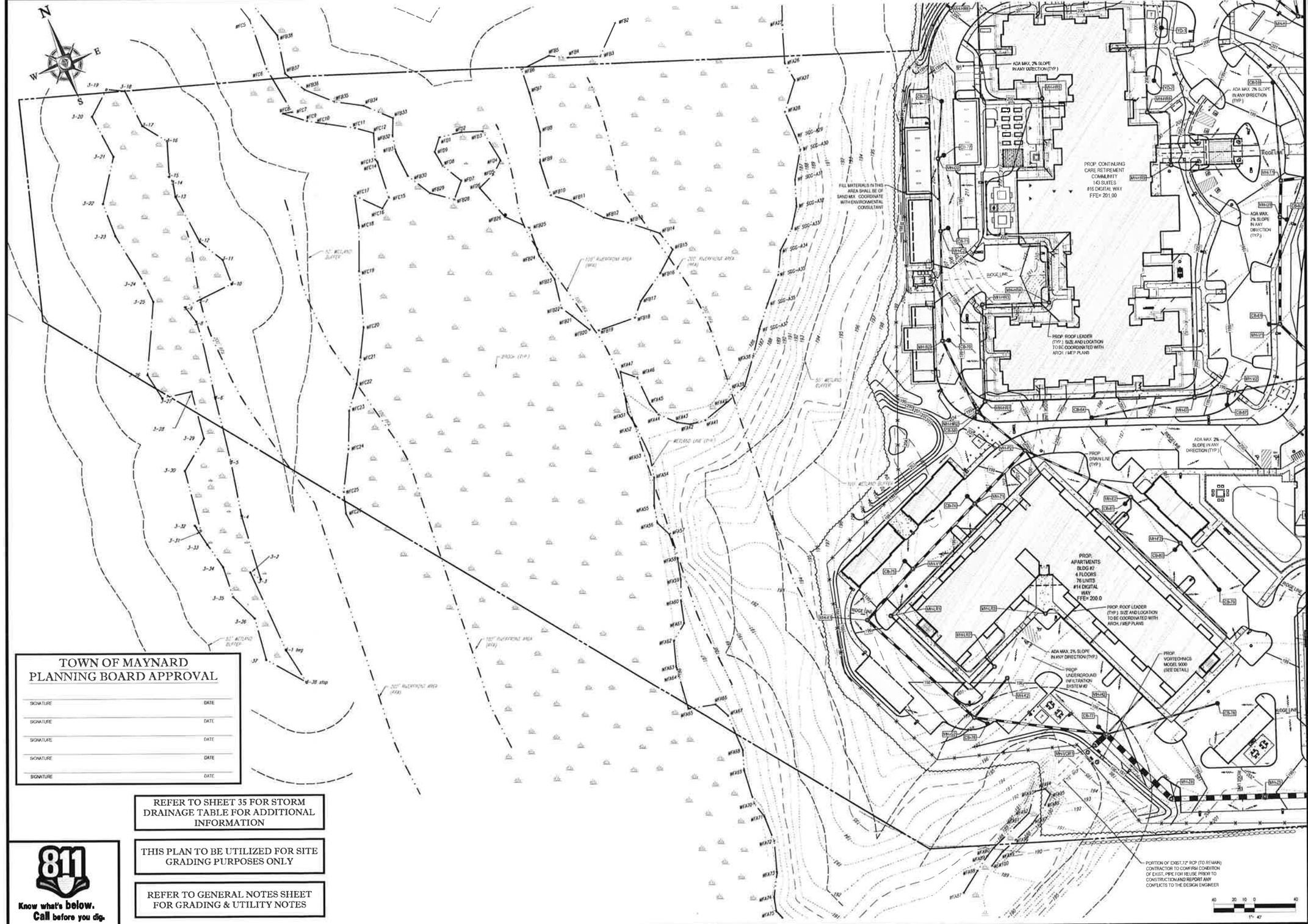
COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH
No. 41530
REGISTERED PROFESSIONAL ENGINEER
CIVIL

SHEET TITLE:
GRADING & DRAINAGE PLAN "D"

SHEET NUMBER:
16
OF 35

REV 0 - 02/15/2017



TOWN OF MAYNARD
PLANNING BOARD APPROVAL

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SIGNATURE	DATE

REFER TO SHEET 35 FOR STORM DRAINAGE TABLE FOR ADDITIONAL INFORMATION

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

REFER TO GENERAL NOTES SHEET FOR GRADING & UTILITY NOTES

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Know what's below.
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BOHLER ENGINEERING

SITE DEVELOPMENT ● LAND DEVELOPMENT ● PROGRAM MANAGEMENT ● SUSTAINABLE DESIGN ● PERMITTING SERVICES
LANDSCAPE ARCHITECTURE ● TRANSPORTATION SERVICES

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● CHARLOTTE, NC
● CLIFTON PARK, NEW YORK
● SOUTHEASTERN, PA
● ATLANTA, GA
● NEW ENGLAND
● REDMOND, WA
● TAMPA, FL
● BOSTON, MA
● BEDFORD BEACH, DE
● SOUTH FLORIDA
● NEW JERSEY, NORTHERN
● BOTHELL, WA
● DALLAS, TX
● NEW YORK, NY
● BALTIMORE, MARYLAND
● PHILADELPHIA, PA
● CENTRAL VIRGINIA

REVISIONS

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PRELIMINARY

PROJECT No.	W161189
DRAWN BY:	BLC/CFD
CHECKED BY:	NEM/JAK
DATE:	02/15/2017
SCALE:	AS NOTED
CAD I.D.	W161189SD

PROJECT:
SITE DEVELOPMENT PLANS
FOR
CAPITAL GROUP
MAYNARD CROSSING

LOCATION OF SITE
MAP #25 & LOTS #152 & 152-1
129 PARKER STREET
TOWN OF MAYNARD
MIDDLESEX COUNTY
MASSACHUSETTS

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
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COMMONWEALTH OF MASSACHUSETTS
JOHN A. KUCICH
CIVIL
No. 41530
REGISTERED PROFESSIONAL ENGINEER

SHEET TITLE:
GRADING & DRAINAGE PLAN "C"

SHEET NUMBER:
15
OF 35

REV 0 - 02/15/2017