Ruthanne Fuller
Mayor

City of Newton, Massachusetts
Department of Planning and Development
1000 Commonwealth Avenue Newton, Massachusetts 02459

#29-22

Telephone
(617) 796-1120
Telefax
(617) 796-1142
TDD/TTY
(617) 796-1089
www.newtonma.gov

Barney S. Heath
Director

PUBLIC HEARING MEMORANDUM

Public Hearing Date:	February 8, 2022
Land Use Action Date:	April 12, 2022
City Council Action Date:	April 18, 2022
90- Day Expiration Date:	April 25, 2022

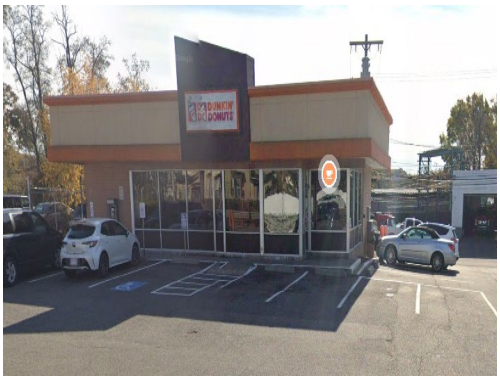
DATE: February 4, 2022

TO: City Council

FROM: Barney S. Heath, Director of Planning and Development
Neil Cronin, Chief Planner for Current Planning
Katie Whewell, Senior Planner

SUBJECT: **Petition #29-22** for SPECIAL PERMIT/SITE PLAN APPROVAL allow a drive-through, reconfigure the existing parking, and to allow a free-standing sign at 940 Boylston, Ward 5, Newton, on land known as Section 51 Block 26 Lot 03, containing approximately 12,060 sq. ft. of land in a district zoned BUSINESS USE 2. Ref: Sec. 7.3.3, 7.4, 4.4.1, 6.4.11, 5.1.9.A, 5.1.13, 5.2.13, 5.10.A of Chapter 30 of the City of Newton Rev Zoning Ord, 2017..

The purpose of this memorandum is to provide the City Council and the public with technical information and planning analysis conducted by the Planning Department. The Planning Department's intention is to provide a balanced review of the proposed project based on information it has at the time of the public hearing. Additional information about the project may be presented at or after the public hearing for consideration at a subsequent working session by the Land Use Committee of the City Council.



940 Boylston Street

EXECUTIVE SUMMARY

The subject property at 940 Boylston Street consists of an approximately 12,060 square foot lot in a Business 2 ("BU2") zoning district improved with a commercial building which houses a restaurant and 23 surface parking stalls. The petitioner proposes to alter the property by razing a portion of the existing building, as well as eliminating 14 parking stalls to establish a "drive-in" business, defined by Section 6.4.11 of the Newton Zoning Ordinance (the "Ordinance") as "a retail use in which all or part of the business is conducted by a customer from with a motor vehicle … (including) drive-in food establishments." The petition requires special permit relief to allow the drive-in business use and waive lighting and landscaping waivers for outdoor parking facilities containing more than five parking stalls. The proposed menu board also constitutes a free-standing sign, which also requires a special permit.

The Planning Department engaged an on-call consultant, BETA, Inc., ("BETA") to analyze the transportation and traffic aspects of this petition and the most recent peer review memo is attached. The Planning Department has concerns regarding the auto-focus use of the proposal and removal of interior seating, as well as the potential for increased trips and anticipated queuing on Route 9 near a busy intersection without any proposed mitigation for queue spillover.

I. SIGNIFICANT ISSUES FOR CONSIDERATION

When reviewing this request, the Council should consider whether:

- The site in a Business Use 2 (BU-2) zoning district is an appropriate location for the proposed drive-in business, one free standing and two principal signs (§7.3.3.C.1)
- The proposed drive-in business will adversely affect the neighborhood. (§7.3.3.C.2)
- The proposed drive-in business as designed will create a nuisance or serious hazard to vehicles or pedestrians (§7.3.3.C.3)
- Access to the site over streets is appropriate for the types and numbers of vehicles involved (§7.3.3.C.4)
- Literal compliance with the perimeter landscaping requirements for parking facilities is impracticable due to the nature of the use, or the location, size, width, depth, shape, or grade of the lot, or that exceptions to one or more of said requirements would be in the public interest, or in the interest of safety, or protection of environmental features. (§5.1.13)
- Literal compliance with the outdoor lighting requirements for parking facilities is impracticable due to the nature of the use, or the location, size, width, depth, shape, or grade of the lot, or that exceptions would be in the public interest, or in the interest of safety, or protection of environmental features. (§5.1.13)
- The proposed exceptions to the sign ordinance should be permitted and are appropriate due to the nature of the use of the premises, the architecture of the buildings or their location with reference to the street is such that such exceptions are in the public interest. (§5.2.13)

II. CHARACTERISTICS OF THE SITE AND NEIGHBORHOOD

A. Neighborhood and Zoning

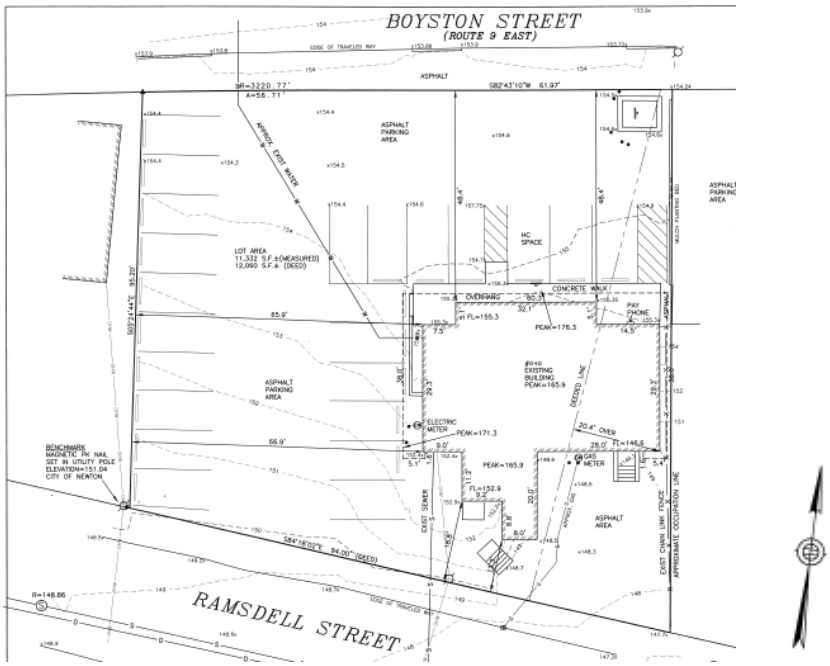
The subject property is located within the BU2 zoning district on the southern side of Boylston Street/Route 9 east of the Woodward and Elliot Street intersection. The BU2 zone encompasses the surrounding properties between Boylston Street and Ramsdell Street. There are residential zones across Boylston Street to the north, as well as along the southern side of Boylston Street to the east and west. Further south are manufacturing and mixed use zones **(Attachment A)**. The surrounding area to the north, east and west is predominantly occupied by single- and two- family dwellings, with commercial uses also between Boylston and Ramsdell Streets, and industrial uses south of the site (**Attachment B)**.

B. Site

The subject property consists of a 12,060 square foot lot improved with a 2,040 square foot, commercial building which houses a restaurant. The site generally slopes downward towards the rear of the lot, with a grade change of approximately six feet.

The site is largely impervious and is currently accessed via Boylston Street and most of the frontage is flush with Boylston Street. There are 23 parking stalls and associated paved maneuvering areas.

Existing Conditions



III. PROJECT DESCRIPTION AND ANALYSIS

A. Land Use

The principal use of the site would be a "drive-in business," defined by Section 6.4.11 of the Newton Zoning Ordinance as "a retail use in which all or part of the business is conducted by a customer from with a motor vehicle … (including) drive-in food establishments."

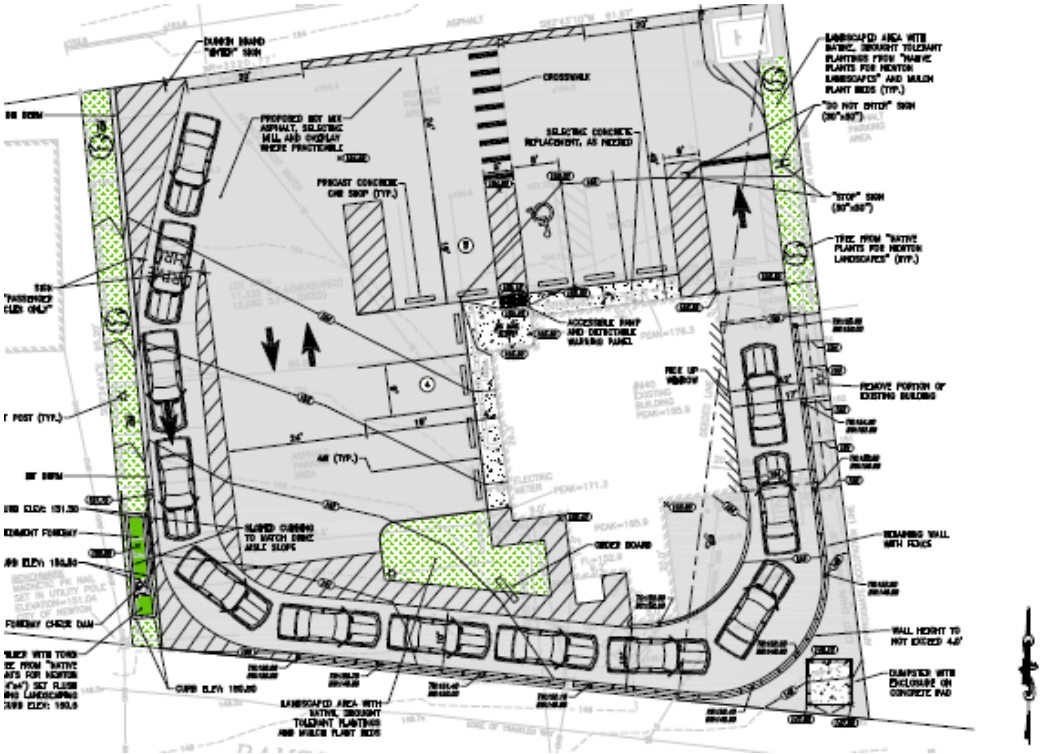
B. Building and Site Design

The petitioner proposes to raze a portion of the structure on the eastern elevation to accommodate a "drive through window". An order board would be located at the southern portion of the site, along Ramsdell Street. The demolition of the eastern portion of the building increases the side setback to seventeen feet, where three feet exists.

The petitioner is also proposing to construct a retaining wall along the southern and eastern property lines. The wall reaches a maximum height of 3.9 feet at the southeast corner.

Proposed elevations were also submitted with the special permit application submission. The building's elevations are undergoing a renovation; however, the building height is not changing and will remain at 21 feet. The petitioner is proposing to remove all interior seats; however, customers would still be able to park and purchase their order inside the structure.

Proposed Site Plan



C. Circulation, Parking, and Traffic

As designed, vehicles would enter the property by making a right turn from the eastbound side of Boylston Street/Route 9. Drivers would proceed along the left (west) property line to the rear of the property to place orders at the order board. After placing their order, drivers would continue to the pickup window along the eastern edge of the building. To exit the property, drivers would continue straight towards Boylston Street and would be limited to making a right turn onto Boylston Street/Route 9 eastbound via an exit-only curb cut.

To achieve the drive through configuration, 14 parking stalls would be eliminated. Nine parking stalls would remain: five stalls would be located along the front of the building; and four would be located along the western edge of the building. Per Sec. 5.1.4, a drive-in establishment requires one parking stall per every 600 square feet, resulting in a parking requirement of three stalls. As the petitioner proposes to provide nine parking stalls, the parking requirement is satisfied.

The Planning Department engaged an on-call consultant, BETA, to peer-review the petitioner's transportation memorandum. The most recent peer review memorandum is attached (**Attachment D**).

Using Institute of Transportation Engineers ("ITE") data, conversion from the existing use, a coffee shop without a drive-through, to the proposed use (coffee shop with a drive through), it is anticipated that there will be fewer trips generated. While the proposed use has a higher trip generation rate, there is a reduction of approximately 440 square feet to accommodate the drive-through. The change in use coupled with the reduction in square footage estimates 48 fewer trips during the weekday morning peak hour, for a total of 159 trips during the weekday morning peak hour. The weekday afternoon peak hour estimates 74 trips, four fewer than the existing use. To draw a comparable expectation for how the site will operate with a drive-through window, the petitioner utilized data from a similar restaurant at 978 Worcester Street (Route 9E) in Wellesley.

To compare the petition with the restaurant in Wellesley, the petitioner assumed 75% of sales during the morning peak would occur at the drive-through. With an average transaction time of two to two and a half minutes and the proposed vehicle storage of 12 vehicles, BETA anticipates that there will be spillover onto Route 9 eastbound during the morning peak hour. The petitioner has not proposed any queue spill over mitigation because any improvements within the state right-of-way such as pavement markings would need to be approved by the state following the special permit process.

While change in use is expected to generate fewer trips, the average transaction time coupled with vehicle storage on site make it probable that there will be queue-spillover onto Route 9. Staff have concerns with the expected queue spillover onto Route 9 with the lack of on-site queue mitigation offered. The petitioner should consider ways to mitigate spillover through its operations.

D. Deliveries

The petitioner expects deliveries to continue to occur between 4:00 AM and 5:00 AM, with

access from Ramsdell Street. The petitioner provided BETA with turning templates for the largest delivery vehicle, BETA reviewed the templates for delivery and trash vehicles accessing the site and dumpster at the southeast corner of the site along Ramsdell Street and have no concerns. Should this petition be approved, the Planning Department suggests including a condition requiring the petitioner to install a sign at the Ramsdell Street entrance indicating that only delivery access is to occur from Ramsdell Street.

E. Landscaping, Screening, and Lighting

Outdoor parking facilities containing more than five stalls are required to provide perimeter screening from abutting streets and properties. The petitioner has not submitted a detailed landscape plan, however landscaping areas are shown on the site plan. The western property line indicates a planting area with native trees and plantings, and part of the eastern property line will also feature native trees and plantings. The plan also indicates a landscaped island near the proposed menu board. The Planning Department is supportive of the landscaping as it is an improvement over the existing conditions and would support any additional landscaping the petitioner can incorporate.

The lighting plan indicates that portions of the parking area would not meet the requirement per Sec. 5.1.10.A's that outdoor parking facilities used at night provide lighting with a minimum intensity of one-foot candle on the entire surface. However, there are only a few sections of the site that would not meet the requirement which is limited to the northwest and southeast corners of the site with illumination levels between 0.5-0.9. The interior of the site reaches illumination levels between 1.0-4.0.

Lastly, BETA and staff request the petitioner to provide information on snow storage and/or removal.

F. Signage

There is an existing free-standing sign along the frontage which was approved by a 1978 variance. The proposed menu board requires relief to allow a free-standing sign. Section §5.2.3 of the Ordinance states that where permission is granted for a free-standing sign, the free-standing sign shall be considered the principal sign. As there will be two free-standing signs on the property, relief is required to allow two principal signs as well as the new free-standing menu board sign.

IV. TECHNICAL REVIEW

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

The Zoning Review Memorandum provides an analysis of the proposal with regard to zoning (**Attachment C**). Based on the completed Zoning Review Memorandum, the petitioner is seeking the following relief:

Special Permit per §7.3.3 to:

Ordinance	*Required Relief*
§4.4.1 §6.4.11	To allow a drive-in establishment
§5.1.9.A §5.1.13	To waive the perimeter screening requirements
§5.1.10.A §5.1.13	To waive the outdoor lighting requirements
§5.2.3	To allow a free-standing sign and two principal signs

B. Engineering Review

This petition is not subject to review from the Engineering Division of Public Works.

C. Historic Commission Review

The proposed demolition of the eastern elevation was reviewed by the Chief Preservation Planner on May 27, 2021. The building was found "Not Historically Significant" and no further action is required.

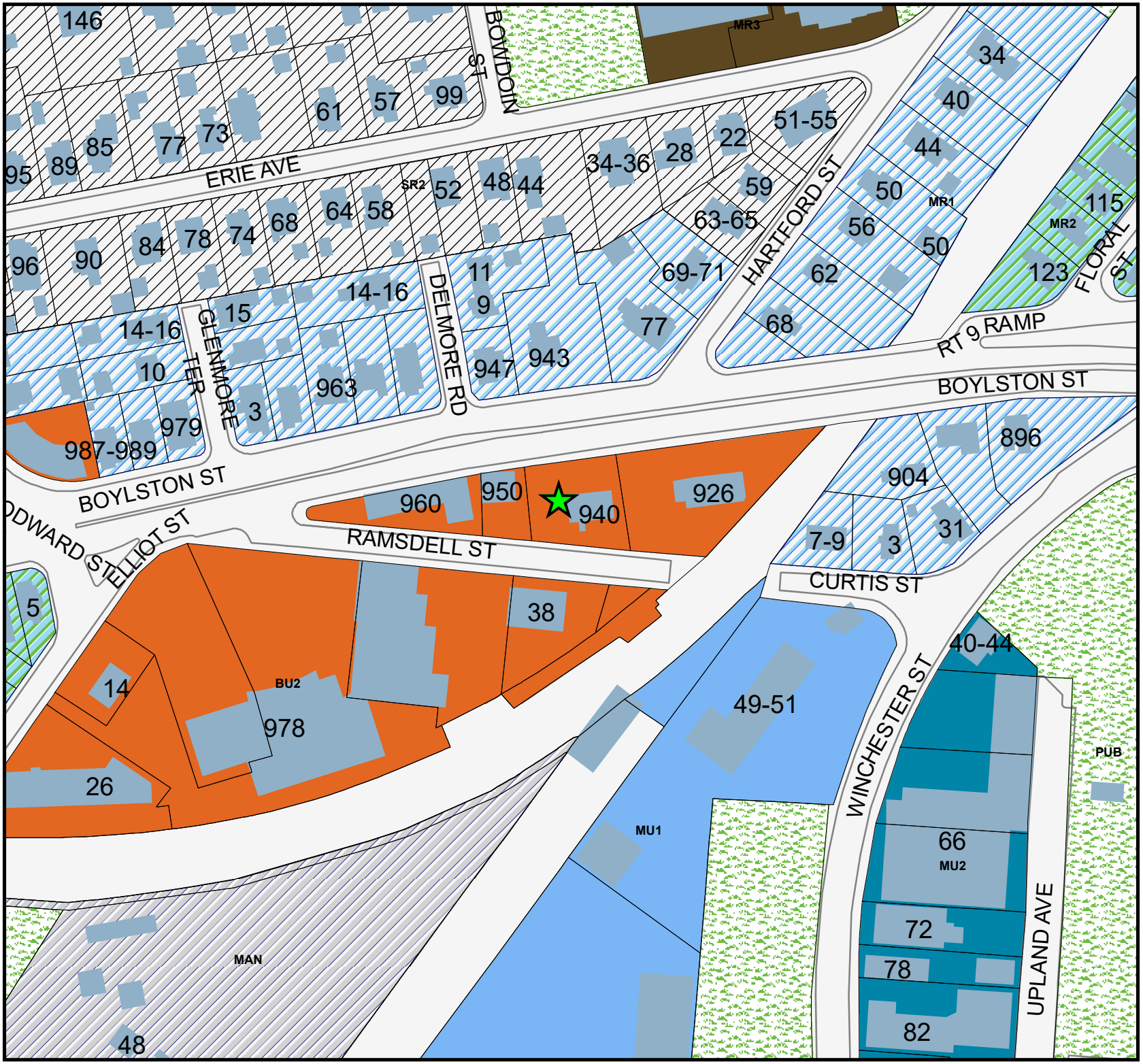
V. PETITIONER'S RESPONSIBILITIES

The petitioner should be prepared to address the issues raised in this and the attached memorandum. The issues raised in this memorandum are as follows:

- Mitigation for queue spillover on Route 9.
- Snow storage/removal plan.
- Signage restricting access from Ramsdell Street to deliveries only.

ATTACHMENTS:

Attachment A: Zoning Map
Attachment B: Land Use Map
Attachment C: Zoning Review Memorandum
Attachment D: BETA Memorandum, dated February 1, 2022



ATTACHMENT A

Zoning

940 Boylston Street

City of Newton, Massachusetts

Legend

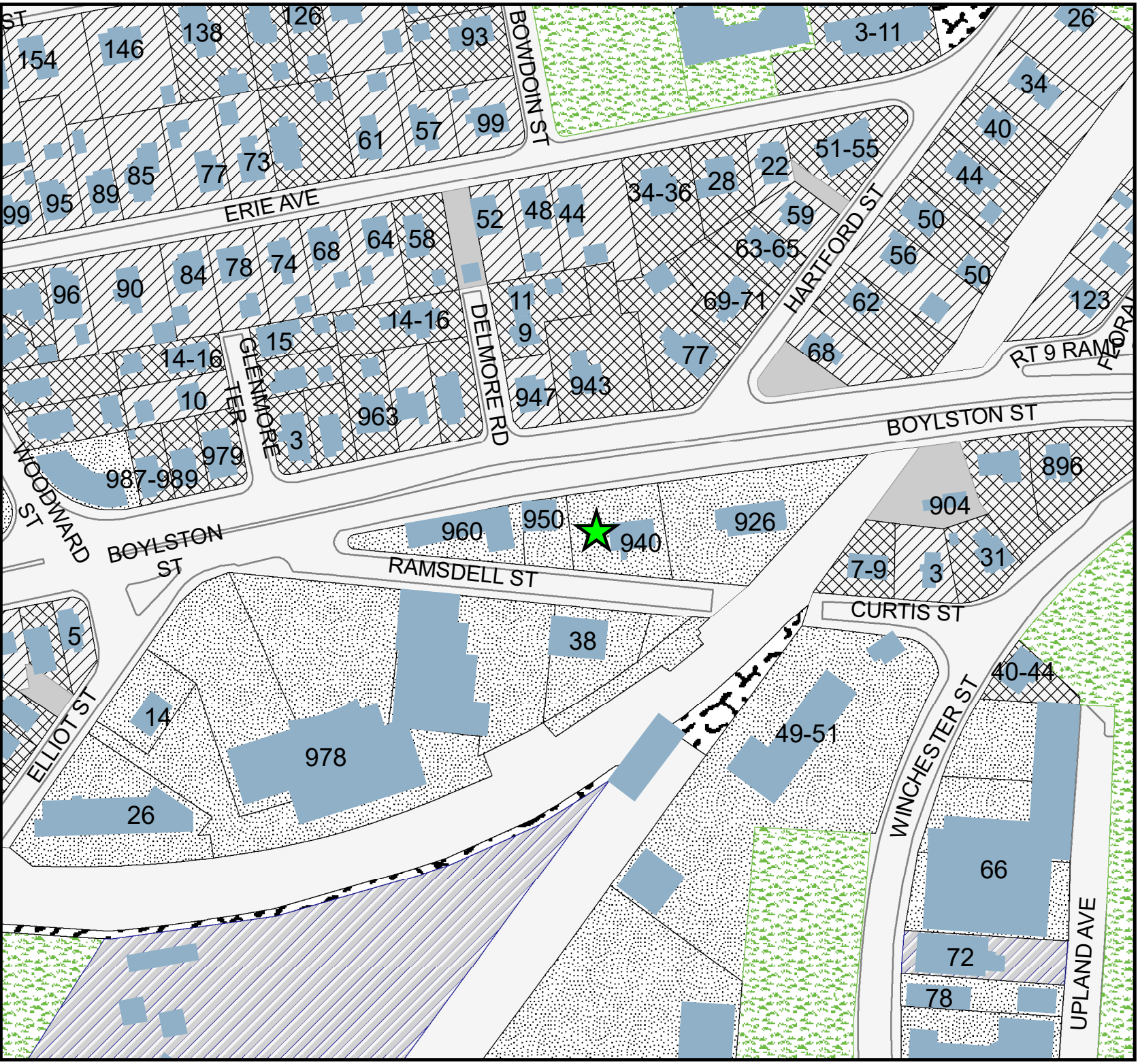
- Single Residence 2
- Multi-Residence 1
- Multi-Residence 2
- Multi-Residence 3
- Business 2
- Manufacturing
- Mixed Use 1
- Mixed Use 2
- Public Use

N
W E
S

CITY OF NEWTON, MASSACHUSETTS
Mayor - Ruthanne Fuller
GIS Administrator - Douglas Greenfield

0 12.5 25 50 75 100 125 150 175 200 225
Feet

Map Date: July 12, 2021



ATTACHMENT B

Land Use

940 Boylston Street

City of Newton, Massachusetts

Land Use

Land Use

- Single Family Residential
- Multi-Family Residential
- Commercial
- Industrial
- Open Space
- Nonprofit Organizations
- Vacant Land

N
W E
S

CITY OF NEWTON, MASSACHUSETTS
Mayor - Ruthanne Fuller
GIS Administrator - Douglas Greenfield

0 12.5 25 50 75 100 125 150 175 200 225
Feet

Map Date: July 12, 2021

Ruthann Fuller
Mayor

City of Newton, Massachusetts
Department of Planning and Development
1000 Commonwealth Avenue Newton, Massachusetts 02459

Telephone
(617) 796-1120
Telefax
(617) 796-1142
TDD/TTY
(617) 796-1089
www.newtonma.gov

Barney S. Heath
Director

ZONING REVIEW MEMORANDUM

Date: January 18, 2022

To: John Lojek, Commissioner of Inspectional Services

From: Jane Santosuosso, Chief Zoning Code Official
Neil Cronin, Chief Planner for Current Planning

Cc: Mildred McMullen, Applicant
Alex DiPietro, Agent
Barney S. Heath, Director of Planning and Development
Jonah temple, Assistant City Solicitor

RE: Request to allow a drive-in business and associated parking waivers and to allow a free-standing sign

Applicant: Mildred McMullin	
Site: 940 Boylston Street	**SBL:** 51026 0003
Zoning: BU2	**Lot Area:** 12,060 square feet
Current use: Restaurant	**Proposed use:** Drive-in business

BACKGROUND:

The property at 940 Boylston Street consists of 12,060 square feet improved with a restaurant constructed in 1958. The petitioner proposes to remove a portion of the building and reconfigure the existing parking area to allow for construction of a drive in, requiring a special permit.

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

- Zoning Review Application, prepared by Alex DiPietro, Agent, submitted 3/24/2021
- Existing Conditions Site Survey, signed and stamped by Bruce Bradford, surveyor, dated 12/20/2021
- Proposed Conditions Site Survey, prepared by Pare Corporation, dated 3/24/2021
- Elevations, prepared by Aharonian & Associates, architect, dated 10/14/2020
- FAR worksheet, submitted 3/24/2021

ADMINISTRATIVE DETERMINATIONS:

1. The petitioner proposes to raze a portion of the building currently operating as a restaurant to allow for construction of a drive-in window. Per section 6.4.11, a drive-in business is a retail use in which all or part of the business is conducted by a customer from within a motor vehicle, including drive-in food establishments. Per sections 4.4.1 and 6.4.11, a special permit is required to allow a drive-in business in the Business 2 zoning district.

2. The restaurant is currently 2,040 square feet. A portion of the building is being removed to accommodate the drive-in, resulting in a 1,625 square foot retail space and drive-in window. Per section 5.1.4, a drive-in establishment requires one parking stall per every 600 square feet, resulting in a parking requirement of three stalls. The petitioner proposes to reconfigure the parking area, eliminating stalls to accommodate the queuing lane for the drive-in. The reconfiguration results in nine parking stalls with a queuing lane for twelve vehicles. No waiver is required.

3. Per section 5.1.9.A, outdoor parking facilities containing more than five stalls are required to provide perimeter screening from abutting properties. No perimeter landscaping or fencing is indicated on the proposed site plan, requiring a waiver per section 5.1.13.

4. Section 5.1.10.A requires outdoor parking facilities used at night provide lighting with a minimum intensity of one-foot candle on the entire surface and that the lighting does not spill onto neighboring properties. No lighting is indicated on the proposed site plan, requiring a waiver per section 5.1.13.

5. The parcel has an existing free-standing sign along the Boylston Street frontage which predates the special permit requirement but received a variance in 1978 to exceed size limits. Additionally, a 1983 building permit was granted for the existing wall sign. The petitioner is now proposing an order board located between the building and the drive through aisle. As the board will advertise items available for sale and their prices, as well as providing the opportunity to place an order, it is considered a free-standing sign per section 5.2.3. Per this same section, a free-standing sign is considered the principal sign of the property and only one is allowed. Section 5.2.13.A allows the City Council to grant a special permit to allow free-standing signs and to grant exceptions to the limitations on the number, size, location and height of signs. The petitioner requires a special permit per section 5.2.13.A to allow for two free-standing signs on the property.

6. The free-standing menu board will consist of two panels attached to a central pole with a protective awning. The pole measures 9 feet in height with a 12 square foot panel on each side (2.5 feet wide by 4.9 feet high). There is a total of 24 square feet of advertising between the two panel faces. Section 5.2.3 defines the sign area as the extreme limits of the advertising messaging, excluding supports or uprights on which the sign is placed. Section 5.2.13.B allows for up to 35 square feet of advertising space for a free-standing sign. As such, no additional relief is required for the 24 square feet of advertising space.

Zoning Relief Required		
Ordinance	*Required Relief*	*Action Required*
§4.4.1 §6.4.11	Request to allow a drive-in establishment	S.P. per §7.3.3
§5.1.9.A §5.1.13	Request to waive the perimeter screening requirements	S.P. per §7.3.3
§5.10.A §5.1.13	Request to waive the outdoor lighting requirements	S.P. per §7.3.3
§5.2.3 §5.2.13.A	Request to allow two free-standing signs (two principal signs)	S. P. per §7.3.3

IMPROVING COMMUNITIES TOGETHER

February 1, 2022

Ms. Jennifer Caira
Deputy Director
Department of Planning & Development
1000 Commonwealth Avenue
Newton Centre, Massachusetts 02459

Re: 940 Boylston Street (Dunkin') Traffic Impact Analysis Peer Review – Pare's Response to Comments No. 2

Dear Ms. Caira:

BETA Group, Inc. (BETA) has reviewed the traffic Response to Comments Memo submitted by Pare Corporation (Pare) dated January 12, 2022. The Pare responses addressed the additional traffic comments made in the BETA letter dated November 2, 2021. Comments to Pare (shown in standard bold text), the original peer review comments (shown in standard text), and Pare's provided responses (shown in italic text) are provided below.

The study was prepared for a proposed Dunkin' redevelopment located at 940 Boylston Street (Route 9) in the City of Newton, Massachusetts. The proposed redevelopment project includes razing a portion of the existing Dunkin' building while reconfiguring the parking lot and accesses to accommodate a drive-through window. Access to the site will be provided at two existing full access driveways on Boylston Street to a parking lot providing 9 parking spaces while eliminating the existing access on Ramsdell Street.

This letter has been prepared by BETA to outline our findings, comments, and recommendations in the review of the material provided.

BASIS OF REVIEW

At the request of the Newton Department of Planning & Development, BETA has completed a peer review of the traffic related items for the Dunkin' Development project to determine if the information provided was complete, in accordance with standard traffic engineering guidelines, and if the conclusions accurate. A Traffic Impact Analysis (TIA) prepared by Pare Corporation dated April 2021 and a plan set also prepared by Pare Corporation date May 25, 2021, were the basis of this review.

In addition to a review of the documents provided, BETA staff conducted site investigations of the project area and subject property to substantiate the supporting information. Our review included herein, has been completed individually by section as presented within the TIA. The numbered comments noted within each major review item (i.e., traffic volumes, safety analysis, etc.), identify requested additional information or clarifications on items that were discussed in the TIA. The following comments are offered to the city as part of our review.

BETA GROUP, INC.
701 George Washington Highway, Lincoln, RI 02865
P: 401.333.2382 | F: 401.333.9225 | W: www.BETA-Inc.com

TRAFFIC VOLUMES

Existing traffic volumes were collected including Manual Turning Movement Counts (MTMC) and Automatic Traffic Recorder (ATR) counts in March 2021. In addition, due to the impacts of the pandemic to traffic when data was collected specifically for this project, record traffic data was obtained from the Massachusetts Department of Transportation (MassDOT) along Interstate 90 (I-90) in Newton, MA to determine the potential variation in traffic along Route 9.

For this study, TMCs were completed on Tuesday, March 16, 2021, at the intersections of Route 9 with Woodward Street/Elliot Street and with the Dunkin' driveways. A 48-hour ATR count was completed along the Route 9 eastbound lanes in the vicinity of the site from Tuesday, March 16, 2021, to Wednesday, March 17, 2021. In addition, continuous count data was obtained from MassDOT along I-90 in Newton, MA, approximately 2 miles north of the site, for March 2020 and March 2021 for comparison. Based on the comparison of the March 2020 and March 2021 data obtained from MassDOT, traffic volumes along I-90 were found to be approximately 67% of those present prior to the COVID pandemic. Therefore, the study base traffic volumes were adjusted accordingly to represent base 2021 traffic conditions.

1. BETA concurs with the adjustment of the March 2021 traffic volumes based on the comparison of the March 2020 and March 2021 data along I-90, though conservative, to take into account the lower than typical daily traffic conditions due to the pandemic.

   Pare: Noted.

   BETA2: No further comment.

2. A conservative annual growth rate of 0.5% per year was used for the future 2028 traffic conditions based on an average population decrease of approximately -0.01% per year from 2000 to 2010 for the City of Newton. Please verify the population annual growth rate in the past 10 years between 2010 to 2020 in the City of Newton as the past decade would be more applicable in depicting the recent population trend of the area.

   Pare: The 2020 census data results are still not available for comparison. However, based on the population estimates (88,414 in 2019), the inflation would still be less than 0.5% per year.

   BETA2: Information provided. Comment resolved.

SAFETY ANALYSIS

Crash data was obtained from the MassDOT database for the three-year study period from 2017 to 2019 for the study area.

3. Please clarify the limits of the crash data obtained along Boylston Street (Route 9).

   Pare: Crash data was reviewed for Boylston Street (Route 9) from Woodward Street/Elliott Street to Hartford Avenue.

   BETA2: Crash data limits are acceptable. Comment resolved.

SITE ACCESS AND CIRCULATION

Both of the site driveways along Route 9 will be maintained, which are restricted to right-in/right-out movements due to Route 9 being divided with a median barrier resulting in one-way eastbound traffic adjacent to the site. In addition, the existing access on Ramsdell Street will be eliminated as part of the proposed development. Queueing of up to 12 vehicles is proposed from the pickup window as shown on the concept plan, though the floor plan shows the pickup window to be more at the midpoint of the easterly side of the building. In addition, BETA conducted site observations of the drive-through queueing at the Dunkin' located at 951 Worcester Street (Route 9 westbound) in Wellesley during the morning hour peak hour on Tuesday, July 13, 2021, to verify the findings in the TIA. It was determined that the average drive-through queue at this particular Dunkin' location during the morning peak hour was approximately 6-8 vehicles from the pickup window with maximum queuing (12 vehicles from the pickup window) spilling onto Route 9 for approximately 5 minutes. Relating to the proposed development drive-through lane width, a 10-foot-wide drive-through lane is proposed, though the width does not meet the minimum requirement of 12 feet for a one-way movement per the City's Zoning Ordinance.

4. Please verify the location of the proposed drive-through pickup window to show the accurate vehicle queue.

   Pare: The proposed pick-up window is located at the east side of the building as depicted on C1.0 and represents an accurate vehicle queue.

   BETA2: Please provide the latest site plan.

   Pare2: Latest site plan is provided.

   BETA3: Information provided. Comment resolved.

5. Please provide information on the number of customers expected to use the drive-through window versus walk-ins.

   Pare: Matching the drive-through percent provided for the Wellesley site for the morning commuter peak, 75% of sales were assumed to be drive-through transactions. We note that this percent was up from Q1 2021 (pre-covid) presumably because of the hesitation of some to go inside retail establishments during the pandemic. We believe again that this provides a conservative analysis (Data Table provided as part of the response).

   BETA2: Based on the estimated site trips for the proposed development, where it is anticipated that 75% would be drive-through transactions, in combination with typical drive-through transaction times (2 to 2 ½ minutes), it is highly likely that drive-through queue spill over onto Route 9 will occur consistently during the morning peak hour. Please see comment 6 relating to mitigation measures if drive-through queue spill over occurs along Route 9. Note that typical drive-through transaction times of 2 to 2 ½ minutes was stated by the applicant during the Land Use Committee meeting held on July 27, 2021.

   Pare2: The 2-2.5 minutes noted was for a day average. Dunkin' stores generally see higher turnover rates in the morning, with a majority of orders being coffee and quick grab items, while afternoon/dinner-time orders see more meal-type items included. As shown in Table 1 below, the average total process time for local stores is between 120 and 150 seconds. However, with the

distance between the order board and the pick-up window, the store is able to be serving more than one customer simultaneously. As shown in Table 2 below, morning peak customers spend no more than 36 seconds at the order board and 41 seconds at the pick-up window in the morning timeframe. This allows a new car to move up every 41 seconds. This is how stores, like the sample in Wellesley, are able to turnover over 80 customers in their morning peak hour.

The presence of the adjacent signal also allows this site to process vehicle turnover in a timely manner. The operating phase length for Route 9 is no more than 95 seconds, which means vehicles exiting the site would not have to wait any longer than that for a distinct break in traffic flow.

BETA3: It seems that the actual Order Process Time data (Table 2) only indicates how much time a vehicle spends at the order board (max. 36 seconds) and at the pickup window (max. 41 seconds) but does not necessarily measure the total amount of time a vehicle spends waiting between the time a vehicle arrives at the drive through order board and from the time the same vehicle leaves the pickup window if there is a queue in front of said vehicle.

Actual data of drive through wait times throughout the day should be provided if it is less than the industry goal of 150 seconds to verify drive-through turnover rates.

BETA concurs with the adjacent signal creating breaks in Route 9 traffic flow.

Pare3: See attached for additional data pertaining to full order times associated with Dunkin' operations. As seen on the site plan, there are four vehicle spaces between the order board and the pick-up window. With up to 45 seconds assumed per vehicle (allowing a few second turnover delay), orders can take up to 270 seconds total without any additional delay in turnover. The Dunkin' data shows average morning order times of 131 seconds, and average order times for the remainder of the day of 140 seconds, similar to the store standard goal. Further, the ability to take orders in the same interval allows the Dunkin' staff to work more than one order at a time.

BETA4: Data has been provided and confirms the average drive-through transaction times between 2 to 2 ½ minutes per vehicle. Based on the estimated site trips during the morning peak hour in combination with average drive-through transaction times (2 to 2 ½ minutes) and the number of drive-through vehicle storage (12 vehicles), it is highly likely that the drive-through queue will reach Route 9 consistently during the morning peak hour and potentially spill over onto Route 9. No further comment.

6. Please define mitigation measures or operational adjustments available if the drive-through queue spills onto Route 9 (i.e., signage, pavement markings, staffing, etc.).

   Pare: Do not block striping could be placed on Route 9 at the entrance driveway. This would need to be approved by MassDOT as part of the permitting process.

   BETA2: Do not block striping on Route 9 may not be realistic. Please define a more feasible queue mitigation measure(s).

   Pare2: Improvements within the State Right-of-Way will need to be reviewed and approved by MassDOT as part of the access permit process. The design team cannot commit to off-site improvements on behalf of MassDOT prior to their review.

BETA3: On-site queue management should be defined rather than off-site within the State right of way. In addition, relating to the MassDOT access permit, is the project currently being reviewed by MassDOT?

Pare3: Neither the City of Newton nor MassDOT have requirements for providing an on-site queue. Nearby coffee shops have a queue length of 10 vehicles from the pick-up window, which matches the requirement of adjacent states. The provided design has a 12-vehicle queue from the pick-up window.

There is no way to physically prevent a queue from extending to Route 9. However, a queue extending through to site to Route 9 represents a nearly 10-minute wait, which is not a practical wait time for a fast-food service. These individuals could alternatively park and go inside to order or bypass this store and seek an alternate.

The team has discussed the project preliminarily with MassDOT. An access permit and formal review by MassDOT has not been initiated yet as it is prudent for the permit submission to reflect feedback from both the City and members of the public.

BETA4: BETA concurs that neither the City nor MassDOT have requirements for providing on-site queue management; however, due to its location along Route 9 that services high traffic volumes in combination of the data provided (estimated site trips and drive-through transaction times as discussed in Comment No. 5 above) including the proposed drive-through vehicle storage of 12 vehicles, the drive-through queue is highly likely to reach Route 9 consistently during the morning peak hour and possibly other peak times of the day (MD and PM) and potentially spill over onto Route 9. No further comment.

7. Please explain why a 10-foot-wide drive-through lane is provided rather than the 12-foot minimum set forth in the City's Zoning Ordinance.

   Pare: Due to the 12.3' distance between the rear property line and the building, the ~2.5' drop in elevation across the pinch point, and unfeasibility of relocating the existing cooler inside the building which creates this pinch point, the drive through lane was narrowed to 10' wide along the rear portion of the building. The drive through lane is shown at 12' wide outside of this pinch point and a vehicle turning assessment was completed via AutoCAD to conform that the drive through lane is navigable by passenger vehicles.

   BETA2: After further coordination with the City, the drive-through lane width is not subject to the City's Zoning Ordinance driveway entrance/exit width, though the applicant should coordinate with the City's Fire Department to ensure the 10' drive-through lane width is acceptable to the department.

   Relating to the turning assessment completed, please define how the applicant will restrict vehicles larger than a passenger vehicle from the drive-through lane. In addition, a light pole is shown in the site plan within the drive-through lane that will further constrain vehicles. Is the proposed light pole in question at the correct location and who's maintaining the light poles on site?

   Pare2: The proposed drive-through lane does not change the Fire Department's current access to the site and the development is acceptable to the department. A fire truck has the ability to enter and exit using Boylston Street, as well as enter from Boylston Street and exit via Ramsdell Street.

Signage and a revised light pole location have been incorporated on the plan. Maintenance of the light poles will have to be agreed upon between the Property Owner and Applicant.

BETA3: An agreement between the Property Owner and Applicant on maintenance of the light poles should be resolved prior to final approval. In addition, please confirm if the landscape areas are raised with curbing to protect the light poles.

Pare3: An agreement will be prepared.

Not all landscaped areas are raised. Bollards are provided to protect light poles in areas that do not have separation to vehicles by either berm, curb, or wall.

BETA4: Please provide the agreement for the record. Latest site plan has been provided. Comment relating to light pole protection has been resolved.

8. A loading zone/area is not shown on the plans. Please define the loading area and times during the day when deliveries would occur on a typical day.

   Pare: Delivery activities will happen along Ramsdell Street as they do today. These typically occur between 4:00 and 5:00 AM, outside of peak commuter hours.

   BETA2: Though deliveries are proposed outside the peak commuter hours, Ramsdell Street is a dead-end street with no secondary outlet, which is a concern for larger vehicles particularly large trucks (semi-trailer). What is the typical size of a delivery truck for this site? Please provide a turning template of the delivery truck including the dumpster truck that will access Ramsdell Street. It is important to note that we observed a tractor trailer making a delivery at the Wellesley Dunkin' site within the Route 9 westbound shoulder during the morning peak period.

   Pare2: A turning assessment for a WB-40 semi-trailer and a SU-30 dumpster truck was performed and is provided. The semi-trailer has adequate space to enter from Boylston Street and exit to either Boylston Street or Ramsdell Street. The dumpster truck appears to be side-loaded and accesses the dumpster in a similar manner as it does today.

   BETA3: Please verify if the WB-40 semi-trailer is the current and future maximum size delivery truck the applicant expects at the subject store. Again, a truck with a 53-foot trailer was observed making a delivery at the Wellesley Dunkin' site and it's reasonable to assume that the same truck delivers to other Dunkin's stores in the area including to the subject store.

   Pare3: Attached is a turning template showing the largest delivery vehicle traversing through the site. Please note that this is the largest vehicle that could be expected to make deliveries and the distributor has smaller delivery vehicles available as needed.

   BETA4: Site access on Ramsdell Street should be restricted to delivery truck only. As such, the site plan should be updated to include signing that restricts site access on Ramsdell Street to delivery truck only.

SIGHT DISTANCE

The available stopping sight distance (SSD) approaching the proposed driveways were measured to be greater than 500 feet to the west, which exceeds the 360 feet AASHTO required for the measured 85th percentile speed of 45 MPH. The intersection sight distance (ISD) was also measured to be greater than 500 feet, which exceeded the required 430 feet AASHTO required for the measured 85th percentile speed

of 45 MPH. These measurements are based upon the physical roadway characteristics (straight, level) and BETA concurs with the sight distance analysis.

SITE – GENERATED TRAFFIC

Project-generated traffic volumes were estimated utilizing sales data from a Dunkin' restaurant located at 951 Worcester Street (Route 9) in Wellesley, MA. It is noted that this particular Dunkin' location with a drive-through window is comparable in size to the proposed Dunkin' development in Newton, MA and the intent of the owner is to match the sales at this location. In addition, traffic volumes for the project were also estimated using trip-generation statistics published by the Institute of Transportation Engineers (ITE) for Land Use Code (LUC) 936 – Coffee/Donut Shop without Drive-Through Window and LUC 937 – Coffee/Donut Shop with Drive-Through Window. These land use codes were compared to determine the trips that will be generated by the addition of a drive-through window under proposed conditions (LUC 937) to existing conditions (LUC 936). The analysis determined that although coffee/donut shops with drive-through windows do generate more trips per square foot, the overall reduction in area of the proposed Dunkin' development resulted in fewer trips under proposed conditions. As noted previously, the goal of the redevelopment is to increase sales and therefore, the sales data from the Dunkin' at 951 Worcester Street in Wellesley, MA was used to analyze the future build conditions. BETA concurs with this methodology. The ITE manual suggests that if a similar or like land use is available in the region of study, data could be obtained to confirm ITE rates, or to use the independent study rates if they are more appropriate.

9. Figure 5 seems to depict pass by trips including incorrect distribution of traffic at the intersection of Route 9 with Woodward Street/Elliot Street though it is referenced as site generated traffic volumes. Please clarify Figure 5 in the TIA of its depiction/intent.

   Pare: Figure 5 depicts the trips being added to the roadway network due to the reconstruction of the site. The volumes at the Woodward Street/Elliott Street intersection are correct. The through movements at the Dunkin' driveway should be -15 (-3) to reflect the portion of trips that will now turn into the site that are already in the Route 9 network.

   BETA2: No further comment.

10. The site generated trips are based on sales data at the Dunkin' restaurant on 951 Worcester Street in Wellesley, MA. As such, please verify the morning and afternoon peak hour traffic volumes are comparable between Route 9 eastbound along the site frontage (940 Boylston Street in Newton, MA) and Route 9 westbound along the Dunkin' restaurant at 951 Worcester Street in Wellesley, MA to support the trip estimate methodology.

    Pare: Reviewing count data available through the MassDOT Transportation Data Management System, the ADT along Route 9 west of I-95 (where the Wellesley Store are) is reported to be 45,643 and the ADT along Route 9 east of I-95 (where the Newton store is) is reported to be 45,509. These are nearly identical.

    BETA2: Though the ADT along Route 9 are nearly identical east and west of I-95, directional distribution of commuter traffic along Route 9 varies based on origin/destination in relation to the I-95 corridor. As such, please provide hourly directional volumes along Route 9 in the vicinity of the subject site and the Wellesley store to verify trip generation methodology.

Pare2: The count data for the ATR west of I-95 is not broken down by direction. However, as detailed in response 5 above, the subject store will be able to handle a high turnover rate, accommodating at least 80 vehicles in the peak hour at the drive-through alone. As noted previously, the subject store would need to see appreciable increase in business to come close to matching that of the current Wellesley store along eastbound Route 9, but should that growth come to fruition, the site is capable of accommodating.

BETA3: Business sales for this type of service-oriented use is highly dependent on the amount of traffic serviced on the adjacent roadway. As stated in the previous comment, directional distribution of traffic along Route 9 varies widely during the morning and afternoon peak periods where commuter peak traffic is higher along the eastbound direction during the morning peak period compared to the westbound direction. This is evident in Figure 3 (Existing Peak Hour Traffic Volumes) provided in the TIA where motorists are heading east towards the City of Boston and/or the Boston metro area during the morning peak hour and heading out during the afternoon peak hour. In addition, the redevelopment project not only adds a drive through but also eliminates indoor seating. As such, it is anticipated that the subject store will not only match the Wellesley store drive through transactions, but far exceed it.

It is recommended that the applicant collect a minimum 7-day automatic traffic recorder count on Route 9 in the eastbound direction along the subject store frontage and on Route 9 in the westbound direction along the Dunkin' frontage in Wellesley.

In addition, upon further review of the trip methodology, please clarify why ITE Trip Generation Land Use Code (LUC) 938 Coffee/Donut Shop with Drive-Through Window and No Indoor Seating was not used for comparison when this land use is more appropriate for the proposed Dunkin' redevelopment.

Pare3: As noted previously, the subject store was compared to the store in Wellesley along the EB side of Route 9. For the reasons noted by BETA regarding directional split, we also found this to be the more comparable of the two nearby drive-through locations.

The volumes used for the traffic study were intended to provide conservative analysis of the LOS at the site exit as well as the adjacent signal. However, it is acknowledged that the 48% inflation applied to the count data, using a comparison to the nearest MassDOT continuous count station, is unrealistic. MassDOT has recently noted that similar roadways should be reviewed, not necessarily the nearest count location. Looking at count data along Route 9 east of the project site, the volumes captured for this study are actually higher than those captured previously along Route 9 eastbound pre-COVID.

LUC 938 was reviewed and deemed not applicable to the characteristics of the proposed drive-through addition to the existing Dunkin'. This LUC is defined as a coffee shop with a drive-through only, where patrons cannot go inside to order. The trip generation is based on the number of drive-through lanes only, there is a small sample size, and if used would project a lower number of customers than the LUC used. Additional information regarding the description and trip generation for LUC 938 is attached.

BETA4: It was determined that the TIA had a discrepancy between the address number and location of the subject store in Wellesley. The discrepancy has been clarified and there is no further no comment.

BETA concurs that the 48% inflation applied to the count data is conservative as MassDOT evaluated traffic volumes during the pandemic in comparison to pre-pandemic levels and determined that local roadways, for the most part, experienced higher traffic volumes when COVID-19 related restrictions were in place compared to pre-pandemic levels. In contrast, freeways such as I-95 and I-90 experienced lower volumes during the pandemic when business and school restrictions were in place compared to pre-pandemic levels. As such, the trip estimate methodology is acceptable.

Based on the latest edition (11th) of the ITE Trip Generation manual, which was released in Fall 2021, the independent variable is now limited to the number of Drive-Through Lanes only resulting in less trips for the subject redevelopment. No further comment.

PROPOSED PARKING AND PARKING REQUIREMENTS

The parking lot is proposed to be reconfigured resulting in a reduction of parking spaces from 23 stalls (existing conditions) to 9 stalls (proposed conditions) to accommodate the addition of a drive-through window. The City Zoning Ordinance requires 1 stall per 3 patron seats and 1 stall per 3 employees for restaurant establishments including the required number of accessible stalls per number of stalls provided. The redevelopment proposes no indoor seating and 5 employees per shift that results in 2 stalls required for future conditions. Therefore, the proposed number of stalls (9) exceeds the requirement (2) set forth in the City's Zoning Ordinance for restaurant establishment including the required number of accessible spaces. In addition, the proposed stall dimension meets the minimum width of 9', though the stall depth does not meet the minimum of 19'.

11. Please clarify why an 18-foot-deep stall is proposed rather the minimum required of 19'.

    Pare: The existing site has 18-foot-long parking stalls. The plan has been updated to reflect the city requirement of 19'.

    BETA2: Please provide an updated site plan showing 19' long stalls.

    Pare2: The latest site plan is provided.

    BETA3: Information provided. Comment resolved.

CAPACITY ANALYSIS

A capacity analysis was completed at each of the study intersections of Route 9 with Woodward Street/Elliot Street and with the Dunkin' driveway during the morning and afternoon peak hours for existing, future (2028) no-build, and future (2028) build conditions. The analysis determined that the signalized intersection of Route 9 with Woodward Street/Elliot Street currently operates at LOS F during both the AM and PM peak hours under existing conditions and will continue to operate at LOS F under both the future no-build and future build conditions, though with minor decrease in overall intersection delay through signal timing optimization. At the unsignalized intersection of Route 9 with the Dunkin' site driveway, the right turn exiting movement operates with long delays during both the morning and afternoon peak hours under existing conditions and will continue to operate with greater delays under both future conditions compared to existing conditions with the exception during the PM peak hour where the LOS improved from LOS F (future no-build) to LOS E (future build).

12. Please clarify how the LOS improved between the future no-build and future build conditions during the afternoon peak hour at the Route 9 intersection with the site driveway, though the site driveway has higher traffic volumes based on the additional trips generated by the proposed development under the future build condition.

    Pare: Per MassDOT standards, the future PHF was adjusted to .92 for all approaches in the build condition. This adjustment should also be applied to the no-build.

    BETA2: The use of MassDOT standards relating to the Peak Hour Factor (PHF) for the commercial driveway is acceptable. Comment resolved.

Additional Comments:

13. Based on the site plan, no improvements are being proposed within the state right of way including the sidewalk along the property frontage and the existing curb cuts on Route 9. Although both site driveways within the property are proposed to be 24 feet in width and is defined by pavement markings only with no physical barrier, the existing curb cuts along Route 9 at the eastern site driveway (approx. 46 feet wide) and western site driveway (approx. 38 feet wide) are much wider and may lead to uncontrolled entry/exit between the new parking layout and Route 9.

    Please clarify: 1) how the applicant will restrict vehicles from driving and/or parking over the painted median between the site driveways to mitigate conflicts with pedestrians along the sidewalk and/or parking lot; and 2) if there are any pedestrian accommodation improvements along the site property.

    Pare: Both site driveways are proposed to be 20' wide and one-way, with the entry to the west and exit to the east defined by entry signage. Sufficient on-site parking is provided for non-drive through users and enforcement of patron parking will be handled by the building management.

    A crosswalk is proposed between the building entry and existing ROW sidewalk.

    BETA2: The width of both one-way site driveways should be reduced (min. of 12') to mitigate two-way traffic. In addition, the site driveway curb cuts along Route 9 should be reduced during the MassDOT access permit process to control access to the site.

    Pare2: The site driveways are a minimum of 20' wide in accordance with NFPA 1.

    Changes within the State ROW will be reviewed with MassDOT during the access permit process.

    BETA3: Comment resolved.

14. Based on the proposed site access and circulation, there's a possibility that if the drive-through queue reaches the western site driveway limit, vehicles that want to avoid stacking on Route 9 may enter the eastern site driveway and introduce stacking along the northerly side of the property. This potential on-site stacking will restrict vehicles parked along the front of the building from backing out and exiting the property leading to congestion in the parking lot.

    Please define on-site queue management to mitigate parking lot congestion.

    Pare: As seen in the updated plan, the western driveway will be an entrance only and the eastern driveway will be an exit only. Vehicles will not be permitted to operate in the manner described.

Additionally, with turnover rates at the drive-through of approximately 45 seconds, the site can accommodate even the hopeful demand/queue that has been analyzed for this location. Finally, with on-site queueing of up to 14 vehicles (including queue to exit after picking up from the window), a person trying to enter the queue after it has extended to Route 9 would likely be accepting over a 10-minute wait. As speed is part of the convenience and therefore the nature of the business, it is reasonable to assume people would bypass this store and head to the next down the road in that event.

BETA2: Queue concern along the northerly side of the property is resolved, though additional signing and/or pavement markings should be provided for the one-way movement along the property frontage to restrict vehicles from entering/exiting the wrong driveway.

In addition, please provide actual backup data for the turnover drive through rates of approximately 45 seconds. In addition, BETA agrees that it is reasonable that people would bypass this store and head to the next store down the road if the drive through queue has extended to Route 9; however, please verify if there's another Dunkin's store with a drive through east of the subject store along this divided section of Route 9.

Pare2: See question 5 above for additional information on turnover rate. There is not another drive-through Dunkin' east of the proposed store along eastbound Route 9. As noted, additional signing and marking will be reviewed with MassDOT as part of the access permit application process.

BETA3: Since there are no other drive-through Dunkin's' east of the subject site, the proposed drive-through at the subject site, if approved and constructed, would be the last drive-through Dunkin' heading east along Route 9, which may exacerbate the drive-through queue length resulting in potential spill over onto Route 9. In summary, with all the factors that affect the drive-through queue, specifically for this proposed redevelopment, that includes the estimated peak hour site trips, proposed drive-through vehicle storage, the drive-through transactions times, and the fact that this store would be the last drive-through Dunkin' as discussed above, it is highly likely that the drive-through queue would reach Route 9 consistently, especially during the morning commuter peak hour, potentially spilling over onto Route 9.

15. Based on the future building analysis at the eastern site driveway during the morning peak hour, it is estimated that the maximum queue for right turning exiting traffic is 8 vehicles with a delay of more than 400 seconds. Although the Applicant's traffic engineer states the analysis tool utilized has limitations that does not properly reflect the reality of the driveway's operations, the short distance between the driveway and drive-through window, which allows a maximum queue of 3 vehicles, in combination of the heavy traffic along Route 9 eastbound during the morning peak hour may exacerbate the drive-through queue, thus increasing the potential of queue spill over onto Route 9.

    Please clarify how queue spill over onto Route 9 will not occur on a consistent basis during the morning peak hour as a result of the effects of the queuing at the eastern site driveway coupled with the estimated drive-through transaction percentage as stated in comment no. 5.

    Pare: See response No. 5 above.

    BETA2: See comment No. 5 above.

16. Please provide a site plan that shows snow storage area.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Herman C. Peralta, P.E.
Project Manager

Project No: 10044

cc: Jeff Maxtutis, BETA