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Mayor

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James Freas  
Acting Director


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## PUBLIC HEARING MEMORANDUM

Public Hearing Date: May 12, 2015  
Land Use Action Date: June 9, 2015  
Board of Aldermen Action Date: June 15, 2015  
90-Day Expiration Date: August 10, 2015

DATE: May 8, 2015

TO: Board of Aldermen

FROM: James Freas, Acting Director of Planning and Development  
Alexandra Ananth, Chief Planner for Current Planning  
Stephen Pantalone, Senior Planner 

SUBJECT: **Petition #91-15**, CP NEEDHAM STREET, LLC petition for a SPECIAL PERMIT/SITE PLAN APPROVAL to convert existing retail space to a restaurant use, to allow parking requirements to be met off-site (at 188-210 Needham Street), to allow parking within a setback in a parking facility with 5 or less parking stalls, to waive off-street loading requirements, and to waive lighting and screening requirements in a parking facility at 180 NEEDHAM STREET and to AMEND SPECIAL PERMIT/SITE PLAN APPROVAL #182-09, dated 11/07/09, which allowed up to 6,000 sf of retail space to be converted to restaurant use, in order to expand parking within a setback in a facility with more than 5 parking stalls, to increase the number of parking stalls accessed by a nonconforming aisle width, to waive requirements for vegetative screening and lighting for a parking facility with 5 or more parking stalls at 188-210 NEEDHAM STREET to accommodate the parking proposed for 180 Needham Street, Ward 8, Newton Upper Falls, both of which properties are located in a district zoned MIXED USE 1. Ref: 180 Needham Street: 30-24, 30-23, 30-13(b)(5), 30-19(f)(2), 30-19(g)(1), 30-19(i), 30-19(j), 30-19(l), 30-19(m) and 188-210 Needham Street: 30-24, 30-23, 30-21(b), 30-19(h)(1), and (h)(3), 30-19(i), 30-19(j), 30-19(m) of the City of Newton Rev Zoning Ord, 2012.

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The purpose of this memorandum is to provide the Board of Aldermen and the public with technical information and planning analysis which may be useful in the special permit decision making process of the Board of Aldermen. The Planning Department's intention is to provide a balanced view of the issues with the information it has at the time of the public hearing. There may be other information presented at or after the public hearing that the Land Use Committee of the Board of Aldermen will want to consider in its discussion at a subsequent Working Session.

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## **EXECUTIVE SUMMARY**

The property at 180 Needham Street consists of 8,961 square feet of land, improved with a 7,688 square foot two-story building with parking in the front and to the side of the building. The petitioner is proposing to maintain the existing office space on the second floor, convert the retail space on the ground floor into a 105-seat restaurant, and to eliminate the parking in front of the building. The petitioner is proposing to accommodate most of the required parking for the subject property on the adjacent property at #188-210 Needham Street, which is under common ownership and is subject to special permit #182-09.

The petitioner is seeking a special permit for the subject property to allow a restaurant use, to locate parking off-site, to locate parking within a setback, to waive the requirements for vegetative screening, to waive lighting requirements and to waive off-street loading requirements, as outlined in the Zoning Review Memorandum (**ATTACHMENT A**). The petitioner is also seeking to amend special permit #182-09 for #188-210 Needham Street in order to create 34 additional parking stalls on the site to be used by #180 Needham Street, and to expand the aisle and driveway to two-way circulation.

The Planning Department believes that the conversion of the retail space to a restaurant with outdoor seat is appropriate, and that the replacement of the back out parking with outdoor seating will improve the streetscape and will promote a pedestrian-friendly environment. The Planning Department does not have any concerns regarding the parking supply for the proposed restaurant as the parking is accommodated at #188-210 Needham Street without causing any parking deficiencies on that site. Furthermore, the weekday peak operating hours will likely occur during lunch hours when patrons from surrounding offices will be able to walk to the site. The Planning Department also has no concerns with the conversion of the exit at #188 Needham Street to two-way, as it will allow for more access points into the site.

The petitioner will need approval from the Conservation Commission for the creation of additional parking at #188-210 Needham Street, as they are proposing new parking stalls in Wetland Resource areas. Since the petitioner only recently filed their notice of intent with the Conservation Commission it is unclear whether the proposed work is acceptable. There may be adjustments to the site plan or a request from the Conservation Commission to provide additional mitigation. As such, the Planning Department recommends that the petitioner complete their work with the Conservation Commission prior to closing the public hearing.

### **I. SIGNIFICANT ISSUES FOR CONSIDERATION:**

When reviewing this request, the Board should consider whether:

- The expansion of the parking facilities is not substantially more detrimental than the existing nonconforming parking facility is to the neighborhood. (§30-21(b))

- The specific site is an appropriate location for the conversion of the retail use to a restaurant use with more than 50 seats, and for the location of the required parking stalls off-site. (§30-24(d)(1))
- The proposed project as developed and operated will not adversely affect the neighborhood. (§30-24(d)(2))
- There will be no nuisance or serious hazard to vehicles or pedestrians. (§30-24(d)(3))
- Access to the site over streets is appropriate for the types and number of vehicles involved. (§30-24(d)(4))
- Literal compliance with the parking requirements of the Newton Zoning Ordinance (NZO) is impracticable due to the nature of the use, or the location, size, width, depth, shape, or grade of the lot, or that such exceptions would be in the public interest or in the interest of safety or protection of environmental features. (§30-19(m))

## II. CHARACTERISTICS OF THE SITE AND NEIGHBORHOOD

### A. Neighborhood and Zoning

The site is located in the Needham Street corridor (the “Corridor”) between Jaconnet Street and Tower Road. The land uses within the Corridor consist of a variety of retail, service, office and restaurant types of uses and one large multifamily dwelling, while the land uses surrounding the Corridor consist of single-family and multifamily dwellings (**ATTACHMENT B**). The zoning districts within the Corridor are comprised of Mixed Use 1 and Mixed Use 2 districts, and the districts surrounding the Corridor consist of Single Residence 3, Multi-Residence 1 and 2, and Public Use districts (**ATTACHMENT C**). The site is zoned Mixed Use 1.

The Corridor is undergoing a redesign for the roadway. The 25% plans have been filed for public comment. The petitioner has had ongoing discussions with the City and the Massachusetts Department of Transportation (“MDOT”), which is responsible for the roadway.

The site is adjacent to South Meadow Brook (the “Brook”), which begins in Brookline and travels through Newton before eventually discharging into the Charles River. The Brook runs underneath Needham Street through a culvert that is partially located on the site.

B. Site

The site at 180 Needham Street consists of 8,961 square feet of land, improved with a two-story building currently operating as an office on the second floor and a retail store (Ski and Tennis) on the ground floor, with backout parking stalls in the front and to the side of the building. The site at 188-210 Needham Street, which is adjacent to the 180 Needham Street to the south, consists of 98,677 square feet of land and is improved with several large retail buildings. There is an old rail line that separates the two properties. Both of the sites are located in Wetland Resource Areas.

III. PROJECT DESCRIPTION AND ANALYSIS

A. Land Use

The petitioner is proposing to convert the first floor of the building on the subject property from retail to a 105-seat restaurant (maximum) and to maintain the second floor office use. The Planning Department does not have any concerns with the restaurant use, as this type of use is already present on Needham Street.

B. Building and Site Design

The petitioner is proposing minor modifications to the exterior of the building. The petitioner is also proposing to replace the back out parking in front of the building with an outdoor seating area for the restaurant. The removal of the back out parking will eliminate vehicle conflicts while also improving the safety and attractiveness of the streetscape.

The petitioner is also proposing to create 34 new parking stalls on the adjacent site at #188-210 Needham Street and expand to the driveway aisle to accommodate two-way circulation. To create the additional stalls the petitioner is proposing to extend the lot closer to the Brook, which is partially vegetated. The petitioner must receive approval from the Conservation Commission for the proposed work because of its location in a Wetland Resource Area.

The Planning Department is not concerned with the proposed expansion of the parking lot except for its environmental impact, which will be addressed by the Conservation Commission. As discussed further below, the Planning Department is not concerned with the amount of parking provided, and would support the elimination of a portion of the proposed stalls if required by the Conservation Commission.

The petitioner is seeking waivers for vegetative screening, lighting requirements, and off-street loading requirements, which is not unusual for existing nonconforming commercial lots. The Planning Department does not have any concerns with these waivers and does not believe that they detract from the site or

create any unsafe conditions.

C. Traffic and Parking

The petitioner provided a traffic study prepared by Stantec (**ATTACHMENT D**). The traffic study analyzed both the no build and build conditions for the proposed project. The traffic study found that the project would have a modest impact on the Levels of Service (“LOS”) at the project site. Based on the traffic study, and the fact that the petitioner is not expanding the building size, the Planning Department does not believe that the conversion of the use will have a material impact on traffic and circulation in the area. The Planning Department also notes that the restaurant use may attract customers from surrounding businesses, which would limit the number of additional vehicle trips to the site during the peak lunch hour. The Planning Department is very supportive of the proposed improvements to the safety and attractiveness of the streetscape by the elimination of the back out parking conditions.

The petitioner did not submit a parking study because they are not requesting any parking waivers. The Planning Department believes there is more than sufficient parking at #188-210 Needham Street to accommodate the restaurant use, and notes that since the petitioner also owns the site across the street at #131-Needham Street, there is an opportunity to share/manage the parking demand between the sites as necessary. For these reasons the Planning Department would support a reduction in the number of additional parking stalls if required by the Conservation Commission. The Planning Department does not have any concerns with the expansion of the driveway at #188-210 Needham Street, as it will create another access point to the site. The petitioner will need to work with MDOT as they are currently responsible for the road, and are in the process of a redesign of the roadway.

D. Landscape Screening

Based on the layout and landscaping plan and the elevations, it appears the petitioner is proposing some plantings along the frontage of the property and on the adjacent site. The Planning Department recommends that the petitioner plant one or two street trees along the frontage to provide shade for the proposed patio area and/or consider bioretention swales along the street frontage.

Based on the site plan it is unclear to the Planning Department what the petitioner is proposing along the Brook to mitigate the lost vegetation. However, the Conservation Commission will review this aspect of the proposed project to ensure it meets all requirements for the Wetland Resource Area.

E. Signage

The Planning Department believes the proposed signage, which appears to comply with the Zoning Ordinance, is appropriate as shown in the rendering.

IV. TECHNICAL REVIEW

A. Technical Considerations (Chapter 30, Newton Zoning Ordinance):

The Zoning Review Memorandum (**ATTACHMENT A**) provides an analysis of the proposal with regard to zoning.

The petitioner is seeking the following reliefs for 180 Needham Street:

- Section 30-13(b)(5), to allow a restaurant use in the Mixed Use 1 District
- Section 30-19(f)(2), to all parking requirements to be met off-site
- Section 30-19(g)(1) and 30-19(m), to allow parking within a setback in a facility with five or less stalls
- Section 30-19(i) and 30-19(m), to waive the requirements for vegetative screening
- Section 30-19(j) and 30-19(m), to waive lighting requirements
- Section 30-19(l) and 30-19(m), to waive off-street loading requirements

The petitioner is seeking the following reliefs for 188-210 Needham Street:

- Section 30-19(h)(1), 30-19(m), 30-21(b), to expand parking within a setback in a facility with more than five stalls
- Section 30-19(h)(3), 30-19(m), 30-21(b), to increase the number of parking stalls accessed by a nonconforming aisle width
- Section 30-19(i) and 30-19(m), to waive requirements for vegetative screening
- Section 30-19(j) and 30-19(m), to waive lighting requirements

B. Engineering Review

The Engineering Division Memorandum, (**ATTACHMENT E**), provides an analysis of the proposal with regard to engineering issues. The petitioner should respond to the comments in the memorandum and provide additional information as necessary.

C. Conservation Commission Review

The petitioner recently submitted a Notice of Intent with the Conservation Commission and will have a public hearing toward the end of May. The Planning

Department typically prefers that the petitioner receive approval from the Conservation Commission first, as the Commission may require a change to the site plans.

V. PETITIONER'S RESPONSIBILITIES

The petitioner should attend their public hearing with the Conservation Commission and adjust the site plan as necessary prior to the close of the public hearing.

**ATTACHMENTS:**

- Attachment A:** Zoning Review Memorandum
- Attachment B:** Land Use Map
- Attachment C:** Zoning Map
- Attachment D:** Traffic Study
- Attachment D:** Engineering Memorandum



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**ATTACHMENT A**

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James Freas  
Acting Director

## ZONING REVIEW MEMORANDUM

Date: April 9, 2015

To: John Lojek, Commissioner of Inspectional Services

From: Jane Santosuosso, Chief Zoning Code Official  
Alexandra Ananth, Chief Planner for Current Planning

Cc: Alan Schlesinger, Attorney  
Kerry McCormack, Crosspoint Associates  
James Freas, Acting Director of Planning and Development  
Ouida Young, Associate City Solicitor

**RE: Request to allow a restaurant, to allow off-site parking, to waive certain parking requirements, and to amend Board Order #182-09**

Applicant: CP Needham Street LLC	
Site: 180 Needham Street	SBL: 83028 0001
Zoning: MU1	Lot Area: 8,961 square feet
Current use: Retail and office	Proposed use: Restaurant and office

### BACKGROUND:

The property at 180 Needham Street consists of a 8,961 square foot lot improved with a 7,688 square foot commercial building built circa 1955. The building is nonconforming with regard to side and rear setbacks, and lot area. The property currently is used as retail on the first floor and office on the second, and is adjacent to 188-210 Needham Street, which was recently redeveloped and houses several businesses, including Homegoods, Modell's and Papa Gino's.

Prior to 1987 the property was zoned Manufacturing. At that time, retail and offices uses were allowed by right within the district, and there was no minimum lot size. The retail use and the lot size became nonconforming in 1987 when the property was rezoned to Mixed Use 1.

There are 13 existing nonconforming parking stalls on the site. Eight of those stalls are in the front of the building and back out directly on to Needham Street. The remaining five stalls are on the north side of the property.



The applicant proposes to rehab the existing building and to repurpose the first floor for a 105-seat restaurant. The second floor office use will remain.

The following review is based on plans and materials submitted to date as noted below.

- Zoning Review Application, prepared by Alan Schlesinger, attorney, dated 3/6/2015
- Public Hearing Memo, prepared by Newton Planning and Development, dated 9/18/2009
- Zoning Review Memo, prepared by Eve Tapper, Chief Zoning Code Official, dated 6/11/2009
- Proposed elevation, prepared by Form + Place, architects, undated, submitted 3/6/2015
- Existing conditions plan, signed and stamped by Steven Horsfall, surveyor, dated 3/6/2015
- As-built site plan, prepared by Kelly Engineering Group, Inc, dated 1/10/2014
- Conceptual overall layout plan, prepared by Kelly Engineering Group, Inc, dated 2/3/2015
- Conceptual layout plan, prepared by Kelly Engineering Group, Inc, dated 2/3/2015
- Proposed conditions plan, signed and stamped by David Noel Kelly, civil engineer, and Steven Horsfall, surveyor, dated 3/6/2015
- Board Order #182-09, dated 11/16/2009

#### **ADMINISTRATIVE DETERMINATIONS:**

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1. The applicant proposes a 105-seat (85 indoor, 20 outdoor) restaurant for the first floor of the structure, replacing the existing retail use. Pursuant to Section 30-13(b)(5), a special permit is required for a restaurant use in the Mixed Use 1 district.
2. There are currently 13 parking stalls on site, of which eight are in front backing directly out on to Needham Street. The applicant proposes to reconfigure the space in the front of the building to accommodate 20 seasonal exterior restaurant seats in a patio. The parking on the north side of the property will be reconfigured from five perpendicular stalls to three parallel stalls. After the proposed site changes, there will be three parking stalls on site.
3. The existing retail and office uses require 31 parking stalls, where there are 13 on site. The applicant proposes to convert the retail space to a restaurant use. Per Section 30-19(d)(13), a restaurant requires one parking stall per each three seats, and one stall per each three employees working at the busiest shift. The applicant is proposing a restaurant with 105 seats and 10 employees for the first floor, which will require 39 parking stalls. The applicant intends to maintain the 3,782 square feet of office space on the second floor, which requires one stall for every 250 square feet per Section 30-19(d)(11), or 16 parking stalls for a total of 55 stalls.

Section 30-19(c)(2) allows for a site to have a “parking credit” when there is a change of use.

Utilizing the A-B+C formula, where:

A= Requirement per the Ordinance = 55; and

B= Requirement for existing uses

Retail 3,906 sf/300 = 14 stalls plus 3 employees /3= 1

Total 15

Office 3,782 sf/250 = 16 stalls

TOTAL B = 31 stalls

C = Existing spaces provided = 13 stalls

Formula A-B+C = 55-31+13 = 37 spaces required for the proposed uses.

Three spaces will be provided on the site after reconfiguration. The applicant requires an additional 34 parking stalls.

4. Section 30-19(f)(2) allows a special permit to be granted for off-site parking if a site cannot accommodate its parking requirements. The applicant also controls the adjacent parcel at 188-210 Needham Street, the site of a larger commercial development, most recently subject to Board Order #182-09. According to the Zoning Memo issued for the 2009 special permit, the proposed uses require 209 stalls (this figure is based on a 120-seat restaurant on site. The current restaurant has only 75 seats). There are 231 parking stalls on the site, which more than satisfies the requirement for the existing uses. The applicant intends to create 34 additional stalls on the 188-210 Needham Street site, satisfying the requirements of 180 Needham without taking any parking away from the existing businesses located at 188-210 Needham. A special permit is required to locate required parking off site. Further, the special permit, Board Order #182-09, must be amended to reflect the changes to the parking layout.
5. The proposed parking at 180 Needham Street is located along the northern property line. Section 30-19(g)(1) requires that no parking be located within any required setback distance. The stalls are located within the front and side setbacks. A special permit is required per Section 30-19(m).
6. The parking area on the north side of 188-210 Needham Street will be enlarged and reconfigured to accommodate an additional 34 parking stalls. The existing configuration has a stall located within the front setback, which is a nonconforming situation recognized by the 2009 Board Order. After reconfiguration, two of the stalls will be located in the front setback, and several will be within the side setback. Section 30-19(h)(1) requires that no parking stalls be located in a setback. A waiver per Sections 30-19(m) and 30-21(b) is required.
7. The existing parking at 188-210 Needham Street has an existing nonconforming aisle width of 21 feet at its narrowest, where 24 feet is required for two-way traffic per Section 30-19(h)(3). The owner intends to increase the number of stalls utilizing this aisle. A special permit is required per Sections 30-19(m) and 30-21(b).
8. The proposed parking along the northern lot line at 180 Needham street will not provide any landscape buffer on the perimeter of the property, as required by of Section 30-19(i). A waiver from this section is required per Section 30-19(m).
9. The proposed parking along the northern lot line at 188 Needham street will not provide any landscape buffer on the perimeter of the property, as required by Section 30-19(i), as the intent is to allow the patrons of 180 Needham Street access to the parking at 188. A waiver from this section is required per Section 30-19(m).
10. To the extent that the proposed lighting for the parking at 180 Needham Street, and the proposed parking at 188-210 Needham Street, does not meet the requirements of Section 30-19(j), a waiver is required per Section 30-19(m).

11. To the extent that the proposed reconfiguration of the parking area does not meet the off-street loading requirements of Section 30-19(l), a special permit is required per Section 30-19(m).

12. See “Zoning Relief Summary” below:

<b>Zoning Relief Required</b>		
<i>Ordinance</i>	<i>Required Relief</i>	<i>Action Required</i>
	<b>180 Needham Street</b>	
§30-13(b)(5)	To allow a restaurant in the MU1 district	S.P. per §30-24
§30-19(f)(2)	To allow parking requirements to be met off-site	S.P. per §30-24
§30-19(g)(1), §30-19(m)	To allow parking within a setback in a facility with five or less stalls	S.P. per §30-24
§30-19(i), §30-19(m)	To waive the requirements for vegetative screening	S.P. per §30-24
§30-19(j), §30-19(m)	To waive lighting requirements	S.P. per §30-24
§30-19(l), §30-19(m)	To waive off-street loading requirements	S.P. per §30-24
	<b>188-210 Needham Street</b>	
§30-19(h)(1), §30-19(m), §30-21(b)	To expand parking within a setback in a facility with more than five stalls	S.P. per §30-24
§30-19(h)(3), §30-19(m), §30-21(b)	To increase the number of parking stalls accessed by a nonconforming aisle width	S.P. per §30-24
§30-19(i), §30-19(m)	To waive the requirements for vegetative screening	S.P. per §30-24
§30-19(j), §30-19(m)	To waive lighting requirements	S.P. per §30-24
	To amend Board Order #182-09	S.P. per §30-24

# Land Use Map 180 Needham St

City of Newton,  
Massachusetts

## Legend

### Land Use

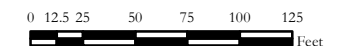
- Single Family Residential
- Multi-Family Residential
- Commercial

ATTACHMENT B

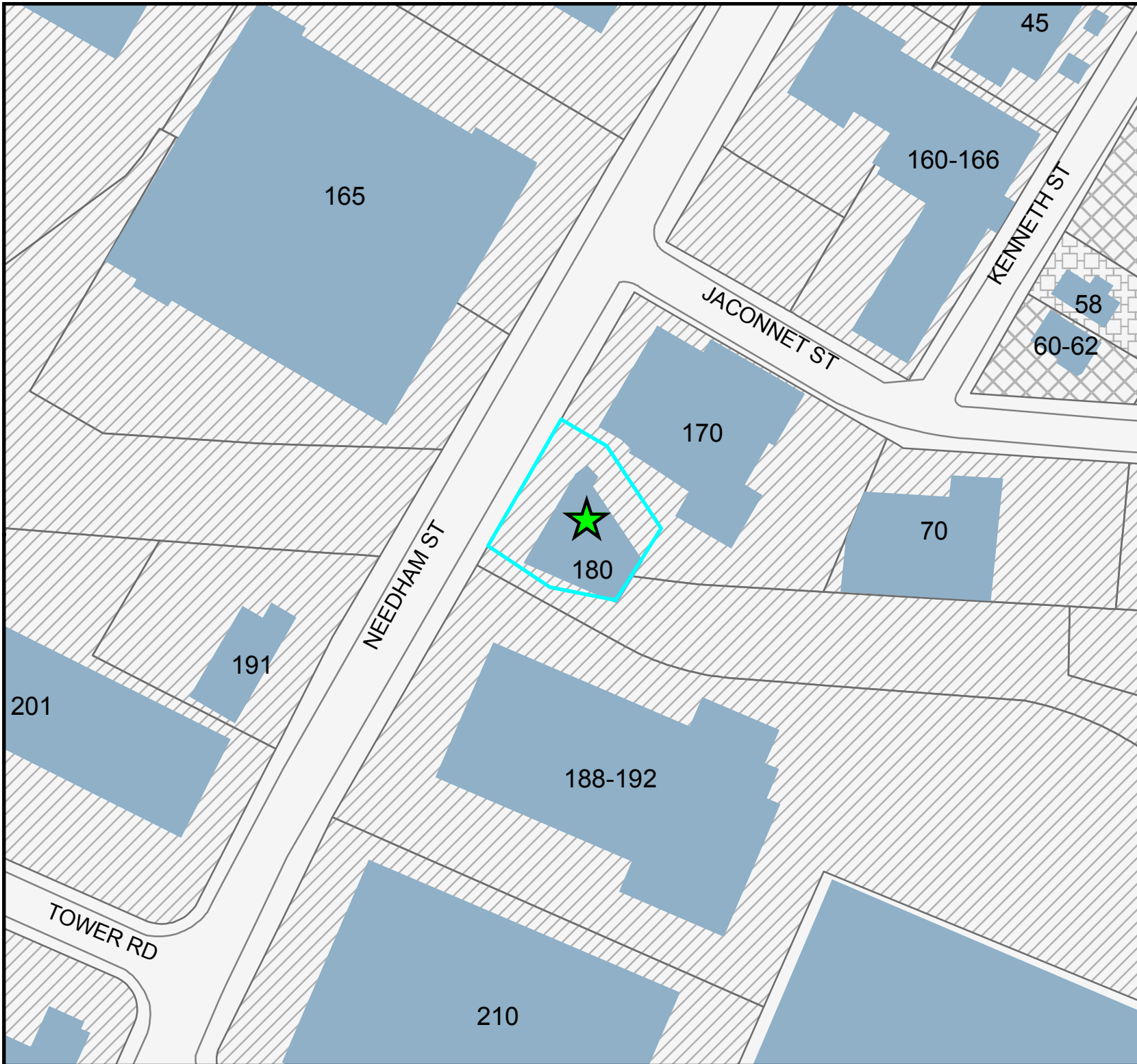


The information on this map is from the Newton Geographic Information System (GIS). The City of Newton cannot guarantee the accuracy of this information. Each user of this map is responsible for determining its suitability for his or her intended purpose. City departments will not necessarily approve applications based solely on GIS data.

CITY OF NEWTON, MASSACHUSETTS  
Mayor - Setti D. Warren  
GIS Administrator - Douglas Greenfield






Map Date: April 24, 2015



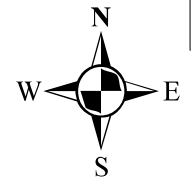
# Zoning Map 180 Needham St

City of Newton,  
Massachusetts

### Legend

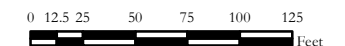
-  Multi-Residence 1
-  Mixed Use 1
-  Mixed Use 2

ATTACHMENT C

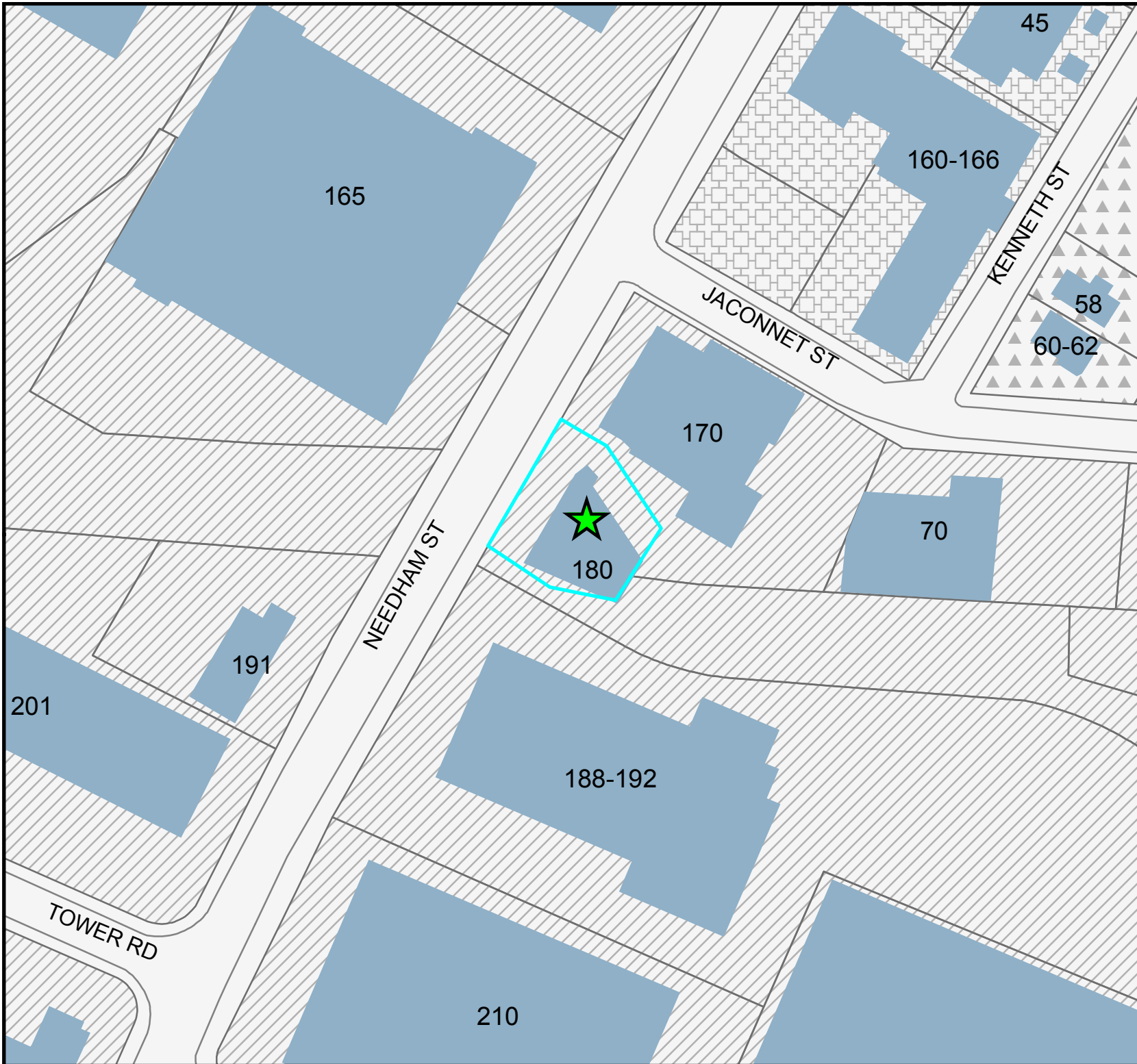


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CITY OF NEWTON, MASSACHUSETTS  
Mayor - Setti D. Warren  
GIS Administrator - Douglas Greenfield



Map Date: April 24, 2015





Stantec Consulting Services Inc.  
55 Green Mountain Drive, South Burlington VT 05403-7824

April 15, 2015  
File: 195311058

**Attention: Mr. Kerry A. McCormack, PE**

Crosspoint Associates, Inc.  
300 Third Avenue, Suite 2  
Waltham, MA 02451

Dear Mr. McCormack,

**Reference: 180 Needham Street, Newton, MA**

Per your request we have completed a traffic investigation for your proposed redevelopment project at 180 Needham Street in Newton, Massachusetts. Based on our investigation we conclude that the proposed project will not have a significant impact on traffic volume levels along Needham Street. In fact, the project may improve vehicular traffic operations and pedestrian flow along Needham Street by eliminating the existing "head in" parking that results in vehicles backing out onto Needham Street as they exit parking stalls. We also find that the proposed conversion of an adjacent site driveway from one-way to two-way operations will have very limited impacts on Needham Street operations. It is recommended that the project provide a restriping of Needham Street at the off-site driveway serving project related parking to include a three-lane cross section: one through travel lane in each direction and a center two-way, left-turn lane. Details of our traffic investigation are provided below describing existing and expected future roadway and traffic conditions.

**1.0 PROJECT DESCRIPTION**

The proposed project is the redevelopment of an existing commercial building located at 180 Needham Street in Newton, Massachusetts. The existing two-story building has an approximate 3800 square feet footprint with retail use on the first floor and office use on the second floor. Eight "head in" parking spaces are provided along the Needham Street face of the building with no access control (curbing) along Needham Street. A driveway on the north side of the building provides dead-end access to another five spaces. The proposed redevelopment plan reconfigures and retains three parking spaces on the north side of the building. The parking fronting on Needham Street is removed making space for a patio and sidewalk. Replacement parking is proposed at 188 Needham Street, an existing commercial development located immediately south of the subject site. An existing one-way (exit only) driveway located on the 188 Needham Street parcel and adjacent to the 180 Needham Street site will be converted to two-way operation. The existing first floor retail space at 180 Needham Street will become a restaurant with seating for approximately 105 people including an outdoor seating area. The proposed project site plan is attached.

**2.0 EXISTING CONDITIONS**

Existing roadway conditions, traffic volume levels and traffic operations are described below for Needham Street in the site vicinity.



**Reference: 180 Needham Street, Newton, MA**

## **2.1 Roadway Conditions**

Needham Street adjacent to the project site is functionally classified as an Urban Minor Arterial and is under the jurisdiction of the Massachusetts Department of Transportation (MassDOT). Needham Street turns into Highland Avenue as it crosses the town line into Needham south of the Christina Street/Oak Street intersection. It provides a connection to I-95 about  $\frac{3}{4}$  of a mile south of the site. To the north, Needham Street ends at Winchester Street, which provides a connection to Route 9. The speed limit along Needham Street is 35 miles per hour (mph). Needham Street at the project site is approximately 36 feet wide with one travel lane in each direction. Sidewalks are provided along both sides of Needham Street except at the site itself where head in parking across the site frontage precludes provision of a defined sidewalk.

The driveway at 188 Needham Street that will serve parking for the proposed development enters Needham Street from the east at a T-type intersection slightly offset from a driveway to another business on the west side of Needham Street. The 188 Needham Street driveway provides a single approach lane. Traffic enters the 188 Needham Street site either by way of an entrance only driveway located approximately 175 feet to the south or by way of two driveways serving the site at Industrial Place. Industrial Place is an existing roadway also entering Needham Street from the east approximately 400 feet south of the 188 Needham Street exit only driveway.

## **2.2 Traffic Volumes**

Recent studies indicate that Needham Street carries 21,000 vehicles per day on a weekday. Weekday evening peak period (4-7 PM) traffic counts were conducted at the 188 Needham Street exit driveway intersection with Needham Street on Tuesday, April 7, 2015 to determine peak hour volumes. The counts (attached) indicate that the peak hour occurs from 5:45 to 6:45 PM at this location with approximately 1470 vehicles passing the site on Needham Street. Approximately 53 percent of the Needham Street traffic is headed northbound. Approximately 40 vehicles exit the 188 Needham Street site with ten turning left and 30 turning right. The driveway to a Jiffy Lube service center located slightly offset from the 188 Needham Street driveway was also counted and generates only two entering trips and two exiting trips during the PM peak hour.

## **2.3 Traffic Operations**

The 188 Needham Street driveway operates at Level of Service C under existing PM peak hour conditions. Level of service (LOS) is a term used to describe the quality of the traffic flow on a roadway facility at a particular point in time. It is an aggregate measure of travel delay, travel speed, congestion, driver discomfort, convenience, and safety based on a comparison of roadway system capacity to roadway system travel demand. Operating levels of service are reported on a scale of A to F, with A representing the best operating conditions with little or no delay to motorists, and F representing the worst operating conditions with long delays and traffic demands sometimes exceeding roadway capacity. The specific delay criteria applied per the *2010 Highway Capacity Manual* to determine operating levels of service are summarized in Table 1 for unsignalized intersections.



**Reference: 180 Needham Street, Newton, MA**

**Table 1 Unsignalized Intersection Level of Service Criteria**

Level of Service	Average Delay per Vehicle (Seconds)
A	≤10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F <sup>1</sup>	>50.0

<sup>1</sup>Level of Service F is also assigned to movements if the volume-to-capacity ratio exceeds 1.0.

Source: *HCM 2010 Highway Capacity Manual*, Transportation Research Board, National Academy of Sciences, Washington, DC, 2010.

For unsignalized intersections a level of service rating may also be assigned to left turns from the major roadway. Under existing conditions left turns are not permitted into 188 Needham Street from Needham Street southbound. Left-turn operations were evaluated for proposed future conditions.

### **3.0 FUTURE CONDITIONS**

Future roadway conditions, traffic volume levels and traffic operations are described below for Needham Street in the site vicinity.

#### **3.1 Roadway Conditions**

Improvements are planned for the Needham Street corridor as part of MassDOT project number 606635. The improvements as described in the Functional Design Report and 25 Percent plans prepared by Fay, Spofford & Thorndike include a three-lane cross-section (a travel lane in each direction along and a two-way left-turn lane in the center of the roadway) with bicycle lanes on both sides adjacent to the project site. Reconstructed and relocated sidewalks will also be provided along both sides of the street. A traffic signal is proposed at the Industrial Place intersection with Needham Street. Construction of these improvements is not likely to occur for at least another five years so these improvements are not assumed in the analysis of future conditions.

#### **3.2 Traffic Volumes**

Traffic volumes along Needham Street were increased for analysis purposes to account for one planned development project and one completed development project in the site vicinity. First, redevelopment of the Newton Technology Park located opposite the project site is proposed and currently going through local and state permitting processes. The Newton Nexus project, as it is called, will repurpose two of three existing office buildings on the site for retail and restaurant uses. The project will result in a reduction in vehicle trip generation during the AM commuter peak hour and will add approximately 45 vehicle trips to Needham Street past the project site during the PM commuter peak hour. Second, across from the Newton





**Reference: 180 Needham Street, Newton, MA**

Technology Park leasing is underway for a newly constructed building at 170 Needham Street. This retail building will add approximately 15 new vehicle trips to Needham Street past the project site once fully occupied. (The above traffic forecasts were prepared by Stantec as part of work done in support of the Newton Nexus project.) These volumes were combined with existing volumes recorded on Needham Street to represent future “No Build” traffic conditions. Table 2 illustrates existing and No Build traffic volumes at the 188 Needham Street Driveway/Needham Street intersection.

**Table 2 PM Peak Hour Traffic Volumes - 188 Needham Street/Needham Street Intersection**

Direction	Movement	Existing	No Build	Site Traffic	Build
Northbound (Needham Street)	Left	2	2	0	2
	Through	766	825	-7	818
	Right	0	0	20	20
Southbound (Needham Street)	Left	0	0	20	20
	Through	685	686	-7	679
	Right	0	0	0	0
Eastbound (Jiffy Lube Driveway)	Left	1	1	0	1
	Through	0	0	0	0
	Right	1	1	0	1
Westbound (188 Needham Street Driveway)	Left	11	11	15	26
	Through	0	0	0	0
	Right	30	30	20	50

Note: No Build condition volumes include traffic from the 170 Needham Street and Newton Nexus projects.

Also shown in Table 2 are projected “Build” condition traffic volumes. Build condition volumes combine traffic associated with the proposed redevelopment project with No Build volumes. Daily and peak hour vehicle trip generation estimates for the proposed redevelopment were determined using trip generation rates available from the most recent edition of *Trip Generation* published by the Institute of Transportation Engineers (ITE). As noted in Table 3, trip rates were applied for Land Use Codes 710 – General Office Building, 932 – High-Turnover Sit Down Restaurant, and 826 – Specialty Retail Center. The proposed replacement of 3800 square feet of retail space with 3800 square feet (105 seats) of restaurant space will increase site traffic generation by approximately 65 PM peak hour vehicle trips. Approximately 320 trips would be added on a daily basis.



**Reference: 180 Needham Street, Newton, MA**

**Table 3 Project Trip Generation**

Land Use/Trip Type	Vehicle Trips per KSF <sup>1</sup> or Seats		Weekday PM Peak Hour		Weekday Daily	
	PM Peak Hour	Daily	Entering	Exiting	Entering	Exiting
<b>Existing</b>						
Office (3800 SF)	1.49	11.03	1	4	20	20
Retail (3800 SF)	2.71	44.32	4	6	85	85
<b>Total</b>			<b>5</b>	<b>10</b>	<b>105</b>	<b>105</b>
<b>Proposed</b>						
Office (3800 SF)	1.49	11.03	1	4	20	20
Restaurant (85 Seats)	0.72	4.83	40	35	255	255
<b>Total</b>			<b>41</b>	<b>39</b>	<b>275</b>	<b>275</b>
<b>Net Change</b>			<b>36</b>	<b>29</b>	<b>160</b>	<b>160</b>

<sup>1</sup> KSF=1000 square feet of gross leasable floor area

Source: *Trip Generation, 9<sup>th</sup> Edition*, Land Use Codes 710-General Office, 826 – Specialty Retail Center, and 932-High-Turnover, Sit Down Restaurant, Institute of Transportation Engineers, Washington, D.C., 2012

In order to establish the Build condition traffic volumes shown in Table 2, traffic associated with the proposed redevelopment project was superimposed on the No Build condition traffic volumes. For this analysis, all traffic associated with the proposed restaurant use was assigned to the 188 Needham Street driveway assuming conversion of this driveway to two-way operation. Traffic was assigned equally north and south along Needham Street reflecting the relatively balanced volumes reported under existing conditions. Also, it was assumed that a third of the restaurant trips would be “pass-by” trips, that is, vehicle trips drawn from the existing traffic streams passing the project site. (*ITE Trip Generation* indicates that pass by rates as high as 43 percent apply to high-turnover, sit down restaurants.) Under Build conditions the projected volume entering Needham Street from the 188 Needham Street driveway is 76 PM peak hour vehicles. The volume added to Needham Street just east or west of the site due to the project is an estimated 26 vehicle trips or a 1.7 percent increase over No Build volume levels.

### 3.3 Traffic Operations

Existing and future PM peak hour traffic operations at the 188 Needham Street Driveway/Needham Street intersection are shown in Table 4. As shown, traffic operations on the driveway degrade from LOS C to LOS D from Existing to No Build conditions due assumed traffic growth on Needham Street associated with planned and completed projects. Further change, from LOS D to LOS E, is anticipated on the 188 Needham Street driveway during the PM peak hour as driveway volumes are increased from No Build to Build conditions. Even under Build conditions however, the projected 76 vehicles using the driveway represent



**Reference: 180 Needham Street, Newton, MA**

only 42 percent of the capacity of this driveway. The projected 20 left-turns into the driveway from Needham Street southbound will operate at only two percent of capacity with nominal delays and queuing on Needham Street under Build conditions. As noted above, a traffic signal is proposed at the Industrial Place/Needham Street intersection. Motorists who would rather access the project related parking at a signal controlled intersection will have that opportunity once the proposed Needham Street improvements are completed by MassDOT.

**Table 4 PM Peak Hour Operations - 188 Needham Street/Needham Street Intersection**

Intersection Approach/Turning Movement		Existing	No Build	Build
<b>188 Needham Street Driveway Westbound Lefts and Rights</b>	<b>Volume</b>	41	41	76
	<b>LOS<sup>1</sup></b>	C	D	E
	<b>Delay<sup>2</sup></b>	23.8	26.0	39.0
	<b>V/C Ratio<sup>3</sup></b>	0.18	0.19	0.42
	<b>95<sup>th</sup> Percentile Queue (feet)</b>	16	17	48
<b>Needham Street Southbound Lefts</b>	<b>Volume</b>	NA	NA	20
	<b>LOS<sup>1</sup></b>	NA	NA	A
	<b>Delay<sup>2</sup></b>	NA	NA	0.7
	<b>V/C Ratio<sup>3</sup></b>	NA	NA	0.02
	<b>95<sup>th</sup> Percentile Queue (feet)</b>	NA	NA	2

<sup>1</sup> LOS= Level of Service

<sup>2</sup> Delay = Average delay expressed in seconds per vehicle

<sup>3</sup> V/C = Volume-to-capacity ratio for critical movements

NA- Not Applicable

**4.0 FINDINGS AND RECOMMENDATIONS**

The proposed redevelopment of the commercial building at 180 Needham Street and the conversion of the existing 188 Needham Street exit driveway to two-way operation can be completed without significant traffic impacts along Needham Street. In fact, proposed work at the 180 Needham Street site will eliminate head in parking along Needham Street allowing for curbing and a sidewalk to be installed along the east side of the roadway. The removal of parking in this area should improve Needham Street traffic flow and the sidewalk addition will create a safer travelway for pedestrians.

Vehicular volumes for the left-turn into the 188 Needham Street will be relatively minor. The above analysis has shown that left turns can operate from the existing single southbound lane on Needham Street without imposing significant delays on through traffic. However, the Newton Nexus project proposed opposite the project site includes a recommendation to restripe Needham Street to include a two-way center left-turn lane in advance of the proposed roadway reconstruction by MassDOT. It is recommended that this two-way center left-turn lane striping be continued south past the 188 Needham Street driveway.



April 15, 2015  
Mr. Kerry A. McCormack, PE  
Page 7 of 7

**Reference: 180 Needham Street, Newton, MA**

We are prepared to review the above findings with you and/or City officials as appropriate. We anticipate that this traffic impact assessment will be submitted in support of the required MassDOT access permit for this project.

Regards,

**Stantec Consulting**

Richard S. Bryant, P.E.  
Senior Project Manager  
Phone: 802 864 0223  
Fax: 802 864 0165  
Richard.Bryant@stantec.com

**Attachments: Traffic Counts, Capacity Analysis Worksheets, Project Site Plan**

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CITY OF NEWTON  
Department of Public Works  
ENGINEERING DIVISION

MEMORANDUM

To: Alderman Mark Laredo, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 180, 188, & 200 Needham Street

Date: May 8, 2015

CC: Lou Taverna, PE City Engineer  
Frank Nicholas, PE Special Projects  
Linda Finucane, Associate City Clerk  
Alexandria Ananth, Chief Planner  
Jennifer Steel, Sr. Environmental Planner  
Stephen Pantalone, Sr. Planner

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In reference to the above site, I have the following comments for a plan entitled:

*Site Development Plans  
180, 188, & 210 Needham Street  
Newton, MA  
Prepared by: Kelly Engineering Group, Inc.  
Dated: 4-10-'15*

Executive Summary:

The plans did not have a narrative so based on the plans submitted it appears that the property owners are proposing some renovations and site improvements in regards to landscaping, parking lot reconfiguration, stormwater and sanitary sewer. While we encourage and welcome these improvements a couple of concerns and issues need clarification.

In respect to updating the sanitary sewer with a new grease trap tank that will be located within the old railroad bed; will the removal of the tracks and treated ties have any environmental concerns in regards to contaminated soils? This is also a concern for the proposed bioretention swale.

Not having any design information on the bioretention other than the detail on sheet 8; are the soils conducive for infiltration in this area, and are there any contaminated soils in relation to the old railroad bed and proximity to South Meadow Brook?

The proposed sidewalk improvements along Needham Street a MassDOT owned road will need approval of the MassDOT.

Finally in concert with the proposed improvements have the applicants considered to underground the existing overhead wires along the frontage of their property, as this would really enhance the appearance of this project?

Environmental:

1. Has a 21E investigation & report been performed on the site, if so copies of the report should be submitted the Newton Board of Health and the Engineering Division.
2. Are there any existing underground oil or fuel tanks, are they to be removed, if they have been evidence should be submitted to the Newton Fire Department, and Newton Board of Health.
3. As the total site disturbance is over an acre, a Phase II General Construction (NPDES) Permit will need to be filed with DEP & EPA. A Stormwater Pollution Prevention Plan (SWPPP) will need to be developed.

Sewer:

1. A detailed profile is needed which shows the existing water main, sewer main and proposed sewer service(s) with the slopes and inverts labeled to ensure that there are no conflicts between the sewer services and the water service. The minimum slope for a service is 2.0%, with a maximum of 10%. Pipe material shall be 6" diameter SDR 35 PVC pipe within 10' of the dwelling then 4" pipe per Massachusetts State Plumbing Code. In order to verify the slopes and inverts of the proposed service connection, two manholes of the existing sanitary sewer system need to be identified on the plan with rim & invert elevations. The crown of the service connection & the sewer man need to match.

2. The existing water & sewer services to the building shall be cut and capped at the main and be completely removed from the main and the site then properly back filled. The Engineering Division must inspect this work; failure to having this work inspected may result in the delay of issuance of the Utility Connection Permit.
3. All new sewer service and/or structures shall be pressure tested or videotaped after final installation is complete. Method of final inspection shall be determined solely by the construction inspector from the City Engineering Division. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of the two methods stated above is completed. All testing MUST be witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until this test is completed and a written report is received by the City Engineer. ***This note must be added to the final approved plans.***
4. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of the two methods stated above is completed. All testing MUST be witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until this test is completed and a written report is received by the City Engineer.
5. The existing sanitary sewer service shall be inspected via Closed Circuit Television (CCTV) to verify the condition of the service. This CCTV inspection shall be performed by the applicant and witnessed by the Engineering Division. If the existing pipe shows sign of any damage or settlement or inflow it shall be replaced, however if the pipe is a clay pipe, it shall be relined with a fiberglass insert to provide a new connection.

Water:

1. The Newton Fire Department may require a fire suppression system for the renovated buildings, if so fire flow tests will be required. The applicant must coordinate this test with both the Newton Fire Department and the Utilities Division; representatives of each department shall witness the testing, test results shall be submitted in a write report. Hydraulic calculation shall be submitted to the Newton Fire Department for approval.
2. All water connections shall be chlorinated & pressure tested in accordance to AWWA and the City of Newton Construction Standards and Specifications prior to opening the connection to existing pipes.

3. Approval of the final configuration of the water service(s) shall be determined by the Utilities Division, the engineer of record should submit a plan to the Director of Utilities for approval

General:

1. Finalized utility connection plan reflecting the above changes that meets the minimal design standards of the City of Newton must be submitted for approval by the contractor of record with appropriate Bonds & Insurance. The Engineering Division makes no representations and assumes no responsibility for the design(s) in terms of suitability for the particular site conditions or of the functionality or performance of any items constructed in accordance with the design(s). The City of Newton assumes no liabilities for design assumption, error or omissions by the Engineer of Record.
2. All trench excavation contractors shall comply with Massachusetts General Laws Chapter 82A, Trench Excavation Safety Requirements, to protect the general public from unauthorized access to unattended trenches. Trench Excavation Permit required. This applies to all trenches on public and private property. *This note shall be incorporated onto the plans*
3. All tree removal shall comply with the City's Tree Ordinance.
4. The contractor is responsible for contacting the Engineering Division and scheduling an appointment 48 hours prior to the date when the utilities will be made available for an inspection of water services, sewer service, and drainage system installation. The utility is question shall be fully exposed for the inspector to view; backfilling shall only take place when the City's Inspector has given their approval. *This note should be incorporated onto the plans*
5. The applicant will have to apply for Street Opening, Sidewalk Crossing, with the MassDOT and Utilities Connecting permits with the Department of Public Works prior to any construction. *This note must be incorporated onto the site plan.*
6. The applicant will have to apply for a Building Permits with the Department of Inspectional Service prior to any construction.
7. Prior to Occupancy Permit being issued, an As-Built Plan shall be submitted to the Engineering Division in both digital format and in hard copy. The plan should show all utilities and final grades, any easements and final grading. *This note must be incorporated onto the site plan.*
8. If a Certificate of Occupancy is requested prior to all site work being completed. *This note must be incorporated onto the site plan.*



Note: If the plans are updated it is the responsibility of the Applicant to provide all City Departments [Conservation Commission, ISD, and Engineering] involved in the permitting and approval process with complete and consistent plans.

If you have any questions or concerns please feel free to contact me @ 617-796-1023.