FRIDAY NIGHT MAIL INDEX MAY 19, 2017

Agenda Items Monday, May 22, 2017

TOWN OF WELLESLEY MASSACHUSETTS

BOARD OF SELECTMEN

TOWN HALL • 525 WASHINGTON STREET • WELLESLEY, MA 02482-5992

MARJORIE R. FREIMAN, CHAIR
ELLEN F. GIBBS, VICE CHAIR
JACK MORGAN
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BLYTHE C. ROBINSON
EXECUTIVE DIRECTOR OF GENERAL GOVERNMENT

SELECTMEN'S MEETING
TENTATIVE AGENDA- REVISED
Wellesley Town Hall – Juliani Room
7:00 P.M. Monday, May 22, 2017

1. 7:00 Call to Order
2. 7:01 Citizen Speak
3. 7:05 Executive Director's Update
   - Appoint Special Police Officers
   - ***Review July Jubilation Free Parking Request***
4. 7:10 Website Update
5. 7:25 Review Town Meeting List Serve Use
6. 7:40 Fire Department Quarterly Update
7. 8:00 900 Worcester Street, PSI-17-01 Traffic Review
8. 9:00 Discuss North 40 Process
9. 9:15 Liaison Updates
10. ***9:30*** ***Discuss Summer Meeting Schedule***
11. 9:40 New Business/Correspondence

Next Meeting Dates: Thursday, May 18, 2017
Monday, May 22, 2017
Thursday, June 1, 2017

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Our regularly scheduled meeting begins at 7:00 PM in the Juliani Room at Town Hall.

1. Call to Order

2. Citizen Speak

Review Executive Director's Weekly Report – included in your packet is a copy of my weekly report. I will mention a couple of items at the meeting that may be of interest to those watching the meeting, and would be happy to answer any questions that you have.

5/19/2017
Black regular agenda items

Board of Selectmen Calendar – FY17

Date	*Selectmen Meeting Items*	*Other Meeting Items*
5/24 Wednesday		**Unified Plan Public Workshops:** Sustainable Systems and Networks 6-8 Health 8-10
5/25 Thursday		**Unified Plan Public Workshops:** How we live, Prosperity & Opportunity
5/29 Monday	**Memorial Day, Town Hall Closed**	
5/31 Wednesday		**Unified Plan Public Workshops:** Natural and Cultural Heritage
6/1 Thursday	Brook/Amherst Truck exclusion 7:00 pm Great Plain Avenue 900 Worcester - PSI Continuation Rt. 9 update	
6/5 Monday	SEC – Green communities Updates SEC Appointments Aqueduct Leases (2) Waterstone at Wellesley Compliance Report TPC- Naming of Rooms	
		Unified Plan Steering Committee Meeting
6/12 Monday	Board to vote borrowing Treasurer's Update Appointment Renewals- MWRA, Norfolk County Lion's Club – New Chapter	
6/14 Wednesday		**Unified Plan Public Workshops:** Town Gov't Strategic Concepts
6/19 Monday	**NO MEETING**	
6/26 Monday	FMD Updates – Joe McDonough/Alan Hebert FY18 Appointments (if needed) Review Board Accomplishments for FY17 Staff Reviews – Chiefs, ED	
7/3 Monday	**NO MEETING**	
7/4 Tuesday	**Town Hall Closed**	
7/10 Monday		
7/17 Monday		
7/24 Monday		
7/31		

5/19/2017
Black regular agenda items

Date	*Selectmen Meeting Items*	*Other Meeting Items*
Monday		

Notes

Quarterly updates

- *Traffic Committee (Deputy Chief Pilecki)*
- *Facilities Maintenance (Joe McDonough)*
- *Wellesley Club Dates 10/2/17, 11/6/17, 1/22/18, 3/19/18*

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MEMORANDUM

DATE: May 19, 2017

TO: Board of Selectmen

FROM: Blythe C. Robinson, Executive Director BCR

SUBJECT: Weekly Report

Below are various activities of our office and various departments that I would like to bring to your attention.

- The State Senate version of the budget was posted on Tuesday. It relies on the same revenue projections that underpinned the Governor's and House versions, which may not be realistic with recent news that receipts are not meeting current year projections. Nevertheless, the Senate version is higher than the other two by about $54,786 and almost completely made up of Chapter 70 funds. As you know, the budget now goes to conference committee and it will be interesting to see what is proposed to the governor in light of the revenue picture.
- Kathy Nagle has completed and submitted to the State the zoning and general bylaw changes that were approved at Town Meeting for review by the Attorney General. They are required to respond back by mid-July.
- The MLP has received the contract from the State required to be able to expend money under the LED street light grant program. While we still have the pilot project to complete, obtaining the grant contract is an important step to be able to move ahead with the work when they are ready so that we can complete the job by June 30, 2018 and be reimbursed.
- Brian DuPont had filed a grant application from the Fund for Wellesley and they have awarded that to the Town. Since he'll be at the meeting on Monday, I'll let him share the good news with you as to the purpose of the grant and the amount.
- Included in the correspondence section of your packet is an update on how much money was raised by all of the runners who were given marathon bib numbers from Wellesley. We are still waiting for final results from two runners, however the total is now over $154,000, which is $10,000 more than we had previously estimated.

- On Thursday we received notice from a developer named Bob Engler of his proposal to submit to the State a M.G.L. Chapter 40b development plan for Delanson Circle into 95 units of housing in a building 5.5 to 6 stories in height. We had an internal meeting with him and his staff earlier this year and his plan has been modified slightly because it (shifting the ingress and egress to the property for traffic and fire access), additional garage parking. They have given us a few days to comment further, but plan on submitting it to the State next week. Once that process commences there will be a formal comment period for the town as well. Overall we have concerns about the density of the site and the traffic impact on Linden Street and the nearby intersection with Crest Road.
- We received word this week that the IRS has completed its audit through 12/31/14 of the Town's 403b and 457 plans (voluntary employee retirement contribution plans for schools and municipalities) and found that they are in compliance with the regulations. The only follow up is to ensure that the town and schools do not withhold contributions in excess of legal limits. I understand this took an enormous amount of work by our IT department, school and Treasurer's Office employees, so thanks go to them to show that we are in compliance with the laws.

3. Executive Director's Report

- Appoint Special Police Officers – included in your packet is a memo from Chief Pilecki requesting that two Babson College Police Officers be appointed as Special Police Officers to assist our officers with town events, the marathon and incidents such as alarms and motor vehicle accidents.

MOVE to appoint Kyle Kekic and Wilson Mac as Special Police Officers for the Town of Wellesley.

TOWN OF WELLESLEY | POLICE DEPARTMENT

WELLESLEY, MA 02482 | JACK PILECKI
Telephone 781-235-1212 | Chief of Police

MEMORANDUM

To: HONORABLE BOARD OF SELECTMEN

FROM: JACK PILECKI
CHIEF OF POLICE

CC: BLYTHE ROBINSON, EXECUTIVE DIRECTOR

SUBJECT: APPOINTMENT OF SPECIAL POLICE OFFICERS

DATE: May 11, 2017

Ladies and Gentleman:

The intent of this memo is to recommend that Babson College Police Officers' Kyle Kekic and Wilson Mac be appointed as Wellesley Special Police officers by the Board of Selectmen. Historically, the Board of Selectmen has appointed Babson College officers as Wellesley Special Police Officers.

As appointed specials, the Babson College officers are able to assist our department with events such as motor vehicle accidents, alarms, and the Boston Marathon. It may also enable them to work private details when sufficient numbers of Wellesley Police officers are not available.

As always, I am available to answer any questions you may have.

RESPECTFULLY SUBMITTED,

JACK PILECKI
CHIEF OF POLICE

- Review July Jubilation Free Parking Request – as you are likely aware, each July the merchants in Wellesley Square hold an event at which they have sales and other activities to draw in customers. They have made their annual request for there to be free parking on July 15, 2017 from 9:30 am to 4:30 pm to further encourage people to come down and enjoy the events and do some shopping. Staff estimates that the revenue reduction for this one-day event is approximately just under $1,500. We believe this is a good way to support these businesses during an otherwise slow time of year, and recommend your approval. A copy of the flyer announcing the event is included in your packet.

MOVE to approve the request by the Wellesley Square Merchant's Association for free parking at the meters in the Wellesley Square area on Saturday, July 15 from 9:30 am to 4:30 pm to support the July Jubilation event.

TAKE 1
PASS IT ON

JUST AS YOU GOT THIS FROM YOUR NEIGHBOR, TAKE ONE COPY AND PASS ON THE REST

Let's Get 100% Participation In July Jubilation 2017
Saturday, July 15

Sidewalk Sales and Family Entertainment	**Promotion of Your Business and the Event**
DJ Music 10a-4p	Hometown Weekly ads and Special Section
Free Parking	Boston.com Advertising
Petting Zoo	WickedLocal Advertising
Bounce House	ShopWellesleySquare.com
Dance Show	Facebook, Twitter and More
Food and Much More	Promotional Materials You Can Use

Participation is included in your Annual Membership, or available a la carte for $350.00.

Email Your July Jubilation Special Offer Description To Service@ShopWellesleySquare.com

NOT A MEMBER?

Save money and get all events and resources with an annual membership. Only $500. (Value = $2,000+)

July Jubilation • Fall Into Wellesley Square • Mom's Day Out • Holiday Stroll • Spring In The Square
Discounts on Media Advertising • Ongoing Promotional Support • Professional Development • Bonus Promotions

SIGN ME UP!

BUSINESS_____

CONTACT_____

EMAIL_____

DROP THIS OFF AT...
London Harness
45 Central Street, Wellesley Square

WELLESLEY SQUARE
SHOP • DINE • DISCOVER

4. **Website Update**

Brian DuPont will be attending the meeting to provide the Board with an update on our progress to go live with our new website as of July 1st. As you know, we are changing providers to CivicPlus, and Brian will describe for you some of the new features of this platform, and enhancements we can look forward to. We would appreciate your feedback as to the design of the homepage and any other aspects of this that you would like to discuss. There is no attachment in the packet for this item.

NO MOTION

5. **Review Town Meeting List Serve Use**

You may recall that questions arose during the town meeting this year about the use of the list serve, and concerns that it was being used for advocacy rather than dissemination of information. Recently, Kathy Nagle had reached out to the Library and asked them to no longer use it to announce their programs based upon feedback from some town meeting members. An email from Kathy on the matter in general is included in your packet, and she will be at the meeting to discuss the topic in more detail.

NO MOTION

Robinson, Blythe

From: Nagle, Kathleen
Sent: Monday, April 24, 2017 4:29 PM
To: Marjorie Freiman; Robinson, Blythe; Ellen Gibbs; _Katherine L Babson Jr
Cc: Thomas Frisardi; tfrisardi (tfrisardi@gmail.com)
Subject: TMM email

This is a big subject for review for multiple issues raised by email and social media.

I am certainly open to meeting or forming a TMM committee to discuss the use of emails for future town meetings, and I generally think it is a good idea to review regularly. There may be other alternatives to the current system that should be investigated.

People today rely on email for most of their communication and so I do think it is important to have system in place to facilitate such communication. People don't expect to have to take pen and stamps to accomplish advocacy.

The current system was designed to allow public access to TMM without having to disclose personal emails that I have on file for election related business. Since I have the list, a board, committee or any member of the public could request the detailed list as a public record. This system is an alternative that generally protects individual emails while allowing communication to TMM in their roles as TMM. People can still request the detailed list, but they are generally satisfied with the group email portal.

FYI About 5 TMM do not share their email (or don't use email) and at least one has revoked his email due to "spam" from the public. A few have set up TMM specific email addresses

The system in use today, does not exert any editorial control over what goes out. Last year I had to forward the emails and I decided that I should set up a way to get out of the middle of the communication. I do get a copy of everything that goes out so I am aware of the content of what is being sent to TMM through the group emails.

A further risk is that TMM will discuss issues on line, and outside of any purview even during the floor debate. This of course defeats the purposes of open, public discussion and debate. TMM have been using What's Up Wellesley facebook page this year to engage in limited debates. Technology gives so many options for discussion outside of the public realm. It may be a situation where we need to consider conduct rules to keep debate on the floor of ATM in open forum.

From: Marjorie Freiman
Sent: Monday, April 24, 2017 3:59 PM
To: Robinson, Blythe <brobinson@wellesleyma.gov>; Nagle, Kathleen <knagle@wellesleyma.gov>; Ellen Gibbs <egibbs@wellesleyma.gov>; _Katherine L Babson Jr <k.babson@comcast.net>
Subject: Fw: Articles 40 and 41 / Petition Comments

This has really gone too far. Advocacy in a TMM email forum on a pending Article, when it belongs on the floor of TM, is not what I understood this list serve to be for.

When can we meet and talk about this?
Marjorie

6. Fire Department Quarterly Update

Chief Rick DeLorie will be at the meeting to provide the board with a quarterly update about the fire department. Included in your packet is an email from him providing you some background on the marathon and noting other topics he plans to touch on. I've also asked him to provide you with a budget and staffing update, as he has been reducing staffing at various times this year to address a shortfall in his overtime budget.

NO MOTION

Robinson, Blythe

From: DeLorie, Rick
Sent: Tuesday, May 09, 2017 4:47 PM
To: Robinson, Blythe
Cc: Marjorie Freiman; Ellen Gibbs
Subject: RE: Quarterly Report - May 15th
Attachments: 2017 Marathon Ops Plan.pdf

Blythe,

The 15th is fine, I will be flying out this Thursday to attend my sons graduation from West Virginia University (Parks/Recreation/Tourism Major). I will driving a rental truck with all his stuff home over this weekend, long drive Saturday/ Sunday. I'll be happy to discuss my Marathon drive home and the Boston Marathon with you and the board.

I have attached the Fire Departments operational plan, however this is not for public dissemination, but gives you and the board a look at all the details and planning to cover this event. Unfortunately other priority matters have taken up my time since the Marathon and really wanted to provide an update the Board of Selectmen on the 2017 Boston Marathon. In short it was a great event and no serious issues or incidents occurred. The windy conditions and rising temperature were not great but overall it was a successful event. I wanted to acknowledge the great work of Assistant Chief Peterson, Deputy Donahue, Lt Corda, Lt Mortarelli as these individuals were very involved in the numerous meetings with local, state and federal agencies, and B.A.A. personnel to ensure a safe and secure event. We had a total of 36 fire personnel on duty for the event assigned to numerous positions. We were augmented by a number of CERT volunteers that help as support staff in the medical tent and these folks have worked with the Fire department for over a decade.

The race splits the town in half and we operate a Northside and Southside fire department that includes a dedicated ambulance at each station for general town responses. We staffed three medial tents working with the Red Cross and Cataldo to manage any medial issues that arise during the race. We had specially trained personnel assigned to " Cut teams" to counteract any potential protest issues. These teams and their tools work along with law enforcement to safety extricated from any device protesters that might try to interrupt an event. One of our hazmat personnel located at Fire HQ was in charge of air monitoring devises located along the route in Wellesley to detect various gasses and direct an appropriate response of state hazmat teams or DEO, if any detection were determined. We were fortunate to host the Department of Fire Services (DFS) rehabilitation unit that can cool or warm runners as necessary. The DFS communication command post was the fire race operation center. Both MLP and DPW were instrumental in providing power drops for our air quality detection units and hydrant access for the water misters along the route. Dispatch did a great job managing calls, and transferred all EMS requests to the ambulance staging officer located at Fire HQ for the closest avaible unit or one of a 1/2 dozen units in staging. We treated dozens of patients with a wide range of minor issues and 16 individuals with more serious conditions were transported to areas hospitals.

We were joined by Executive Office of Public Safety and Homeland Security Secretary Dan Bennett and three of his undersecretaries for a good portion of the race. They were impressed our operations and we expressed our appreciation for all the state coordination and DFS assets provided to our community. I included a copy of our Operational Plan to provide more details if you're interested. Again, I would like to provide an update/overview of the Marathon and how great this department's personnel manage their responsibilities. I'll use the district maps and a couple of other items for visuals from out Ops plan to outline our efforts. I will touch on a few other programs: Youth Fire Rescuer Summer Camp/ Senior fire safety with Health Dept, Officer/training and development, inspectional services, etc .

7. 900 Worcester Street, PSI-17-01 Traffic Review

The PSI process, requires that the Selectmen need to provide comments on the traffic studies that have been submitted by the developer Brian DeVellis to the Planning Board. It is anticipated that Mr. DeVellis and his traffic engineer Robert Michaud of MDM Transportation Consultants will be in attendance at the meeting, as well as the Town's traffic engineer Kien Ho from BETA Engineering.

We need to provide comments back to the Planning Board as a result of this meeting so they can consider them when they open a public hearing on the project on June 5th. There are a number of outstanding items and staff recommends opening this discussion and continuing the recommendation to June 1st, with the expectation outstanding information will be provided and a recommendation would be ready.

The items included in the packet are:

- Memo from Meghan on PSI Process and required recommendation
- PSI documents submitted by the developer
- Comments on the plans by BETA Engineering
- Comments from George Saraceno, Engineering Division
- Emails from residents about traffic impact

NO MOTION ANTICIPATED FOR THIS MEETING

TOWN OF WELLESLEY MASSACHUSETTS

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Date: May 19, 2017

To: Board of Selectmen

From: Meghan Jop

Re: 900 Worcester Street, PSI-17-01 Traffic Recommendation

Wellesley Sports Center, LLC has submitted the application for the construction of the recreational complex to be located at 900 Worcester Street. For the Board's review, please find an overview of the PSI process, a description of the Board's role in the process and required elements, and a brief overview of comments received from Beta Engineering, Chief Pilecki, and DPW/Engineering. Michael Zehner, Planning Director, will be at the meeting to answer technical questions for the Board and for the public on the project and its interplay with Site Plan Approval, which is under the jurisdiction of the Zoning Board of Appeals.

PSI Overview

The subject Project of Significant Impact Special Permit application was submitted to the Planning Department on April 13, 2017. As required by the Zoning Bylaw, the application was referred to the four (4) review departments, Department of Public Works, Municipal Light Plant, Fire Department, and Board of Selectmen. As further required by the Zoning Bylaw, a public hearing before the Planning Board (as Special Permit Granting Authority) has been scheduled for June 5, 2017.As a review department, the Board of Selectmen sent notice to abutters within 300 feet on May 15, 2017, and also reached out to Tim Barrett as neighborhood representative to email the notice of the meeting to interested stakeholders. The Planning Board has requested the Board's comments be received prior to the opening of the Public Hearing on June 5, 2017.

Section XVIA, *Project Approval*, of the Zoning Bylaw, requires the Applicant to "submit...a Municipal Systems Impact Analysis (MSIA), prepared by professional engineers registered in the Commonwealth of Massachusetts, and identifying the impact of the Construction Project on water, sewer, storm drainage, electric, **traffic, intersections, sidewalks and footways**, building occupant life safety, refuse disposal and recycling." The intent of the analysis by the Applicant, Review Departments, and the Planning Board being to "determine the impact on the Town's existing capital infrastructure in order to assess costs of providing or upgrading Town public facilities which will benefit a PSI."

Project Description and PSI Standards

The project Applicants have applied for a Project of Significant Impact Special Permit application to redevelop 900 Worcester Street to construct a 130, 000 square foot sports complex with off-street parking and infrastructure to support the development of a site of approximately 7.8 acres. The sports complex will include 2 regulation ice rinks surfaces, a synthetic turf field, and a 35,000 square foot health club facility that includes an aquatics center with Olympic- sized pool. Off street parking will include 355+ surface parking spaces.

The subject site is locate in the newly established Commercial Recreation Overlay District. The underlying zone is Single Family Residential.

The traffic components of the project include the installation of signalized access, subject to MassDOT approval. If approved, in addition to the signalization, a cross connecting driveway would be established with 888-892 Worcester Street to alleviate traffic leaving that site turning at the Weston Road interchange to head westbound. A controlled pedestrian crossing would be installed at the signal to connect residential neighborhoods to the property. A secondary driveway will allow exit-only movements onto Route 9 eastbound from the site. This will accommodate bus egress along the northerly portion of the building.

*If MassDOT fails to approve the signalization, the plan would require the use of the Weston Road interchange for trips exiting the site and intending to head west on Route 9.

Board of Selectmen

The Boards review of the project is limited to the following areas per the Zoning Bylaw:

Traffic, Pedestrian and Bicycle Safety - With respect to all signalized impacted intersections[1], and any unsignalized impacted intersections having 50 or more Peak Hour (PH) vehicle trips on any minor approach, there shall be no degradation in the overall level of service designation to a level below the level of "C" and, if an impacted intersection is projected to operate at an overall level of service lower than "C" in a design year no-build alternative, then the proposed development shall not degrade the level of service designation below the projected design year no-build levels; and

With respect to unsignalized impacted intersections having fewer than 50 Peak Hour vehicle trips on any minor approach, the Applicant shall undertake an evaluation to identify any specific circumstances requiring further action or mitigation, which may be the subject of negotiated improvements at the discretion of the Planning Board. For purposes of clause 1 above, the "overall level of service" for an unsignalized impacted intersection shall be considered to be the worst of the individual levels of service for each of the minor movements.

Pedestrian and bicycle circulation shall be provided in accordance with recognized safety standards; provided in all cases sidewalks within a walking distance of 600 feet of the Project shall be provided and in addition sidewalk connections within such radius to surrounding neighborhoods and to public transportation shall be provided as required by the Special Permit Granting Authority in a safe and convenient condition and consistent with standards of the Massachusetts Highway Project Development and Design Guide.

Beta Peer Review/Comments

The Town's Traffic Consultants have reviewed the project. Kien Ho and Tyler DeRuiter will be present at the meeting to discuss their review. Some of Kien's comments will note whether they are Site Plan issues. The Board at this time will be reviewing PSI comments, which are for OFF-SITE impacts. Site Plan

[1] "Roadway Impacted by Development Traffic" defined as "A roadway segment, including one or more approaches to an intersection, shall be considered as impacted if traversed by 20 or more vehicles related to the project in a single direction during any single hour and it:
a. a signalized intersection and ADT (Average Daily Traffic) or PH (Peak Hour) will increase by 5% or more; or
b. is an unsignalized intersection with a minor street approach PH of 50 or more vehicles;

under the ZBA reviews ON-SITE impacts. Some of Kien's comments will be relayed during the ZBA process.

SEE BETA'S RECOMMENDATION ATTACHED

The study area submitted to the Town did not include the broader and historic "cut-through" corridors and Kien has asked the applicants to revise the data to include those neighborhoods. This will become particularly important if MassDOT does not approve the signalization of the intersection.

In addition to increasing the scope of roadways reviewed, Beta has asked for additional work to be conducted on the sidewalk inventory necessary for the Town to determine if sidewalks within 600 feet of the project require upgrades.

Police Chief Review/Comments

I have discussed the application with Chief Pilecki. His main concern with the application is the Special Events parking. Beta has raised this issue as well and recommends a plan be prepared. The plan could be a condition of approval and require sign off by Beta and Chief Pilecki.

DPW Review/Comments

George Saraceno, Engineering Division, has prepared comments on the traffic related items. **SEE EMAIL FROM GEORGE ATTACHED**. There is duplication in some of George's comments with regards to understanding some of the data which Beta has also requested.

Staff Recommendation

There are a number of clarifying questions that Kien has asked be submitted to the Town. Information may be ready for Monday, but given the number of outstanding questions Kien has raised, I suggest the Board NOT issue a recommendation on Monday, but continue the application until June 1st.

Staff recommends on Monday, May 22nd, the project proponent give a presentation (10-15 minutes), followed by Beta Engineering addressing aspects of the project they agree with and outlining outstanding issues (10-15 minutes). After presentations, the Board will have questions and likely there will be residents in attendance with questions. As stated above, I have asked Michael Zehner to attend to insure consistency with responses on behalf of the process and Planning Board PSI review.

DOCUMENTS ATTACHED

1. Traffic Impact and Access Study
2. Beta Engineering Peer Review
3. Comments from George Saraceno

For a complete review of all documents submitted for the PSI visit:
http://www.wellesleyma.gov/Pages/WellesleyMA_Planning/PSI-900/

EXECUTIVE SUMMARY

MDM Transportation Consultants, Inc. (MDM) has prepared a Traffic Impact and Access Study (TIAS) for a proposed sports complex at the site of the former Saint James Church (900 Worcester Road) in Wellesley, Massachusetts. The location of the site relative to adjacent roadways is shown in **Figure 1**. This report documents existing operational and safety-related characteristics of roadways serving the development Site, estimates development-related trip generation and operational impacts, estimates project parking requirements, and identifies potential mitigation actions to support the development.

This TIAS has been developed in conformance with guidelines for preparation of traffic studies as jointly issued by the Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs/Massachusetts Department of Transportation (EEA/MassDOT).

E.1 PROJECT DESCRIPTION

The Site located at 900 Worcester Road (Route 9) comprises approximately 7.8± acres bounded by Route 9 and Dale Street – the former location of Saint James Church. Site access/egress includes two driveways along Route 9 and a connection to Dale Street.

Under the proposed development program, the Site will be redeveloped to include a 130,000± sf sport complex which will include two (2) regulation-size ice rink surfaces, a synthetic turf field and a 35,000± sf Health Club facility that includes an Aquatics Center with Olympic-size pool. On-site parking will include 355± surface parking spaces. Site access/egress is proposed via two (2) driveways along Worcester Street (Route 9). Access to the property is planned to be signalized subject to approval of MassDOT, under which scenario a cross-connecting driveway to the adjacent office building at 888 – 892 Worcester Street would be provided. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system. In lieu of signalized traffic control, site access/egress will remain unsignalized consistent with historic site operations, relying on the nearby Weston Road interchange for trips destined

toward Metrowest communities. A secondary driveway will allow exit-only movements onto Route 9 eastbound from the Site, which is principally intended to accommodate bus egress from a designated bus loading/unloading area located along the northerly portion of the building.

E.2 STUDY AREA

This report evaluates transportation characteristics of roadways and intersections that provide a primary means of access to the Site, and that are likely to sustain a measurable level of traffic impact from the development. The study area includes the following primary intersections:

- Route 9 at Overbrook Drive/ CVS Driveway – Signalized
- Route 9 eastbound on/off ramp at Weston Road – Unsignalized
- Route 9 westbound on/off ramp at Weston Road/ Cleveland Road – Unsignalized
- Route 9 westbound on ramp at Weston Road – Unsignalized
- Route 9 at Proposed Primary Site Driveway/ Lexington Road
- Route 9 at Secondary Site Driveway (right-out-only) - Unsignalized

E.3 TRIP GENERATION

In accordance with EEA/MassDOT guidelines, the traffic generated by the proposed development was estimated using trip rates published in ITE's *Trip Generation* for Land Use Codes (LUC's) that most closely correlate with site programming – specifically Soccer Complex (LUC 488) and Health/Fitness Club (LUC 492). Trips for the Ice Rink use are estimated based on empirical trip data collected at the Essex Sports complex in Middleton, MA and New England Sports Center in Marlborough, MA. On this basis, the proposed development is estimated to generate approximately 201 trips during the weekday morning peak hour (45 entering and 156 exiting), 283 trips during the weekday evening peak hour (151 entering and 132 exiting) and 249 vehicle trips during the Saturday midday peak hour (122 entering and 127 exiting). On a daily basis, the development is estimated to generate approximately 2,928 vehicle trips on a weekday and 2,614 vehicle trips on a Saturday.

E.4 SUMMARY OF ANALYSIS AND FINDINGS

Capacity analyses were conducted for each study area intersection to quantify existing and future year traffic operations with and without the development for the weekday morning, weekday evening and Saturday midday peak hours. These time periods represent the highest activity periods of the proposed project and the adjacent roadway system. A traffic signal is planned for the primary site driveway which is projected to meet applicable 8-hour volume warrants under Build conditions assuming a cross-connecting driveway to the adjacent office use; this scenario is the preferred Build option and is subject to MassDOT review and approval. The capacity analysis result indicated the following:

- *Route 9 at Overbrook Drive.* Under No-Build conditions this signalized intersection operates at overall level of service (LOS) C or better during peak hours. The proposed development does not result in any significant change in operations at the signalized intersection compared to No-Build conditions.

- *Route 9 at Lexington Street/Primary Site Driveway.* Under No-Build (unsignalized) conditions the westbound U-Turns at this intersection operates with long delays during the peak hours. Signal control would improve operations to LOS B or better during the peak hours. Assuming coordinated signal control with the nearby Overbrook Drive and Oak Street intersections, the mainline travel along Route 9 will continue to operate with minimal delay during the weekday morning and evening peak hours; westbound U-Turns/left turns will be facilitated with delays of approximately 1 minute or less with queues that are entirely accommodated within available lane storage.

- *Route 9 Eastbound ramps at Weston Road.* Under No-Build conditions left-turns onto Weston Road operates with long delays during peak hours. Assuming signal control is implemented at the Site and driveway cross-connection to the adjacent office building, the intersection of Route 9 eastbound ramps at Weston Road will experience a net trip reduction of up to 100 vehicles during the peak hours with associated net reduction in travel delay for left-turns.

- *Route 9 Westbound ramps at Weston Road.* Under No-Build conditions left-turns onto Weston Road will operate with long delays during the weekday evening peak hour. Assuming signal control is implemented at the Site and driveway cross-connection to the adjacent office building, the intersection of Route 9 eastbound ramps at Weston Road will incur a net trip reduction of up to 100 vehicles during the peak hours with associated net reduction in travel delay for left-turns.

- *Route 9 at Secondary Site Driveway (Right-out only).* Under Build conditions, the proposed secondary site driveways approach to Route 9 will operate below capacity during the peak hours. Mainline travel along Route 9 eastbound will remain unimpeded.

In summary, proposed signal control at the primary Site driveway will accommodate peak Site operations with modest delays (LOS C or better) with neutral impact to the nearby interchange of Weston Road at Route 9. A cross-connecting driveway between the property and adjoining office building at 888-894 Worcester Road would result in a further net trip reduction at the interchange during peak hours relative to existing conditions that would result in reduced delays/improved operations relative to No-Build conditions. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system.

Build (Alternative) Conditions – Unsignalized Primary Site Driveway

The proposed development without a signal at the primary site driveway does not result in any significant change in operations at the study intersections of Route 9 at Overbrook Drive or Route 9/Weston Road interchange compared to No-Build conditions; under this scenario a moderate increase in left-turns (60-70 peak hour trips) at the Route 9 eastbound ramp/Weston Road is projected during peak facility operating periods.

E.5 RECOMMENDATIONS

Roadway improvements that support projected traffic increases associated with the proposed development are identified that aim to minimize/offset project-related traffic impacts and address access needs for the Site. Recommended improvements include (a) access-related improvements, (b) off-site improvements, (c) special event parking management protocol, and (d) implement a robust TDM program. The mitigation commitments by the Proponent will be further refined as the project undergoes the local and state-level review processes and the MassDOT Access Permit process.

Access-Related Improvements

MDM recommends access-related improvements aimed at enhancing traffic operations and/or travel safety including the following which are subject to MassDOT permit requirements:

- *Pedestrian Facilities.* Sidewalks connecting the development to the existing sidewalk system along Route 9 are anticipated to encourage non-vehicle travel. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system.

- *Secondary Driveway Restriction.* The existing secondary driveways serving Site will be restricted to right-turn egress-only movements.

- A "STOP" sign (R1-1), "One-Way" (R6-1), and "Do-Not Enter" (R5-1) signs are recommended on the proposed secondary site driveway intersection with Route 9. Accordingly, a marked "STOP" line and right turn arrow pavement marking will also be installed. The signs and pavement markings will be compliant with the Manual on Uniform Traffic Control Devices (MUTCD).

- Plantings (shrubs, bushes) and structures (walls, fences, etc.) should be maintained at a height of 2 feet or less above the adjacent roadway grade within the sight lines in vicinity of the Route 9 in order to continue to provide unobstructed sight lines.

Route 9 at Lexington Road/Primary Site Driveway

In order to accommodate the proposed sports complex and to mitigate traffic impacts at the Route 9 eastbound off-ramp/Weston Road intersection (most notably, the eastbound left-turns), MDM recommends that geometric improvements be implemented at the Primary Site Driveway/Lexington Road intersection along Route 9. As these improvements represent a preferred Build program for access/egress at the Site, they are assumed under the Build condition capacity analyses presented in *Section 4* of this TIAS. Proponent-sponsored improvements at the intersection of Route 9 and Primary Site Driveway/Lexington Road are shown in **Figure 22** and include a) coordinated signal control with the nearby signals at Overbrook Drive and Oak Street; b) an exclusive westbound left-turn lane along Route 9 to enter the site; c) a two-lane Site driveway approach to Route 9 with separate left- and right-turn exiting lanes; d) exclusive pedestrian crossing of Route 9 with pushbutton activation; and (e) closure of the median island break along Route 9 near the secondary site driveway. The design specifically excludes an eastbound left-turn lane on the basis that eastbound Route 9 access to the neighborhoods north of Route 9 are accommodated at nearby Overbrook Drive which has been subject to a monitoring program as part of the recently completed CVS development approvals.

Special Event Parking Management

The proposed parking supply at the site of 355± marked parking spaces is projected to adequately accommodate the anticipated parking demand of up to 322 parked vehicles under typical facility operating conditions. To the extent special programming is planned for the sports complex facility (for example, hockey tournaments and swim meets) additional parking may be required subject to a parking management protocol to be developed by Proponent. The Proponent anticipates 10-15 events a year that may require overflow parking and is currently in discussions with owner of the adjacent office buildings located at 888-892 Worcester Street as one potential location to accommodate the special event parking overflow if necessary. The special events typically occur on holiday weekends and are also anticipated to include the Wellesley/Newton hockey games.

Transportation Demand Management (TDM)

The Proponent commits to reduce auto dependency for the sports complex by implementing a TDM program. A preliminary list of potential TDM program elements may include the following, subject to refinement of the development program and further evaluation by the Proponent:

- *On-Site Transportation Coordinator.* The Proponent will designate an on-site transportation coordinator. The transportation coordinator will be responsible for disseminating relevant TDM information to employees including posting TDM information at appropriate locations within the buildings. Such postings may include making information on MassRides available to employees at orientation.

- *MassRides.* MassRides is the Executive Office of Transportation's statewide travel options program providing free assistance to commuters, employers, students, and other traveler markets. MassRides programs may encourage workers to use alternative forms of transportation such as carpooling, vanpooling, and to utilize a large database for rideshare matching. The Proponent will promote commuter assistance programs available through MassRides as part of the employee orientation programs. MassRides information will also be posted.

- *Regional Transit Authority (MWRTA) Transit Stop.* The Proponent will work with the MWRTA to dedicated bus stop on-site or adjacent to the Site along Route 9 as part of the existing Bus Route 1 which currently provides flag down service along Route 9.

- *Provide a Bus Drop-Off/Parking Area.* The Proponent will provide a dedicated bus drop-off/ parking area on-site that is adjacent to a main entranceway to promote bus use by local and regional sports teams.

- *Public Transportation Information & Promotion.* Posting of service and schedule information for employees and patrons; on-site sale of transit passes to promote the use of public transportation by employees and patrons.

- *Consideration of an Employee Transit Pass Subsidy.* The Proponent will consider providing a transit pass subsidy for all full-time employees.

- *Pedestrian Infrastructure/Walking Incentives.* The proposed site layout will include additional sidewalks to proposed building that connects to the existing sidewalk system along Route 9 and to the parking areas.

- *Tenant Manual for Employee Services.* The Proponent will prepare a Tenant Manual that will offer their employees: 1) direct deposit of paychecks; 2) transit pass subsidies; and 3) a guaranteed ride home program for employees who van/carpool.

- *On-Site Amenities.* The project will include a number of on-site amenities that will promote employees and patrons to remain on-site. These services include but are not limed to food services, an on-site pro-shop, on-site equipment sales and services, and on-site showers.

- *Electric Vehicle Charging Stations and Preferential Parking for Low-Emission Vehicles.* Preferential parking locations for those who use low-emission vehicles will be provided on-site. The number and location of the electric vehicle charging station(s) will be identified more specifically during the local site plan review and approval process.

- *Preferential Parking for Carpools and Vanpools.* Preferential parking locations for those who for carpools and vanpools will be provide on-site. The number and location of the parking space(s) will be identified more specifically during the local site plan review and approval process.

- *No Idling Signage.* Installation of "No Idling" signs at the site's commercial vehicle parking areas/bus area to reduce the amount of greenhouse gasses emitted.

Conclusions

In summary, trip generation for the development is projected to only moderately increase traffic activity on area roadways relative to existing/baseline conditions with no material impact to operating conditions at primary study intersections. This assessment indicates that there is ample capacity at these study locations to accommodate these project-related traffic increases without the need for major infrastructure enhancements.

Proposed signal control at the primary Site driveway will accommodate peak Site operations with modest delays (LOS C or better) with neutral impact to the nearby interchange of Weston Road at Route 9. A cross-connecting driveway between the property and adjoining office building at 888-894 Worcester Road would result in a further net trip reduction at the interchange during peak hours relative to existing conditions that would result in reduced delays/improved operations relative to No-Build conditions. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system.

Potential mitigation actions that are subject to MassDOT input and permits are identified that include access/egress improvements; special event parking management protocol, and Transportation Demand Management (TDM) actions including coordination with the regional transit authority (MWRTA) to integrate the Site as a stop with connections to the nearby intermodal and commuter rail facility.

1.0 INTRODUCTION

MDM Transportation Consultants, Inc. (MDM) has prepared a Traffic Impact and Access Study (TIAS) for a proposed sports complex at the site of the former Saint James Church in Wellesley, Massachusetts. The location of the site relative to adjacent roadways is shown in **Figure 1**. This report documents existing operational and safety-related characteristics of roadways serving the development Site, estimates future year operating characteristics of these roadways independent of the development, estimates development-related trip generation, and identifies incremental traffic impacts and parking requirements, and identifies potential mitigation actions to support the development as required.

This TIAS has been developed in conformance with guidelines for preparation of traffic studies as jointly issued by the Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs/ Massachusetts Department of Transportation (EEA/MassDOT).

1.1 PROPOSED DEVELOPMENT

The Site located at 900 Worcester Road (Route 9) comprises approximately 7.8± acres bounded by Route 9 and Dale Street – the former location of Saint James Church. Site access/egress includes two driveways along Route 9 and a connection to Dale Street.

Under the proposed development program, the Site will be redeveloped to include a 130,000± sf sport complex which will include two (2) regulation-size ice rink surfaces, a synthetic turf field and a 35,000± sf Health Club facility that includes an Aquatics Center with Olympic-size pool. On-site parking will include 355± surface parking spaces. Site access/egress is proposed via two (2) driveways along Worcester Street (Route 9). Access to the property is planned to be signalized subject to approval of MassDOT, under which scenario a cross-connecting driveway to the adjacent office building at 888 – 892 Worcester Street would be provided. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system. In lieu of signalized traffic control, site access/egress will remain unsignalized consistent with

Traffic Impact & Access Study
Wellesley, Massachusetts

Figure 1

Site Location

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

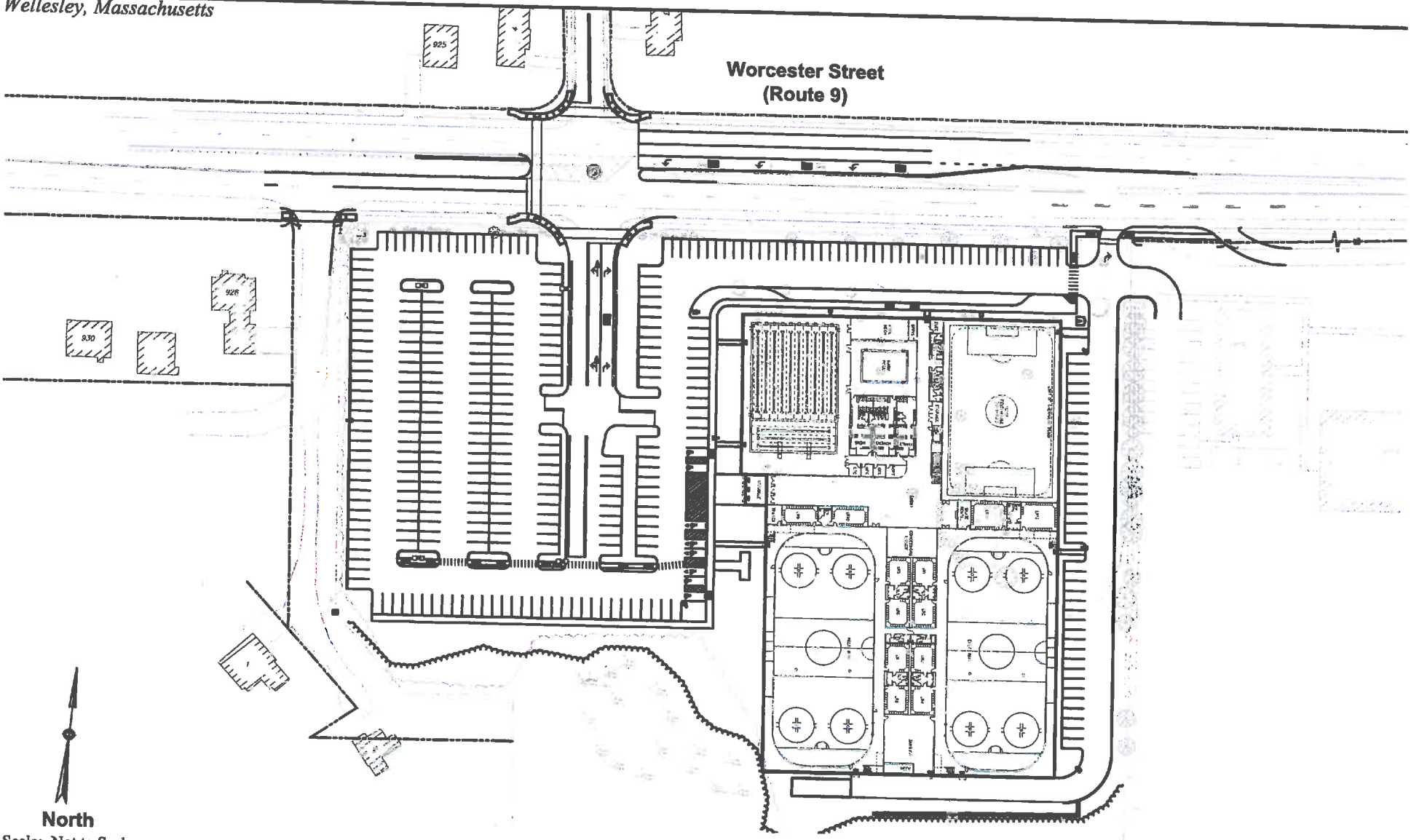
Date: March 2017

historic site operations, relying on the nearby Weston Road interchange for trips destined toward Metrowest communities. A secondary driveway will allow exit-only movements onto Route 9 eastbound from the Site, which is principally intended to accommodate bus egress from a designated bus loading/unloading area located along the northerly portion of the building. The preliminary Site layout plan prepared by Allen & Major Associates, Inc. is presented in **Figure 2.**

1.2 STUDY AREA

This report evaluates transportation characteristics of roadways and intersections that provide a primary means of access to the Site, and that are likely to sustain a measurable level of traffic impact from the development. The study area includes the following primary intersections:

- Route 9 at Overbrook Drive/ CVS Driveway – Signalized
- Route 9 eastbound on/off ramp at Weston Road – Unsignalized
- Route 9 westbound on/off ramp at Weston Road/ Cleveland Road – Unsignalized
- Route 9 westbound on ramp at Weston Road – Unsignalized
- Route 9 at Proposed Primary Site Driveway/ Lexington Road
- Route 9 at Secondary Site Driveway (right-out-only) - Unsignalized



Site Plan Source: Allen & Major Associates, Inc.

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Figure 2

Preliminary Site Layout

Date: April 2017
Dwg No. 923 Concept Plan (4-11-2017).dwg

2.0 BASELINE CONDITIONS

In order to provide a basis for quantifying the transportation impacts of the development, the Baseline roadway system and the baseline traffic operations of study area roadways were reviewed. This section describes the existing traffic characteristics and operations of roadways and intersection within the study area. Specifically, this section presents an overview of baseline traffic volumes, an inventory of crash data, a review of sight lines, and accounting of public transportation systems serving the area.

2.1 STUDY AREA ROADWAY NETWORK

The study area roadways and intersection are described briefly in this section. A general description of the physical roadway and intersection features is provided. The study area includes roadways under local jurisdiction. The study area and intersection are depicted in **Figure 1**.

2.1.1 Roadways

Route 9

Worcester Street is generally an east-west roadway under state jurisdiction within the study area. Worcester Street is classified by the Massachusetts DOT as an Urban Principal Arterial roadway, and it provides a connection between the Mass Pike (via Exit 12) to the west and Interstate 95 (via Exit 20) to the east. Worcester Street provides two travel lanes in each direction within the study area with additional turn lanes provided at its major intersections. Sidewalks are provided along both sides of Worcester Street. The posted (regulatory) speed limit on Worcester Street in the study area is 50 mph in both travel directions. Land use along Worcester Street in the study area is a mix of residential, commercial, and office uses.

Weston Road

Weston Road is generally a north-south roadway under local jurisdiction within the study area that connects Route 16 to the south and the Weston town line to the north. Weston Road is classified as an Urban Minor Arterial roadway, and it provides a single travel lane in each direction separated by a double yellow centerline with access to on/off ramps provided at its intersection with Worcester Street. There is a mix of land uses along Weston Road in the study area that includes residential homes, a commercial plaza including a local market, and an elementary school.

Lexington Road

Lexington Road is a north-south roadway under local jurisdiction within the study area that connects Beechwood Street to the north with a right in/right out access to Route 9 to the south. Lexington Street provides a single travel lane in each direction with sidewalks provided on both sides of the roadway. The only land use along Lexington Street in the study area is residential.

2.1.2 Intersections

Route 9 at Overbrook Drive/ CVS Driveway

Worcester Street meets Overbrook Drive to form a four-legged, signalized intersection under state jurisdiction. The eastbound and westbound Worcester Street approaches provide an exclusive left turn lane, a through lane, and a shared through/right travel lane. The Overbrook Drive southbound approach provides a shared left/through/right travel lane. The CVS driveway northbound approach provides an exclusive left turn lane and an exclusive right turn lane. Land uses at the intersection include a CVS Pharmacy, a commercial plaza with a Dunkin' Donuts, an insurance office building, a bank, car dealerships, and a gas station.

Weston Road at Route 9 Westbound Ramp/Cleveland Road

Weston Road meets the Route 9 Westbound Ramp and Cleveland Road to form a four-legged unsignalized intersections under state jurisdiction. Weston Road provides a single travel lane in the northbound and southbound directions. Cleveland Road provides a single flared approach used as a left and through-right lane under STOP sign control. The Route 9 Eastbound ramp provide a single travel lane under STOP sign control. Land uses at the ramp intersections include a pizza place, a gas station, a local market and cafe, and an animal hospital.

Weston Road at Route 9 Eastbound Ramp

Weston Road meets the Route 9 Eastbound Ramps to form a three-legged, unsignalized intersections under state jurisdiction. The ramps provide a single travel lane under STOP sign control. The northbound Weston Road approach to the intersection provides a left turn land and a through lane. The southbound Weston Road approach provides a travel lane. Land uses at the ramp intersections include a library and residences.

2.2 BASELINE TRAFFIC VOLUMES

Traffic-volume data used in this study were obtained by mechanical and manual methods in March 2017. Automatic traffic recorder counts (ATRs) were conducted along Route 9 adjacent to the Site while manual turning movement counts (TMCs) were conducted at the existing study intersections. Traffic data were collected during the weekday morning (7:00 to 9:00 AM), weekday evening (4:00 to 6:00 PM), and Saturday midday (11:00 AM to 1:00 PM) peak periods. These hours represent the combination of busiest activity periods of the Site and adjacent roadway network.

2.2.1 Daily Traffic

Daily traffic volumes along Route 9 adjacent to the Site were collected in March 2017 and are summarized in **Table 1** and included in the **Appendix**.

TABLE 1
EXISTING TRAFFIC VOLUME SUMMARY
ROUTE 9 EAST OF LEXINGTON ROAD

Time Period	Daily Volume (vpd)[1]	Percent Daily Traffic[2]	Peak Hour Volume (vph)[3]	Peak Flow Direction[4]	Peak Hour Directional Volume (vph)
Weekday Morning Peak Hour	53,400	8%	4,243	57% EB	2,403
Weekday Evening Peak Hour	53,400	7%	3,809	53% EB	2,039
Saturday Midday Peak Hour	46,428	8%	3,644	54% WB	1,956

[1]Two-way daily traffic expressed in vehicles per day without seasonal adjustment.
[2]The percent of daily traffic that occurs during the peak hour.
[3]Two-way peak-hour volume expressed in vehicles per hour.
[4]EB = Eastbound, WB = Westbound

As summarized in **Table 1**, the weekday daily traffic volume on Route 9 adjacent to the Site is approximately 53,400 vehicles per day (vpd) on a weekday and 46,428 vpd on a Saturday. Peak hour traffic flow on Route 9 ranges from approximately 3,644 to 4,243 vehicles per hour (vph) representing 7 to 8 percent of daily traffic flow. Vehicle flow is skewed towards the eastbound direction during the weekday morning and weekday evening peak hours, and skewed towards the westbound direction during the Saturday midday peak hour.

2.2.2 Peak-Hour Traffic

Peak-hour traffic volumes at the study area intersections were collected in March 2017. Comparison of the traffic count data maintained by MassDOT for nearby permanent count stations indicates that March is representative of slightly below-average volume conditions. Therefore, a seasonal adjustment (2 percent increase) was made to observed traffic volumes to represent average traffic conditions. Permanent count station data is provided in the **Appendix**. The resulting 2017 Baseline weekday morning, weekday evening, and Saturday midday peak hour traffic volume networks for the study intersections are depicted in **Figure 3, Figure 4** and **Figure 5**.

2.3 MEASURED TRAVEL SPEEDS

Vehicle speeds were obtained for Route 9 adjacent to the Site using a *Spot Speed* study. Vehicles traveling both eastbound and westbound were timed over a known distance and then the travel times were converted into travel speeds in miles per hour (mph). **Table 2** summarizes the average and 85th percentile speeds along Route 9 adjacent to the Site. This speed data provides a basis for determining appropriate sight lines for the proposed driveways. Speed data is provided in the **Appendix**.

TABLE 2
SPEED STUDY RESULTS – ROUTE 9

Travel Direction	Travel Speeds		
	Posted[1]	Mean[2]	85th Percentile[3]
Eastbound	50	45	51
Westebound	50	47	52

[1] Regulatory Speed Limit (mph)
[2] Arithmetic mean (mph)
[3] The speed at or below which 85 percent of the vehicles are traveling

As summarized in **Table 2**, the mean (average) travel speed on Route 9 traveling eastbound is 45 mph and the 85th percentile travel speed is 51 mph. In the westbound direction, the mean travel speed is 47 mph and the 85th percentile travel speed is 52 mph. The observed 85th percentile travel speeds are consistent with the 50 mph regulatory speed limit on this section of Route 9 in both travel directions.

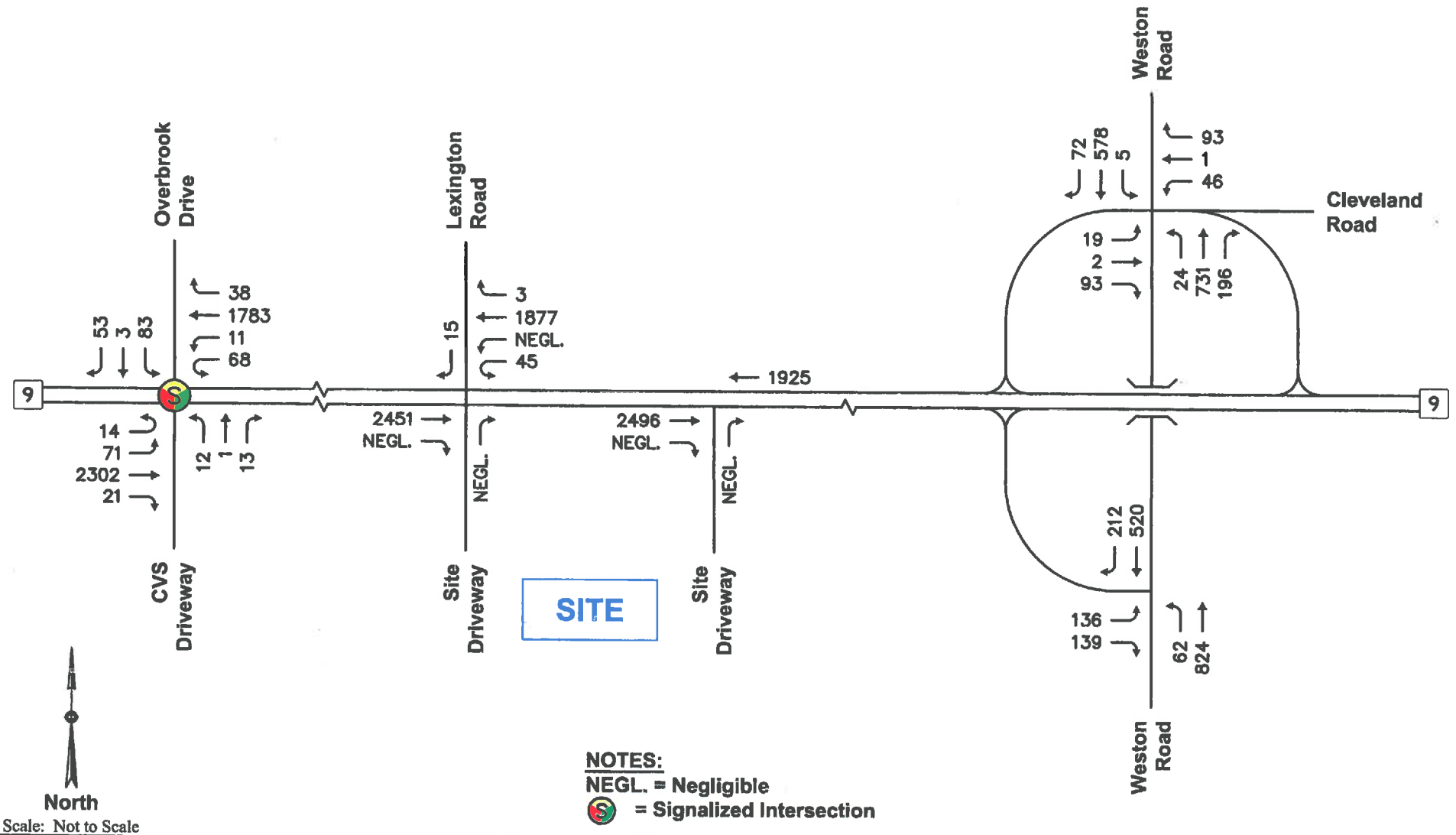


Figure 3

2017 Baseline Conditions
Weekday Morning Peak Hour Traffic Volumes

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Planners & Engineers

Date: March 2017
Dwg No. 923 TIAS.dwg

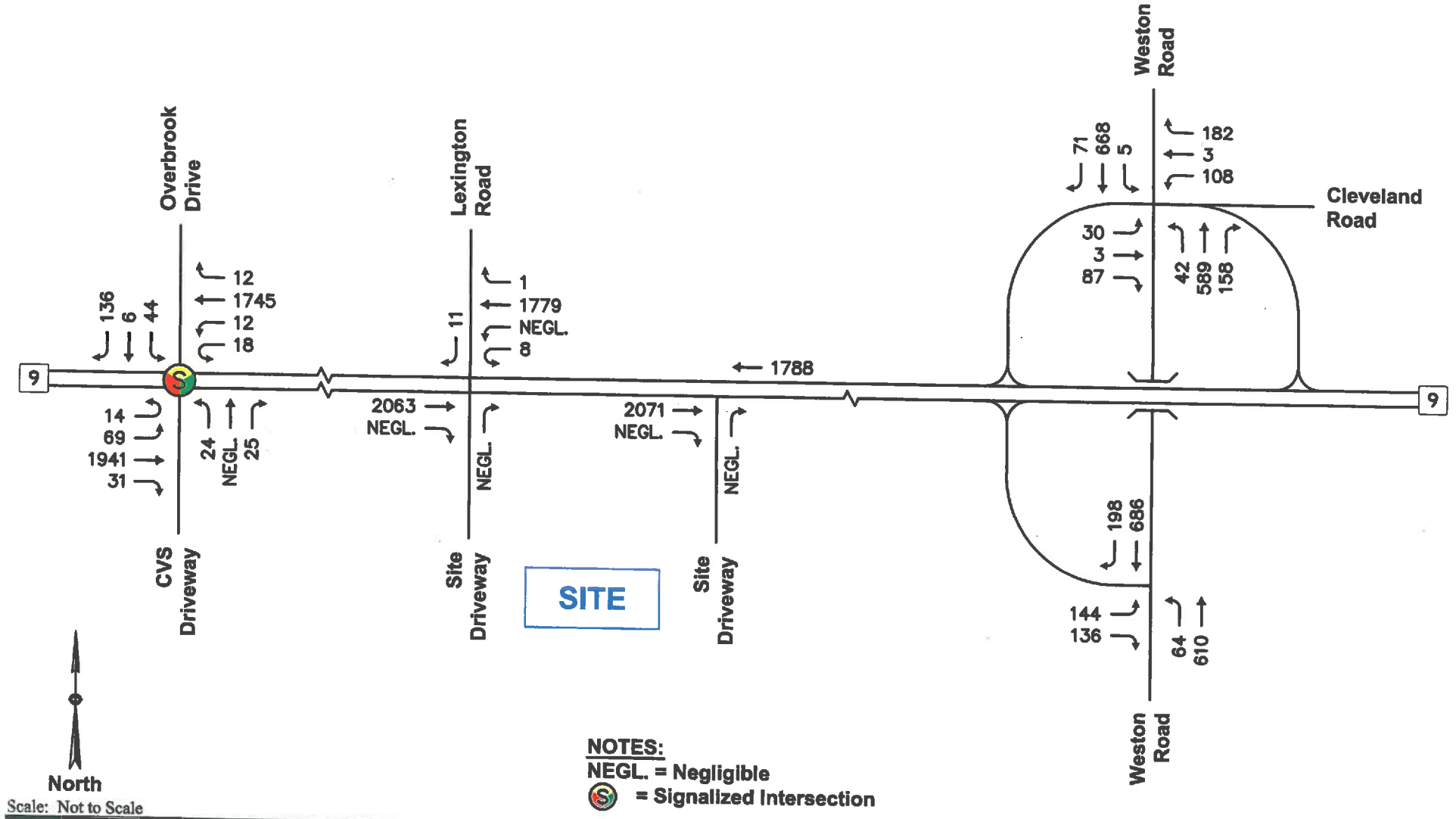

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Figure 4

2017 Baseline Conditions
Weekday Evening Peak Hour Traffic Volumes

Date: March 2017
Dwg No. 923 TIAS.dwg

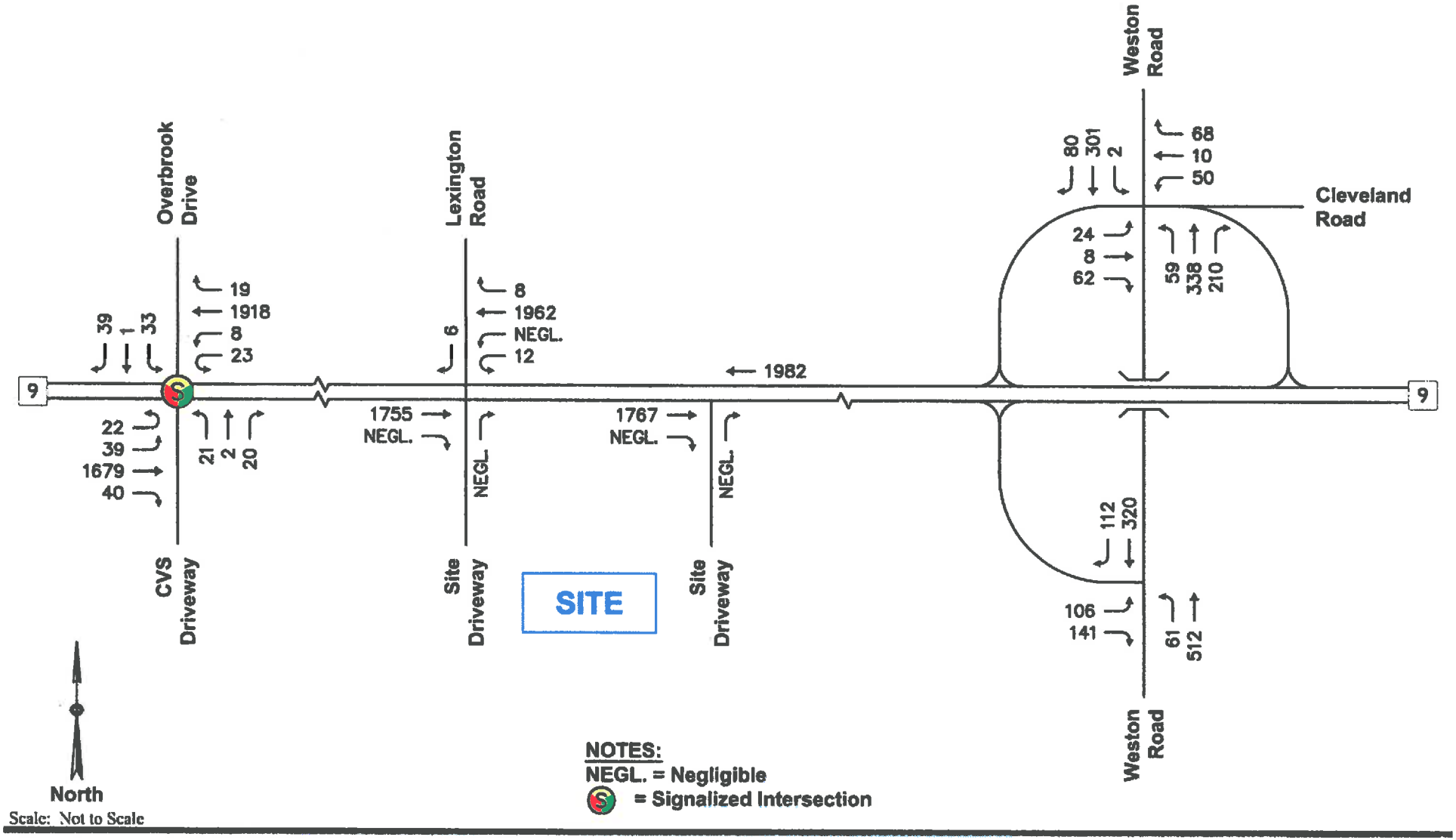

Figure 5

2017 Baseline Conditions
Saturday Midday Peak Hour Traffic Volumes

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Date: March 2017
Dwg No. 923 TIAS.dwg

2.4 SAFETY/CRASH EVALUATION

Crash data were obtained from MassDOT for the Town of Wellesley for the three-year period 2012 through 2014 (the most recent 3-year period available) to identify crash trends and safety characteristics for study area intersections. In addition, review of the MassDOT high crash cluster mapping was conducted to determine locations listed as eligible for Highway Safety Improvement Program (HSIP) evaluation and funding. Crash data for the study intersections is summarized in **Table 3** with detailed data provided in the **Appendix.**

Crash rates were calculated for the study area intersections as reported in **Table 3.** This rate quantifies the number of crashes per million entering vehicles. MassDOT has determined the official District 6 (which includes the Town of Wellesley) crash rate to be 0.53 for unsignalized intersections and 0.70 for signalized intersections and the official District 3 (which includes the Town of Natick) crash rate to be 0.65 for unsignalized intersections and 0.90 for signalized intersections. These rates represent MassDOT's "average" crash experience for study area and serve as a basis for comparing reported crash rates for the study intersections. Where calculated crash rates notably exceed the district average, some form of safety countermeasures may be warranted.

TABLE 3
INTERSECTION CRASH SUMMARY — 2012 THROUGH 2014[1]

Data Category	INTERSECTION			
	Route 9 at Overbrook Dr/ CVS Driveway	Route 9 at Lexington Rd/ 900 Worcester St	Weston Road at Route 9 Ramps (WB)	Weston Road at Route 9 Ramps (EB)
Traffic Control	Signalized	Unsignalized	Unsignalized	Unsignalized
Crash Rate[2]	**0.63**	**0.18**	**0.32**	**0.49**
District Avg.[3]	0.90	0.53	0.53	0.53
Year:				
2012	13	3	3	4
2013	13	4	2	5
2014	11	3	4	4
Total	37	10	9	13
Type:				
Angle	8	0	3	6
Rear-End	25	9	4	5
Head-On	0	0	0	0
Sideswipe	3	1	2	1
Single Vehicle	1	0	0	1
Other/Unknown	0	0	0	0
Severity:				
P. Damage Only	30	10	8	11
Personal Injury	7	0	1	2
Fatality	0	0	0	0
Conditions:				
Dry	30	8	9	10
Wet	6	2	0	2
Snow	1	0	0	1
Other/Unknown	0	0	0	0
Time:				
7:00 to 9:00 AM	7	1	1	3
4:00 to 6:00 PM	6	4	1	3
Rest of Day	24	5	7	7

[1] Source: MassDOT Crash Database

[2] Crashes per million entering vehicles

[3] District 3 average = 0.90 for signalized intersections and 0.65 for unsignalized intersections
District 6 average = 0.70 for signalized intersections and 0.53 for unsignalized intersections

As summarized in **Table 3**:

- *Route 9 at Overbrook Drive/CVS Driveway:* Thirty-seven (37) crashes were reported at or near the Route 9 signalized intersection with Overbrook Drive over the three-year study period resulting crash rate of 0.63, which is below the District 3 average of 0.90. MassDOT has listed the intersection as a Highway Safety Improvement Program (HSIP) crash cluster for 2012-2014. Roadway improvements were completed for this location in August 2014 as part of the CVS Pharmacy re-development, however, no Road Safety Audit has been completed to date. The reported crashes included twenty-five (25) rear-end type collisions, eleven (11) angle/sideswipe type collisions, and one (1) single vehicle crash. The majority (81%) resulted in property damage type collision under dry (81%) roadway conditions during off-peak travel periods (65%). No fatalities or pedestrian-related incidents were reported during the study period.

- *Route 9 at Lexington Road/900 Worcester Street:* Ten (10) crashes were reported at or near the Site Driveway on Route 9 over the three-year study period resulting crash rate of 0.18, which is above the District 6 average of 0.53. The reported crashes included one (1) angle/sideswipe type collision and nine (9) rear-end type collisions. All of the crashes resulted in property damage type collision with the majority of crashes under dry (80%) roadway conditions during off-peak travel periods (50%). No fatalities or pedestrian-related incidents were reported during the study period.

- *Weston Road at Route 9 Ramps (WB):* Nine (9) crashes were reported at or near the unsignalized stop-controlled intersection over the three-year study period resulting crash rate of 0.32, which is below the District 6 average of 0.53. The reported crashes included six (6) angle/sideswipe type collisions and three (3) rear-end type collisions. The majority (89%) resulted in property damage type collision under dry (100%) roadway conditions during off-peak travel periods (78%). No fatalities or pedestrian-related incidents were reported during the study period.

- *Weston Road at Route 9 Ramps (EB):* Thirteen (13) crashes were reported at or near the unsignalized stop-controlled intersection over the three-year study period resulting crash rate of 0.49, which is below the District 6 average of 0.53. The reported crashes included seven (7) angle/sideswipe type collisions, five (5) rear-end type collisions, and one (1) single-vehicle crash. The majority (85%) resulted in property damage type collisions under dry (77%) roadway conditions during off-peak travel periods (54%). No fatalities or pedestrian-related incidents were reported during the study period.

In summary, based on extensive review of MassDOT crash data, all of the study intersections experienced crash rates that are below the MassDOT District averages. The signalized intersection of Route 9 and Overbrook Drive/CVS Driveway is listed as a 2012-2014 HSIP location. Accordingly, this HSIP location is subject to a Road Safety Audit (RSA) to identify potential short-term, medium term and long-term safety/operational improvements. Under current MassDOT policy, projects subject to MEPA review that impact HSIP clusters must complete a RSA prior to issuance of a Section 61 Finding for the project.

2.5 PUBLIC TRANSPORTATION FACILITIES

The Metro-West Regional Transit Authority (MWRTA) provides fixed route bus service, Route 1, between Framingham (Central Hub – 37 Waverly Street) and Newton (MBTA Station) with stops in Framingham, Natick, Wellesley, and Newton (Woodland MBTA Station). To remain somewhat conservative, no specific reduction in Site trips was taken to account for use of these travel modes. Specific route and schedule information is provided in the **Appendix**.

2.6 SIGHT LINE ANALYSIS

An evaluation of sight lines was conducted at the proposed Site driveway locations to ensure that minimum recommended sight lines are available at the proposed Site driveway intersections with Route 9. The evaluation documents existing sight lines for vehicles as they relate to the two (2) driveways along Route 9 with comparison to recommended guidelines.

The American Association of State Highway and Transportation Officials' (AASHTO) standards[1] reference two types of sight distance which are relevant at the proposed Site driveway intersections: stopping sight distance (SSD) and intersection sight distance (ISD). Sight lines for critical vehicle movements at the proposed Site driveway intersections were compared to minimum SSD and ISD recommendations for the travel speeds along Route 9 in the Site vicinity.

Stopping Sight Distance

Sight distance is the length of roadway visible to the motorist to a fixed object. The minimum sight distance available on a roadway should be sufficiently long enough to enable a below-average operator, traveling at or near a regulatory speed limit, to stop safely before reaching a stationary object in its path, in this case, a vehicle exiting onto Route 9. The SSD criteria are defined by AASHTO based on design and operating speeds, anticipated driver behavior and vehicle performance, as well as physical roadway conditions. SSD includes the length of roadway traveled during the perception and reaction time of a driver to an object, and the distance traveled during brake application on wet level pavement. Adjustment factors are applied to account for roadway grades when applicable.

SSD was estimated in the field using AASHTO standards for driver's eye (3.5 feet) and object height equivalent to the taillight height of a passenger car (2.0 feet) for the eastbound and westbound Route 9 approaches to the proposed Site driveways. **Table 4** presents a summary of the available SSD as they relate to Route 9 and AASHTO's recommended SSD.

[1] *A policy on Geometric Design of Highways and Streets*, American Association of State Highway and Transportation Officials (AASHTO), 2011.

TABLE 4
STOPPING SIGHT DISTANCE SUMMARY
ROUTE 9 APPROACHES TO SITE DRIVEWAYS

Approach/ Travel Direction	Available SSD	AASHTO Recommended[1]	
		Posted Speed[2]	85th Percentile Travel Speed[3]
Route 9 at Primary Site Driveway/ Lexington Street			
Eastbound	950± Feet	425 Feet	440 Feet
Westbound	>1000 Feet	425 Feet	450 Feet
Route 9 at Secondary Site Driveway (Eastern) – Right out Only			
Eastbound	>1000 Feet	425 Feet	450 Feet

[1]Recommended sight distance based on AASHTO, A Policy on Geometric Design of Highways and Streets. Based on driver height of eye of 3.5 feet to object height of 2.0 feet.
[2]Regulatory (Posted) Speed on Route 9 is 50 mph EB and WB.
[3]85th Percentile Speed on Route 9 is 51 mph EB and 52 mph WB.

As summarized in **Table 4** analysis results indicate that the available sight lines exceed AASHTO's recommended SSD criteria for both travel directions along Route 9 based on the regulatory posted speed limit and observed travel speeds.

Intersection Sight Distance

Clear sight lines provide sufficient sight distance for a stopped driver on a minor-road approach to depart from the intersection and enter or cross the major road. As stated under AASHTO's Intersection Sight Distance (ISD) considerations, *"...If the available sight distance for an entering ...vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to avoid collisions...To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road."* AASHTO's ISD criteria are defined into several "cases". For the primary site driveway location which is proposed to be under traffic signal control, the ISD in question relates to the ability to turn right on red from the proposed primary driveway intersection with Route 9. For the secondary Site driveway location which is proposed to be under STOP sign control, the ISD in question relates to the ability to turn right from the proposed secondary driveway intersection with Route 9.

Available ISD was estimated in the field using AASHTO standards for driver's eye (3.5 feet), object height (3.5 feet) and decision point (8 to 14.5 feet from the edge of the travel way) for the eastbound and westbound directions along Route 9. **Table 5** presents a summary of the available ISD for the departure from the Site driveways and AASHTO's recommended ISD.

TABLE 5
INTERSECTION SIGHT DISTANCE SUMMARY
SITE DRIVEWAY APPROACHES TO ROUTE 9

Approach/ Travel Direction	Available ISD	AASHTO Minimum[1] 85th Percentile Travel Speed[3]	AASHTO Ideal[1] Posted Travel Speed[3]
Route 9 at Primary Site Driveway/ Lexington Street			
Looking East	>800 Feet	450 Feet	551 Feet
Looking West	>800 Feet	440 Feet	478 Feet
Route 9 at Secondary Site Driveway (Eastern) – Right out Only			
Looking West	>800 Feet	440 Feet	478 Feet

[1]Recommended sight distance based on AASHTO, A Policy on Geometric Design of Highways and Streets. Based on driver height of eye of 3.5 feet and an object height of 3.5 feet and adjustments for roadway grade if required. Minimum value as noted represents SSD per AASHTO guidance.
[2]Regulatory (Posted Speed) on Worcester Street is 50 mph EB and WB.
[3]85th Percentile Speed on Worcester Street is 51 mph EB and 52 mph WB.

The results of the ISD analysis presented in **Table 5** indicate that the available sight lines looking east and west from the proposed Site driveways onto Worcester Street will exceed the recommended minimum sight line requirements from AASHTO for the travel speeds. MDM recommends that any new plantings (shrubs, bushes) or physical landscape features to be located within the driveway sight lines should also be maintained at a height of 2 feet or less above the adjacent existing roadway grade to ensure unobstructed lines of sight.

3.0 FUTURE CONDITIONS

Evaluation of the proposed development impacts requires the establishment of a future baseline analysis condition. This section estimates future roadway and traffic conditions with and without the proposed development. To be consistent with EEA/MassDOT guidelines, a seven-year planning horizon was selected.

To determine the impact of Site-generated traffic volumes on the roadway network under future conditions, baseline traffic volumes in the study area were projected to a future year condition. Traffic volumes on the roadway network at that time, in the absence of the development (that is, the No-Build condition), would include existing traffic, new traffic due to general background traffic growth, and traffic related to specific development by others that is currently under review at the local and/or state level. Consideration of these factors resulted in the development of No-Build traffic volumes. Anticipated Site-generated traffic volumes were then superimposed upon these No-Build traffic-flow networks to develop future Build conditions.

The following sections provide an overview of future planned roadway improvements, No-Build traffic volumes and projected Build traffic volumes.

3.1 PLANNED ROADWAY IMPROVEMENTS

MassDOT is planning transportation improvements (Project 608180) to the Route 9 that will include resurfacing using NHS funding. The project limits will include Route 9 from MassDOT's limits of its Add-A-Lane project at Route 128 to a point just east of Overbrook Drive at the Natick Town Line. The resurfacing project is pending through the District 6 office. A larger planned roadway improvement (Project 607340) which includes sidewalk repairs, signal improvements, reflectorized pavement markings and recessed roadway reflectors is also in the preliminary design stage. The project limits will include Route 9 between Dearborn Street and the Natick Town Line.

3.2 BACKGROUND TRAFFIC GROWTH

Background traffic includes demand generated by other planned developments in the area as well as demand increases caused by external factors. External factors are general increases in traffic not attributable to a specific development and are determined using historical data.

3.2.1 Historical Area Growth

Nearby permanent count station data published by MassDOT indicates a neutral (-0.1 percent per year) growth rate. For purposes of this evaluation, a 0.5 percent compounded annual growth rate was used (3.6 percent increase over a 7-year horizon). This growth rate is higher than historic rates and is also expected to account for any small fluctuation in hourly traffic as may occur from time to time in the study area and traffic associated with other potential small developments or vacancies in the area. MassDOT permanent count station data and background growth calculations are provided in the **Appendix.**

3.2.2 Background Development-Related Growth

Development of future No-Build traffic volumes also considers traffic generated through the study area from other specific area developments. Review of Massachusetts Environmental Policy Act (MEPA) files indicates that the following site-specific development projects in the area may increase baseline traffic at the study intersections include the following

- ***MathWorks Lakeside Campus:*** The MathWorks re-development of the former Boston Scientific campus located at 1 Lakeside Campus Drive in Natick, MA is under construction and will include 510,000± sf of general office space. Traffic associated with the redevelopment building was estimated using ITE trip generation rates and assigned to the study area roadway network based on Journey to Work Data for the Town of Natick. Site-specific trip tracings are provided in the **Appendix**.

3.3 NO-BUILD TRAFFIC VOLUMES

To account for future traffic growth along the corridor, the 0.5 percent annual growth rate was applied to existing traffic volumes over a seven-year period, as well as traffic associated with the MathWorks Lakeside Campus project. Future 2024 No-Build traffic volumes are displayed in **Figure 6, Figure 7,** and **Figure 8.**

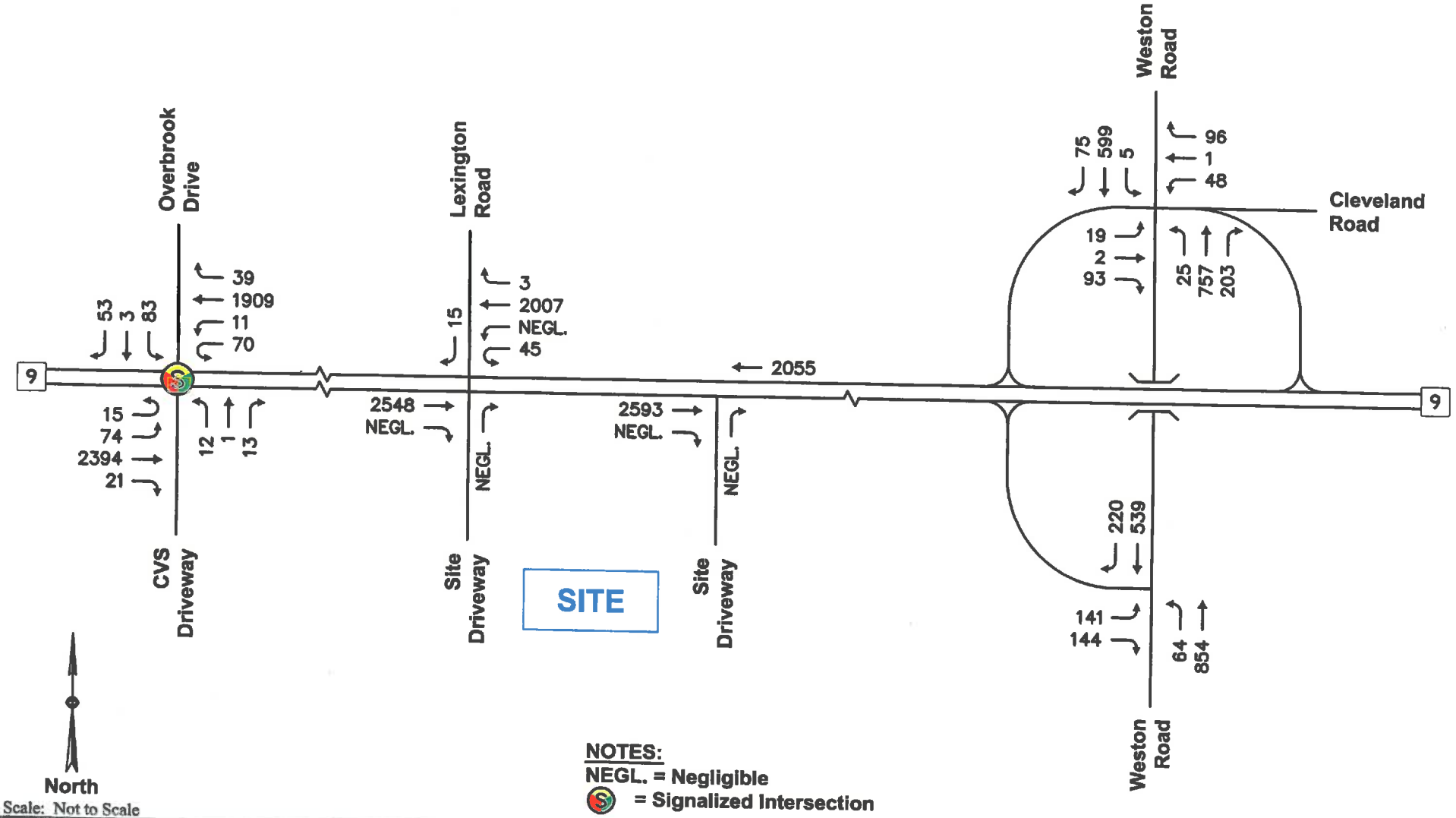

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Figure 6

2024 No-Build Conditions
Weekday Morning Peak Hour Traffic Volumes

Date: March 2017
Dwg No. 923 TIAS.dwg

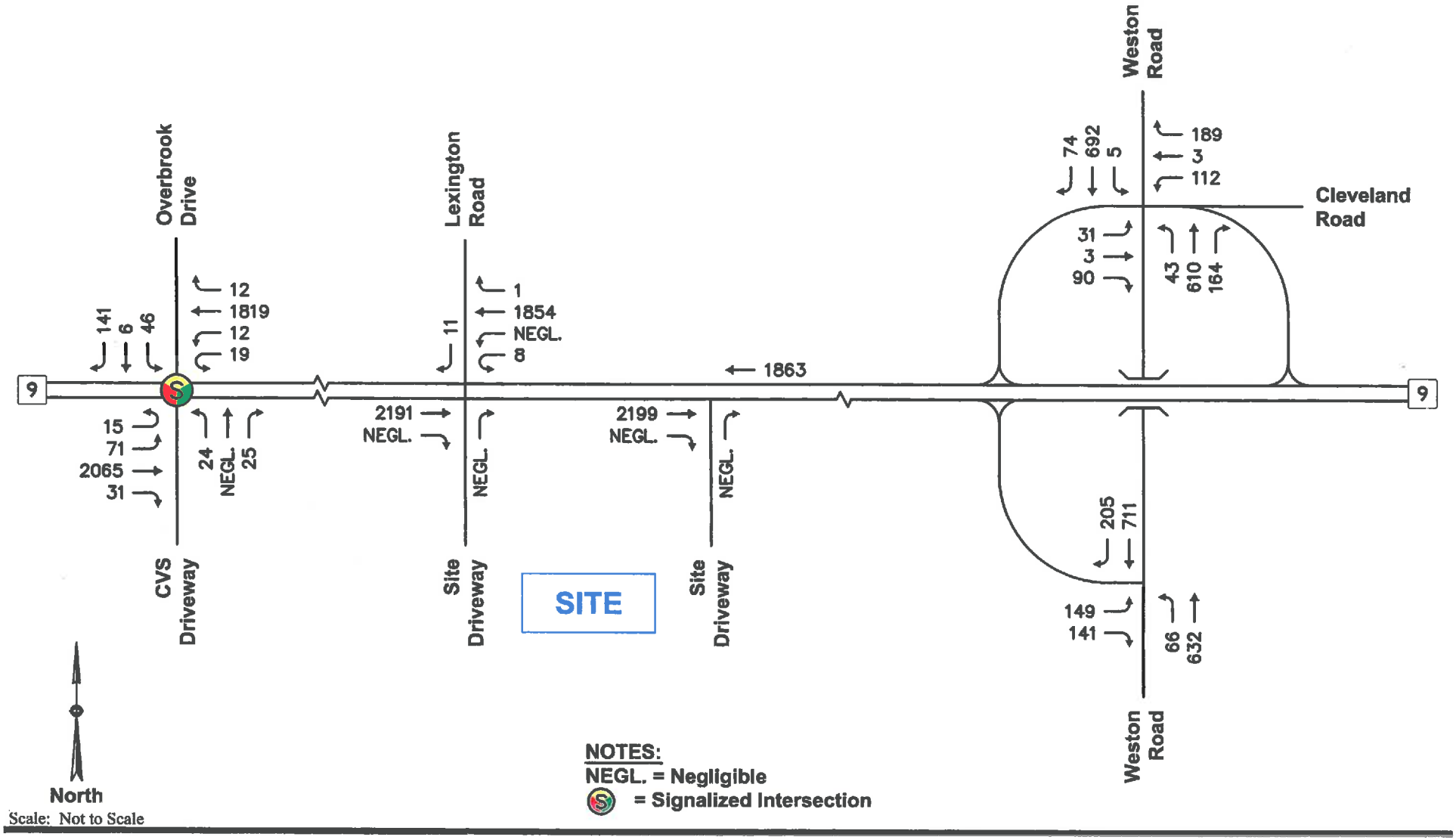

Figure 7

2024 No-Build Conditions
Weekday Evening Peak Hour Traffic Volumes

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Date: March 2017
Dwg No. 923 TIAS.dwg

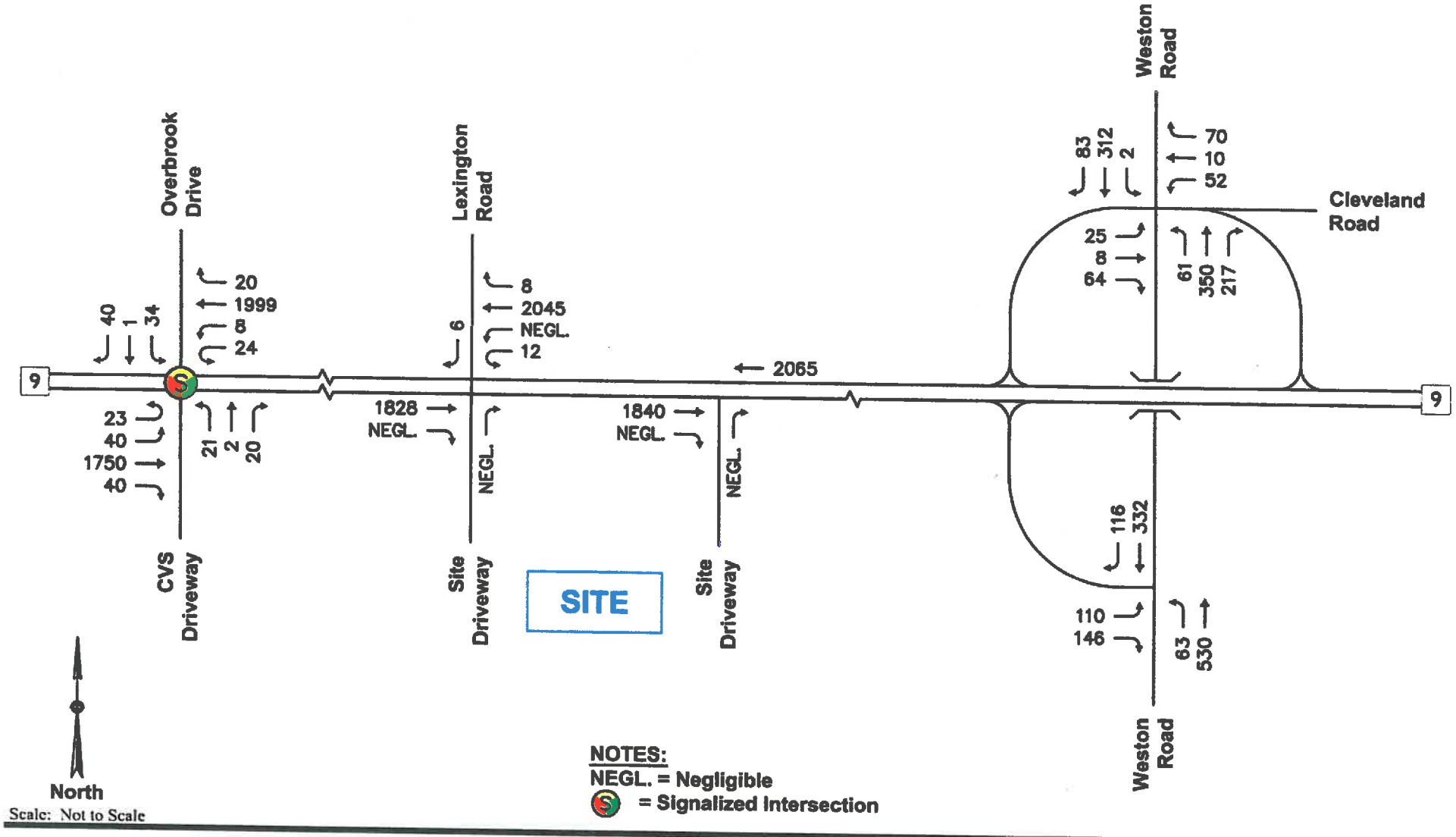

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Figure 8

2024 No-Build Conditions
Saturday Midday Peak Hour Traffic Volumes

Date: March 2017
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3.4 SITE-GENERATED TRAFFIC – ITE BASIS

Future Build condition traffic volumes were developed by estimating the number of peak-hour trips expected to be generated by the proposed development and distributing this additional traffic onto the local roadway network. These future development-related trips were added to future No-Build traffic volumes to evaluate future traffic operations with the proposed residential development in place. The methodology utilized to estimate the future trip-generation characteristics of the proposed development are summarized below.

In accordance with EEA/MassDOT guidelines, the traffic generated by the proposed development was estimated using trip rates published in ITE's *Trip Generation* for the Land Use Code (LUC) based on trip rates for Soccer Complex (LUC 488) and Health/Fitness Club (LUC 492). Trips for the Ice Rink use was estimated based on empirical ice rink observations at the Essex Sports Complex in Middleton, MA on Thursday, March 23, 2017 and Saturday, March 25, 2017 and at the New England Sports Center in Marlborough, MA on Tuesday, October 20, 2015 and Saturday, October 17, 2015. **Table 6** presents the trip-generation estimates for the proposed development. No pass-by trips were assumed for proposed sports complex uses. Detailed trip generation comparison is provided in the **Appendix**.

TABLE 6
TRIP-GENERATION SUMMARY

Peak Hour/Direction	Ice Rinks[1]	Turf Field[2]	Health Club[3]	Total Trips
Weekday Morning Peak Hour:				
Entering	20	1	24	45
Exiting	130	0	26	156
Total	150	1	50	201
Weekday Evening Peak Hour:				
Entering	67	12	72	151
Exiting	56	6	70	132
Total	123	18	142	283
Saturday Midday Peak Hour:				
Entering	64	14	44	122
Exiting	58	16	53	127
Total	122	30	97	249
Weekday Daily (24 hours)	1,476	300	1,152	2,928
Saturday Daily (24 hours)	1,464	420	730	2,614

[1] Based on empirical data for ice rink use in Middleton and Marlborough, MA. Assumes maximum potential use of ice rinks for early AM periods; typical ice sheet use during early AM periods may exhibit lower trip characteristics.
[2] ITE LUC 488 – Soccer Complex applied to 1 field.
[3] ITE LUC 492 – Health/ Fitness Club applied to 35,000 sf.

As summarized in **Table 6**, the proposed development is estimated to generate approximately 201 trips during the weekday morning peak hour (45 entering and 156 exiting), 283 trips during the weekday evening peak hour (151 entering and 132 exiting) and 249 vehicle trips during the Saturday midday peak hour (122 entering and 127 exiting). On a daily basis, the development is estimated to generate approximately 2,928 vehicle trips on a weekday and 2,614 vehicle trips on a Saturday.

3.5 TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of development-generated trips on the roadway network is a function of a number of variables including area population centers and the efficiency of these roadways leading to the Site. Area population centers within a 20-minute drive of the site serve as the primary basis for determining the trip distribution pattern for the sports complex. The resulting trip distribution pattern for the Site is presented in **Figure 9**, with detailed calculations provided in the **Appendix.**

Figure 10, **Figure 11**, and **Figure 12** present projected site-generated traffic volumes for the weekday morning, weekday evening, and Saturday midday peak hours for the proposed sports complex based on the trip generation presented in **Table 6** and projected travel patterns presented in **Figure 9**.

3.6 ADJACENT OFFICE RE-DISTRIBUTION

The project anticipates the possibility of a cross-connecting driveway with the adjacent office development at 888 – 892 Worcester Street (74,790± sf of general office space) to provide access to the proposed signal at the Site, thereby facilitating westbound egress toward Metrowest communities. Trips for the office space were estimated based on ITE trip generation rates for LUC 710 General Office applied to 74,790 sf with an observed arrival pattern of 40% from the east based on TMC data collected in March 2017. The resulting trip re-distribution tracings for the internal connection during the peak hours are provided in the **Appendix.**

3.7 BUILD TRAFFIC VOLUMES

Future Build condition traffic volumes were arrived at by re-distributing trips for the adjacent office building and adding development-specific traffic volumes to the 2024 No-Build conditions. The resulting 2024 Build condition traffic-volume networks for the weekday morning, weekday evening and Saturday midday peak hours are displayed in **Figure 13**, **Figure 14**, and **Figure 15**, respectively.

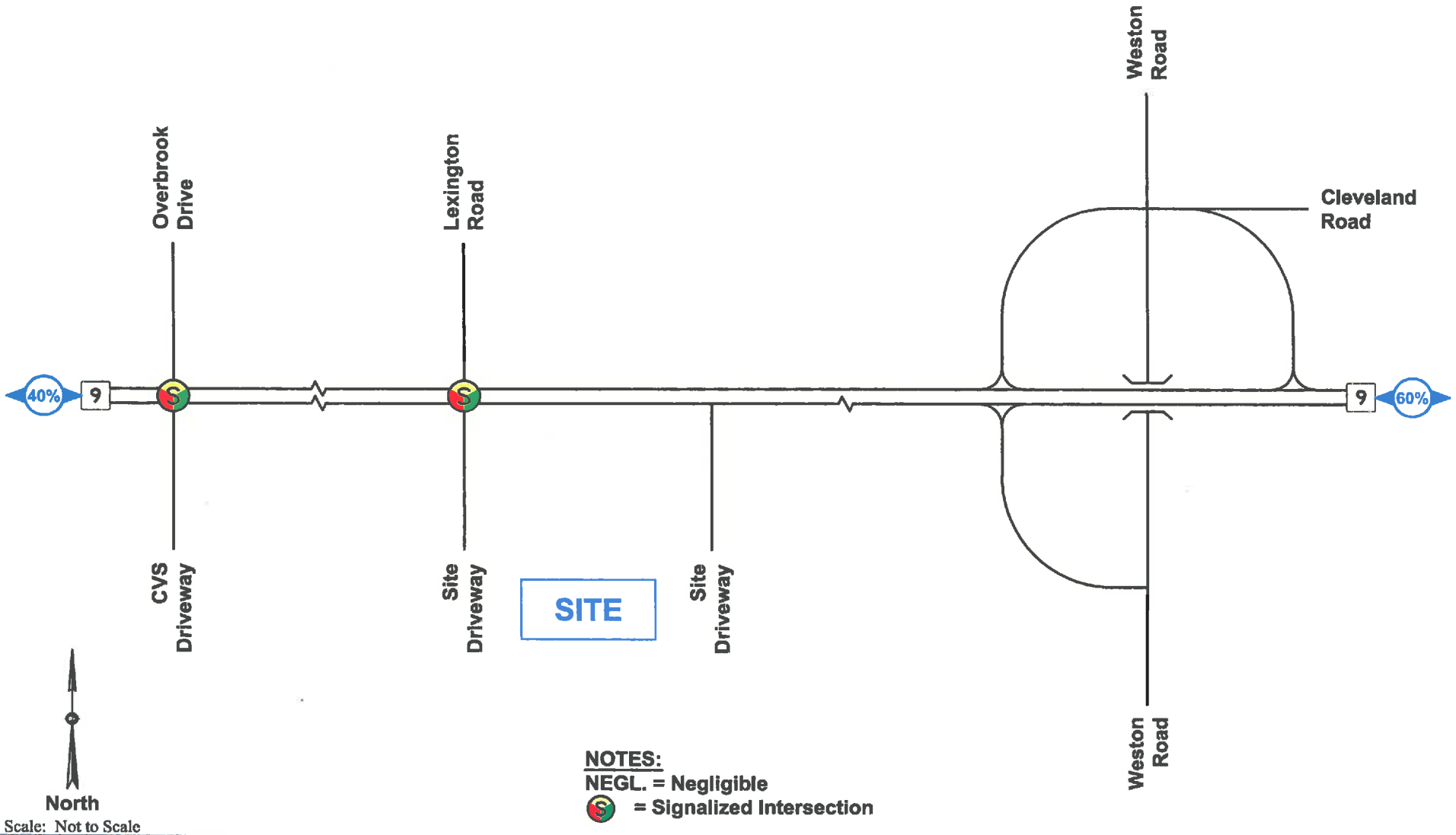

Figure 9

Trip Distribution

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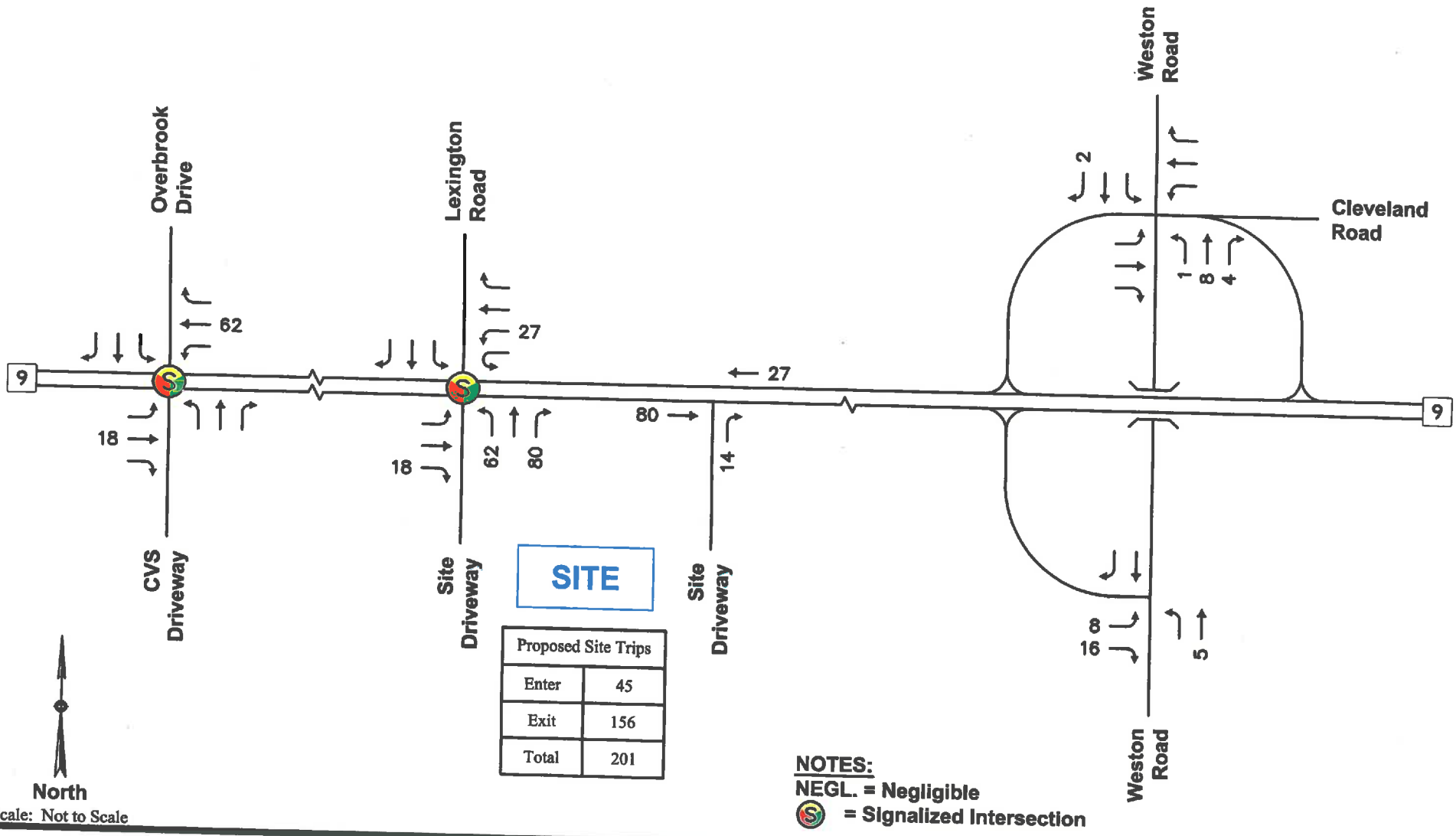

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Figure 10

Site Generated Trips
Weekday Morning Peak Hour Traffic Volumes

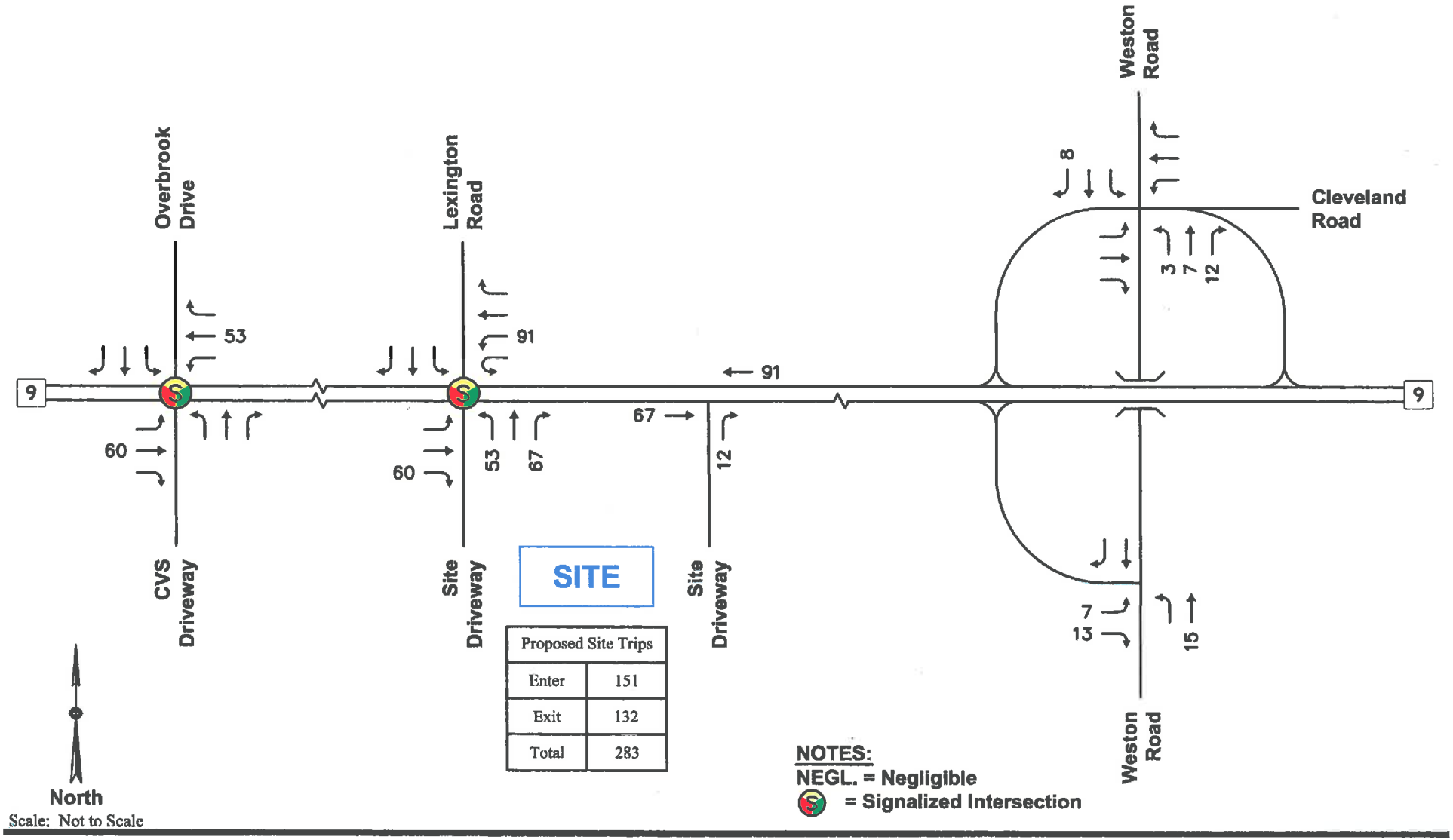

Figure 11

Site Generated Trips
Weekday Evening Peak Hour Traffic Volumes

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Date: March 2017
Dwg No. 923 TIAS.dwg

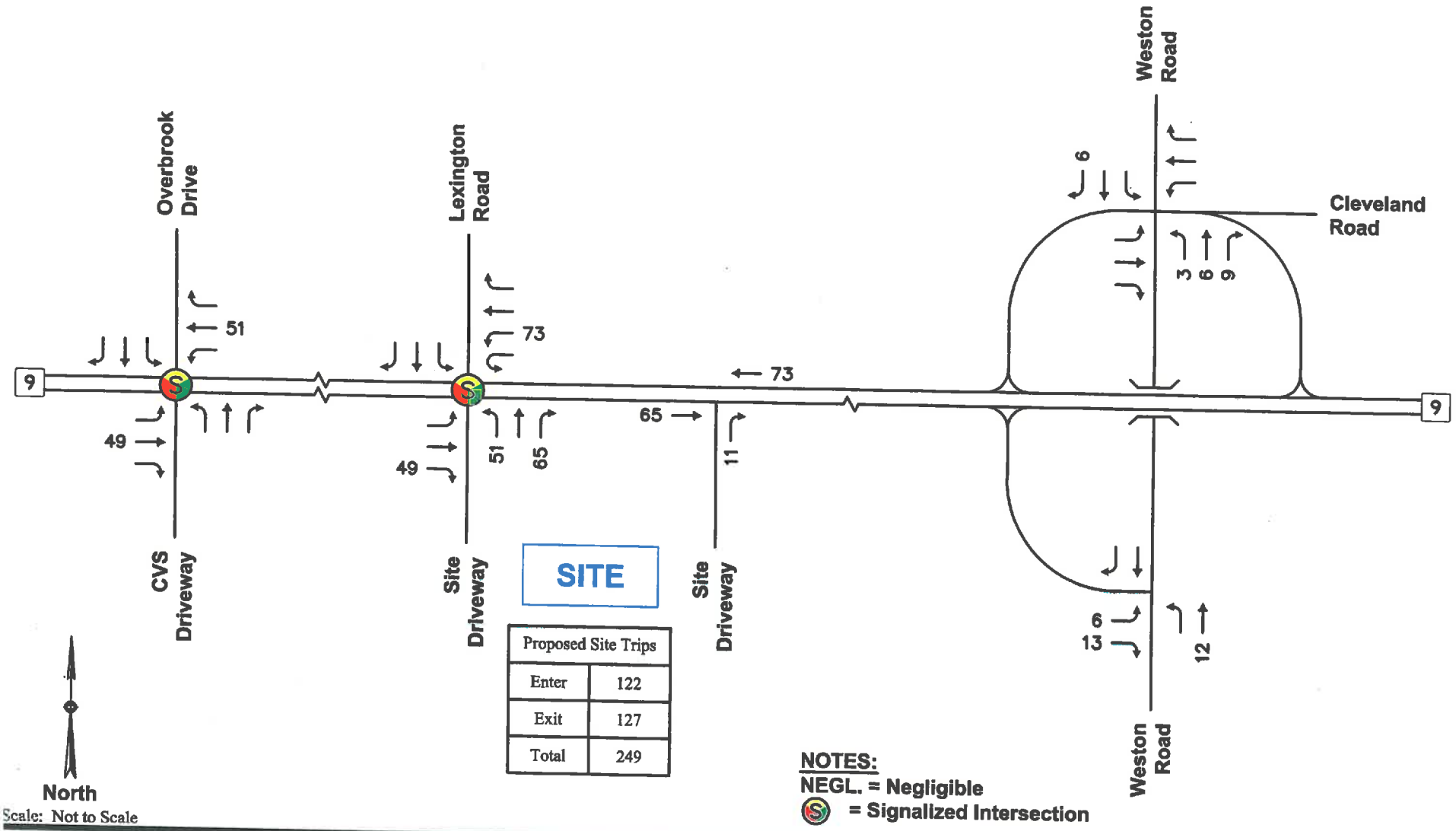

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Figure 12

Site Generated Trips
Saturday Midday Peak Hour Traffic Volumes

ate: March 2017
wg No. 923 TIAS.dwg

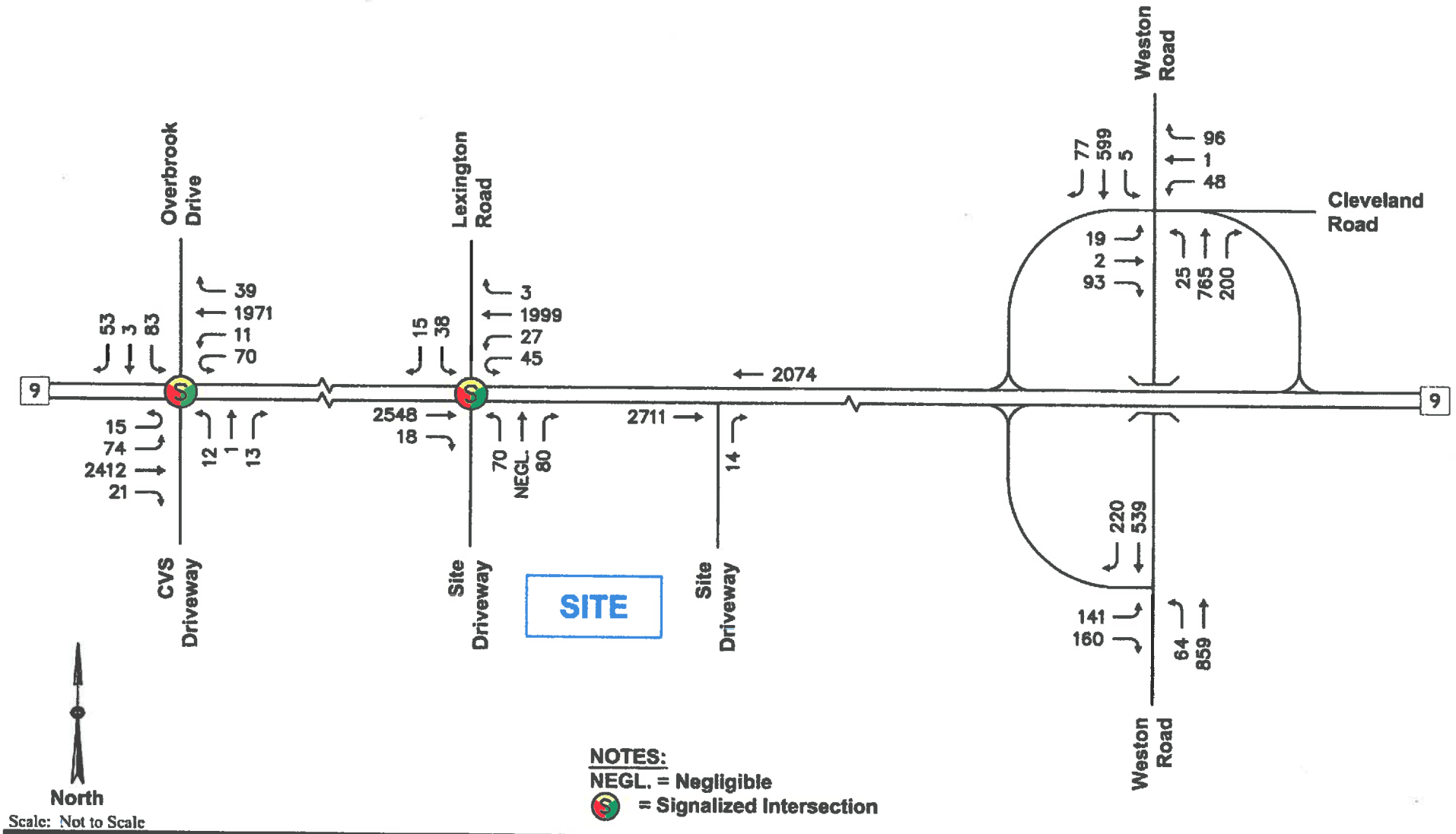

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Figure 13

2024 Build Conditions
Weekday Morning Peak Hour Traffic Volumes

Date: March 2017
Dwg No. 923 TIAS.dwg

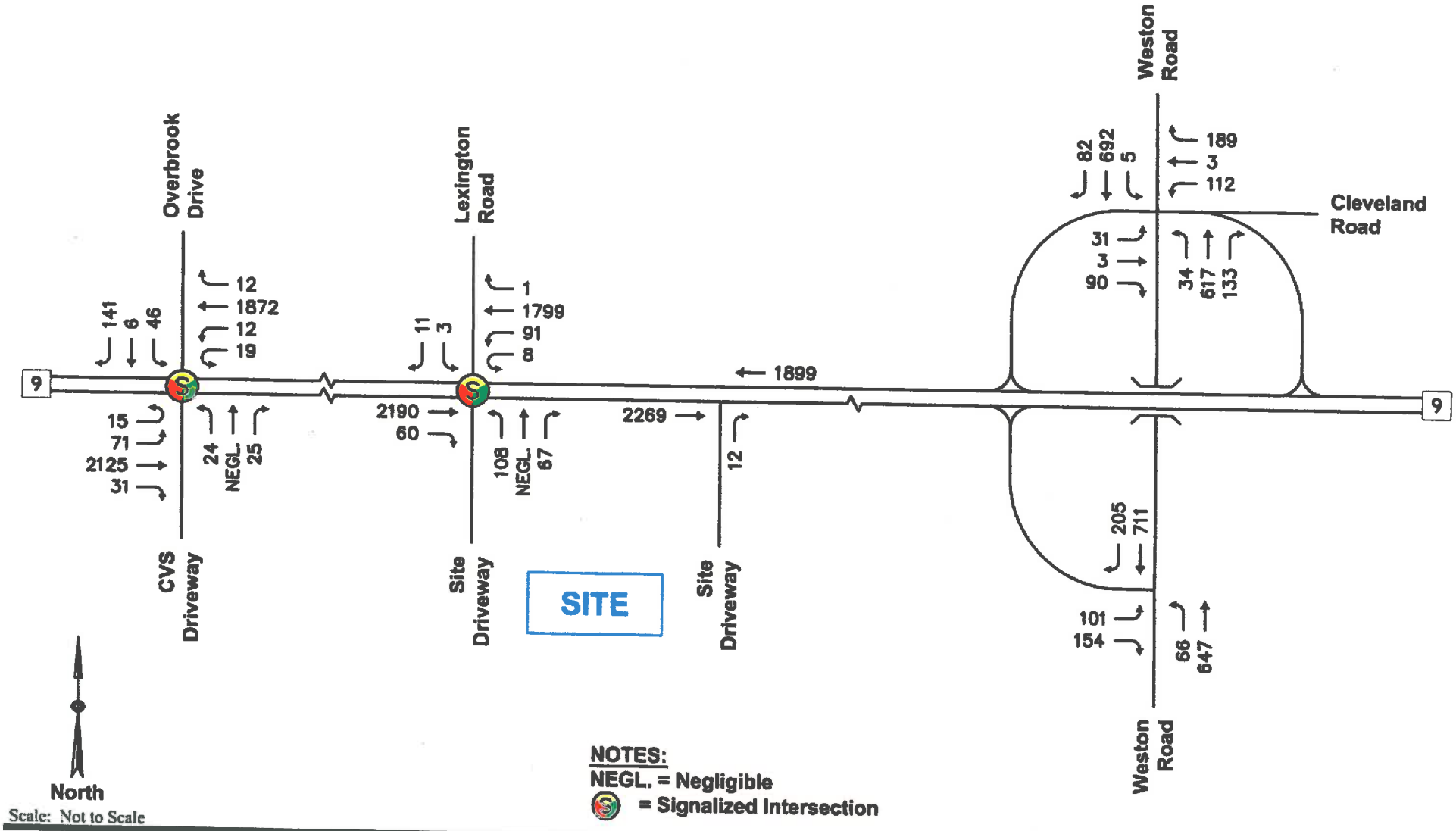

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Figure 14

2024 Build Conditions
Weekday Evening Peak Hour Traffic Volumes

Date: March 2017
Dwg No. 923 TIAS.dwg

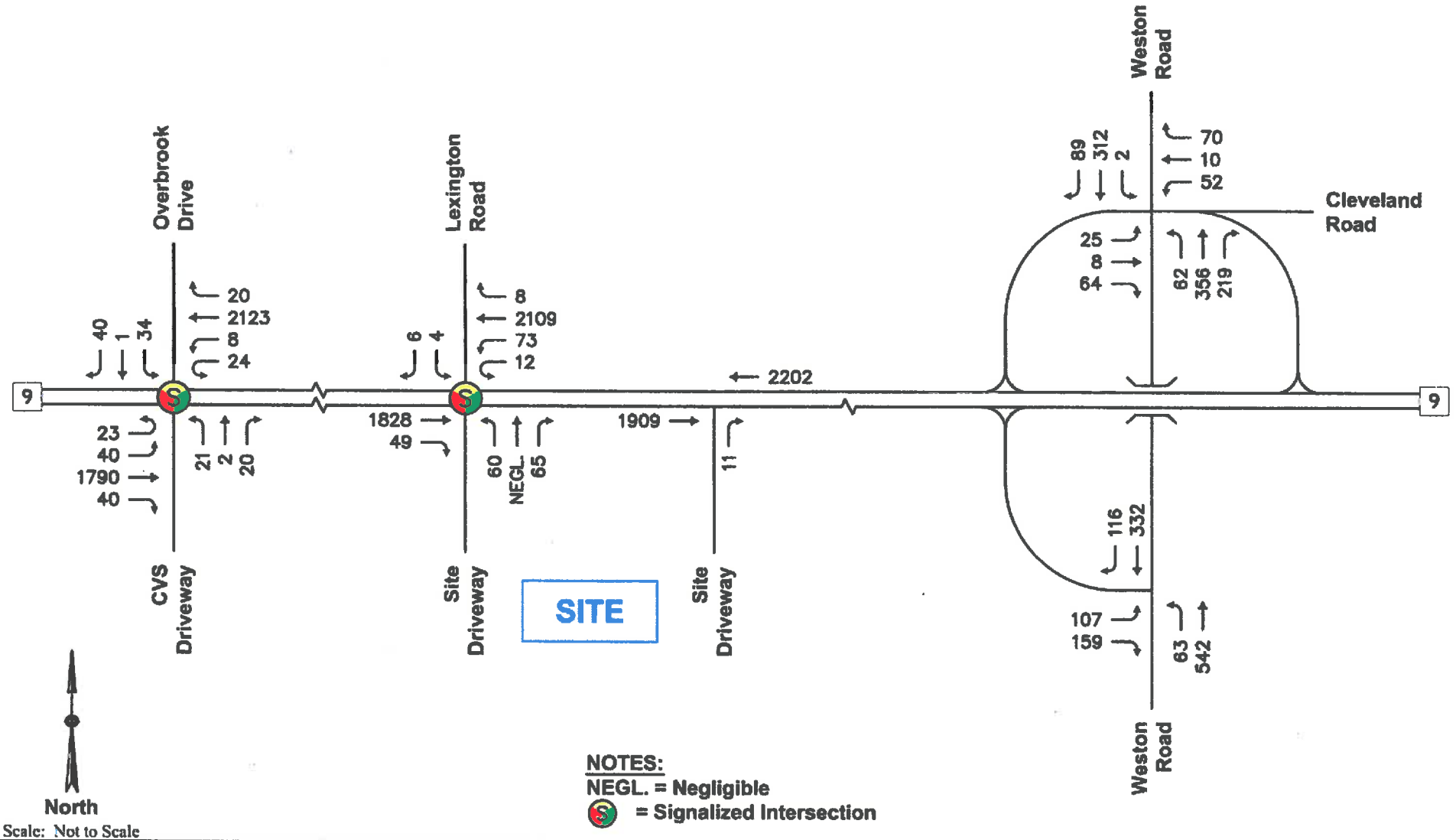

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Figure 15

2024 Build Conditions
Saturday Midday Peak Hour Traffic Volumes

Date: March 2017
Dwg No. 923 TIAS.dwg

4.0 TRAFFIC SIGNAL WARRANT ANALYSIS

Traffic signal warrant criteria were reviewed to justify signal installation at the Lexington Road/Primary Site Drive intersection. The warrant reviewed for this report is based on the Manual on Uniform Traffic Control Devices[2]. (MUTCD) 2009 Edition and include Warrant 1: Eight-Hour Vehicular Volume which is the signal warrant most typically used by MassDOT in justifying traffic signal installation. The traffic signal warrant was reviewed based on existing traffic volumes on Route 9 and estimated trips for the proposed sports complex. Detailed calculation sheets are included in the Appendix.

The regulatory operating speed of Route 9 is currently 50 mph with 2 through travel lanes in each direction. The Primary Site Driveway approach will have a left and right turn lane; however, for this analysis only the left-turn volume was considered in the traffic signal warrant analysis. Based on these conditions, the minimum criteria needed to satisfy the signal Warrant 1B is 53 or more vehicles on the minor approach (left turn lane) and 630 or more on the major approaches. The traffic signal analysis for Warrant 1 is summarized in **Table 7** for the core operation hours of the proposed sports complex.

[2]*Manual on Uniform Traffic Control Devices, 2009 Edition,* ATSSA /ITE/AASHTO, 2009.

TABLE 7
TRAFFIC SIGNAL WARRENT 1 ANALYSIS SUMMARY

Time Period	Total Major Street Volume[1]	Minor Street Volume[2]	Warrant Satisfied? Condition B[3]
6:00 – 7:00 AM	2977	25	No
7:00 – 8:00 AM	3789	64	Yes
8:00 – 9:00 AM	4243	64	Yes
9:00 – 10:00 AM	3179	57	Yes
10:00 – 11:00 AM	2985	56	No
11:00 – 12:00 PM	3098	41	No
12:00 – 1:00 PM	4690	60	Yes
1:00 – 2:00 PM	4455	37	No
2:00 – 3:00 PM	5219	31	No
3:00 – 4:00 PM	5539	63	Yes
4:00 – 5:00 PM	5624	100	Yes
5:00 – 6:00 PM	5759	108	Yes
6:00 – 7:00 PM	5089	55	Yes
7:00 – 8:00 PM	3579	39	No
8:00 – 9:00 PM	2731	8	No
9:00 – 10:00 PM	2182	20	No
		HOURS MET	**9**

[1]Route 9 existing volumes from ATR adjacent to the Site.
[2]Primary Site Drive – left turn volume only
[3]Condition B requirements: Major = 630 vph, Minor = 53 vph

As summarized in **Table 7**, the criteria for traffic signal warrant 1 are satisfied for Condition B. Thus, with the proposed sports complex in place and cross-connecting driveway to the adjacent 88-892 Worcester Road office building a traffic signal is warranted and justified at the Route 9 intersection with Lexington Road/Primary Site Driveway. While not directly accounted for in the traffic signal warrant analysis, it should be noted that signal control would also specifically benefit pedestrian crossings of Route 9 along a route that is proximate to the Cochituate Aquifer Trail system.

5.0 TRAFFIC OPERATIONS ANALYSIS

Intersection capacity analyses for the primary study intersections are presented in this section for the Baseline, No-Build, and Build traffic-volume conditions. Capacity analyses, conducted in accordance with EEA/MassDOT guidelines, provide an index of how well the roadway facilities serve the traffic demands placed upon them. The operational results provide the basis for recommended access and roadway improvements in the following section.

5.1 CAPACITY ANALYSIS PROCEDURES

Capacity analysis of intersections is developed using the Synchro® computer software, which implements the methods of the 2010 Highway Capacity Manual (HCM). The resulting analysis presents a level-of-service (LOS) designation for individual intersection movements. The LOS is a letter designation that provides a qualitative measure of operating conditions based on several factors including roadway geometry, speeds, ambient traffic volumes, traffic controls, and driver characteristics. Since the LOS of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of LOS, depending on the time of day, day of week, or period of year. A range of six levels of service are defined on the basis of average delay, ranging from LOS A (the least delay) to LOS F (delays greater than 50 seconds for unsignalized movements and 80 seconds for signalized movements). The specific control delays and associated LOS designations are presented in the **Appendix.**

5.2 INTERSECTION CAPACITY ANALYSIS RESULTS

Capacity analysis results for the weekday morning weekday evening and Saturday midday peak hour capacity analysis results for the study intersections are described below, with detailed analysis results presented in the **Appendix.**

5.2.1 Level of Service Analysis

The capacity analysis results for the intersections in the study area are summarized in **Table 8, Table 9** and **Table 10** for the weekday morning, weekday evening, and Saturday midday peak hours, respectively. Detailed analysis results are presented in the **Appendix.**

TABLE 8
INTERSECTION CAPACITY ANALYSIS RESULTS
WEEKDAY MORNING PEAK HOUR

Intersection	Approach	2017 Baseline			2024 No-Build			2024 Build		
		v/c[1]	Delay[2]	LOS[3]	v/c	Delay	LOS	v/c	Delay	LOS
Route 9 at Overbrook	Eastbound	0.96	30	C	>1.0	38	D	>1.0	40	D
Dr/	Westbound	0.78	19	B	0.81	21	C	0.86	22	C
CVS Driveway	Northbound	0.12	54	D	0.12	54	D	0.12	54	D
	Southbound	0.90	>80	F	0.90	>80	F	0.90	>80	F
	OVERALL	**0.96**	**27**	**C**	**>1.0**	**33**	**C**	**>1.0**	**34**	**C**
Route 9 at	Eastbound	0.00	<5	A	0.00	<5	A	0.99	15	B
Lexington Rd/	Westbound	0.00	<5	A	0.00	<5	A	0.66	5	A
Site Driveway	WB Left	>1.0	>50	F	>1.0	>50	F	0.49	63	E
	Northbound	0.00	<5	A	0.00	<5	A	0.66	48	D
	Southbound	0.06	20	C	0.07	22	C	0.31	9	A
	OVERALL	**n/a[4]**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**0.99**	**12**	**B**
Route 9 EB Ramps	Eastbound	>1.0	>50	F	>1.0	>50	F	>1.0	>50	F
at Weston Rd	Northbound	0.08	<5	A	0.09	<5	A	0.09	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 WB Ramps	Eastbound	0.21	21	C	0.23	22	C	0.23	22	C
at Weston Rd/	Westbound	0.52	38	E	0.58	43	E	0.58	43	E
Cleveland Rd	Northbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Southbound	0.01	<5	A	0.01	<5	A	0.01	<5	A
Route 9 at	Eastbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Site Driveway	Westbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Northbound	0.00	<5	A	0.00	<5	A	0.13	40	E

[1] Volume-to-capacity ratio
[2] Average control delay per vehicle (in seconds)
[3] Level of service
[4] n/a = not applicable

TABLE 9
INTERSECTION CAPACITY ANALYSIS RESULTS
WEEKDAY EVENING PEAK HOUR

Intersection	Approach	2017 Baseline			2024 No-Build			2024 Build		
		v/c[1]	Delay[2]	LOS[3]	v/c	Delay	LOS	v/c	Delay	LOS
Route 9 at Overbrook Dr/ CVS Driveway	Eastbound	0.83	20	C	0.85	23	C	0.88	26	C
	Westbound	0.73	15	B	0.77	16	B	0.79	14	B
	Northbound	0.40	69	E	0.40	69	E	0.40	69	E
	Southbound	0.79	49	D	0.80	52	D	0.81	53	D
	OVERALL	**0.83**	**19**	**B**	**0.85**	**21**	**C**	**0.88**	**22**	**C**
Route 9 at Lexington Rd/ Site Driveway	Eastbound	0.00	<5	A	0.00	<5	A	0.97	15	B
	Westbound	0.00	<5	A	0.00	<5	A	0.62	6	A
	WB Left	0.13	>50	F	0.16	>50	F	0.59	65	E
	Northbound	0.00	<5	A	0.00	<5	A	0.74	54	D
	Southbound	0.04	19	C	0.04	19	C	0.06	<5	A
	OVERALL	**n/a[4]**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**0.97**	**14**	**B**
Route 9 EB Ramps at Weston Rd	Eastbound	>1.0	>50	F	>1.0	>50	F	0.99	>50	F
	Northbound	0.09	<5	A	0.09	<5	A	0.09	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 WB Ramps at Weston Rd/ Cleveland Rd	Eastbound	0.45	36	E	0.53	42	E	0.51	40	E
	Westbound	>1.0	>50	F	>1.0	>50	F	>1.0	>50	F
	Northbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Southbound	0.01	<5	A	0.01	<5	A	0.01	<5	A
Route 9 at Site Driveway	Eastbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Westbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Northbound	0.00	<5	A	0.00	<5	A	0.08	28	D

[1] Volume-to-capacity ratio
[2] Average control delay per vehicle (in seconds)
[3] Level of service
[4] n/a = not applicable

TABLE 10
INTERSECTION CAPACITY ANALYSIS RESULTS
SATURDAY MIDDAY PEAK HOUR

Intersection	Approach	2017 Baseline			2024 No-Build			2024 Build		
		v/c[1]	Delay[2]	LOS[3]	v/c	Delay	LOS	v/c	Delay	LOS
Route 9 at	Eastbound	0.74	16	B	0.77	17	B	0.79	18	B
Overbrook Dr/	Westbound	0.87	22	C	0.91	25	C	0.97	32	C
CVS Driveway	Northbound	0.16	39	D	0.16	39	D	0.16	39	D
	Southbound	0.40	27	C	0.41	28	C	0.41	28	C
	OVERALL	**0.87**	**19**	**B**	**0.91**	**21**	**C**	**0.97**	**25**	**C**
Route 9 at	Eastbound	0.00	<5	A	0.00	<5	A	0.80	20	B
Lexington Rd/	Westbound	0.00	<5	A	0.00	<5	A	0.73	8	A
Site Driveway	WB Left	0.13	47	E	0.14	>50	F	0.42	41	D
	Northbound	0.00	<5	A	0.00	<5	A	0.39	23	C
	Southbound	0.03	21	C	0.03	22	C	0.04	<5	A
	OVERALL	**n/a[4]**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**0.80**	**14**	**B**
Route 9 EB Ramps	Eastbound	0.74	39	E	0.82	49	E	0.76	41	E
at Weston Rd	Northbound	0.06	<5	A	0.06	<5	A	0.06	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 WB Ramps	Eastbound	0.11	13	B	0.12	14	B	0.12	14	B
at Weston Rd/	Westbound	0.22	16	C	0.24	17	C	0.24	16	C
Cleveland Rd	Northbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 at	Eastbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Site Driveway	Westbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Northbound	0.00	<5	A	0.00	<5	A	0.05	21	C

[1] Volume-to-capacity ratio
[2] Average control delay per vehicle (in seconds)
[3] Level of service
[4] n/a = not applicable

As summarized in **Table 8, Table 9, and Table 10:**

- *Route 9 at Lexington Street/Primary Site Driveway.* Under No-Build (unsignalized) conditions the westbound U-Turns at this intersection operates with long delays during the peak hours. Signal control would improve operations to LOS B or better during the peak hours. Assuming coordinated signal control with the nearby Overbrook Drive and Oak Street intersections, the mainline travel along Route 9 will continue to operate with minimal delay during the weekday morning and evening peak hours; westbound U-Turns/left turns will be facilitated with delays of approximately 1 minute or less with queues that are entirely accommodated within available lane storage.

- *Route 9 Eastbound ramps at Weston Road.* Under No-Build conditions left-turns onto Weston Road operates with long delays during peak hours. Assuming signal control is implemented at the Site and driveway cross-connection to the adjacent office building, the intersection of Route 9 eastbound ramps at Weston Road will experience a net trip reduction of up to 100 vehicles during the peak hours with associated net reduction in travel delay for left-turns.

- *Route 9 Westbound ramps at Weston Road.* Under No-Build conditions left-turns onto Weston Road will operate with long delays during the weekday evening peak hour.. Assuming signal control is implemented at the Site and driveway cross-connection to the adjacent office building, the intersection of Route 9 eastbound ramps at Weston Road will incur a net trip reduction of up to 100 vehicles during the peak hours with associated net reduction in travel delay for left-turns.

- *Route 9 at Secondary Site Driveway (Right-out only).* Under Build conditions, the proposed secondary site driveways approach to Route 9 will operate below capacity during the peak hours. Mainline travel along Route 9 eastbound will remain unimpeded.

In summary, proposed signal control at the primary Site driveway will accommodate peak Site operations with modest delays (LOS C or better) with neutral impact to the nearby interchange of Weston Road at Route 9. A cross-connecting driveway between the property and adjoining office building at 888-894 Worcester Road would result in a further net trip reduction at the interchange during peak hours relative to existing conditions that would result in reduced delays/improved operations relative to No-Build conditions. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system.

5.2.2 Vehicle Queue Analysis

Vehicle queue results are presented for the signalized intersections in the study area. These vehicle queues are compared to available storage lengths, which are defined as lengths of exclusive turn lanes or the distance to the nearest major intersection for through lanes. Vehicle queue results from the capacity analysis are summarized in **Table 11** and **Table 12**. Detailed worksheets of the queuing analysis are provided in the **Appendix**.

TABLE 11
VEHICLE QUEUE ANALYSIS SUMMARY
WORCESTER STREET ROUTE 9 AT OVERBROOK DRIVE/CVS DRIVEWAY

Approach	Storage Length (feet)	2024 No-Build		2024 Build	
		Average Queue Length[1]	95th Percentile Queue Length[1]	Average Queue Length	95th Percentile Queue Length
Weekday Morning Peak Hour					
Eastbound L	250+	68	123	68	123
Eastbound T/R	1850±	915	1182	976	1200
Westbound L	355±	64	155	62	95
Westbound T/R	1700±	522	653	462	571
Northbound L	150±	<25	29	<25	29
Northbound R	50±	<25	<25	<25	<25
Southbound L/T/R	>1000	95	221	95	221
Weekday Evening Peak Hour					
Eastbound L	250+	69	168	69	168
Eastbound T/R	1850±	671	1024	840	1077
Westbound L	355±	<25	55	<25	31
Westbound T/R	1700±	485	587	386	455
Northbound L	150±	<25	49	<25	49
Northbound R	50±	<25	<25	<25	<25
Southbound L/T/R	>1000	80	183	83	187
Saturday Midday Peak Hour					
Eastbound L	250+	34	76	34	76
Eastbound T/R	1850±	249	377	256	402
Westbound L	355±	<25	46	<25	46
Westbound T/R	1700±	296	463	314	493
Northbound L	150±	<25	35	<25	35
Northbound R	50±	<25	<25	<25	<25
Southbound L/T/R	>1000	<25	63	<25	62

[1]Average and 95th percentile queue lengths are reported in feet per lane.

TABLE 12
VEHICLE QUEUE ANALYSIS SUMMARY
WORCESTER STREET ROUTE 9 AT SITE DRIVEWAY/ LEXINGTON ROAD

		2024 Build	
Approach	Storage Length (feet)	Average Queue Length	95th Percentile Queue Length
Weekday Morning Peak Hour			
Eastbound L	200+	<25	<25
Eastbound T/R	1700±	1218	1237
Westbound L	250±	56	104
Westbound T/R	>2000	289	614
Northbound L/T	200±	55	119
Northbound R	125±	<25	<25
Southbound L/T/R	>1000	<25	<25
Weekday Evening Peak Hour			
Eastbound L	200+	<25	<25
Eastbound T/R	1700±	1023	1183
Westbound L	250±	77	134
Westbound T/R	>2000	285	345
Northbound L	200±	84	164
Northbound R	125±	<25	<25
Southbound L/T/R	>1000	<25	<25
Saturday Midday Peak Hour			
Eastbound L	200+	<25	<25
Eastbound T/R	1700±	475	798
Westbound L	250±	42	89
Westbound T/R	>2000	312	528
Northbound L	200±	29	69
Northbound R	125±	<25	<25
Southbound L/T/R	>1000	<25	<25

[1]Average and 95th percentile queue lengths are reported in feet per lane.

As presented in **Table 11** and **Table 12,** the average and 95th percentile vehicle queues at the signalized study intersection will generally be contained within available storage lanes under Build conditions during peak hours. The project will not significantly change queue lengths compared to No-Build conditions and will generally result in an increase of 1 vehicle or less on all approaches.

6.0 PARKING ANALYSIS

This parking evaluation has been prepared in support of the sports complex which is proposed to be supported by 355± parking spaces. Peak parking requirements are based on parking rates published by the Institute of Transportation Engineers (ITE) and empirical parking data.

6.1 PROJECTED PEAK PARKING DEMAND

Empirical time-of-day factors based on observations at health clubs in Framingham and Westborough, MA in January 2007 and the Essex Sports Club in Middleton, MA in March 2017 were used to model the parking demands at the Site and to estimate the peak parking demand on a weekday and on a Saturday. The estimated peak parking demands for the site are therefore based on a database of parking characteristics for the various uses as published in *ITE's Parking Generation* and empirical data. **Table 13** summarizes the peak parking demand for the sports complex based on ITE and empirical parking methodology. Projected hourly peak parking demand calculations are presented in the **Appendix**.

TABLE 13
PEAK PARKING DEMAND

Day of Week	Empirical Data[1]	ITE Data[2]
Weekday	**308**	300
Saturday	**322**	279

[1]Based on empirical parking data for health club (35,000 sf) and soccer complex uses (3 fields).
[2]Based on ITE Parking Generation 4th Edition applied to LUC 492 Health/Fitness Club (35,000 sf) and LUC Soccer Complex (3 fields).

As shown in **Table 13:**

- *Empirical Parking Rates.* Applying empirical parking demand rates for the sports complex results in a peak parking demand for the Site of 308 spaces on a weekday and 322 spaces on a Saturday.

- *ITE Parking Rates.* Applying ITE parking demand rates for the sports complex results in a peak parking demand for the Site of 300 spaces on a weekday and 279 spaces on a Saturday.

The proposed parking supply at the site of 355± marked parking spaces is projected to adequately accommodate the anticipated parking demand of up to 322 parked vehicles under typical facility operating conditions. To the extent special programming is planned for the sports complex facility (for example, hockey tournaments and swim meets) additional parking may be required subject to a parking management protocol to be developed by Proponent. The Proponent anticipates 10-15 events a year that may require overflow parking and is currently in discussions with owner of the adjacent office buildings located at 888-892 Worcester Street as one potential location to accommodate the special event parking overflow if necessary. The special events typically occur on holiday weekends and are also anticipated to include the Wellesley/Newton hockey games.

7.0 UNSIGNALIZED ACCESS ALTERNATIVE

To the extent MassDOT does not support a traffic signal at the primary site driveway, the Proponent is considering an alternative unsignalized access plan for the primary site driveway intersection with Route 9. Under this unsignalized scenario the primary site driveway will allow left-in and right-in access but would restrict egress onto Route 9 to right-turn only. Assessment of this unsignalized access alternative is provided below.

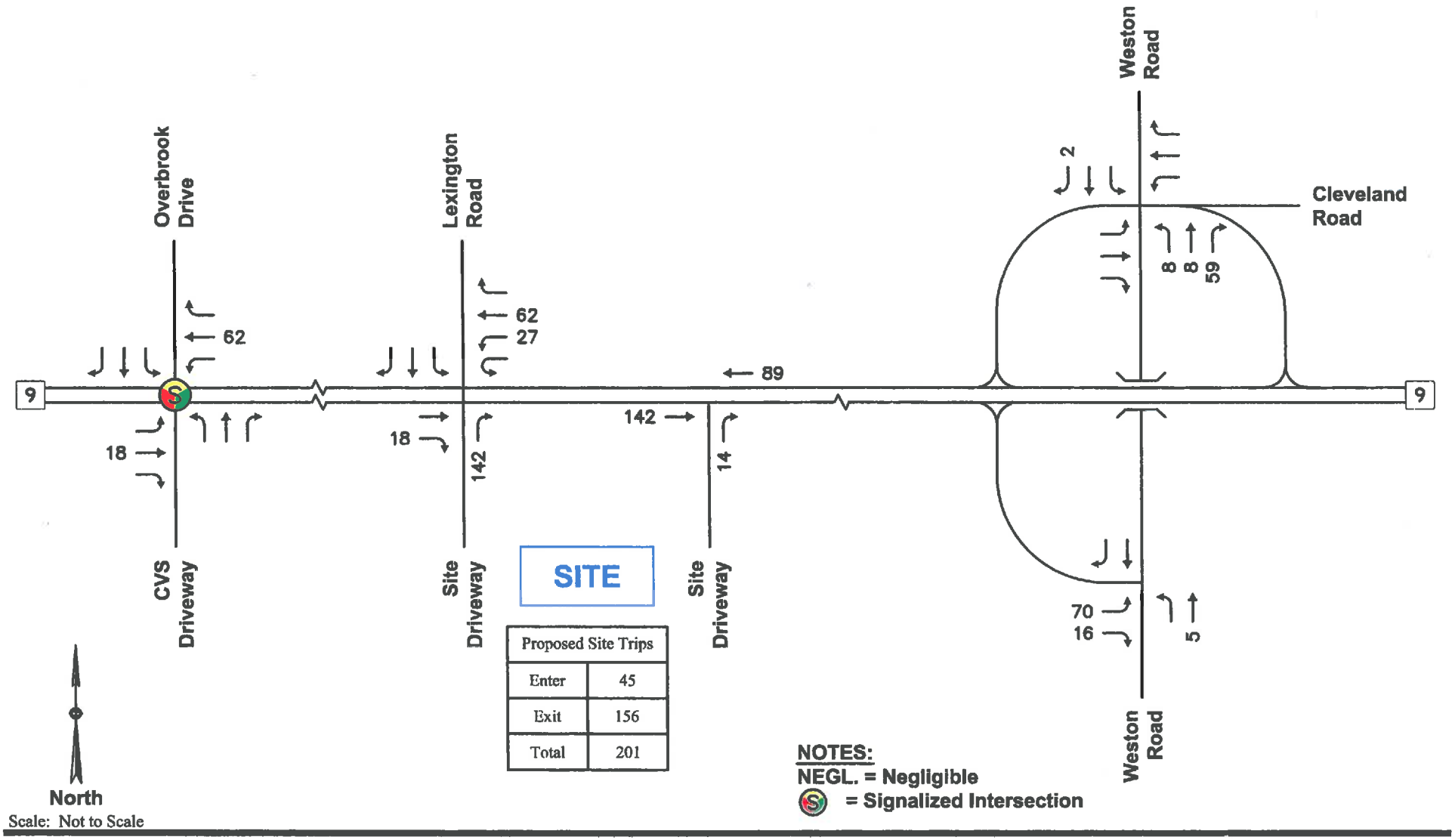
7.1 TRIP DISTRIBUTION

The distribution for projected traffic for the proposed sports complex under the unsignalized access alternative would continue to be distributed as presented in **Figure 9**. However, with left-turn egress restricted onto Route 9, vehicle trips from the Site would be required to use Weston Road to reverse direction to access Route 9 westbound. Likewise, the adjacent office development at 888 – 892 Worcester Street would also continue to use Weston Road to access Route 9 westbound. As previously mentioned 60% of the trips from the adjacent office building are projected to arrive and depart to/from the west along Route 9.

Development-related trips for the sports complex were assigned to the roadway network using the trip-generation estimates shown in **Table 6** and the distribution patterns presented in **Figure 9**. New development-related trips under the alternative access plan at each intersection approach for the weekday morning, weekday evening, and Saturday peak hours are quantified in **Figure 16, Figure 17**, and **Figure 18,** respectively.

7.2 ALTERNATIVE BUILD TRAFFIC VOLUMES

Future Build condition traffic volumes were arrived at by adding development-specific traffic volumes to the 2024 No-Build conditions. The resulting 2024 Build condition (Alternative) traffic-volume networks for the weekday morning, weekday evening and Saturday midday peak hours are displayed in **Figure 19, Figure 20**, and **Figure 21**, respectively.



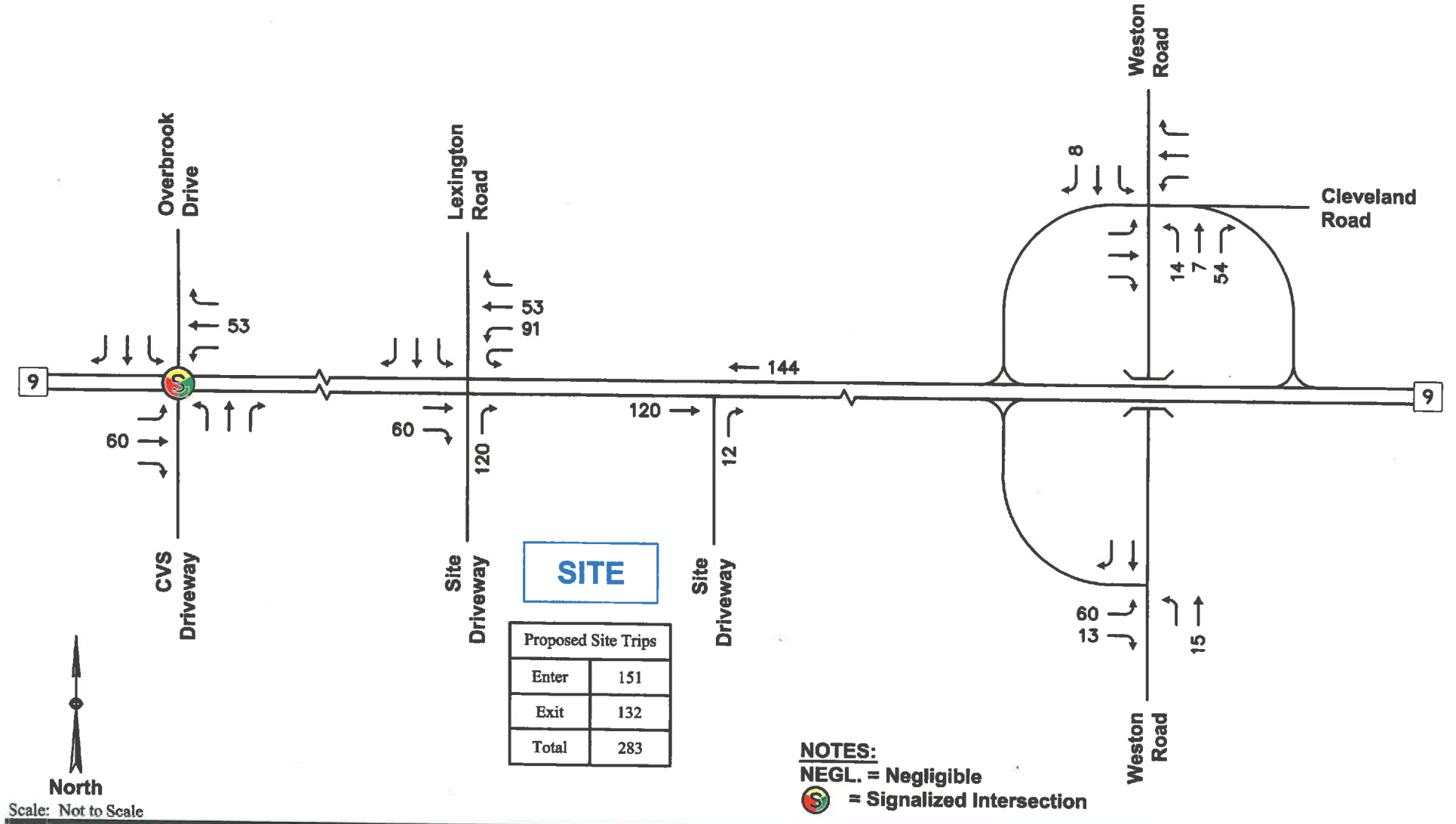
Proposed Site Trips	
Enter	45
Exit	156
Total	201

Figure 16

Site Generated Trips
Weekday Morning Peak Hour Traffic Volumes
(Unsignalized Access Alternative)

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Date: March 2017
Dwg No. 923 TIAS.dwg



MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Figure 17

Site Generated Trips
Weekday Evening Peak Hour Traffic Volumes
(Unsignalized Access Alternative)

Date: March 2017
Dwg No. 923 TIAS.dwg

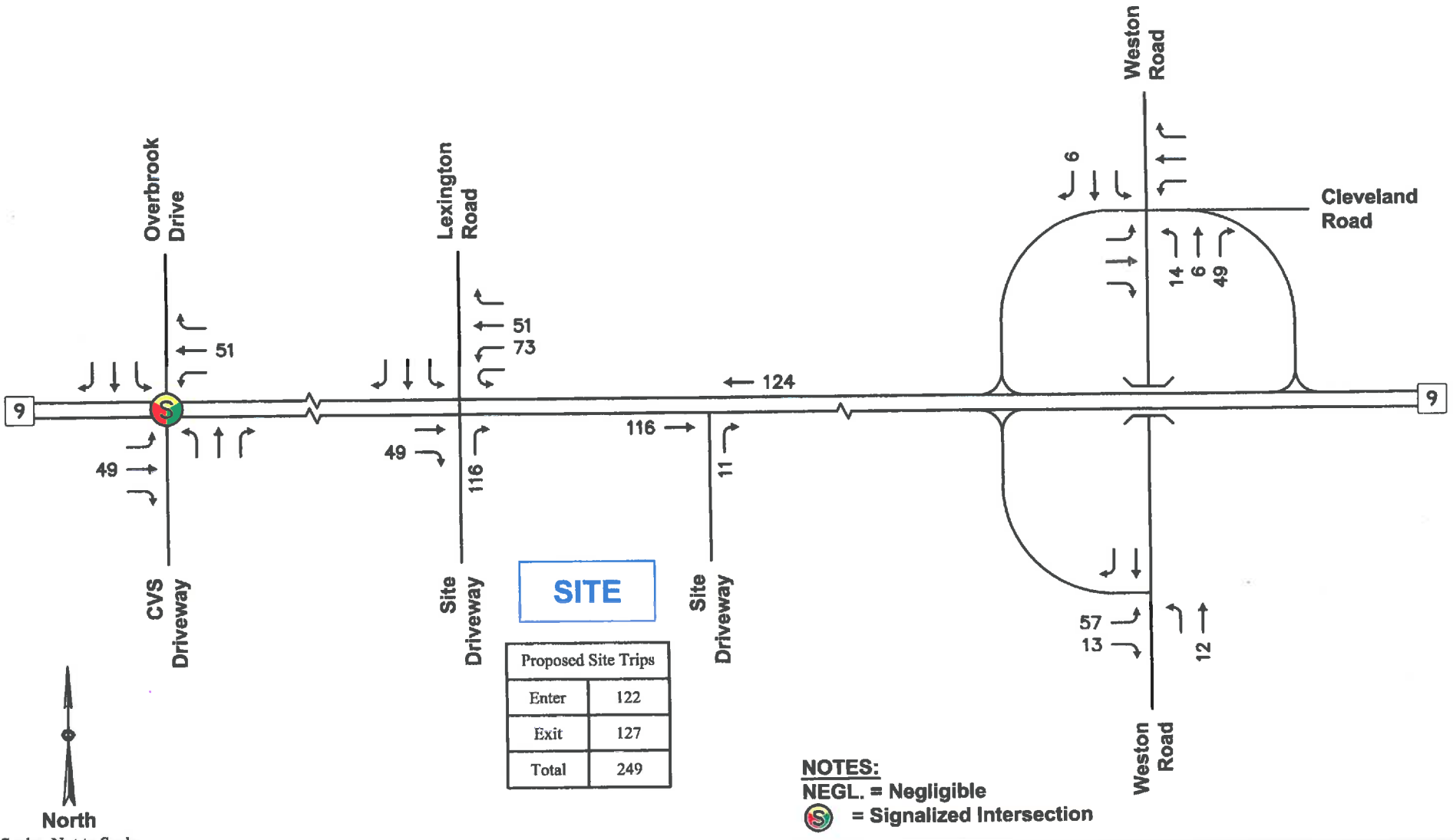


Figure 18

Site Generated Trips
Saturday Midday Peak Hour Traffic Volumes
(Unsignalized Access Alternative)

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Date: March 2017
Dwg No. 923 TIAS.dwg

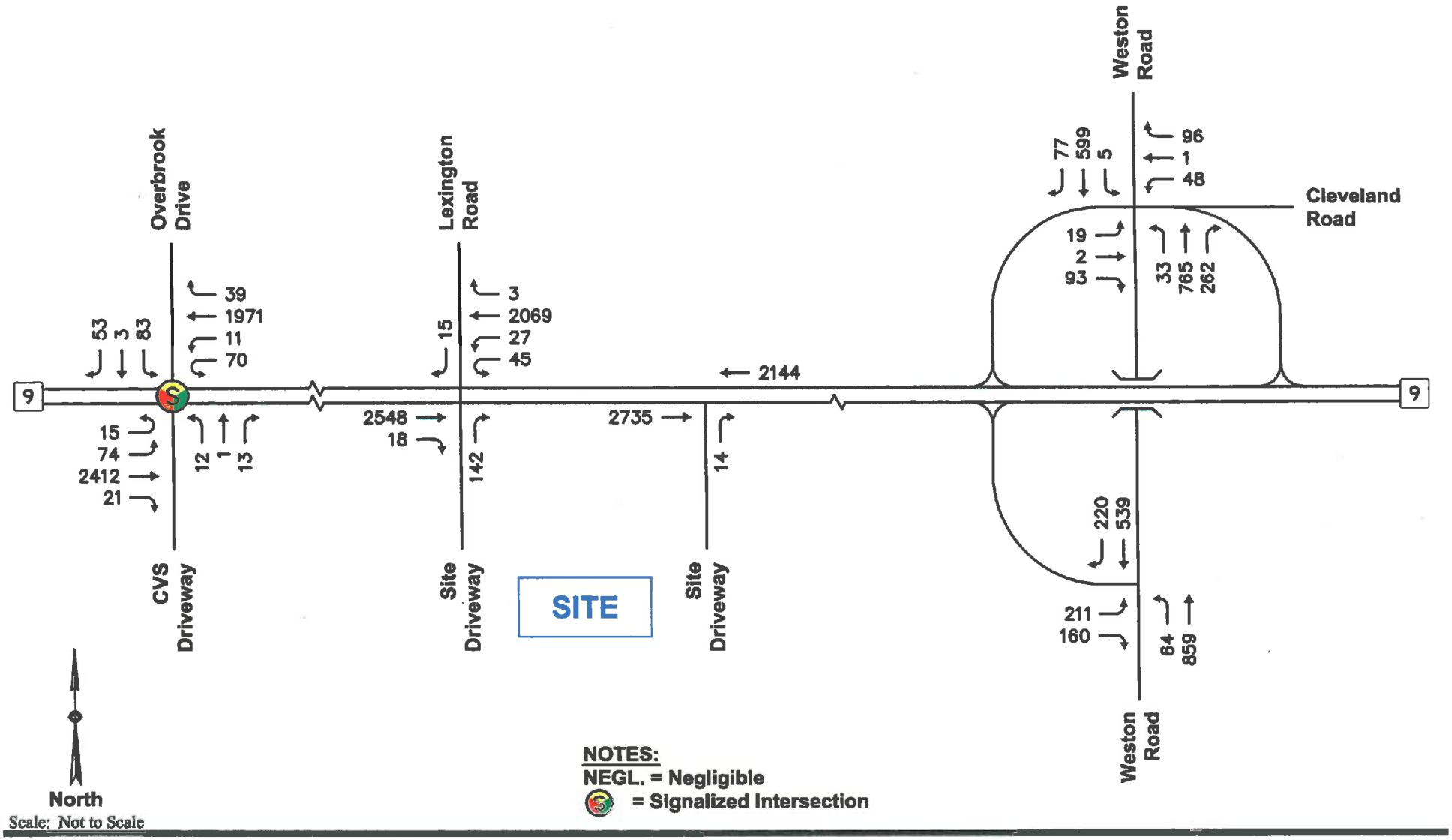


Figure 19

2024 Alternate Build Conditions
Weekday Morning Peak Hour Traffic Volumes
(Unsignalized Access Alternative)

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Date: March 2017
Dwg No. 923 TIAS.dwg

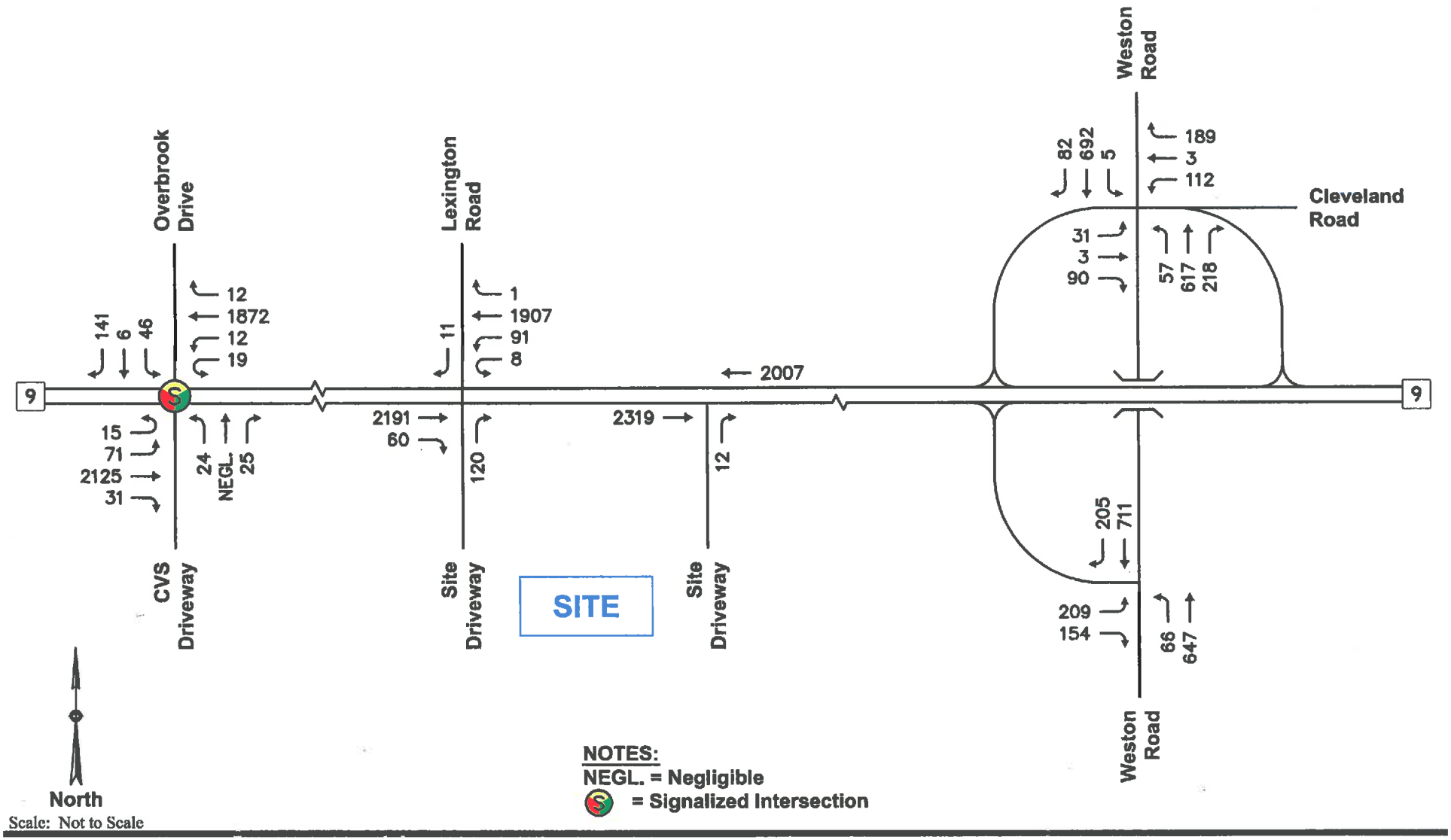
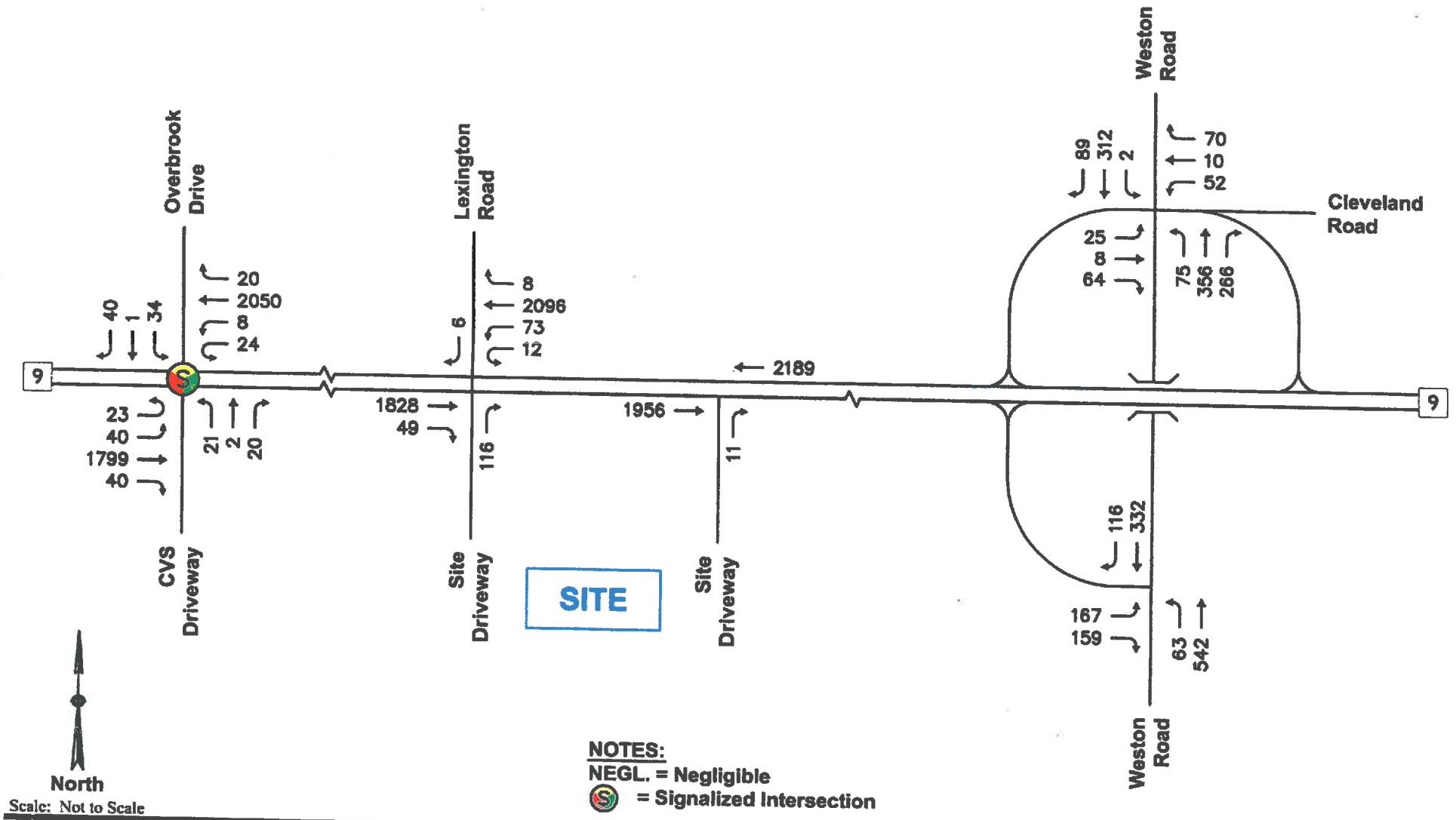


Figure 20

2024 Alternate Build Conditions
Weekday Evening Peak Hour Traffic Volumes
(Unsignalized Access Alternative)

MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Date: March 2017
Dwg No. 923 TIAS.dwg



MDM TRANSPORTATION CONSULTANTS, INC.
Planners & Engineers

Figure 21

2024 Alternate Build
Saturday Midday Peak Hour Traffic Volumes
(Unsignalized Access Alternative)

Date: March 2017
Dwg No. 923 TIAS.dwg

7.3 INTERSECTION CAPACITY ANALYSIS RESULTS

Capacity analysis results for the weekday morning, weekday evening and Saturday midday peak hour capacity analysis results for the study intersections under the unsignalized access alternative are described below, with detailed analysis results presented in the **Appendix**.

7.3.1 Level of Service Analysis

The capacity analysis results for the intersections in the study area are summarized in **Table 14**, **Table 15** and **Table 16** for the weekday morning, weekday evening, and Saturday midday peak hours, respectively. Detailed analysis results are presented in the **Appendix**.

TABLE 14
INTERSECTION CAPACITY ANALYSIS RESULTS
WEEKDAY MORNING PEAK HOUR
(UNSIGNALIZED ACCESS ALTERNATIVE)

		2024 No-Build			2024 Build (Signalized)			2024 Build (Alternative)		
Intersection	Approach	v/c[1]	Delay[2]	LOS[3]	v/c	Delay	LOS	v/c	Delay	LOS
Route 9 at Overbrook Dr/ CVS Driveway	Eastbound	>1.0	38	D	>1.0	40	D	>1.0	40	D
	Westbound	0.81	21	C	0.86	22	C	0.86	24	C
	Northbound	0.12	54	D	0.12	54	D	0.12	54	D
	Southbound	0.90	>80	F	0.90	>80	F	0.90	>80	F
	OVERALL	**>1.0**	**33**	**C**	**>1.0**	**34**	**C**	**>1.0**	**34**	**C**
Route 9 at Lexington Rd/ Site Driveway	Eastbound	0.00	<5	A	0.99	15	B	0.00	<5	A
	Westbound	0.00	<5	A	0.66	5	A	0.00	<5	A
	WB Left	>1.0	>50	F	0.49	>50	F	>1.0	>50	F
	Northbound	0.00	<5	A	0.66	48	D	0.98	>50	F
	Southbound	0.07	22	C	0.31	9	A	0.07	23	C
	OVERALL	**n/a**	**n/a**	**n/a**	**0.99**	**12**	**B**	**n/a**	**n/a**	**n/a**
Route 9 EB Ramps at Weston Rd	Eastbound	>1.0	>50	F	>1.0	>50	F	>1.0	>50	F
	Northbound	0.09	<5	A	0.09	<5	A	009	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 WB Ramps at Weston Rd/ Cleveland Rd	Eastbound	0.23	22	C	0.23	22	C	0.23	23	C
	Westbound	0.58	43	E	0.58	43	E	0.60	45	E
	Northbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Southbound	0.01	<5	A	0.01	<5	A	0.01	<5	A
Route 9 at Site Driveway	Eastbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Westbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Northbound	0.00	<5	A	0.13	40	E	0.13	41	E

[1] Volume-to-capacity ratio
[2] Average control delay per vehicle (in seconds)
[3] Level of service
[4] n/a = not applicable

TABLE 15
INTERSECTION CAPACITY ANALYSIS RESULTS
WEEKDAY EVENING PEAK HOUR
(UNSIGNALIZED ACCESS ALTERNATIVE)

		2024 No-Build			2024 Build (Signalized)			2024 Build (Alternative)		
Intersection	Approach	v/c[1]	Delay[2]	LOS[3]	v/c	Delay	LOS	v/c	Delay	LOS
Route 9 at Overbrook Dr/ CVS Driveway	Eastbound	0.85	23	C	0.88	26	C	0.88	26	C
	Westbound	0.77	16	B	0.79	14	B	0.79	17	B
	Northbound	0.40	69	E	0.40	69	E	0.40	69	E
	Southbound	0.80	52	D	0.81	53	D	0.81	43	D
	OVERALL	**0.85**	**21**	**C**	**0.88**	**22**	**C**	**0.88**	**23**	**C**
Route 9 at Lexington Rd/ Site Driveway	Eastbound	0.00	<5	A	0.97	15	B	0.00	<5	A
	Westbound	0.00	<5	A	0.62	6	A	0.00	<5	A
	WB Left	0.16	>50	A	0.59	>50	F	0.98	>50	F
	Northbound	0.00	<5	A	0.74	54	D	0.64	>50	F
	Southbound	0.04	19	C	0.06	<5	A	0.05	20	C
	OVERALL	**n/a**	**n/a**	**n/a**	**0.97**	**14**	**B**	**n/a**	**n/a**	**n/a**
Route 9 EB Ramps at Weston Rd	Eastbound	>1.0	>50	F	0.99	>50	F	>1.0	>50	F
	Northbound	0.09	<5	A	0.09	<5	A	0.09	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 WB Ramps at Weston Rd/ Cleveland Rd	Eastbound	0.53	42	E	0.51	40	E	0.54	42	E
	Westbound	>1.0	>50	F	>1.0	>50	F	>1.0	>50	F
	Northbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Southbound	0.01	<5	A	0.01	<5	A	0.01	<5	A
Route 9 at Site Driveway	Eastbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Westbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Northbound	0.00	<5	A	0.08	28	D	0.08	29	D

[1] Volume-to-capacity ratio
[2] Average control delay per vehicle (in seconds)
[3] Level of service
[4] n/a = not applicable

TABLE 16
INTERSECTION CAPACITY ANALYSIS RESULTS
SATURDAY MIDDAY PEAK HOUR
(UNSIGNALIZED ACCESS ALTERNATIVE)

Intersection	Approach	2024 No-Build			2024 Build (Signalized)			2024 Build (Alternative)		
		v/c[1]	Delay[2]	LOS[3]	v/c	Delay	LOS	v/c	Delay	LOS
Route 9 at	Eastbound	0.77	17	B	0.79	18	B	0.79	18	B
Overbrook Dr/	Westbound	0.91	25	C	0.97	32	C	0.93	27	C
CVS Drivway	Northbound	0.16	39	D	0.16	39	D	0.16	39	D
	Southbound	0.41	28	C	0.41	28	C	0.41	28	C
	OVERALL	**0.91**	**21**	**C**	**0.97**	**25**	**C**	**0.93**	**23**	**C**
Route 9 at	Eastbound	0.00	<5	A	0.80	20	B	0.00	<5	A
Lexington Rd/	Westbound	0.00	<5	A	0.73	8	A	0.00	<5	A
Site Driveway	WB Left	0.14	>50	F	0.42	41	D	0.59	>50	F
	Northbound	0.00	<5	A	0.39	23	C	0.48	32	D
	Southbound	0.03	22	C	0.04	<5	A	0.03	23	C
	OVERALL	**n/a**	**n/a**	**n/a**	**0.80**	**14**	**B**	**n/a**	**n/a**	**n/a**
Route 9 EB Ramps	Eastbound	0.82	49	E	0.76	41	E	>1.0	>50	F
at Weston Rd	Northbound	0.06	<5	A	0.06	<5	A	0.06	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 WB Ramps	Eastbound	0.12	14	B	0.12	14	B	0.12	14	B
at Weston Rd/	Westbound	0.24	17	C	0.24	16	C	0.24	17	C
Cleveland Rd	Northbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Southbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Route 9 at	Eastbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
Site Driveway	Westbound	0.00	<5	A	0.00	<5	A	0.00	<5	A
	Northbound	0.00	<5	A	0.05	21	C	0.05	22	C

[1] Volume-to-capacity ratio
[2] Average control delay per vehicle (in seconds)
[3] Level of service
[4] n/a = not applicable

As summarized in **Table 14, Table 15, and Table 16**, the proposed development without a signal at the primary site driveway does not result in any significant change in operations at the study intersections of Route 9 at Overbrook Drive or Route 9/Weston Road interchange compared to No-Build conditions; under this scenario a moderate increase in left-turns (60-70 peak hour trips) at the Route 9 eastbound ramp/Weston Road is projected during peak facility operating periods.

8.0 RECOMMENDATIONS AND CONCLUSIONS

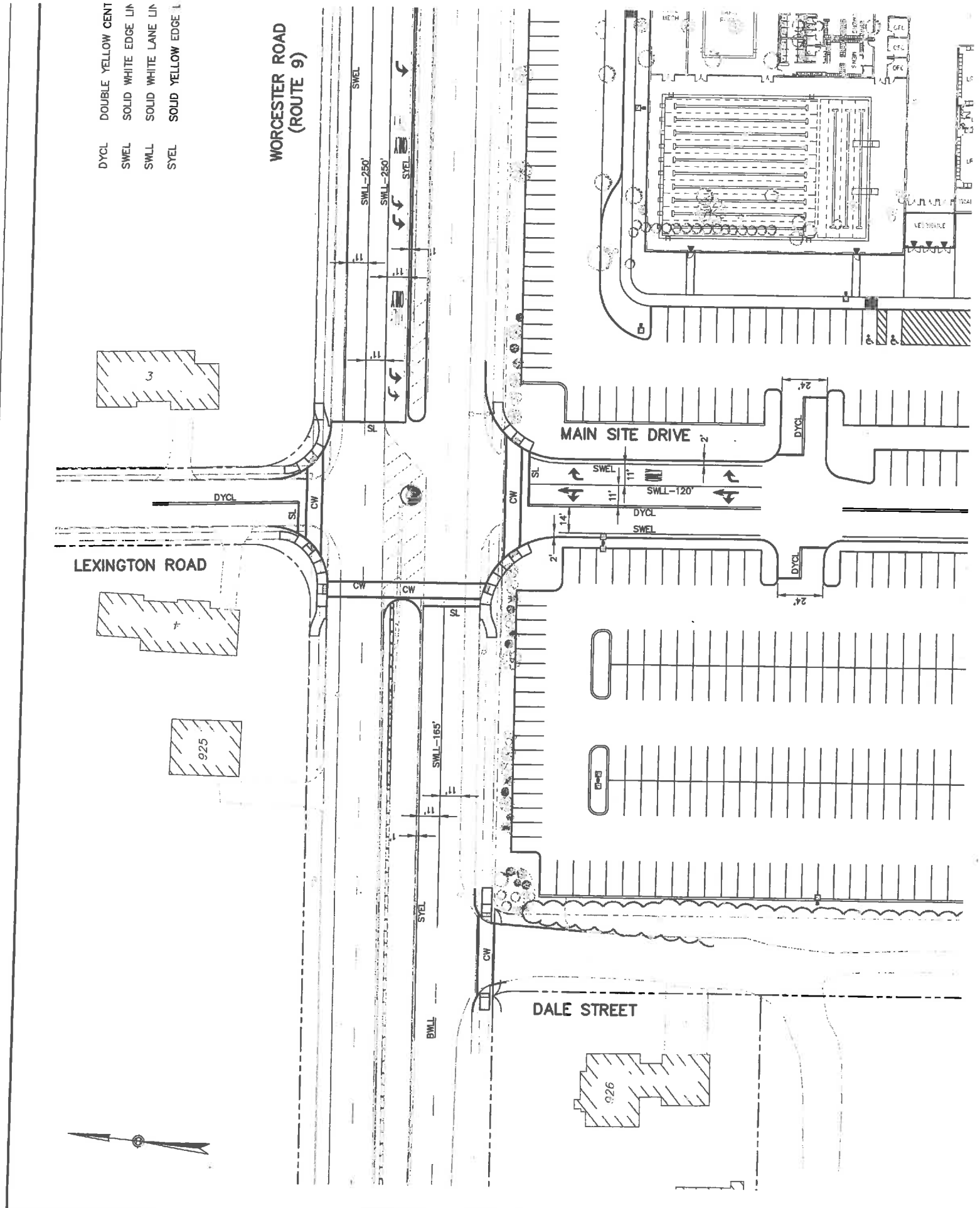
8.1 RECOMMENDATIONS

Trip generation for the development is estimated at approximately 201 trips during the weekday morning peak hour, 283 trips during the weekday evening peak hour, and 249 vehicle trips during the Saturday midday peak hour. The incremental traffic associated with the proposed development is not expected to materially impact operating conditions at the study intersections compared to No-Build conditions away from the primary site driveway. Relative to No-Build conditions, the project, by providing a cross-connecting driveway to the adjacent office building, will provide a net *reduction* in trips (on the order of 60 fewer trips) at the Weston Road interchange during the peak hours. Access improvements, as shown conceptually in **Figure 22,** that support projected traffic increases associated with the proposed development at the Route 9/Lexington Road/Primary Site Driveway intersection are identified that aim to minimize/offset project-related traffic impacts and address access needs for the Site. Recommended improvements include (a) access-related improvements, (b) off-site improvements, (c) special event parking management protocol, and (d) implement a robust TDM program. The mitigation commitments by the Proponent will be further refined as the project undergoes the local and state-level review processes and the MassDOT Access Permit process.

8.2 ACCESS/EGRESS IMPROVEMENTS

MDM recommends access-related improvements aimed at enhancing traffic operations and/or travel safety including the following which are subject to MassDOT permit requirements:

- *Pedestrian Facilities.* Sidewalks connecting the development to the existing sidewalk system along Route 9 are anticipated to encourage non-vehicle travel. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system.


DYCL DOUBLE YELLOW CENT
SWEL SOLID WHITE EDGE LIN
SWLL SOLID WHITE LANE LIN
SYEL SOLID YELLOW EDGE L
WORCESTER ROAD (ROUTE 9)
SWEL
SWLL-250'
SWLL-250'
SYEL
11'
11'
11'
SL
CW
DYCL
LEXINGTON ROAD
3
4
925
926
MAIN SITE DRIVE
24'
DYCL
2'
SWEL
11'
11'
SWLL-120'
DYCL
14'
SWEL
2'
DYCL
24'
CW
CW
SL
SWLL-165'
11'
11'
SYEL
BWLL
CW
DALE STREET

- *Secondary Driveway Restriction.* The existing secondary driveways serving Site will be restricted to right-turn egress-only movements.

- A "STOP" sign (R1-1), "One-Way" (R6-1), and "Do-Not Enter" (R5-1) signs are recommended on the proposed secondary site driveway intersection with Route 9. Accordingly, a marked "STOP" line and right turn arrow pavement marking will also be installed. The signs and pavement markings will be compliant with the Manual on Uniform Traffic Control Devices (MUTCD).

- Plantings (shrubs, bushes) and structures (walls, fences, etc.) should be maintained at a height of 2 feet or less above the adjacent roadway grade within the sight lines in vicinity of the Route 9 in order to continue to provide unobstructed sight lines.

Route 9 at Lexington Road/Primary Site Driveway

In order to accommodate the proposed sports complex and to mitigate traffic impacts at the Route 9 eastbound off-ramp/Weston Road intersection (most notably, the eastbound left-turns), MDM recommends that geometric improvements be implemented at the Primary Site Driveway/Lexington Road intersection along Route 9. As these improvements represent a preferred Build program for access/egress at the Site, they are assumed under the Build condition capacity analyses presented in *Section 4* of this TIAS. Proponent-sponsored improvements at the intersection of Route 9 and Primary Site Driveway/Lexington Road are shown in **Figure 22** and include a) coordinated signal control with the nearby signals at Overbrook Drive and Oak Street; b) an exclusive westbound left-turn lane along Route 9 to enter the site; c) a two-lane Site driveway approach to Route 9 with separate left- and right-turn exiting lanes; d) exclusive pedestrian crossing of Route 9 with pushbutton activation; and (e) closure of the median island break along Route 9 near the secondary site driveway. The design specifically excludes an eastbound left-turn lane on the basis that eastbound Route 9 access to the neighborhoods north of Route 9 are accommodated at nearby Overbrook Drive which has been subject to a monitoring program as part of the recently completed CVS development approvals.

8.3 SPECIAL EVENT PARKING MANAGMENT

The proposed parking supply at the site of 355± marked parking spaces is projected to adequately accommodate the anticipated parking demand of up to 322 parked vehicles under typical facility operating conditions. To the extent special programming is planned for the sports complex facility (for example, hockey tournaments and swim meets) additional parking may be required subject to a parking management protocol to be developed by Proponent. The Proponent anticipates 10-15 events a year that may require overflow parking and is currently in discussions with owner of the adjacent office buildings located at 888-892 Worcester Street as one potential location to accommodate the special event parking overflow if necessary. The special events typically occur on holiday weekends and are also anticipated to include the Wellesley/Newton hockey games.

8.4 TRANSPORTATION DEMAND MANAGEMENT (TDM)

The Proponent commits to reduce auto dependency for the sports complex by implementing a TDM program. A preliminary list of potential TDM program elements may include the following, subject to refinement of the development program and further evaluation by the Proponent:

- *On-Site Transportation Coordinator.* The Proponent will designate an on-site transportation coordinator. The transportation coordinator will be responsible for disseminating relevant TDM information to employees including posting TDM information at appropriate locations within the buildings. Such postings may include making information on MassRides available to employees at orientation.

- *MassRides.* MassRides is the Executive Office of Transportation's statewide travel options program providing free assistance to commuters, employers, students, and other traveler markets. MassRides programs may encourage workers to use alternative forms of transportation such as carpooling, vanpooling, and to utilize a large database for rideshare matching. The Proponent will promote commuter assistance programs available through MassRides as part of the employee orientation programs. MassRides information will also be posted.

- *Regional Transit Authority (MWRTA) Transit Stop.* The Proponent will work with the MWRTA to dedicated bus stop on-site or adjacent to the Site along Route 9 as part of the existing Bus Route 1 which currently provides flag down service along Route 9.

- *Provide a Bus Drop-Off/Parking Area.* The Proponent will provide a dedicated bus drop-off/ parking area on-site that is adjacent to a main entranceway to promote bus use by local and regional sports teams.

- *Public Transportation Information & Promotion.* Posting of service and schedule information for employees and patrons; on-site sale of transit passes to promote the use of public transportation by employees and patrons.

- *Consideration of an Employee Transit Pass Subsidy.* The Proponent will consider providing a transit pass subsidy for all full-time employees.

- *Pedestrian Infrastructure/Walking Incentives.* The proposed site layout will include additional sidewalks to proposed building that connects to the existing sidewalk system along Route 9 and to the parking areas.

- *Tenant Manual for Employee Services.* The Proponent will prepare a Tenant Manual that will offer their employees: 1) direct deposit of paychecks; 2) transit pass subsidies; and 3) a guaranteed ride home program for employees who van/carpool.

- *On-Site Amenities.* The project will include a number of on-site amenities that will promote employees and patrons to remain on-site. These services include but are not limed to food services, an on-site pro-shop, on-site equipment sales and services, and on-site showers.

- *Electric Vehicle Charging Stations and Preferential Parking for Low-Emission Vehicles.* Preferential parking locations for those who use low-emission vehicles will be provided on-site. The number and location of the electric vehicle charging station(s) will be identified more specifically during the local site plan review and approval process.

- *Preferential Parking for Carpools and Vanpools.* Preferential parking locations for those who for carpools and vanpools will be provide on-site. The number and location of the parking space(s) will be identified more specifically during the local site plan review and approval process.

- *No Idling Signage.* Installation of "No Idling" signs at the site's commercial vehicle parking areas/bus area to reduce the amount of greenhouse gasses emitted.

8.5 CONCLUSIONS

In summary, trip generation for the development is projected to only moderately increase traffic activity on area roadways relative to existing/baseline conditions with no material impact to operating conditions at primary study intersections. This assessment indicates that there is ample capacity at these study locations to accommodate these project-related traffic increases without the need for major infrastructure enhancements.

Proposed signal control at the primary Site driveway will accommodate peak Site operations with modest delays (LOS C or better) with neutral impact to the nearby interchange of Weston Road at Route 9. A cross-connecting driveway between the property and adjoining office building at 888-894 Worcester Road would result in a further net trip reduction at the interchange during peak hours relative to existing conditions that would result in reduced delays/improved operations relative to No-Build conditions. Signal control at the Site would also accommodate a controlled pedestrian crossing that connects the adjoining residential neighborhoods to the property, and that is consistent with the Town objectives of providing a Route 9 crossing point that is proximate to the Cochituate Aquifer Trail system.

Potential mitigation actions that are subject to MassDOT input and permits are identified that include access/egress improvements; special event parking management protocol, and Transportation Demand Management (TDM) actions including coordination with the regional transit authority (MWRTA) to integrate the Site as a stop with connections to the nearby intermodal and commuter rail facility.

BETA
CELEBRATING 35 YEARS

May 18, 2017

Blythe Robinson, Executive Director
Town of Wellesley
525 Washington Street
Wellesley, MA 02482

Attn.: Meghan Jop
Assistant Executive Director

Re: 900 Worcester Street (Route 9) – Wellesley Sports Traffic Peer Review

Dear Ms. Robinson:

As requested, BETA Group, Inc. (BETA) has reviewed the Traffic Impact and Access Study (TIAS) for the proposed Wellesley Sports Complex, located at 900 Worcester Street (Route 9) adjacent to Dale Street and opposite Lexington Road. The TIAS was prepared by MDM Transportation Consultants, Inc (MDM), dated April 2017, for ESG Associates, Inc. (The Applicant).

The proposed site is located on a 7.8 Acre property previously owned by the Roman Catholic Archbishop of Boston and occupied by the Saint James Church. In November 2014, the Town of Wellesley purchased the property. The buildings within the site were demolished in November 2015.

PROPOSED BUILDING PLAN

The Applicant has proposed the construction of a 130,000 square foot (indoor) sport complex that includes two regulation size ice rink surfaces, a synthetic turf field, and a 35,000 square foot Health Club that includes an Aquatics Center and an Olympic size swimming pool. The building is also expected to include other amenities such as locker rooms, strength and conditioning rooms, a snack bar/food station, and conference space. Based on the site plan, it is expected the building will provide approximately 1,050 spectator seats.

1. **Discuss where the spectator seats will be located, e.g. how many will be provided for each use and will they all be occupied at one time.**

The building will be located on the southeast side of the property, with primary parking on the northwest side of the site. Additional parking is provided between the east side of the building and the property line of the adjacent office property. A travel path is provided around ¾ of the proposed building.

2. **BETA recommends the Applicant coordinate with the Town of Wellesley Fire Department to ensure the proposed site plan, particularly the travel path, provides adequate fire access.**

Vehicular access to the existing property is provided via two curb cuts along Route 9 and one curb cut along Dale Street. As part of the building plan, the Applicant has proposed to close the curb cut along Dale Street, while retaining two curb cuts along Route 9. The two curb cuts along Route 9 will be shifted slightly west of their existing locations, with the western most access aligning with Lexington Road. The preferred design

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alternative, pending MassDOT approval, is the installation of a traffic signal at the intersection of the western drive and Lexington Road. The signal would allow vehicles to enter and exit the property via Route 9 Westbound and Lexington Road. Left turns or U-Turns from Route 9 Eastbound will **NOT** be permitted at this intersection. An "old" pedestrian crossing, previously located east of the site, will be relocated to the newly proposed signal at the western driveway. The signal is expected to provide safer pedestrian crossing conditions and reduce the number of site generate trips at the Weston Road interchange.

The eastern drive will be shifted west of an existing tree line that separates 900 Worcester Street from the adjacent office property at 888-892 Worcester Street. The Applicant has proposed a parking lot connection between the two properties at the location of the eastern drive. It is expected that this will allow vehicles from both properties to exit via the proposed signal should they be destined to Route 9 Westbound. The eastern drive is proposed to provide right-out access only. No vehicles will be permitted to enter the site via this curb cut.

3. **Consider providing Stop Signs and Stop Lines for approaches connecting the two parking lots at the intersection of the eastern driveway.**

STUDY AREA

Five primary intersections were examined as part of the TIAS:

- Route 9 at Overbrook Drive/CVS Driveway – Signalized
- Route 9 Eastbound Ramp at Weston Road – Unsignalized
- Route 9 Westbound Ramp at Weston Road/Cleveland Road – Unsignalized
- Route 9 at Proposed Driveway/Lexington Road – Unsignalized
- Route 9 at Secondary Site Driveway – Unsignalized

The study did not include the neighborhoods north or south of the site. It is known that these neighborhoods are used as a cut-through to avoid the heavily congested Route 9 corridor and Route 9/Weston Road Interchange.

4. **In addition to the above intersections, the study should include the Beechwood Road, Manor Avenue, Overbrook Drive, Russell Road, and Fells Road neighborhoods. It is recommended this study include traffic volumes, speeds, and vehicle classification for a minimum of 72 hours for each neighborhood.**

SIDEWALK STUDY

Area pedestrian facilities were briefly discussed as part of the Study Area section of the TIAS. As part of the Special Permit for Projects of Significant Impact (PSI) requirements, a pedestrian and bicycle safety study should be completed for the study area "within a walking distance of 600 feet from the development area."

5. **BETA recommends the Applicant complete the Pedestrian and Bicycle Safety Study as noted in the Wellesley PSI Requirements. This should include a discussion regarding the Cochituate Aqueduct Trail.**

TRAFFIC VOLUMES

Existing traffic volume data was collected in March 2017. The traffic data collection effort included the use of Automatic Traffic Recorders (ATR) on Route 9 and Turning Movement Counts (TMC) at the five intersections.

DAILY TRAFFIC

The ATR unit recorded traffic volume data for 24 hours on Thursday, March 23rd, 2017 and for 24 hours on Saturday, March 25th, 2017. **The ATR unit did not collect vehicle classification or vehicle speeds.** The data revealed an average daily traffic (ADT) volume of 54,400 vehicles per day (vpd) for Thursday and 46,428 vpd for Saturday. The weekday morning peak hour (8:00-9:00AM) volume was found to be 4,243 vehicles per hour (vph) and the Saturday mid-day peak hour (12:00-1:00PM) volume was found to be 3,644 vph.

6. **The weekday afternoon peak hour traffic volume provided in Table 1 of the TIAS does not appear to match data provided in the Appendix. Please clarify.**

PEAK HOUR TRAFFIC

Turning movement counts (TMC) were collected at the side driveway/Lexington Road on Thursday, March 23rd, 2017 and Saturday, March 25th, 2017 for one hour during the morning (8:00-9:00AM), evening (4:45-5:45PM), and Saturday mid-day (11:45AM-12:45PM) peak periods. The one hour of data, provided in the appendix, does not include heavy vehicle counts.

7. **Explain how the one hour of traffic data was determined to be the peak hour. Typically TMC are collected from 7:00-9:00AM, 4:00-6:00PM, and 11:00AM-1:00PM.**
8. **Since the TMC sheets did not include heavy vehicles, explain how the heavy vehicle percentages were determined for analysis purposes.**

The intersections of Route 9 at Overbrook Drive/CVS, Route 9 Eastbound Ramp at Weston Road, and Route 9 Westbound Ramp/Cleveland Road at Weston Road were counted on Thursday, March 30th, 2017 during the morning commuting peak period (7:00-9:00AM) and evening commuting peak period (4:00-6:00PM); and Saturday, April 1st, 2017 during the mid-day peak period (11:00AM – 1:00PM). BETA finds these counts to be acceptable.

Given the existing vacancy of the site, the secondary (eastern) site driveway was not counted. BETA finds this methodology to be acceptable.

SEASONAL ADJUSTMENT

Massachusetts Department of Transportation (MassDOT) continuous Count Stations "307 – Westborough, Route 9 East of Northborough T.L." and "4165 – Newton, I-95/Route 128 South of I-90" were examined to determine if the TMC data should be adjusted due to seasonal traffic patterns. Based on the Count Station data, it was determined that March traffic is generally lower than an average month. **As a result, the TMC data were increased by 2.0% to reflect average traffic conditions.** BETA finds this methodology to be acceptable.

TRAVEL SPEEDS

Travel speeds on Route 9 in the vicinity of the Site Driveway were collected via a Spot Speed Study on Monday, March 27th, 2017. It was noted that this study was performed by tracking vehicles across two

locations and converting the travel time and distance to determine travel speed. Typically this data is obtained via speed radar gun, similar to those utilized by local and state police. Speed data values for a sample of 100 vehicles eastbound and 100 vehicles westbound were provided in the Appendix.

9. **Please clarify the means of data collection. Was a speed radar gun utilized, or were other detection methods utilized?**

The Spot Speed Study revealed an average eastbound speed of 45 miles per hour (mph) and an average westbound speed of 47 mph. The 85th percentile speeds were found to be 51 mph (eastbound) and 52 mph (westbound). Data in the appendix revealed approximately 20% of vehicles (both directions) were traveling faster than the posted 50 mph speed limit.

10. **The TIAS did not discuss the time period of the spot speed study. Clarify if these speeds were collected during commuting peak periods where congestion may impact speed readings.**

SAFETY EVALUATION

The most recent three years (2012-2014) of MassDOT crash data were examined for the study area intersections. The MassDOT revealed approximately 37 crashes at the intersection of Route 9 and Overbrook Drive/CVS Drive, 10 crashes at the intersection of Route 9 and Lexington Road/Site Drive, 9 crashes at the Intersection of Route 9 Westbound Ramps at Weston Road, and 13 crashes at the intersection of Route 9 Eastbound Ramps at Weston Road. All of the intersections were found to have crash rates lower than the district average crash rates. Most of the crashes reported on Route 9 were revealed to be rear-end crashes. BETA finds the crash summary to be acceptable.

In addition to historical crash data, MassDOT Highway Safety Improvement Program (HSIP) high crash location clusters were examined for the study area. Areas within significant crash clusters may be eligible for HSIP funding to improve safety. According to MassDOT, intersections/roadways impacted by projects subject to MEPA review require a Road Safety Audit (RSA). The RSA will explore short term, mid-term and long term safety improvements for the intersection/roadway. It was determined that the intersection of Route 9 at Overbrook Drive/CVS Drive falls within the 2012-2014 HSIP cluster. As noted in the *Wellesley Sports Center Project of Significant Impact*, dated April 13, 2017 by Allen & Major Associates, Inc., this project may require MEPA review due to increased traffic volume on Route 9 as a result of the project. The Applicant has is seeking an "advisory opinion" regarding the project's status regarding MEPA thresholds.

11. **Upon completion, the advisory opinion regarding MEPA thresholds should be provided for review. Should the Project satisfy MEPA thresholds the Applicant is expected to complete the RSA for the intersection of Route 9 at Overbrook Drive/CVS Driveway in accordance with MassDOT.**

PUBLIC TRANSPORTATION

The project is located along the Metro-West Regional Transit Authority (MWRTA) bus Route 1 which travels along Worcester Street (Route 9) between Framingham and the Woodland MBTA Station. **The traffic volume data used in the TIAS was not adjusted due to the presence of the existing bus route.** BETA finds this methodology to be conservative and acceptable.

SIGHT LINE ANALYSIS

Stopping Sight Distance (SSD) and Intersection Sight Distance (ISD) were examined for both site driveways along Route 9.

STOPPING SIGHT DISTANCE

The required SSD as discussed in the American Association of State Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets* (*Green Book*) represents the distance at which an oncoming vehicle must see an obstruction in order to stop safely. This includes distance traveled during perception-reaction time, and distance traveled while physically braking.

Two distances were examined in the TIAS, including the recommended SSD based on posted speed (50 mph) and the recommended SSD based on the measured 85th percentile speed (51 mph and 52 mph) discussed previously. It was determined that the recommended SSD would be 425 feet based on posted speed and 450 feet based on 85th percentile speed. The available SSD was measured in the field to be greater than 950 feet in each direction. Given the straight alignment of Route 9 in this area, BETA finds this analysis to be acceptable.

INTERSECTION SIGHT DISTANCE

The recommended ISD as discussed in the *Green Book* represents the desirable distance at which a vehicle entering the roadway can see an oncoming vehicle to safely complete the movement without collision. Generally, an ISD consistent with the required SSD is sufficient as it provides enough distance for an oncoming vehicle to stop before collision. However, recommended ISD values are typically larger than the required SSD in order to provide greater driver comfort and fewer operational delays.

The ISD was examined for right turns and left turns out of the site driveway. The recommended ISD based on Stopping Distance was calculated to be approximately 450 feet, consistent with SSD discussed previously. The calculated ISD desirable for right turns was noted to be 478 feet and the calculated ISD desirable for left turns was noted to be 551 feet. The available ISD measured in the field was found to be greater than 800 feet.

12. **The methodology discussed in the TIAS represents ISD for a two-lane highway. Since Route 9 is a four-lane highway with median, vehicles may require more time to make the left turning maneuver. Based on the AASHTO *Green* Book this increases the recommended sight distance to approximately 588 feet for left turns. Despite the increased distance, the measured available sight distance of greater than 800 feet is acceptable.**
13. **The calculated sight distances discussed in this section were based on passenger cars. Trucks typically take longer to accelerate and therefore require longer sight distances. According to AASHTO, the recommended ISD for a single unit truck (or a bus) is approximately 735 feet. Based on the field measurements discussed in the TIAS, the available sight distance of greater than 800 feet is acceptable.**

PLANNED ROADWAY IMPROVEMENTS

The TIAS discussed nearby roadway improvement projects, primarily by MassDOT, that may impact traffic within the study area. This included the resurfacing of Route 9 (Project 608180) in the project area, and a larger projected expected to improve sidewalks, pavement markings, and roadway reflectors (Project 607340).

14. **BETA recommends the Applicant coordinate with MassDOT and provide an estimated project schedule for these improvements. Particularly those related to proposed roadway and sidewalk changes that may coincide with the potential installation of a traffic signal at the Site Driveway.**

No-Build Traffic Volumes

The 2024 No-Build traffic volumes were obtained by inflating the 2017 seasonally adjusted existing volumes based on examination of historical traffic growth patterns and adding traffic generated by nearby proposed developments.

Historical Area Growth

MassDOT continuous Count Stations "307 – Westborough, Route 9 East of Northborough T.L." and "4165 – Newton, I-95/Route 128 South of I-90" were examined to determine overall traffic growth patterns over recent years. Based on the Count Station data, it was determined that traffic has been relatively stable over recent years. To estimate future traffic growth, the TIAS utilized a compounded annual growth rate of 0.5% per year for seven years.

15. **To be consistent with all the TIAS completed in the Town of Wellesley, BETA recommends a 1.0% per year compounded growth rate.**

Background Developments

One nearby project; *MathWorks Lakeside Campus* located at 1 Lakeside Campus Drive in Natick, MA; was found to potentially increase traffic in the study area. This re-development includes approximately 510,000 square feet of general office space. To estimate the amount of added traffic related to this development, Institute of Transportation Engineers (ITE) *Trip Generation* rates were examined for Land Use Code (LUC) 710 – General Office Building for the 510,000 square foot building. These trips were then added to the network using Census Journey to Work data for the Town of Natick. Based on the Journey to Work data, approximately 10% of the generated office trips would travel along Route 9 within the study area. **This represents approximately 71 vehicles during the morning peak hour, 65 vehicles during the evening peak hour, and 22 vehicles during the Saturday mid-day peak hour.**

BETA finds the discussed methodology and 2024 No-Build traffic volumes to be acceptable.

Trip Generation

Site generated trips for the proposed sports center were estimated based on ITE's *Trip Generation*. Since this type of facility is not specifically defined as a Land Use Code, trips were estimated as a combination of different land uses added together.

Athletic Field

The TIAS examined LUC 488 – Soccer Complex for one soccer field. The one soccer field is expected to generate one trip in the morning peak hour, 18 trips in the evening peak hour, and 30 trips during the Saturday mid-day peak hour. The ITE *Trip* Generation provides daily trip rate information, however the projected daily trips were calculated by multiplying the most conservative peak hour (18 for weekday, and 30 for Saturday) by the number of operating hours for each day. This yielded 300 trips per weekday, and 420 trips per Saturday. BETA finds this methodology to be acceptable, though notes the following:

16. **The morning trip generation (1 trip) for the athletic field may be higher depending on the operating program/schedule.**

HEALTH AND FITNESS – SWIMMING POOL

The TIAS examined LUC 492 – Health/Fitness Club for 35,000 square feet. Based on the trip rates, the health club/swimming pool is expected to generate approximately 50 trips in the morning peak hour, 142 trips in the evening peak hour, and 97 trips during the Saturday mid-day peak hour. The pool was estimated to generate approximately 1152 trips per weekday and 730 trips per Saturday, based on ITE trip rates.

17. **Discuss consideration for using LUC 493 – Athletic Club, which generates more trips by square footage than LUC 492 – Health/Fitness Club.**

ICE HOCKEY RINKS

Ice Hockey Rinks (LUC 465) are discussed in ITE's *Trip Generation*, though the trip generation rates are based on only one data point. Since this data is unreliable, empirical data was examined at two similar sports complexes, including the Essex Sports Complex in Middleton, MA and the New England Sports Center in Marlborough, MA. The Essex Sports Complex was observed on Thursday, March 23, 2017 and Saturday, March 27, 2017. The New England Sports Center was observed on Saturday, October 17, 2015 and Tuesday, October 20, 2015. Based on the empirical data, the two ice rinks were estimated to generate approximately 150 trips in the morning peak hour, 123 trips in the evening peak hour, and 122 trips during the Saturday mid-day peak hour. Similar to the soccer field methodology, the daily number of trips was obtained by multiplying the most conservative peak hour trip generation by the number of operating hours each day. This revealed approximately 1476 trips per weekday and 1464 trips per Saturday. BETA finds the empirical data to be acceptable.

TOTAL SITE

Based on data provided in the TIAS, the site is expected to generate approximately 201 trips in the morning peak hour, 283 trips in the evening peak hour, and 249 trips during the Saturday mid-day peak hour. Daily trips represent 2928 trips per weekday and 2614 trips per Saturday.

18. **Given the use of operating hours to determine daily trip generation, discuss overall operating hours/programming and how this might impact traffic. Are all site features expected to be in full use at the same time, or will there be staggered programs?**
19. **It was noted that the site is expected to generate approximately 10-15 special events per year (swim meets, hockey tournaments, etc.) that may draw additional trips. Trip generation for special events should be discussed and analyzed.**

PASS-BY TRIPS

Given the specialty nature of the site, pass-by trips were not examined for this project. BETA finds this methodology to be conservative and acceptable.

TRIP DISTRIBUTION AND ASSIGNMENT

The population of surrounding towns and cities were examined within a 20 minute driving radius to the site. Trip distribution percentages were applied to Route 9 Westbound, Route 9 Eastbound, Weston Road Northbound, and Weston Road Southbound based on the percentage of towns within the 20 minute drive.

The resulting distribution exercise; provided in the Appendix; revealed approximately 40% traveling to/from the west via Route 9, approximately 45% traveling to/from the east via Route 9, approximately 5% traveling to/from the north via Weston Road, and approximately 10% traveling to/from the south via Weston Road. BETA finds the trip distribution methodology to be acceptable for general use, but offers the following comments:

20. **Figure 9 in the TIAS shows approximately 60% of trips traveling to/from the east via Route 9 which is inconsistent with the exercise provided in the Appendix and subsequent turning movement volume diagrams.**
21. **Discuss how trip distribution will be affected for special events.**

The Trip Assignment was developed by applying the trip generation numbers to the estimated trip distribution percentages. BETA finds the trip assignment methodology to be acceptable.

ADJACENT OFFICE RE-DISTRIBUTION

Given the installation of the proposed traffic signal at the site driveway and Lexington Road, it is anticipated that the proposed parking lot may be connected with the adjacent office space (888-892 Worcester Street) parking. This connection would allow vehicles from the office to exit via the traffic signal, headed westbound on Route 9, rather than utilizing the Weston Road interchange to reverse direction. To determine the number of trips that might be redistributed to the new traffic signal, the overall trip generation for the office space (74,790 square feet) was estimated via ITE *Trip Generation* LUC 710 – General Office. It was assumed that 40% of these trips would be destined to/from the west via Route 9. The applied 40% of the examined peak hour trip generation was then removed from the Weston Road interchange and applied to the proposed site driveway. Based on this exercise, it is expected that approximately eight vehicles will be redistributed in the morning peak hour, 55 vehicles in the evening peak hour, and 9 vehicles in the Saturday mid-day peak hour.

22. **BETA recommends the Applicant collect traffic volumes at the 888-892 Worcester Street driveways to validate the number of existing trips generated by the adjacent office property.**
23. **On-site traffic circulation impacts associated with the cross-over traffic from the 888-892 Worcester Street offices should be addressed.**

BUILD TRAFFIC VOLUMES

The Build traffic volumes were obtained by applying the trip assignment, from the proposed project and the redistricted office trips, to the no-build traffic volume. This methodology is in accordance with industry standards.

TRAFFIC SIGNAL WARRANT

To validate the applicability of a proposed signal at the site driveway and Lexington Road, MDM conducted a traffic signal warrant analysis. The Manual on Uniform Traffic Control Devices (MUTCD) explains several traffic signal warrants that must be satisfied to justify the installation or continued operation of a traffic signal. In this TIAS, Warrant 1 – Eight Hour Traffic Volume was examined as it is the most conservative vehicle based warrant. This warrant compares the main road volume (per hour in both directions) with the site driveway volume (per hour). The main road, Route 9, volume was obtained via the ATR unit discussed in previous sections. Since the existing site driveway is unused, the projected site driveway volumes were

estimated. It was noted in the Appendix that these site driveway volumes were estimated based on empirical data, though the process is unclear.

24. **Clarify how empirical data was used to determine hourly driveway volumes used for the signal warrant analysis. Please provide the empirical data for ease of review and understanding.**

Based on the data provided in the TIAS, this site driveway satisfies Warrant 1 for nine hours, and therefore the installation of a signal is applicable. Using the data provided in the TIAS, BETA examined Warrant 2 – Four Hour Volume and Warrant 3 – Peak Hour Volume. It was found that the intersection also satisfies both Warrant 2 and Warrant 3 for their 70% cases; assuming the site driveway volume estimation is accurate.

It is understood that this signal warrant analysis and signal design are awaiting approval from MassDOT.

25. **Request that the Town and BETA be included in future meetings with MassDOT.**

TRAFFIC OPERATIONS ANALYSIS

Traffic analysis was completed at the four study intersections for the 2017 Existing, 2024 No-Build, and 2024 Build scenarios during the morning commuting peak hour, evening commuting peak hour, and Saturday mid-day peak hour. Traffic analysis was completed with Synchro software. The TIAS summarized analysis results by means of Level of Service (LOS), delay, volume to capacity ratio (v/c), and queues.

26. **Upon examination of Synchro output sheets provided in the Appendix, it appears that the traffic volume analyzed at the intersection of Weston Road and the Route 9 Westbound ramps does not match volumes shown in the turning movement diagrams. Clarify traffic volumes and update the analysis accordingly.**
27. **Similarly, traffic volumes at the intersection of Route 9 at Overbrook Drive/CVS Drive were found to be slightly different than those shown in the turning movement diagrams. Please clarify and update accordingly.**
28. **The intersection of Route 9 at Overbrook Drive/CVS Drive was analyzed as coordinated during existing and no-build conditions. How will the existing coordination be impacted by future coordination with the proposed site driveway signal?**
29. **The build analysis does not propose any signal timing alterations at the intersection of Route 9 at Overbrook Drive/CVS Drive, despite the recommended coordination with the proposed site drive. Discuss whether signal timing adjustments may improve overall traffic operations on Route 9.**
30. **Analysis output sheets in the Appendix suggest that pedestrian phases are not included for the Route 9 at Overbrook Drive and Route 9 at Site Driveway traffic signals. Discuss how the presence of pedestrian phases may impact overall operations on Route 9.**

LEVEL OF SERVICE RESULTS

The morning peak hour results were provided in Table 8, evening results were provided in Table 9, and Saturday results were provided in Table 10 of the TIAS. These tables show a summary for each analysis case (existing, no-build, and build) for all intersections.

31. **Traffic analysis results in Table 8, Table 9, and Table 10 of the TIAS show analysis summaries for each intersection by approach, rather than by lane use.**

In the morning peak hour, approaches with failing level of service included the Overbrook Drive southbound approach, the Route 9 Westbound Left Turn Lane at the site driveway, and the Route 9 Eastbound Ramp at

Weston Road. All of these approaches operate with delays greater than 80 seconds (for signals) or 50 seconds (for unsignalized locations) during all three analysis cases.

32. **It is unclear, based on the tables, how much these approaches with LOS F degrade or improve as there is little comparison shown in the Table. For example, the Route 9 Eastbound Ramp at Weston Road is noted to "operate with long delays" and that the ramp will experience a "net reduction of up to 100 vehicles during the peak hour with associated net reduction in travel delay," however the Synchro analysis worksheets reveal an increase in delay for this approach during the morning peak hour as a result of the project.**

In the evening peak hour, approaches with failing operations include the Route 9 Westbound Left Turn Lane at the site driveway, the Route 9 Eastbound Ramp at Weston Road, and the Route 9 Westbound Ramp/Cleveland Road at Weston Road. The table shows a slight improvement in delays at the Route 9 Westbound Left Turn Lane as a result of the signal (LOS F to LOS E) though the delay actually increases. This is because the Level of Service Delay thresholds are higher for signals.

During the Saturday peak hour, the Route 9 Westbound Left Turn Lane at the site driveway was found to operate with failing LOS for the No-Build condition. This case improved as a result of the added traffic signal.

QUEUE ANALYSIS

Queues were examined and tabulated for the signalized intersections of Route 9 at Overbrook Drive/CVS Drive (Table 11) and Route 9 at Site Drive/Lexington Road (Table 12) only.

33. **The queue lengths provided in Table 11 and Table 12 were found to be inconsistent with those provided in the Appendix. Please clarify and update accordingly.**
34. **Table 12 shows an eastbound left turn lane on Route 9 at the Site Driveway. This left turn movement was noted in the TIAS as being prohibited. Clarify if the signal will allow left turns and if the left turn lane will be provided.**

The Appendix shows Route 9 Westbound queues at the Overbrook Drive in the evening peak hour extend approximately 540 feet under existing conditions, and will improve to approximately 428 feet in the build condition.

35. **Field observation revealed longer westbound queues in the evening, typically extending back Weston Road and beyond. The long queues will easily block the left turn lane entering the site. Similarly, during the morning commuting period, the queue on Route 9 Eastbound typically extends from the Kingsbury Street signal to Weston Road and beyond. The traffic analysis does not reflect or take into consideration these existing operational issues.**
36. **The Kingsbury Street signal is scheduled to be reconstructed this year by MassDOT (Project 608180). The MassDOT project will replace two existing unsignalized U-Turn lanes with traffic signals. Since 45% of the site traffic will be arrive and depart from Route 9 east of the site, the proposed Kingsbury Street signals should be included in the study.**

Queueing summaries were not provided for unsignalized intersections, namely the Route 9 Ramps at Weston Road, which are known to operate with significant queues.

37. **Provide a table that summarizes queueing conditions at the Route 9 Ramps.**
38. **Based on the Appendix sheets, the Route 9 Eastbound Ramp at Weston Road was found to queue approximately 665 feet, which would extend well onto Route 9. Explain how added queueing at the Route 9 Ramps may impact the already congested Route 9 during peak periods.**

PARKING

The proposed site plan provides approximately 355 parking spaces on-site, based on the Town of Wellesley parking by-law for "any building used for physical education or physical recreation purpose." This requires one parking space per three permanent spectator seats. According to the site plan, the proposed site will provide approximately 1,050 spectator seats which represent 350 parking spaces.

The TIAS examined typical parking generation rates from ITE's *Parking Generation* for LUC 492 – Health/Fitness Club and LUC 488 – Soccer Complex were examined. Similar to the Trip Generation exercise, LUC 465 – Ice Skating Rink provided data based on one site. As a result, the two ice rinks were added into the parking generation by assuming two additional soccer fields.

According to ITE, for the 35,000 square foot health and fitness center (swimming pool) and three soccer fields, the proposed site would generate an average weekday parking demand of 300 parking spaces and an average Saturday parking demand of 279 spaces.

Empirical data used for parking analysis was collected at two YMCA locations in January 2007. Empirical data was also collected at Winchester Soccer Club in June 2012. According to the TIAS, the empirical data shows a parking demand of 308 spaces on a weekday and 322 spaces on a Saturday.

39. **These data are more than five years old. New data should be collected for this study.**

The Applicant is currently in discussion with the owner of the adjacent office buildings at 888-892 Worcester Street regarding the usage of their parking lot for overflow parking. This would be used in cases of large parking demand, such as hockey tournaments, soccer tournaments, or swim meets. The Applicant expects approximately 10-15 events per year that may require overflow parking.

40. **The parking demand estimates for special events were not provided. For parking and traffic management purposes, this information should be provided.**
41. **Given the office nature of the adjacent parcel, it is expected that overflow parking would be utilized after business closing hours. Should the adjacent property be used as overflow parking, ensure that all tournaments or heavy traffic events occur outside of business hours.**
42. **A traffic management plan for special events should be developed for this project.**

The site plan proposes a mix of standard parking spaces, handicap spaces, and compact parking spaces. As noted in the Town of Wellesley Parking by-law, a maximum of 30% of the required parking spaces may be used as Compact Parking spaces. **All parking along the Route 9 side of the property is proposed as Compact parking spaces with dimensions of 7.5' wide by 15' deep. A total of 64 (18%) Compact spaces are proposed in this area.**

43. **Though these compact spaces are covered under the parking by-law, compact spaces are discouraged per the ITE *Traffic Engineering Handbook, 7th Edition*. Since vehicle sizes have been increasing as larger SUVs have become popular, standard "compact" cars no longer fit within the 7.5' x 15' space. As a result, drivers can become confused as to whether their vehicle is actually a "compact" or "small" vehicle. This can increase the number of larger vehicles attempting to park in these areas. The ITE *Traffic Engineering Handbook* recommends no more than 10% of parking stalls be labeled Small-Car-Only.**

UNSIGNALIZED ACCESS ALTERNATIVE

The TIAS also examined the unsignalized access alternative, which represents proposed conditions with no traffic signal at the site driveway. This would include a reconfigured main site driveway that allows left and right turns in, and right turns out only (similar to existing conditions). All site related trips would depart the site to the east, via Route 9 Eastbound. Those destined to the west would utilize the Weston Road interchange to reverse direction. No change, beyond existing conditions, is expected for the adjacent office building traffic as a result of this alternative.

The TIAS provided updated trip distribution and build traffic volumes. BETA finds the attached volumes to be acceptable.

LEVEL OF SERVICE ANALYSIS

The TIAS indicated that there will be no major changes in operations, when compared to the signal alternative, would be expected at the intersection of Route 9 at Overbrook Drive/CVS drive as a result of this the unsignalized alternative, given that the trip distribution and traffic volumes will be similar.

In the morning peak hour, the **Route 9 westbound left turn into the site driveway was found to increase dramatically (over 400 minutes) as a result of the project traffic. The Route 9 eastbound ramp was also found to dramatically increase in delays by approximately 7 minutes.** These are significant delays.

In the evening peak hour, the Route 9 westbound left turn into the site driveway was found to increase in delays by approximately 70 seconds as a result of the added site traffic. The **Route 9 eastbound ramp was also found to increase in delays, approximately 4 minutes,** in the evening peak hour.

Under the Saturday mid-day conditions, only the Route 9 eastbound ramp was found to increase dramatically (80 seconds) in delay, though the Route 9 westbound left turn into the site driveway degraded to LOS F as a result of the project traffic.

44. **Given the large delays at the Route 9 eastbound ramp, discuss whether a traffic signal at this location will alleviate some delay on the Route 9 ramp and Weston Road. A traffic signal warrant should be performed.**

QUEUE ANALYSIS

A detailed queue analysis was not provided or discussed for the unsignalized access alternative. Based on the analysis sheets in the appendix, the Route 9 eastbound ramp at Weston Road is expected to queue approximately 950 feet after site traffic is added to the interchange. This would result in significant spill-back onto Route 9.

45. **Given the projected spill-back onto Route 9 as a result of the 950 foot long queue, discuss any impacts to the Russell Road and Fells Road neighborhoods generated by cut-through vehicles avoiding the Route 9 interchange.**
46. **Long westbound queues generated from the Overbrook Drive intersection in the evening peak hour will block the left turn lane into the site.**

RECOMMENDATIONS

Four primary improvement measures were discussed to address any traffic related impacts generated by the project. These included: access-related improvements, off-site improvements, special event parking management protocol, and a TDM program.

ACCESS/EGRESS IMPROVEMENTS

The proposed signalized intersection at the site driveway will provided a signalized pedestrian crossing that connects neighborhoods north of Route 9 with the Cochituate Aquifer Trail system. Other site related improvements were discussed regarding the "right-out only" nature of the secondary site driveway, and limiting plantings/vegetation to two foot heights in order to increase sight distances.

The TIAS further discussed the proposed traffic signal at the site driveway, noting the coordination of the proposed signal with the existing signals at Overbrook Drive and at Oak Street. It was noted that the proposed intersection would provide a westbound left turn lane into the site driveway but will not allow left turns towards Lexington Road. This signal will replace the existing median break (previously used for U-Turns during church services) east of the site driveway.

47. Given the existing queueing problems on Route 9, evaluate any impacts to the Lexington Road and Beechwood Road neighborhoods generated by potential cut-through traffic.

SPECIAL EVENT PARKING MANAGEMENT

The proposed site plan is expected to provide approximately 355 parking spaces. Special programming, such as hockey tournaments, soccer tournaments, and swim meets are expected to potentially require additional parking. The Applicant expects this to occur 10-15 times per year, and is in discussion with the owner of the adjacent office buildings located at 888-892 Worcester Street as one location to potentially accommodate overflow parking.

48. A traffic management plan for special events should be developed for this project.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

The TIAS discussed several TDM measures that the Applicant has committed to implementing in order to reduce employee, athlete, and spectator based auto trips. These included:

- On-Site Transportation Coordinator – this employee will disseminate and promote TDM information to employees.
- MassRides – this program provides free assistance to commuters, employees, students, and other travelers and promotes carpooling, vanpooling, and ridesharing. The Applicant will promote commuter assistance programs through MassRides.
- MWRTA Transit Stop – The Applicant will work with the MWRTA to provide a dedicated bus stop on-site or along Route 9 adjacent to the site.
- Bus Drop-Off/Parking Area – The Applicant will provide a dedicated bus drop-off/parking area on-site that is adjacent to the main driveway to promote bus use by regional sports teams.
- Public Transportation Information – The Applicant will post transit schedules on-site as well as sell transit passes to promote public transportation.
- Employee Transit Pass Subsidy – The Applicant will consider providing a transit pass subsidy for full time employees.

- Pedestrian Infrastructure – The proposed site plan will provide pedestrian connections to existing sidewalks along Route 9.
- Tenant Manual for Employee Services – The proposed manual will offer employees: direct deposit, transit pass subsidies, and a guaranteed ride home program for carpool/vanpool employees.
- On-Site Amenities – The project will include services such as food (snack bar), pro-shop, equipment sales and services, and on-site showers.
- Electric Vehicle Charging Stations and Preferential Parking for Low-Emission Vehicles – These parking locations will be detailed during site plan review.
- Preferential Parking for Carpool/Vanpool – These parking locations will be detailed during site plan review.
- No Idling Signage – This signage will be provided in parking areas for buses/commercial vehicles in attempt to reduce greenhouse gas emissions.

BETA finds the provided TDM measures to be acceptable, but offers the following comments.

49. **The bus stop location provided on the site plan is located adjacent to the north side of the building. This location requires busses to exit via the secondary (right-out) driveway which would require westbound destined buses to utilize the Weston Road interchange to reverse direction. The TDM notes that this location would be adjacent to the Main Driveway. Please discuss.**
50. **Discuss whether preferential parking may or may not reduce the overall number of "useable" parking spaces. How will these spaces be enforced?**

General Comments

51. **A post-construction traffic monitoring program should be established for this project, similar to the nearby CVS project.**
52. **Traffic impacts related to the project construction should be discussed.**

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

Very truly yours,
BETA Group, Inc.

Kien Ho, P.E., PTOE
Vice President

cc: Tyler de Ruiter, P.E.

Job No: 5475-05

3

Jop, Meghan

From: Saraceno, George
Sent: Thursday, May 18, 2017 1:03 AM
To: Jop, Meghan
Cc: Connolly, Terry; Zehner, Michael; Hickey, David; Stewart, Douglas; Pakstis, Mike
Subject: PSI - 900 Worcester Street

Hi Meghan,
As you requested, we have reviewed the traffic/pedestrian design for the PSI at 900 Worcester Street, the Wellesley Sports Center project, submitted by the applicant, Wellesley Sports Center, LLC. Provided below are our comments.

1.) The plans should provide more detail information related to the proposed driveway/ intersection work within the Route 9 layout. We note that the applicant's traffic consultant MDM Transportation Consultants, Inc. provided a Conceptual Design Plan that shows more detail for the proposed intersection on Route 9. Therefore, the plans should be updated to reflect the Conceptual Design Plan as shown in the Traffic Impact and Access Study, which shows various sidewalk connections to the existing sidewalk on Worcester Street, as well as a new crosswalk from Lexington Road to the project site.

2.) Label on the plans the location for the bus drop off/pickup area along the northerly portion of the building.

3.) On a daily basis, the Sports Center Complex is estimated to generate 2,928 vehicle trips on a weekday and 2,614 vehicle trips on a Saturday. Does the Town's traffic consultant agree with these numbers?

4.) Why is a cross-connection to the adjacent office (#892 Worcester Street) necessary for proposed traffic signals at the intersection of the proposed driveway and Worcester Street? This was discussed in the Traffic Impact and Access Study by MDM Transportation Consultants, Inc.

5.) Adding a traffic signal at the main driveway entrance to the project would allow vehicles to turn left onto Lexington Road, therefore avoiding the Worcester Street/Weston Road intersection. The traffic study suggests that a proposed traffic signal would not adversely affect the Worcester Street and Weston Road intersection. Without a signal at the proposed development, there would be an increase in left turns at the eastbound ramp at Worcester Street and Weston Road. Does the Town's traffic consultant agree with this assessment?

6.) The traffic engineer hopes to provide pedestrian access to the site and the Cochituate Aqueduct Trail System, a request from the Town, secondary driveway restrictions, i.e., right turn only, signs and pavement markings and reduced height of trees and shrubs. The applicant should clarify the purposed of running a new sidewalk from the existing sidewalk on Route 9 into the property and running parallel to existing sidewalk on Route 9, which eliminates additional green space for the project. Adding a new sidewalk on private property may also require removing private shade trees located along the Route 9 corridor.

7.) In order to reduce traffic congestion at the sports complex, a Transportation Demand Management (TDM) will be in-place to reduce auto flow into the site through various incentive programs, including the use of the regional transit authority (MWRTA), all of which are listed in the traffic report.

8.) The traffic report concludes that the project development will have neutral delays with the inclusion of traffic signals at the main entrance to the site. The signal control would also accommodate pedestrian crossing connection from Lexington Road to the site, crossing Worcester Street. MassDOT is required to review the project proposal and provide a determination on the project design. Does the Town's traffic consultant agree with this assessment?

10.) At the proposed main driveway signalized intersection, the project is excluding an eastbound left turn only lane due to the existing left-turn lane at Overbrook Drive.

11.) The proposed parking for the project is 355 marked parking spaces, with a proposed parking demand of 322. Does the Town's traffic consultant agree that there are enough proposed parking spaces provided for the various sports activities, especially tournaments or playoff games?

12.) The applicant's designer should review the proposed crosswalk located at the main entrance (eastbound side) and runs diagonally across the parking lot to the sidewalk located at the northeast corner of the proposed sports center building. There may be issues (blind spots) with parked cars backing up into the crosswalk at that location, which is setup as an apex crosswalk.

Thank you,

George

George J. Saraceno
CSM, SE 13785
Senior Civil Engineer
781.235.7600, x3318 (office)
781.838.2944 (cell)
Town of Wellesley - Department of Public Works - Eng. Div.
20 Municipal Way, Wellesley, MA 02481

Jop, Meghan

From: Timothy J. Barrett <Timothy.Barrett@pinestreetinn.org>
Sent: Tuesday, May 16, 2017 8:01 PM
To: Brian Devellis; Jop, Meghan
Cc: Timothy J. Barrett
Subject: Fwd: 900 Worcester Street - BOS Abutter's Notice - Traffic Review

Hi,

See email from a resident on Manor Avenue. She has broader concerns on traffic than just 900 Worcester but also impact of CVS. I suggested she come to meetings, including BoS's Monday night meeting. I shared that you can talk about the site traffic study and what it was required to include. Town should address broader traffic issues at BoS meeting.

I hope these are helpful. I'd rather have you prepared for direction questions may go. You'll continue to find overall support for facility, just as it gets closer and real more people will pay attention, which is a good thing for all of us in getting project correct.

Thanks,
Tim

Sent from my iPhone

Begin forwarded message:

From: Amy Novick <wahulsey@verizon.net>
Date: May 16, 2017 at 2:00:57 PM EDT
To: <Timothy.Barrett@pinestreetinn.org>
Subject: Re: 900 Worcester Street - BOS Abutter's Notice - Traffic Review

I hope to be at the Thursday night meeting with the developer this week. I looked over the traffic study and most of my immediate concerns involve the Overbrook intersection and the effect the facility would have on my neighborhood, the Manor Avenue neighborhood, which connects to Overbrook. Manor Avenue was part of the CVS traffic review. I'm am not sure if this new traffic study takes into account some of my concerns and how this new development will affect what is going on "in reality." In a nutshell, they are as follows:

In particular, since the CVS project, we have noticed an increase in traffic on Manor Avenue, especially during rush hour. We attribute this to people using GPS traffic direction apps like Waze. There is also an issue with speed on Manor Avenue. Luckily, the town has upgraded the sidewalks. I assume that people going to the sports facility will be guided by these apps to go down Manor to Overbrook, as well.

The Overbrook intersection is at the Wellesley/Natick line and people competely ignore traffic rules and signs there like no turn on red and how to get in and out of the Shell gas station. There is also an issue of speed eastbound on Route 9 as people cross over from Natick to Wellesley and go through the intersection. I think there have been accidents there since the intersection was upgraded for the CVS. I never see a police officer pull someone over for these violations.

The traffic study does not seem to take into account the apartments behind the building next to the CVS. These two buildings have been underused but new tenants are coming in. A new medical office is opening there and they are trying to rent out the apartments. Also, in my "quick" review, I did not see any mention of Manor Avenue.

If you want to forward this email to the developer, that would be ok. Thank you!

-----Original Message-----
From: Timothy J. Barrett <Timothy.Barrett@pinestreetinn.org>
To: Amy Novick <wahulsey@verizon.net>
Sent: Tue, May 16, 2017 12:32 pm
Subject: RE: 900 Worcester Street - BOS Abutter's Notice - Traffic Review

Amy,

The Developer will talk about traffic and be available to answer questions. I don't know who he plans to have from his development team present. I don't expect BoS or Planning Board members to be present at the meeting. Though being held at a Town location, the Town has made it clear that this is not a Town sponsored meeting, but a meeting that the Developer is hosting for the Community. Next Monday's BoS meeting is a public meeting at which the traffic study will be presented and discussed by BoS.

If you have questions you'd like the developer to know in advance and be prepared to answer, I'd be happy to send them along and connect you to him.

I hope to see you at the upcoming meetings.

Thanks so much!
Tim

From: Amy Novick [mailto:wahulsey@verizon.net]
Sent: Tuesday, May 16, 2017 12:17 PM
To: Timothy J. Barrett <Timothy.Barrett@pinestreetinn.org>
Subject: Re: 900 Worcester Street - BOS Abutter's Notice - Traffic Review

Hi! I was wondering if you know whether at the developer meeting this Thursday there will be representatives from the traffic study expert group or from the selectman? I have questions about the traffic study in regard to some concerns that I have. Thank you.

Amy Novick

> -----Original Message-----
> From: Timothy J. Barrett <Timothy.Barrett@pinestreetinn.org>

-----Original Message-----
From: Timothy J. Barrett <Timothy.Barrett@pinestreetinn.org>
To: Beverly.Rubin <Beverly.Rubin@tufts.edu>; mary_donahue <mary_donahue@nobles.edu>; erin <erin@personalday.net>; cejh47 <cejh47@gmail.com>; mtcopplestone <mtcopplestone@gmail.com>; kennetharichman <kennetharichman@gmail.com>; mscronin409 <mscronin409@gmail.com>; sarah <sarah@sextontestprep.com>; bpsc3 <bpsc3@verizon.net>; wahulsey <wahulsey@verizon.net>; billgiez <billgiez@att.net>; edwardop56 <edwardop56@aol.com>; patty.kidik <patty.kidik@gmail.com>; mamjr68 <mamjr68@gmail.com>; fortmiller <fortmiller@comcast.net>; m.jacobs <m.jacobs@neu.edu>; canoni <canoni@agcmass.org>; djrhino75 <djrhino75@hotmail.com>; ghall <ghall@brandeis.edu>; thompsonmedley <thompsonmedley@verizon.net>; jane.kleinjan <jane.kleinjan@gmail.com>; jillrdietz <jillrdietz@gmail.com>; patty.kidik <patty.kidik@gmail.com>; m_Sterk <m_Sterk@hotmail.com>; regispartners <regispartners@comcast.net>; miguellessing <miguellessing@gmail.com>; dortzi <dortzi@verizon.net>; pennycopplestone <pennycopplestone@gmail.com>; vig.katherine

<vig.katherine@gmail.com>; barry <barry@hem-inc.com>; agould <agould@globalp.com>; lScharmer <lScharmer@bainco.com>; miao.harry <miao.harry@gmail.com>; harttaylor16 <harttaylor16@gmail.com>; williesr3 <williesr3@juno.com>
Sent: Tue, May 16, 2017 8:41 am
Subject: 900 Worcester Street - BOS Abutter's Notice - Traffic Review

Hi,

The Town sent to me the following notice that you may also receive via mail. Next Monday night, the Board of Selectmen will be holding a hearing to review the 900 Worcester Street traffic and pedestrian safety plan.

You can review the traffic study report by going to:

http://www.wellesleyma.gov/Pages/WellesleyMA_Planning/PSI-900/

This web page also includes the project's Planning Application, Drainage Study and Set of the Developments Plans.

I hope many of you and your neighbors will come to the upcoming meetings with the Developers to learn more.

Please contact me at info below or at 781-489-5722 if you have questions.

Thank you,
Tim

Timothy J. Barrett
Chief Financial Officer
Pine Street Inn
1736 Washington Street • Boston • MA • 02118
T 617.892.9117 • C 617-879-8383 • F 617.451.1890
timothy.barrett@pinestreetinn.org
www.pinestreetinn.org

Find us on:

From: Jop, Meghan [mailto:mjop@wellesleyma.gov]
Sent: Monday, May 15, 2017 4:20 PM
To: Timothy J. Barrett <Timothy.Barrett@pinestreetinn.org>; _Timothy J Barrett <barrett_bc1993@yahoo.com>
Subject: BOS Abutter's Notice

Tim,
The Selectmen will be holding their review of traffic on 5/22 at 8:00 pm. Attached is the abutter's notice that went out today to abutter's within 300 feet. You may want to email this to your contact list to give notice for those outside of that limit.

Meghan C. Jop, AICP
Assistant Executive Director
Town of Wellesley
mjop@wellesleyma.gov

(P) 781-431-1019 ext. 2205
Direct dial 781-489-4300

Think Green... please don't print this e-mail unless it's absolutely necessary.
When responding, please be advised, the Town of Wellesley and the Secretary of State have determined that email could be considered a public record.

The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination or other use of, or taking of any action in reliance upon, this information by persons or entities other than the intended recipient is prohibited. If you received this in error, please contact the sender and delete the material from any computer.

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8. Discuss North 40 Process

When the Town negotiated a purchase and sale agreement with Wellesley College it included a provision that the Town establish a "North 40 Steering Committee. Included in your packet is a portion of that agreement for this property that outlines some of the conditions going forward. Specifically, section 6.03 requires that the Town establish a North 40 planning committee. Also enclosed is information about the environmental issues that the Town needs to resolve. The Scope of Services for the next phase of work is included. The reporting period deadline is December 2018. Work on this phase will begin this summer in anticipation of bringing the proposed work required to ATM in the spring. The timing is largely due to our Town Meeting timeframes. This item is on the agenda so that the Board can begin the process of deciding the next steps to beginning this major project, and the timing that best fits with the work plan.

NO MOTION

EXECUTION

PURCHASE AND SALE AGREEMENT

between

THE TOWN OF WELLESLEY

as Buyer

and

WELLESLEY COLLEGE

as Seller

Date: as of December 18, 2014

Property: Undeveloped Land
Route 135 and Weston Road
Wellesley, Massachusetts

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to Seller. Buyer shall deliver a copy of such insurance polic(ies) or a certificate(s) thereof to Seller prior to its first entry upon the Property.

Section 5.07 Without limitation of any other obligation of Buyer herein, Buyer shall indemnify and hold harmless Seller (and its affiliates, agents and employees) from and against all claims, liabilities, losses, costs and damages (inclusive of reasonable attorneys' fees incurred incident thereto) paid or incurred by Seller (or its affiliates, agents and/or employees) if, and to the extent, the same result from or arise out of or in connection with Buyer's Studies, and any actions incident thereto, except that Buyer shall not be obligated under this Section 5.07 to indemnify Seller for: (i) liability caused by Seller's gross negligence or willful misconduct and/or (ii) the mere discovery (without exacerbation by Buyer) of any pre-existing conditions. The foregoing indemnity and hold harmless agreement shall include (without limitation) Buyer's agreement to indemnify and hold harmless Seller from and against any and all liens or other encumbrances ("**Buyer's Lien**") filed against the Property as a result of any work performed as part of Buyer's Studies with respect to the Property; and, furthermore, Buyer, at its expense, expressly covenants that it shall procure the satisfaction or discharge of record, by bonding, payment or otherwise, of any Buyer's Lien within ten (10) days after notice or other knowledge thereof (failing which, Seller may, at its option, effect such satisfaction or discharge, at Buyer's expense, and, in which event Buyer, upon demand, shall reimburse Seller for the costs thereof).

Section 5.08 Buyer acknowledges and accepts the limitations, disclaimers and conditions set forth in this ARTICLE 5. The provisions of this ARTICLE 5 shall survive the Closing or the earlier termination of this Agreement.

ARTICLE 6 Permitted Exceptions; Future Development Conditions

Section 6.01 As used herein, the term "**Permitted Exceptions**" shall mean each of the following matters:

(a) any state of facts (including without limitation those relating to physical conditions or variations in location or dimension, or state of facts relating to the Property's Environmental Condition (as defined in Section 9.01(c) below)), and any encumbrance on title that would be disclosed by an accurate current survey of the Property;

(b) the covenants, easements, reservations, restrictions and agreements and other matters that are shown on that certain title insurance commitment (the "**Existing Title Report**") issued by Commonwealth Land Title Insurance Company (the "**Title Company**"), except for those items set forth therein (if any) which Seller shall be expressly obligated to discharge in accordance with Section 7.06(a) hereof;

(c) all grants, licenses or other rights (if any) existing on the date of this Agreement in favor of any public or private utility company or governmental entity for, or pertaining to, utilities, sewers, water mains or drainage, which are of record or, if not of record, that have been disclosed in writing to Buyer prior to the expiration of the Inspection Period;

(d) any and all present and future laws, regulations, restrictions, requirements, ordinances, resolutions and orders (including, without limitation, any of the foregoing relating to zoning, building and environmental protection) and any governmental permits, licenses or other approvals issued with respect to the Property (collectively, "**Laws**") as to the use, occupancy, maintenance, subdivision or improvement of the Property adopted or imposed by any bureau, board, commission, legislature, department or other governmental body having jurisdiction over or affecting the Property;

(e) any lien for real estate taxes, school taxes, special assessments, business improvement district charges, water and sewer taxes, rents and charges, and other governmental charges and impositions not yet due and payable;

(f) any Notice of Activity and Use Limitation (an "**AUL**") recorded in connection with the performance or completion of Response Actions relative to the Asphalt Condition, as contemplated in Section 9.04, provided, however, that the terms of any such AUL shall (i) permit recreational or other "open space" uses (as the latter term is defined in Section 6.02 below), and (ii) be subject to the review and approval of the Buyer, which review and approval shall not be unreasonably withheld, conditioned or delayed;

(g) any rights of the Seller (and any sublessee) under the Master Lease (defined in Section 6.04 below);

(h) the right of certain persons (including without limitation Seller) to continue to use their assigned portions of the so-called "community gardens" located on the Property as provided in Section 6.02 below;

(i) any other matter that is either (i) expressly waived by Buyer in writing, (ii) deemed waived by Buyer pursuant to the terms of Section 7.05 hereof, or (iii) an Objection which is deemed "discharged" pursuant to the terms of Section 7.08 hereof; and

(j) the standard printed exceptions, and exclusions to coverage, set forth in the ALTA standard form of owner's title insurance currently utilized by the Title Company.

Section 6.02 As a material condition to the Seller's agreement to enter into this Agreement, the Buyer (for itself and its successors in interest) agrees to the following conditions to any future development of the Property, which conditions shall survive the Closing (and which shall, at the election of Seller and as appropriate, be memorialized in a recordable restriction under General Laws Chapter 184, Section 27):

(a) the Buyer will maintain in perpetuity no less than fifty percent (50%) of the total Property area as open space, which may include playing fields, wooded areas, paths and trails and other active and/or passive recreational areas and facilities. For the purposes hereof, the term "open space" may also include conservation land, forested land, recreation land, agricultural land, corridor parks and amenities such

as small parks, green buffers along roadways, undeveloped land with particular conservation or recreation interest, or any open area that is owned by an agency or organization dedicated to conservation. Without limiting the foregoing, that portion of the Property that lies between Route 135 and the Cochituate Aqueduct (as each of the same currently exists) will remain in a wooded and natural condition, provided that this requirement will not be deemed to restrict periodic clearing of invasive vegetation and other care and maintenance measures that are consistent with sound forestry management practices;

(b) the Buyer will not develop or construct, or permit the development or construction of, any road or other means of vehicular access and/or egress between the Property and Route 135 (Central Street) where the intersection at Route 135 would be within one thousand feet (1,000') in any direction of the existing main motor entrance from Route 135 to the Seller's campus;

(c) in view of the fact that the Seller operates (as a part of its educational programs) an observatory on its remaining property, and that local lighting conditions in the area adjacent to the observatory and the campus in general are of material importance to the Seller and other abutters to the Property, from and after the date hereof, the Buyer and Seller agree to investigate and negotiate in good faith restrictions and guidelines (which may include, without limitation, reference to the outdoor lighting standards from time to time promulgated by the International Dark Sky Alliance (or any successor organization)) to limit undesirable light pollution from any development or future use of the Property. Such restrictions and guidelines may involve, without limitation, the use of certain low-impact lighting fixtures, light shielding, hours of operation and other operational management practices. Buyer and Seller will use good faith efforts to negotiate mutually acceptable restrictions and guidelines prior to the last day of the Inspection Period, and the parties will agree to abide by the same from and after the Closing;

(d) in view of the fact that the Seller has adopted certain "Green Building Standards," a copy of which is attached here to as **Exhibit D**, under which any future development of its campus will be engineered, designed, constructed and operated in a manner consistent with sustainable standards, and that future development of, and operation of improvements on, the Property in a sustainable manner are of material importance to the Seller; therefore, Buyer and Seller will use good faith efforts to negotiate mutually acceptable restrictions and guidelines prior to the last day of the Inspection Period, to ensure that any buildings and other improvements constructed or developed on the Property, and the use and operation of such buildings and other improvements, will be consistent with standards and practices that would be certifiable under the currently existing (2014) LEED (Leadership in Energy & Environmental Design) "Gold" standards promulgated by the United States Green Building Council. In furtherance of this commitment, the Seller will from time to time share its sustainability standards with the Buyer; and

(e) the Buyer will commit to maintain, for a period of at least three (3) years after the Closing, a "community garden" at some location within the

Property, substantially similar in nature to that which currently exists along the Weston Road boundary. The existing garden area contains approximately two and one-half acres (excluding the access road) and contains approximately fifty (50) gardening plots used by town residents, plus an adjacent area of approximately one acre, containing approximately twenty (20) plots that are used solely by the Seller. During such time as the Buyer maintains the "community garden," whether on the Property or elsewhere, Wellesley College students and staff shall have exclusive access to and use of at least 2 plots of a size substantially the same as the current plot size (approximately 25 feet by 40 feet each), subject to such reasonable regulations or conditions as are, from time to time, generally applicable to residents or other users, except that such Wellesley College use will not lapse without the written consent of the Seller, or be subject to any lottery or other user selection process that may, from time to time, be in effect.

Section 6.03 In connection with its proposed planning for the future use of the Property, Buyer has established a "North 40 Steering Committee," which is made up of local government and citizen representatives. For so long as the North 40 Steering Committee (or any successor thereto or other committee or board appointed by the Board of Selectmen and charged with similar responsibilities) is in existence, the Seller will be entitled to designate two (2) members, who shall have full voting and other privileges.

Section 6.04 (a) Buyer and Seller will enter into an agreement (the "Master Lease") at the Closing pursuant to which Buyer will "master lease" to Seller the residential lot and house located on the Property and numbered 156 Weston Road, which is delineated on **Exhibit E** attached to this Agreement (the **"156 Lot"**), and which contains approximately one and 30/100 (1.30) acres, more or less. The Master Lease will have an initial term of three (3) years from the Closing, with the rent for the first year being $1,300 per month, which will increase by 3.5% per year for each year thereafter. The initial 3-year term shall be automatically extended for two successive extension terms of one (1) year each, unless Buyer gives the Seller a written notice to the effect that the Master Lease will not be so extended because the Buyer will require the use of the 156 Lot for municipal uses inconsistent with residential use. Any such notice by the Buyer must be given not later than one hundred twenty (120) days prior to the expiration of the initial term or the first extension term, as the case may be. The Seller shall in all events have the right to terminate the Master Lease by giving the Buyer written notice of such termination, which notice must be given at least sixty (60) days in advance of the effective termination date. Further, in the event that the current occupant chooses to permanently vacate the 156 Lot prior to the end of the term, then the Master Lease will terminate immediately upon such vacancy.

(b) The Seller will be responsible for the repair and maintenance of the house and other existing improvements on the 156 Lot, and for all associated utility costs and insurance costs, with the Buyer named as an additional insured on all liability policies (and as a loss payee on any casualty policies carried by Seller), during the Master Lease term. Other terms and conditions of the Master Lease will be reasonably acceptable to both parties. Buyer agrees that no real estate taxes or other impositions will be assessed with respect to the 156 Lot or improvements during the Master Lease term. During the term of the Master Lease, the Buyer and its representatives will have the right of reasonable access (at reasonable hours and without material interference with the residential use) to the 156 Lot for the purpose of making municipal

improvements (such as, but not limited to, drainage or sidewalks) that do not interfere with the residential use.

Section 6.05 The provisions of Sections 6.02, 6.03 and 6.04 will survive the Closing.

ARTICLE 7 State of Title

Section 7.01 At the Closing, Seller shall deliver, and Buyer shall accept a good and sufficient quitclaim deed (the "**Deed**") conveying good record and marketable title, subject to the Permitted Exceptions. The Title Company shall provide the title insurance to be issued to Buyer in connection with the transaction contemplated by this Agreement, at the Buyer's sole cost and expense.

Section 7.02 Intentionally Omitted.

Section 7.03 Seller has delivered to Buyer the Existing Title Report, together with copies of the instruments identified as exceptions therein. Buyer may make application to cause the Existing Title Report to be updated by the Title Company, and shall instruct the Title Company to deliver directly to each of Buyer and Seller copies of any updated title commitment so requested by Buyer (such updated title commitment being herein referred to as the "**Title Commitment**"). Buyer shall cause a copy of any updated Title Commitment, to be delivered to Seller not later than the earlier of (i) 5:00 p.m. on the last business day prior to the expiration of the Inspection Period and (ii) the date on which Buyer delivers any Objection Notice (as defined below) to Seller. Buyer agrees that it shall be solely responsible for payment of any costs relating to procurement of the Title Commitment.

Section 7.04 As part of the Due Diligence Documents, Seller will deliver to Buyer a land survey (the **"Survey"**) of the Property, prepared by Nitsch Engineering, Inc., and dated August 23, 2013. Seller has paid the cost of preparing the Survey. Written notice of any matters reflected on the Survey which Buyer finds objectionable shall be promptly delivered to the Seller by the earlier of (i) 5:00 p.m. on the last business day prior to the expiration of the Inspection Period and (ii) the date on which Buyer delivers any Objection Notice to Seller.

Section 7.05 If Buyer does not terminate this Agreement as provided in Section 5.02, then at or prior to 5:00 p.m. on the last business day of the Inspection Period, Buyer shall give Seller notice (the "**Objection Notice**") of all title and survey exceptions as to which the Buyer objects (any such specified item being herein called an "**Objection**"). Buyer shall be deemed to have waived any such item or items if it does not specify the same as an Objection in an Objection Notice within the aforementioned period.

Section 7.06 Seller shall have the following rights and obligations with respect to discharging, or attempting to discharge, any Objections:

(a) Seller shall be obligated to discharge the following title exceptions (each of which shall automatically be deemed to be an Objection): (A) any title exception that constitutes a mortgage encumbering the Property, (B) any title exception that constitutes a lien that was recorded against the Property (other than a Buyer's Lien) after

Environmental Partners GROUP
A partnership for engineering solutions.

January 17, 2017

David J. Hickey, P.E.
Town Engineer
Department of Public Works
2 Municipal Way
Wellesley Hills, MA 02481

RE: Phase II/Phase III Scope of Work
RTN 3- 32580 North 40 Former Landfill Site, 156 Weston Road, Wellesley, MA

Dear Mr. Hickey:

Environmental Partners Group, Inc. (Environmental Partners) is pleased to provide to the Town of Wellesley (the Town) this scope of work to address environmental assessment activities required to support a Phase II Comprehensive Site Assessment (Phase II) and Phase III Remedial Action Plan (Phase III) under the Massachusetts Contingency Plan (MCP) at the North 40 Former Landfill Site in Wellesley, MA (the Site). Provided below is a regulatory summary, proposed scope of work, and project schedule and budget.

BACKGROUND

Environmental Partners, on behalf of the Town and as LSP for the Site, submitted a Phase I Initial Site Assessment Report (Phase I), Tier Classification, and Conceptual Phase II Scope of Work for the Site to Massachusetts Department of Environmental Protection (DEP) on December 15, 2015. The DEP assigned Release Tracking Number (RTN) for this site is RTN 3- 32580. The Site is classified as a Tier I site, because of the presence of arsenic in groundwater within the Zone II for a public water supply well.

In accordance with the MCP 310 CMR 40.0560(2), following is a schedule of submittal deadlines for the Site:

> *"(2) Deadlines for Submittals. Except as provided by 310 CMR 40.0530(4), 40.0560(3), or 40.0000 or as otherwise ordered or agreed to in writing by the Department, an RP, PRP or Other Person undertaking response actions at a Tier Classified disposal site shall submit the following documents to the Department by the following deadlines: ...*
> *(b) a Phase II Report within three years of the effective date of Tier Classification;*
> *(c) if applicable, a Phase III Remedial Action Plan within four years of the effective date of Tier Classification;*
> *(d) if applicable, a Phase IV Remedy Implementation Plan within four years of the effective date of Tier Classification; and*
> *(e) a Permanent Solution Statement, or Temporary Solution Statement pursuant to 310 CMR 40.1000, or a Remedy Operation Status Submittal pursuant to 310 CMR 40.0893, within five years of the effective date of Tier Classification."*

As presented in the Phase I Report, in support of the North 40 property purchase by the Town, extensive assessment activities have already been performed at the landfill Site to date, including:

- Excavation of 14 test pits to delineate the nature and extent of the municipal landfill waste and impact to soils;
- Analysis of 10 test pit soil samples for VOCs, SVOCs, PCBs, metals, pesticides, herbicides, petroleum hydrocarbons (EPH and VPH), TCLP metals, and general chemistry;
- Installation of 7 groundwater monitoring wells for evaluating groundwater flow across the Site; and
- Sampling and analysis of groundwater from 4 landfill monitoring wells, for pH, specific conductance, temperature, dissolved oxygen, VOCs, SVOCs, PCBs, metals, pesticides/ herbicides, and landfill indicator parameters.

The proposed Phase II Scope of Work includes: installation of two additional groundwater monitoring wells; excavation of additional test pits within the landfill area to delineate the thickness and extent of cover material; and installation and sampling of three landfill gas piezometers within the landfill waste to support scope and design of the landfill remedy.

The Phase III Scope of Work will include the identification and evaluation of remedial action alternatives for the landfill. Environmental Partners will work closely with the Town during development of the Phase III alternatives analysis and the selected remedy from the Phase III evaluation will depend on the Town's intended use for the property.

The Phase II and Phase III Scope of Work are discussed in more detail below.

SCOPE OF WORK

Limited additional work is required under the Phase II to further characterize the nature and extent of contamination, identify potential receptors, or to develop remedial alternatives. The proposed Phase II activities to be performed under this scope of services are as follows:

Task 1: Excavate Test Pits

Task 2: Install and Sample Groundwater Monitoring Wells and Gas Piezometers

Task 3: Conduct In-situ Permeability Tests

Task 4: Prepare Phase II Comprehensive Site Assessment Report and Project Meetings

Task 5: Prepare Phase III Remedial Action Plan and Project Meetings

This section includes a description of the SOW to be performed under each task and assumptions and limitations for each task used to prepare this SOW and budget. Environmental Partners will not proceed beyond our authorized SOW without prior written approval from the Town.

Task 1: Excavation of Test Pits

Twelve test pits are planned to delineate the thickness of landfill cover material around the Site, in order to evaluate potential receptor and exposure pathways and to evaluate remedial alternatives. The location of these proposed test pits are shown on attached Figure 1. The test pits will be excavated to

approximately 2 feet into the underlying fill material (estimated 4 to 6 feet total depth), in order to confirm the thickness of fill and the presence of underlying landfill material. The location and number of test pits shown on Figure 1 are an estimate and may be revised based on field data.

Environmental Partners will use a GPS to flag the location of each test pit and will meet with the Town ahead of time to walk through the test pit locations. We assume that the Town will clear access to each test pit location and will provide a small excavator with operator to excavate the test pits. Environmental Partners geologist will be onsite to oversee the test pit excavation, log subsurface characteristics, and prepare detailed test pit logs. We assume that the Town will provide one person with the excavator for a period of four days to advance and back fill the test pits.

During advancement of the test pits, soil samples will be collected and visually screened for the presence of waste material. Samples will be described in the field for lithology and screened for VOCs with a photoionization detector (PID) using DEP's Jar Headspace Method.

Task 2: Install and Sample Groundwater Wells and Gas Piezometers

Two borings will be installed downgradient of the landfill and completed as groundwater monitoring wells and three landfill gas piezometers will be installed within the landfill waste, as follows:

- One boring/monitoring well near the southwest corner of the landfill to evaluate the groundwater quality in the direction of the Morse Pond public water supply wells and to better delineate groundwater flow in this direction;
- One boring/monitoring well downgradient of NF-4 to evaluate the nature and extent of arsenic in groundwater; and
- Three borings/gas piezometers within landfill waste, at the west, central and eastern portions of the landfill.

We assume that the Town will clear access to each drilling location as necessary prior to the start of drilling. The borings/observation wells will be installed with a truck-mounted drill rig to an estimated total depth of 40 feet below ground surface. If a Geoprobe drill rig is used, then soil samples from the borings will be collected continuously until termination of the boring. If an auger drilling rig is used, then two-foot split spoon samples will be collected every 5 feet to the total depth of the boring.

Soil samples from each boring will be described in the field for lithology and screened for VOCs with a PID using DEP's Jar Headspace Method.

Groundwater monitoring wells will be constructed within each borehole. Monitoring wells will be constructed of 2-inch diameter Schedule 40 PVC with a 10-foot screen set such that three feet of water is above the well screen and seven feet below. The wells will be completed with schedule 40 PVC riser to 3 feet above the ground surface and a locking protective steel casing. The wells will then be developed to ensure a proper connection to the aquifer.

Depth of each boring will depend upon the subsurface conditions. For cost estimate purposes we assume that the total depth of the borings will be up to approximately 40 feet below ground surface. During

advancement of the borings, soil samples will be collected and visually screened for the presence of waste material. Samples will be screened for VOCs using a PID and DEP's Jar Headspace Method.

The landfill gas borings will be drilled to a total depth of 8 feet below the top of the waste. The piezometers will be constructed with 2-inch diameter PVC with a 5-foot screen set within landfill waste.

Environmental Partners has assumed three days to install the soil borings, monitoring wells, and landfill gas piezometers.

The two newly installed monitoring wells and three landfill gas piezometers will be surveyed with a field GPS for location and elevation.

Prior to collecting groundwater samples, all existing and new monitoring wells will be gauged to determine depth to groundwater. The groundwater elevation data will be used to construct an updated groundwater flow map for the site.

Approximately one week following the installation and development of the monitoring wells, Environmental Partners Group will sample the new monitoring well along the southwest corner of the site for VOCs, SVOCs, RCRA 8 metals, and landfill indicator parameters. The well to be installed downgradient of well NF-4 will be only be sampled for arsenic. The wells will be sampled using low flow protocol to minimize sample turbidity. At this time, the landfill gas piezometers will be screened in the field for landfill gas parameters (methane, oxygen, hydrogen sulfide, and total VOCs) using a landfill gas meter.

Task 3: Conduct In-situ Permeability Tests

The MCP 310 CMR 40.0835(4)(d)3.a, requires that the Phase II include an assessment of groundwater potentiometric surface(s), gradients, flow rates, and flow direction. This is also a requirement under the Solid Waste Management Facility regulations. In order to determine groundwater flow rates, Environmental Partners will conduct in-situ permeability test, slug tests, at a total of three overburden monitoring well locations. The slug tests will consist of a rising head test. Falling head tests are not conducted in water table wells due to vadose zone interference. The information will be collected using a downhole data logger. Environmental Partners assumes that the slug test will require one day to complete. Environmental Partners will use the Bouwer and Rice (1976) solution or similar method to calculate an in-situ hydraulic conductivity.

Task 4: Prepare Phase II Comprehensive Site Assessment Report and Project Meetings

Environmental Partners will prepare a Phase II Comprehensive Site Assessment (CSA) Report in accordance with the requirements of 310 CMR 40.40.0835. The Phase II CSA Report will include the following information:

1. **Site Hydrogeological Characteristics:** including details of subsurface investigations conducted at the Site; a comprehensive description and depiction of site hydrogeologic conditions, including, a groundwater flow map, gradients, flow rates, and flow directions; and soil types, stratigraphy, and permeability;

2. **Environmental Fate and Transport of Oil and/or Hazardous Material (OHM):** including, an evaluation of the environmental fate and transport characteristics of the oil and/or hazardous material identified at the disposal site, (i.e., mobility, stability, volatility, persistence and bioaccumulative potential of the OHM); identification and characterization of existing and potential migration pathways of the oil and/or hazardous material at and from the Site, including, as appropriate, air, soil, groundwater, soil gas, preferential migration pathways such as subsurface utility lines and other subsurface void spaces, surface water, sediment, and food chain pathways; and an evaluation of the potential for soil and groundwater to be a source of vapors of oil and/or hazardous material to indoor air; and
3. **Nature and Extent of Contamination:** including a characterization of the nature, and vertical and horizontal extent of OHM in the environment, including any and all sources, and tabulation of analytical testing results.

The Phase II CSA also includes performing an Exposure Assessment and Risk Characterization in accordance with 310 CMR 40.0900. The Exposure Assessment includes the identification and characterization of all potential human and environmental receptors that could be impacted by oil and/or hazardous material at or migrating from the disposal site, and, as appropriate, the quantification of exposure of oil and/or hazardous material to these receptors, under current and reasonably foreseeable site conditions. The Risk Characterization will be performed for all appropriate human and environmental receptors identified at and near the disposal site.

For scope and cost estimate purposes, we have assumed that a Method 1 Risk Characterization will be performed. A Method 1 Risk Characterization compares the conditions at the disposal site to promulgated MCP Method 1 Standards. In accordance with 310 CMR 40.0971 a Method 1 Risk Characterization is appropriate for the Site because the presence of oil and/or hazardous material is limited to soil and/or groundwater. In addition to the Method 1 Risk Characterization, a separate characterization of the risk of harm to safety will be performed in accordance with 310 CMR 40.0960.

Task 5: Phase III Remedial Action Plan and Project Meetings

A Phase III evaluation of remedial alternatives will be conducted for the landfill area and the results documented in a Phase III Remedial Action Plan that will recommend a remedy for the landfill. Environmental Partners will work closely with the Town during development of the Phase III alternatives analysis and the selected remedy from the Phase III evaluation will depend on the Town's intended use for the property.

The Phase III evaluation will include the identification and evaluation of remedial action alternatives that are reasonably likely to achieve a level of No Significant Risk considering the oil and hazardous material present, media contaminated, and site characteristics. At a minimum, the Phase III will include evaluation of the following comprehensive response actions: (1) Soil Cover and (2) Re-grading of the Site and Implementation of Appropriate Technologies to achieve a level of No Significant Risk for Development of Athletic Fields.

The remedial action alternatives identified by the initial screening will be evaluated using the following criteria:

(1) The comparative effectiveness of the alternatives.
(2) The comparative short-term and long-term reliability of the alternatives
(3) The comparative difficulty in implementing each alternative
(4) The comparative costs of the alternatives
(5) The comparative risks of the alternatives
(6) The comparative timeliness of the alternatives in terms of eliminating any uncontrolled sources of oil and/or hazardous material and achieving of a level of No Significant Risk
(7) The relative effect of the alternatives upon non-pecuniary interests, such as aesthetic values

The results of the Phase III evaluation will be documented in a Phase III Remedial Action Plan that describes and documents the information, reasoning and results used to identify and evaluate remedial action alternatives in sufficient detail to support the selection of the proposed remedial action alternative.

SCHEDULE

The Phase II Report must be submitted to DEP within three years of the Tier Classification (or December 15, 2018) and the Phase III Report within four years of Tier Classification (or December 15, 2019). Following is a summary of the anticipated timeframes to complete the task discussed above:

- Environmental Partners anticipates three weeks will be required to complete the test pit activities, including coordination with the Town, clearing, and installation of test pits. This schedule depends upon the Town's availability to clear access to the test pit locations and to excavate the test pits.
- An estimated two weeks will be required to mobilize a drilling crew to the site and for installation of the two monitoring wells and three gas piezometers. The wells and piezometers will be sampled and in-situ permeability testing performed within two weeks after installation.
- Preparation of a DRAFT Phase II Report with the Exposure Assessment and Risk Characterization and Phase III Remedial Action Plan for review by the Town will require 12 weeks to complete and two weeks to revise based on comments provided by the Town.
- Environmental Partners has included in this budget a total of four project meetings with the Town at the Town's discretion.

Environmental Partners is prepared to begin work on this project upon receiving written authorization to proceed. Work associated with the test pits and monitoring wells can proceed simultaneously. Environmental Partners anticipates a total of 16 weeks to complete this scope of work. If requested, Environmental Partners can work with the Town to expedite the project schedule.

BUDGET

Environmental Partners estimates that the cost to complete the proposed scope of work is $74,200. This estimated cost includes labor and expenses (i.e., drilling, surveying, laboratory costs etc.). Environmental Partners will not perform additional tasks without your authorization. This project estimated cost may need to be adjusted if the SOW exceeds the stated assumptions. Only those costs incurred by Environmental Partners will be charged, but they will not exceed the estimated cost without your prior approval.

ADDITIONAL LIMITATIONS

To the extent that the services require judgment, there can be no assurance that fully definitive or desired results will be obtained, or that if any results are obtained, they will be supportive of any given course of action. The services may include the application of judgment to scientific principles; to that extent, certain results of this work may be based on subjective interpretation.

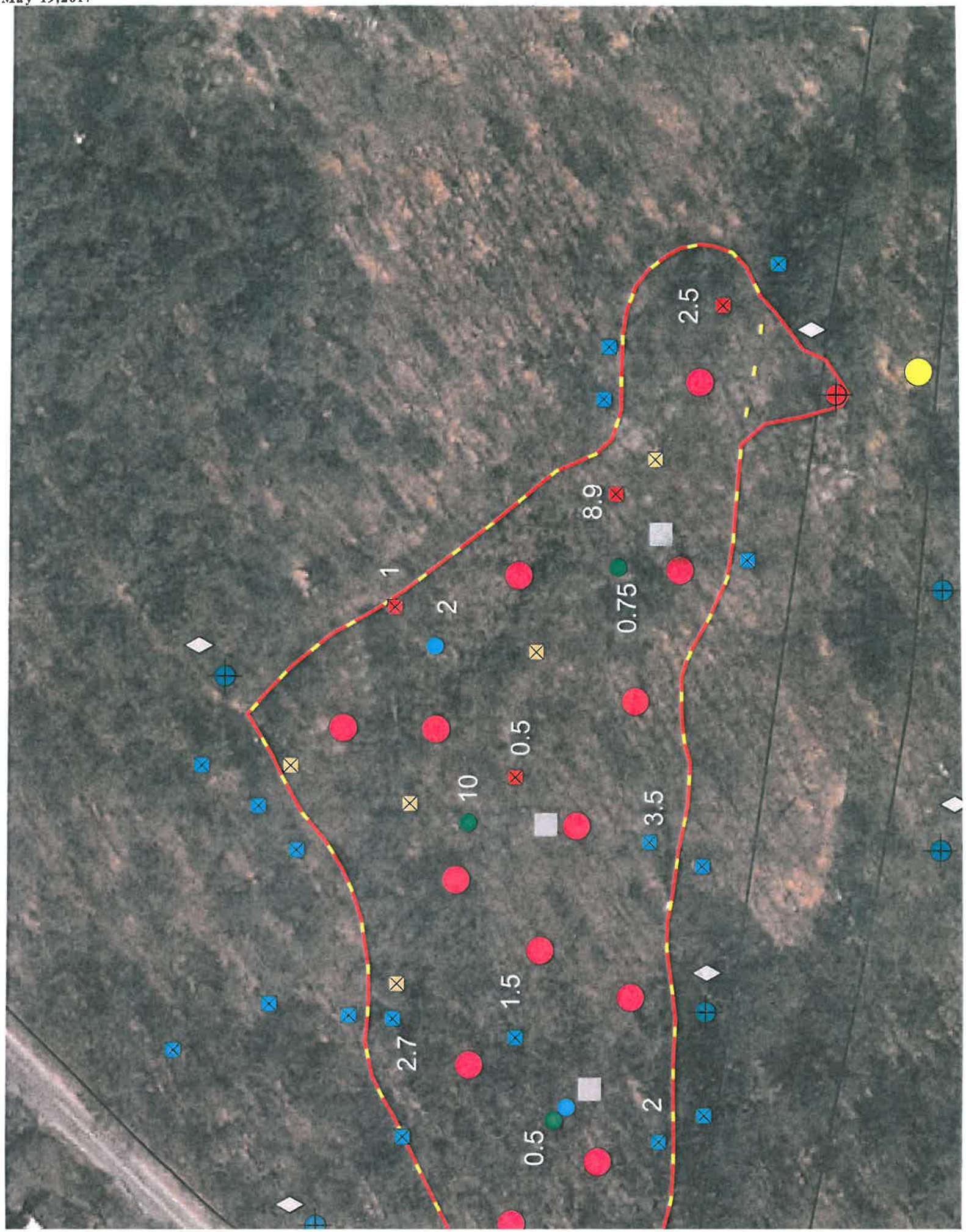
If you have any questions or need additional information regarding this scope of services or cost, please feel free to e-mail or call either Paul Gabriel at (617) 657-0250 / pfg@envpartners.com or Ann Marie Petricca at (617) 657-0299 / amp@envpartners.com.

Very truly yours,
ENVIRONMENTAL PARTNERS GROUP, INC.

Paul F. Gabriel, P.E. LSP
Principal

Ann Marie Petricca, C.P.G.
Project Manager

Enclosures: Site Plan


2.5
8.9
1
2
0.75
0.5
10
3.5
1.5
2.7
2
0.5

9. Discuss Liaison Updates

Ellen and Beth are scheduled to give updates to the rest of the board on the activities of the boards they are assigned to.

10. **Discuss Summer Meeting Schedule**

Thank you for letting me know what weeks you have plans during the summer so that we can determine what nights would be most convenient for all to attend meetings. Also, it was decided at the retreat that we would meet on Tuesday this summer to better accommodate schedules. Thus below are the Tuesdays that are not in conflict for anyone, and meetings could be scheduled. It would be helpful for planning purposes if we can select some dates so that we can coordinate those meetings for anyone else who will be in attendance. The available dates are:

July 18th (BOS available, Blythe vacation)
July 24th
July 31st
August 15th
August 22nd

There are three other weeks when at least four Selectmen area available, as well as staff if we need to add a meeting, and those are: August 1, 8, and 29.

11. New Business & Correspondence

Other Documents: The Board will find documents the staff is not seeking action on, but is for informational purposes only. Please find the following:

- Letter to Ms. Twigg – donation to the Fire Department
- Marathon Entries – Fundraising results as of May 19, 2017
- Passport Pay by Phone – Results of transactions & revenue through April, 2017
- 40B Delanson Circle Information

TOWN OF WELLESLEY MASSACHUSETTS

BOARD OF SELECTMEN

TOWN HALL • 525 WASHINGTON STREET • WELLESLEY, MA 02482-5992

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BLYTHE C. ROBINSON
EXECUTIVE DIRECTOR OF GENERAL GOVERNMENT

May 16, 2017

Ms. Julia Twigg
2 Meadowbrook Road
Wellesley, Massachusetts 02481

Dear Ms. Twigg:

On behalf of the Board of Selectmen and the Town I would like to thank you for your very generous gift of $500 to the Fire Department.

As I'm sure you know, it is of the highest priority to our public safety staff to assist people in need, and we certainly don't expect or anticipate a donation. I am sorry to hear that your son needed our services on two occasions, but glad that we were able to respond quickly and remediate the basement flooding.

The Chief has asked that the donation be put towards the department's Senior Citizens Annual Thanksgiving Dinner Fund which is what we will do. Your donation will go a long way to providing a dinner to an important cohort of our community, some of which may be in need.

Thank you again for your generosity to the Town, we are glad we could provide the assistance you needed.

Sincerely,

Blythe C. Robinson
Executive Director

Cc: Board of Selectmen
Chief DeLorie

Passport Pay-By-Phone Parking Revenue January 2017 - April 2017

Month		# of Transactions	Paid to Wellesley
Jan-17	partial	966	$1,168.50
Feb-17		2,121	$3,130.52
Mar-17		3,618	$5,701.67
Apr-17		3,570	$5,736.22
Totals		**10,275**	**$15,736.91**

2017 Boston Marathon - Invitational Entries	Runner	Fundraising Total
Friends of Wellesley METCO	4	
	Jason Gardner	11,000.00
	Ricki Benjamin	6,410.00
	Ryan Dietz	4,669.00
	Cassie Short	4,640.00
Wellesley Scholarship Foundation	4	
	Rafael Gomez	4,956.33
	Karen Haddock	5,386.13
	Bill Pedersen	4,940.00
	Karen Keenan	10,000.00
Wellesley Friendly Aid	1	
	Brian K Gerhardson	4,000.00
War Memorial Scholarship Fund	2	
	Diana Katsikaris	5,220.00
	Tim Clark	4,000.00
Wellesley A Better Chance (ABC)	2	
	Brennan Mullin	5,377.00
	Brian Reddy	6,348.00
Wellesley Education Foundation (WEF)	2	
	Mark Ito	6,631.00
	Diana Hockett	4,297.00
Friends of the Council on Aging	1	
	Elizabeth Bradley	4,665.72
Community Investors	1	
	Puneet Bhatia	13,010.00
Elizabeth Seton Residence	1	
	Kevin Flynn	5,430.00
Newton Wellesley Weston Committee for Community Living	1	
	Kate Mignosa	6,305.00
Adolescent Wellness, Inc (AWI)	1	
	Natasha Snapper	23,441.00
World of Wellesley	1	
	Ilyse Cody	5,100.00
Mass Bay Community College Foundation	1	
	Sue Maggioni	9,111
Total	22	$154,937.23

Jop, Meghan

From: Zehner, Michael
Sent: Friday, May 19, 2017 9:26 AM
To: Robert Engler Robert Engler
Cc: VICTOR SHEEN; Tani Halperin; Dartagnan Brown
Subject: RE: Wellesley - Updated Plans

Bob,
Thank you for providing these, and for your consideration of revisions based on our preliminary comments. I also appreciate you letting me know of the anticipated application.

Thanks,
Michael

Michael D. Zehner, AICP, LEED Green Assoc.
Planning Director

Town of Wellesley - Planning Department
525 Washington Street, Wellesley, MA 02482
Phone: 781.431.1019 x2234 - Email: mzehner@wellesleyma.gov

Like us on Facebook! Follow us on Twitter!

When responding, please be advised, the Town of Wellesley and the Secretary of State have determined that email could be considered a public record.

From: Robert Engler Robert Engler [mailto:bob@s-e-b.com]
Sent: Thursday, May 18, 2017 3:47 PM
To: Zehner, Michael <mzehner@wellesleyma.gov>
Cc: VICTOR SHEEN <vsheen@outlook.com>; Tani Halperin <tanihalperin@gmail.com>; Dartagnan Brown <dbrown@embarcstudio.com>
Subject: FW: Wellesley - Updated Plans

Michael

Attached are the updated plans since we last met with you and other members of the Town: we have highlighted below what changes we have made as a result of that meeting and subsequently with the Fire department.

-- Shift garage entrance from Linden to Hollis to allow more queuing;
-- Shift pedestrian walkway / entrance to upper courtyard to Linden, across from Commuter Rail Station;
-- Addition of driveway off Hollis to allow emergency vehicular access to the upper courtyard;
-- Elimination of standalone clubhouse building in the upper courtyard;
-- Additional parking in garage.

We plan on filing next week with MHP but we are providing these now for a little additional time for your review prior to getting their 30 day comment period letter. Of course, you will be receiving a full application package when we submit.

Bob

WELLESLEY SQUARE RESIDENCES

8 Delanson Circle Wellesley, MA 02482

DELANSON REALTY PARTNERS

CONCEPT PACKAGE

May 15, 2017

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AERIAL
WELLESLEY SQUARE RESIDENCES
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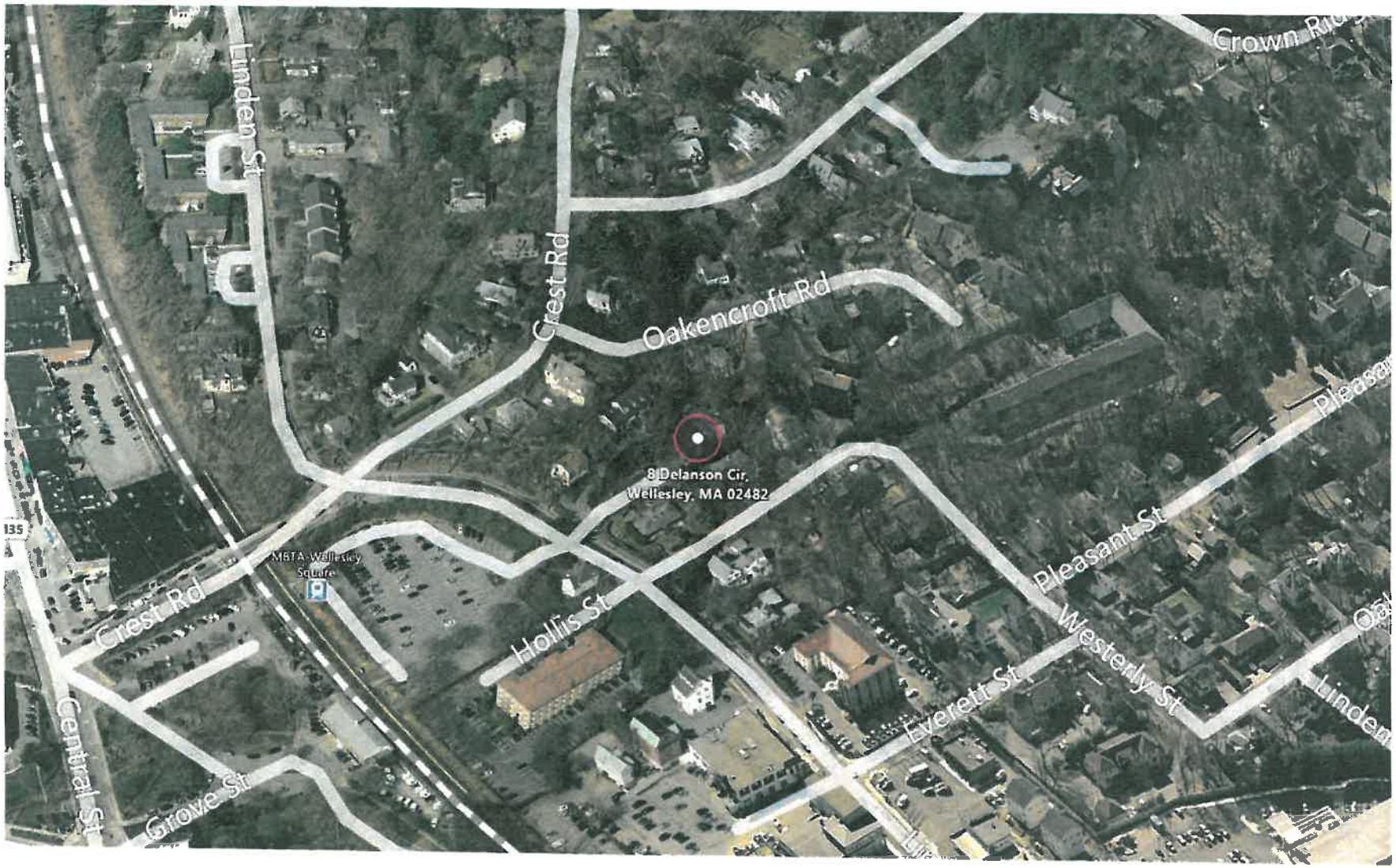

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BIRD'S EYE VIEW
WELLESLEY SQUARE RESIDENCES
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PARKING PLAN
WELLESLEY SQUARE RESIDENCES
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05

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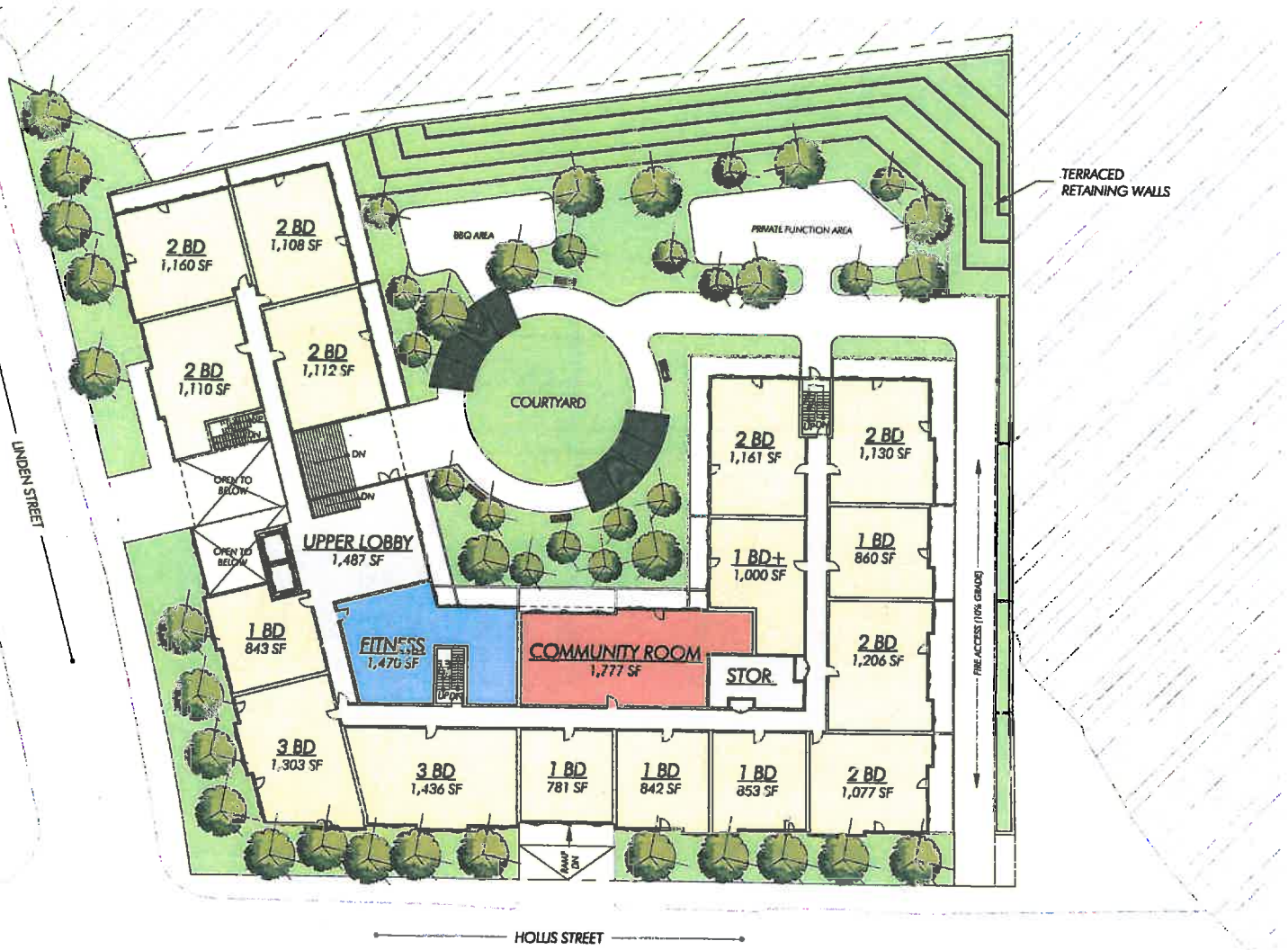

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FIRST FLOOR PLAN
WELLESLEY SQUARE RESIDENCES
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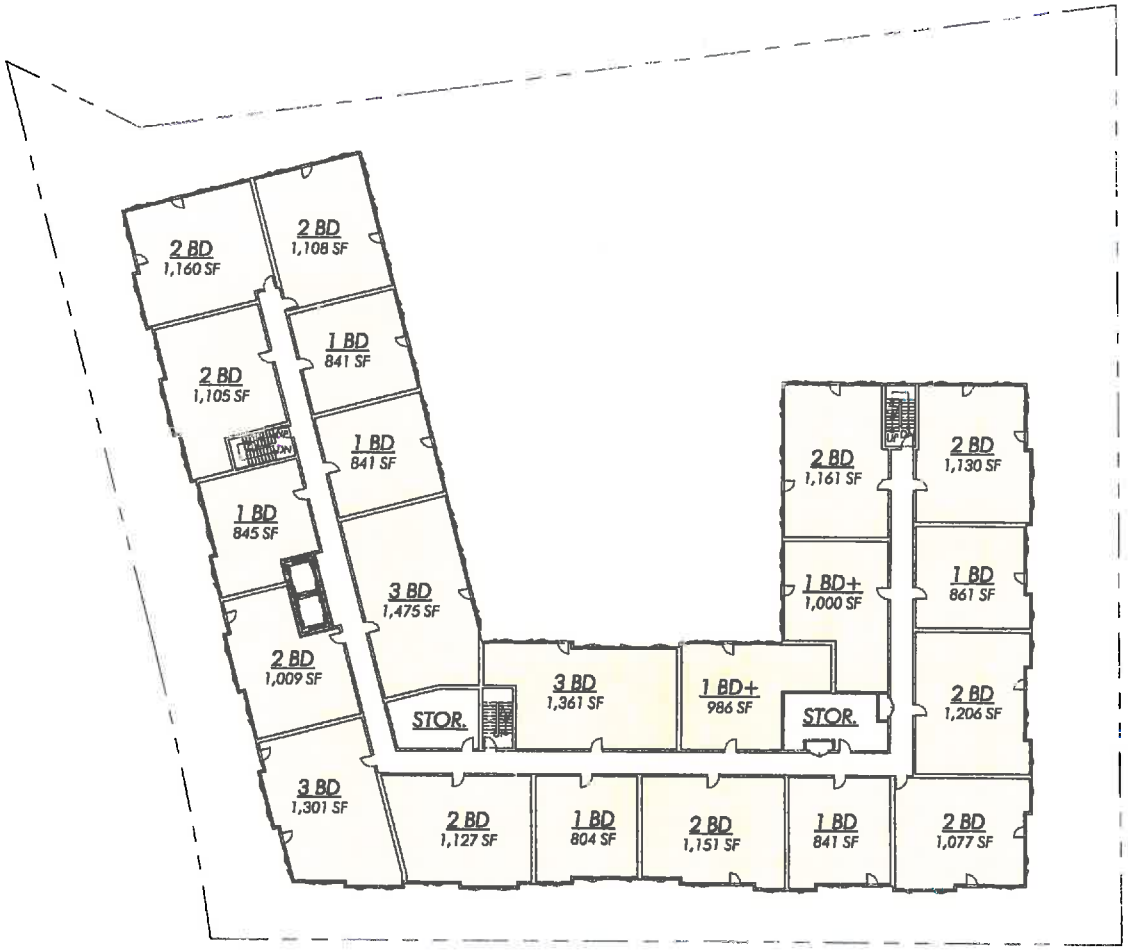

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SECOND FLOOR PLAN (TYP. 2-4)
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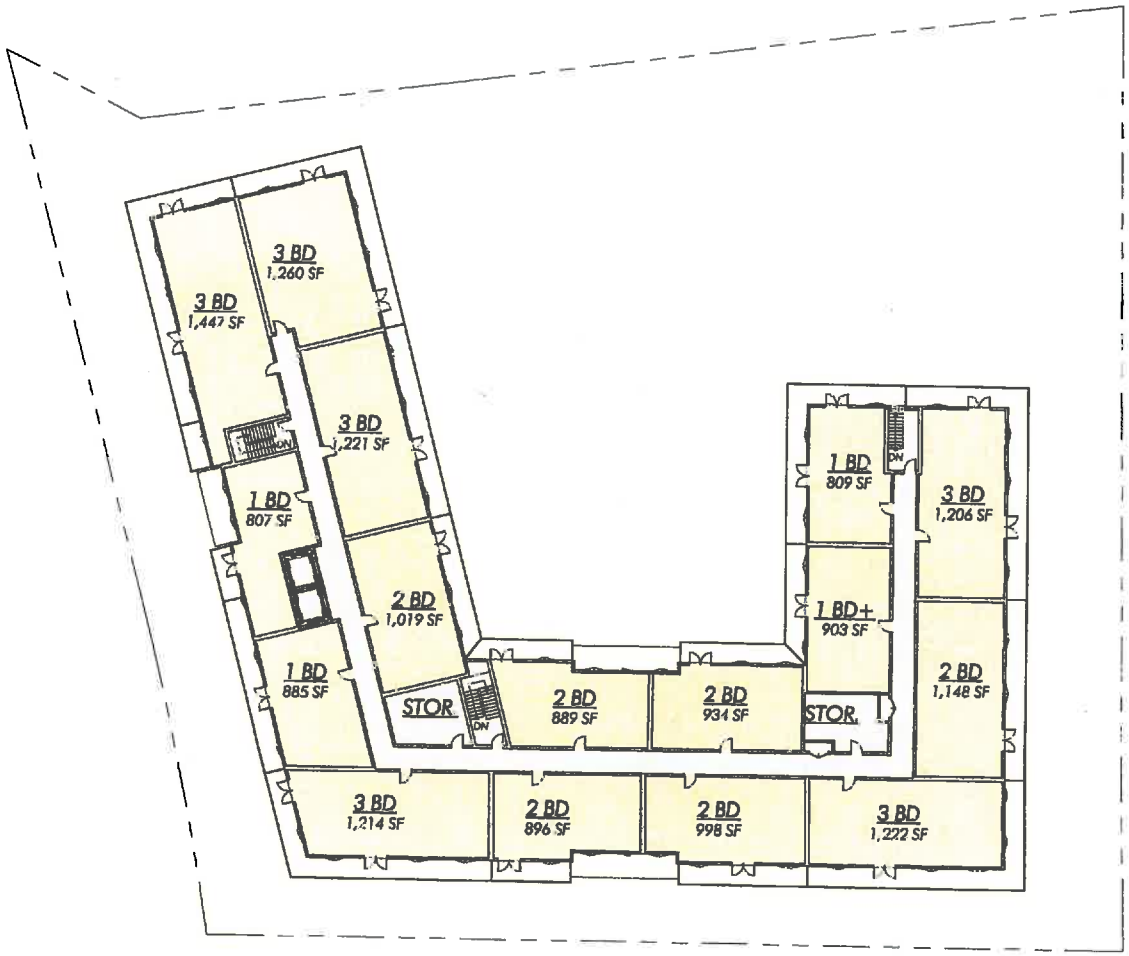

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PENTHOUSE PLAN
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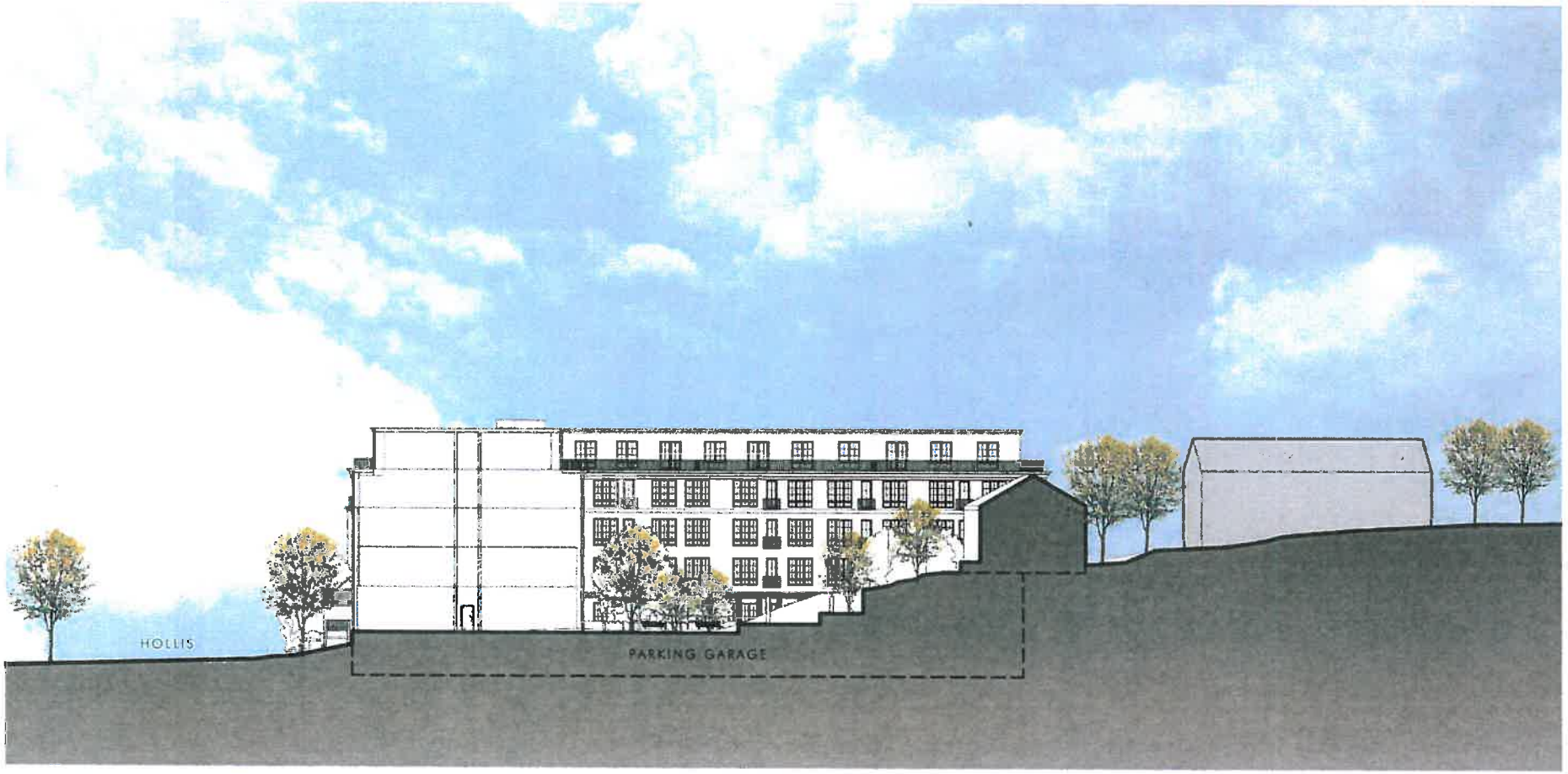

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 | 5/15/2017 4:03:59 PM | C:\Users\dshur\OneDrive\Documents_Revit Files\17003 8 Dekanson Circle_cshurryWRQ.rvt

SITE SECTION
WELLESLEY SQUARE RESIDENCES
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VIEW FROM HOLLIS STREET
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VIEW FROM LINDEN STREET
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VIEW FROM CORNER
WELLESLEY SQUARE RESIDENCES
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RENTABLE/SELLABLE AREA

AREA TYPE	TYPE	AREA
RESIDENTIAL		16,983 SF
FIRST FLOOR: 16		16,983 SF
RESIDENTIAL		22,391 SF
SECOND FLOOR: 21		22,391 SF
RESIDENTIAL		22,642 SF
THIRD FLOOR: 21		22,642 SF
RESIDENTIAL		22,414 SF
FOURTH FLOOR: 21		22,414 SF
RESIDENTIAL		16,856 SF
PENTHOUSE: 16		16,856 SF
TOTAL RENTABLE/SELLABLE GSF		101,286 SF

COMMON AREA

AREA TYPE	AREA
CORE	3,315 SF
PARKING	3,315 SF
CORE	4,209 SF
FIRST FLOOR	4,209 SF
CORE	3,661 SF
SECOND FLOOR	3,661 SF
CORE	3,403 SF
THIRD FLOOR	3,403 SF
CORE	3,403 SF
FOURTH FLOOR	3,403 SF
CORE	3,446 SF
PENTHOUSE	3,446 SF
TOTAL COMMON GSF	21,437 SF

BUILDING GSF / FAR

LEVEL	AREA	FAR
PARKING	4,123 SF	0.07
FIRST FLOOR	24,439 SF	0.40
SECOND FLOOR	26,052 SF	0.42
THIRD FLOOR	26,045 SF	0.42
FOURTH FLOOR	25,817 SF	0.42
PENTHOUSE	20,303 SF	0.33
TOTAL BUILDING GSF	126,779 SF	2.05
TOTAL SITE GSF:	61,774 SF	

AMENITY AREA

AREA TYPE	TYPE	AREA
AMENITY	LEASING	809 SF
PARKING: 1		809 SF
AMENITY	FITNESS	1,470 SF
AMENITY 2	COMMUNITY ROOM	1,777 SF
FIRST FLOOR: 2		3,247 SF
TOTAL RENTABLE/SELLABLE GSF		4,056 SF

UNIT COUNT

TYPE	COUNT	AVG. GSF
1 BD	26	850 SF
1 BD+	8	950 SF
2 BD	44	1,100 SF
3 BD	17	1,300 SF
TOTAL UNITS	95	

PARKING COUNT

TYPE NAME	COUNT
STANDARD	54
TANDEM	30
TOTAL PARKING SPACES	84
PARKING/UNIT RATIO:	0.88 SPACES/UNIT

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