BOWDITCH

Bowditch & Dewey, LLP
311 Main Street | PO Box 15156 | Worcester, MA 01615
508-791-3511 | bowditch.com

Mark A. Borenstein
Direct telephone: 508-926-3459
Direct facsimile: 508-929-3088
Email: mborenstein@bowditch.com

February 15, 2024

VIA E-MAIL – PLANNING@WORCESTERMA.GOV
Division of Planning & Regulatory Services
City Hall Room 404
455 Main Street
Worcester, MA 01608
Attn: Michelle M. Smith, Assistant Chief Development Officer

Re: Worcester Lagrange MM LLC - Application to City of Worcester Planning Board for Definitive Site Plan Review Amendment and CCOD Special Permit for a Multifamily Development Project at 30, 35, 42, 44, 47 & 50 Lagrange Street and 47 Oread Street, Worcester, Massachusetts (the "Property")

Dear Ms. Smith,

On behalf of Worcester Lagrange MM LLC (the "Applicant"), this Firm and Attorney Donald J. O'Neil hereby jointly file its application to the City of Worcester Planning Board (the "Board") for Definitive Site Plan Review amendment and CCOD Special Permit for an increase in the maximum amount of allowed parking within the CCOD-D in connection with the demolition of one (1) of the existing buildings on the Property, the conversion of four (4) existing buildings into approximately sixty-three (63) affordable and workforce housing dwelling units with 5,108+/- square feet of commercial space and the construction of 88 +/- parking spaces and associated site work (the "Original Lagrange Project").

The Applicant now seeks to amend the definitive site plan approval for the Original Lagrange Project to reconfigure the proposed off-street parking adjacent to the west of the building located at 42 Lagrange Street to increase the number of parking spaces from fifteen (15) spaces to forty-one (41) spaces which will be located at 30 Lagrange Street and conduct related site improvements as shown on the plans.

We hereby submit the following items for filing with the Board:

1. Definitive Site Plan Review Amendment Application;
2. CCOD Special Permit Application with Certificate of Tax/Revenue Collection Compliance;
3. Project Impact Statement and Statement in Support;
4. Civil Plan Set;

5. Drainage Report;
6. Zoning Determination Form (to be submitted under separate cover letter);
7. Traffic Impact and Access Study;
8. Certified List of Abutters;
9. Approval Decisions for the Original Lagrange Project; and
10. Plans for the Original Lagrange Project.

We will coordinate with staff to facilitate the submission of the addressed envelopes, the filing fees payable to the City of Worcester and necessary copies of the above items.

Kindly file this Application with the City Clerk and schedule this Application to be presented and discussed at the Board's next available meeting, which is scheduled to occur on **March 20, 2024**. Please let me know if you have any questions concerning the enclosed. Thank you for your assistance with this matter.

Sincerely,

Mark A. Borenstein,

Enclosures

cc: Donald J. O'Neil, Esquire
Project Team

DEFINITIVE SITE PLAN AMENDMENT APPLICATION

CITY OF WORCESTER PLANNING BOARD
455 Main Street, Room 404, Worcester, MA 01608
Phone 508-799-1400 Ext. 31440 - Fax 508-799-1406

1. Name of Applicant: Worcester Lagrange MM LLC

2. Address of Applicant: 179 Boylston Street, Building P, Jamaica Plain, MA 02130

3. Telephone: (617) 838-9388

4. Interest in Property (check one):
A. Owner ☐ B. Developer ☒ C. Other ☐

5. Owner of Record: Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust (30, 35, 42,44 and 50 Lagrange Street and 47 Oread Street) and Sem-Tec, Inc. (47 Lagrange Street)
(If different from Applicant)

**MBL 06-28-0004B (30 Lagrange St)
03-001-00001 (35 Lagrange St)
06-028-00019 (42 Lagrange St)
06-028-00001 (44 Lagrange St)
03-001-00005 (47 Lagrange St)
06-028-00014 (50 Lagrange St)
06-028-00015 (47 Oread St)

6. Address of Owner of Record: 47 Lagrange Street, Worcester, MA 01610
Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust and President and Treasurer of Sem-Tec, Inc

7. **AUTHORIZATION**: I, _____, Owner of Record of the property listed with the Assessing Division of the City of Worcester, Massachusetts as Map ** _____ Block _____ Lot(s) _____, do hereby authorize Worcester Lagrange MM LLC to file this application with the Division of Planning & Regulatory Services of the City of Worcester on this the 17 day of February, 20 24.

Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust

Sem-Tec, Inc.
By _____
Stephen A. Krosoczka, President and Treasurer

On this 1 day of February, 20 24, before me personally appeared Stephen A. Krosoczka, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

_____
NOTARY PUBLIC

My Commission Expires: 12/1/28

Mark A. Bonetelli
NOTARY PUBLIC
COMMONWEALTH OF MASSACHUSETTS
MY COMMISSION EXPIRES December 1, 2028

(If there is more than one owner of the land to be considered in this application, a notarized authorization is required for each owner.)

8. Street Address of the Property in this Application:
30, 35, 42, 44, 47 and 50 Lagrange Street and 47 Oread Street

9. Legal Description of Property:
Deeds to Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust recorded with the Worcester District Registry of Deeds in Book 55344, Pages 70 (47 Oread Street), 72 (30 Lagrange Street), 74 (35 Lagrange Street), 77 (42 Lagrange Street), 82 (44 Lagrange Street), 84 (50 Lagrange Street). Deed into Sem-Tec, Inc. recorded with the Worcester District Registry of Deeds in Book 6360, Page 320 (47 Lagrange Street).

10. Zoning Classification(s):
Business, General (BG-6.0) and Commercial Corridors Overlay District - Downtown (CCOD-D)

11. Present Use:

The subject property consists of 6 parcels with a total of approximately 3.9 acres of land occupied by five (5) industrial buildings with a total floor area of approximately 111,000 SF.

12. Zoning Relief Previously Granted (Variances, Special Permits with dates approved):

N/A

13. Development Contains the Following:

Residential

Number of Dwelling Units	63
Number of Buildings	4
Number of Parking Spaces	111

Non-Residential

Building Square Footage	+/- 5,108 SF
Number of Buildings	1
Number of Parking Spaces	0

14. Describe Proposed Use/General Description of Proposed Development of Property:

Please see attached Project Impact Statement and Statement in Support

15. Describe proposed amendments to the approved Definitive Site Plan (may answer by attaching separate letter):

Please see attached Project Impact Statement and Statement in Support

CITY OF WORCESTER PLANNING BOARD

SPECIAL PERMIT APPLICATION FOR COMMERCIAL CORRIDOR OVERLAY DISTRICT

Division of Planning & Regulatory Services
City Hall, 455 Main Street, Room 404, Worcester, MA 01608
Office 508-799-1400 Ext. 31440 – Fax 508-799-1406

1. Street Address of the Property in this Application: 30, 35, 42, 44, 47 and 50 Lagrange Street and 47 Oread Street

   Assessor's Map, Block & Lot: MBL06-28-0004B (30 Lagrange St); 03-001-00001 (35 Lagrange St); 06-028-00019 (42 Lagrange St); 06-028-00001 (44 Lagrange St); 03-001-00005 (47 Lagrange St); 06-028-00014 (50 Lagrange St); and 06-028-00015 (47 Oread St)

2. Name of Applicant: Worcester Lagrange MM LLC

3. Address of Applicant: 179 Boylston Street, Building P, Jamaica Plan, MA 02130

4. Telephone: (617) 838-9388

5. E-mail: jon@rees-larkindevelopment.com

6. Interest in Property:

   A. Owner ☐ B. Developer ☒ C. Other ☐

7. Owner of Record, if different from Applicant: The Krosoczka Properties Trust (30, 35, 42, 44, 50 Lagrange and 47 Oread Street); Sem-Tec, Inc. (47 Lagrange Street)

8. Address of Owner of Record: 47 Lagrange Street, Worcester, MA 01610

9. *If the applicant is different from the owner, fill out the following:*

   AUTHORIZATION: I, Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust and President and Treasurer of Sem-Tec, Inc., Owner of Record of the property listed with the Assessing Division of the City of Worcester, Massachusetts as Map ** Block _____ Lot(s) _____, do hereby authorize Worcester Lagrange MM LLC to file this application with the Division of Planning & Regulatory Services of the City of Worcester on this the 15th day of February, 2024.

   **MBL 06-28-0004B (30 Lagrange St)
   03-001-00001 (35 Lagrange St)
   ~~06-028-00019 (42 Lagrange St)~~
   06-028-00001 (44 Lagrange St)
   03-001-00005 (47 Lagrange St)
   06-028-00014 (50 Lagrange St)
   06-028-00015 (47 Oread St)

   Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust

   Sem-Tec, Inc.
   By: Stephen A. Krosoczka, President and Treasurer

   On this 15th day of February, 2024, before me personally appeared Stephen A. Krosoczka, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he/she executed the same as his/her free act and deed.

   NOTARY PUBLIC

   Mark A. Borenstein NOTARY PUBLIC COMMONWEALTH OF MASSACHUSETTS MY COMMISSION EXPIRES December 1, 2028

   My Commission Expires: 12/1/28

   (If there is more than one owner of the land to be considered in this application, a notarized authorization is required for each owner.)

10. What CCOD Special Permit/s Are You Applying For? (check all that apply):

- ☐ **CCOD Special Permit for Motor Vehicle Related Uses:** To allow certain automobile-related uses within the CCOD under Article IX Section 5.A.1.a
- ☐ **CCOD Special Permit for Residential Conversion:** To allow conversion of existing buildings to multi-family residential uses, mixed-use buildings with a residential component, or a loft, creative entrepreneurs use where not allowed as of right in the underlying zoning district under Article IX Section 5.B.
- ☐ **CCOD Special Permit for Drive-Through:** To allow Drive-Through Facilities and Services under Article IX Section 5.C.
- ☐ **CCOD Special Permit for Building Setback:** For relief from the Building Front Yard Setback Maximum Dimensional Requirements under Article IX Section 6.A.6.
- ☐ **CCOD Special Permit to Reduce Parking Requirements for Conversion or Reuse of Existing Buildings:** To reduce minimum parking requirements for non-residential change of use or building reuse under Article IX Section 7.B.3.c.ii.
- ☐ **CCOD Special Permit to Reduce Parking Requirements for Mixed Use:** To reduce minimum parking requirements through credit for Mixed Use Development under Article IX Section 7.C.2.b.
- ☒ **CCOD Special Permit to Exceed Parking Maximums:** To exceed the maximum parking limits specified in the CCOD under Article IX Section 7.E.
- ☐ **CCOD Special Permit for Modification of Parking Dimensional Requirements:** For relief from parking dimensional requirements under Article IX Section 7.E.

11. Zoning Classification(s):

Business, General (BG-6.0) and Commercial Corridors Overlay District - Downtown (CCOD-D)

12. Present Use:

The subject property consists of 6 parcels with a total of approximately 3.9 acres of land occupied by five (5) industrial buildings with a total floor area of approximately 111,000 SF.

13. Describe Proposed Use/General Description of Proposed Development of Property (include information about buildings (area, etc.) to be retained and proposed uses (in SF) of all buildings on site). Attach additional sheets if necessary:

Please see the attached Project Impact Statement and Statement in Support.

14. Land Use Approvals / Relief Previously Granted by other land use Boards:

Definitive Site Plan Approval granted by Planning Board on September 8, 2021 (PB-2021-061) and Extension of Time on October 12, 2022.

15. SPECIAL PERMIT FINDINGS OF FACT

The Board will make findings based on the criteria below to determine whether or not to approve the Special Permit. The Board may choose to adopt the findings of fact provided by the applicant or modify them based on public or staff comments, or Board discussion as needed.

In the spaces below, explain how the adverse effects of the proposed use will not outweigh its beneficial impacts to the City with respect to each of the following considerations per Article II, Section 6(A)(2) of the Zoning Ordinance. (Attach additional supporting documentation as necessary.)

a. Social, economic or community needs that are served by the proposal:

Please see attached Project Impact Statement and Statement in Support

b. Traffic flow and safety, including access, parking and loading areas:

Please see attached Project Impact Statement and Statement in Support

c. Adequacy of utilities and other public services:

Please see attached Project Impact Statement and Statement in Support.

d. Neighborhood character and social structure:

Please see attached Project Impact Statement and Statement in Support.

e. Impacts on the natural environment:

Please see attached Project Impact Statement and Statement in Support.

f. Potential fiscal impact, including city services needed, tax base, and employment:

Please see attached Project Impact Statement and Statement in Support.

16. SUPPLEMENTARY SPECIAL PERMIT FINDINGS OF FACT

Complete the requested additional information for the Special Permit(s) requested. Attach additional documentation as necessary. Only complete the sections which pertain to the Special Permit(s) you are applying for.

a. CCOD Special Permit for Motor Vehicle Related Uses:
If applying for a Special Permit to allow certain automobile-related uses within the CCOD under Article IX Section 5.A.1.a, complete the following:

i. In the space below explain whether an existing building retains physical features, such as repair bays and/or specialized built-in equipment, and whether these characteristics are unique and central to the proposed use:

b. CCOD Special Permit for Residential Conversion
Not applicable. No supplemental findings of facts are required.

c. CCOD Special Permit for Drive-Through
If applying for a Special Permit to allow Drive-Through Facilities and Services under Article IX Section 5.C, complete the following:

i. Describe the proximity to residential uses and potential impacts to residents resulting from proposed drive-through design and operating characteristics.

ii. Explain whether the proposed site layout will have a detrimental effect on the street facade, require excessive driveway curb cuts, or adversely impact the pedestrian environment.

iii. Describe screening of the drive-through service and lanes from the fronting street.

d. CCOD Special Permit for Building Setback

If applying for relief from the building front yard setback maximum dimensional requirements under Article IX Section 6.A.6, complete the following:

i. Describe how the proposed project has unique architectural or functional aspects that warrant greater setback.

ii. Explain how the proposed setback will not detract from the pedestrian environment or character of the neighborhood.

iii. Explain how the front yard setback will be used for appropriate landscaping, pedestrian facilities or open spaces, and not for parking, loading or storage.

e. CCOD Special Permit to Reduce Parking Requirements for Conversion or Reuse of Existing Buildings

If applying to reduce minimum parking requirements for non-residential change of use or building reuse under Article IX Section 7.B.3.c.ii., complete the following:

i. Explain how the site has sufficient access in the form of public on-street or off-street parking, transit service, or proximity to complementary uses.

ii. Explain how physical constraints on the property would not reasonably allow for provision of required parking.

f. CCOD Special Permit to Reduce Parking Requirements for Mixed Use:

To reduce minimum parking requirements through credit for Mixed Use Development under Article IX Section 7.C.2.b, please complete the following:

i. Explain how the site has sufficient access in the form of public on-street or off-street parking, transit service, or proximity to complementary uses.

g. CCOD Special Permit to Exceed Parking Maximums OR
CCOD Special Permit for Modification of Parking Dimensional Requirements

If applying to exceed the maximum parking limits specified in the CCOD under Article IX Section 7.E, or for relief from parking dimensional requirements under Article IX Section 7.E, complete the following:

i. Explain whether the resulting development with the modifications proposed is substantially consistent with the purposes and intent of the Commercial Corridors Overlay District.

Please see attached Project Impact Statement and Statement in Support.

ii. Explain the relationship of the modification to other planning considerations for the immediate area and within the Commercial Corridors Overlay District as a whole, including the plans, programs, policies and public investments of the various departments and agencies of the City of Worcester and the State of Massachusetts.

Please see attached Project Impact Statement and Statement in Support.

iii. Explain whether the pedestrian environment provided on site and its connection to, and interaction with, the public right of way(s) is designed using best practices within the site's context.

Please see attached Project Impact Statement and Statement in Support.

iv. Explain the impact of the modifications on neighboring properties.

Please see attached Project Impact Statement and Statement in Support.

v. Explain whether the requested modifications are needed to provide adequate parking within the context of the other special permit criteria taking into consideration the combination of on and off-street parking.

Please see attached Project Impact Statement and Statement in Support.

WHEREFORE, the applicant(s) requests that this Board grant the special permit (s) as requested above.

Worcester Lagrange MM LLC

By: Jon Rudzinski Jon Rudzinski (Feb 15, 2024 12:25 EST) Jon Rudzinski, Manager
(Signature of Applicant or Applicant's Agent)
If more than one applicant, all applicants must fill out information.

Worcester Lagrange MM LLC
(Name of Applicant)

179 Boylston Street, Building P, Jamaica, MA 02130
(Address)

(617) 838-9388
(Contact Phone Number)

jon@rees-larkindevelopment.com
(Email)

(Date)

The Krosoczka Properties Trust Sem-Tec, Inc.

By:
(Signature of Property Owner or Owner's Agent)
If more than one property owner, all owners must fill out information.

Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust and President and Treasurer of Sem-Tec, Inc.
(Name of Property Owner)
The Krosoczka Properties Trust (30, 35, 42, 44, 50 Lagrange and 47 Oread Street)
Sem-Tec, Inc. (47 Lagrange Street)
(Address)

(617) 470-9521
(Contact Phone Number)

sakmst@verizon.net
(Email)

(Date)

v. Explain whether the requested modifications are needed to provide adequate parking within the context of the other special permit criteria taking into consideration the combination of on and off-street parking.

Please see attached Project Impact Statement and Statement in Support.

WHEREFORE, the applicant(s) requests that this Board grant the special permit (s) as requested above.

Worcester Lagrange MM LLC

By: Jon Rudzinski, Manager
(Signature of Applicant or Applicant's Agent)
If more than one applicant, all applicants must fill out information.

Worcester Lagrange MM LLC
(Name of Applicant)

179 Boylston Street, Building P, Jamaica, MA 02130
(Address)

(617) 838-9388
(Contact Phone Number)

jon@rees-larkindevelopment.com
(Email)

(Date)

The Krosoczka Properties Trust Sem-Tec, Inc.

By: [signature]
(Signature of Property Owner or Owner's Agent)
If more than one property owner, all owners must fill out information

Stephen A. Krosoczka, Trustee of The Krosoczka Properties Trust and President and Treasurer of Sem-Tec, Inc.
(Name of Property Owner)
The Krosoczka Properties Trust (30, 35, 42, 44, 50 Lagrange and 47 Oread Street)
Sem-Tec, Inc. (47 Lagrange Street)
(Address)

(617) 470-9521
(Contact Phone Number)

sakmst@verizon.net
(Email)

2/15/2024
(Date)

CERTIFICATION OF COMPLIANCE WITH WORCESTER REVISED ORDINANCES GOVERNING REVENUE COLLECTION

***Note: This form must be completed and signed by both the applicant(s) and owner(s) of the property certifying payment of all local taxes, fees, assessments, betterments, or any other municipal charges of any kind. Failure to include a fully completed certification form with the application shall result in the application being deemed incomplete and ineligible for further processing by the Zoning Board of Appeals.**

Pursuant to Massachusetts General Law, Chapter 40, Section 57 and the City of Worcester General Revised Ordinance, Chapter 11, Section 26-28, the undersigned applicant and all parties having an ownership interest therein, hereby certify, under the pains and penalties of perjury, that the applicant(s) and owner(s) have complied with the laws of the Commonwealth of Massachusetts and the City of Worcester regarding payment of all local taxes, fees, assessments, betterments or any other municipal charges of any kind.

(Give first and last names in full. In case of a corporation give names of President, Treasurer and Manager; and in case of firms, give names of individual members.)

(1) If a Proprietorship or Single Owner of residential property:

Name of Owner _____

Business Address _____

Home Address _____

Business Phone _____ Home Phone _____

Signature of owner (certifying payment of all municipal charges):

_____ Date: _____

(2) If a Partnership or Multiple Owners of residential property:

Full names and address of all partners

Printed Names	Addresses
_____	_____
_____	_____
_____	_____
_____	_____

Business Address _____
Business Phone _____

Signature of all owners of property (certifying payment of all municipal charges -attach multiple pages if necessary)

_____ Date: _____
_____ Date: _____
_____ Date: _____
_____ Date: _____

(3) If a Corporation:

Full Legal Name: Sem-Tec, Inc.
State of Incorporation: Massachusetts
Principal Places of Business: 47 Lagrange Street, Worcester, MA 01610
Place of Business in Massachusetts: 47 Lagrange Street, Worcester, MA 01610

Printed Names of Officers of Corporation:	Title
Stephen A. Krosoczka	President, Treasurer, Secretary, Director

Owners of Corporation:

Printed Names	Address	% of stock
Stephen A. Krosoczka	3 Sherbrooke Drive, Paxton, MA 01612	

Signature of all owners of property (certifying payment of all municipal charges -attach multiple pages if necessary)

Sem-Tec, Inc.
By: Stephen A. Krosoczka, President and Treasurer — Date:

Stephen A. Krosoczka — Date: 2/15/2024

Date:

Date:

(4) If a Trust:

Name of Trust: The Krosoczka Properties Trust
Business Address: 47 Lagrange Street, Worcester, MA 01610

Printed Names of Trustees:	Address
Stephen A. Krosoczka	3 Sherbrooke Drive, Paxton, MA 01612

Printed Names of Beneficiaries:	Address

Signature of trustees of property (certifying payment of all municipal charges -attach multiple pages if necessary)

By: Stephen A. Krosoczka, Trustee — Date: 2/15/2024

Date:

Date:

Date:

(5) Signature of Applicant (if different from owner, certifying payment of all municipal charges):

Printed Name of Applicant: Worcester Lagrange MM LLC

Signature of Applicant: Worcester Lagrange MM LLC
By: Jon Rudzinski, Manager — Date:

(3) If a Corporation:

Full Legal Name Sem-Tec, Inc.
State of Incorporation Massachusetts
Principal Places of Business 47 Lagrange Street, Worcester, MA 01610
Place of Business in Massachusetts 47 Lagrange Street, Worcester, MA 01610

Printed Names of Officers of Corporation:	Title
Stephen A. Krosoczka	President, Treasurer, Secretary, Director

Owners of Corporation:

Printed Names	Address	% of stock
Stephen A. Krosoczka	3 Sherbrooke Drive, Paxton, MA 01612	

Signature of all owners of property (certifying payment of all municipal charges -attach multiple pages if necessary)

Sem-Tec, Inc. Date:
By: Date:
Stephen A. Krosoczka, President and Treasurer Date:
Date:

(4) If a Trust:

Name of Trust The Krosoczka Properties Trust
Business Address 47 Lagrange Street, Worcester, MA 01610

Printed Names of Trustees:	Address
Stephen A. Krosoczka	3 Sherbrooke Drive, Paxton, MA 01612

Printed Names of Beneficiaries:	Address

Signature of trustees of property (certifying payment of all municipal charges -attach multiple pages if necessary)

By: Date:
Stephen A. Krosoczka, Trustee Date:
Date:
Date:

(5) Signature of Applicant (if different from owner, certifying payment of all municipal charges):

Printed Name of Applicant: Worcester Lagrange MM LLC

Signature of Applicant: By: Worcester Lagrange MM LLC Jon Rudzinski (Feb 15, 2024 12:25 EST) Date: 15/02/2024
Jon Rudzinski, Manager

Project Impact Statement and Statement in Support of Worcester Lagrange MM LLC Application to City of Worcester Planning Board for Definitive Site Plan Review Amendment and CCOD Special Permit for a Multifamily Development Project at 30, 35, 42, 44, 47 & 50 Lagrange Street and 47 Oread Street, Worcester, Massachusetts

I. Background, Project Scope.

Worcester Lagrange MM LLC (the "Applicant") seeks to develop the properties known and numbered as 30, 35, 42, 44, 47 & 50 Lagrange Street and 47 Oread Street, Worcester, Massachusetts[1] containing approximately 3.9+/- acres of land (the "Property"). The Property is currently occupied by five (5) industrial buildings with a total floor area of approximately 111,000 square feet and related site features. The Property is located entirely within the Business, General 6.0 ("BG-6.0") zoning district and the Commercial Corridors Overlay District-Downtown Subarea ("CCOD-D"). The Property is bounded by Oread Street to the west, Beacon Street to the north, a surface parking lot and Jackson Street to the east, and Lagrange Street and the railroad to the south.

On September 8, 2021, the City of Worcester Planning Board (the "Board") granted definitive site plan approval for the Applicant's proposed development which included the demolition of one (1) of the existing buildings on the Property, the conversion of four (4) existing buildings into approximately sixty-three (63) affordable and workforce housing dwelling units (with studios, 1 bedroom, 2 bedroom and 3 bedroom units) with approximately 5,108 square feet of commercial space and the construction of approximately 88 parking spaces[2] and associated site work (the "Original Lagrange Project"). On October 12, 2022, the Board granted an extension of time for the definitive site plan approval for the Original Lagrange Project through September 8, 2024.

---

[1] 30, 35, 42, 44, 47 & 50 Lagrange Street have parcel identifications of 06-028-0004B, 03-001-00001, 06-028-00019, 06-028-00001, 03-001-00005, and 06-028-0014, respectively. The 47 Oread Street parcel has parcel identification of 06-028-00015. The Property is partially owned by The Krosoczka Trust Properties Trust and Sem-Tec, Inc. as shown in the deeds recorded in the Worcester Registry of Deeds in Book 55344, Page 72, Book 55344, Page 74, Book 55344, Page 77, Book 55344, Page 82, Book 55344, Page 84, Book 55344, Page 70; and Book 6360, Page 320.

[2] The Lagrange Project's units will be located in the following buildings: (i) 35 Lagrange Street will have 16 units (consisting of 3 studios, 5 1-bedroom units and 8 2-bedroom units); (ii) 42 Lagrange Street will have 8 units (consisting of 2 1-bedroom units and 6 2-bedroom units); (iii) 47 Lagrange Street will have 22 units (consisting of 2 studios, 5 1-bedroom units, 11 2-bedroom units and 4 3-bedroom units); and (iv) 50 Lagrange Street will have 17 units (consisting of 1 studio, 4 1-bedroom units, 9 2-bedroom units and 3 3-bedroom units). The buildings at 42 Lagrange Street and 50 Lagrange Street (the "South Buildings") are located on the south side of Lagrange Street and the buildings at 35 Lagrange Street and 47 Lagrange Street (the "North Buildings") are located along the north side of Lagrange Street. The plans for the Original Lagrange Project provided that the Northerly Buildings would be served by 44 parking spaces on the north side of Lagrange Street and the Southerly Buildings will be served by 44 parking spaces on the south side of Lagrange Street.

The Applicant now seeks to amend the definitive site plan approval to reconfigure the proposed off-street parking adjacent to the west of the building located at 42 Lagrange Street to increase the number of parking spaces from fifteen (15) spaces to forty-one spaces (41) spaces which will be located at 30 Lagrange Street (the "Lagrange Parking Area") and conduct related site improvements as shown on the plans. The portion of the Property at 30 Lagrange Street where the Lagrange Parking Area will be located is currently occupied by an unstriped gravel parking area and related retaining walls. The Original Lagrange Project as modified above is referred to herein as the "New Lagrange Project."

Concurrent with this submission, the Applicant's affiliate, 98 Beacon Street LLC, has applied to the Board for definitive site plan approval for multifamily redevelopment project at 96 and 98-100 Beacon Street which will include: (i) the renovation of interior portions of the existing mill building to install approximately fifty-eight (58) residential units; (ii) upgrading the building systems; (iii) renovation of the façade; (iv) replacement of doors and windows; (v) reconfiguration of existing curb-cut on Beacon Street, (vi) repaving of parking area to install seven (7) parking spaces (including one (1) accessible space and one (1) van accessible space); (vii) removal of the existing curb-cut and existing loading area along Lagrange Street; (viii) installation of stairs and accessible ramps and walkways; and (ix) additional site improvements related thereto (the "98 Beacon Project").

The 98 Beacon Project and the New Lagrange Project are intended to complement one another by providing a mix of different levels of affordability which will ensure a more diverse and stable neighborhood. To that end, 98 Beacon Street LLC and the Applicant will treat the separate projects as a campus and the Applicant will be leasing the forty-one (41) parking spaces within the Lagrange Parking Area to 98 Beacon Street LLC to serve the fifty-eight (58) residential units within the 98 Beacon Project. The New Lagrange Project's sixty-three (63) units will be served by seventy (70) proposed parking spaces located on the north and south side of Lagrange Street.

II. Requirement for Approval of Definitive Site Plan Review Amendment and CCOD Special Permit.

The development of five (5) or more dwelling units and the alteration of slopes 15% or greater requires site plan review approval by the Board pursuant to Table 5.1 of Article V of the Zoning Ordinance. The New Lagrange Project will contain approximately sixty three (63) dwelling units and result in the alteration of slopes 15% or greater and, therefore, the New Lagrange Project requires site plan review. The September 8, 2021 definitive site plan review approval contemplated approximately sixty three (63) affordable and workforce housing units and approximately 88 parking spaces. The modification to the parking area at 30 Lagrange Street to construct the Lagrange Parking Area involves the alteration of slopes 15% of greater which triggers the requirement for the amendment to the definitive site plan approval.

Table 9.1 of Article IX of the Zoning Ordinance provides minimum and maximum parking requirements for properties in the CCOD-D based on use. Note 1 of Table 9.1 further provides that no minimum parking or loading spaces are required in the Downtown subarea. The Downtown subarea is defined as "[t]hose portions of the Commercial Corridors Overlay District zoned BG-6.0. Table 9.1 of Article IX provides that the maximum amount of parking allowed in the CCOD-D for multifamily residential use is 2 spaces per dwelling unit. The New Lagrange Project will have a total of 25 units on the south side of Lagrange Street and therefore will be subject to a maximum off-street parking requirement of fifty (50) parking spaces.[3] The Applicant previously proposed forty four (41) parking spaces on the south side of Lagrange Street but, with the proposed modification referenced above, is now proposing sixty seven (67) parking spaces on the south side of Lagrange Street and will therefore require a special permit in accordance with Article IX, Section 7.E of the Zoning Ordinance to modify the maximum number of parking spaces allowed and provide seventeen (17) spaces of relief. The Applicant is also seeking certain waivers as specified herein.

III. Reasons for Approval of CCOD Special Permit and Definitive Site Plan Amendment.

The Project satisfies the CCOD special permit criteria as set forth in Article IX, Section 7.E and Article II, Section 6.A.2 and the site plan review standards and criteria as set forth in Article V, Section 5.B for the reasons stated herein:

1. **Adequacy and arrangement of vehicular traffic access and circulation including intersections, road widths, pavement surfaces, dividers and traffic controls (DSP)[4]; Adequacy and arrangement of pedestrian traffic access and circulation, walkway structures, control of intersections with vehicular traffic and overall pedestrian convenience (DSP); Location, arrangement, appearance and sufficiency of off-street parking and loading (DSP); Traffic flow and safety, including access, parking and loading areas (SP)[5]; Whether the pedestrian environment provided on site and its connection to, and interaction with, the public right of way(s) is designed using best practices within the site's context (CCOD SP)[6]; Whether requested modifications are needed to provide adequate parking within the context of the other special**

[3] The Original Lagrange Project references approximately 5,108 square feet of space to conveyed and/or leased to the Regional Environmental Council ("REC"). In addition, the Applicant intends to convey certain portions of the Property to REC for REC's construction of parking spaces on a separate lot. Given that REC's project will construct its own parking for its use and will be permitted separately, REC's floor area was not included in the calculation for relief from the maximum off-street parking requirements.
[4] "DSP" is meant to identify Definitive Site Plan Review criteria in Article V, Section 5.B.
[5] "SP" is meant to identify the special permit criteria set forth in Article II, Section 6.A.2
[6] "CCOD SP" is meant to identify the CCOD special permit criteria set forth in Article IX, Section 7.E.

permit criteria taking into consideration the combination of on and off-street parking (CCOD SP).

The proposed layout of the New Lagrange Project will provide a safe, adequate and efficient layout and design for vehicular and pedestrian traffic and comply with CCOD design standards. Safe, convenient, and efficient pedestrian access to and from the Lagrange Parking Area will be provided along new and existing accessible walkways and sidewalks, including a new walkway connecting the Lagrange Parking Area to the sidewalk on Lagrange Street. Emergency vehicles and delivery vehicles will be able to access the Property by parking along Lagrange Street or Jackson Street.

Traffic generated and patterns of access and egress will not cause congestion, hazard or a substantial change to the neighborhood character, and the New Lagrange Project and the 98 Beacon Project will not result in a substantial increase in trip generation levels to and from the Property. Peak hour traffic capacity analysis indicates that the estimated site generated traffic represents a very small increase to future traffic volumes in the area, and, as such, the New Lagrange Project and the 98 Beacon Project are projected to have a negligible impact of area traffic operations, resulting in no degradation to levels of service for area traffic. Please see the Traffic Impact and Access Study prepared by Chappell Engineering Associates, LLC.

Table 9.1 of Article IX of the Zoning Ordinance provides minimum and maximum parking requirements for properties in the CCOD-D based on use. Note 1 of Table 9.1 further provides that no minimum parking or loading spaces are required in the Downtown subarea. The Downtown subarea is defined as "[t]hose portions of the Commercial Corridors Overlay District zoned BG-6.0. The Property is located in the BG-6.0 and therefore there is no minimum parking or loading requirements applicable for the New Lagrange Project. Nonetheless, more than adequate parking will be provided for both the New Lagrange Project and the 98 Beacon Project by virtue of the one hundred eleven (111) total parking spaces provided by the New Lagrange Project. The New Lagrange Project will have thirty eight (38) dwelling units in the North Buildings at 35 and 47 Lagrange Street on the north side of the street and twenty five (25) units in the South Buildings at 42 and 50 Lagrange Street on the south side of the street. The New Lagrange Project will result in the construction of forty-four (44) parking spaces along the northerly side of Lagrange Street and sixty seven (67) parking spaces along the southerly side of Lagrange Street. The 98 Beacon Project will result in the installation of fifty eight (58) dwelling units and the construction of seven (7) parking spaces. As mentioned earlier, forty one (41) parking spaces within the Lagrange Parking Area will be leased to 98 Beacon Street LLC by the Applicant. The seven (7) on-site parking spaces at the 98 Beacon Project combined with the forty one (41) spaces in the Lagrange Parking Area total forty eight (48) spaces for the 58 dwelling units which results in a parking space to unit ratio of approximately .83 to 1, which is consistent with parking ratios of other high density multifamily projects in other transit-oriented areas of

the City including the Downtown and Canal District. The remaining seventy (70) parking spaces will service the sixty three (63) units provided by the New Lagrange Project resulting in a total parking space to unit ratio of approximately 1.11 to 1. The proposed parking will adequately serve the occupants of both projects and will not have a material negative impact on the neighborhood with respect to on or off-street parking.

Furthermore, the neighborhood is transit-oriented in nature (i.e., Union Station is within a mile providing train and bus services and nearby WRTA bus stops), and Downtown Worcester is within walking distance. There exist numerous amenities in close proximity to the Property including restaurants, retail stores, personal services and medical offices. The proximity of the Property to public transit, a strong network of sidewalk and bicycle accommodations are expected to promote less reliance on automobiles as compared to other similar residential developments in less transit-friendly locations of the City.

2. **Location, arrangement, size, design and general site compatibility of buildings, lighting and signs (DSP); The relationship of the modification to other planning considerations for the immediate area and within the Commercial Corridors Overlay District as a whole, including the plans, programs, policies and public investments of the various departments and agencies of the City of Worcester and the State of Massachusetts (CCOD SP).**

The New Lagrange Project is a development of a compatible land use that provides urban densities, is a redevelopment of existing historic buildings in the Downtown subarea, offers a design that provides an aesthetically pleasing environment for pedestrians that is accessible, compact, safe and inviting. The New Lagrange Project promotes compact, environmentally-responsible (e.g., EV charging station, proximity to WRTA and Union Station), pedestrian friendly development that is physically and functionally integrated through site design, and avoids over-dedication of land devoted to surface parking. Moreover, the New Lagrange Project will encourage the most appropriate use of the land in a manner that promotes economic development, general welfare, safety and the creation of housing of such type, size and cost suitable for meeting the current and future needs of the City. The campus style treatment of the parking areas between the New Lagrange Project and the 98 Beacon Project will ensure sufficient off-street parking for the residents in the neighborhood. The New Lagrange Project protects natural resources as well as the architectural, scenic and aesthetic qualities of the community and protects against the uses of land which are incompatible with nearby uses, undue intensity of noise and danger and congestion in travel and transportation.

Additionally, the redevelopment of the LaGrange Mill Lofts has been recommended by the Worcester Historical Commission, Former State Senator Harriette L. Chandler, and State

Representative Mary S. Keefe. The redevelopment will help preserve the architectural nature of the Lagrange Street Historic District.

3. **Adequacy of stormwater and drainage facilities (DSP); adequacy of utilities, water supply and sewerage disposal facilities and other public services (DSP and SP).**

The development does not anticipate any adverse effect on drainage patterns. The best management practices for stormwater are incorporated in the design of the New Lagrange Project and will be adequate to manage stormwater runoff generated by the New Lagrange Project and to satisfy the requirements of the Zoning Ordinance, the Worcester Department of Public Works and Massachusetts Stormwater standards. The New Lagrange Project includes new stormwater management systems comprised of deep-sump hooded catch basins, subsurface detention system, and proprietary hydrodynamic separators designed to treat stormwater runoff prior to conveyance into existing combined sewer system in Jackson Street and Lagrange Street.

New water and sewer connections, gas and electric service facilities and infrastructure will need to be provided for the New Lagrange Project. Utility lines and infrastructure currently exist within Beacon Street and Lagrange Street and are readily available to be connected to any new utilities that are necessary for the New Lagrange Project.

4. **Adequacy, type and arrangement of trees, shrubs and other landscaping elements in accordance with the Landscaping Design Standards set forth in Article V, Section - 5(C)(DSP); In the case of an apartment complex or other multiple dwellings, the adequacy of useable common property and open space (DSP).**

The New Lagrange Project proposes to provide enhanced natural vegetation by way of new trees and shrubs throughout the Property on Lagrange Street, such vegetation is not currently provided at the Property. These proposed shade trees along the streets will comply with the Zoning Ordinance, and will serve as a visual buffer between the Property and adjoining properties and streets. The 98 Beacon Project will also result in the planting of a tree along Lagrange Street which will provide additional shade and improve the streetscape. All new trees will be Asian Long-Horned Beetle and Emerald Ash Borer compliant. The New Lagrange Project will also include the continuation of the REC's outdoor gardens, proposed outdoor seating and landscape areas, play area, and associated site improvements.

5. **Protection of adjacent or neighboring properties against noise, glare, unsightliness or other objectionable features (DSP); Neighborhood character and social structure (SP); The impact of the modifications on neighboring properties (CCOD SP).**

The New Lagrange Project use will not result in any increase in noise levels that would be noticeable at any abutting properties. The New Lagrange Project will neither create a nuisance, hazard, congestion or concerns pertaining to health, safety or general welfare, and there will not be substantial harm to the neighborhood or derogation from the intent of the Zoning Ordinance as a result of the New Lagrange Project.

The proposed exterior lighting will be shielded, will not exceed a color temperature of 3,000K, will be appropriately arranged with directional shields so as to minimize light from shining and/or spilling onto abutting properties and streets while maintaining pedestrian and vehicular safety, and will not have a deleterious effect on neighboring properties. Site lighting is designed to meet IESNA (Illuminating Engineering Society of North America) guidelines for security minimums within parking and pedestrian areas.

Dumpster areas will be fully enclosed with a stockade fence/doors and located within interior to the site and out of the public view. Landscaping is also proposed between the proposed dumpster enclosure and right-of-way.

6. **Adequacy of fire lanes and other emergency zones and the provisions of fire hydrants (DSP).**

There is no special emergency zone noted on the plans. However, fire trucks and other emergency vehicles will be able to access the Property by parking on Lagrange Street and/or Oread Street which are in close proximity to the Property and existing buildings. The New Lagrange Project proposes a full access twenty-two (22) foot wide driveway onto Jackson Street and Lagrange Street with associated traffic controls. The New Lagrange Project will be serviced by existing municipal fire hydrants located within the sidewalks on Lagrange Street.

7. **Special attention to the adequacy of structures, roadways and landscaping in areas with susceptibility to ponding, flooding and/or erosion (DSP); Adequacy of erosion and sedimentation control measures to be utilized during and after construction (DSP); Impacts on natural environment (SP).**

There are minimal natural terrain features at the Property, and the New Lagrange Project will minimize, to the extent practicable, changes to the natural terrain as a result of the New Lagrange Project. The proposed drainage and site design layout of the improvements are designed to reduce any susceptibility of ponding, flooding and erosion. The Property is outside of the Floodplain and Water Resources Protection Overlay Districts and ecologically sensitive

areas, and there are no wetland resource areas on the Property. There will not be any negative impacts on the groundwater. During construction, appropriate measures will be taken for controlling erosion, sedimentation and pollution as set forth in the plans submitted herewith. Any disturbed areas will be maintained upon completion of the construction phase.

8. **Conformance of the site design with the purposes and intent of the Worcester Zoning Ordinance (DSP); Social, economic, or community needs that are served by the proposal (SP); Potential Fiscal Impact, including City Services needed, tax base, and employment (SP); Whether the resulting development with the modifications proposed is substantially consistent with the purposes and intent of the Commercial Corridors Overlay District (CCOD SP).**

The Project complies with the design requirements set forth in Article V, Section 5.B, Article IV, Section 7.A.3, Article IX, Section 6 and other applicable provisions of the Zoning Ordinance, except as otherwise provided herein. The Project will provide sufficient accessory off-street parking spaces necessary to accommodate the residents within the area. The proposed drive aisles within the parking area on the Property will provide sufficient widths and turning radii necessary to provide for safe and efficient travel for passenger vehicles. The proposed access, parking, walkways and landscaping-related improvements are arranged for safe and convenient access for motorists and pedestrians. Proposed new lighting will be modern in design and will not have a deleterious effect on or cause a nuisance to neighboring properties or abutting streets. The New Lagrange Project will dramatically improve the aesthetic appeal, design and quality of the Property. The New Lagrange Project will bring historic properties back into productive use and improve the economic vitality of the neighborhood and surrounding areas by increasing the number of residents in the area who will patronize local businesses and economic centers in and around the neighborhood. The New Lagrange Project will create new construction jobs and will generate additional tax revenues and fees for the City.

The New Lagrange Project is in conformance with the purposes and intent of the Zoning Ordinance and the CCOD, as it will provide much-needed and in-demand housing to support the City's critical housing stock, which will promote the economic vitality of the neighborhood and the City. The 98 Beacon Project and the New Lagrange Project are viewed as complementing projects which will provide a mix of different levels of affordability which will ensure a more diverse and stable neighborhood. Further, although a main objective of the CCOD is to reduce the amount of land devoted to parking and utilize parking areas more efficiently, 98 Beacon Street LLC and the Applicant will treat the separate projects and related parking as a campus and the Applicant will be leasing the forty-one (41) parking spaces within the Lagrange Parking Area to 98 Beacon Street LLC to serve the fifty-eight (58) residential units within the 98 Beacon Project. The 98 Beacon Project will result in the construction of seven (7) parking spaces and the New Lagrange Street Project will result in the construction of a total of one hundred eleven (111) parking spaces for a total of one hundred eighteen (118) parking spaces between the two

projects. Given that one hundred twenty-one (121) units will be installed between the two projects, the campus wide ratio of parking space to unit will be 0.98 to 1. The Lagrange Parking Area will be designed to maintain an urban look and feel by not overwhelming the site with surface parking.

9. **Conformance and compatibility of the site plan design with structures listed in the most recent State Register of Historic Places (DSP).**

The redevelopment of the LaGrange Mill Lofts has been recommended by the Worcester Historical Commission. The redevelopment will help preserve the architectural nature of the Lagrange Street Historic District. The New Lagrange Project will enhance the existing aesthetics and character of the neighborhood, and the Property, including the historic buildings, and will be compatible with the historic Lagrange Street Area and non-historic structures in the neighborhood.

10. **Adequacy and impact on the regional transportation system (DSP).**

The New Lagrange Project will not materially impact the regional transportation system as the neighborhood is transit-oriented nature (i.e., Union Station within 1 mile and nearby WRTA bus stops) and facilities at the Property will accommodate alternate means of transportation (e.g., bicycle storage). There exist amenities and employer hubs in close proximity to the Property. The New Lagrange Project will promote the bike- and walk-ability of the neighborhood as it will include bicycle storage, and the existing system of sidewalks in the neighborhood provides safe and convenient access to the downtown and surrounding areas.

11. **Adequacy of plans and protective measures to ensure minimal risk of contamination to surface or groundwater (DSP).**

The Property is outside of the Water Resources Protection Overlay Districts and ecologically sensitive areas, and there are no surface waters or wetland resource areas on the Property or nearby. Snow storage locations will be outside required parking/landscape buffers. There will be no storage of hazardous materials or substances at the Property. Based on the foregoing, plans and protective measures under the New Lagrange Project will ensure minimal risk of contamination to surface or groundwater.

IV. Waivers and Other Zoning Relief.

The Applicant seeks the any waivers and other zoning relief that may be required.

PROPOSED SITE PLAN DOCUMENTS

FOR

98 BEACON STREET LLC

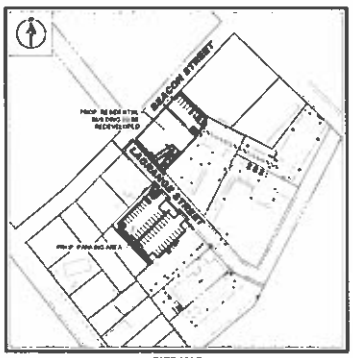
PROPOSED

REDEVELOPMENT

LOCATION OF SITE:
98 BEACON STREET, CITY OF WORCESTER
WORCESTER COUNTY, MASSACHUSETTS
MAP 3, LOTS 1A & 8
MAP 6, LOTS 4B & 19

REFERENCES

USGS MAP



SITE MAP

DRAWING SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES SHEET I	C-102
DEMOLITION PLAN	C-201
SITE LAYOUT & LANDSCAPE PLAN	C-301
GRADING & DRAINAGE PLAN	C-401
UTILITY PLAN	C-501
EROSION AND SEDIMENT CONTROL PLAN	C-601
EROSION AND SEDIMENT CONTROL NOTES & DETAILS	C-602
LANDSCAPE PLAN	C-701
LANDSCAPE NOTES AND DETAILS	C-702
LIGHTING PLAN	C-703
DETAIL SHEET	C-801
DETAIL SHEET	C-802
DETAIL SHEET	C-803
BOUNDARY & TOPOGRAPHIC SURVEY	1 SHEET

PREPARED BY

BOHLER

BOHLER

REVISIONS

811 DIG SAFE

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

FOR

98 BEACON STREET LLC

BOHLER

COVER SHEET

C-101

GENERAL NOTES

GENERAL DEMOLITION NOTES

GENERAL GRADING NOTES

ADA INSTRUCTIONS TO CONTRACTOR:

GENERAL DRAINAGE & UTILITY NOTES

GENERAL SITE NOTES

ABBREVIATIONS

TYPICAL LINE TYPE LEGEND

REFER TO SITE LAYOUT PLAN FOR ZONING ANALYSIS TABLE AND LAND USE / ZONING INFORMATION & NOTES

REFER TO EROSION AND SEDIMENT CONTROL NOTES & DETAILS SHEET FOR TYPICAL EROSION NOTES AND DETAILS

REFER TO LANDSCAPE NOTES & DETAILS SHEET FOR TYPICAL LANDSCAPE NOTES AND DETAILS

REFER TO LIGHTING PLAN FOR TYPICAL LIGHTING NOTES AND TABLES

BOHLER

REVISIONS

811 Call more people

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

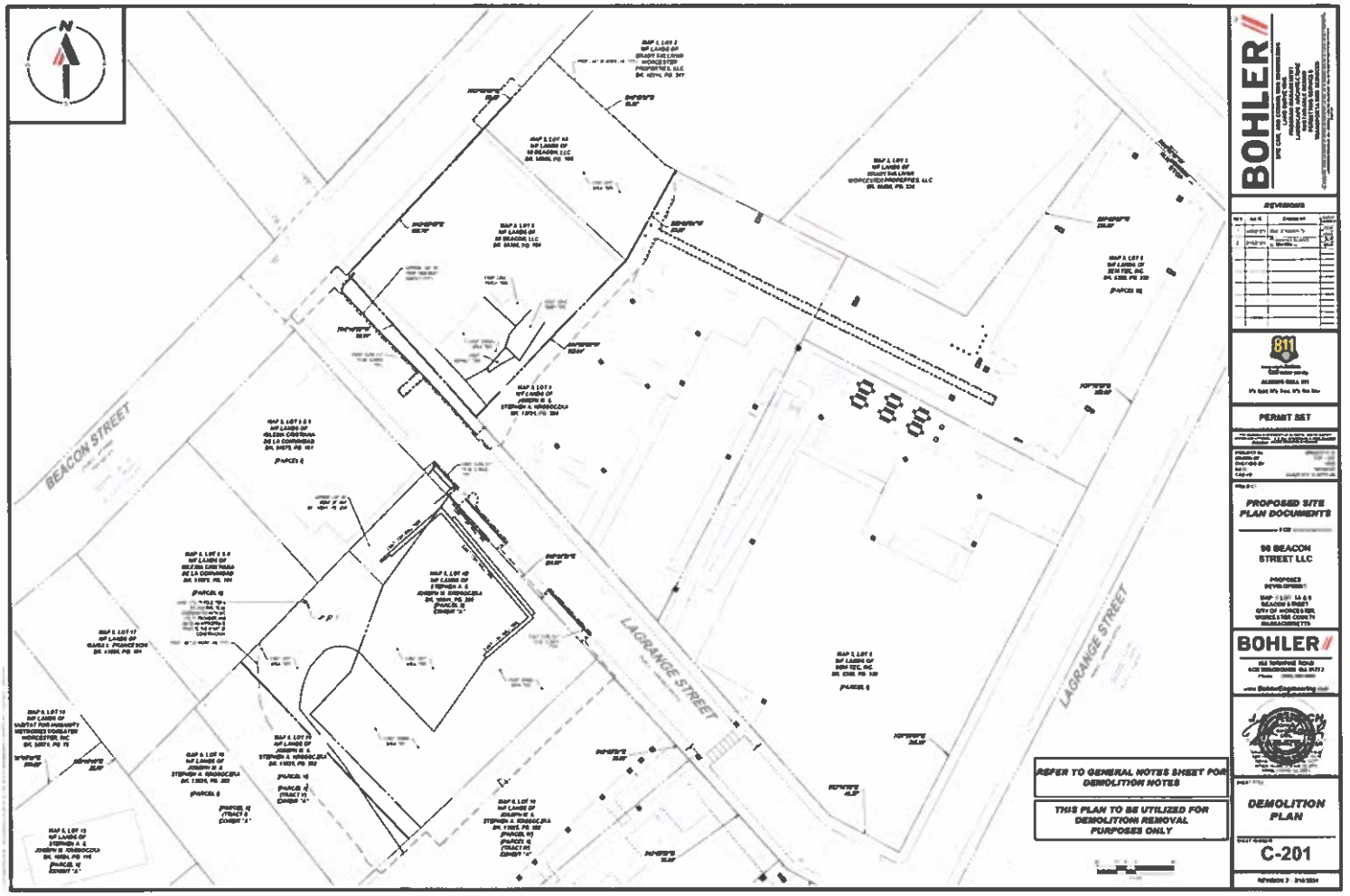
90 BEACON STREET LLC

BOHLER

GENERAL NOTES SHEET

C-102

REVISION 2 - 8/15/2024



BOHLER

REVISIONS

811

PERMIT SET

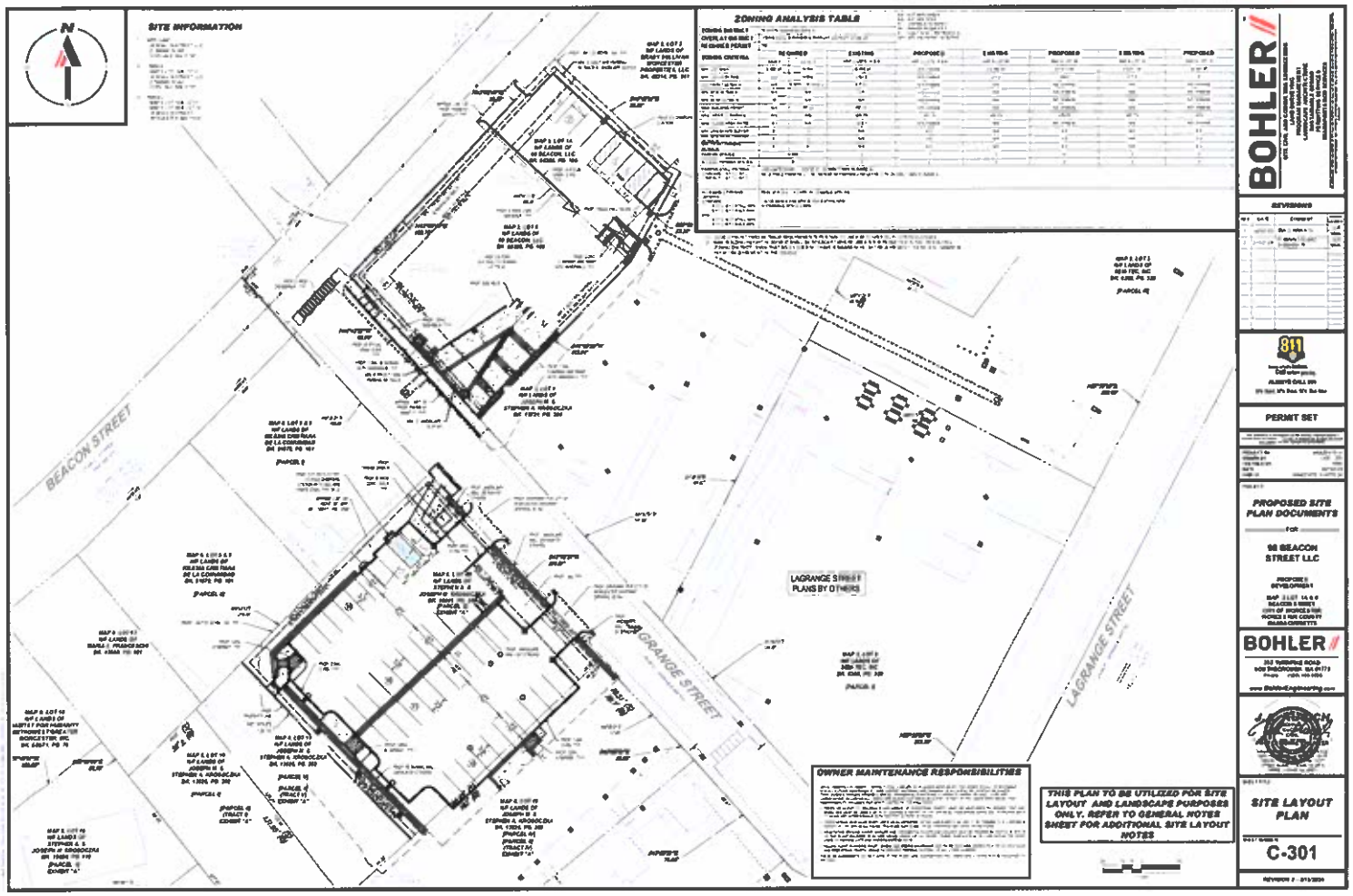
PROPOSED SITE PLAN DOCUMENTS

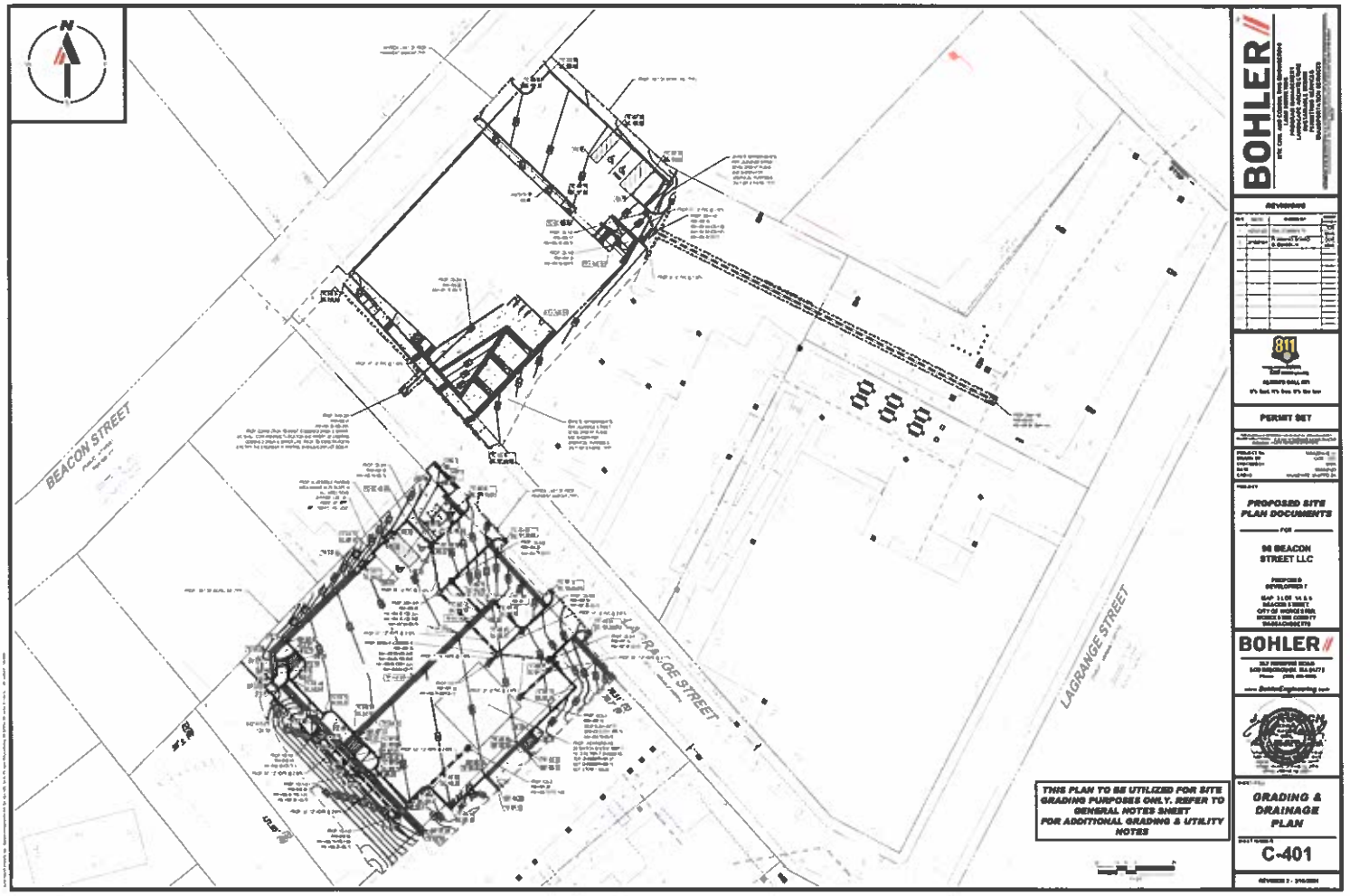
90 BEACON STREET LLC

BOHLER

DEMOLITION PLAN

C-201


SITE INFORMATION
ZONING ANALYSIS TABLE
BEACON STREET
LAGRANGE STREET
LAGRANGE STREET
LAGRANGE STREET PLANS BY OTHERS
OWNER MAINTENANCE RESPONSIBILITIES
THIS PLAN TO BE UTILIZED FOR SITE LAYOUT AND LANDSCAPE PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL SITE LAYOUT NOTES
BOHLER
REVISIONS
PERMIT SET
PROPOSED SITE PLAN DOCUMENTS
FOR
98 BEACON STREET LLC
BOHLER
SITE LAYOUT PLAN
C-301



BOHLER

REVISIONS

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

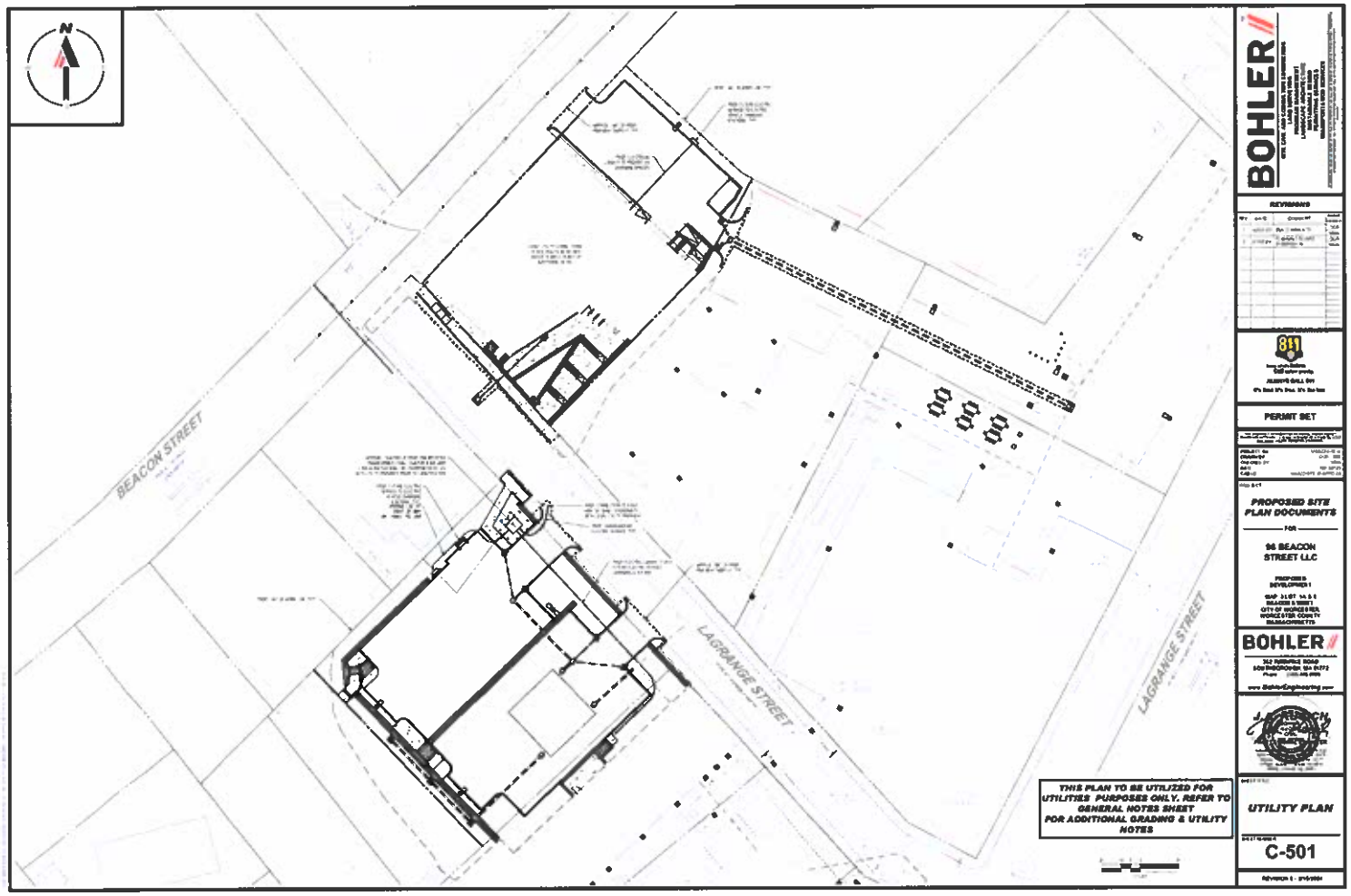
FOR

94 BEACON STREET LLC

BOHLER

GRADING & DRAINAGE PLAN

C-401



BOHLER

REVISIONS

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

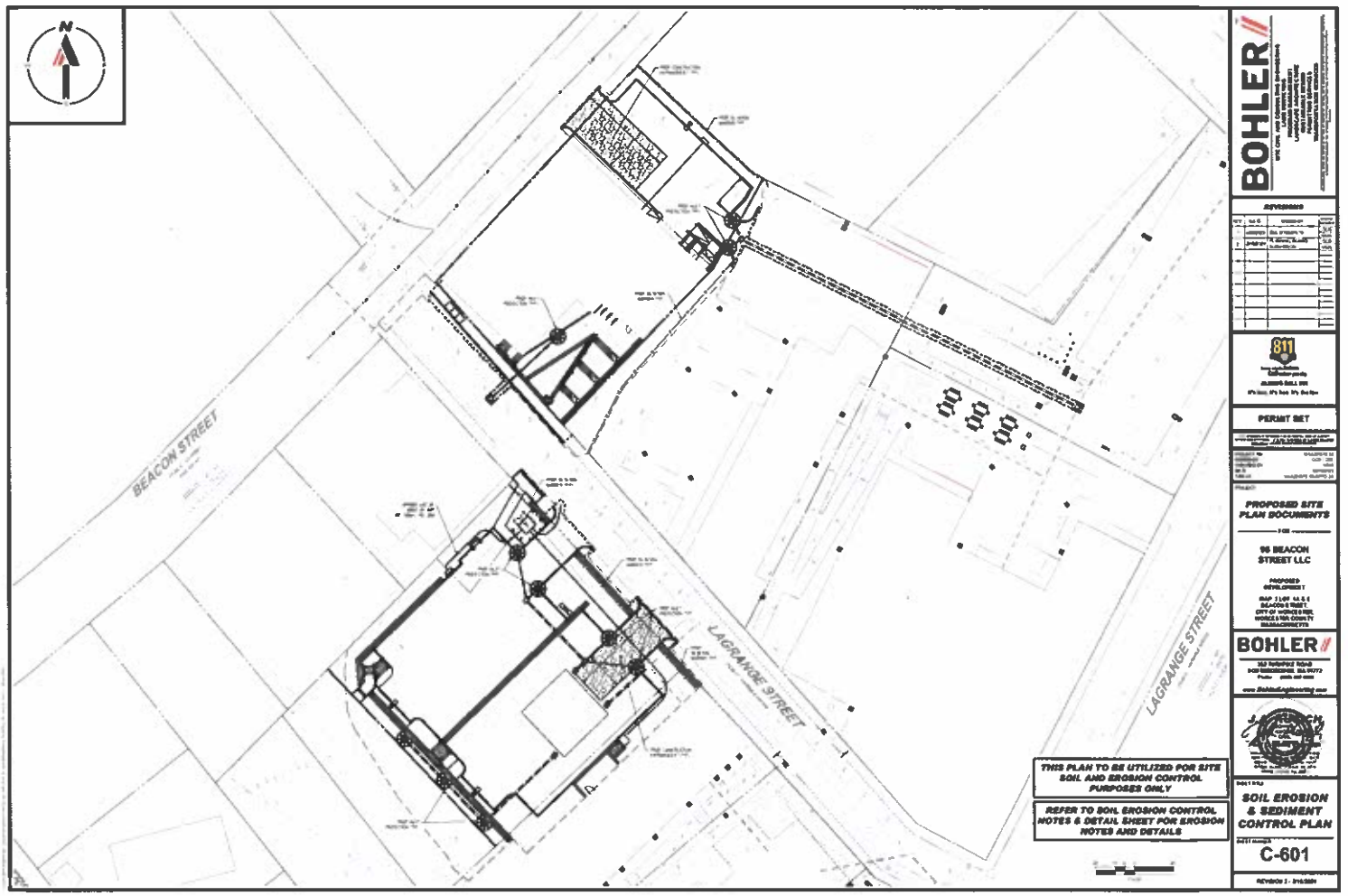
FOR

96 BEACON STREET LLC

BOHLER

UTILITY PLAN

C-501


BEACON STREET
LAGRANGE STREET
LAGRANGE STREET
THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY
REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS
BOHLER
REVISIONS
811
PERMIT SET
PROPOSED SITE PLAN DOCUMENTS
96 BEACON STREET LLC
BOHLER
SOIL EROSION & SEDIMENT CONTROL PLAN
C-601

EROSION AND SEDIMENT CONTROL NOTES

GENERAL EROSION AND SEDIMENT CONTROL NOTES

RECOMMENDED CONSTRUCTION SEQUENCE

TREE PROTECTION DURING SITE CONSTRUCTION

TEMPORARY STOCKPILE

TYP. SILTATION FENCE

STABILIZED CONSTRUCTION ENTRANCE

STRAW BALE

CONCRETE WASTE MANAGEMENT AREA

EROSION CONTROL BLANKET 2:1 SLOPES (SLOPE INSTALLATION)

FILTER SACS (GRATED INLETS)

BOHLER

REVISIONS

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

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

90 BEACON STREET LLC

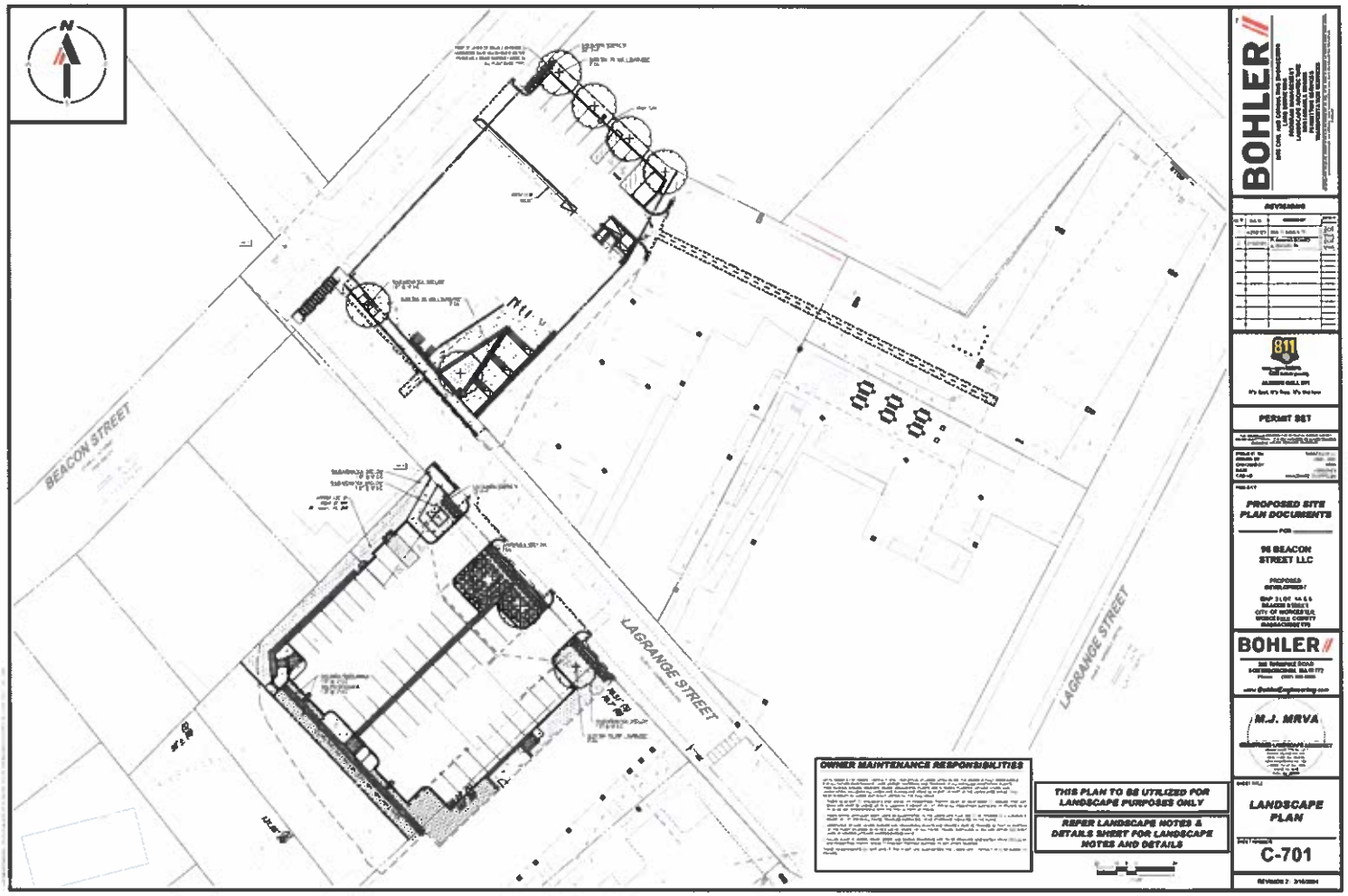
PROPOSED MIXED-USE DEVELOPMENT

90 BEACON STREET (CITY OF BOSTON) SUFFOLK COUNTY, MASSACHUSETTS

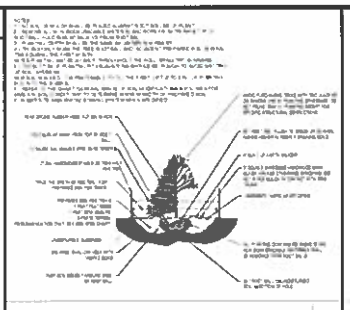
BOHLER

SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

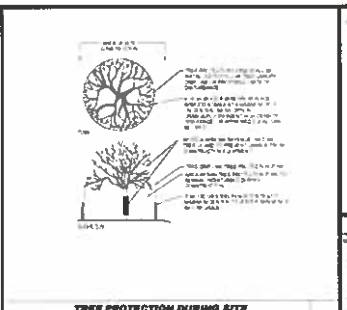
C-602


N
BEACON STREET
LAGRANGE STREET
LAGRANGE STREET
OWNER MAINTENANCE RESPONSIBILITIES
THIS PLAN TO BE UTILIZED FOR LANDSCAPE PURPOSES ONLY
REFER LANDSCAPE NOTES & DETAILS SHEET FOR LANDSCAPE NOTES AND DETAILS
BOHLER
REVISIONS
811
PERMIT SET
PROPOSED SITE PLAN DOCUMENTS
96 BEACON STREET LLC
BOHLER
M.J. MRVA
LANDSCAPE PLAN
C-701

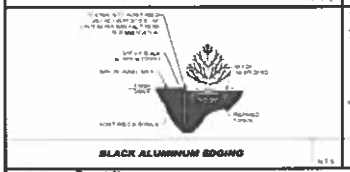
LANDSCAPE SPECIFICATIONS



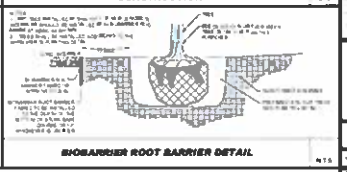
TREE PLANTING DETAIL



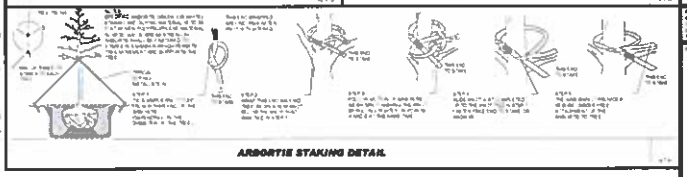
TREE PROTECTION DURING SITE CONSTRUCTION



BLACK ALUMINUM EDGING



BIOBARRIER ROOT BARRIER DETAIL



ARBORTIE STAKING DETAIL

BOHLER

REVISIONS

811

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

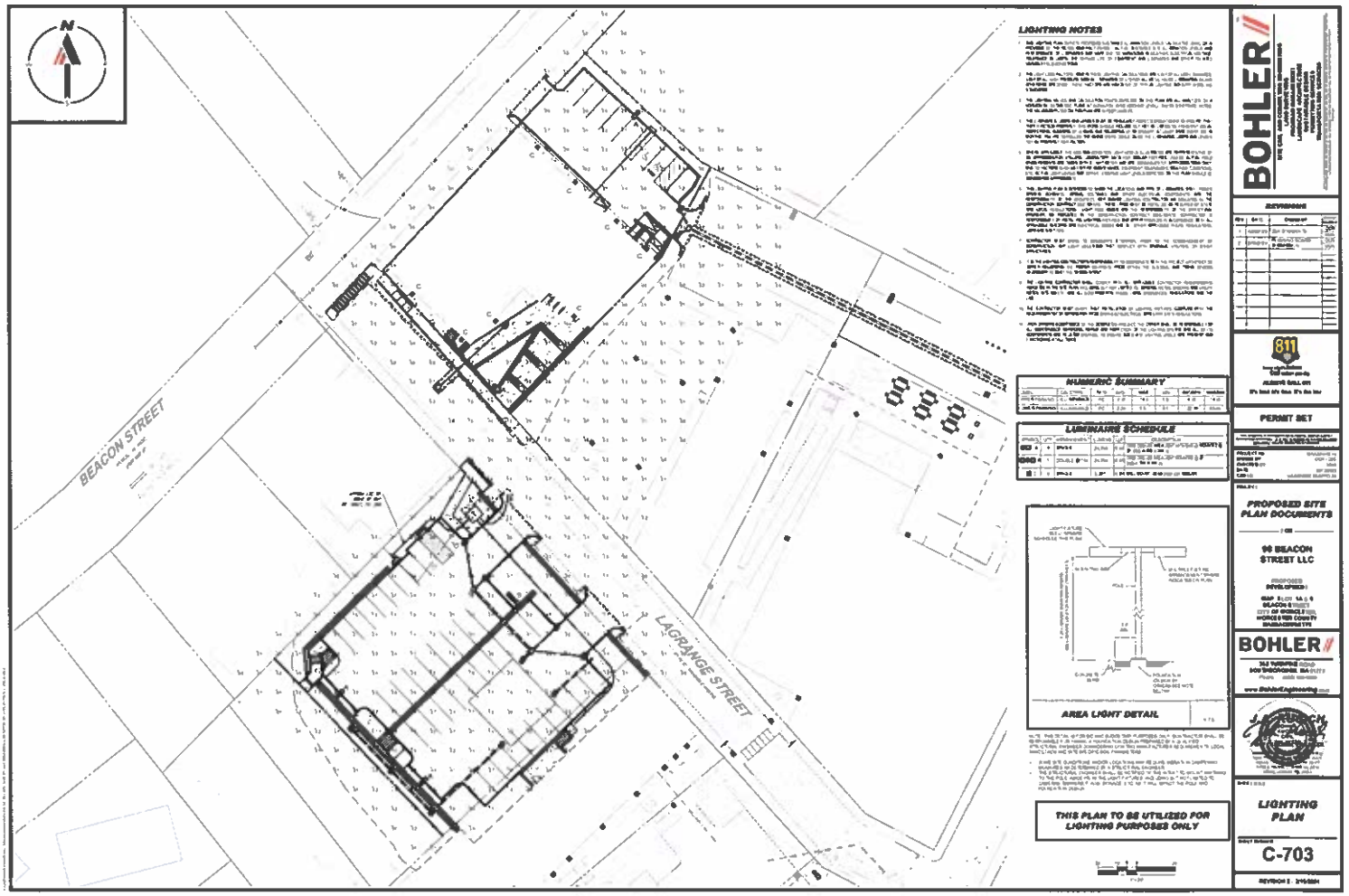
99 BEACON STREET LLC

BOHLER

M.J. MRVA

LANDSCAPE NOTES & DETAILS

C-702



LIGHTING NOTES

NUMERIC SUMMARY

LUMINAIRE SCHEDULE

AREA LIGHT DETAIL

THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY

BOHLER

REVISIONS

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

PERMIT SET

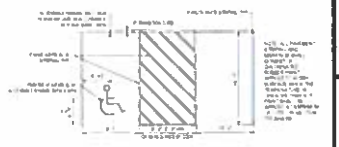
PROPOSED SITE PLAN DOCUMENTS

90 BEACON STREET LLC

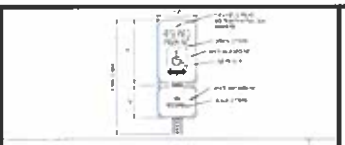
BOHLER

LIGHTING PLAN

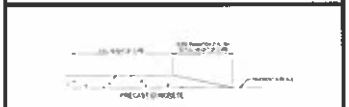
C-703



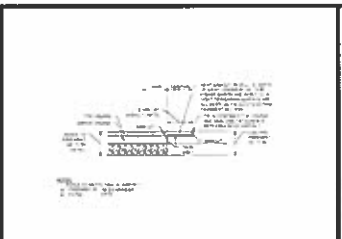
ACCESSIBLE PARKING STALL MARKINGS



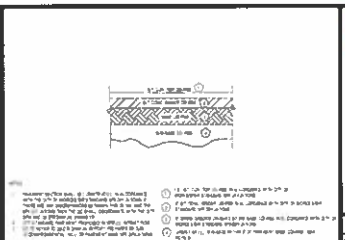
ACCESSIBLE PARKING SIGN



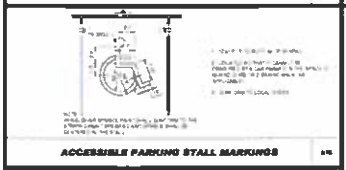
TRANSITION CURB DETAIL



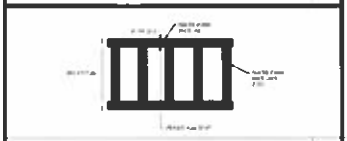
BITUMINOUS CONCRETE PAVEMENT TIE IN



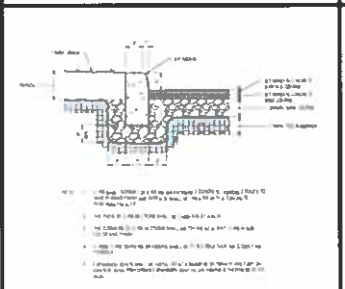
CITY STANDARD PAVEMENT SECTION DETAIL



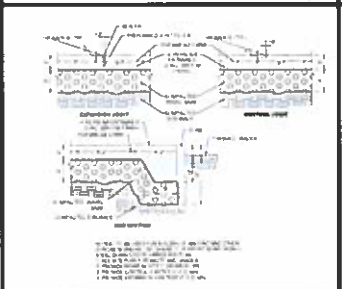
ACCESSIBLE PARKING STALL MARKINGS



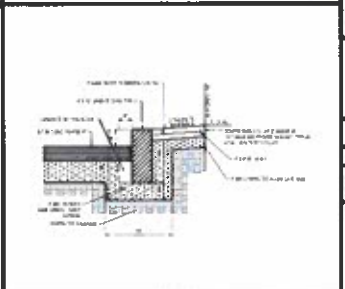
CROSSWALK DETAIL



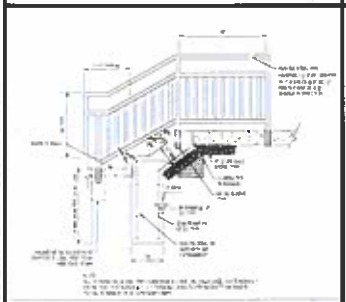
PRECAST CONCRETE CURB DETAIL



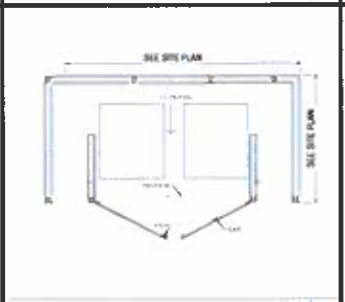
CONCRETE SIDEWALK



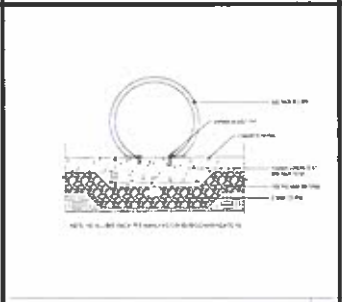
CONCRETE SIDEWALK WITH VERTICAL GRANITE CURBING



CONCRETE STEPS W/ HANDRAILS

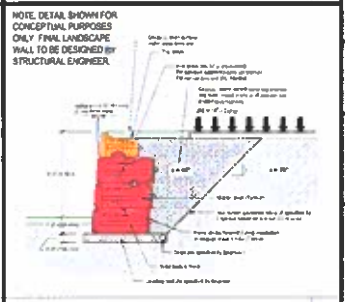


DUMPSTER ENCLOSURE DETAIL



BIKE RACK

NOTE: DETAIL SHOWN FOR CONCEPTUAL PURPOSES ONLY. FINAL LANDSCAPE WALL TO BE DESIGNED BY STRUCTURAL ENGINEER.



REDI-ROCK LANDSCAPE WALL DETAIL

BOHLER

REVISIONS

811

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

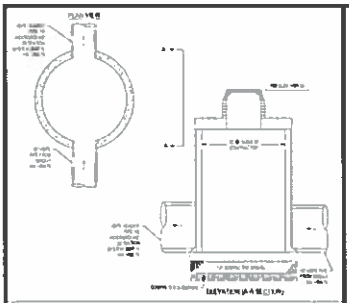
FOR

98 BEACON STREET LLC

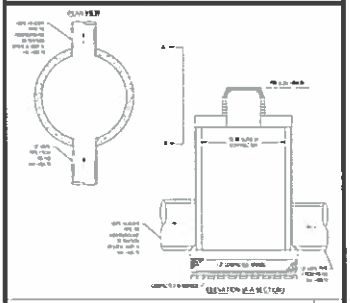
BOHLER

DETAIL SHEET

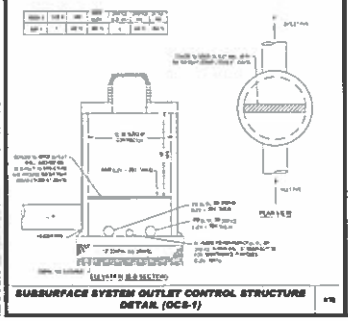
C-901



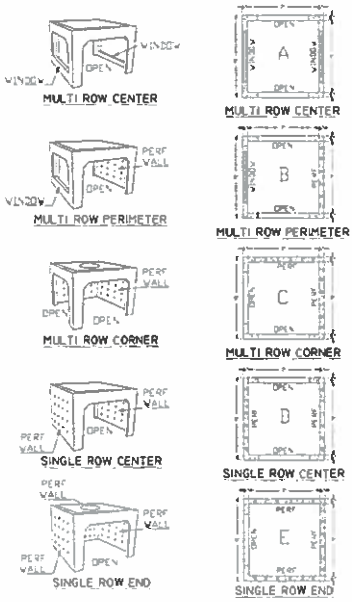
INLET CONTROL STRUCTURE 1 (ICS-1)



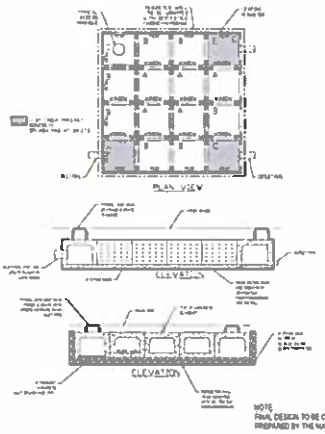
INLET CONTROL STRUCTURE 2 (ICS-2)



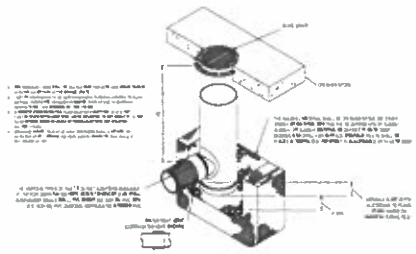
SUBSURFACE SYSTEM OUTLET CONTROL STRUCTURE DETAIL (OCS-1)



TYPICAL 3' UNIT DIMENSIONS



RETAIN-IT STORMWATER MANAGEMENT UNDERGROUND DETENTION SYSTEM (BMP-1) DETAILS



NYLOPLAST 10" DRAIN BASIN: 2810AG _ _ X

NYOPLAST DRAIN INLET

BOHLER

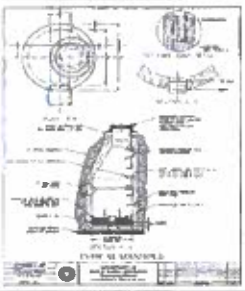
DETAIL SHEET

C-902

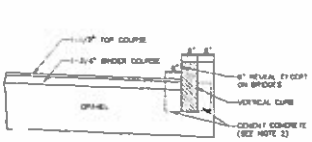
PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

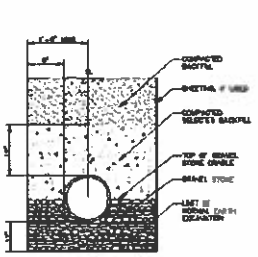
96 BEACON STREET LLC



CITY OF WORCESTER TYP. DRAIN MANHOLE DETAIL

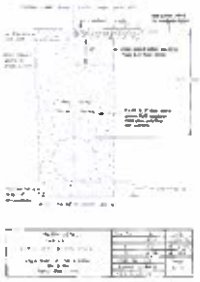


CITY OF WORCESTER METHOD OF SETTING VERTICAL CURB DETAIL

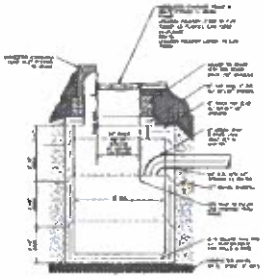


CITY OF WORCESTER TYPICAL DRAIN MAIN TRENCH

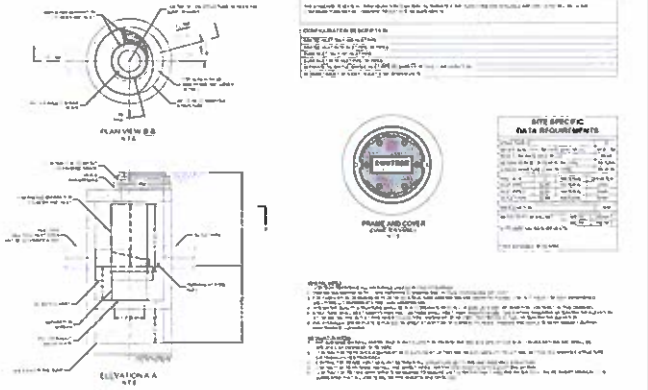
CITY OF WORCESTER MANHOLE FRAME AND COVER DETAIL



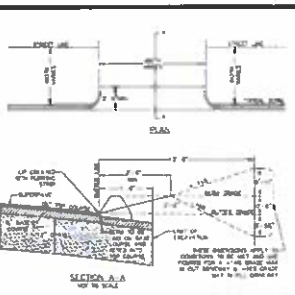
CITY OF WORCESTER TYPICAL TRENCH DETAIL



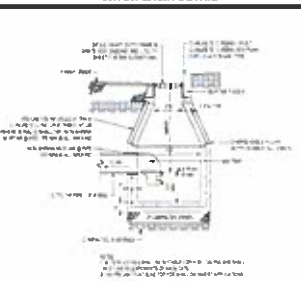
CITY OF WORCESTER PRECAST CATCH BASIN DETAIL



CDS2015-4-C ONLINE CDS STANDARD DETAIL (SWOU-1)



CITY OF WORCESTER DRIVEWAY OPENING DETAIL



PRECAST CONCRETE DEEP SUMP CATCH BASIN

BOHLER

REVISIONS

811 Dig Safe

PERMIT SET

PROPOSED SITE PLAN DOCUMENTS

FOR

90 BEACON STREET LLC

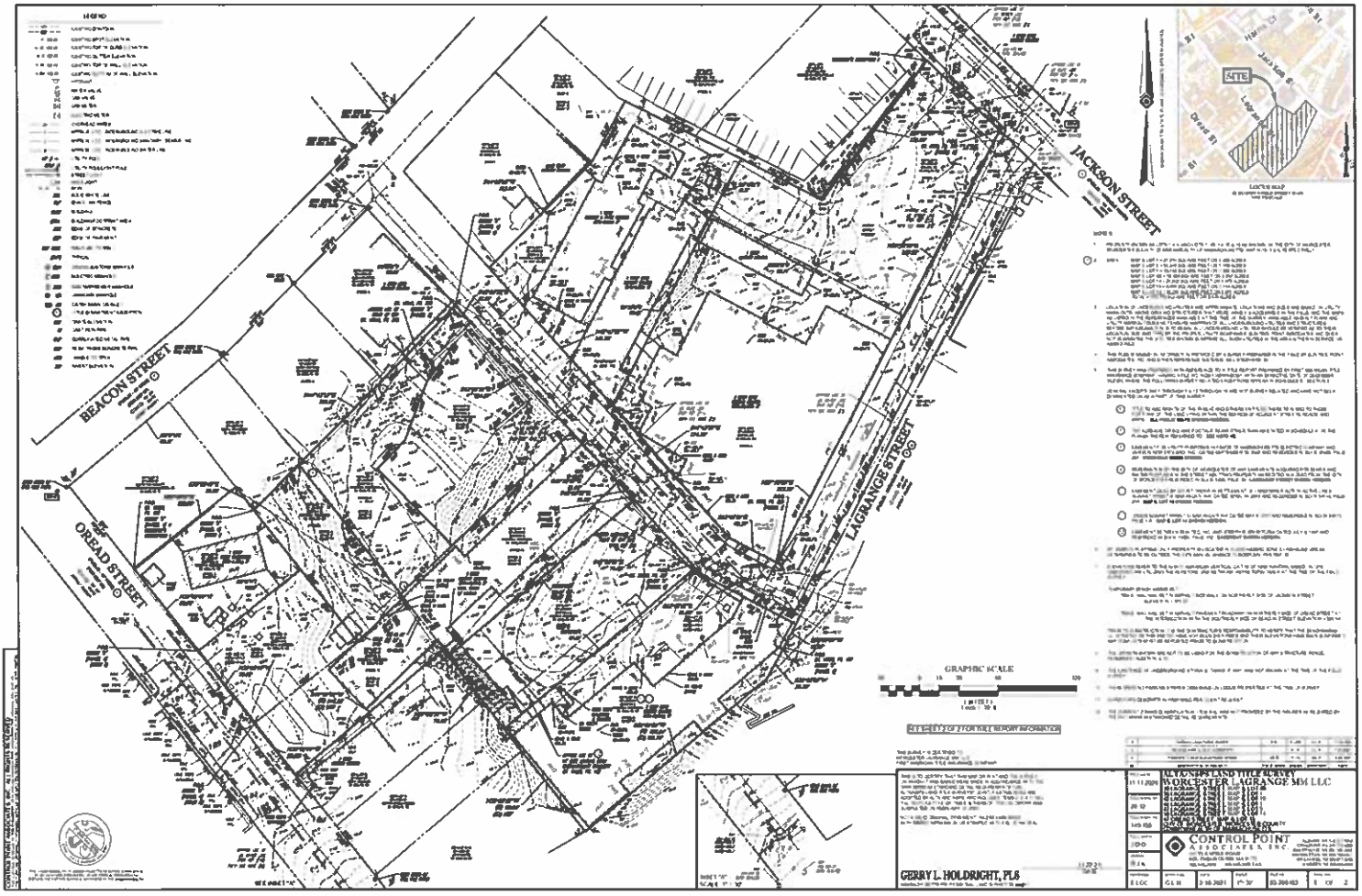
LOCATED

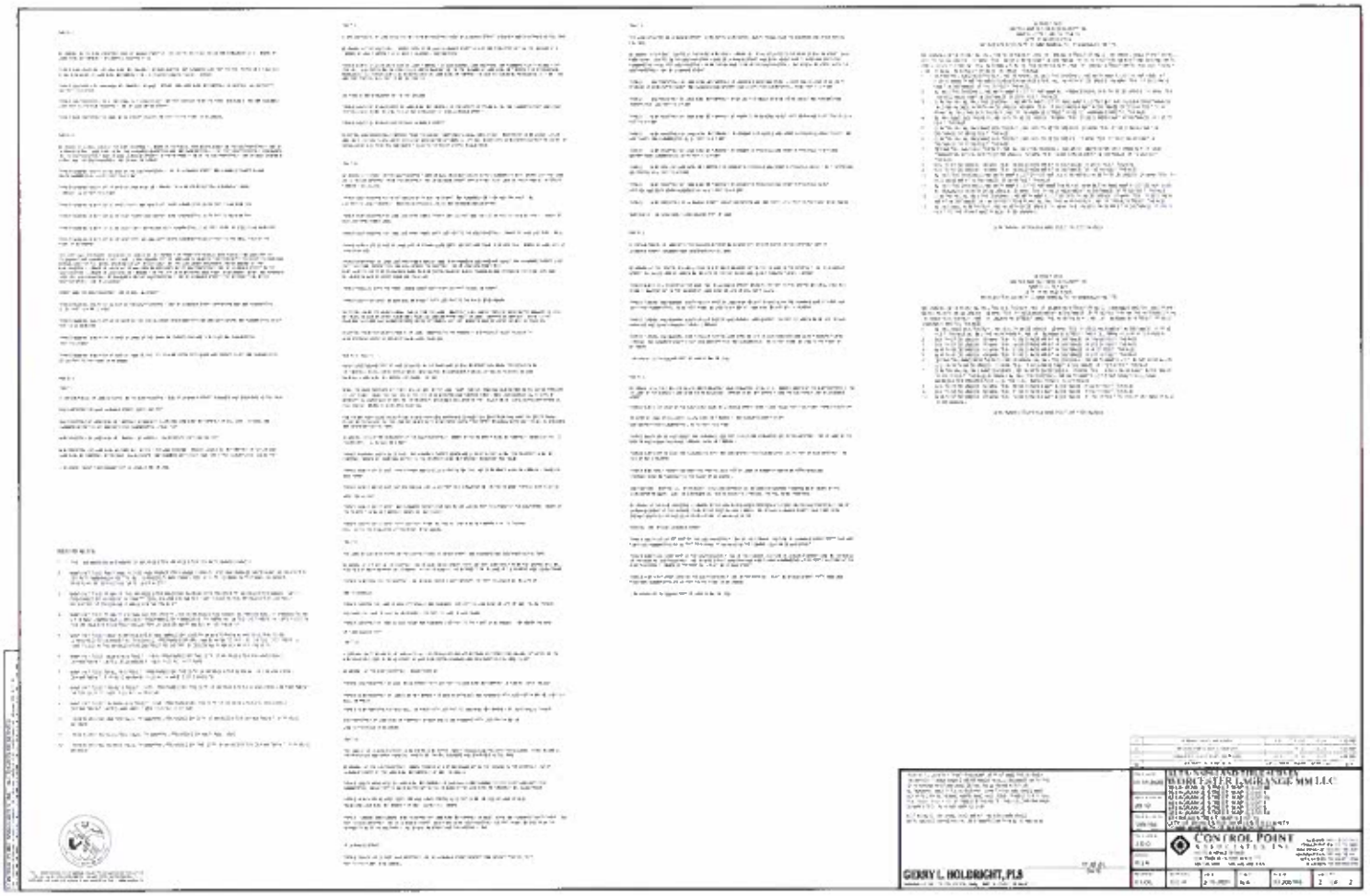
MAP 3 LOT 14A & 5
BEACON STREET
CITY OF WORCESTER
WORCESTER COUNTY
MASSACHUSETTS

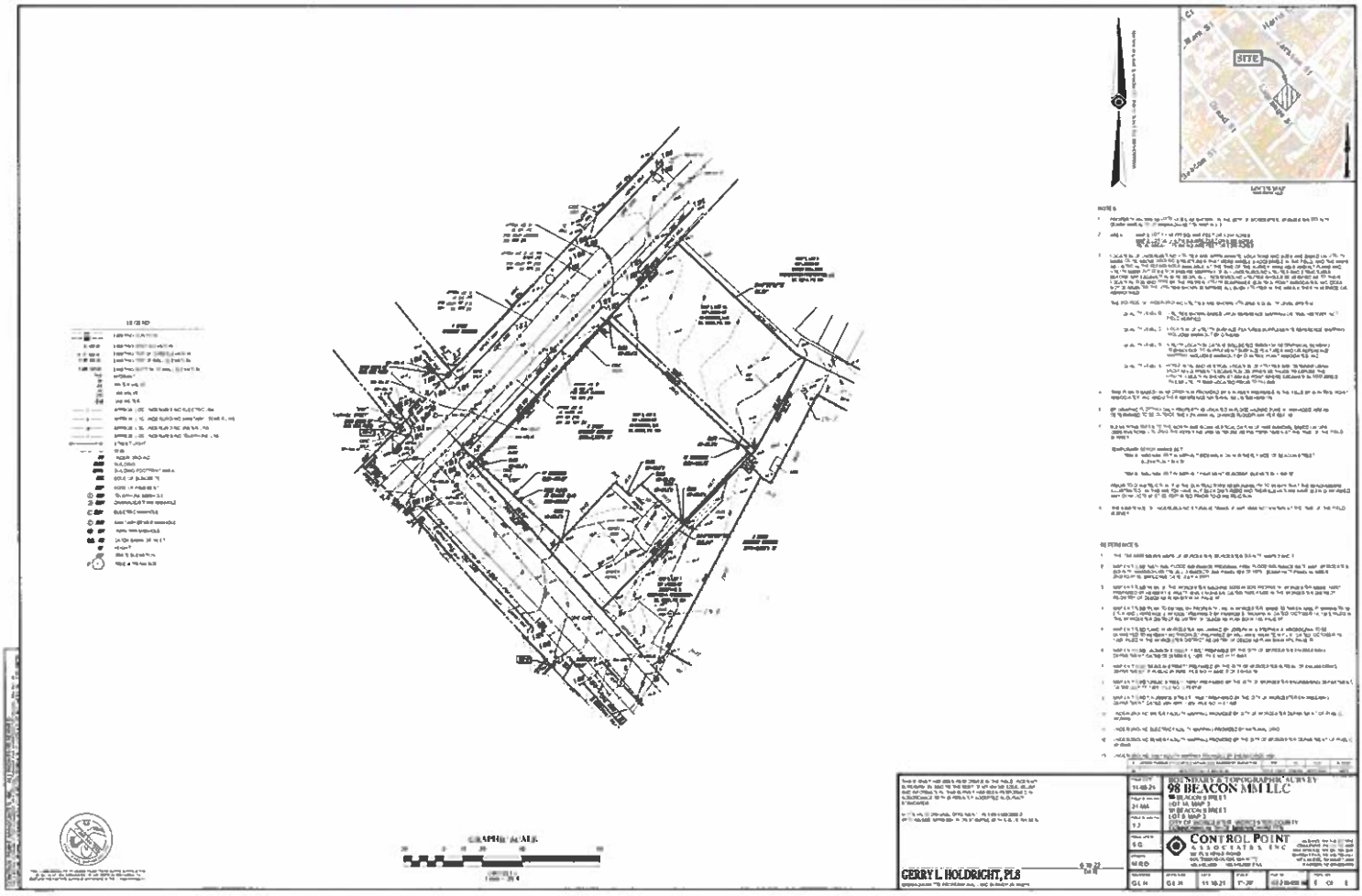
BOHLER

DETAIL SHEET

C-903


BEACON STREET
OREAD STREET
LAGRANGE STREET
JACKSON STREET
GRAPHIC SCALE
GERRY L. HOLDRIGHT, PLS
CONTROL POINT ASSOCIATES, INC





CHAPPELL ENGINEERING ASSOCIATES, LLC
Civil • Structural • Transportation

201 Boston Post Road West, Suite 101
Marlborough, MA 01752
Tel.: (508) 481-7400
Fax: (508) 481-7406
www.chappellengineering.com

Traffic Impact and Access Study

.To:	Mr. Matthew Ashley, P.E. Project Manager Bohler 352 Turnpike Road Southborough, MA 01772	Reg:	Proposed Apartment Building 98 Beacon Street Worcester, Massachusetts
		Date:	February 15, 2024
From:	Shaun P. Kelly, Sr. Project Manager	Project #:	23109

INTRODUCTION

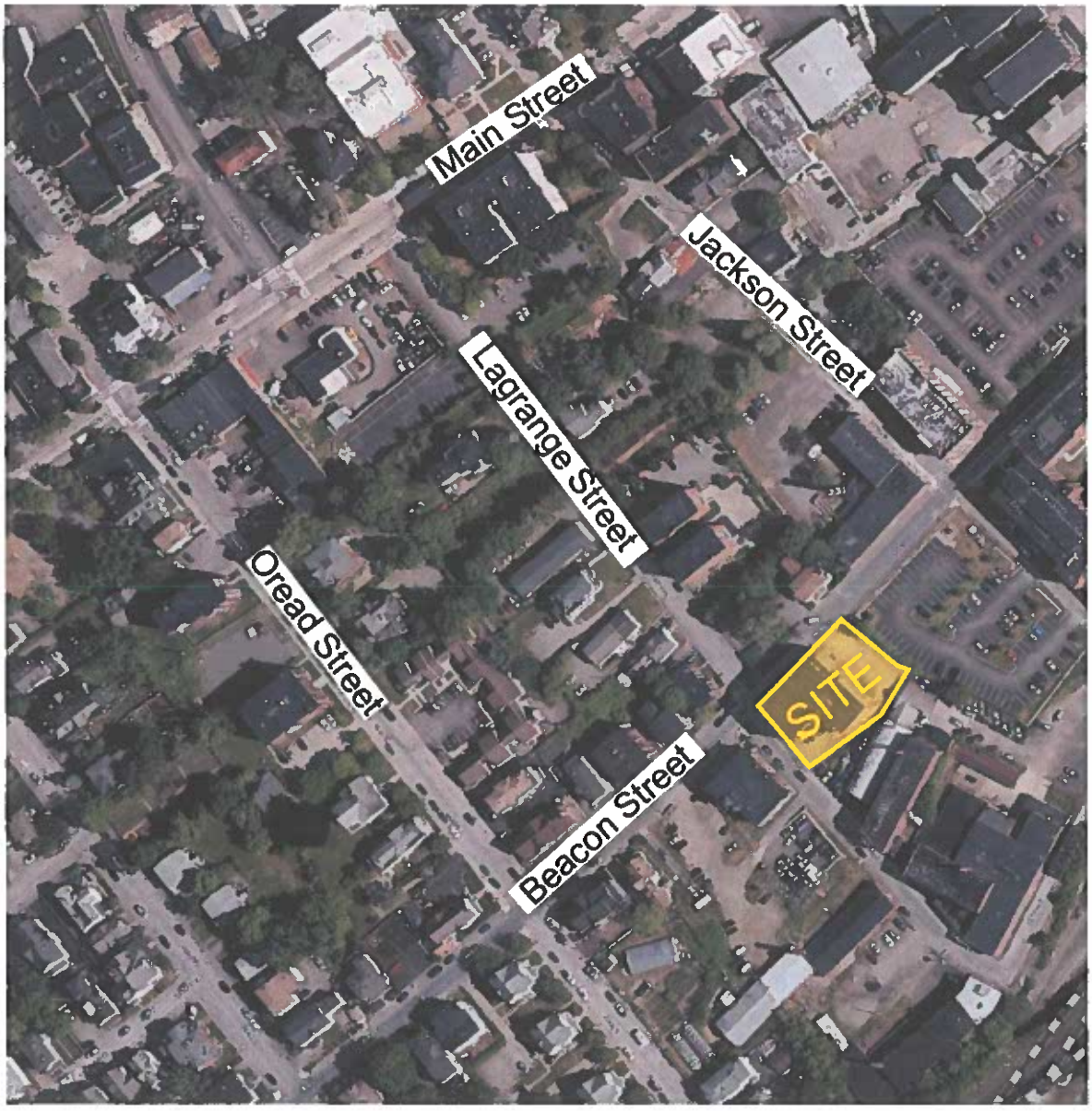
Chappell Engineering Associates, LLC (CEA) has conducted this Traffic Impact and Access Study for a proposed transit-oriented residential redevelopment project to be constructed at 98 Beacon Street in Worcester, Massachusetts. The site is currently occupied by a former industrial building that will be renovated to accommodate the fifty-eight (58) unit project, that will provide fifty-one (51) studio apartments and seven (7) one bedroom apartments.

The project site currently provides a single curb cut onto Beacon Street and a curb cut onto Lagrange Street that serves an existing loading area on the western side of the building. The project will provide a total of forty-nine (49) parking spaces, including seven (7) spaces on a lot immediately adjacent to the eastern side of the building, that would be accessed via a reconstructed curb cut onto Beacon Street, and forty-two (42) spaces provided in a separate parking lot on the opposite side of Lagrange Street, that will provide two separate curb cuts onto Lagrange Street. The building site is bordered by Beacon Street to the north, Lagrange Street to the west, and private properties to the east and south. The site location in relation to the surrounding roadway network is shown on Figure 1.

This report has been prepared to assess the safety of the proposed site driveways, estimate the increase in traffic as a result of site redevelopment, and evaluate the impact of this traffic on the adjacent streets and intersections. The project site is situated to take advantage of area public transportation services, including bus service that provides connections to Union Station. The proposed driveway intersections onto Beacon Street and Lagrange Street meet or exceed the

minimum required sight distances to ensure safe operation can be expected. It is recommended that any proposed landscaping, signs or fencing in the vicinity of the driveways be kept low (maximum 2 feet in height from street level) or set back sufficiently so as not to impede the available sight distances.

Figure 1
Site Location Map



The traffic to be generated by the proposed apartment building is expected to result in only minor increases in traffic on the adjacent roadway network. Without taking credit for trips that are expected to occur via alternative modes of travel, including public transportation, bicycle and walking trips, traffic-volume increases are expected to amount to only 20 vehicles per hour, or less on any given roadway segment in the vicinity of the site. These increases represent, on average, approximately one additional vehicle every three minutes during peak hours of roadway traffic. Smaller increases are expected during all other times of the day. The site driveways are expected to operate at acceptable levels of service, with vehicle queues that are not expected to exceed one vehicle.

It is recommended that a STOP sign (R1-1) and stop line be installed on the driveway approaches to both Beacon Street and Lagrange Street. The site driveways should be constructed in conformance with City of Worcester driveway design standards. It is also recommended that sidewalk be constructed along the eastern side of Lagrange Street adjacent to the existing building, in conjunction with the closure of the existing driveway and loading area, as well as a new painted crosswalk across Lagrange Street to accommodate pedestrian traffic between the building and parking lot on the opposite side of the corridor.

EXISTING CONDITIONS

Study Area

Evaluation of the traffic impacts associated with the proposed site redevelopment requires an evaluation of existing and projected traffic volumes, the volume of traffic expected to be generated by the project, and the impact that this traffic will have on the adjacent streets and nearby intersections. In preparing this study, the City of Worcester's Department of Transportation and Mobility (DTM) was consulted to identify an appropriate study area scope to evaluate the impacts of the project. Based on these discussions, the following intersections were analyzed and evaluated:

- Lagrange Street at Beacon Street
- Lagrange Street at Main Street

As documented in this report, the development is expected to have a negligible effect on traffic operations beyond this study area. The study area roadways and intersection are described below:

Beacon Street is a two-lane local roadway under City of Worcester jurisdiction that traverses the study area in a general east-west orientation between its western terminus at Boys and Girls Club Way and its eastern terminus at Madison Street. Sidewalk is provided along both sides of the corridor within the study area. On-street parking is provided along the northern side of the corridor, but prohibited along the southern side of the roadway, including adjacent to the project

site. The posted speed limit on Beacon Street is 25 miles per hour (mph). Land use along the corridor consists of a mix of residential, commercial and industrial uses. Illumination along the corridor is provided by way of overhead streetlights.

Lagrange Street is a two-lane local roadway under City of Worcester jurisdiction that traverses the study area in a general north-south orientation between its southern terminus at Jackson Street and its northern terminus at Main Street. Sidewalk is provided along both sides of the corridor, north of Beacon Street and along the western side of the corridor, south of Beacon Street. As discussed in subsequent sections of this report, in conjunction with the project, a new sidewalk is proposed along the eastern side of the corridor, adjacent to the project site. On-street parking is provided along the eastern side of the corridor, and prohibited along the western side of the corridor, north of Beacon Street. On-street parking is not restricted south of Beacon Street. The speed limit on Lagrange Street is not posted and therefore is assumed to be 25 mph. Land use along the corridor consists primarily of a mix of residential and former industrial uses. Illumination along the corridor is provided by way of overhead streetlights.

Beacon Street meets Lagrange Street from the east and west to form a four-way unsignalized intersection. All four intersection approaches provide a single general-purpose travel lane, with the northbound and southbound Lagrange Street approaches to this intersection operating under STOP-sign control. Sidewalk is provided along both sides of Beacon Street, and along both sides of Lagrange Street, north of Beacon Street. South of Beacon Street sidewalk is currently provided along the western side of Lagrange Street. On-street parking is provided on the northern side of Beacon Street and prohibited along the southern side of the corridor at this location. North of Beacon Street, on-street parking is provided along the eastern side of Lagrange Street and prohibited along the western side of the roadway. South of Beacon Street parking on Lagrange Street is unrestricted. Land use in the vicinity of this intersection consists of a mix of commercial and industrial uses. Illumination at this intersection is provided by way of overhead streetlights.

Lagrange Street meets Main Street from the south to form a three-way unsignalized intersection. All three intersection approaches provide a single general-purpose travel lane, with the northbound Lagrange Street approach to this intersection operating under STOP-sign control. On-street parking is provided on the eastern side of Lagrange Street and along both sides of Main Street in the vicinity of this intersection. Sidewalk is provided along both sides of Lagrange Street and Main Street at this location, with a painted crosswalk provided across the Lagrange Street northbound approach. Land use in the vicinity of this intersection consists primarily of a mix of commercial and residential uses. Illumination at this intersection is provided by way of overhead streetlights.

Traffic Volumes

Base traffic conditions within the study area were developed by conducting automatic traffic recorder (ATR) counts and manual turning movement counts (TMCs) in January 2024. Specifically, ATRs were conducted on Beacon Street and Lagrange Street, in the vicinity of the

project site, to collect traffic volumes over an extended period. In addition, manual TMCs and vehicle classification counts were also performed at each study area intersection. The raw traffic count data are provided in the Appendix. The TMCs were performed during the weekday AM (7:00 to 9:00 AM) and weekday PM (4:00 to 6:00 PM) peak periods, which typically represent the peak impact periods for residential developments. The count data indicates that in the vicinity of the site the weekday AM peak hour typically occurs from 8:00 to 9:00 AM and the weekday PM peak hour occurs from 5:00 to 6:00 PM.

To determine whether the count data should be adjusted to represent annual average month conditions, consistent with Massachusetts Department of Transportation (MassDOT) guidelines for traffic impact assessments, historical traffic volume data were obtained from MassDOT's Weekday Seasonal Adjustment Factors for the latest year available. This document provides a monthly adjustment factor based on the roadway classification of the study roadways. Beacon Street and Lagrange Street are classified as urban local roadways (U7). This roadway classification shows that data for the month of January are approximately 1 percent lower than average month conditions. In accordance with MassDOT guidelines the collected data were adjusted upwards by 1 percent to reflect average month conditions. The MassDOT Seasonal Adjustment Factors are provided in the Appendix.

The MassDOT *Traffic and Safety Engineering 25% Design Submission Guidelines* were updated on May 31, 2022. These new directives note that traffic volume data collected after March 1, 2022, are no longer subject to any adjustments to represent pre-pandemic traffic volume conditions, except in areas where land use is predominantly office. Therefore, since the TMC data was collected in January 2024 and land use in the area is predominantly residential and industrial, COVID adjustments do not need to be applied to the data. The 2024 Existing peak hour traffic flow networks are shown graphically on Figure 2.

The daily and peak hour traffic flows are summarized in Table 1.

Table 1
Existing Traffic Volume Summary

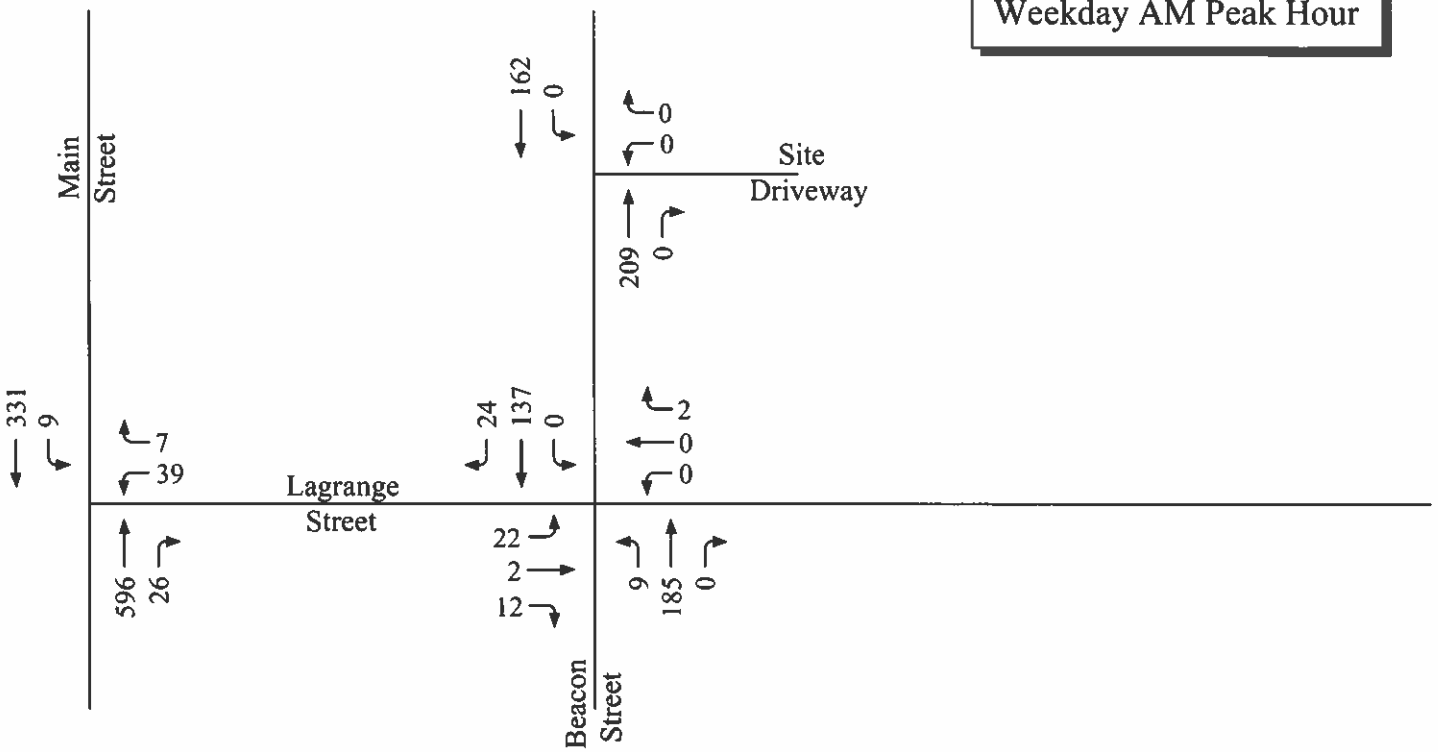
Location	Daily Volume [a]	Peak Hour Volume [b]		K-Factor [c]	Directional Distribution [d]
Beacon Street, east of Lagrange Street	3,791	AM:	371	9.8%	56% EB
		PM:	307	8.1%	74% WB
Lagrange Street, south of Beacon Street	147	AM:	4	2.7%	50% NB
		PM:	7	4.8%	71% SB

[a] In vehicles per day.
[b] In vehicles per hour.
[c] Percentage of daily traffic occurring during the peak hour.
[d] EB = eastbound; WB = westbound; NB = northbound; SB = southbound.

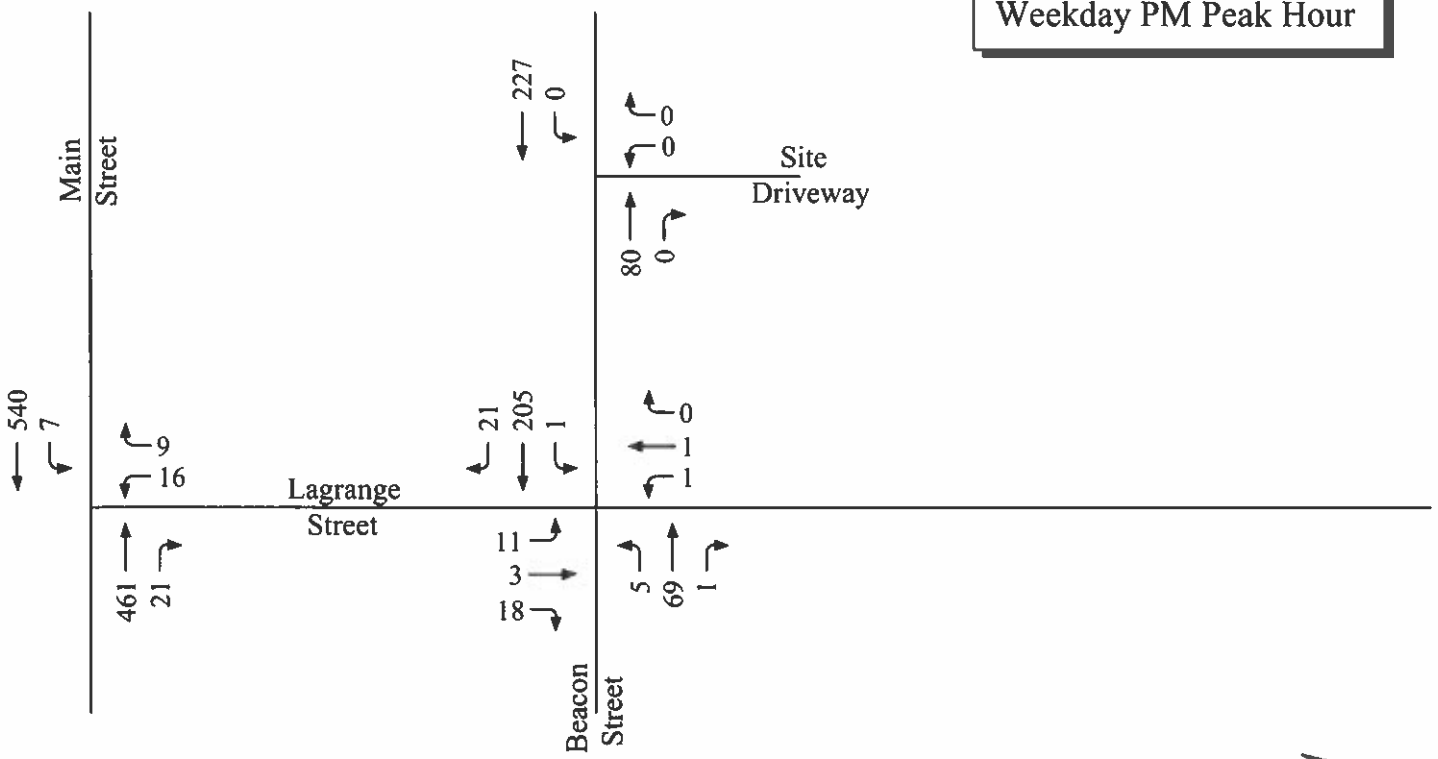
Chappell Engineering Associates, LLC
Consulting Engineering Services

Figure 2
2024 Existing
Peak Hour Traffic Volumes

Weekday AM Peak Hour



Weekday PM Peak Hour



NOT TO SCALE

As summarized in Table 1, Beacon Street, in the vicinity of the project site currently accommodates approximately 3,800 vehicles per day (vpd), including approximately 370 vehicles per hour (vph) during the weekday AM peak, and approximately 310 vph during the weekday PM peak. Traffic volumes along Lagrange Street, south of Beacon Street, are relatively low, with approximately 150 vpd and peak hour traffic flows that range from 4 to 7 vph.

Motor Vehicle Crash Data

Crash data for the study area intersections were obtained from MassDOT for the period between 2015 and 2019, the latest five years of available data, excluding 2020 when traffic volumes were impacted by COVID. A summary of the MassDOT crash data is provided in Table 2. In addition to the summary, crash occurrence should also be compared to the volume of traffic through a particular intersection to determine any significance. Accordingly, a motor vehicle crash rate was calculated for the intersection and compared with the statewide and district-wide (District 3) averages. An intersection crash rate is a measure of the frequency of crashes compared to the volume of traffic through an intersection and is presented in crashes per million entering vehicles (crashes/mev). For unsignalized intersections, the statewide average crash rate is 0.57 crashes/mev and the district-wide crash rate is 0.61 crashes/mev. A comparison of the calculated crash rate to the statewide and district-wide averages can be used to establish the significance of crash occurrence and whether or not potential safety problems exist. The crash rate worksheets are provided in the Appendix.

Table 2
Motor Vehicle Crash Summary

Location	Number of Accidents			Severity [a]			Accident Type [b]						% During Wet/Icy Conditions
	Total	Avg./ Year	Crash Rate [c]	PD	PI	NR	CM	RE	SV	SS	HO	UNK	
Main Street at Lagrange Street	16	3.2	0.67	9	3	4	3	6	1	4	0	2	19%
Beacon Street at Lagrange Street	8	1.6	0.89	3	2	3	1	1	0	4	1	1	25%

Source: MassDOT Traffic Operations Safety Management System – 2015 through 2019 data.
[a] PD = property damage only; PI = personal injury; NR = not reported/unknown.
[b] CM = cross movement/angle; RE = rear end; SV = single vehicle; SS = sideswipe; HO = head on; UNK = Unknown.
[c] Measured in crashes per million entering vehicles.

As summarized in Table 2, the intersection of Main Street with Lagrange Street experienced 16 crashes over the five-year period, averaging just over three crashes per year. Of the 16 total

collisions, nine resulted in property damage only and three involved non-fatal injuries. The severity of the four remaining crashes was not reported. The majority of reported collisions involved rear-end crashes. The calculated crash rate of 0.67 is slightly higher than both the statewide and district wide averages for unsignalized intersections.

The intersection of Beacon Street with Lagrange Street experienced 8 crashes over the five-year period, averaging just over one and a half crashes per year. Of the 8 total collisions, three resulted in property damage only and two involved non-fatal injuries. The severity of the three remaining crashes was not reported. The majority of reported collisions involved sideswipe crashes. The calculated crash rate of 0.89 exceeds both the statewide and district wide averages for unsignalized intersections.

As discussed in subsequent sections of this report, in conjunction with the project a number of transportation improvement measures are proposed in the immediate vicinity of this intersection to enhance future safety, including the construction of new sidewalk along the eastern side of Lagrange Street and installation of a new crosswalk across the Lagrange Street northbound approach to this intersection.

Roadway Segment Safety Analysis

As requested by the City's DTM, a roadway segment safety analyses was also conducted for the segments of Beacon Street, between Jackson Street and Oread Street, and along Lagrange Street, south of Beacon Street over the last five years of MassDOT data. Based on these analyses, the roadway segment crash rates amount to 0.71 crashes/mev for this segment of Beacon Street and 0.21 crashes/mev for this segment of Lagrange Street. These roadway segment crash rates fall well below MassDOT's 2.50 crashes/mev average crash rate for local urban roadways. Roadway segment crash rate calculations are provided in the Appendix of this report.

Vehicle Speeds

Speed measurements were conducted along Beacon Street and Lagrange Street adjacent to the site in conjunction with the ATR counts conducted along these corridors. The results of the speed measurements are summarized in Table 3.

Table 3
Observed Travel Speeds [a]

Location/Direction	Posted Speed Limit	Average Speed	85th Percentile Speed [b]
Beacon Street Adjacent to the Site:			
Eastbound	25	19	22
Westbound	25	21	25
Lagrange Street Adjacent to the Site:			
Northbound	25	17	22
Southbound	25	17	21

[a] In miles per hour (mph).
[b] Speed at, or below which 85 percent of all observed vehicles travel.

As shown, the average travel speeds along Beacon Street adjacent to the site driveway were approximately 4 to 6 mph lower than the posted speed limit. The 85th percentile speeds were recorded to be 22 mph in the eastbound direction and 25 mph in the westbound direction. As such the 85th percentile westbound travel speed, and higher 25 mph eastbound speed limit were utilized for the determination of required sight distances in both directions.

The average speed limit along Lagrange Street was determined to be 17 mph in both directions, with 85th percentile speeds of 22 mph in the northbound direction and 21 mph in the southbound direction. As such, the higher 25 mph posted speed limit was utilized for the determination of required sight distances.

SIGHT DISTANCE

To ensure safe access and egress are provided at the proposed site driveway location, sight distances have been evaluated at the proposed site driveway intersections with Beacon Street and Lagrange Street to determine if the available sight distances for vehicles exiting the proposed parking lots meet or exceed the minimum distances required for approaching vehicles to safely stop. The available sight distances were compared with minimum requirements, as established by the American Association of State Highway and Transportation Officials (AASHTO).[1] AASHTO is the national standard by which vehicle sight distance is calculated, measured, and reported. The MassDOT and the Executive Office of Energy and Environmental Affairs (EEA) require the use

[1] *A Policy on Geometric Design of Highways and Streets*; American Association of State Highway and Transportation Officials (AASHTO); 2004.

of AASHTO sight distance standards when preparing traffic impact assessments and studies, as stated in their guidelines for traffic impact assessments.

Sight distance is the length of roadway ahead that is visible to the driver. Stopping Sight Distance (SSD) is the minimum distance required for a vehicle traveling at a certain speed to safely stop before reaching a stationary object in its path. The values are based on a driver perception and reaction time of 2.5 seconds and a braking distance calculated for wet, level pavements. When the roadway is either on an upgrade or downgrade, grade correction factors are applied. Stopping sight distance is measured from an eye height of 3.5 feet to an object height of 2 feet above street level, equivalent to the taillight height of a passenger car. The SSD is measured along the centerline of the traveled way of the major road.

Intersection sight distance (ISD) is provided on minor street approaches to allow the drivers of stopped vehicles a sufficient view of the major roadway to decide when to enter the major roadway. By definition, ISD is the minimum distance required for a motorist exiting a minor street to turn onto the major street, without being overtaken by an approaching vehicle reducing its speed from the design speed to 70 percent of the design speed. ISD is measured from an eye height of 3.5 feet to an object height of 3.5 feet above street level. The use of an object height equal to the driver eye height makes intersection sight distances reciprocal (i.e., if one driver can see another vehicle, then the driver of that vehicle can also see the first vehicle). When the minor street is on an upgrade that exceeds 3 percent, grade correction factors are applied. It is noted that ISD is typically measured 14.5 feet back from the edge of travel way. At the proposed Beacon Street site driveway location, the presence of the existing building on site requires that motorists pull forward to approximately 10 feet from the edge of travel way to view traffic arriving from the west. Additionally, the sight distances along Lagrange Street at the proposed driveway locations reflect the removal of the existing retaining wall in conjunction with the construction of the proposed parking lot.

SSD is generally more important as it represents the minimum distance required for safe stopping while ISD is based only upon acceptable speed reductions to the approaching traffic stream. However, the ISD must be equal to or greater than the minimum required SSD in order to provide safe operations at the intersection. In accordance with the AASHTO manual, *"If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road."* Accordingly, ISD should be at least equal to the distance required to allow a driver approaching the minor road to safely stop.

The available intersection sight distances at the proposed driveway location were measured and compared to minimum requirements as established by AASHTO and are shown in Table 4.

Table 4
Sight Distance Summary

Location/Direction	Sight Distance (feet)		
	Measured	Minimum Required (SSD)[a]	Desirable (ISD)[b]
Beacon Street at Site Driveway:			
East of intersection	260	155	280
West of intersection	>500	155	240
Lagrange Street at North Site Driveway:			
North of intersection	>250	155	240
South of intersection	>250	155	280
Lagrange Street at South Site Driveway:			
North of intersection	>250	155	240
South of intersection	>200	155	280

[a] Values based on AASHTO SSD requirements for the posted speed limit of 25 mph on both Beacon Street and Lagrange Street.
[b] Values based on AASHTO ISD requirements for a speed of 25 mph for Beacon Street and Lagrange Street.

As shown in Table 4, the proposed site driveway intersections with Beacon Street and Lagrange Street provide the minimum required sight distances in both directions to allow for safe access to the site. To ensure that minimum required sight distances are maintained at the site driveway intersections, it is recommended that any proposed landscaping, fencing, or signs in the vicinity of the driveways be kept low (maximum 2 feet in height from street level) or set back sufficiently so as not to impede the available sight distances.

Public Transportation

Public transportation services are provided within the study area by the Worcester Regional Transit Authority (WRTA). Specifically, the WRTA provides bus service along the Main Street corridor, within a three minute walking distance of the project site via Lagrange Street. The following bus routes provide service within the study area:

- ***WRTA Bus Route 19 – Webster Square – Clark University via Main Street*** – this bus route provides service between Union Station, City Hall, Clark University and the Webster Square Plaza. Weekday service is provided starting at 5:30 AM and ending at 10:46 PM,

with approximate 15 to 30 minute headways during peak hours. Less frequent service is also provided on Saturday and Sunday.

- ***WRTA Bus Route 27 – Auburn Mall via Main Street*** – this bus route provides service between Union Station, City Hall, Clark University, the Webster Square Plaza and the Auburn Mall. Weekday service is provided starting at 5:45 AM and ending at 9:46 PM, with approximate 30 minute headways during peak hours. Less frequent service is also provided on Saturday and Sunday.

- ***WRTA Bus Route 33 – Spencer – Brookfield via Main Street and Route 9*** – this bus route provides service between Union Station, City Hall, Clark University, Webster Square Plaza, Leicester Center, East Brookfield and Brookfield. Weekday service is provided starting at 4:50 AM and ending at 7:53PM, with approximate one-hour headways during peak hours. Weekend service is not provided along this route.

Current maps and schedules can be found on the WRTA website at www.therta.com, and are included in the Appendix of this report.

Existing Pedestrian and Bicycle Accommodation

Within the study area sidewalk is generally provided along both sides of all study area roadways, including Beacon Street, Main Street and Lagrange Street, north of Beacon Street. Along Lagrange Street, south of Beacon Street, sidewalk is currently only provided along the western side of the corridor. In conjunction with the project, new sidewalk is proposed along the eastern side of the corridor, adjacent to the existing building, as well as a new painted crosswalk across Lagrange Street at its intersection with Beacon Street to accommodate pedestrian traffic between the Lagrange Street parking lot and residential building.

FUTURE CONDITIONS

Traffic Growth

Future traffic conditions were projected to the year 2031, representing a 7-year design horizon consistent with state requirements for traffic impact analysis. To project traffic conditions within this design horizon, two components of traffic growth were considered. First, an annual average traffic growth rate was determined to account for general population growth and smaller development projects (i.e. residential subdivisions) that may impact traffic in the site vicinity. Based on historical traffic volume information from a MassDOT count station on Southbridge Street, less than a mile from the project site (Station No. 3975), traffic volumes have generally decreased based on the last five years of available data. To provide a conservative assessment, a

one-percent per year background growth rate was used to bring the 2024 Existing volumes to 2031 (7-year growth) before the planned development volumes were added.

Second, any planned or approved specific developments in the area that would generate a significant volume of traffic on study area roadways within the next seven years were included. Based on discussions with the City of Worcester's Executive Office of Economic Development, the following development projects were identified:

- ***Proposed Residential Redevelopment - 30-55 Lagrange Street*** – this project entails the redevelopment of a four former light industrial building located at 30-55 Lagrange Steet in order to accommodate 63 units of multi-family housing. The traffic to be generated by this project was taken from the traffic assessment[2] prepared for the project and distributed onto the local roadway network based on U.S. Census Journey to Work distribution patterns as described in subsequent sections of this report.

- ***Clark University Residence Hall Redevelopment - Main Street/Hawthorne Street*** – this project entails the razing of existing dormitory buildings on the Clark University campus, and the construction of a new 6-story 161,881 sf dormitory building that will house approximately 500 students. Based on the project application form submitted to the City of Worcester Division of Planning & Regulatory Services, the project is not expected to result in a material change in the nature of Clark's educational use or result in a notable change to student enrollment. As such that project is not expected to result in a material change to traffic in and around the campus. It is assumed that any minor increases in traffic associated with this project would be captured through the application of the aforementioned background growth rate.

Lastly, based on consultation with the City of Worcester Department of Public Works, the City plans to convert the nearby Jackson Street corridor to one-way traffic flow within the study area, which could result in the diversion of a portion of the corridor's existing traffic to LaGrange Street. Based on discussions with DTM during the transportation scoping meeting for this project, one third of the current traffic on Jackson Street was redistributed to Lagrange Street during peak hours.

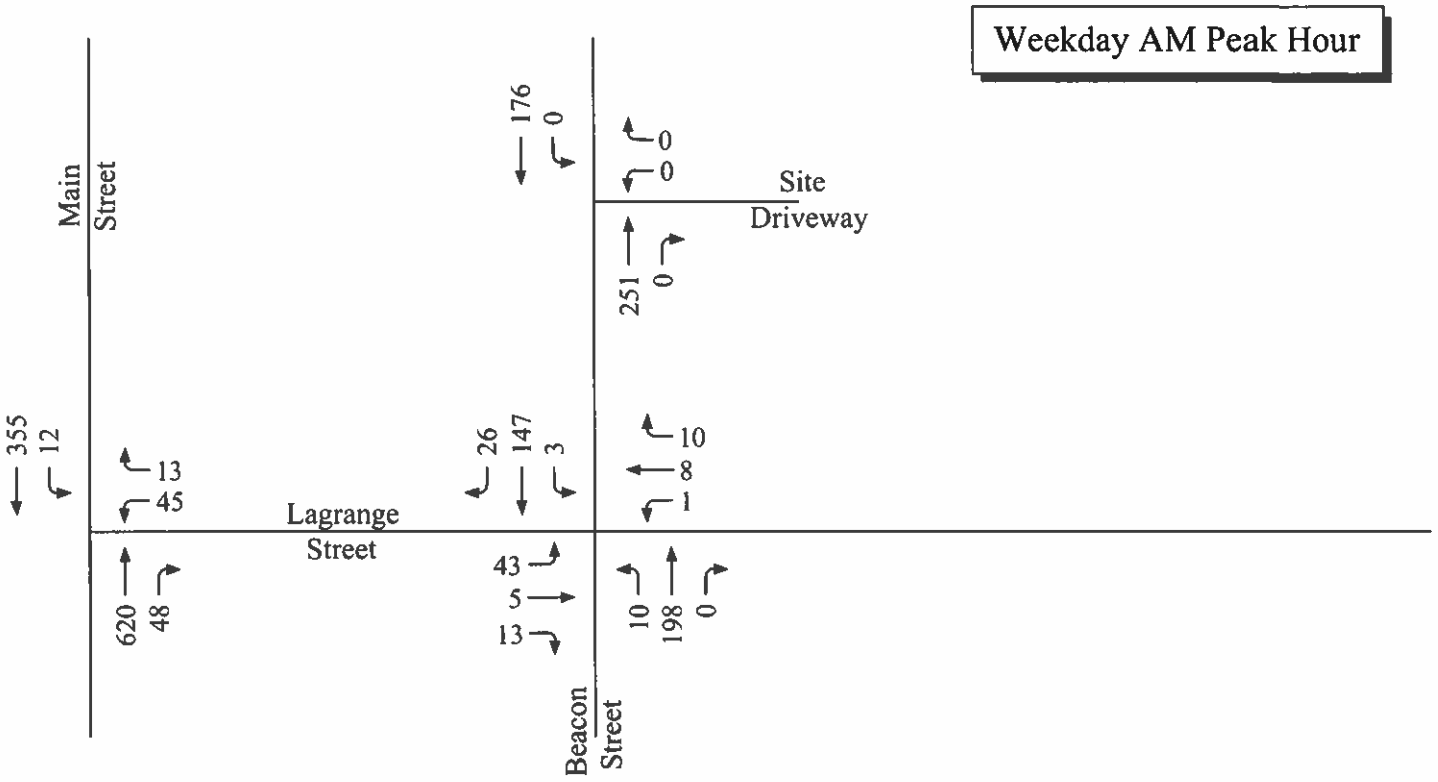
No-Build Conditions

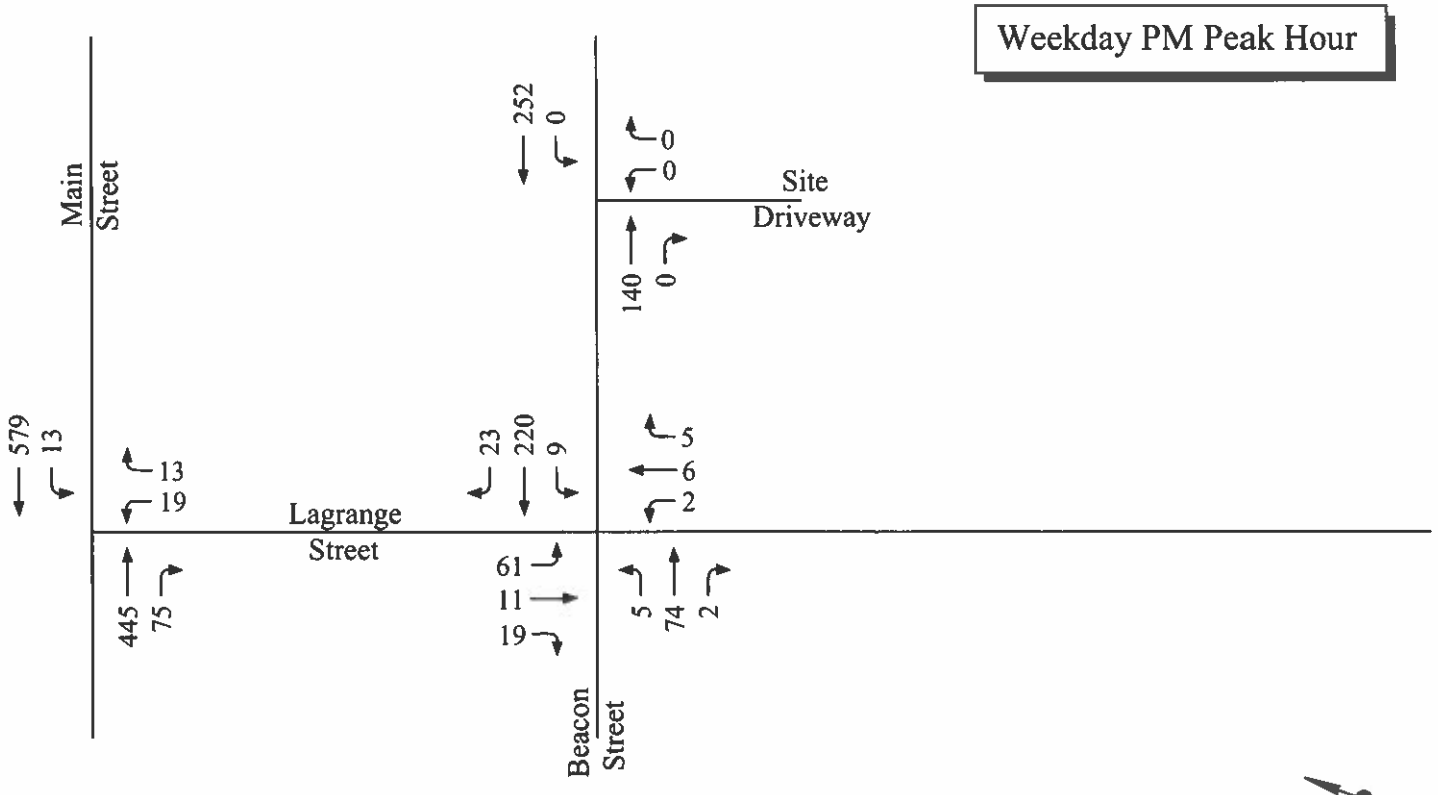
The 2031 No-Build networks were accordingly developed by applying a compounded 1.0 percent annual growth rate (7.2 percent over seven years) to the existing adjacent street volumes and by adding the traffic from the previously mentioned background developments, as well as redistributed traffic from Jackson Street. The 2031 No-Build peak-hour traffic-flow networks are shown on Figure 3.

[2] *Trip Generation Assessment, Proposed Mixed-Use Redevelopment, 30-55 Lagrange Street, Worcester, Massachusetts;* prepared for Bohler Engineering, Inc; prepared by VAI; August 19, 2021

Chappell Engineering Associates, LLC
Consulting Engineering Services

Figure 3
2031 No Build
Peak Hour Traffic Volumes





NOT TO SCALE

Trip Generation

The traffic to be generated by the proposed multi-family housing development project was estimated using the Institute of Transportation Engineering (ITE) *Trip Generation Manual*.[3] As proposed, fifty-eight (58) multifamily housing units are to be located within the existing four-story building. Accordingly, Land Use Code 221 (Multifamily Housing, Mid-Rise) was used in estimating the traffic generation characteristics of the project, as shown in Table 5. The trip generation calculations are provided in the Appendix.

As summarized in Table 5, the proposed redevelopment project is expected to generate 264 vehicle trips (132 entering and 132 exiting) on a typical weekday, including 21 vehicle trips (5 entering and 16 exiting) during the weekday AM peak hour and 23 vehicle trips (14 entering and 9 exiting) during the weekday PM peak hour.

It is noted that these projections are likely conservative as they do not take credit for alternative modes of transportation that are likely to be utilized by a percentage of residents of the project, including public transportation, bicycling, and walking trips. As previously noted, bus service is provided by the WRTA within a three minute walking distance from the site. However, in an effort to provide a conservative assessment of project impacts, no reductions to the trip generation estimates have been applied to account for non-automotive modes of travel by residents and guests of the project.

Table 5
Trip Generation Summary [a]

Time Period	Proposed Apartment Units [b]
Weekday Daily	264
Weekday AM Peak Hour	
Enter	5
Exit	16
Total	21
Weekday PM Peak Hour	
Enter	14
Exit	9
Total	23

[a] ITE Land Use Code 221 (Multifamily Housing - Mid-Rise).
[b] Based on 58 dwelling units.

[3] *Trip Generation Manual, 11th Edition;* Institute of Transportation Engineers; Washington, DC; 2021.

Of further note, the ITE has specified the long-term effects of the COVID-19 pandemic on trip generation and how it relates to various land uses. Specifically, for residential uses, it is expected that *"the proportion of the overall labor force that will be permitted to and will choose to work from home is expected to remain higher than it was pre-pandemic. This shift will likely result in an overall reduction in weekday peak period commuting trips. Individuals working from home may also experience shifts in trip patterns resulting in home-based trips being spread more broadly throughout the day"*. Based on this information, the trip generation of the site will likely be lower than estimated in Table 5 and therefore this study provides a conservative assessment.

Trip Distribution

As the development is residential, the U.S. Census Bureau's Journey to Work data were utilized to develop the trip distribution patterns for project-related traffic. Specifically, data for the workplace location of those living in the City of Worcester were used to estimate the expected trip distribution of the project-generated trips. Based on this data and a review of available travel routes, it is expected that 45 percent of the new residential site traffic will be to and from the east on Beacon Street; 30 percent to and from Main Street to the east; 15 percent to and from Main Street to the west; and 10 percent to and from Beacon Street to the west. U.S. Census Bureau's Journey to Work data are included in the Appendix.

Build Conditions

Based on the above traffic generation and distribution estimates, the traffic volumes generated by the project were assigned to the roadway network as shown on Figure 4 and were added to the 2031 No-Build traffic volumes to develop the 2031 Build traffic volumes. The 2031 Build traffic volume networks are graphically depicted on Figure 5.

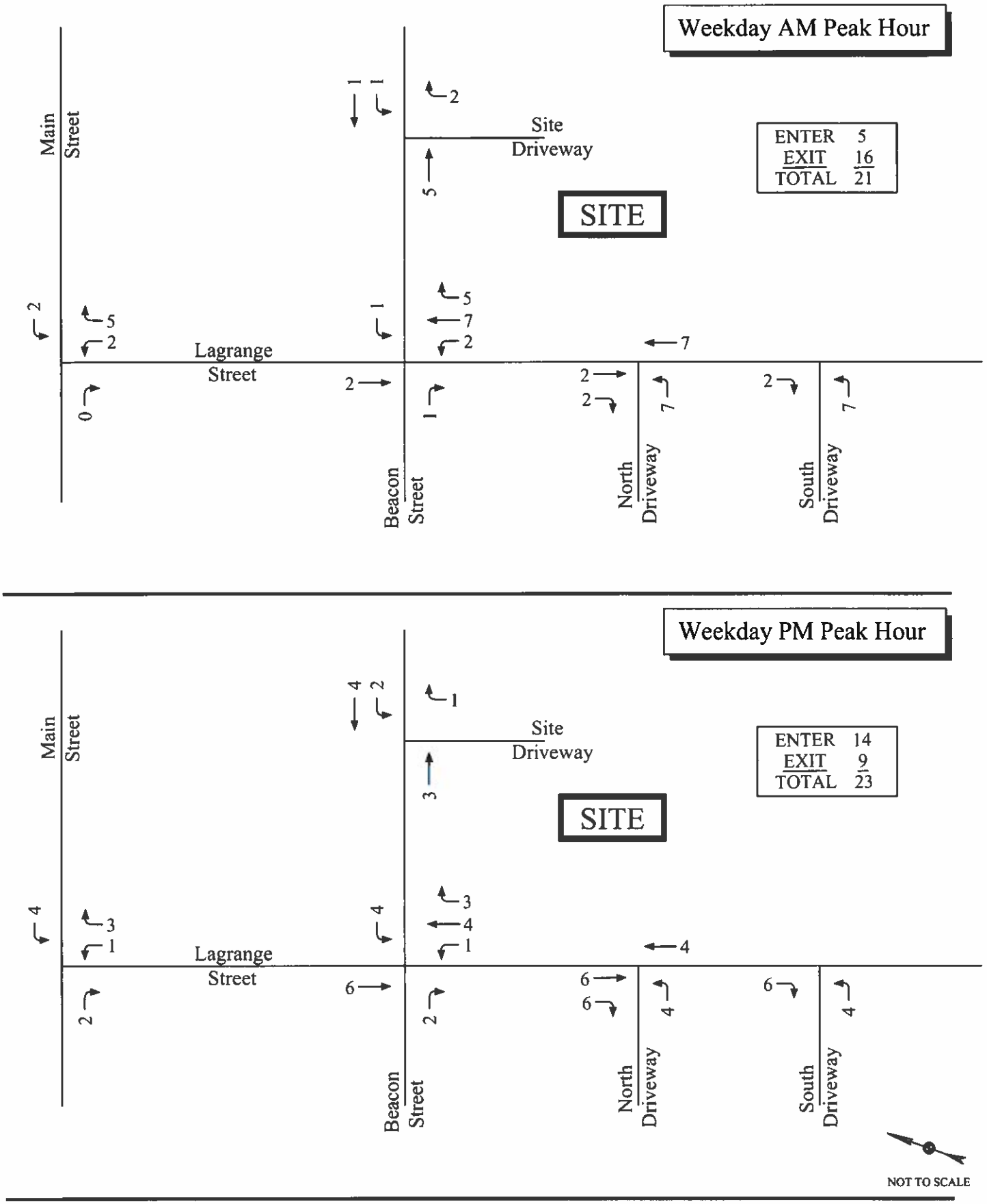
Traffic Increases

The proposed project will result in only minor increases in traffic on the study area roadways. Without taking credit for trips using alternative modes of transportation, traffic-volume increases are expected to be greatest along the segment of Lagrange Street, between the parking lot driveways and Beacon Street, where an additional 16 to 20 vehicles are expected during peak hours. These increases represent, on average, approximately one additional vehicle every three to four minutes. Traffic increases along Beacon Street are expected in the range of three to ten additional vehicles per hour, or one additional vehicle every six to twenty minutes during peak hours. Smaller increases are expected during all other times of the day.

Chappell Engineering Associates, LLC

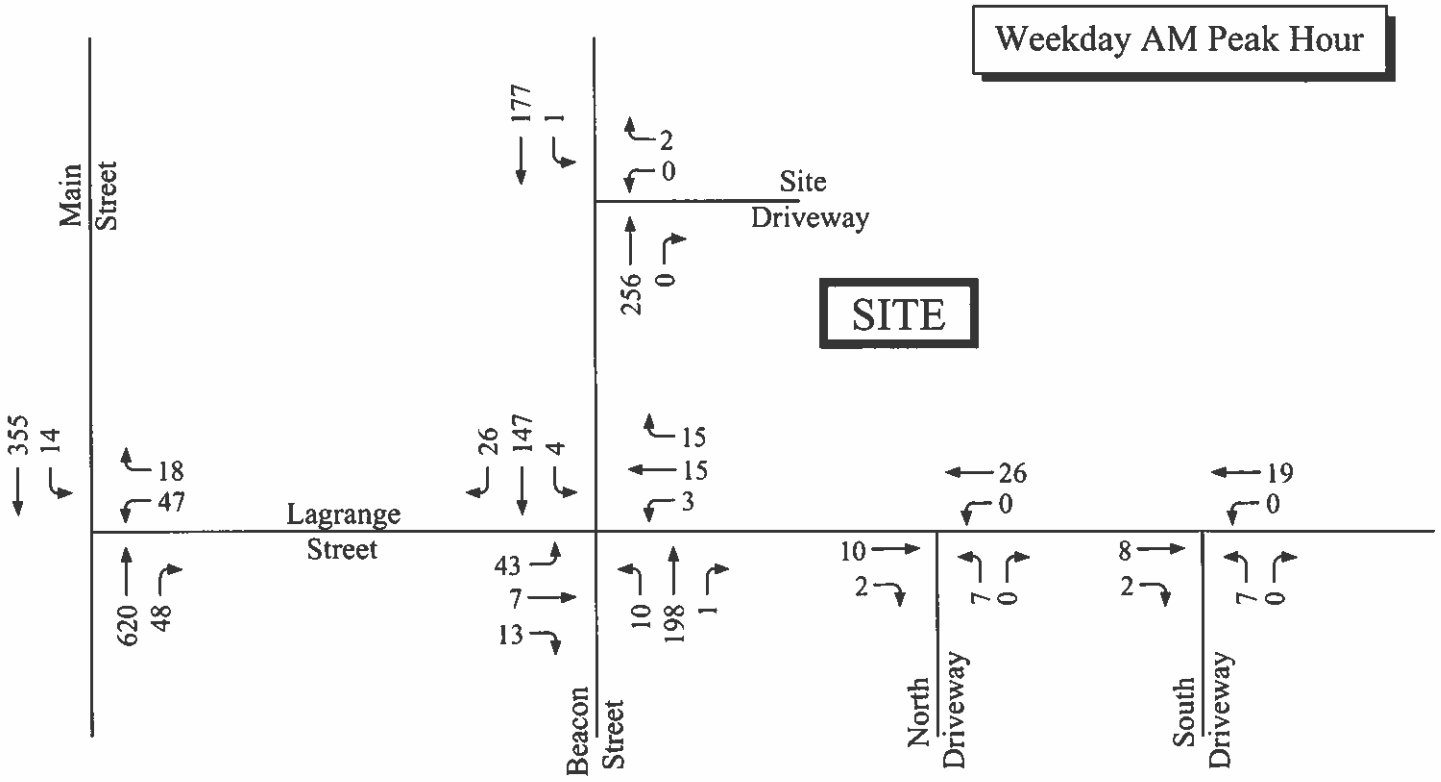
Consulting Engineering Services

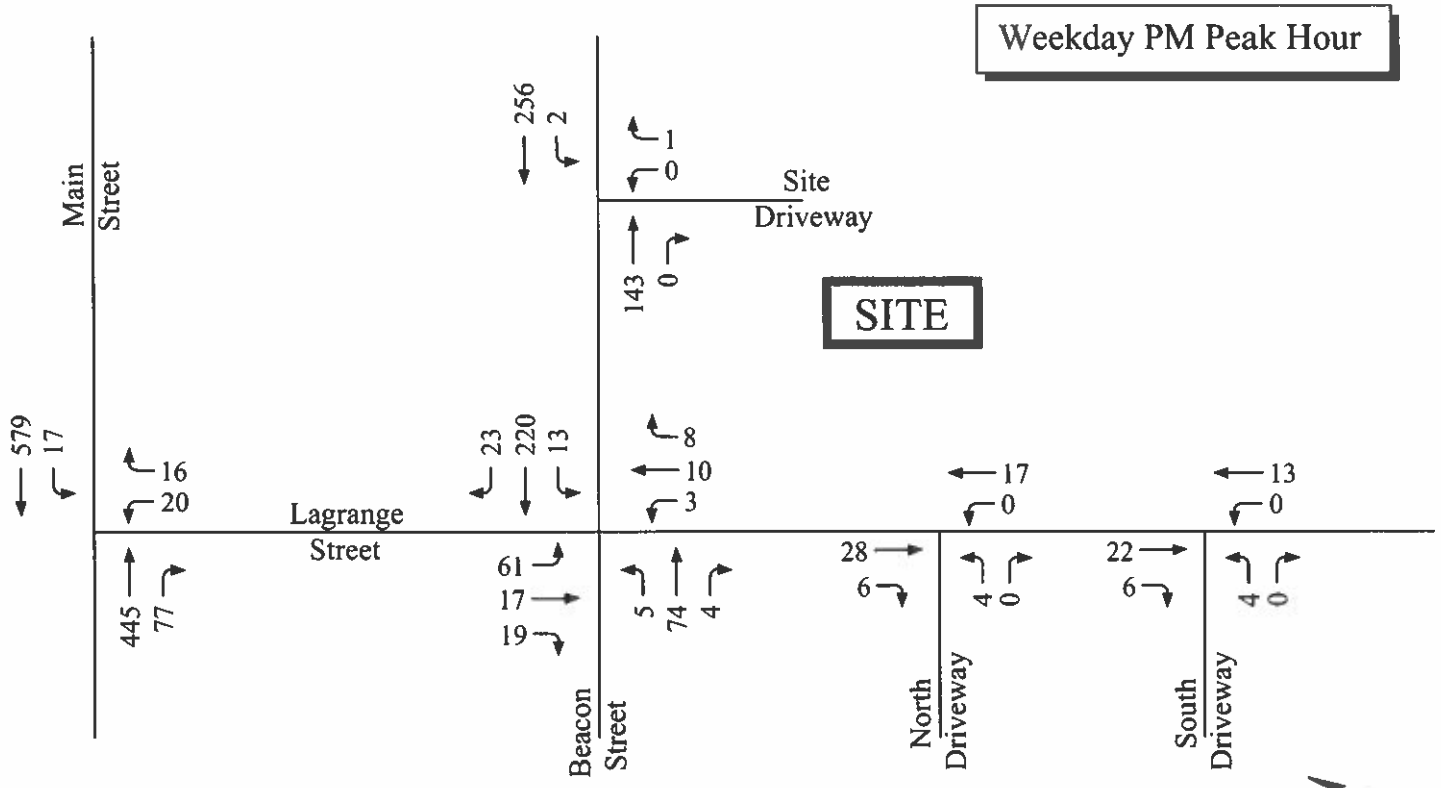
Figure 4
Site Generated
Peak Hour Traffic Volumes



Chappell Engineering Associates, LLC
Consulting Engineering Services

Figure 5
2031 Build
Peak Hour Traffic Volumes





Site Access and On-Site Circulation

The site currently provides a driveway onto Beacon Street, immediately east of the existing building, as well as a driveway onto Lagrange Street that provides access to an existing loading dock on the western side of the building. As part of the site redevelopment, the existing driveway onto Beacon Street will be reconstructed in accordance with City design guidelines and provide access to seven (7) parking spaces. The driveway to the loading area off Lagrange Street will be eliminated, with new curbing and sidewalk constructed along the site's Lagrange Street frontage. The proposed parking lot off Lagrange Street would provide two separate driveways, each providing access to twenty-one parking spaces, for a total of forty-two (42) spaces.

It is recommended that the proposed site access driveways provide a minimum of 24-feet in width in order to accommodate a 12-foot entering and 12-foot exiting travel lane. All three driveway approaches should be placed under STOP-sign control with a painted stop line provided. Entering and exiting traffic flows should be separated by a painted double-yellow centerline.

To enhance pedestrian connectivity between the Lagrange Street parking lot and the residential building, a new crosswalk is also proposed across the Lagrange Street northbound approach.

Parking Demand

The project proposes 58 residential units, all of which will be either studio or one-bedroom apartments. Based on data published by the ITE in the *Parking Generation*[4] manual for mid-rise multifamily housing (Land Use Code 221, "Dense Multi-Use Urban - Not Close to Rail Transit" category for 58 total residential units) the average peak parking demand for the facility will amount to 39 spaces. Given that 49 parking spaces will be provided, the proposed parking supply exceeds the anticipated peak demand for the project.

CAPACITY ANALYSIS

Level-of-service (LOS) analyses were conducted at the study area intersections under existing and projected volume conditions to determine the effect that the additional site-generated traffic will have on traffic operations. The capacity analysis methodology is based on the concepts and procedures in the *Highway Capacity Manual*[5] (HCM) and is described in the Appendix. For unsignalized intersections, the 95th percentile queue represents the length of queue of the critical minor-street movement that is not expected to be exceeded 95 percent of the time during the analysis period (typically one hour). The queue length is a function of the capacity of the movement and the movement's degree of saturation. The level-of-service and queue results are

[4] *Parking Demand Manual, 6th Edition*, ITE, Washington, DC; 2023.
[5] *Highway Capacity Manual 2010;* Transportation Research Board; Washington, DC; 2010.

presented in Table 6 and are discussed below. All analysis worksheets are provided in the Appendix.

Table 6
Level-of-Service Analysis Summary

Location/Peak Hour	2024 Existing				2031 No-Build				2031 Build			
Movement	v/c[a]	Delay[b]	LOS[c]	Queue[d]	v/c	Delay	LOS	Queue	v/c	Delay	LOS	Queue
Beacon Street at Lagrange Street												
Weekday AM Peak												
EB All	0.01	0.4	A	0	0.01	0.4	A	0	0.01	0.4	A	0
WB All	0.00	0.0	A	0	0.00	0.1	A	0	0.00	0.2	A	0
NB All	0.01	9.9	A	0	0.07	12.4	B	0	0.13	13.3	B	25
SB All	0.08	12.5	B	0	0.16	15.0	C	25	0.17	15.7	C	25
Weekday PM Peak												
EB All	0.00	0.5	A	0	0.00	0.5	A	0	0.00	0.5	A	0
WB All	0.00	0.0	A	0	0.00	0.0	A	0	0.01	0.4	A	0
NB All	0.01	11.3	B	0	0.01	11.3	B	0	0.07	11.1	B	0
SB All	0.07	10.6	B	0	0.07	10.6	B	0	0.28	13.9	C	25
Main Street at Lagrange Street												
Weekday AM Peak												
EB All	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0
WB All	0.01	0.2	A	0	0.02	0.3	A	0	0.02	0.3	A	0
NB All	0.27	23.6	C	25	0.37	27.7	D	50	0.41	28.4	D	50
Weekday PM Peak												
EB All	0.00	0.0	A	0	0.00	0.0	A	0	0.00	0.0	A	0
WB All	0.01	0.1	A	0	0.01	0.2	A	0	0.02	0.2	A	0
NB All	0.12	18.9	C	0	0.16	20.4	C	25	0.17	20.4	C	25
Beacon Street at Site Driveway												
Weekday AM Peak												
WB All	--	--	--	--	--	--	--	--	0.00	0.0	A	0
NB All	--	--	--	--	--	--	--	--	0.00	9.7	A	0
Weekday AM Peak												
WB All	--	--	--	--	--	--	--	--	0.00	0.1	A	0
NB All	--	--	--	--	--	--	--	--	0.00	9.0	A	0

[a] Volume-to-capacity ratio.
[b] Average control delay (sec./vehicle).
[c] Level of service.
[d] 95th percentile queue in feet, assuming 25 feet/vehicle.

Table 6 (Continued)
Level-of-Service Analysis Summary

Location/Peak Hour	2024 Existing				2031 No-Build				2031 Build			
Movement	v/c[a]	Delay[b]	LOS[c]	Queue[d]	v/c	Delay	LOS	Queue	v/c	Delay	LOS	Queue
Lagrange Street at North Site Driveway												
Weekday AM Peak												
EB All	--	--	--	--	--	--	--	--	0.00	8.7	A	0
NB All	--	--	--	--	--	--	--	--	0.00	0.0	A	0
Weekday PM Peak												
EB All	--	--	--	--	--	--	--	--	0.01	8.8	A	0
NB All	--	--	--	--	--	--	--	--	0.00	0.0	A	0
Lagrange Street at South Site Driveway												
Weekday AM Peak												
EB All	--	--	--	--	--	--	--	--	0.00	8.7	A	0
NB All	--	--	--	--	--	--	--	--	0.00	0.0	A	0
SB All												
Weekday PM Peak												
EB All	--	--	--	--	--	--	--	--	0.00	8.7	A	0
NB All	--	--	--	--	--	--	--	--	0.00	0.0	A	0

[a] Volume-to-capacity ratio.
[b] Average control delay (sec./vehicle).
[c] Level of service.
[d] 95th percentile queue in feet, assuming 25 feet/vehicle.

As shown in Table 6, under 2024 Existing conditions, all movements at the intersection of Beacon Street with Lagrange Street currently operate at LOS B or better during both the weekday AM and weekday PM peak hours. Under future 2031 No-Build conditions, all movements are projected to operate at LOS C or better during both peak periods. Under future 2031 Build conditions, all movements are projected to continue to operate at LOS C or better, with approach delays increasing by approximately 3 seconds or less. In all instances maximum queues are expected to extend only 1 vehicle or less during peak hours.

Under 2024 Existing conditions, all movements at the intersection of Main Street with Lagrange Street currently operate at LOS C or better during both the weekday AM and weekday PM peak hours. Under future 2031 No-Build conditions, all movements are projected to operate at LOS D or better during both peak periods. Under future 2031 Build conditions, all movements are projected to continue to operate at LOS D or better, with approach delays increasing by less than 1 second per vehicle as compared to No-Build conditions. In all instances maximum queues are expected to extend only 2 vehicles or less during peak hours.

Under future 2031 Build conditions, all site driveways onto Beacon Street and Lagrange Street are projected to operate at LOS A, with minimal queuing, amounting to less than 1 vehicle on average, projected on the driveway approaches during both peak periods.

TRANSPORTATION DEMAND MANAGEMENT MEASURES

The neighborhood of the project site is transit oriented in nature, with WRTA bus service provided within a three minute walking distance of the project site. All three bus routes provide connections to Union Station, where additional bus route connections, commuter rail and Amtrak service are available. Within walking distance, there are various destinations, including restaurants, retail stores, personal services and other various businesses along the Main Street corridor. The proponent is committed to implementing a number of Transportation Demand Management (TDM) measures in an effort to minimize the dependency on the private automobile and promote healthy living.

Pedestrian Linkages – Sidewalks are generally provided along both sides of all roadways that provide access to the project site. In conjunction with the redevelopment of the project, an existing curb cut and loading area on the western side of the building will be eliminated, with new curbing and sidewalk constructed along this segment of Lagrange Street to enhance the pedestrian realm. Additionally, a new pedestrian crosswalk is proposed across the northern terminus of Lagrange Street at Beacon Street, to enhance pedestrian connectivity and safety for residents walking between the Lagrange Street parking area and residential building.

Bicycle Accommodations – Safe and secure bicycle storage is proposed for residents of the development on the with the proposed building.

Electric Vehicle Charging Stations – To encourage cleaner modes of transportation, the proponent will install 4 electric vehicle charging stations within the parking areas.

Transportation Coordinator – A Transportation Coordinator will be designated who will provide new residents with information relative to pedestrian, bicycle, and transit services as part of an orientation packet.

CONCLUSIONS

Existing and future conditions at the study area intersections have been described and analyzed with respect to traffic operations and the impact of the proposed residential development. Conclusions of this effort and recommendations are presented below.

- The site is currently occupied by a vacant four-story former industrial building. Access to the site is currently provided via a curb cut off Beacon Street and a curb cut off Lagrange Street that provides access to the building's loading dock.

- As proposed, the building will be renovated to accommodate a 58-unit apartment development, which will consist of 51 studio and 7 one-bedroom apartments. In conjunction with the project the Beacon Street driveway will be reconstructed, with the Lagrange driveway closed.

- Parking for the project will be provided at two separate locations, a small parking lot immediately east of the building that will provide seven (7) parking spaces, as well as a new parking lot on the opposite side of Lagrange Street, that will provide forty-two (42) spaces for a total of forty-nine (49) spaces.

- In conjunction with the project, a new sidewalk will be constructed along the eastern side of Lagrange Street, adjacent to the site. Additionally, a new crosswalk will be installed across the northbound Lagrange Street approach to Beacon Street, to enhance pedestrian connectivity and safety.

- The majority of motor vehicle collisions within the study area resulted in property damage only, though it is noted that the calculated crash rates at the study intersections exceed the statewide and district-wide averages for unsignalized intersections.

- The minimum required sight distances are met in both directions at the proposed site driveway location on Beacon Street, as well as the two driveway locations that will serve the proposed parking lot off Lagrange Street.

- Future traffic conditions were projected to the year 2031, representing a 7-year design horizon consistent with state requirements for traffic impact analysis. Future No-Build conditions were developed by applying an annual traffic growth rate to the existing adjacent street volumes along with adding the traffic generated by other approved projects.

- The project is expected to generate 264 weekday daily vehicle trips (132 entering and 132 exiting) of which 21 vehicle trips (5 entering and 16 exiting) would occur during the weekday AM peak hour and 23 vehicle trips (14 entering and 9 exiting) would occur during the weekday PM peak hour. Smaller increases in site traffic are expected during all other times of the day. These projections likely conservative as they take no reduction for trips that would occur via alternative modes of transportation, including public transportation, bicycling, and walking trips.

- The ITE has specified the long-term effects of the COVID-19 pandemic on trip generation and how it relates to various land uses. Specifically, for residential uses, it is expected that *"the proportion of the overall labor force that will be permitted to and will choose to work from home is expected to remain higher than it was pre-pandemic. This shift will likely result in an overall reduction in weekday peak period commuting trips"*. Based on this information, the trip generation of the site will likely be lower than estimated in this report.

- The site driveways are expected to operate at level of service A during the weekday AM and PM peak hours with 95th percentile vehicle queues not expected to exceed one vehicle.

- The project proposes 58 residential units with 51 studios and 7 one-bedroom apartments. Based on data published by the ITE in the *Parking Generation* manual for mid-rise multifamily housing (Land Use Code 221, "Dense Multi-Use Urban - Not Close to Rail Transit") the average peak parking demand for the facility will amount to 39 spaces. Given that 49 parking spaces are proposed, an adequate supply of parking can be expected.

- Traffic operations analyses indicate the projected increases in traffic along study area roadways are not expected to result in adverse impacts to traffic operations. All movements at the study area intersections are expected to operate at acceptable levels of service under future No-Build and Build conditions, with minimal increases to future delays predicted as compared to No-Build conditions.

- The proponent is committed to implementing a number of TDM measures to reduce the impacts of the project, including pedestrian enhancements, provision of secure bicycle storage and EV charging stations on-site.

APPENDIX

Traffic Count Data
Seasonal/Historical Adjustment Data
Motor Vehicle Crash Data
Public Transportation Information
Trip Generation and Parking Demand Worksheets
Trip Distribution Calculations
Capacity Analysis Worksheets

Traffic Count Data

LaGrange Street
s/o Beacon Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PDI File # 249815 ATR-A

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Count Date: Wednesday, January 31, 2024
Direction: NB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	0	0	0	0
6:00 AM	0	0	0	0
6:15 AM	0	0	0	0
6:30 AM	0	0	0	0
6:45 AM	1	0	0	1
7:00 AM	0	0	0	0
7:15 AM	1	0	0	1
7:30 AM	3	0	0	3
7:45 AM	1	0	0	1
8:00 AM	2	0	0	2
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	1	0	0	1
9:00 AM	0	0	0	0
9:15 AM	1	0	0	1
9:30 AM	0	0	0	0
9:45 AM	1	0	0	1
10:00 AM	1	0	0	1
10:15 AM	0	0	0	0
10:30 AM	0	0	0	0
10:45 AM	1	0	0	1
11:00 AM	1	0	0	1
11:15 AM	1	0	0	1
11:30 AM	3	0	0	3
11:45 AM	1	0	0	1
AM Total	19	0	0	19
Percentage	100.00%	0.00%	0.00%	
AM Peak	7:15 AM	12:00 AM	12:00 AM	7:15 AM
Volume	7	0	0	7

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	4	0	0	4
12:15 PM	1	0	0	1
12:30 PM	1	0	0	1
12:45 PM	1	0	0	1
1:00 PM	0	0	0	0
1:15 PM	1	0	0	1
1:30 PM	1	0	0	1
1:45 PM	1	0	0	1
2:00 PM	0	0	0	0
2:15 PM	0	0	0	0
2:30 PM	0	0	0	0
2:45 PM	0	0	0	0
3:00 PM	2	0	0	2
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	2	0	0	2
4:00 PM	2	0	0	2
4:15 PM	2	0	0	2
4:30 PM	4	1	0	5
4:45 PM	2	0	0	2
5:00 PM	1	0	0	1
5:15 PM	2	0	0	2
5:30 PM	1	0	0	1
5:45 PM	1	0	0	1
6:00 PM	1	0	0	1
6:15 PM	0	0	0	0
6:30 PM	0	0	0	0
6:45 PM	1	0	0	1
7:00 PM	0	0	0	0
7:15 PM	1	0	0	1
7:30 PM	0	0	0	0
7:45 PM	0	0	0	0
8:00 PM	0	0	0	0
8:15 PM	2	0	0	2
8:30 PM	0	0	0	0
8:45 PM	0	0	0	0
9:00 PM	0	0	0	0
9:15 PM	1	0	0	1
9:30 PM	0	0	0	0
9:45 PM	2	0	0	2
10:00 PM	1	0	0	1
10:15 PM	2	0	0	2
10:30 PM	0	0	0	0
10:45 PM	0	0	0	0
11:00 PM	0	0	0	0
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	0	0	0	0
PM Total	40	1	0	41
Percentage	97.56%	2.44%	0.00%	
PM Peak	3:45 PM	3:45 PM	12:00 PM	3:45 PM
Volume	10	1	0	11
Day Total	59	1	0	60
Percentage	98.33%	1.67%	0.00%	

LaGrange Street
s/o Beacon Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PDI File # 249815 ATR-A

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

Count Date: Wednesday, January 31, 2024
Direction: SB

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	0	0	0	0
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	0	0	0	0
1:00 AM	0	0	0	0
1:15 AM	0	0	0	0
1:30 AM	0	0	0	0
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	0	0	0	0
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	0	0	0	0
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	0	0	0	0
4:30 AM	0	0	0	0
4:45 AM	0	0	0	0
5:00 AM	0	0	0	0
5:15 AM	0	0	0	0
5:30 AM	0	0	0	0
5:45 AM	0	0	0	0
6:00 AM	0	0	0	0
6:15 AM	1	0	0	1
6:30 AM	0	0	0	0
6:45 AM	2	0	0	2
7:00 AM	2	0	0	2
7:15 AM	1	0	0	1
7:30 AM	3	0	0	3
7:45 AM	1	0	0	1
8:00 AM	4	0	0	4
8:15 AM	1	0	0	1
8:30 AM	3	0	0	3
8:45 AM	2	0	0	2
9:00 AM	1	0	0	1
9:15 AM	1	0	0	1
9:30 AM	1	0	0	1
9:45 AM	1	0	0	1
10:00 AM	0	0	0	0
10:15 AM	1	0	0	1
10:30 AM	1	0	0	1
10:45 AM	2	0	0	2
11:00 AM	0	0	0	0
11:15 AM	1	0	0	1
11:30 AM	0	0	0	0
11:45 AM	2	0	0	2
AM Total	31	0	0	31
Percentage	100.00%	0.00%	0.00%	
AM Peak	8:00 AM	12:00 AM	12:00 AM	8:00 AM
Volume	10	0	0	10

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	4	0	0	4
12:15 PM	2	0	0	2
12:30 PM	2	0	0	2
12:45 PM	0	0	0	0
1:00 PM	5	0	0	5
1:15 PM	1	0	0	1
1:30 PM	0	0	0	0
1:45 PM	3	0	0	3
2:00 PM	1	0	0	1
2:15 PM	1	0	0	1
2:30 PM	2	0	0	2
2:45 PM	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	2	0	0	2
3:30 PM	1	0	0	1
3:45 PM	2	0	0	2
4:00 PM	0	0	0	0
4:15 PM	5	0	0	5
4:30 PM	2	0	0	2
4:45 PM	3	0	0	3
5:00 PM	1	0	0	1
5:15 PM	0	0	0	0
5:30 PM	4	0	0	4
5:45 PM	2	0	0	2
6:00 PM	1	0	0	1
6:15 PM	1	0	0	1
6:30 PM	0	0	0	0
6:45 PM	0	0	0	0
7:00 PM	0	0	0	0
7:15 PM	0	0	0	0
7:30 PM	0	0	0	0
7:45 PM	0	0	0	0
8:00 PM	0	0	0	0
8:15 PM	1	0	0	1
8:30 PM	0	0	0	0
8:45 PM	0	0	0	0
9:00 PM	1	0	0	1
9:15 PM	2	0	0	2
9:30 PM	0	0	0	0
9:45 PM	1	0	0	1
10:00 PM	2	0	0	2
10:15 PM	0	0	0	0
10:30 PM	1	0	0	1
10:45 PM	0	0	0	0
11:00 PM	0	0	0	0
11:15 PM	0	0	0	0
11:30 PM	0	0	0	0
11:45 PM	2	0	0	2
PM Total	55	0	0	55
Percentage	100.00%	0.00%	0.00%	
PM Peak	4:15 PM	12:00 PM	12:00 PM	4:15 PM
Volume	11	0	0	11
Day Total	86	0	0	86
Percentage	100.00%	0.00%	0.00%	

LaGrange Street
south of Beacon Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 249815 AR-A (Speed)

Count Date
Wednesday, January 31, 2024

Speed (60-minute)

NB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
6:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	14.0	14.0
7:00 AM	1	5	1	0	0	0	0	0	0	0	0	0	0	7	19.1	17.3
8:00 AM	1	1	1	0	0	0	0	0	0	0	0	0	0	3	19.1	16.3
9:00 AM	1	0	1	0	0	0	0	0	0	0	0	0	0	2	19.9	15.0
10:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	10.0	10.0
11:00 AM	3	2	1	0	0	0	0	0	0	0	0	0	0	6	18.8	15.5
12:00 PM	1	6	0	0	0	0	0	0	0	0	0	0	0	7	17.2	15.4
1:00 PM	2	1	1	0	0	0	0	0	0	0	0	0	0	4	19.4	15.5
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 PM	2	2	0	0	0	0	0	0	0	0	0	0	0	4	17.2	13.8
4:00 PM	4	2	3	0	0	0	0	0	0	0	0	0	0	9	22.4	15.4
5:00 PM	1	1	1	0	0	0	0	0	0	0	0	0	0	3	19.2	16.0
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	18.0	18.0
7:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	25.0	25.0
8:00 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	2	26.7	26.0
9:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	2	34.3	28.0
10:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	2	22.8	20.0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Total	18	23	10	3	0	1	0	0	0	0	0	0	0	55	21.9	16.7
Percent	32.73%	41.82%	18.18%	5.45%	0.00%	1.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
AM Peak	11:00 AM	7:00 AM	7:00 AM											7:00 AM		
Volume	3	5	1	0	0	0	0	0	0	0	0	0	0	7		
PM Peak	4:00 PM	12:00 PM	4:00 PM	8:00 PM		9:00 PM								4:00 PM		
Volume	4	6	3	2	0	1	0	0	0	0	0	0	0	9		

15th Percentile:	12.0 MPH	Average Speed:	16.7 MPH	Posted Speed Limit:	20 MPH
50th Percentile:	16.0 MPH	10 MPH Pace:	12 to 21 MPH	Number of Vehicles > 20 MPH:	11
85th Percentile:	21.9 MPH	Number in Pace:	38	Percent of Vehicles > 20 MPH:	20.0%
95th Percentile:	25.0 MPH	Percent in Pace:	69.1%		

LaGrange Street
south of Beacon Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 249815 AR-A (Speed)

Count Date
Wednesday, January 31, 2024

Speed (60-minute)

SB																
Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
6:00 AM	1	1	1	0	0	0	0	0	0	0	0	0	0	3	19.4	16.0
7:00 AM	2	3	0	0	0	0	0	0	0	0	0	0	0	5	18.4	15.0
8:00 AM	4	2	3	0	0	0	0	0	0	0	0	0	0	9	20.8	15.7
9:00 AM	1	2	2	0	0	0	0	0	0	0	0	0	0	5	20.0	16.8
10:00 AM	2	1	1	0	0	0	0	0	0	0	0	0	0	4	18.7	16.0
11:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	0	3	16.7	14.3
12:00 PM	1	4	2	0	0	0	0	0	0	0	0	0	0	7	20.2	17.1
1:00 PM	3	5	1	0	0	0	0	0	0	0	0	0	0	9	18.8	15.1
2:00 PM	1	2	2	0	0	0	0	0	0	0	0	0	0	5	20.4	17.2
3:00 PM	1	1	0	0	1	1	0	0	0	0	0	0	0	4	33.2	23.3
4:00 PM	1	4	3	0	0	0	0	0	0	0	0	0	0	8	21.0	17.5
5:00 PM	1	4	1	0	0	0	0	0	0	0	0	0	0	6	19.8	17.8
6:00 PM	4	1	0	0	0	0	0	0	0	0	0	0	0	5	15.6	12.8
7:00 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	2	16.0	13.5
8:00 PM	0	0	0	1	1	0	0	0	0	0	0	0	0	2	29.3	27.5
9:00 PM	0	1	1	0	2	0	0	0	0	0	0	0	0	4	32.1	24.8
10:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	2	24.7	24.0
11:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16.0	16.0
Total	24	35	18	2	4	1	0	0	0	0	0	0	0	84	21.0	17.2
Percent	28.57%	41.67%	21.43%	2.38%	4.76%	1.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
AM Peak	8:00 AM	7:00 AM	8:00 AM											8:00 AM		
Volume	4	3	3	0	0	0	0	0	0	0	0	0	0	9		
PM Peak	6:00 PM	1:00 PM	4:00 PM	8:00 PM	9:00 PM	3:00 PM								1:00 PM		
Volume	4	5	3	1	2	1	0	0	0	0	0	0	0	9		

15th Percentile:	13.0 MPH	Average Speed:	17.2 MPH	Posted Speed Limit:	20 MPH
50th Percentile:	17.0 MPH	10 MPH Pace:	13 to 22 MPH	Number of Vehicles > 20 MPH:	16
85th Percentile:	21.0 MPH	Number in Pace:	64	Percent of Vehicles > 20 MPH:	19.0%
95th Percentile:	29.3 MPH	Percent in Pace:	76.2%		

LaGrange Street
south of Beacon Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 249815 AR-A (Speed)

Count Date
Wednesday, January 31, 2024

Speed (60-minute)

Combined NB and SB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
6:00 AM	2	1	1	0	0	0	0	0	0	0	0	0	0	4	19.1	15.5
7:00 AM	3	8	1	0	0	0	0	0	0	0	0	0	0	12	19.0	16.3
8:00 AM	5	3	4	0	0	0	0	0	0	0	0	0	0	12	20.4	15.8
9:00 AM	2	2	3	0	0	0	0	0	0	0	0	0	0	7	20.2	16.3
10:00 AM	3	1	1	0	0	0	0	0	0	0	0	0	0	5	18.2	14.8
11:00 AM	4	4	1	0	0	0	0	0	0	0	0	0	0	9	17.8	15.1
12:00 PM	2	10	2	0	0	0	0	0	0	0	0	0	0	14	19.1	16.3
1:00 PM	5	6	2	0	0	0	0	0	0	0	0	0	0	13	19.4	15.2
2:00 PM	1	2	2	0	0	0	0	0	0	0	0	0	0	5	20.4	17.2
3:00 PM	3	3	0	0	1	1	0	0	0	0	0	0	0	8	30.4	18.5
4:00 PM	5	6	6	0	0	0	0	0	0	0	0	0	0	17	21.6	16.4
5:00 PM	2	5	2	0	0	0	0	0	0	0	0	0	0	9	20.6	17.2
6:00 PM	4	2	0	0	0	0	0	0	0	0	0	0	0	6	18.0	13.7
7:00 PM	1	1	0	1	0	0	0	0	0	0	0	0	0	3	22.6	17.3
8:00 PM	0	0	0	3	1	0	0	0	0	0	0	0	0	4	28.7	26.8
9:00 PM	0	2	1	0	2	1	0	0	0	0	0	0	0	6	34.0	25.8
10:00 PM	0	1	2	1	0	0	0	0	0	0	0	0	0	4	24.6	22.0
11:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	16.0	16.0
Total	42	58	28	5	4	2	0	0	0	0	0	0	0	139	21.0	17.0
Percent	30.22%	41.73%	20.14%	3.60%	2.88%	1.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
AM Peak	8:00 AM	7:00 AM	8:00 AM											7:00 AM		
Volume	5	8	4	0	0	0	0	0	0	0	0	0	0	12		
PM Peak	1:00 PM	12:00 PM	4:00 PM	8:00 PM	9:00 PM	3:00 PM								4:00 PM		
Volume	5	10	6	3	2	1	0	0	0	0	0	0	0	17		

15th Percentile:	12.0 MPH	Average Speed:	17.0 MPH	Posted Speed Limit:	20 MPH
50th Percentile:	17.0 MPH	10 MPH Pace:	12 to 21 MPH	Number of Vehicles > 20 MPH:	27
85th Percentile:	21.0 MPH	Number in Pace:	101	Percent of Vehicles > 20 MPH:	19.4%
95th Percentile:	25.2 MPH	Percent in Pace:	72.7%		

Beacon Street
e/o Lagrange Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # **249815 ATR-B**

Count Date: **Wednesday, January 31, 2024**
Direction: **EB**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	1	0	0	1
12:15 AM	0	0	0	0
12:30 AM	5	0	0	5
12:45 AM	2	0	0	2
1:00 AM	3	0	0	3
1:15 AM	1	0	0	1
1:30 AM	2	0	0	2
1:45 AM	2	0	0	2
2:00 AM	2	0	0	2
2:15 AM	1	0	0	1
2:30 AM	0	0	0	0
2:45 AM	2	0	0	2
3:00 AM	0	0	0	0
3:15 AM	0	0	0	0
3:30 AM	1	0	0	1
3:45 AM	0	0	0	0
4:00 AM	0	0	0	0
4:15 AM	2	0	0	2
4:30 AM	3	1	0	4
4:45 AM	4	0	0	4
5:00 AM	5	0	0	5
5:15 AM	2	0	0	2
5:30 AM	5	0	0	5
5:45 AM	6	0	0	6
6:00 AM	6	0	0	6
6:15 AM	10	0	0	10
6:30 AM	19	0	0	19
6:45 AM	24	0	0	24
7:00 AM	9	1	0	10
7:15 AM	16	1	0	17
7:30 AM	40	1	0	41
7:45 AM	35	2	0	37
8:00 AM	44	1	0	45
8:15 AM	40	0	0	40
8:30 AM	68	3	0	71
8:45 AM	40	1	0	41
9:00 AM	34	3	0	37
9:15 AM	29	1	0	30
9:30 AM	7	1	0	8
9:45 AM	19	0	0	19
10:00 AM	14	0	0	14
10:15 AM	8	0	0	8
10:30 AM	18	1	0	19
10:45 AM	20	1	0	21
11:00 AM	21	1	0	22
11:15 AM	13	2	0	15
11:30 AM	13	1	0	14
11:45 AM	21	1	0	22
AM Total	**617**	**23**	**0**	**640**
Percentage	**96.41%**	**3.59%**	**0.00%**	
AM Peak	**8:00 AM**	**8:30 AM**	**12:00 AM**	**8:00 AM**
Volume	**192**	**8**	**0**	**197**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	28	0	0	28
12:15 PM	19	1	1	21
12:30 PM	20	1	0	21
12:45 PM	12	2	0	14
1:00 PM	14	0	0	14
1:15 PM	30	0	0	30
1:30 PM	16	0	0	16
1:45 PM	24	0	0	24
2:00 PM	20	1	0	21
2:15 PM	42	0	0	42
2:30 PM	36	1	0	37
2:45 PM	30	0	0	30
3:00 PM	40	0	0	40
3:15 PM	43	1	0	44
3:30 PM	27	0	0	27
3:45 PM	30	1	0	31
4:00 PM	33	1	0	34
4:15 PM	33	0	0	33
4:30 PM	40	0	0	40
4:45 PM	25	0	0	25
5:00 PM	26	0	0	26
5:15 PM	25	0	0	25
5:30 PM	17	0	0	17
5:45 PM	12	0	0	12
6:00 PM	17	0	0	17
6:15 PM	11	0	0	11
6:30 PM	16	0	0	16
6:45 PM	12	0	0	12
7:00 PM	15	0	0	15
7:15 PM	10	0	0	10
7:30 PM	11	0	0	11
7:45 PM	8	1	0	9
8:00 PM	7	0	0	7
8:15 PM	17	0	0	17
8:30 PM	3	0	0	3
8:45 PM	11	0	0	11
9:00 PM	7	0	0	7
9:15 PM	7	0	0	7
9:30 PM	5	0	0	5
9:45 PM	8	0	0	8
10:00 PM	5	1	0	6
10:15 PM	7	0	0	7
10:30 PM	4	0	0	4
10:45 PM	4	0	0	4
11:00 PM	7	0	0	7
11:15 PM	3	0	0	3
11:30 PM	2	0	0	2
11:45 PM	2	0	0	2
PM Total	**841**	**11**	**1**	**853**
Percentage	**98.59%**	**1.29%**	**0.12%**	
PM Peak	**2:30 PM**	**12:00 PM**	**12:00 PM**	**2:30 PM**
Volume	**149**	**4**	**1**	**151**
Day Total	**1458**	**34**	**1**	**1493**
Percentage	**97.66%**	**2.28%**	**0.07%**	

Beacon Street
e/o Lagrange Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

Count Date: **Wednesday, January 31, 2024**
Direction: **WB**

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # **249815 ATR-B**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	5	1	0	6
12:15 AM	8	0	0	8
12:30 AM	5	0	0	5
12:45 AM	3	0	0	3
1:00 AM	5	0	0	5
1:15 AM	4	0	0	4
1:30 AM	3	0	0	3
1:45 AM	2	0	0	2
2:00 AM	2	0	0	2
2:15 AM	0	0	0	0
2:30 AM	1	0	0	1
2:45 AM	1	0	0	1
3:00 AM	1	0	0	1
3:15 AM	5	0	0	5
3:30 AM	1	0	0	1
3:45 AM	2	0	0	2
4:00 AM	0	0	0	0
4:15 AM	2	0	0	2
4:30 AM	2	0	0	2
4:45 AM	4	0	0	4
5:00 AM	1	0	0	1
5:15 AM	8	0	0	8
5:30 AM	9	0	0	9
5:45 AM	7	1	0	8
6:00 AM	7	0	0	7
6:15 AM	6	0	0	6
6:30 AM	9	1	0	10
6:45 AM	12	1	0	13
7:00 AM	20	0	0	20
7:15 AM	19	2	0	21
7:30 AM	29	1	0	30
7:45 AM	30	1	0	31
8:00 AM	31	2	0	33
8:15 AM	41	0	0	41
8:30 AM	43	3	0	46
8:45 AM	45	1	0	46
9:00 AM	30	1	0	31
9:15 AM	22	0	0	22
9:30 AM	22	0	0	22
9:45 AM	35	1	0	36
10:00 AM	19	2	0	21
10:15 AM	28	0	0	28
10:30 AM	23	0	0	23
10:45 AM	26	0	0	26
11:00 AM	23	0	0	23
11:15 AM	29	0	0	29
11:30 AM	28	0	0	28
11:45 AM	26	1	0	27
AM Total	**684**	**19**	**0**	**703**
Percentage	**97.30%**	**2.70%**	**0.00%**	
AM Peak	**8:00 AM**	**7:15 AM**	**12:00 AM**	**8:00 AM**
Volume	**160**	**6**	**0**	**166**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	52	0	0	52
12:15 PM	23	1	0	24
12:30 PM	31	1	0	32
12:45 PM	26	0	0	26
1:00 PM	31	1	0	32
1:15 PM	27	0	0	27
1:30 PM	30	1	0	31
1:45 PM	40	0	0	40
2:00 PM	41	2	0	43
2:15 PM	58	0	0	58
2:30 PM	39	4	0	43
2:45 PM	38	1	0	39
3:00 PM	61	1	0	62
3:15 PM	45	0	0	45
3:30 PM	55	0	0	55
3:45 PM	60	2	0	62
4:00 PM	58	1	0	59
4:15 PM	50	0	0	50
4:30 PM	52	0	0	52
4:45 PM	59	0	0	59
5:00 PM	57	2	1	60
5:15 PM	60	1	0	61
5:30 PM	51	0	0	51
5:45 PM	36	0	0	36
6:00 PM	25	0	0	25
6:15 PM	37	0	0	37
6:30 PM	37	0	0	37
6:45 PM	23	1	0	24
7:00 PM	28	0	0	28
7:15 PM	28	0	0	28
7:30 PM	26	0	0	26
7:45 PM	17	0	0	17
8:00 PM	28	0	0	28
8:15 PM	25	0	0	25
8:30 PM	19	0	0	19
8:45 PM	16	0	0	16
9:00 PM	14	0	0	14
9:15 PM	12	0	0	12
9:30 PM	20	0	0	20
9:45 PM	12	0	0	12
10:00 PM	8	0	0	8
10:15 PM	16	0	0	16
10:30 PM	10	0	0	10
10:45 PM	12	0	0	12
11:00 PM	11	0	0	11
11:15 PM	14	0	0	14
11:30 PM	10	0	0	10
11:45 PM	9	0	0	9
PM Total	**1537**	**19**	**1**	**1557**
Percentage	**98.72%**	**1.22%**	**0.06%**	
PM Peak	**4:30 PM**	**2:00 PM**	**4:15 PM**	**4:30 PM**
Volume	**228**	**7**	**1**	**232**
Day Total	**2221**	**38**	**1**	**2260**
Percentage	**98.27%**	**1.68%**	**0.04%**	

Beacon Street
east of LaGrange Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 249815 ATR-B (Speed)

Count Date
Wednesday, January 31, 2024

Speed (60-minute)

EB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	1	6	2	0	0	0	0	0	0	0	0	0	0	9	19.8	18.4
1:00 AM	0	3	5	0	0	0	0	0	0	0	0	0	0	8	22.0	20.1
2:00 AM	0	2	2	0	0	0	0	0	0	0	0	0	0	4	20.6	19.8
3:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	2	23.4	22.0
4:00 AM	1	2	8	0	0	1	0	0	0	0	0	0	0	12	24.0	21.3
5:00 AM	2	6	9	1	0	0	0	0	0	0	0	0	0	18	22.0	19.6
6:00 AM	2	15	25	2	3	0	0	0	0	0	0	0	0	47	23.1	20.8
7:00 AM	11	42	33	2	2	1	0	0	0	0	0	0	0	91	23.0	18.9
8:00 AM	19	65	54	6	3	3	0	0	0	0	0	0	0	150	23.0	19.4
9:00 AM	10	32	30	5	4	0	0	0	0	0	0	0	0	81	23.0	19.3
10:00 AM	9	37	22	3	1	0	0	0	0	0	0	0	0	72	22.0	18.4
11:00 AM	9	29	37	1	2	2	0	0	0	0	0	0	0	80	22.2	19.5
12:00 PM	10	27	35	6	4	0	0	0	0	0	0	0	0	82	24.0	19.8
1:00 PM	13	30	33	4	2	0	0	1	0	0	0	0	0	83	22.7	19.1
2:00 PM	23	61	44	2	2	0	0	0	0	0	0	0	0	132	22.0	17.9
3:00 PM	28	63	40	7	0	0	0	0	0	0	0	0	0	138	21.5	17.9
4:00 PM	44	89	37	4	1	1	0	0	0	0	0	0	0	176	21.0	17.1
5:00 PM	36	49	14	3	3	1	0	0	0	0	0	0	0	106	20.0	16.6
6:00 PM	10	26	21	1	1	0	0	0	0	0	0	0	0	59	21.0	18.1
7:00 PM	6	23	17	0	1	0	0	0	0	0	0	0	0	47	21.1	18.3
8:00 PM	7	26	10	1	0	0	0	0	0	0	0	0	0	44	22.0	17.2
9:00 PM	10	16	15	0	0	0	0	0	0	0	0	0	0	41	21.0	17.4
10:00 PM	3	9	8	4	1	0	0	0	0	0	0	0	0	25	25.4	20.3
11:00 PM	1	7	1	3	0	1	0	0	0	0	0	0	0	13	25.4	20.8
Total	255	665	504	55	30	10	0	1	0	0	0	0	0	1520	22.0	18.5
Percent	16.78%	43.75%	33.16%	3.62%	1.97%	0.66%	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%			
AM Peak	8:00 AM	8:00 AM	8:00 AM	8:00 AM	9:00 AM	8:00 AM								8:00 AM		
Volume	19	65	54	6	4	3	0	0	0	0	0	0	0	150		
PM Peak	4:00 PM	4:00 PM	2:00 PM	3:00 PM	12:00 PM	4:00 PM		1:00 PM						4:00 PM		
Volume	44	89	44	7	4	1	0	1	0	0	0	0	0	176		

15th Percentile:	14.0 MPH	Average Speed:	18.5 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	18.0 MPH	10 MPH Pace:	14 to 23 MPH	Number of Vehicles > 25 MPH:	72
85th Percentile:	22.0 MPH	Number in Pace:	1189	Percent of Vehicles > 25 MPH:	4.7%
95th Percentile:	25.0 MPH	Percent in Pace:	78.2%		

Beacon Street
east of LaGrange Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 249815 ATR-B (Speed)

Count Date
Wednesday, January 31, 2024

Speed (60-minute)

WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	0	8	9	0	0	0	0	0	0	0	0	0	0	17	23.0	19.8
1:00 AM	0	3	8	0	0	0	0	0	0	0	0	0	0	11	23.0	21.4
2:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3	20.9	18.0
3:00 AM	0	1	2	1	0	0	0	0	0	0	0	0	0	4	23.2	21.3
4:00 AM	0	2	2	1	0	0	0	0	0	0	0	0	0	5	23.6	20.8
5:00 AM	0	8	9	4	0	0	0	0	0	0	0	0	0	21	25.0	21.4
6:00 AM	4	5	10	3	0	0	0	0	0	0	0	0	0	22	24.0	20.2
7:00 AM	1	20	43	8	3	1	0	0	0	0	0	0	0	76	24.8	21.6
8:00 AM	10	24	66	16	1	1	1	0	0	0	0	0	0	119	25.0	20.9
9:00 AM	4	17	50	9	0	0	0	0	0	0	0	0	0	80	24.0	20.9
10:00 AM	5	16	36	16	3	0	0	0	0	0	0	0	0	76	25.0	21.4
11:00 AM	3	27	33	17	0	0	0	0	0	0	0	0	0	80	26.0	21.1
12:00 PM	1	20	43	13	2	0	0	0	0	0	0	0	0	79	26.0	21.8
1:00 PM	7	16	56	14	5	0	0	0	0	0	0	0	0	98	25.5	21.4
2:00 PM	14	31	55	28	6	0	0	0	0	0	0	0	0	134	25.0	21.1
3:00 PM	8	26	84	36	1	1	0	0	0	0	0	0	0	156	25.0	21.6
4:00 PM	2	15	47	14	3	0	0	0	0	0	0	0	0	81	25.0	22.1
5:00 PM	4	32	57	17	1	0	0	0	0	0	0	0	0	111	25.0	20.9
6:00 PM	3	27	45	13	0	0	0	0	0	0	0	0	0	88	24.0	20.9
7:00 PM	2	19	42	10	2	0	0	0	0	0	0	0	0	75	24.9	21.7
8:00 PM	3	18	34	10	2	0	0	0	0	0	0	0	0	67	25.0	21.3
9:00 PM	3	14	11	5	3	0	0	0	0	0	0	0	0	36	25.8	20.3
10:00 PM	0	9	19	3	2	1	0	0	0	0	0	0	0	34	26.1	22.3
11:00 PM	1	11	13	4	1	0	0	0	0	0	0	0	0	30	25.3	20.8
Total	75	371	775	242	35	4	1	0	0	0	0	0	0	1503	25.0	21.3
Percent	4.99%	24.68%	51.56%	16.10%	2.33%	0.27%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%			
AM Peak	8:00 AM	11:00 AM	8:00 AM	11:00 AM	7:00 AM	7:00 AM	8:00 AM							8:00 AM		
Volume	10	27	66	17	3	1	1	0	0	0	0	0	0	119		
PM Peak	2:00 PM	5:00 PM	3:00 PM	3:00 PM	2:00 PM	3:00 PM								3:00 PM		
Volume	14	32	84	36	6	1	0	0	0	0	0	0	0	156		

15th Percentile:	18.0 MPH	Average Speed:	21.3 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	21.0 MPH	10 MPH Pace:	17 to 26 MPH	Number of Vehicles > 25 MPH:	189
85th Percentile:	25.0 MPH	Number in Pace:	1234	Percent of Vehicles > 25 MPH:	12.6%
95th Percentile:	28.0 MPH	Percent in Pace:	82.1%		

Beacon Street
east of LaGrange Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File #: 249815 ATR-B (Speed)

Count Date
Wednesday, January 31, 2024

Speed (60-minute)

Combined EB and WB

Start Time:	1 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70+	Total	85th %ile	Ave Speed
12:00 AM	1	14	11	0	0	0	0	0	0	0	0	0	0	26	23.0	19.3
1:00 AM	0	6	13	0	0	0	0	0	0	0	0	0	0	19	23.0	20.8
2:00 AM	0	4	3	0	0	0	0	0	0	0	0	0	0	7	21.2	19.0
3:00 AM	0	1	4	1	0	0	0	0	0	0	0	0	0	6	24.3	21.5
4:00 AM	1	4	10	1	0	1	0	0	0	0	0	0	0	17	24.0	21.1
5:00 AM	2	14	18	5	0	0	0	0	0	0	0	0	0	39	23.3	20.5
6:00 AM	6	20	35	5	3	0	0	0	0	0	0	0	0	69	24.0	20.6
7:00 AM	12	62	76	10	5	2	0	0	0	0	0	0	0	167	24.0	20.1
8:00 AM	29	89	120	22	4	4	1	0	0	0	0	0	0	269	24.0	20.0
9:00 AM	14	49	80	14	4	0	0	0	0	0	0	0	0	161	24.0	20.1
10:00 AM	14	53	58	19	4	0	0	0	0	0	0	0	0	148	25.0	20.0
11:00 AM	12	56	70	18	2	2	0	0	0	0	0	0	0	160	24.0	20.3
12:00 PM	11	47	78	19	6	0	0	0	0	0	0	0	0	161	25.0	20.8
1:00 PM	20	46	89	18	7	0	0	1	0	0	0	0	0	181	24.0	20.4
2:00 PM	37	92	99	30	8	0	0	0	0	0	0	0	0	266	24.0	19.5
3:00 PM	36	89	124	43	1	1	0	0	0	0	0	0	0	294	25.0	19.9
4:00 PM	46	104	84	18	4	1	0	0	0	0	0	0	0	257	23.0	18.7
5:00 PM	40	81	71	20	4	1	0	0	0	0	0	0	0	217	23.0	18.8
6:00 PM	13	53	66	14	1	0	0	0	0	0	0	0	0	147	24.0	19.8
7:00 PM	8	42	59	10	3	0	0	0	0	0	0	0	0	122	24.0	20.4
8:00 PM	10	44	44	11	2	0	0	0	0	0	0	0	0	111	24.0	19.7
9:00 PM	13	30	26	5	3	0	0	0	0	0	0	0	0	77	22.6	18.7
10:00 PM	3	18	27	7	3	1	0	0	0	0	0	0	0	59	26.0	21.4
11:00 PM	2	18	14	7	1	1	0	0	0	0	0	0	0	43	25.7	20.8
Total	330	1036	1279	297	65	14	1	1	0	0	0	0	0	3023	24.0	19.9
Percent	10.92%	34.27%	42.31%	9.82%	2.15%	0.46%	0.03%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%			
AM Peak	8:00 AM	8:00 AM	8:00 AM	8:00 AM	7:00 AM	8:00 AM	8:00 AM							8:00 AM		
Volume	29	89	120	22	5	4	1	0	0	0	0	0	0	269		
PM Peak	4:00 PM	4:00 PM	3:00 PM	3:00 PM	2:00 PM	3:00 PM		1:00 PM						3:00 PM		
Volume	46	104	124	43	8	1	0	1	0	0	0	0	0	294		

15th Percentile:	15.0 MPH	Average Speed:	19.9 MPH	Posted Speed Limit:	25 MPH
50th Percentile:	20.0 MPH	10 MPH Pace:	15 to 24 MPH	Number of Vehicles > 25 MPH:	261
85th Percentile:	24.0 MPH	Number in Pace:	2315	Percent of Vehicles > 25 MPH:	8.6%
95th Percentile:	27.0 MPH	Percent in Pace:	76.6%		

Jackson Street
n/o Beacon Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION DATA INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875 0100 Fax: 508-875 0118

PDI File # **249815 ATR-C**

Count Date: **Wednesday, January 31, 2024**
Direction: **NB**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	6	0	0	6
12:15 AM	7	0	0	7
12:30 AM	1	0	0	1
12:45 AM	2	0	0	2
1:00 AM	4	1	0	5
1:15 AM	3	0	0	3
1:30 AM	2	0	0	2
1:45 AM	2	0	0	2
2:00 AM	2	0	0	2
2:15 AM	2	0	0	2
2:30 AM	0	0	0	0
2:45 AM	2	0	0	2
3:00 AM	2	0	0	2
3:15 AM	0	1	0	1
3:30 AM	2	0	0	2
3:45 AM	0	0	0	0
4:00 AM	4	0	0	4
4:15 AM	2	0	0	2
4:30 AM	10	1	0	11
4:45 AM	4	0	0	4
5:00 AM	6	0	0	6
5:15 AM	9	0	0	9
5:30 AM	3	0	0	3
5:45 AM	9	0	0	9
6:00 AM	10	0	0	10
6:15 AM	10	0	0	10
6:30 AM	13	1	0	14
6:45 AM	19	2	0	21
7:00 AM	21	2	0	23
7:15 AM	19	2	0	21
7:30 AM	45	0	1	46
7:45 AM	31	4	0	35
8:00 AM	41	1	0	42
8:15 AM	28	1	0	29
8:30 AM	24	1	0	25
8:45 AM	39	2	0	41
9:00 AM	40	0	0	40
9:15 AM	28	0	0	28
9:30 AM	31	1	0	32
9:45 AM	32	1	0	33
10:00 AM	33	0	0	33
10:15 AM	21	2	0	23
10:30 AM	30	0	0	30
10:45 AM	30	0	0	30
11:00 AM	30	3	0	33
11:15 AM	33	2	0	35
11:30 AM	23	3	0	26
11:45 AM	24	1	0	25
AM Total	**739**	**32**	**1**	**772**
Percentage	**95.73%**	**4.15%**	**0.13%**	
AM Peak	**7:30 AM**	**11:00 AM**	**6:45 AM**	**7:30 AM**
Volume	**145**	**9**	**1**	**152**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	35	2	0	37
12:15 PM	29	1	0	30
12:30 PM	47	0	0	47
12:45 PM	27	0	0	27
1:00 PM	39	1	0	40
1:15 PM	39	0	0	39
1:30 PM	43	0	0	43
1:45 PM	48	0	0	48
2:00 PM	45	0	0	45
2:15 PM	38	0	0	38
2:30 PM	46	0	0	46
2:45 PM	28	1	0	29
3:00 PM	39	0	0	39
3:15 PM	41	1	0	42
3:30 PM	40	2	0	42
3:45 PM	45	1	0	46
4:00 PM	61	1	0	62
4:15 PM	57	1	0	58
4:30 PM	67	0	0	67
4:45 PM	45	0	0	45
5:00 PM	48	1	0	49
5:15 PM	38	0	0	38
5:30 PM	33	0	0	33
5:45 PM	48	1	0	49
6:00 PM	37	0	0	37
6:15 PM	38	0	0	38
6:30 PM	32	0	0	32
6:45 PM	34	0	0	34
7:00 PM	40	0	0	40
7:15 PM	36	0	0	36
7:30 PM	30	1	0	31
7:45 PM	17	0	0	17
8:00 PM	20	0	0	20
8:15 PM	23	0	0	23
8:30 PM	13	0	0	13
8:45 PM	8	0	0	8
9:00 PM	18	0	0	18
9:15 PM	15	0	0	15
9:30 PM	10	0	0	10
9:45 PM	14	0	0	14
10:00 PM	4	0	0	4
10:15 PM	3	0	0	3
10:30 PM	8	0	0	8
10:45 PM	11	0	0	11
11:00 PM	6	0	0	6
11:15 PM	9	0	0	9
11:30 PM	6	0	0	6
11:45 PM	7	0	0	7
PM Total	**1465**	**14**	**0**	**1479**
Percentage	**99.05%**	**0.95%**	**0.00%**	
PM Peak	**3:45 PM**	**3:15 PM**	**12:00 PM**	**3:45 PM**
Volume	**230**	**5**	**0**	**233**
Day Total	**2204**	**46**	**1**	**2251**
Percentage	**97.91%**	**2.04%**	**0.04%**	

Jackson Street
n/o Beacon Street
City, State: Worcester, MA
Client: Chappell/ S. Kelly
Site Code: 23109

PRECISION
D A T A
INDUSTRIES, LLC
157 Washington Street, Suite 2
Hudson, MA 01749
Office: 508-875-0100 Fax: 508-875-0118

PDI File # **249815 ATR-C**

Count Date: **Wednesday, January 31, 2024**
Direction: **SB**

AM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 AM	3	0	0	3
12:15 AM	0	0	0	0
12:30 AM	0	0	0	0
12:45 AM	1	0	0	1
1:00 AM	1	0	0	1
1:15 AM	1	0	0	1
1:30 AM	2	0	0	2
1:45 AM	0	0	0	0
2:00 AM	0	0	0	0
2:15 AM	0	0	0	0
2:30 AM	2	0	0	2
2:45 AM	0	0	0	0
3:00 AM	0	0	0	0
3:15 AM	1	0	0	1
3:30 AM	0	0	0	0
3:45 AM	1	0	0	1
4:00 AM	2	0	0	2
4:15 AM	1	0	0	1
4:30 AM	1	0	0	1
4:45 AM	2	0	0	2
5:00 AM	1	0	0	1
5:15 AM	5	0	0	5
5:30 AM	4	0	0	4
5:45 AM	3	0	0	3
6:00 AM	8	0	0	8
6:15 AM	12	0	0	12
6:30 AM	7	0	0	7
6:45 AM	9	0	0	9
7:00 AM	6	0	0	6
7:15 AM	10	1	0	11
7:30 AM	20	1	0	21
7:45 AM	20	1	0	21
8:00 AM	17	1	0	18
8:15 AM	16	0	0	16
8:30 AM	12	1	0	13
8:45 AM	11	0	0	11
9:00 AM	12	0	0	12
9:15 AM	21	0	0	21
9:30 AM	6	0	0	6
9:45 AM	9	0	0	9
10:00 AM	12	0	0	12
10:15 AM	14	0	0	14
10:30 AM	8	0	0	8
10:45 AM	19	0	0	19
11:00 AM	15	0	0	15
11:15 AM	16	0	0	16
11:30 AM	15	0	0	15
11:45 AM	16	1	0	17
AM Total	**342**	**6**	**0**	**348**
Percentage	**98.28%**	**1.72%**	**0.00%**	
AM Peak	**7:30 AM**	**7:15 AM**	**12:00 AM**	**7:30 AM**
Volume	**73**	**4**	**0**	**76**

PM	Cars	Single Unit Heavy	Multi Unit Heavy	Total
12:00 PM	20	2	0	22
12:15 PM	19	0	0	19
12:30 PM	14	1	0	15
12:45 PM	13	0	0	13
1:00 PM	17	0	0	17
1:15 PM	22	0	0	22
1:30 PM	15	0	0	15
1:45 PM	18	0	0	18
2:00 PM	26	0	0	26
2:15 PM	26	1	0	27
2:30 PM	21	1	0	22
2:45 PM	14	0	0	14
3:00 PM	28	0	0	28
3:15 PM	18	0	0	18
3:30 PM	18	1	0	19
3:45 PM	13	0	0	13
4:00 PM	25	0	0	25
4:15 PM	29	0	0	29
4:30 PM	42	0	0	42
4:45 PM	32	0	0	32
5:00 PM	35	1	0	36
5:15 PM	39	0	0	39
5:30 PM	16	0	0	16
5:45 PM	22	0	0	22
6:00 PM	10	1	0	11
6:15 PM	17	0	0	17
6:30 PM	7	0	0	7
6:45 PM	13	0	0	13
7:00 PM	16	0	0	16
7:15 PM	8	0	0	8
7:30 PM	8	0	0	8
7:45 PM	8	0	0	8
8:00 PM	7	0	0	7
8:15 PM	6	0	0	6
8:30 PM	5	0	0	5
8:45 PM	10	0	0	10
9:00 PM	11	0	0	11
9:15 PM	5	0	0	5
9:30 PM	8	0	0	8
9:45 PM	7	0	0	7
10:00 PM	4	0	0	4
10:15 PM	5	0	0	5
10:30 PM	3	0	0	3
10:45 PM	2	0	0	2
11:00 PM	2	0	0	2
11:15 PM	5	0	0	5
11:30 PM	2	0	0	2
11:45 PM	1	0	0	1
PM Total	**712**	**8**	**0**	**720**
Percentage	**98.89%**	**1.11%**	**0.00%**	
PM Peak	**4:30 PM**	**12:00 PM**	**12:00 PM**	**4:30 PM**
Volume	**148**	**3**	**0**	**149**
Day Total	**1054**	**14**	**0**	**1068**
Percentage	**98.69%**	**1.31%**	**0.00%**	

Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Beacon St at Lagrange St AM
Site Code : 23109
Start Date : 1/18/2024
Page No : 1

E-W Street: Beacon St
N-S Street: Lagrange St

Groups Printed- Cars - Trucks

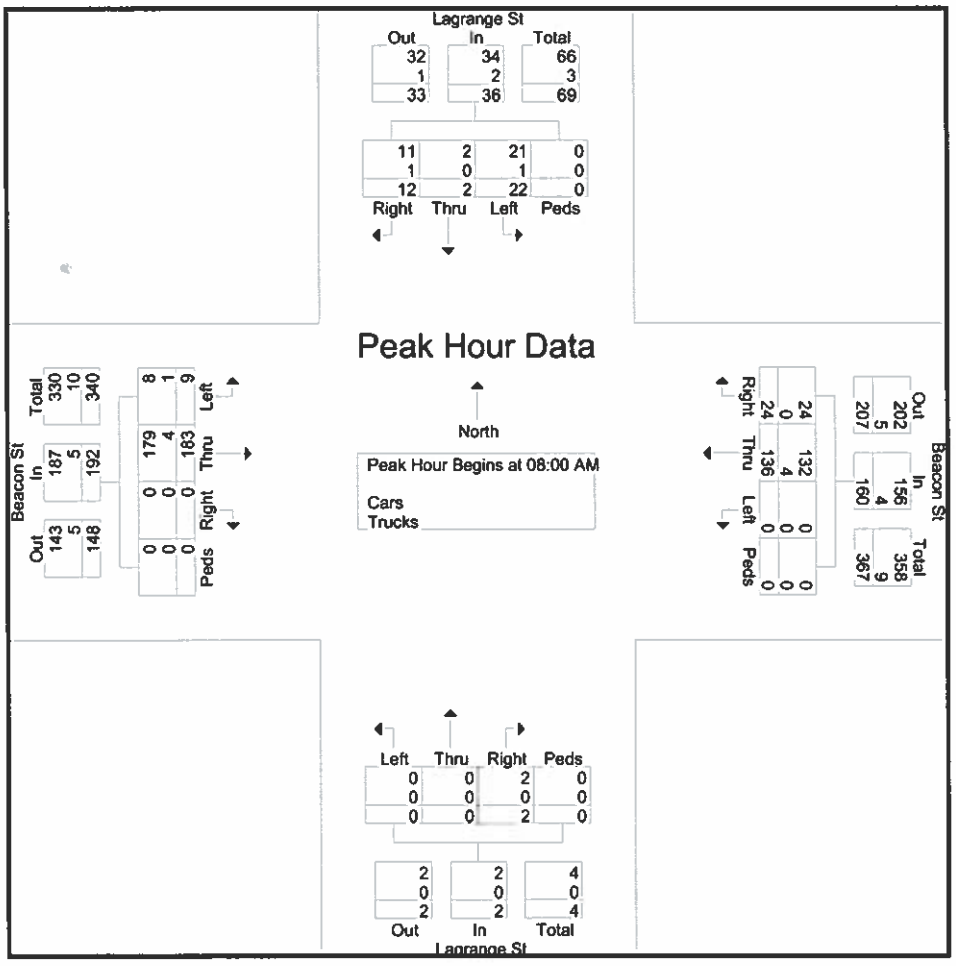
	Lagrange St From North					Beacon St From East					Lagrange St From South					Beacon St From West					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int. Total
07:00 AM	0	0	0	0	0	0	16	0	0	16	0	0	0	1	1	0	9	0	0	9	26
07:15 AM	3	0	0	0	3	0	18	4	0	22	0	0	0	0	0	0	14	0	0	14	39
07:30 AM	3	1	1	0	5	1	18	0	0	19	0	0	1	0	1	1	23	1	1	26	51
07:45 AM	4	3	4	0	11	1	23	0	0	24	0	0	0	0	0	1	33	0	0	34	69
Total	10	4	5	0	19	2	75	4	0	81	0	0	1	1	2	2	79	1	1	83	185
08:00 AM	5	0	2	0	7	0	23	5	0	28	0	0	0	0	0	3	36	0	0	39	74
08:15 AM	8	0	2	0	10	0	26	3	0	29	0	0	1	0	1	3	36	0	0	39	79
08:30 AM	5	1	4	0	10	0	41	8	0	49	0	0	1	0	1	2	32	0	0	34	94
08:45 AM	4	1	4	0	9	0	46	8	0	54	0	0	0	0	0	1	79	0	0	80	143
Total	22	2	12	0	36	0	136	24	0	160	0	0	2	0	2	9	183	0	0	192	390
Grand Total	32	6	17	0	55	2	211	28	0	241	0	0	3	1	4	11	262	1	1	275	575
Apprch %	58.2	10.9	30.9	0		0.8	87.6	11.6	0		0	0	75	25		4	95.3	0.4	0.4		
Total %	5.6	1	3	0	9.6	0.3	36.7	4.9	0	41.9	0	0	0.5	0.2	0.7	1.9	45.6	0.2	0.2	47.8	
Cars	31	6	16	0	53	2	205	27	0	234	0	0	3	1	4	10	255	1	1	267	558
% Cars	96.9	100	94.1	0	96.4	100	97.2	96.4	0	97.1	0	0	100	100	100	90.9	97.3	100	100	97.1	97
Trucks	1	0	1	0	2	0	6	1	0	7	0	0	0	0	0	1	7	0	0	8	17
% Trucks	3.1	0	5.9	0	3.6	0	2.8	3.6	0	2.9	0	0	0	0	0	9.1	2.7	0	0	2.9	3

Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Beacon St at Lagrange St AM
Site Code : 23109
Start Date : 1/18/2024
Page No : 2

E-W Street: Beacon St
N-S Street: Lagrange St

	Lagrange St From North					Beacon St From East					Lagrange St From South					Beacon St From West					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	5	0	2	0	7	0	23	5	0	28	0	0	0	0	0	**3**	36	0	0	39	74
08:15 AM	**8**	0	2	0	**10**	0	26	3	0	29	0	0	**1**	0	**1**	3	36	0	0	39	79
08:30 AM	5	**1**	**4**	0	10	0	41	**8**	0	49	0	0	1	0	1	2	32	0	0	34	94
08:45 AM	4	1	4	0	9	0	**46**	8	0	**54**	0	0	0	0	0	1	**79**	0	0	**80**	**143**
Total Volume	22	2	12	0	36	0	136	24	0	160	0	0	2	0	2	9	183	0	0	192	390
% App. Total	61.1	5.6	33.3	0		0	85	15	0		0	0	100	0		4.7	95.3	0	0		
PHF	.688	.500	.750	.000	.900	.000	.739	.750	.000	.741	.000	.000	.500	.000	.500	.750	.579	.000	.000	.600	.682
Cars	21	2	11	0	34	0	132	24	0	156	0	0	2	0	2	8	179	0	0	187	379
% Cars	95.5	100	91.7	0	94.4	0	97.1	100	0	97.5	0	0	100	0	100	88.9	97.8	0	0	97.4	97.2
Trucks	1	0	1	0	2	0	4	0	0	4	0	0	0	0	0	1	4	0	0	5	11
% Trucks	4.5	0	8.3	0	5.6	0	2.9	0	0	2.5	0	0	0	0	0	11.1	2.2	0	0	2.6	2.8



Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Beacon St at Lagrange St PM
Site Code : 23109
E-W Street: Beacon St
Start Date : 1/17/2024
N-S Street: Lagrange St
Page No : 1

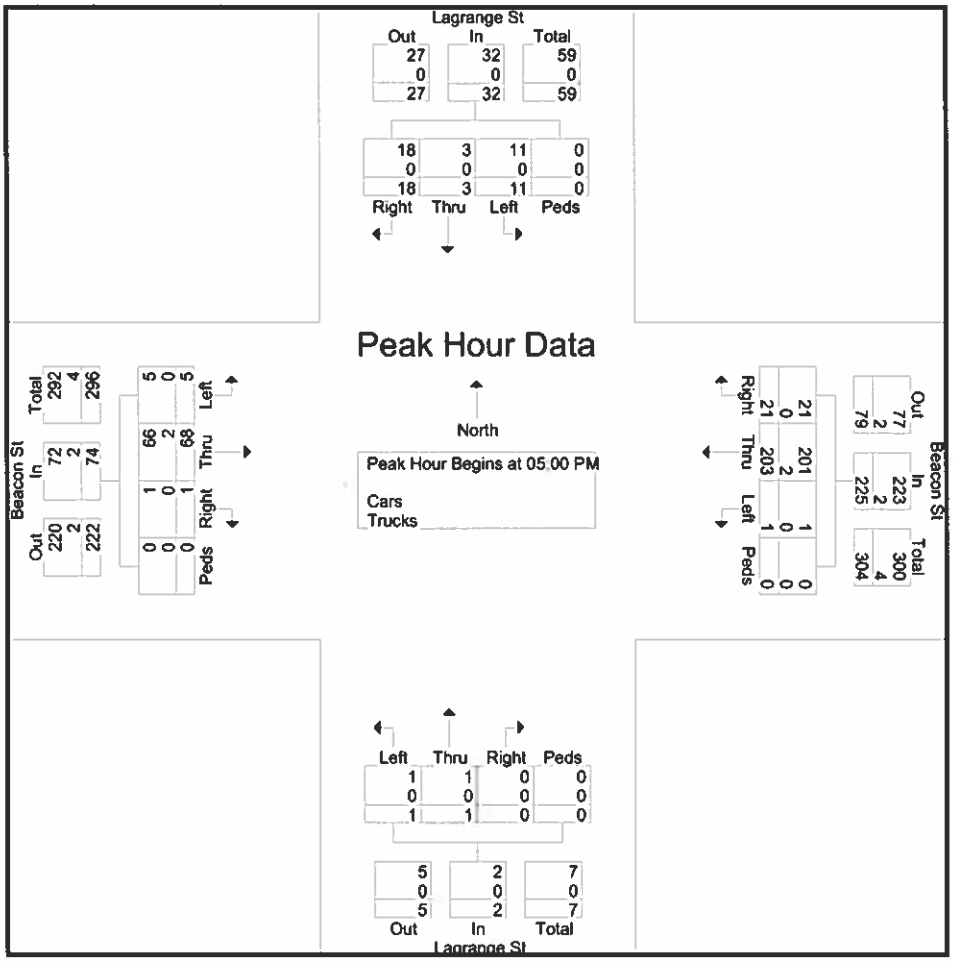
Groups Printed- Cars - Trucks

	Lagrange St From North					Beacon St From East					Lagrange St From South					Beacon St From West					
Start Time	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Left	Thru	Right	Peds	App Total	Int. Total
04:00 PM	2	5	1	1	9	1	40	1	0	42	1	0	0	0	1	2	15	1	0	18	70
04:15 PM	1	1	5	0	7	0	53	7	0	60	0	2	0	0	2	1	20	0	0	21	90
04:30 PM	1	0	6	0	7	1	55	4	0	60	2	0	0	0	2	5	17	2	1	25	94
04:45 PM	0	1	1	0	2	0	35	6	0	41	0	0	1	0	1	2	23	0	2	27	71
Total	4	7	13	1	25	2	183	18	0	203	3	2	1	0	6	10	75	3	3	91	325
05:00 PM	0	1	2	0	3	1	46	2	0	49	0	1	0	0	1	1	18	0	0	19	72
05:15 PM	4	1	8	0	13	0	57	5	0	62	0	0	0	0	0	1	14	0	0	15	90
05:30 PM	4	1	3	0	8	0	57	9	0	66	0	0	0	0	0	1	19	0	0	20	94
05:45 PM	3	0	5	0	8	0	43	5	0	48	1	0	0	0	1	2	17	1	0	20	77
Total	11	3	18	0	32	1	203	21	0	225	1	1	0	0	2	5	68	1	0	74	333
Grand Total	15	10	31	1	57	3	386	39	0	428	4	3	1	0	8	15	143	4	3	165	658
Apprch %	26.3	17.5	54.4	1.8		0.7	90.2	9.1	0		50	37.5	12.5	0		9.1	86.7	2.4	1.8		
Total %	2.3	1.5	4.7	0.2	8.7	0.5	58.7	5.9	0	65	0.6	0.5	0.2	0	1.2	2.3	21.7	0.6	0.5	25.1	
Cars	15	10	31	1	57	3	381	39	0	423	4	3	1	0	8	15	138	4	3	160	648
% Cars	100	100	100	100	100	100	98.7	100	0	98.8	100	100	100	0	100	100	96.5	100	100	97	98.5
Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	5	0	0	5	10
% Trucks	0	0	0	0	0	0	1.3	0	0	1.2	0	0	0	0	0	0	3.5	0	0	3	1.5

Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Beacon St at Lagrange St PM
Site Code : 23109
E-W Street: Beacon St
Start Date : 1/17/2024
N-S Street: Lagrange St
Page No : 2

	Lagrange St From North					Beacon St From East					Lagrange St From South					Beacon St From West					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	**1**	2	0	3	**1**	46	2	0	49	0	**1**	0	0	**1**	1	18	0	0	19	72
05:15 PM	**4**	1	**8**	0	**13**	0	**57**	5	0	62	0	0	0	0	0	1	14	0	0	15	90
05:30 PM	4	1	3	0	8	0	57	**9**	0	**66**	0	0	0	0	0	1	**19**	0	0	**20**	**94**
05:45 PM	3	0	5	0	8	0	43	5	0	48	**1**	0	0	0	1	**2**	17	**1**	0	20	77
Total Volume	11	3	18	0	32	1	203	21	0	225	1	1	0	0	2	5	68	1	0	74	333
% App. Total	34.4	9.4	56.2	0		0.4	90.2	9.3	0		50	50	0	0		6.8	91.9	1.4	0		
PHF	.688	.750	.563	.000	.615	.250	.890	.583	.000	.852	.250	.250	.000	.000	.500	.625	.895	.250	.000	.925	.886
Cars	11	3	18	0	32	1	201	21	0	223	1	1	0	0	2	5	66	1	0	72	329
% Cars	100	100	100	0	100	100	99.0	100	0	99.1	100	100	0	0	100	100	97.1	100	0	97.3	98.8
Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	4
% Trucks	0	0	0	0	0	0	1.0	0	0	0.9	0	0	0	0	0	0	2.9	0	0	2.7	1.2



Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Main St at Lagrange St AM
Site Code : 23109
Start Date : 1/18/2024
Page No : 1

E-W Street:Main St
N-S Street:Lagrange St

Groups Printed- Cars - Trucks

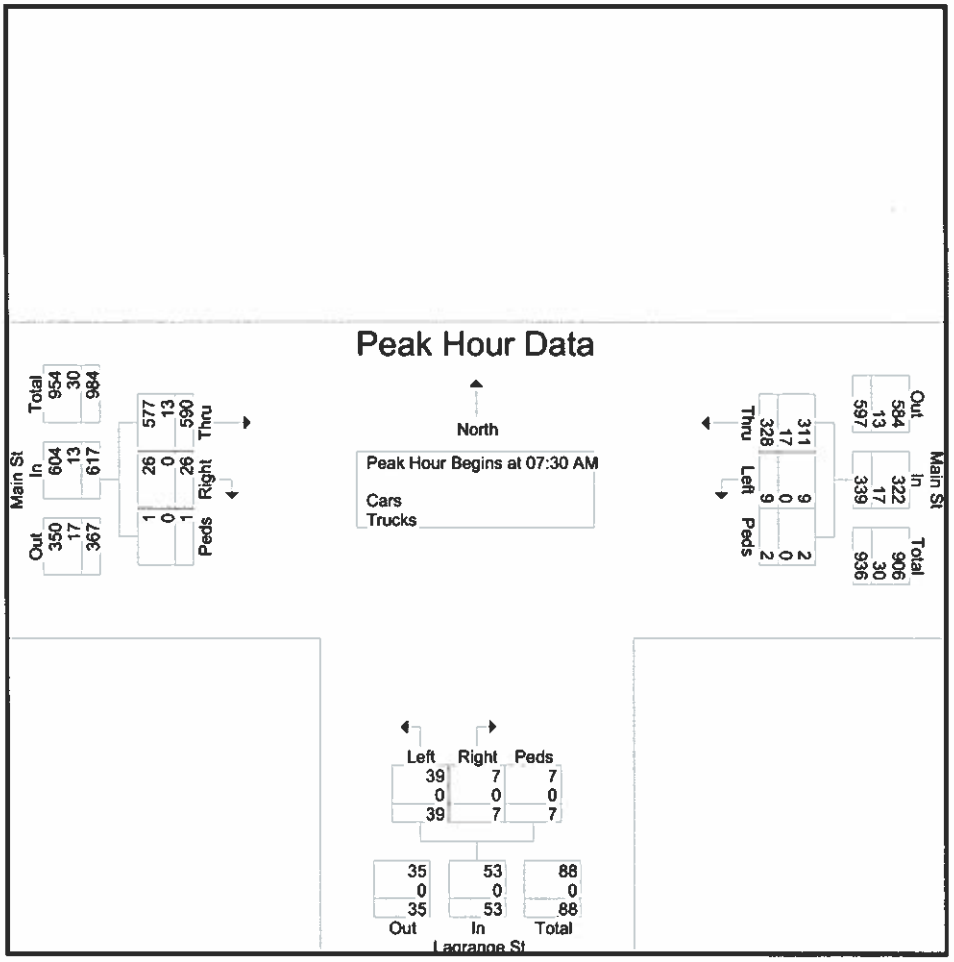
	Main St From East				Lagrange St From South				Main St From West				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	48	0	49	1	0	0	1	100	2	0	102	152
07:15 AM	0	70	0	70	4	2	1	7	117	2	0	119	196
07:30 AM	0	73	0	73	6	0	2	8	142	3	1	146	227
07:45 AM	3	83	0	86	6	2	2	10	160	7	0	167	263
Total	4	274	0	278	17	4	5	26	519	14	1	534	838
08:00 AM	0	81	1	82	18	1	2	21	147	9	0	156	259
08:15 AM	6	91	1	98	9	4	1	14	141	7	0	148	260
08:30 AM	4	81	1	86	9	4	3	16	107	6	0	113	215
08:45 AM	4	81	0	85	11	0	4	15	95	6	0	101	201
Total	14	334	3	351	47	9	10	66	490	28	0	518	935
Grand Total	18	608	3	629	64	13	15	92	1009	42	1	1052	1773
Apprch %	2.9	96.7	0.5		69.6	14.1	16.3		95.9	4	0.1		
Total %	1	34.3	0.2	35.5	3.6	0.7	0.8	5.2	56.9	2.4	0.1	59.3	
Cars	18	575	3	596	64	13	15	92	981	42	1	1024	1712
% Cars	100	94.6	100	94.8	100	100	100	100	97.2	100	100	97.3	96.6
Trucks	0	33	0	33	0	0	0	0	28	0	0	28	61
% Trucks	0	5.4	0	5.2	0	0	0	0	2.8	0	0	2.7	3.4

Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Main St at Lagrange St AM
Site Code : 23109
Start Date : 1/18/2024
Page No : 2

E-W Street:Main St
N-S Street:Lagrange St

	Main St From East				Lagrange St From South				Main St From West				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	73	0	73	6	0	**2**	8	142	3	**1**	146	227
07:45 AM	3	83	0	86	6	2	2	10	**160**	7	0	**167**	**263**
08:00 AM	0	81	**1**	82	**18**	1	2	**21**	147	**9**	0	156	259
08:15 AM	**6**	**91**	1	**98**	9	**4**	1	14	141	7	0	148	260
Total Volume	9	328	2	339	39	7	7	53	590	26	1	617	1009
% App. Total	2.7	96.8	0.6		73.6	13.2	13.2		95.6	4.2	0.2		
PHF	.375	.901	.500	.865	.542	.438	.875	.631	.922	.722	.250	.924	.959
Cars	9	311	2	322	39	7	7	53	577	26	1	604	979
% Cars	100	94.8	100	95.0	100	100	100	100	97.8	100	100	97.9	97.0
Trucks	0	17	0	17	0	0	0	0	13	0	0	13	30
% Trucks	0	5.2	0	5.0	0	0	0	0	2.2	0	0	2.1	3.0



Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Main St at Lagrange St PM
Site Code : 23109
Start Date : 1/17/2024
Page No : 1

E-W Street: Main St
N-S Street: Lagrange St

Groups Printed- Cars - Trucks

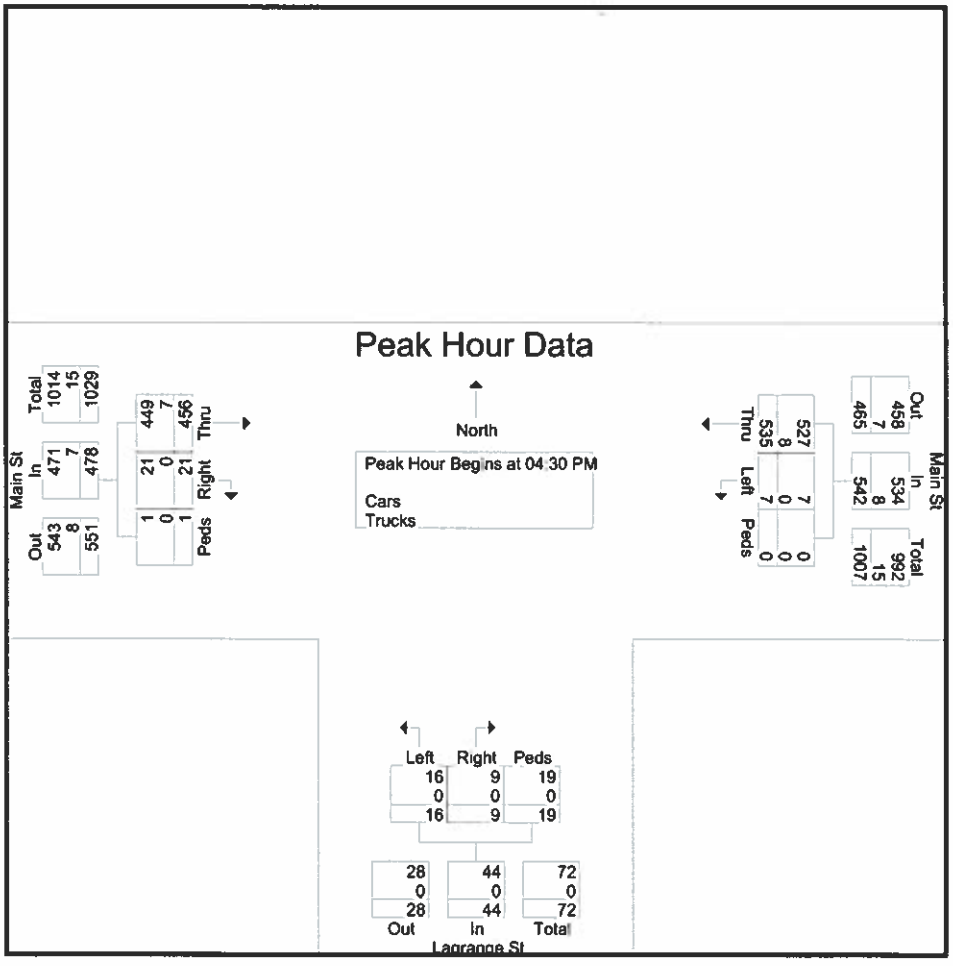
	Main St From East				Lagrange St From South				Main St From West				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	2	115	0	117	3	2	2	7	117	8	0	125	249
04:15 PM	7	112	1	120	5	2	7	14	125	4	1	130	264
04:30 PM	3	134	0	137	2	5	4	11	120	4	0	124	272
04:45 PM	0	136	0	136	6	1	8	15	104	3	1	108	259
Total	12	497	1	510	16	10	21	47	466	19	2	487	1044
05:00 PM	2	142	0	144	5	1	4	10	109	4	0	113	267
05:15 PM	2	123	0	125	3	2	3	8	123	10	0	133	266
05:30 PM	2	131	0	133	6	0	1	7	108	4	0	112	252
05:45 PM	0	105	0	105	5	2	5	12	132	8	0	140	257
Total	6	501	0	507	19	5	13	37	472	26	0	498	1042
Grand Total	18	998	1	1017	35	15	34	84	938	45	2	985	2086
Apprch %	1.8	98.1	0.1		41.7	17.9	40.5		95.2	4.6	0.2		
Total %	0.9	47.8	0	48.8	1.7	0.7	1.6	4	45	2.2	0.1	47.2	
Cars	18	980	1	999	35	15	34	84	919	45	2	966	2049
% Cars	100	98.2	100	98.2	100	100	100	100	98	100	100	98.1	98.2
Trucks	0	18	0	18	0	0	0	0	19	0	0	19	37
% Trucks	0	1.8	0	1.8	0	0	0	0	2	0	0	1.9	1.8

Ron Müller & Associates
Traffic Engineering and Consulting Services

File Name : 23109 Worcester Main St at Lagrange St PM
Site Code : 23109
Start Date : 1/17/2024
Page No : 2

E-W Street: Main St
N-S Street: Lagrange St

	Main St From East				Lagrange St From South				Main St From West				
Start Time	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	**3**	134	0	137	2	**5**	4	11	120	4	0	124	**272**
04:45 PM	0	136	0	136	**6**	1	**8**	**15**	104	3	1	108	259
05:00 PM	2	**142**	0	**144**	5	1	4	10	109	4	0	113	267
05:15 PM	2	123	0	125	3	2	3	8	**123**	**10**	0	**133**	266
Total Volume	7	535	0	542	16	9	19	44	456	21	1	478	1064
% App. Total	1.3	98.7	0		36.4	20.5	43.2		95.4	4.4	0.2		
PHF	.583	.942	.000	.941	.667	.450	.594	.733	.927	.525	.250	.898	.978
Cars	7	527	0	534	16	9	19	44	449	21	1	471	1049
% Cars	100	98.5	0	98.5	100	100	100	100	98.5	100	100	98.5	98.6
Trucks	0	8	0	8	0	0	0	0	7	0	0	7	15
% Trucks	0	1.5	0	1.5	0	0	0	0	1.5	0	0	1.5	1.4



Seasonal/Historical Adjustment Data

Massachusetts Highway Department
Statewide Traffic Data Collection
2019 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.22	1.14	1.12	1.06	1.00	0.96	0.87	0.85	0.96	0.99	1.04	1.12	0.85
R2	0.95	0.96	0.98	0.97	0.97	0.93	0.97	0.94	0.96	0.90	0.92	0.93	0.96
R3	1.15	1.06	1.07	1.00	0.89	0.88	0.89	0.89	0.95	0.92	1.02	1.01	0.97
R4-R7	1.09	1.09	1.11	1.02	0.96	0.92	0.89	0.89	0.99	0.98	1.09	1.13	0.98
U1-Boston	1.03	1.01	0.98	0.94	0.94	0.92	0.95	0.93	0.94	0.94	0.97	1.04	0.96
U1-Essex	1.09	1.06	1.03	0.99	0.94	0.90	0.88	0.86	0.93	0.94	0.99	1.06	0.93
U1-Southeast	1.06	1.05	1.01	0.97	0.95	0.93	0.93	0.90	0.94	0.94	0.98	1.04	0.98
U1-West	1.19	1.14	1.09	0.95	0.92	0.89	0.89	0.86	0.91	0.95	0.97	1.07	0.84
U1-Worcester	1.02	1.04	0.97	0.94	0.93	0.91	0.95	0.91	0.93	0.92	0.95	1.10	0.88
U2	1.01	1.00	0.94	0.93	0.91	0.89	0.93	0.90	0.90	0.91	0.94	1.02	0.99
U3	1.06	1.03	0.98	0.94	0.93	0.91	0.95	0.91	0.92	0.93	0.97	1.00	0.98
U4-U7	1.01	1.00	0.95	0.92	0.88	0.86	0.92	0.91	0.92	0.94	0.99	1.04	0.99
Rec - East	1.04	1.16	1.12	0.98	0.92	0.88	0.77	0.81	0.94	1.02	1.08	1.12	0.99
Rec - West	1.30	1.23	1.32	1.18	0.95	0.82	0.70	0.69	0.97	0.96	1.16	1.15	0.98

Round off:
0-999 = 10
>1000 = 100

U = Urban
R = Rural

1 - Interstate
2 - Freeway and Expressway
3 - Other Principal Arterial
4 - Minor Arterial
5 - Major Collector
6 - Minor Collector
7 - Local Road and Street

Recreational - East Group - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.
Recreational - West Group - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113, 1114,1116,2196,2197 and 2198.

2/15/202

Type	SPOT	HPMS ID	
On NHS		On HPMS	No
LRS ID	N038 EB	LRS Loc Pt.	0.9602489
SF Group	U3	Route Type	N
AF Group	U3	Route	038
GF Group	U3	Active	Yes
Class Dist Grp	U3	Category	HPMS
Seas Clss Grp	MHD Statewide		
WIM Group			
QC Group	Default		
Fnct'l Class	(3) Other Principal Arterial	Milepost	
Located On	SOUTHBRIDGE STREET		
Loc On Alias			
NORTH OF	JACKSON STREET		
More Detail			

STATION DATA

Directions: 2-WAY | NB | SB

AADT

Year	AADT	DHV-30	K %	D %	PA	BC	Src
2022	15,532	1,416	9	70	14,150 (91%)	1,382 (9%)	
2021	18,459[3]		10	59	17,445 (95%)	1,014 (5%)	Grown from 2020
2020	16,393[3]		10	59	15,458 (94%)	935 (6%)	Grown from 2019
2019	19,895[3]	1,991	10	59	19,095 (96%)	800 (4%)	Grown from 2018
2018	19,816[3]				18,825 (95%)	991 (5%)	Grown from 2017

|<< < > >>| 1-5 of 22

Travel Demand Model

	Model Year	Model AADT	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV

VOLUME COUNT

	Date	Int	Total
	Thu 11/16/2023	15	14,712
	Wed 11/15/2023	15	15,140
	Tue 9/13/2022	15	16,690
	Mon 9/12/2022	15	16,598
	Thu 5/29/2014	60	21,593

VOLUME TREND

Year	Annual Growth
2022	-16%
2021	13%
2020	-18%
2019	0%

Motor Vehicle Crash Data

Moving Massachusetts Forward. massDOT Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : WORCESTER COUNT DATE : Jan-24

DISTRICT : 3 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : MAIN STREET

MINOR STREET(S) : LAGRANGE STREET

INTERSECTION DIAGRAM (Label Approaches)

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	482	547	25	0		1,054

" K " FACTOR : 0.080 APPROACH VOLUME : 13,175

TOTAL # OF CRASHES : 16 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (A) : 3.20

CRASH RATE CALCULATION : 0.67 RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Source : MassDOT Crash Portal

Project Title & Date: Proposed Apartment Development - 98 Beacon Street

Moving Massachusetts Forward. massDOT Highway

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : WORCESTER COUNT DATE : Jan-24

DISTRICT : 3 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : BEACON STREET

MINOR STREET(S) : LAGRANGE STREET

INTERSECTION DIAGRAM (Label Approaches)

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	194	161	2	36		393

" K " FACTOR : 0.080 APPROACH VOLUME : 4,913

TOTAL # OF CRASHES : 8 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (A) : 1.60

CRASH RATE CALCULATION : 0.89 RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Source : MassDOT Crash Portal

Project Title & Date: Proposed Apartment Development - 98 Beacon Street

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Status	Crash Time	Crash Year	Max Injury Severity Reported	Number of Vehicles	Light Conditions	Manner of Collision	Road Surface Condition	Weather Conditions	Roadway
4067660	WORCESTER	04/05/2015	Not Reported	Closed	9:38 PM	2015	Not reported	3	Dark - lighted roadway	Rear-end	Dry	Clear/Clear	BEACON STREET
4176954	WORCESTER	01/23/2016	Not Reported	Closed	12:00 PM	2016	Not reported	2	Dark - lighted roadway	Sideswipe, same direction	Snow	Snow	LAGRANGE STREET
4278127	WORCESTER	07/16/2016	Property damage only (none injured)	Closed	2:18 PM	2016	No injury	2	Daylight	Angle	Dry	Clear	BEACON STREET / LAGRANGE STREET
4355916	WORCESTER	03/06/2017	Non fatal injury	Closed	2:45 PM	2017	Non-fatal injury - Possible	2	Daylight	Head-on	Dry	Clear/Clear	LAGRANGE STREET
4562702	WORCESTER	03/07/2018	Property damage only (none injured)	Closed	12:30 PM	2018	No injury	2	Daylight	Sideswipe, same direction	Wet	Snow/Clear	LAGRANGE STREET
4662322	WORCESTER	10/31/2018	Non fatal injury	Closed	7:50 AM	2018	Non-fatal injury - Possible	3	Daylight	Sideswipe, opposite direction	Dry	Clear	BEACON STREET
4669203	WORCESTER	12/25/2018	Property damage only (none injured)	Closed	9:32 PM	2018	No injury	2	Dark - lighted roadway	Sideswipe, same direction	Dry	Clear	LAGRANGE STREET
4907018	WORCESTER	11/07/2020	Unknown	Closed	8:04 AM	2020	Not reported	2	Unknown	Unknown	Dry	Clear	LAGRANGE STREET

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Status	Crash Time	Crash Year	Max Injury Severity Reported	# of Vehicles	Light Conditions	Manner of Collision	Surface Condition	Weather Conditions	Roadway
4064076	WORCESTER	01/08/2015	Property damage only (none injured)	Closed	2:26 PM	2015	No injury	2	Daylight	Rear-end	Dry	Clear	MAIN STREET
4065689	WORCESTER	05/22/2015	Not Reported	Closed	9:20 AM	2015	Not reported	2	Daylight	Sideswipe, same direction	Dry	Clear/Clear	MAIN STREET / LAGRANGE STREET
4328831	WORCESTER	10/31/2016	Non-fatal injury	Closed	12:03 PM	2016	Non-fatal injury - Possible	2	Daylight	Rear-end	Dry	Clear	MAIN STREET
4333663	WORCESTER	11/13/2016	Property damage only (none injured)	Closed	9:25 AM	2016	No injury	2	Daylight	Angle	Dry	Clear	MAIN STREET
4334933	WORCESTER	12/14/2016	Non-fatal injury	Closed	9:50 AM	2016	Non-fatal injury - Non-incapacitating	1	Daylight	Single vehicle crash	Wet	Clear	MAIN STREET
4339254	WORCESTER	12/26/2016	Non-fatal injury	Closed	4:27 PM	2016	Non-fatal injury - Possible	3	Dark - lighted roadway	Rear-end	Wet	Rain	MAIN STREET
4344155	WORCESTER	01/21/2017	Property damage only (none injured)	Closed	4:15 PM	2017	No injury	2	Daylight	Sideswipe, same direction	Dry	Clear	MAIN STREET
4413641	WORCESTER	07/20/2017	Not Reported	Closed	12:00 PM	2017	Not reported	2	Dark - lighted roadway	Sideswipe, same direction	Unknown	Unknown	MAIN STREET
4435757	WORCESTER	08/16/2017	Unknown	Closed	8:54 AM	2017	Unknown	2	Daylight	Sideswipe, opposite direction	Dry	Clear	MAIN STREET
4542018	WORCESTER	01/30/2018	Not Reported	Closed	2:00 PM	2018	Not reported	3	Dark - roadway not lighted	Angle	Ice	Clear	LAGRANGE STREET
4559508	WORCESTER	02/19/2018	Property damage only (none injured)	Closed	12:25 PM	2018	No injury	2	Daylight	Rear-end	Dry	Clear	MAIN STREET
4793463	WORCESTER	05/29/2019	Non-fatal injury	Closed	3:36 PM	2019	No injury	1	Daylight	Not reported	Dry	Cloudy	MAIN STREET
4901940	WORCESTER	08/14/2019	Property damage only (none injured)	Closed	11:45 AM	2019	No injury	2	Daylight	Angle	Dry	Clear	MAIN STREET
4842129	WORCESTER	10/07/2019	Property damage only (none injured)	Closed	2:08 PM	2019	No injury	2	Daylight	Unknown	Dry	Clear	MAIN STREET
4839279	WORCESTER	11/10/2019	Property damage only (none injured)	Closed	5:33 PM	2019	No injury	2	Dark - lighted roadway	Rear-end	Dry	Clear	MAIN STREET
4893179	WORCESTER	12/18/2019	Property damage only (none injured)	Closed	3:30 PM	2019	No injury	2	Dark - lighted roadway	Rear-end	Dry	Clear/Clear	LAGRANGE STREET

Roadway Segment Crash Analysis

Crash Number	City Town Name	Crash Date	Crash Severity	Crash Status	Crash Time	Crash Year	Injury Severity	Number of Vehicles
		Lagrange Street - South of Beacon Street						
4562702	WORCESTER	03/07/2018	Property damage only (none injured)	Closed	12:30 PM	2018	No injury	2
Beacon Street - between Jackson Street and Oread Street								
4067660	WORCESTER	04/05/2015	Not Reported	Closed	9:38 PM	2015	Not reporte	3
4163968	WORCESTER	11/23/2015	Not Reported	Closed	7:26 PM	2015	Not reporte	2
4278127	WORCESTER	07/16/2016	Property damage only (none injured)	Closed	2:16 PM	2016	No injury	2
4355916	WORCESTER	03/06/2017	Non-fatal injury	Closed	2:45 PM	2017	tal injury - F	2
4662322	WORCESTER	10/31/2018	Non-fatal injury	Closed	7:50 AM	2018	tal injury - F	3
4822774	WORCESTER	08/24/2019	Property damage only (none injured)	Closed	4:04 PM	2019	parent Inju	1
4840903	WORCESTER	09/22/2019	Non-fatal injury	Closed	8:44 AM	2019	ed Minor In	2

Roadway Crash Segment Calculations

$$R = \frac{(100{,}000{,}000 \times C)}{(365 * N * V * L)}$$

Roadway	(C) # Crashes	(N) # Years	(L) Length of roadway segment (miles)	(V) Daily Vol	Crash Rate
Lagrange	1	5	0.08	147	0.75
Beacon	7	5	0.13	3791	0.20

Light Conditions	Manner of Collision	Road Surface Condition
Daylight	Sideswipe, same direction	Wet
Dark - lighted roadway	Rear-end	Dry
Dark - lighted roadway	Rear-end	Dry
Daylight	Angle	Dry
Daylight	Head-on	Dry
Daylight	Sideswipe, opposite direction	Dry
Daylight	Single vehicle crash	Dry
Dark - lighted roadway	Angle	Dry

Public Transportation Information

OUTBOUND

WEEKDAYS

See the map for matching timepoint locations

1 BUS STARTS Union Station Hub	1C BUS Leaves City Hall Franklin St.	2 BUS Leaves Clark University	3 BUS Leaves Webster Square Plaza	4A BUS Leaves Goddard & Apricot	4 BUS ENDS Goddard & Coppage Dr
530a	533a	543a	549a	556a	BR
*600a	603a	613a	619a		626a
*630a	633a	643a	649a		656a
700a	703a	713a	719a		726a
730a	733a	743a	749a		756a
800a	803a	813a	819a	826a	BR
830a	833a	843a	849a	856a	BR
845a	848a	859a	904a		911a
900a	903a	913a	919a	926a	BR
930a	933a	943a	949a	956a	BR
945a	948a	959a	1004a		1011a
1000a	1003a	1013a	1019a	1026a	BR
1030a	1033a	1043a	1049a	1056a	BR
1045a	1048a	1059a	1104a		1111a
1100a	1103a	1113a	1119a	1126a	BR
1130a	1133a	1143a	1149a	1156a	BR
1145a	1148a	1159a	1204p		1211p
1200p	1203p	1213p	1219p	1226p	BR
1230p	1233p	1243p	1249p	1256p	BR
1245p	1248p	1259p	104p		111p
100p	103p	113p	119p	126p	BR
130p	133p	143p	149p	156p	BR
145p	148p	159p	204p		211p
230p	233p	243p	251p		256p
245p	248p	259p	304p		311p
300p	303p	315p	321p		331p
330p	333p	345p	351p	401p	BR
345p	348p	359p	404p		411p
400p	403p	415p	421p	431p	BR
445p	448p	455p	501p	516p	BR
515p	518p	528p	533p	546p	BR
540p	543p	555p	601p	611p	BR
610p	613p	625p	631p	641p	BR
655p	658p	708p	714p	721p	BR
725p	728p	738p	744p		751P
750p	753p	803p	809p	816p	BR
820p	823p	832p	838p		846p
920p	923p	932p	938p		946p
1020p	1023p	1032p	1038p		1046p

– PLEASE NOTE –

Outbound trips beginning at 630 pm service to/from Webster Square Plaza

BR – Weekday outbound trips to Goddard and Coppage are served on these trips by request to the driver

**These trips service South High.*

SATURDAYS

See the map for matching timepoint locations

1 BUS STARTS Union Station Hub	1C BUS Leaves City Hall Franklin St.	2 BUS Leaves Clark University	3 BUS Leaves Webster Square Plaza	5 BUS Leaves Leicester Wal-Mart	6 BUS Leaves Spencer Center	7 BUS ENDS Spencer DPW
**650a	653a	700a	706a	716a		
710a	713a	720a	727a	737a	747a	751a
800a	803a	813a	820a	835a	847a	851a
900a	903a	913a	920a	935a	947a	951a
1000a	1003a	1013a	1020a	1035a	1047a	1051a
1100a	1103a	1113a	1120a	1135a	1147a	1151a
1200p	1203p	1213p	1220p	1235p	1247p	1251p
100p	103p	113p	120p	135p	147p	151p
200p	203p	213p	220p	235p	247p	251p
300p	303p	313p	320p	335p	347p	351p
400p	403p	413p	420p	435p	447p	451p
500p	503p	513p	520p	535p	547p	551p
600p	603p	613p	620p	635p	647p	651p
655p	658p	708p	715p	725p	737p	741p
***755p	758p	807p	813p			
***855p	858p	905p	911p			
***945p	948p	955p	1001p			

– PLEASE NOTE –

**** These trips end at Webster Square Plaza*

*** This trip starts / ends at Walmart*

SUNDAYS

1 BUS STARTS Union Station Hub	1C BUS Leaves City Hall Franklin St.	2 BUS Leaves Clark University	3 BUS Leaves Webster Square Plaza	5 BUS ENDS Leicester Wal-Mart
1030a	1033a	1040a	1046a	1056a
1130a	1133a	1140a	1146a	1156a
1230p	1233p	1240p	1246p	1256p
130p	133p	140p	146p	156p
230p	233p	240p	246p	256p
330p	333p	340p	346p	356p
430p	433p	440p	446p	456p
530p	533p	540p	546p	556p

INBOUND

WEEKDAYS

See the map for matching timepoint locations

4 BUS STARTS Goddard & Coppage Dr	4A BUS Leaves Goddard & Apricot	3 BUS Leaves Webster Square Plaza	2 BUS Leaves Clark University	1A BUS Leaves City Hall Main St.	1 BUS ENDS Union Station Hub
500a		510a	515a	525a	530a
530a		540a	545a	555a	600a
	600a	605a	615a	625a	630a
630a		640a	645a	655a	700a
700a		710a	715a	725a	730a
730a		740a	745a	755a	800a
800a		805a	815a	825a	830a
	830a	835a	845a	855a	900a
	900a	905a	915a	925a	930a
915a		923a	929a	941a	945a
	930a	935a	945a	955a	1000a
	1000a	1005a	1015a	1025a	1030a
1015a		1023a	1029a	1041a	1045a
	1030a	1035a	1045a	1055a	1100a
	1100a	1105a	1115a	1125a	1130a
1115p	1123p	1123p	1129p	1141p	1145p
	1130a	1135a	1145a	1155a	1200p
	1200p	1205p	1215p	1225p	1230p
1215p		1223p	1229p	1241p	1245p
1230p		1240p	1245p	1255p	100p
	100p	105p	115p	125p	130p
115p		123p	129p	141p	145p
	130p	135p	145p	155p	200p
	200p	205p	215p	225p	230p
215p		223p	229p	241p	245p
*305p		315p	326p	340p	345p
315p		323p	329p	341p	345p
335p		345p	351p	410p	415p
	405p	410p	421p	435p	440p
415p		423p	429p	441p	445p
	435p	440p	451p	505p	510p
	*520p	525p	531p	550p	555p
	550p	555p	601p	620p	625p
	615p	620p	631p	645p	650p
645p		655p	701p	715p	720p
	725p	730p	740p	750p	755p
755p		805p	810p	820p	825p
	820p	825p	835p	845p	850p
850p		858p	905p	915p	920p
950p		958p	1005p	1015p	1020p
1050p		1058p	1105p	1115p	1120p

– PLEASE NOTE –

On Weekdays most inbound RT 19 buses continue as Route 23 outbound.

SATURDAYS

See the map for matching timepoint locations

7 BUS STARTS Spencer DPW	6 BUS Leaves Spencer Center	5 BUS Leaves Leicester Wal-Mart	3 BUS Leaves Webster Sq Plaza	2 BUS Leaves Clark University	1A BUS Leaves City Hall Main St.	1 BUS ENDS Union Station Hub
			640a	642a	650a	655a
		720a	735a	742a	750a	755a
755a	758a	808a	827a	837a	845a	850a
855a	858a	908a	927a	937a	945a	950a
955a	958a	1008a	1027a	1037a	1045a	1050a
1055a	1058a	1108a	1127a	1137a	1145a	1150a
1155a	1158a	1208p	1227p	1237p	1245p	1250p
1255p	1258p	108p	127p	137p	145p	150p
155p	158p	208p	227p	237p	245p	250p
255p	258p	308p	327p	337p	345p	350p
355p	358p	408p	427p	437p	445p	450p
455p	458p	508p	527p	537p	545p	550p
555p	558p	608p	627p	637p	645p	650p
655p	658p	708p	727p	737p	745p	750p
745p	748p	758p	817p	827p	835p	840p
			817p	823p	832p	835p
			915p	920p	930p	935p
			1005p	1010p	1020p	1025p

– PLEASE NOTE –

**** This trip starts at Webster Sq Plaza*

*** This trip starts / ends at Walmart*

SUNDAYS

5 BUS STARTS Leicester Wal-Mart	3 BUS Leaves Webster Square Plaza	2 BUS Leaves Clark University	1A BUS Leaves City Hall Main St.	1 BUS ENDS Union Station Hub
1100a	1113a	1118a	1125a	1130a
1200p	1213p	1218p	1225p	1230p
100p	113p	118p	125p	130p
200p	213p	218p	225p	230p
300p	313p	318p	325p	330p
400p	413p	418p	425p	430p
500p	513p	518p	525p	530p
600p	613p	618p	625p	630p

– PLEASE NOTE –

On Saturdays, most inbound Route 19 buses continue as Route 30 outbound.

On Sundays, all inbound Route 19 buses continue as Route 23 outbound.

Route 19

UNION STATION HUB – WEBSTER SQUARE – CLARK UNIVERSITY via MAIN ST.

Revised Date: August 26, 2023

Worcester Regional Transit Authority

Serving:
Federal Building / U.S. Courthouse
YMCA Central Branch
Clark University
Webster Square
Webster Square Plaza
Gates Lane School
Sullivan Middle School
Leicester Housing Authority - Sat & Sun Only
Leicester Wal-Mart - Sat & Sun Only
Spencer - Saturday Only

For Transit Information Call
508·791·9782 or visit
www.therta.com

Welcome aboard the WRTA!

This route timetable shows the times of departure at major stops along the route and contains route maps and other important information. Additional information be can obtained by calling the WRTA Information Line at (508) 791-**WRTA (9782)**, or visit our website at www.TheRTA.com

WRTA FARE INFORMATION
Effective July 1, 2017

Full Cash Fare (Adults age 14 and up)	$1.75
Senior/Disabled Cash Fare	$0.85
Children 5-13 years of age accompanied by an adult	$0.85
Children 5 years of age not accompanied by an adult**	$1.75
Children under 5 accompanied by an adult	FREE
One Day Ride Pass (Adults age 14 & up)	$4.50
Senior/Disabled* One Day Ride Pass	$2.25
31 Day Pass	$57.00
Senior/Disabled* 31 Day Pass	$28.50

*Valid ID Required for Senior/Disabled Fare

Please have exact fare ready when boarding the bus. The farebox does not accept pennies or half dollars.

The Charlie Card is available to either purchase a monthly pass or add stored value (cash). The stored value gives you discounted fare with the WRTA. They can be used on the WRTA, MBTA and other participating RTAs in Massachusetts. You can obtain a Charlie Card at the Customer Service Center located at 60 Foster Street, Worcester, MA.

Route schedules and the purchase of passes are available at the Customer Service Center at 60 Foster Street, Worcester.

ACCESSIBILITY: All WRTA buses are wheelchair accessible and feature bicycle racks for two bicycles. For TTY service call Massachusetts Relay TTY (800) 439-2370. For information, accommodations and or to provide feedback call 508-791-9782 option 2.

PROPER IDENTIFICATION: One of the following valid identification cards must be shown to the driver each time you board

SENIOR . . . . . WRTA Senior I.D. card

DISABLED . . Statewide Access Pass / WRTA ADA Photo I.D, MCB ID and PCA-ride free

MEDICARE . . . . . Medicare card with Photo I.D

HOLIDAY SERVICE: Saturday* Service is provided on Martin Luther King, Jr Day, Presidents' Day, Patriots' Day, Columbus Day, and the day after Thanksgiving.

Weekday Service is provided on Veterans' Day.

Routes 29, 33, 43 and community shuttles operate on a weekday schedule on these holidays. Routes 19 and 30 operate on a modified Saturday schedule on these holidays.

NO SERVICE on New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day

Please...NO Smoking, Eating, Drinking or Music

**The Federal Transit Administration permits transit systems to set a minimum age limit for children riding without a parent or guardian. The WRTA has set this age limit at Nine (9) years old. In order to ensure compliance with this age limit, operators may question a child seeking to board a bus who appears, in the operator's opinion, to be Eight (8) years old or younger. If an operator is not satisfied with a child's answer, the operator may call for assistance from a WRTA supervisor and/or public safety personnel. This policy applies to Paratransit Service as well.

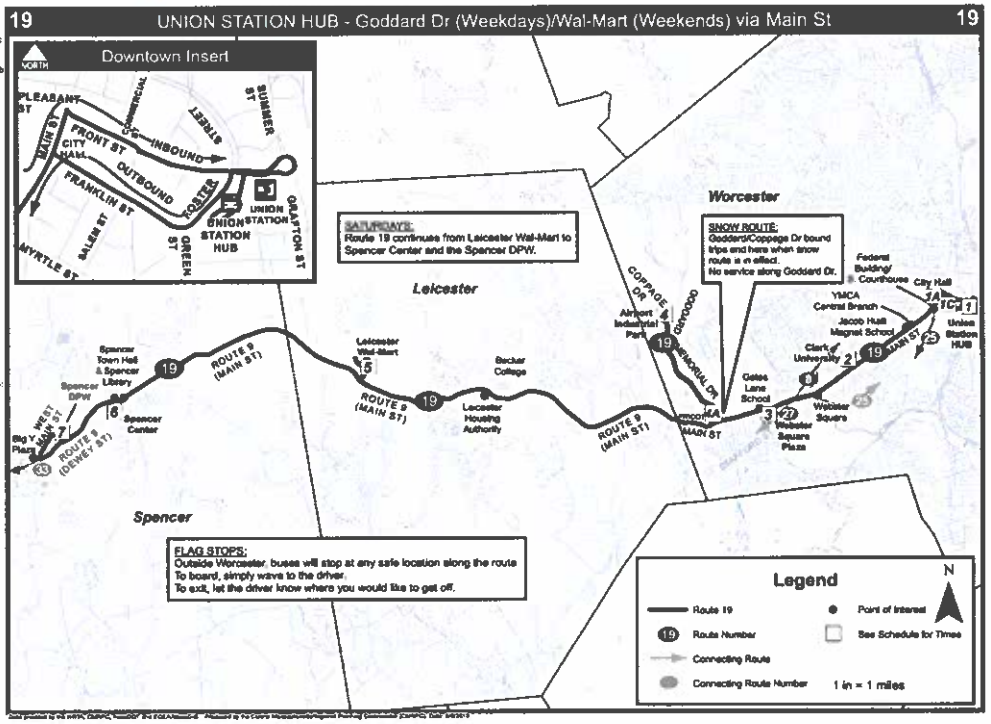
Most Routes Serve:
- WRTA Customer Service Center/Hub
- Union Station

Route 19 Serving:
- City Hall
- Federal Building/ U.S. Courthouse
- YMCA Central Branch
- Jacob Hiatt Magnet School
- Clark University
- Webster Square
- Webster Square Plaza
- Gates Lane School

Rt. 19 Weekend Only
- Becker College (Leicester campus)
- Leicester Center
- Leicester
- Wal-Mart
- Spencer Center
- Spencer DPW Garage

Connecting Routes:
Route 6
Route 23
Route 29
Route 37
Route 33

19 UNION STATION HUB - Goddard Dr (Weekdays)/Wal-Mart (Weekends) via Main St 19



Thank You for riding the RTA

Route 27

UNION STATION HUB – AUBURN MALL via MAIN ST.

Effective Date: January 25, 2020

Worcester Regional Transit Authority

Serving:

Federal Building / U.S. Courthouse
YMCA Central Branch
Clark University
Webster Square
Webster Square Plaza
Auburn Mall

OUTBOUND

WEEKDAYS

See the map for matching timepoint locations

1 BUS STARTS Union Station Hub	1C BUS Leaves City Hall Franklin St	2 BUS Leaves Clark University	3 BUS Leaves Webster Square Plaza	4 BUS ENDS Auburn Mall
545a	548a	557a	602a	616a
620a	623a	632a	637a	651a
655a	658a	707a	712a	726a
730a	733a	742a	747a	801a
805a	808a	817a	822a	836a
840a	843a	852a	857a	911a
915a	918a	927a	932a	946a
950a	953a	1002a	1007a	1021a
1025a	1028a	1037a	1042a	1056a
1100a	1103a	1112a	1117a	1131a
1120a	1123a	1133a	1142a	1156a
1140a	1143a	1153a	1202p	1216p
1215p	1218p	1228p	1237p	1251p
1240p	1243p	1253p	102p	116p
105p	108p	118p	127p	141p
135p	138p	148p	157p	211p
200p	203p	213p	222p	236p
225p	228p	238p	247p	301p
255p	258p	308p	317p	331p
320p	323p	333p	342p	356p
345p	348p	358p	407p	421p
415p	418p	428p	437p	451p
440p	443p	453p	502p	516p
505p	508p	518p	527p	541p
535p	538p	548p	557p	611p
600p	603p	613p	622p	636p
625p	628p	637p	642p	656p
655p	658p	707p	712p	726p
735p	738p	747p	752p	806p
805p	808p	817p	822p	836p
845p	848p	857p	902p	916p
915p	918p	927p	932p	946p

SATURDAYS

See the map for matching timepoint locations

1 BUS STARTS Union Station Hub	1C BUS STARTS City Hall Franklin St	2 BUS Leaves Clark University	3 BUS Leaves Webster Square Plaza	4 BUS ENDS Auburn Mall
605a	608a	615a	*621a	.....
645a	648a	655a	*701a	.....
725a	728a	737a	747a	756a
830a	833a	842a	852a	901a
935a	938a	947a	956a	1006a
1010a	1013a	1022a	1031a	1041a
1040a	1048a	1057a	1107a	1111a
1115a	1118a	1127a	1136a	1146a
1145a	1148a	1157a	1206p	1216p
1220p	1223p	1232p	1241p	1251p
1250p	1253p	102p	111p	121p
125p	128p	137p	146p	156p
155p	158p	207p	216p	226p
230p	233p	242p	251p	301p
300p	303p	312p	321p	331p
335p	338p	347p	356p	406p
405p	408p	427p	426p	436p
440p	443p	452p	501p	511p
510p	513p	522p	531p	541p
615p	618p	627p	632p	641p
715p	718p	727p	732p	741p
815p	818p	827p	832p	841p

SUNDAYS

1	1C	2	3	4
900a	903a	910a	920a	931a
1010a	1013a	1020a	1030a	1041a
1120a	1123a	1130a	1140a	1151a
1230p	1233p	1240p	1250p	101p
140p	143p	150p	200p	211p
250p	253p	300p	310p	321p
400p	403p	410p	420p	431p

This trip starts/ends at Webster Sq Plaza

INBOUND

WEEKDAYS

See the map for matching timepoint locations

4 BUS STARTS Auburn Mall	3 BUS Leaves Webster Square Plaza	2 BUS Leaves Clark University	1A BUS Leaves City Hall Main St	1 BUS ENDS Union Station Hub
620a	633a	640a	648a	653a
655a	708a	715a	723a	728a
730a	743a	750a	758a	803a
805a	818a	825a	833a	838a
840a	853a	900a	908a	913a
915a	928a	935a	943a	948a
950a	1003a	1010a	1020a	1025a
1025a	1038a	1045a	1055a	1100a
1100a	1113a	1123a	1135a	1140a
1135a	1148a	1158a	1210p	1215p
1200p	1213p	1225p	1235p	1240p
1220p	1233p	1245p	1255p	100p
1255p	108p	120p	130p	135p
120p	133p	145p	155p	200p
145p	158p	210p	220p	225p
215p	228p	240p	250p	255p
240p	253p	305p	315p	320p
305p	318p	330p	340p	345p
335p	348p	400p	410p	415p
400p	413p	425p	435p	440p
425p	438p	450p	500p	505p
455p	508p	520p	530p	535p
520p	533p	545p	555p	600p
545p	558p	610p	620p	625p
615p	628p	640p	650p	655p
640p	653p	705p	715p	720p
700p	713p	720p	730p	735p
730p	743p	750p	800p	805p
810p	823p	830p	840p	845p
840p	853p	900p	910p	915p

SATURDAYS

See the map for matching timepoint locations

4 BUS STARTS Auburn Mall	3 BUS Leaves Webster Square Plaza	2 BUS Leaves Clark University	1A BUS Leaves City Hall Main St	1 BUS ENDS Union Station Hub
.....	*625a	635a	640a	645a
.....	*705a	715a	720a	725a
800a	811a	817a	825a	830a
905a	916a	922a	930a	935a
1010a	1016a	1022a	1035a	1040a
1045a	1056a	1102a	1110a	1115a
1115a	1126a	1132a	1140a	1145a
1150a	1201p	1207p	1215p	1220p
1220p	1231p	1237p	1245p	1250p
1255p	106p	112p	120p	125p
125p	136p	142p	150p	155p
200p	211p	217p	225p	230p
230p	241p	247p	255p	300p
305p	316p	322p	330p	335p
335p	346p	352p	400p	405p
410p	421p	427p	435p	440p
440p	451p	457p	505p	510p
515p	526p	532p	540p	545p
545p	556p	602p	610p	615p
645p	656p	702p	710p	715p
745p	756p	802p	810p	815p

SUNDAYS

4	3	2	1A	1
***	845a	850a	855a	900a
935a	946a	955a	1005a	1010a
1045a	1056a	1105a	1115a	1120a
1155a	1206p	1215p	1225p	1230p
105p	116p	125p	135p	140p
215p	226p	235p	245p	250p
325p	336p	345p	355p	400p

This trip starts/ends at Webster Sq Plaza

For Transit Information Call
508·791·9782 or visit
www.therta.com

Welcome aboard the WRTA!

This route timetable shows the times of departure at major stops along the route and contains route maps and other important information. Additional information be can obtained by calling the WRTA Information Line at (508) 791-**WRTA** (9782), or visit our website at www.TheRTA.com

WRTA FARE INFORMATION
Effective July 1, 2017

Full Cash Fare (Adults age 14 and up)	$1.75
Senior/Disabled Cash Fare	$0.85
Children 5-13 years of age accompanied by an adult	$0.85
Children 9 years of age not accompanied by an adult**	$1.75
Children under 5 accompanied by an adult	FREE
One Day 8 Ride Pass (Adults age 14 & up)	$4.50
Senior/Disabled*/Child One Day 8 Ride Pass	$2.25
31 Day Pass	$57.00
Senior/Disabled*31 Day Pass	$28.50

Valid ID Required for Senior/Disabled Fare

Please have exact fare ready when boarding the bus. The farebox does not accept pennies or half dollars.

The Charlie Card is available to either purchase a monthly pass or add stored value (cash). The stored value gives you discounted fare with the WRTA. They can be used on the WRTA, MBTA and other participating RTA's in Massachusetts. You can obtain a Charlie Card at the Customer Service Center located at 60 Foster Street, Worcester, MA.

Route schedules and the purchase of passes are available at the Customer Service Center at 60 Foster Street, Worcester.

ACCESSIBILITY: All WRTA buses are wheelchair accessible and feature bicycle racks for two bicycles. For TTY service call Massachusetts Relay TTY (800) 439-2370. For information, accommodations and or to provide feedback call 508-791-9782 option 2.

PROPER IDENTIFICATION: One of the following valid identification cards must be shown to the driver each time you board.

SENIOR .... WRTA Senior I.D. card

DISABLED .... Statewide Access Pass / WRTA ADA Photo I.D. MCB ID and PCA-ride free

MEDICARE .... Medicare card with Photo I.D.

HOLIDAY SERVICE: Saturday* Service is provided on Martin Luther King, Jr. Day, Presidents' Day, Patriots' Day, Columbus Day, and the day after Thanksgiving.

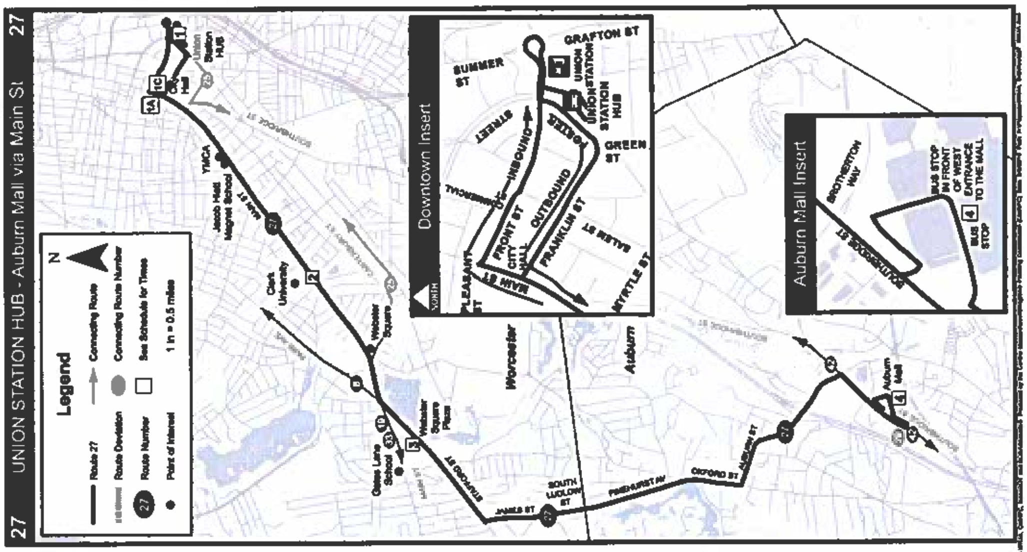
Weekday Service is provided on Veterans' Day

Routes 29, 33, 42 and community shuttles operate on a weekday schedule on these holidays. Routes 19 and 30 operate on a modified Saturday schedule on these holidays.

NO SERVICE ON: New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day

Please...NO Smoking, Eating, Drinking or Music

**The Federal Transit Administration permits transit systems to set a minimum age limit for children riding without a parent or guardian. The WRTA has set the age limit at Nine (9) years old. In order to ensure compliance with the age limit, operators may question a child seeking to board a bus who appears, in the operator's opinion, to be Eight (8) years old or younger. If an operator is not satisfied with a child's answer, the operator may call for assistance from a WRTA supervisor and/or public safety personnel. This policy applies to Paratransit Service as well.



Thank You for riding the WRTA

Route 33

UNION STATION HUB-LEICESTER – SPENCER – EAST BROOKFIELD – BROOKFIELD via MAIN ST. & ROUTE 9

Effective Date: January 25, 2020

Worcester Regional Transit Authority

OUTBOUND WEEKDAYS

See the map for matching timepoint locations

1	1C	2	3	4	5	6	7	8	9	10
BUS STARTS Union Station Hub	BUS Leaves City Hall Franklin St	BUS Leaves Clark University	BUS Leaves Webster Square Plaza	BUS Leaves Leicester Center	BUS Leaves Leicester Wal-Mart	BUS ENDS Spencer Center	BUS Leaves Spencer DPW Garage	BUS Leaves East Brookfield Courthouse	BUS Leaves East Brookfield	BUS ENDS Brookfield Center
450a	453a	458a	505a	511a	516a	521a	.....	.....	528a	*535a
600a	603a	613a	620a	629a	632a	642a	*646a	.....		.....
635a	638a	648a	655a	704a	707a	717a	.....		724a	*731a
740a	743a	753a	800a	809a	812a	822a	.....	*826a		.....
920a	923a	933a	940a	949a	952a	1002a	.....	*1006a		.....
1100a	1104a	1114a	1121a	1130a	1133a	1144a	.....	*1156a		.....
*1210p	1214p	1224p	1231p	1240p	1243p	1254p	.....	*1106p		.....
110p	114p	124p	131p	140p	143p	154p	.....	*206p		.....
210p	214p	224p	231p	240p	243p	254p	.....	*306p		.....
310p	314p	324p	331p	340p	343p	354p	.....	*406p		.....
410p	414p	424p	431p	440p	443p	454p	.....	*506p		.....
510p	513p	523p	530p	539p	542p	552p	.....	.....	559p	*608p
610p	613p	623p	630p	639p	642p	652p	.....	.....	659p	*708p
710p	713p	723p	730p	739p	742p	749p	*753p	.....	.....	.....

** Trips end here*

INBOUND WEEKDAYS

See the map for matching timepoint locations

10	9	8	7	6	5	4	3	2	1A	1
BUS STARTS Brookfield Center	BUS Leaves East Brookfield	BUS Leaves East Brookfield Courthouse	BUS Leaves Spencer DPW Garage	BUS Leaves Spencer Center	BUS Leaves Leicester Wal-Mart	BUS Leaves Leicester Center	BUS Leaves Webster Square Plaza	BUS Leaves Clark Univ	BUS Leaves City Hall (Main St.)	BUS ENDS Union Station Hub
539a	546a	.....	.....	553a	600a	603a	613a	620a	630a	635a
.....	.....	.....	650a	664a	701a	705a	715a	725a	735a	740a
735a	744a	.....	.....	751a	758a	801a	813a	820a	830a	835a
.....	.....	830a	.....	834a	841a	845a	855a	905a	915a	920a
.....	.....	1015a	.....	1014a	1021a	1025a	1035a	1045a	1055a	1100a
.....	.....	1200p	.....	1205p	1215p	1220p	1235p	1243p	1255p	100p
.....	.....	110p	.....	115p	125p	130p	145p	153p	205p	210p
.....	.....	210p	.....	215p	225p	230p	245p	253p	305p	310p
.....	.....	310p	.....	315p	325p	330p	345p	353p	405p	410p
.....	.....	410p	.....	415p	425p	430p	445p	453p	505p	510p
.....	.....	510p	.....	515p	525p	530p	545p	553p	605p	610p
610p	619p	.....	.....	626p	633p	636p	648p	655p	705p	710p
710p	719p	.....	.....	726p	733p	736p	748p	755p	805p	810p
.....	.....	.....	757p	801p	808p	811p	823p	830p	840p	845p

SATURDAY SERVICE: TO SPENCER USE ROUTE 19

Serving:
Union Station
Federal Building / U.S. Courthouse
YMCA Central Branch
Clark University
Webster Square
Webster Square Plaza
Becker College (Leicester campus)
Leicester Housing Authority
Leicester Wal-Mart
Western Worcester District Court

Translation

English: If this information is needed in another language, please visit www.therta.com and use the Google Translate feature.

Portuguese: Se esta informação é necessária em outro idioma, por favor visite www.therta.com e use o Google Translate.

Spanish: Si necesita esta información en otro idioma, por favor visite www.therta.com y utilice Google Translate.

French: Si vous désirez ces renseignements dans une autre langue, prière de vous servir de Google Translate qui se trouve à l'adresse suivante: www.therta.com.

Polish: Jeśli te informacje są potrzebne w innym języku, proszę odwiedzić www.therta.com i skorzystać z Google Translate funkcja.

Vietnamese: Nếu thông tin này là cần thiết trong một ngôn ngữ khác, vui lòng truy cập www.therta.com và sử dụng các tính năng của Google Translate.

Chinese (Traditional): 如果此信息需要在另一種語言，請訪問www.therta.com並使用谷歌翻譯功能。

Swahili: Kama habari hii inahitajika katika lugha nyingine tafadhali tembelea www.therta.com na utumie kipengele cha "Google Translate".

Note: French, Spanish, Polish and Portuguese translations were created by human translation from the English version. Vietnamese, Chinese and Swahili translations were created from the English version using Google Translate. There are likely grammatical errors in these translations, however time constraints required use of Google Translate for bus schedule printing within necessary timeframe (June 2017)

For Transit Information Call
508·791·9782 or visit
www.therta.com

Welcome aboard the **WRTA!**

This route timetable shows the times of departure at major stops along the route and contains route maps and other important information. Additional information be can obtained by calling the WRTA Information Line at (508) 791-WRTA (9782), or visit our website at www.TheRTA.com.

WRTA FARE INFORMATION
Effective July 1, 2017

Full Cash Fare (Adults age 14 and up)	$1.75
Senior/Disabled Cash Fare	$0.85
Children 5-13 years of age accompanied by an adult	$0.85
Children 9 years of age not accompanied by an adult**	$1.75
Children under 5 accompanied by an adult	FREE
One Day 8 Ride Pass (Adults age 14 & up)	$4.50
Senior/Disabled*/Child One Day 8 Ride Pass	$2.25
31 Day Pass	$57.00
Senior/Disabled*31 Day Pass	$28.50

**Valid ID Required for Senior/Disabled Fare*

Please have exact fare ready when boarding the bus. The farebox does not accept pennies or half dollars.

***The Charlie Card** is available to either purchase a monthly pass or add stored value (cash). The stored value gives you discounted fare with the WRTA. They can be used on the WRTA, MBTA and other participating RTA's in Massachusetts. You can obtain a Charlie Card at the Customer Service Center located at 60 Foster Street, Worcester, MA.*

Route schedules and the purchase of passes are available at the Customer Service Center at 60 Foster Street, Worcester.

ACCESSIBILITY: All WRTA buses are wheelchair accessible and feature bicycle racks for two bicycles. For TTY service call Massachusetts Relay TTY (800) 439-2370. For information, accommodations and or to provide feedback call 508-791-9782 option 2.

PROPER IDENTIFICATION: One of the following valid identification cards must be shown to the driver each time you board:

SENIOR ..... WRTA Senior I.D. card

DISABLED ... Statewide Access Pass / WRTA ADA Photo I.D. MCB ID and PCA-ride free

MEDICARE ..... Medicare card with Photo I.D.

HOLIDAY SERVICE: Saturday* Service is provided on Martin Luther King, Jr. Day, Presidents' Day, Patriots' Day, Columbus Day, and the day after Thanksgiving.

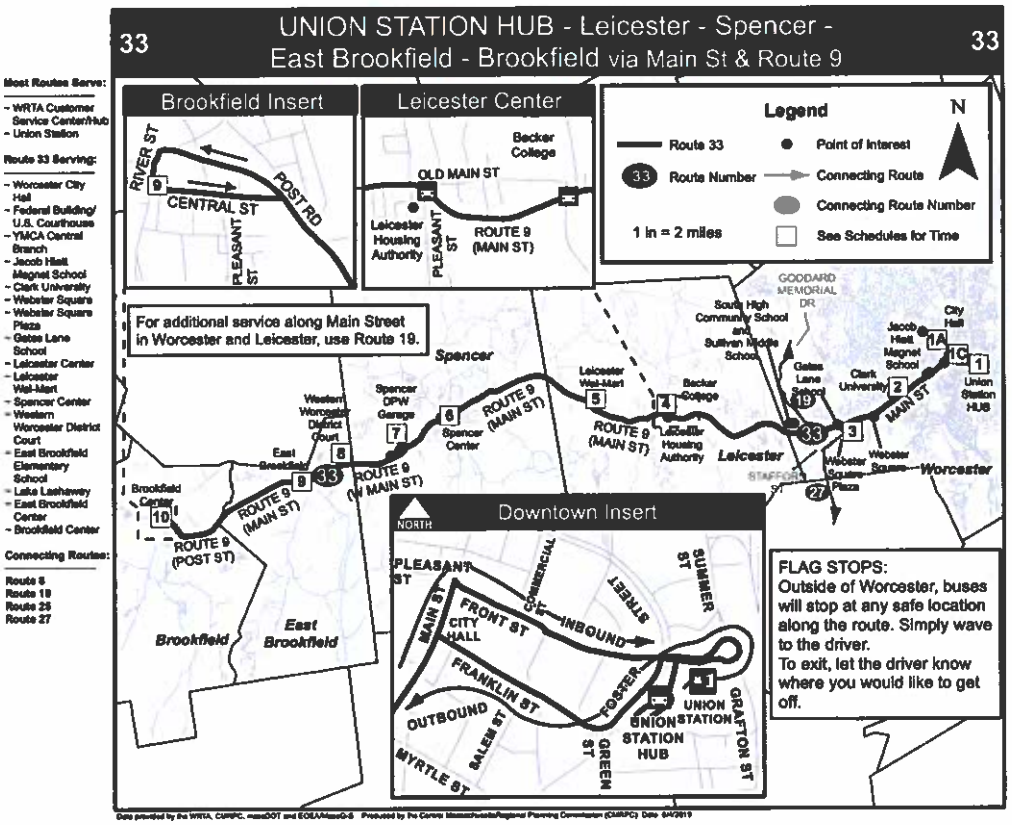
Weekday Service is provided on Veterans' Day.

**Routes 29, 33, 42 and community shuttles operate on a weekday schedule on these holidays. Routes 19 and 30 operate on a modified Saturday schedule on these holidays.*

NO SERVICE ON: New Years Day; Memorial Day; Independence Day; Labor Day; Thanksgiving Day; Christmas Day

Please...NO Smoking, Eating, Drinking or Music

**The Federal Transit Administration permits transit systems to set a minimum age limit for children riding without a parent or guardian. The WRTA has set this age limit at Nine (9) years old. In order to ensure compliance with this age limit, operators may question a child seeking to board a bus who appears, in the operator's opinion, to be Eight (8) years old or younger. If an operator is not satisfied with a child's answer, the operator may call for assistance from a WRTA supervisor and/or public safety personnel. This policy applies to Paratransit Service as well.



Thank You for riding the

Trip Generation and Parking Demand Worksheets

Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

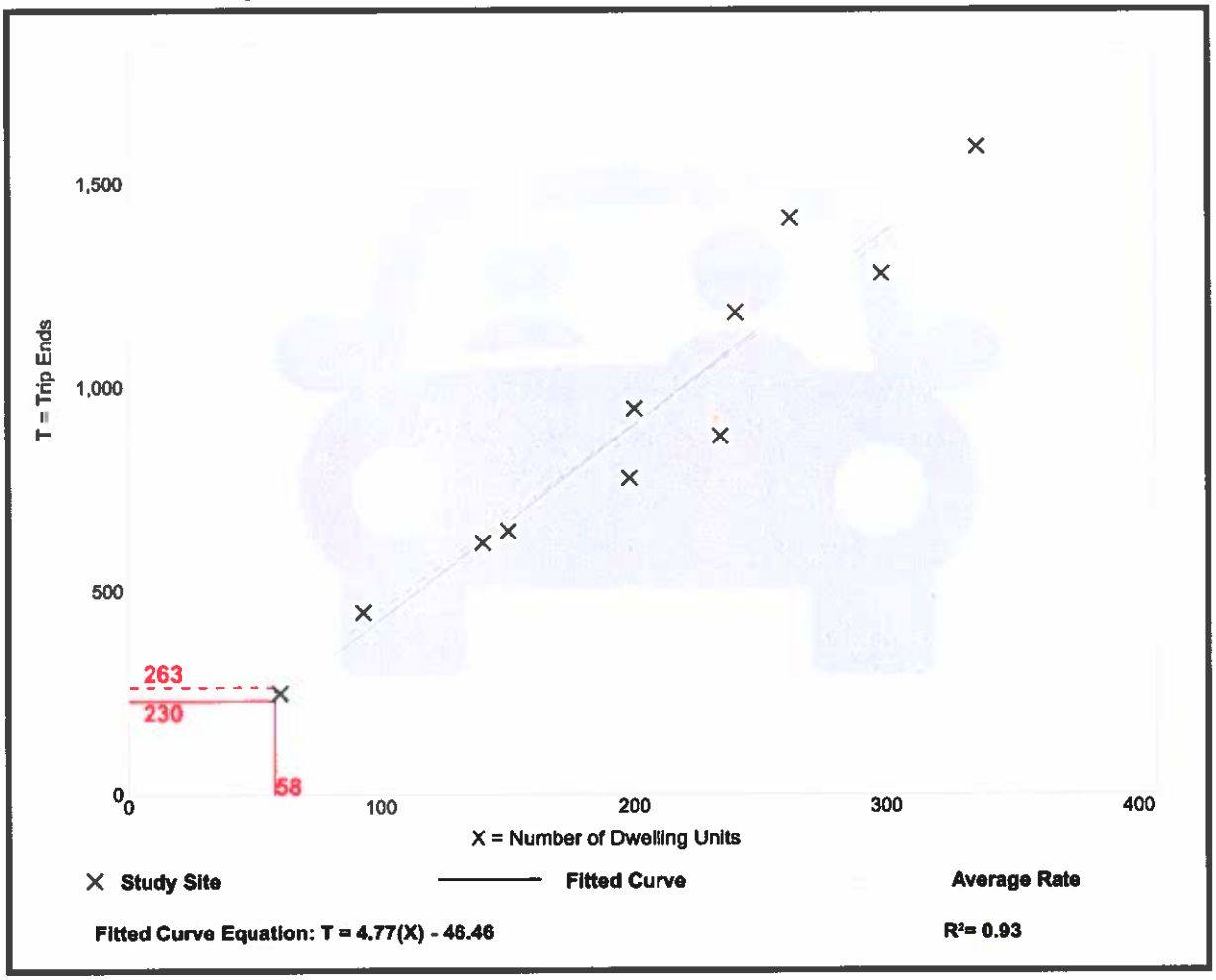
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 11
Avg. Num. of Dwelling Units: 201
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
4.54	3.76 - 5.40	0.51

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

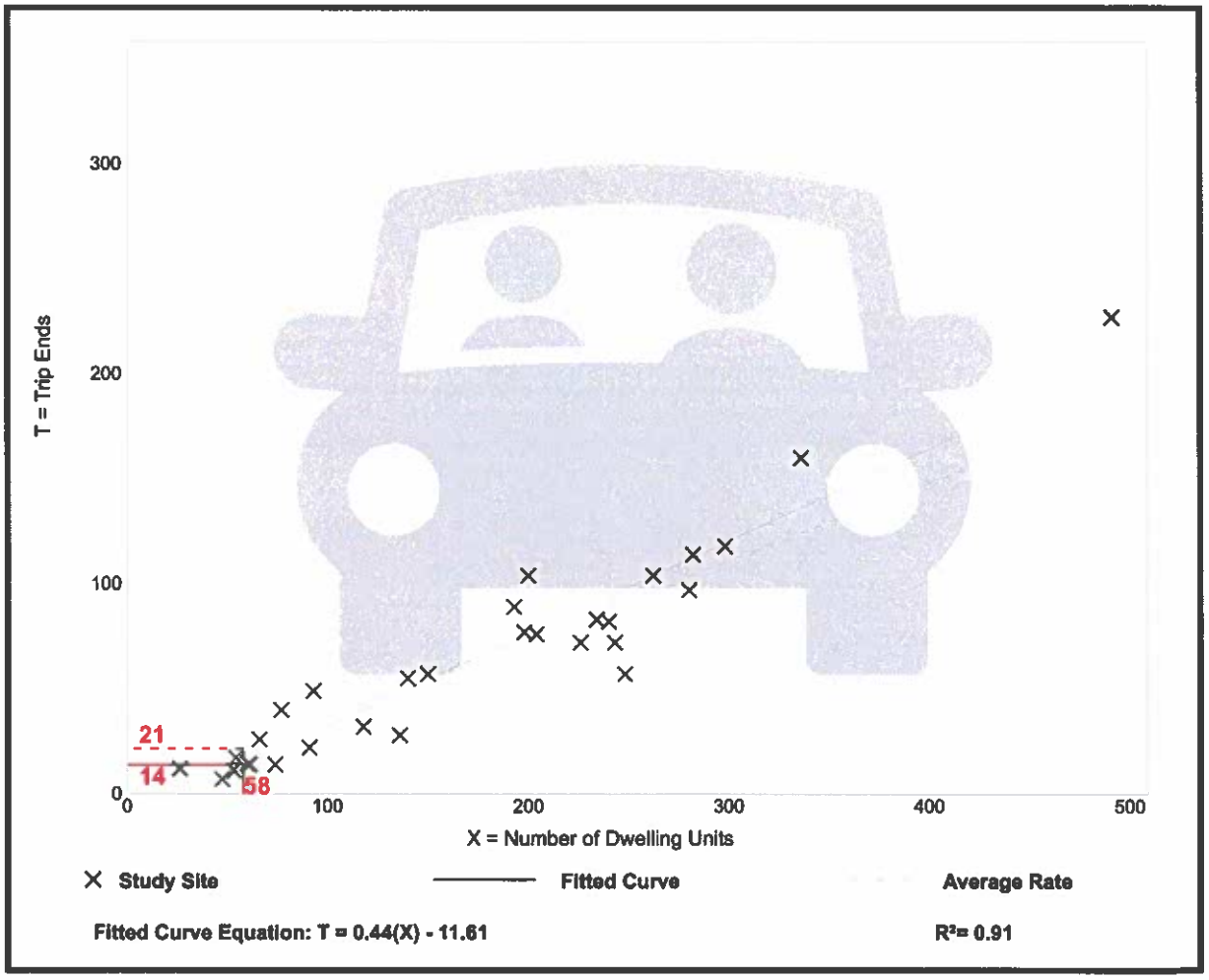
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	30
Avg. Num. of Dwelling Units:	173
Directional Distribution:	23% entering, 77% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.37	0.15 - 0.53	0.09

Data Plot and Equation



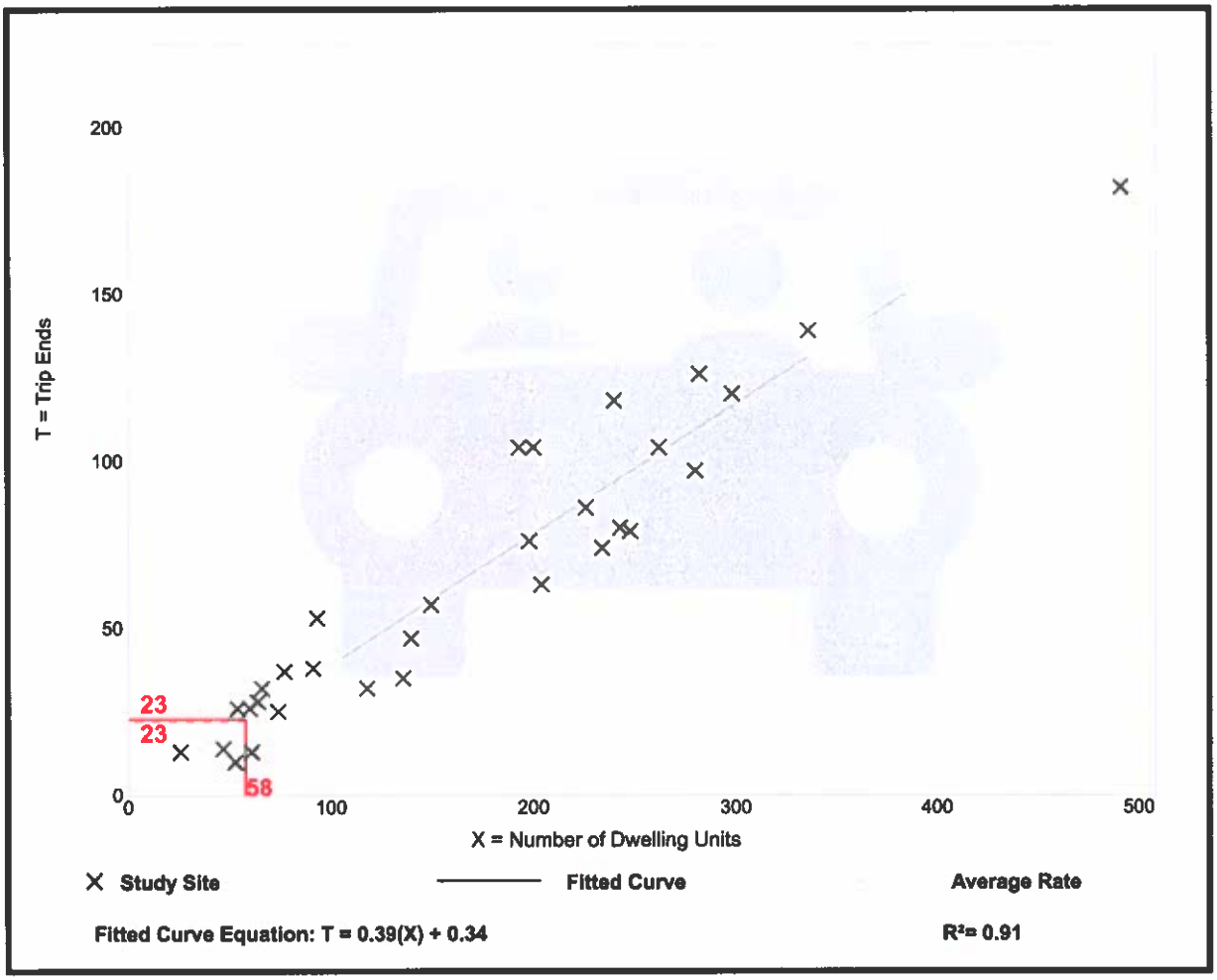
Multifamily Housing (Mid-Rise)
Not Close to Rail Transit (221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 31
Avg. Num. of Dwelling Units: 169
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.39	0.19 - 0.57	0.08

Data Plot and Equation



Trip Gen Manual, 11th Edition • Institute of Transportation Engineers

Multifamily Housing - 1 BR (Mid-Rise) - Not Close to Rail Transit
(218)

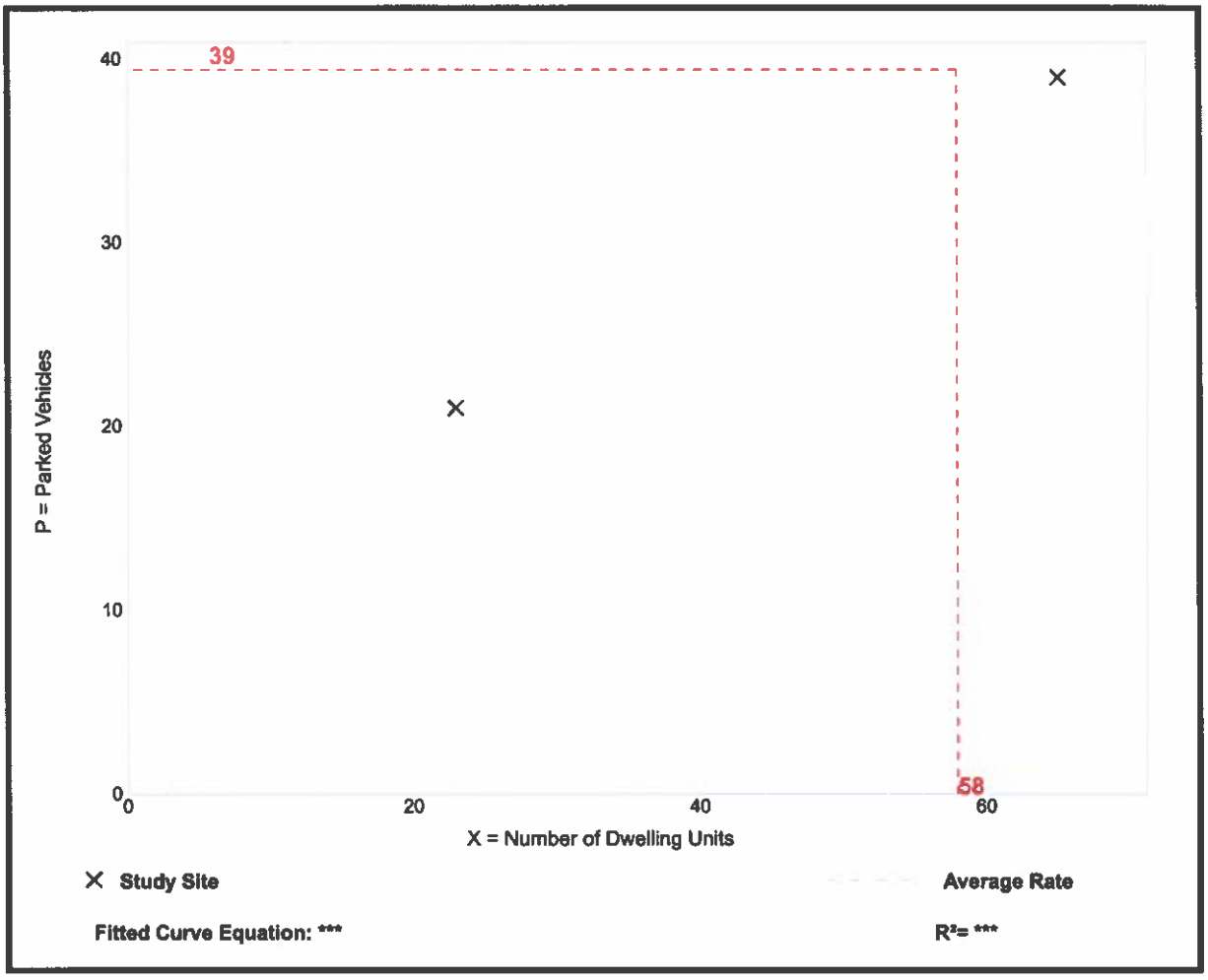
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Number of Studies: 2
Avg. Num. of Dwelling Units: 44

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.68	0.60 - 0.91	*** / ***	***	***

Data Plot and Equation

Caution – Small Sample Size



Parking Generation Manual, 6th Edition • Institute of Transportation Engineers

Trip Distribution Calculations

Residence State-County-MCD Name	Workplace State-County-MCD Name	Count	% of Total
Worcester city	Worcester city	45,088	64%
Worcester city	Shrewsbury town	2,707	4%
Worcester city	Auburn town	2,215	3%
Worcester city	Westborough town	2,185	3%
Worcester city	Marlborough city	2,175	3%
Worcester city	Framingham town	1,311	2%
Worcester city	Northborough town	1,309	2%
Worcester city	Boston city	1,299	2%
Worcester city	Paxton town	1,081	2%
Worcester city	Leominster city	1,063	2%
Worcester city	Millbury town	1,029	1%
Worcester city	West Boylston town	918	1%
Worcester city	Fitchburg city	719	1%
Worcester city	Oxford town	687	1%
Worcester city	Holden town	685	1%
Worcester city	Grafton town	666	1%
Worcester city	Hudson town	654	1%
Worcester city	Southborough town	591	1%
Worcester city	Milford town	582	1%
Worcester city	Charlton town	515	1%
Worcester city	Waltham city	502	1%
Worcester city	Hopkinton town	501	1%
Worcester city	Clinton town	477	1%
Worcester city	Webster town	452	1%
Worcester city	Cambridge city	424	1%
Worcester city	Natick town	410	1%
Worcester city	Uxbridge town	390	1%
		70,635	

Beacon Street - East	Beacon Street - West	Main Street - East	Main Street - West	Total
20%	10%	50%	20%	100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
	100%			100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
	100%			100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%
100%				100%

Beacon Street - East	Beacon Street - West	Main Street - East	Main Street - West
13%	6%	32%	13%
4%	0%	0%	0%
3%	0%	0%	0%
3%	0%	0%	0%
3%	0%	0%	0%
2%	0%	0%	0%
2%	0%	0%	0%
2%	0%	0%	0%
0%	2%	0%	0%
2%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
0%	1%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
1%	0%	0%	0%
Total:	46%	9%	32%	13%
Say:	45%	10%	30%	15%

Capacity Analysis Worksheets

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	596	26	9	331	39	7
Future Vol, veh/h	596	26	9	331	39	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	87	87	63	63
Heavy Vehicles, %	2	0	0	5	0	0
Mvmt Flow	648	28	10	380	62	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	676	0	1062	662
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	400	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	925	-	250	465
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	681	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	925	-	247	465
Mov Cap-2 Maneuver	-	-	-	-	247	-
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	671	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	23.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	266	-	-	925	-
HCM Lane V/C Ratio	0.274	-	-	0.011	-
HCM Control Delay (s)	23.6	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	185	0	0	137	24	0	0	2	22	2	12
Future Vol, veh/h	9	185	0	0	137	24	0	0	2	22	2	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	74	74	74	50	50	50	90	90	90
Heavy Vehicles, %	11	2	2	0	3	0	0	0	0	5	0	8
Mvmt Flow	15	308	0	0	185	32	0	0	4	24	2	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	217	0	0	308	0	0	547	555	308	541	539	201
Stage 1	-	-	-	-	-	-	338	338	-	201	201	-
Stage 2	-	-	-	-	-	-	209	217	-	340	338	-
Critical Hdwy	4.21	-	-	4.1	-	-	7.1	6.5	6.2	7.15	6.5	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.15	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.15	5.5	-
Follow-up Hdwy	2.299	-	-	2.2	-	-	3.5	4	3.3	3.545	4	3.372
Pot Cap-1 Maneuver	1301	-	-	1264	-	-	451	443	737	447	452	825
Stage 1	-	-	-	-	-	-	681	644	-	794	739	-
Stage 2	-	-	-	-	-	-	798	727	-	669	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1301	-	-	1264	-	-	437	437	737	440	446	825
Mov Cap-2 Maneuver	-	-	-	-	-	-	437	437	-	440	446	-
Stage 1	-	-	-	-	-	-	671	635	-	783	739	-
Stage 2	-	-	-	-	-	-	783	727	-	656	635	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	9.9	12.5
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	737	1301	-	-	1264	-	-	522
HCM Lane V/C Ratio	0.005	0.012	-	-	-	-	-	0.077
HCM Control Delay (s)	9.9	7.8	0	-	0	-	-	12.5
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	620	48	12	355	45	13
Future Vol, veh/h	620	48	12	355	45	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	87	87	63	63
Heavy Vehicles, %	2	0	0	5	0	0
Mvmt Flow	674	52	14	408	71	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	726	0	1136	700
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	436	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	886	-	225	443
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	656	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	886	-	221	443
Mov Cap-2 Maneuver	-	-	-	-	221	-
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	643	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	27.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	249	-	-	886	-
HCM Lane V/C Ratio	0.37	-	-	0.016	-
HCM Control Delay (s)	27.7	-	-	9.1	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1.6	-	-	0	-

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	198	0	3	147	26	1	8	10	43	5	13
Future Vol, veh/h	10	198	0	3	147	26	1	8	10	43	5	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	74	74	74	50	50	50	90	90	90
Heavy Vehicles, %	11	2	2	0	3	0	0	0	0	5	0	8
Mvmt Flow	17	330	0	4	199	35	2	16	20	48	6	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	330	0	0	599	606	330	607	589	217
Stage 1	-	-	-	-	-	-	364	364	-	225	225	-
Stage 2	-	-	-	-	-	-	235	242	-	382	364	-
Critical Hdwy	4.21	-	-	4.1	-	-	7.1	6.5	6.2	7.15	6.5	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.15	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.15	5.5	-
Follow-up Hdwy	2.299	-	-	2.2	-	-	3.5	4	3.3	3.545	4	3.372
Pot Cap-1 Maneuver	1282	-	-	1241	-	-	416	414	716	404	423	808
Stage 1	-	-	-	-	-	-	659	627	-	771	721	-
Stage 2	-	-	-	-	-	-	773	709	-	634	627	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1282	-	-	1241	-	-	398	406	716	375	415	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	398	406	-	375	415	-
Stage 1	-	-	-	-	-	-	648	617	-	759	718	-
Stage 2	-	-	-	-	-	-	750	706	-	591	617	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.1	12.4	15
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	525	1282	-	-	1241	-	-	427
HCM Lane V/C Ratio	0.072	0.013	-	-	0.003	-	-	0.159
HCM Control Delay (s)	12.4	7.8	0	-	7.9	0	-	15
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	620	48	14	355	47	18
Future Vol, veh/h	620	48	14	355	47	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	87	87	63	63
Heavy Vehicles, %	2	0	0	5	0	0
Mvmt Flow	674	52	16	408	75	29

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	726	0	1140	700
Stage 1	-	-	-	-	700	-
Stage 2	-	-	-	-	440	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	886	-	224	443
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	653	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	886	-	219	443
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	638	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	28.4
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	255	-	-	886	-
HCM Lane V/C Ratio	0.405	-	-	0.018	-
HCM Control Delay (s)	28.4	-	-	9.1	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	1.9	-	-	0.1	-

Intersection												
Int Delay, s/veh	3											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	198	1	4	147	26	3	15	15	43	7	13
Future Vol, veh/h	10	198	1	4	147	26	3	15	15	43	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	60	60	60	74	74	74	50	50	50	90	90	90
Heavy Vehicles, %	11	2	2	0	3	0	0	0	0	5	0	8
Mvmt Flow	17	330	2	5	199	35	6	30	30	48	8	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	234	0	0	332	0	0	603	609	331	622	593	217
Stage 1	-	-	-	-	-	-	365	365	-	227	227	-
Stage 2	-	-	-	-	-	-	238	244	-	395	366	-
Critical Hdwy	4.21	-	-	4.1	-	-	7.1	6.5	6.2	7.15	6.5	6.28
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.15	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.15	5.5	-
Follow-up Hdwy	2.299	-	-	2.2	-	-	3.5	4	3.3	3.545	4	3.372
Pot Cap-1 Maneuver	1282	-	-	1239	-	-	414	412	715	395	421	808
Stage 1	-	-	-	-	-	-	658	627	-	769	720	-
Stage 2	-	-	-	-	-	-	770	708	-	624	626	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1282	-	-	1239	-	-	395	403	715	351	412	808
Mov Cap-2 Maneuver	-	-	-	-	-	-	395	403	-	351	412	-
Stage 1	-	-	-	-	-	-	647	617	-	757	716	-
Stage 2	-	-	-	-	-	-	744	704	-	560	616	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.2	13.3	15.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	502	1282	-	-	1239	-	-	405
HCM Lane V/C Ratio	0.131	0.013	-	-	0.004	-	-	0.173
HCM Control Delay (s)	13.3	7.8	0	-	7.9	0	-	15.7
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0.6

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	256	0	1	177	0	2
Future Vol, veh/h	256	0	1	177	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	278	0	1	192	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	278	0	472	278
Stage 1	-	-	-	-	278	-
Stage 2	-	-	-	-	194	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1285	-	551	761
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	839	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1285	-	550	761
Mov Cap-2 Maneuver	-	-	-	-	550	-
Stage 1	-	-	-	-	769	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	761	-	-	1285	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	9.7	-	-	7.8	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	0	0	26	10	2
Future Vol, veh/h	7	0	0	26	10	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	28	11	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	40	12	13	0	-	0
Stage 1	12	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	972	1069	1606	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	995	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	972	1069	1606	-	-	-
Mov Cap-2 Maneuver	972	-	-	-	-	-
Stage 1	1011	-	-	-	-	-
Stage 2	995	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1606	-	972	-	-
HCM Lane V/C Ratio	-	-	0.008	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	0	0	19	8	2
Future Vol, veh/h	7	0	0	19	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	0	0	21	9	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	31	10	11	0	-	0
Stage 1	10	-	-	-	-	-
Stage 2	21	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	983	1071	1608	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	1002	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	983	1071	1608	-	-	-
Mov Cap-2 Maneuver	983	-	-	-	-	-
Stage 1	1013	-	-	-	-	-
Stage 2	1002	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	983	-	-
HCM Lane V/C Ratio	-	-	0.008	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	461	21	7	540	16	9
Future Vol, veh/h	461	21	7	540	16	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	94	94	73	73
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	512	23	7	574	22	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	535	0	1112	524
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	588	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1043	-	233	557
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1043	-	231	557
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	553	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	18.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	293	-	-	1043	-
HCM Lane V/C Ratio	0.117	-	-	0.007	-
HCM Control Delay (s)	18.9	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	69	1	1	205	21	1	1	0	11	3	18
Future Vol, veh/h	5	69	1	1	205	21	1	1	0	11	3	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	85	85	85	50	50	50	62	62	62
Heavy Vehicles, %	0	3	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	5	74	1	1	241	25	2	2	0	18	5	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	266	0	0	75	0	0	358	353	75	342	341	254
Stage 1	-	-	-	-	-	-	85	85	-	256	256	-
Stage 2	-	-	-	-	-	-	273	268	-	86	85	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1310	-	-	1537	-	-	601	575	992	616	584	790
Stage 1	-	-	-	-	-	-	928	828	-	753	699	-
Stage 2	-	-	-	-	-	-	737	691	-	927	828	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1310	-	-	1537	-	-	573	572	992	612	581	790
Mov Cap-2 Maneuver	-	-	-	-	-	-	573	572	-	612	581	-
Stage 1	-	-	-	-	-	-	924	825	-	750	698	-
Stage 2	-	-	-	-	-	-	704	690	-	921	825	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	11.3	10.6
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	572	1310	-	-	1537	-	-	697
HCM Lane V/C Ratio	0.007	0.004	-	-	0.001	-	-	0.074
HCM Control Delay (s)	11.3	7.8	0	-	7.3	0	-	10.6
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	445	75	13	579	19	13
Future Vol, veh/h	445	75	13	579	19	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	94	94	73	73
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	494	83	14	616	26	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	577	0	1180	536
Stage 1	-	-	-	-	536	-
Stage 2	-	-	-	-	644	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1006	-	212	549
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	527	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1006	-	208	549
Mov Cap-2 Maneuver	-	-	-	-	208	-
Stage 1	-	-	-	-	591	-
Stage 2	-	-	-	-	516	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	278	-	-	1006	-
HCM Lane V/C Ratio	0.158	-	-	0.014	-
HCM Control Delay (s)	20.4	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	74	2	9	220	23	2	6	5	61	11	19
Future Vol, veh/h	5	74	2	9	220	23	2	6	5	61	11	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	85	85	85	50	50	50	62	62	62
Heavy Vehicles, %	0	3	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	5	80	2	11	259	27	4	12	10	98	18	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	286	0	0	82	0	0	410	399	81	397	387	273
Stage 1	-	-	-	-	-	-	91	91	-	295	295	-
Stage 2	-	-	-	-	-	-	319	308	-	102	92	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1288	-	-	1528	-	-	556	542	985	567	551	771
Stage 1	-	-	-	-	-	-	921	823	-	718	673	-
Stage 2	-	-	-	-	-	-	697	664	-	909	823	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1288	-	-	1528	-	-	515	535	985	546	544	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	515	535	-	546	544	-
Stage 1	-	-	-	-	-	-	917	820	-	715	667	-
Stage 2	-	-	-	-	-	-	646	658	-	883	820	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.3	10.8	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	644	1288	-	-	1528	-	-	581
HCM Lane V/C Ratio	0.04	0.004	-	-	0.007	-	-	0.253
HCM Control Delay (s)	10.8	7.8	0	-	7.4	0	-	13.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	1

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	445	77	17	579	20	16
Future Vol, veh/h	445	77	17	579	20	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	94	94	73	73
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	494	86	18	616	27	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	580	0	1189	537
Stage 1	-	-	-	-	537	-
Stage 2	-	-	-	-	652	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1004	-	210	548
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	522	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1004	-	204	548
Mov Cap-2 Maneuver	-	-	-	-	204	-
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	508	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	283	-	-	1004	-
HCM Lane V/C Ratio	0.174	-	-	0.018	-
HCM Control Delay (s)	20.4	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	74	4	13	220	23	3	10	8	61	17	19
Future Vol, veh/h	5	74	4	13	220	23	3	10	8	61	17	19
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	85	85	85	50	50	50	62	62	62
Heavy Vehicles, %	0	3	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	5	80	4	15	259	27	6	20	16	98	27	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	286	0	0	84	0	0	424	408	82	413	397	273
Stage 1	-	-	-	-	-	-	92	92	-	303	303	-
Stage 2	-	-	-	-	-	-	332	316	-	110	94	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1288	-	-	1526	-	-	544	536	983	553	544	771
Stage 1	-	-	-	-	-	-	920	823	-	711	667	-
Stage 2	-	-	-	-	-	-	686	659	-	900	821	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1288	-	-	1526	-	-	496	527	983	522	535	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	496	527	-	522	535	-
Stage 1	-	-	-	-	-	-	916	820	-	708	659	-
Stage 2	-	-	-	-	-	-	624	651	-	860	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0.4	11.1	13.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	633	1288	-	-	1526	-	-	560
HCM Lane V/C Ratio	0.066	0.004	-	-	0.01	-	-	0.279
HCM Control Delay (s)	11.1	7.8	0	-	7.4	0	-	13.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	1.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	143	0	2	256	0	1
Future Vol, veh/h	143	0	2	256	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	155	0	2	278	0	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	155	0	437	155
Stage 1	-	-	-	-	155	-
Stage 2	-	-	-	-	282	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1425	-	577	891
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1425	-	576	891
Mov Cap-2 Maneuver	-	-	-	-	576	-
Stage 1	-	-	-	-	873	-
Stage 2	-	-	-	-	764	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	891	-	-	1425	-
HCM Lane V/C Ratio	0.001	-	-	0.002	-
HCM Control Delay (s)	9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	17	28	6
Future Vol, veh/h	4	0	0	17	28	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	0	18	30	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	52	34	37	0	-	0
Stage 1	34	-	-	-	-	-
Stage 2	18	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	957	1039	1574	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	1005	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	957	1039	1574	-	-	-
Mov Cap-2 Maneuver	957	-	-	-	-	-
Stage 1	988	-	-	-	-	-
Stage 2	1005	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1574	-	957	-	-
HCM Lane V/C Ratio	-	-	0.005	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	0	13	22	6
Future Vol, veh/h	4	0	0	13	22	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	0	14	24	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	42	28	31	0	-	0
Stage 1	28	-	-	-	-	-
Stage 2	14	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	969	1047	1582	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	969	1047	1582	-	-	-
Mov Cap-2 Maneuver	969	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1582	-	969	-	-
HCM Lane V/C Ratio	-	-	0.004	-	-
HCM Control Delay (s)	0	-	8.7	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

The City of WORCESTER

Assessing Division
Samuel E. Konieczny, MAA, City Assessor
City Hall, 455 Main Street, Worcester, MA 01608
P | 508-799-1098 F | 508-799-1021
assessing@worcesterma.gov

Certified Abutters List

A list of 'parties in interest' shall be attached to the application form and shall include the names and addresses. All such names and addresses shall be obtained from the most recent applicable tax list maintained by the City's Assessing Department. The Assessing Department certifies the list of names and addresses.

Total Count: 82

Parcel Address:	96, 98 BEACON ST, 35, 47, 50, 44, 42, 30 LAGRANGE ST, & 47 OREAD ST
Assessor's Map-Block-Lot(s):	03-001-0001A, 03-001-00008, 03-001-00001, 03-001-00005, 06-028-00014, 06-028-00001, 06-028-00019, 06-028-0004B, 06-028-00015
Owner:	98 BEACON ST LLC
Owner Mailing:	2 TAMMIE RD
	HOPEDALE, MA 01747
Owner:	KROSOCZKA, JOSEPH M + STEPHEN A
Owner Mailing:	47 LAGRANGE ST
	WORCESTER, MA 01610
Owner:	SEM TEC INC
Owner Mailing:	47 LAGRANGE ST
	WORCESTER, MA 01608
Petitioner (if other than owner):	STEPHANIE FLEMING
Petitioner Mailing Address:	311 MAIN ST
	WORCESTER, MA 01608
Petitioner Phone:	508-926-3346

Planning: X Zoning: ____ License Commission: ____ Conservation Commission: ____

Historical: ____ Cannabis: ____ Other: ____

03-002-14+15 ZITOMERSKI FRANK A TRUSTEE 800 MAIN STREET WORCESTER MA 01610

03-003-10+20	BRADY SULLIVAN WORCESTER	0670 N COMMERCIAL ST STE 303	MANCHESTER NH 03101
03-002-12+13	ROTHSCHILD STEVEN M TRUSTEE	40 JACKSON ST - SUITE 1000	WORCESTER MA 01608
03-002-08+11	ROTHSCHILD STEVEN M TRUSTEE	40 JACKSON ST - SUITE 1000	WORCESTER MA 01608
06-027-05+15	HOUSING OPPORTUNITY GROUP LLP	0049 WALL ST	WORCESTER MA 01604
06-028-21+23	ROMERO JULIO	31 GATES ST #1	WORCESTER MA 01610
03-002-00017	LAGRANGE STREET HOLDING CORP	0800 MAIN ST	WORCESTER MA 01608
03-002-00007	T G 24 JACKSON LLC	0040 JACKSON ST SUITE 1000	WORCESTER MA 01608
03-002-00006	F-Z REALTY + HOLDINGS LLC	0800 MAIN ST	WORCESTER MA 01608
03-001-00002	BRADY SULLIVAN WORCESTER	0670 N COMMERCIAL ST STE 303	MANCHESTER NH 03101
03-004-00005	BRIDGESOUTH REAL ESTATE DEVELOPMENT	PO BOX 206	NEWTON MA 02468
06-027-00006	HERSAN INC	0005 BIRCHWOOD DR	LIECESTER MA 01524
03-002-00010	LAGRANGE STREET HOLDING CORP	0800 MAIN ST	WORCESTER MA 01608
03-001-00003	BRADY SULLIVAN WORCESTER	0670 N COMMERCIAL ST	MANCHESTER NH 03101
03-004-00002	BRADY SULLIVAN WORCESTER	0670 N COMMERCIAL ST STE 303	MANCHESTER NH 03101
03-002-00009	LAGRANGE STREET HOLDINGS CORP	0800 MAIN ST	WORCESTER MA 01608
03-003-00012	CLARK ROBERT H JR + GERALD M	41 JACKSON ST	WORCESTER MA 01608
06-028-00006	IGLESIA CRISTIANA DE LA COMUNIDAD	0108 BEACON ST	WORCESTER MA 01608
06-028-00005	TRINITY ESTATE INVESTMENTS +	0108 BEACON ST	WORCESTER MA 01608
03-002-00018	LAGRANGE STREET HOLDING CORP	0800 MAIN ST	WORCESTER MA 01608
03-004-00004	295 LOT LLC	0295 SOUTHBRIDGE ST	WORCESTER MA 01608
03-001-00012	PROVIDENCE + WORCESTER RR CO	0200 MERIDIAN CENTRE SUITE 300	ROCHESTER NY 14618
06-028-00001	KROSOCZKA STEPHEN A + JOSEPH M	0047 LAGRANGE STREET	WORCESTER MA 01610
06-028-00017	FRANCESCHI MARIA L	0114 BEACON ST	WORCESTER MA 01608
06-028-00020	RIVERA JOSE M +	0076 WILLOW HILL RD	CHERRY VALLEY MA 01611
06-028-00011	MAIN SOUTH COMMUNITY DEVELOPMENT	0875 MAIN ST	WORCESTER MA 01610
06-032-049-1	CHEN JIAJIE + SHANG	0002 LEONS WAY	HOPKINTON MA 01748
06-032-051-2	CHEN JIAJIE + SHANG	0002 LEONS WAY	HOPKINTON MA 01748
06-028-00008	MOORE ROBERT W II + JENNIE P TRUSTE	0010 WOOD DR	MENDON MA 01756
06-032-00038	QUIEWEAY DAVID C	45 BENEFIT ST # 3	WORCESTER MA 01610
06-027-0000A	SALINAS MAURICIO A	11 MARANOOK RD	WORCESTER MA 01606
06-027-00008	OTHMAN SALAH	0020 LAGRANGE ST UNIT B	WORCESTER MA 01610
06-027-0000C	CASTRO HERACLIDES F + EUDOCIA	0020 LAGRANGE ST	WORCESTER MA 01610
03-002-00016	F-Z REALTY + HOLDINGS LLC	0800 MAIN ST	WORCESTER MA 01608
03-001-0001A	98 BEACON STREET LLC	0002 TAMMIE RD	HOPEDALE MA 01747
06-027-00003	LOPEZ HERIBERTO +	0022 LAGRANGE ST	WORCESTER MA 01610
03-001-00008	98 BEACON STREET LLC	0002 TAMMIE RD	HOPEDALE MA 01747
06-027-00001	THE 24-26 LAGRANGE ST LTD PRTS	800 MAIN STREET	WORCESTER MA 01610
03-001-00001	KROSOCZKA JOSEPH M + STEPHEN A	0047 LAGRANGE ST	WORCESTER MA 01610
06-027-00002	MEDERO JOSE L	386 MAIN STREET	SOUTHBRIDGE MA 01550
06-027-00019	FLORES ROGER E + REGALADO	0109 BEACON ST	WORCESTER MA 01608
03-001-00015	US SPRINT COMMUNICATIONS COMPANY	PO BOX 12913	SHAWNEE MISSION KS 66212
06-027-00014	NGUYEN HANH	0113 BEACON ST	WORCESTER MA 01608
06-028-00007	CLARA MIGUEL	0080 OREAD ST	WORCESTER MA 01608

03-001-00005	SEM TEC INC	47 LAGRANGE ST	WORCESTER MA 01608
03-001-00006	PROVIDENCE + WORCESTER RR CO	0200 MERIDIAN CENTRE SUITE 300	ROCHESTER NY 14618
06-029-00010	MAIN SOUTH COMMUNITY DEVELOPMENT	0875 MAIN ST	WORCESTER MA 01608
06-027-00013	NGUYEN HUYNHMAI N +	0015 BALMORAL ST	WORCESTER MA 01602
06-027-00012	ATHERLEY ALEXANDER C + PAULINE	41 OREAD ST	WORCESTER MA 01608
06-028-00019	KROSOCZKA JOSEPH M + STEPHEN A	0047 LAGRANGE ST	WORCESTER MA 01610
06-028-00048	KROSOCZKA STEPHEN A + JOSEPH M	47 LAGRANGE ST	WORCESTER MA 01610
06-029-00034	MAIN SOUTH COMMUNITY DEVELOPMENT	0875 MAIN ST	WORCESTER MA 01610
05-012-00010	JUNCTION DEVELOPMENT LLC	0011 MONADNOCK RD	WORCESTER MA 01609
06-029-00001	LLANOS RAMON A +	0054 OREAD ST	WORCESTER MA 01610
06-028-00016	ZHAO HUA	0131 MAIN ST	NORTH ANDOVER MA 01845
06-028-00015	KROSOCZKA STEPHEN A + JOSEPH M	47 LA GRANGE ST	WORCESTER MA 01610
06-029-00004	WATTS JILL W +	0129 BEACON ST	WORCESTER MA 01610
06-028-00012	MAIN SOUTH COMMUNITY DEVELOPMENT	0875 MAIN ST	WORCESTER MA 01610
05-012-00013	SOUTHBRIDGE TIC-1 LLC +	0001 CREST RD	WELLESLEY MA 02482
06-028-00014	KROSOCZKA JOSEPH M + STEPHEN A	0047 LAGRANGE ST	WORCESTER MA 01610
06-029-00005	MAVERICK DEVELOPMENT COMPANY LLC	37 BENEFIT ST	WORCESTER MA 01610
06-028-00022	GRAJALES JOSE A	28 SANDPIPER DR	SHREWSBURY MA 01545
06-032-00001	AGUILAR JOSE C	0189 HOLYOKE ST	LYNN MA 01905
06-028-00009	MAIN SOUTH COMMUNITY DEVELOPMENT	0875 MAIN ST	WORCESTER MA 01608
06-028-00013	MONZON EDUARDO	0069 OREAD ST #1	WORCESTER MA 01608
06-032-00002	ELYSEE RAMUEL	0134 BEACON ST	WORCESTER MA 01610
07-028-00001	PROVIDENCE + WORCESTER RR CO	0200 MERIDIAN CENTRE SUITE 300	ROCHESTER NY 14618
05-012-16-21	TALBERT THELMA TRUSTEE +	306 MAIN ST	WORCESTER MA 01608
06-032-00003	47 BENEFIT LLC	0003 LOWELL ST UNIT 1	WALTHAM MA 02453
06-028-00018	GRAJALES JOSE A	28 SANDPIPER DR	SHREWSBURY MA 01545
05-012-0026A	GRENACHE KATHLEEN J TRUSTEE	0073 ST NICHOLAS AVE	WORCESTER MA 01606
06-032-00005	VONG KIM	0597 FULTON ST	MEDFORD MA 02155
07-028-00003	PROVIDENCE + WORCESTER RR CO	0200 MERIDIAN CENTRE SUITE 300	ROCHESTER NY 14618
06-032-00006	MARTINEZ RAFAEL	0059 BENEFIT ST APT 1	WORCESTER MA 01610
06-032-00030	PAUL LYDIE	0005 MORTON CT	WORCESTER MA 01610
06-032-00040	TRAN SON	0103 MILL ST	WORCESTER MA 01603
05-012-00027	JOMO LLC	0350 SOUTHBRIDGE ST	WORCESTER MA 01608
RR-ROW-0CSXT	NEW YORK CENTRAL LINES LLC	Tax Dept-C910 500 WATER ST	JACKSONVILLE FL 32202
RR-ROW-000PW	PROVIDENCE & WORCESTER RAILROAD CO	75 HAMMOND ST	WORCESTER MA 01610
06-032-00031	MARTINEZ RAFAEL	59 1/2 BENEFIT ST	WORCESTER MA 01610
06-027-00007	WORCESTER COMMUNITY HOUSING	0011 PLEASANT ST	WORCESTER MA 01608
07-028-00002	PROVIDENCE + WORCESTER RR CO	0200 MERIDIAN CENTRE SUITE 300	ROCHESTER NY 14618

The City of Worcester
Administration & Finance

This is to certify that the above is a list of abutters to Assessor's Map-Block-Lot's 03-001-0001A, 03-001-00008, 03-001-00001, 03-001-00005, 06-028-00014, 06-028-00001, 06-028-00019, 06-028-0004B, 06-028-00015 as cited above

Certified by:

Signature

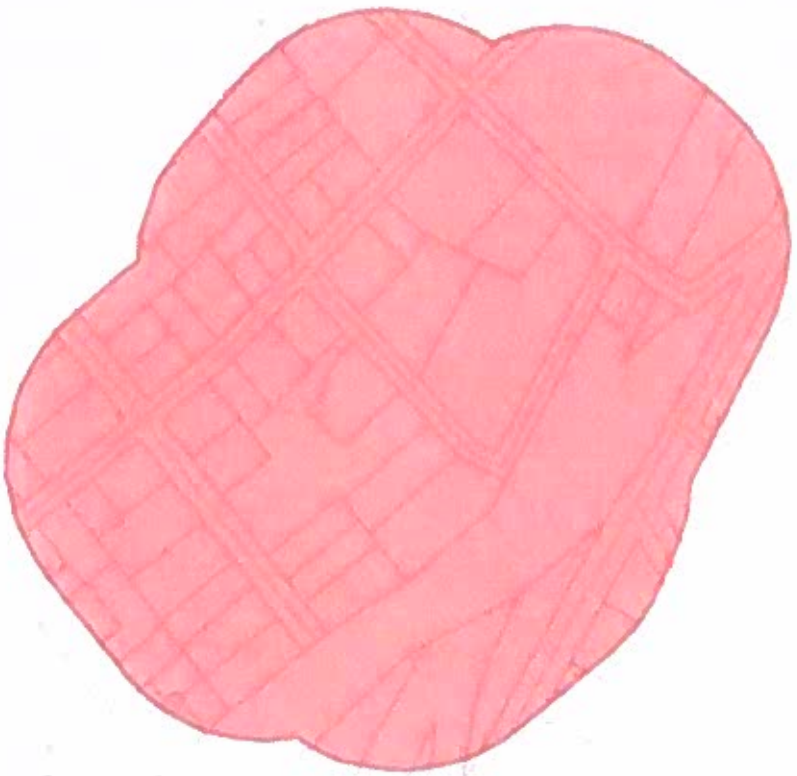
01/16/2024

Date

The City of WORCESTER

Assessing Division
Samuel E. Konieczny, MAA, City Assessor
City Hall, 455 Main Street, Worcester, MA 01608
P | 508-799-1098 F | 508-799-1021
assessing@worcesterma.gov

Abutters Map



City of Worcester, Massachusetts
Planning Board

DECISION - DEFINITIVE SITE PLAN

Application:	Definitive Site Plan	**File #:**	PB-2021-061
Subject Property:	30-50 Lagrange Street & 47 Oread Street	**Map Block Lot #:**	03-001-00001; -00005; 06-028-00001; -0004B; -00014; -00015; -00019
Applicant(s):	Worcester Lagrange MM LLC	**Property Owner(s):**	Krosoczka Properties Trust & Sem-Tec Inc.
Zoning District(s):	BG-6.0 (Business, General) CCOD-D	**Review Trigger(s):**	Abuts Nat. Register property; >5 DU; disturb >15% slopes;
Existing:	Multiple vacant mill buildings and related site improvements		
Proposed:	Demolish a portion of the existing site improvements, renovate the existing buildings into +/-63 dwelling units and +/-5,108 SF of commercial space, construct +/-85 parking spaces and conduct associated site work.		
Plan Preparer:	Bohler Engineering.	**Plan Date:**	7/30/2021
Meeting date(s):	September 8, 2021	**Board Action:**	Approved 3-0 (LaValley recused) with conditions & waivers

Conditions of Approval (Site Plan):

Prior to the release of the decision, issuance of a building permit, or commencement of site work (whichever occurs first):

1. Provide one (1) copy of revised site plans (1 full-sized, stamped and signed original), a complete architectural plan set, and a stormwater report and checklist, and a PDF file of each of the same, to the Division of Planning & Regulatory Services reflecting the following, as applicable:
   a. Modify the parking aisle width to 24 ft for all portions of the aisle that are adjacent to 90 degree parking spaces and convert up to 25% of the spaces to compact parking, or obtain relief from the applicable parking dimensional requirements.
   b. Reflect access easements on plan and provide this office with details on the shared access agreements, as applicable (e.g. - parcel MBL 03-001-0001A and, if applicable parcel MBL 06-028-00006).
   c. Revise the zoning analysis table:
      i. Provide maximum parking calculation for 63 proposed units with commercial floor area included.
      ii. Provide required and proposed building height.

iii. For each building, provide total floor area; ground coverage area, number and size of dwelling units (by number of bedrooms).

d. Label EV ready spaces.

e. Label the curb cut width on 42 Lagrange Street.

f. Reflect curb cuts and driveways on those parcels from which the subject property will have access.

g. Clarify the location of the proposed handrail near top of the sloped walkway between Buildings 1 and 3; the present location appears to block pedestrian access to the plaza with seating.

h. Provide details for stockade fence (trash enclosure), ramp with handrails, bike rack, and seat wall with top and bottom elevations and/or height labeled.

i. Provide a driveway detail and update plans to show sidewalks continuing at elevation across driveway curbcuts.

j. Revise trash enclosure detail to reflect solid stockade style fencing.

k. Provide a stabilized construction entrance to the southern portion of the site from LaGrange St.

l. Reflect the location of any soil stockpiles.

m. Clearly reflect a silt fence with compost sock around perimeter of site will be provided.

n. Reflect any existing/proposed lighting along access drive from Lagrange Street and similarly to the north of Lagrange, clarify how the pedestrian pathways will be illuminated.

o. Resurface the southwesterly driveway a minimum of 20 ft from the Lagrange Street right-of-way.

Landscaping

p. Consider replacing proposed trees with shade trees along walkway between Buildings 1 & 3, and providing additional fencing or landscape screening adjacent to 15-space lot to minimize glare from vehicle headlights onto neighboring property MBL 06-028-00017.

Prior to Issuance of a certificate of occupancy:

2. A registered Professional Engineer, currently licensed to practice within the Commonwealth of Massachusetts, shall provide a written certification that the stormwater system has been constructed in substantial compliance with the approved plans and that the infrastructure functions as designed. One (1) original of said certification, and a .pdf of the same, shall be provided to each the Department of Inspectional Services, Department of Public Works & Parks, and the Division of Planning & Regulatory Services.

Prior to and continuing during all construction activities:

3. All erosion and sediment control measures shall be installed prior to the commencement of other construction activities, and shall be maintained throughout construction by the applicant to the satisfaction of the Commissioner of Inspectional Services.

4. All tree and stump removal shall be in accordance with the Asian Longhorned Beetle program requirements and all new tree and shrub plantings shall be of an Asian Longhorned Beetle and Emerald Ash Borer resistant species.

5. All work shall conform to the City of Worcester's Zoning Ordinance, Planning Board decision and conditions of approval, and to the standards contained in the City of Worcester, Department of Public Works & Parks, Engineering Division, Construction Management Section, STANDARD SPECIFICATIONS & DETAILS, most recent edition.

Perpetual:

6. Retain and hold an access easements with abutting parcel MBL 03-001-0001A to provide for fire access through the adjacent parking lot.
7. Fixtures shall be dark-sky compliant and/or shielded to minimize spillover and be of a warmer temperature (3,000K or less); decorative lighting elements excluded.
8. All parking spaces shall be striped in accordance with the plans and accessible spaces placarded as required by the Architectural Access Board. Compact spaces shall be striped or placarded accordingly.
9. Drive aisles, landscaped setback areas and required parking spaces shall not be used for snow storage; once designated snow storage areas reach capacity or interfere with visibility, snow shall be trucked off-site.
10. Provided that the project is constructed and operated in substantial accordance with final revised plans, including architectural renderings, calculations, and operation and maintenance plans and schedules, on file with the City of Worcester and in accordance with all applicable governmental codes.

Waivers

1. Strict compliance with interior landscaping requirements.
2. To identify soil types.

Authorized Signature,

DATE 9/9/21

Michelle M. Smith, *Chief Planner*
on behalf of the Worcester Planning Board

REMINDERS

Time Limitations: Approval under this article shall become invalid unless the work or action authorized by it shall commence within one year after the Planning Board has granted such approval and thereafter shall proceed in good faith continuously to completion so far as is reasonably practicable under the circumstances. Per Article V, Section 3F "Site Plan Review" of the City of Worcester Zoning Ordinance.

Landscaping Requirements: Required landscaping shall be maintained in a healthy growing condition, free of refuse and debris, and any plantings that do not survive shall be replaced in kind by the applicant or the property owner within a reasonable period of time. All plant materials and fencing shall be arranged and maintained so as not to obscure the vision of traffic. There shall be no parking of vehicles or snow storage in areas used for screening and buffering. Per Article V, Section 5, C. iv of the City of Worcester Zoning Ordinance.

Construction Noise: No person shall operate any powered construction equipment or build, erect construct, demolish, alter, repair, excavate or engage in hoisting, grading, site work, including tree and brush removal, dredging or pneumatic hammering, or deliver construction equipment and/or supplies to the site on any building, road, tower, parking lot, machine, pipe, sewer, sidewalk, or any other construction project, except between the hours of 7:00 a.m. and 9:00 p.m. on weekdays and d Saturday, and between the hours of 9:00 a.m. and 7:00 p.m. on Sundays....Per Chapter 9 Section 1A (e) (9) of the City of Worcester's Ordinance Relative to Excessive and Unreasonable Noise.

The City of WORCESTER
Planning Board

EXTENSION OF TIME – DEFINITIVE SITE PLAN DECISION

30, 35, 42, 44, 47, & 50 Lagrange Street & 47 Oread Street

(MBL 03-001-00001; -00005; 06-028-00001; -0004B; -00014; -00015; -00019)

At a meeting on October 12, 2022, the Worcester Planning Board voted 4-0 to approve an Extension of Time for a previously approved Definitive Site Plan, dated July 30, 2021 and last revised May 3, 2022, prepared by Bohler for Worcester Lagrange MM, LLC. The applicant previously received approval to demolish a portion of the existing site improvements, renovate the existing buildings into +/-63 dwelling units and +/-5, 108 SF of commercial space, construct +/-85 parking spaces and conduct associated site work. The property is located within a BG-6.0 (Business, General) zoning district and within a Commercial Corridors Overlay District (CCOD-D) (PB-2022-057).

The Extension of Time was granted for a period of 2 years, extending the Definitive Site Plan Approval through September 8, 2024, with the original conditions of approval:

Prior to the release of the decision, issuance of a building permit, or commencement of site work (whichever occurs first):

1. Provide one (1) copy of revised site plans (1 full-sized, stamped and signed original), a complete architectural plan set, and a stormwater report and checklist, and a PDF file of each of the same, to the Division of Planning & Regulatory Services reflecting the following, as applicable:
   a. Modify the parking aisle width to 24 ft for all portions of the aisle that are adjacent to 90 degree parking spaces and convert up to 25% of the spaces to compact parking, or obtain relief from the applicable parking dimensional requirements.
   b. Reflect access easements on plan and provide this office with details on the shared access agreements, as applicable (e.g. - parcel MBL 03-001-0001A and, if applicable parcel MBL 06-028-00006).
   c. Revise the zoning analysis table:
      i. Provide maximum parking calculation for 63 proposed units with commercial floor area included.
      ii. Provide required and proposed building height.
      iii. For each building, provide total floor area; ground coverage area, number and size of dwelling units (by number of bedrooms).
   d. Label EV ready spaces.
   e. Label the curb cut width on 42 Lagrange Street.
   f. Reflect curb cuts and driveways on those parcels from which the subject property will have access.
   g. Clarify the location of the proposed handrail near top of the sloped walkway between Buildings 1 and 3; the present location appears to block pedestrian access to the plaza with seating.

h. Provide details for stockade fence (trash enclosure), ramp with handrails, bike rack, and seat wall with top and bottom elevations and/or height labeled.

i. Provide a driveway detail and update plans to show sidewalks continuing at elevation across driveway curbcuts.

j. Revise trash enclosure detail to reflect solid stockade style fencing.

k. Provide a stabilized construction entrance to the southern portion of the site from LaGrange St.

l. Reflect the location of any soil stockpiles.

m. Clearly reflect a silt fence with compost sock around perimeter of site will be provided.

n. Reflect any existing/proposed lighting along access drive from Lagrange Street and similarly to the north of Lagrange, clarify how the pedestrian pathways will be illuminated.

o. Resurface the southwesterly driveway a minimum of 20 ft from the Lagrange Street right-of-way.

Landscaping

p. Consider replacing proposed trees with shade trees along walkway between Buildings 1 & 3, and providing additional fencing or landscape screening adjacent to 15-space lot to minimize glare from vehicle headlights onto neighboring property MBL 06-028-00017.

Prior to Issuance of a certificate of occupancy:

2. A registered Professional Engineer, currently licensed to practice within the Commonwealth of Massachusetts, shall provide a written certification that the stormwater system has been constructed in substantial compliance with the approved plans and that the infrastructure functions as designed. One (1) original of said certification, and a .pdf of the same, shall be provided to each the Department of Inspectional Services, Department of Public Works & Parks, and the Division of Planning & Regulatory Services.

Prior to and continuing during all construction activities:

3. All erosion and sediment control measures shall be installed prior to the commencement of other construction activities, and shall be maintained throughout construction by the applicant to the satisfaction of the Commissioner of Inspectional Services.

4. All tree and stump removal shall be in accordance with the Asian Longhorned Beetle program requirements and all new tree and shrub plantings shall be of an Asian Longhorned Beetle and Emerald Ash Borer resistant species.

5. All work shall conform to the City of Worcester's Zoning Ordinance, Planning Board decision and conditions of approval, and to the standards contained in the City of Worcester, Department of Public Works & Parks, Engineering Division, Construction Management Section, STANDARD SPECIFICATIONS & DETAILS, most recent edition.

Perpetual:

6. Retain and hold an access easements with abutting parcel MBL 03-001-0001A to provide for fire access through the adjacent parking lot.

7. Fixtures shall be dark-sky compliant and/or shielded to minimize spillover and be of a warmer temperature (3,000K or less); decorative lighting elements excluded.

8. All parking spaces shall be striped in accordance with the plans and accessible spaces placarded as required by the Architectural Access Board. Compact spaces shall be striped or placarded accordingly.

9. Drive aisles, landscaped setback areas and required parking spaces shall not be used for snow storage; once designated snow storage areas reach capacity or interfere with visibility, snow shall be trucked off-site.
10. Provided that the project is constructed and operated in substantial accordance with final revised plans, including architectural renderings, calculations, and operation and maintenance plans and schedules, on file with the City of Worcester and in accordance with all applicable governmental codes.

Authorized Signature,

DATE 10/13/22

Michelle M. Smith, *Assistant Chief Development Officer*
on behalf of the Worcester Planning Board

REMINDERS

Time Limitations: Approval under this article shall become invalid unless the work or action authorized by it shall commence before May 15, 2022 and thereafter shall proceed in good faith continuously to completion so far as is reasonably practicable under the circumstances. Per Article V, Section 3F "Site Plan Review" of the City of Worcester Zoning Ordinance.

Landscaping Requirements: Required landscaping shall be maintained in a healthy growing condition, free of refuse and debris, and any plantings that do not survive shall be replaced in kind by the applicant or the property owner within a reasonable period of time. All plant materials and fencing shall be arranged and maintained so as not to obscure the vision of traffic. There shall be no parking of vehicles or snow storage in areas used for screening and buffering. Per Article V, Section 5, C. iv of the City of Worcester Zoning Ordinance.

Construction Noise: No person shall operate any powered construction equipment or build, erect construct, demolish, alter, repair, excavate or engage in hoisting, grading, site work, including tree and brush removal, dredging or pneumatic hammering, or deliver construction equipment and/or supplies to the site on any building, road, tower, parking lot, machine, pipe, sewer, sidewalk, or any other construction project, except between the hours of 7:00 a.m. and 9:00 p m. on weekdays and d Saturday, and between the hours of 9:00 a.m. and 7:00 p.m. on Sundays....Per Chapter 9 Section 1A (e) (9) of the City of Worcester's Ordinance Relative to Excessive and Unreasonable Noise.

PROPOSED SITE PLAN DOCUMENTS

FOR

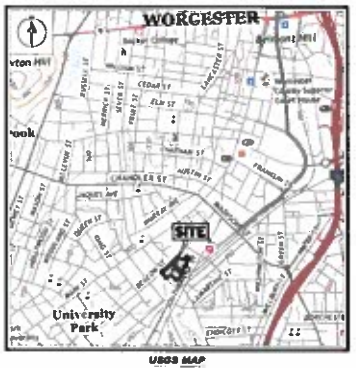
WORCESTER LAGRANGE MM, LLC

PROPOSED

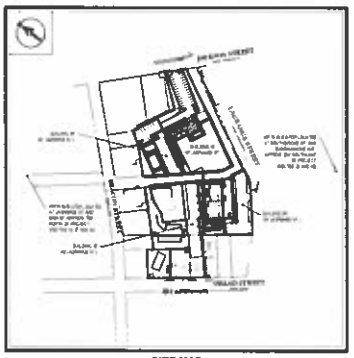
LAGRANGE MILL LOFTS

LOCATION OF SITE:

30-50 LAGRANGE STREET AND 47 OREAD STREET, CITY OF WORCESTER
WORCESTER COUNTY, MASSACHUSETTS
MAP #3, LOTS #1 & 5 & MAP #6, LOTS #1, 4B, 14, 15 & 19



USGS MAP



SITE MAP

DRAWING SHEET INDEX

PREPARED BY

BOHLER

BOHLER

REVISIONS

811

PRELIMINARY

PROPOSED SITE PLAN DOCUMENTS

FOR

WORCESTER LAGRANGE MM, LLC

PROPOSED LAGRANGE MILL LOFTS

30-50 LAGRANGE STREET & 47 OREAD STREET CITY OF WORCESTER WORCESTER COUNTY MASSACHUSETTS

BOHLER

COVER SHEET

C-101

GENERAL NOTES

GENERAL GRADING & UTILITY PLAN NOTES

GENERAL DEMOLITION NOTES

ADA INSTRUCTIONS TO CONTRACTOR:

TYPICAL ABBREVIATIONS

TYPICAL LEGEND

REFER TO OVERALL SITE PLAN FOR ZONING ANALYSIS TABLE AND LAND USE / ZONING INFORMATION & NOTES

REFER TO SOIL EROSION CONTROL NOTES & DETAILS SHEET FOR TYPICAL EROSION NOTES AND DETAILS

BOHLER

REVISIONS

811

PRELIMINARY

PROPOSED SITE PLAN DOCUMENTS

FOR

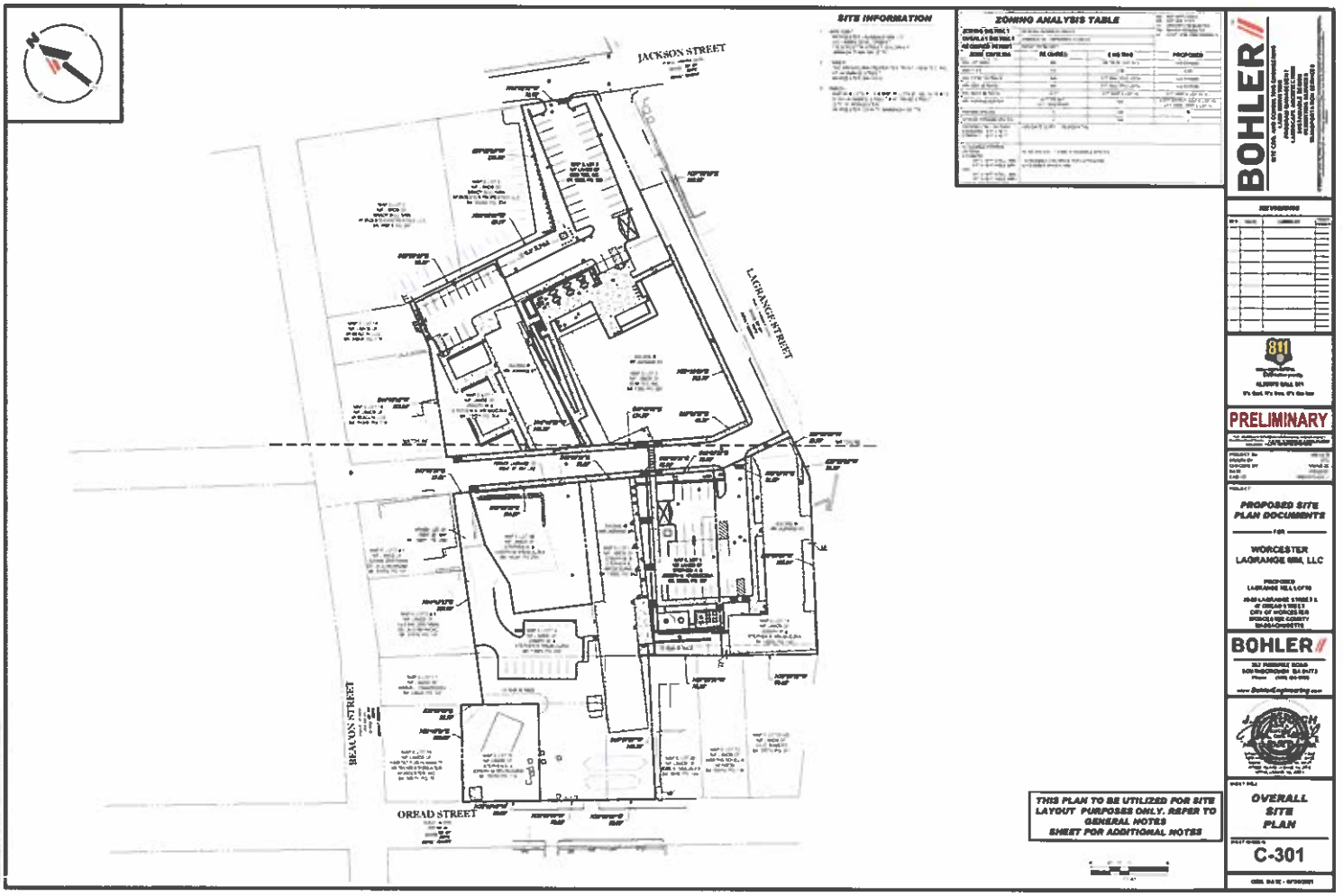
WORCESTER LAGRANGE MM, LLC

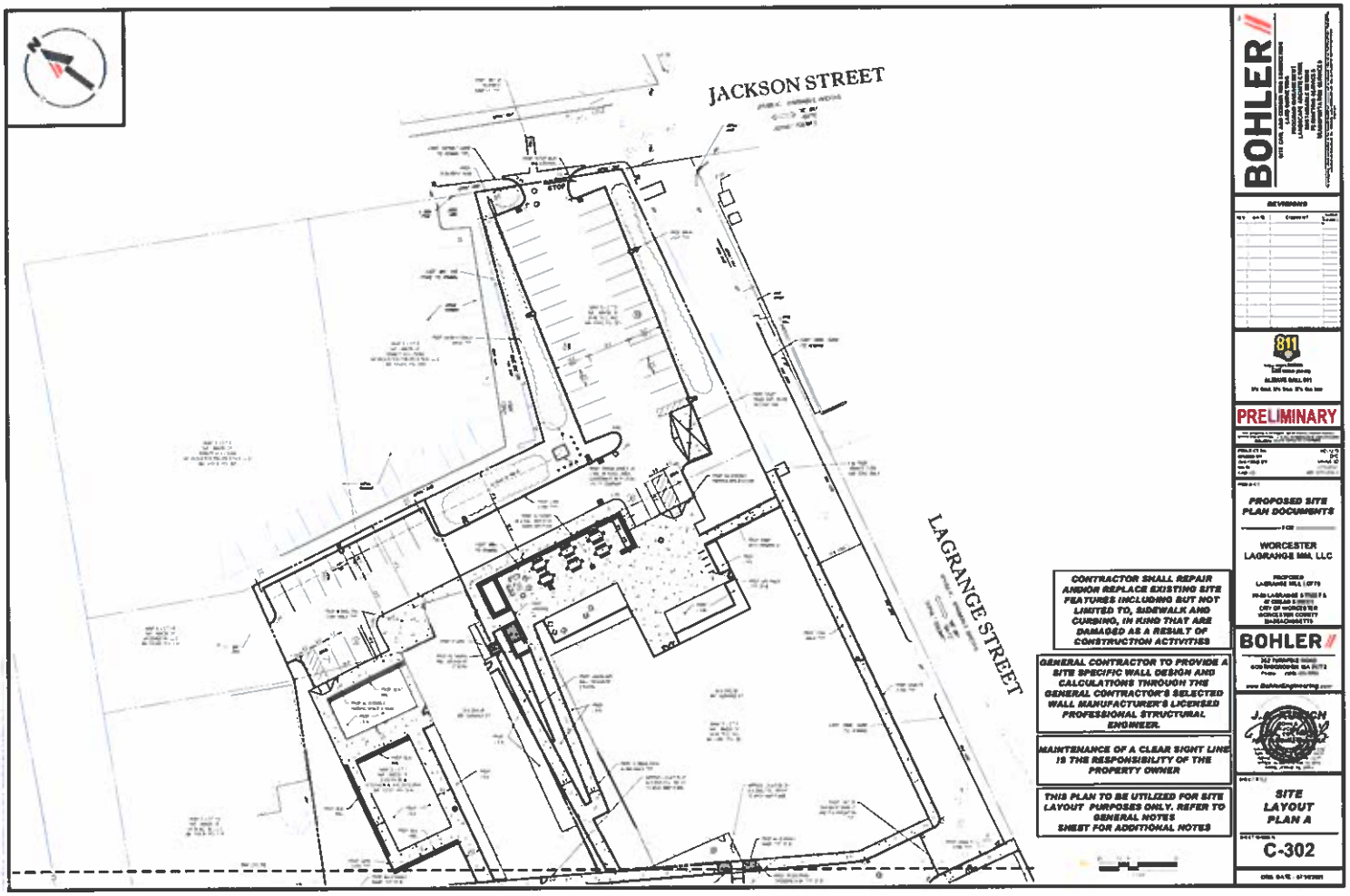
BOHLER

www.BohlerEngineering.com

GENERAL NOTES SHEET

C-102


SITE INFORMATION
ZONING ANALYSIS TABLE
JACKSON STREET
LAGRANGE STREET
BEACON STREET
OREAD STREET
THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES
BOHLER
PRELIMINARY
PROPOSED SITE PLAN DOCUMENTS
WORCESTER LAGRANGE 6M, LLC
OVERALL SITE PLAN
C-301



CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING SITE FEATURES INCLUDING BUT NOT LIMITED TO, SIDEWALK AND CURBING, IN KIND THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES

GENERAL CONTRACTOR TO PROVIDE A SITE SPECIFIC WALL DESIGN AND CALCULATIONS THROUGH THE GENERAL CONTRACTOR'S SELECTED WALL MANUFACTURER'S LICENSED PROFESSIONAL STRUCTURAL ENGINEER.

MAINTENANCE OF A CLEAR SIGHT LINE IS THE RESPONSIBILITY OF THE PROPERTY OWNER

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

BOHLER

REVISIONS

811

PRELIMINARY

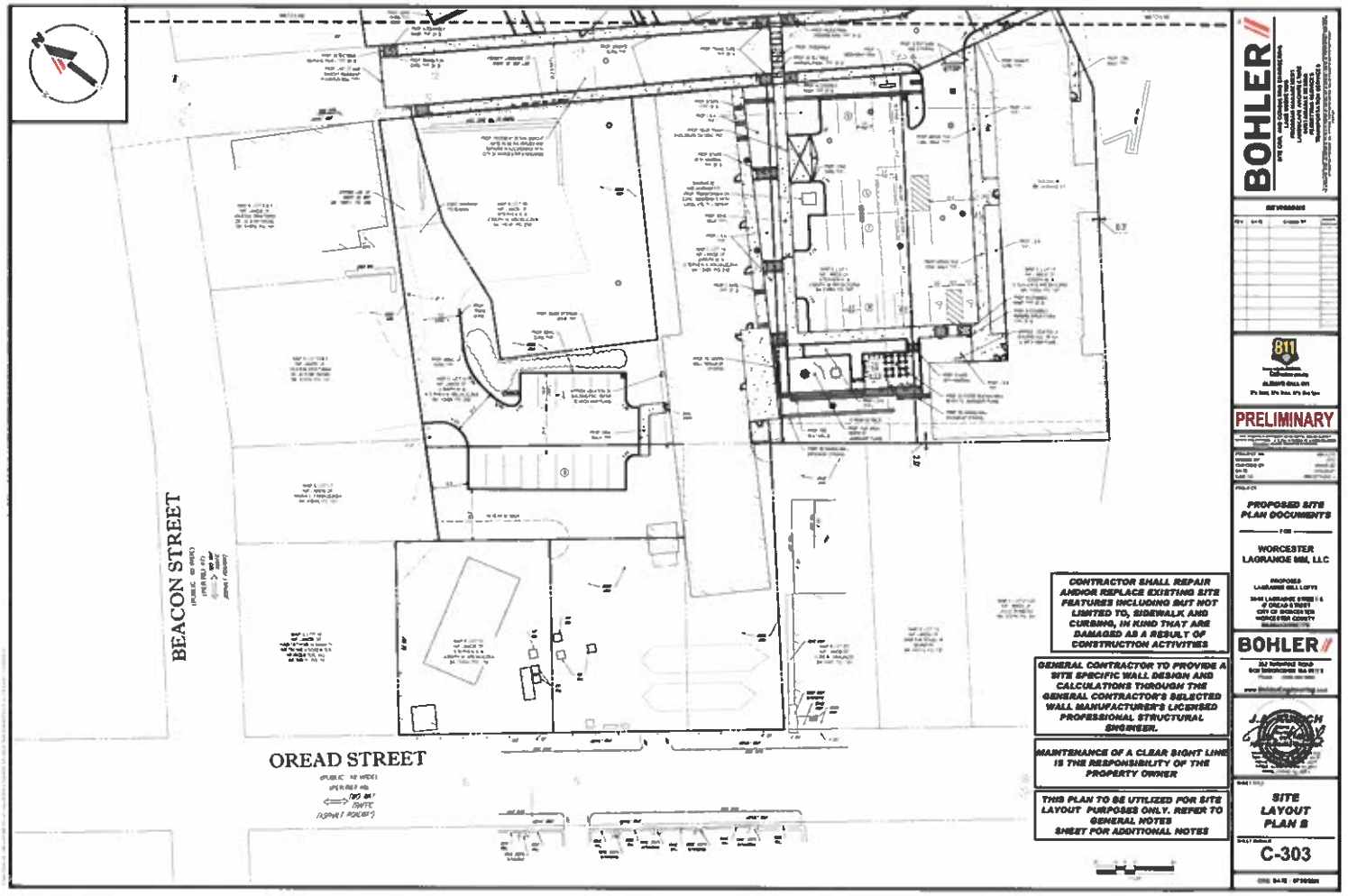
PROPOSED SITE PLAN DOCUMENTS

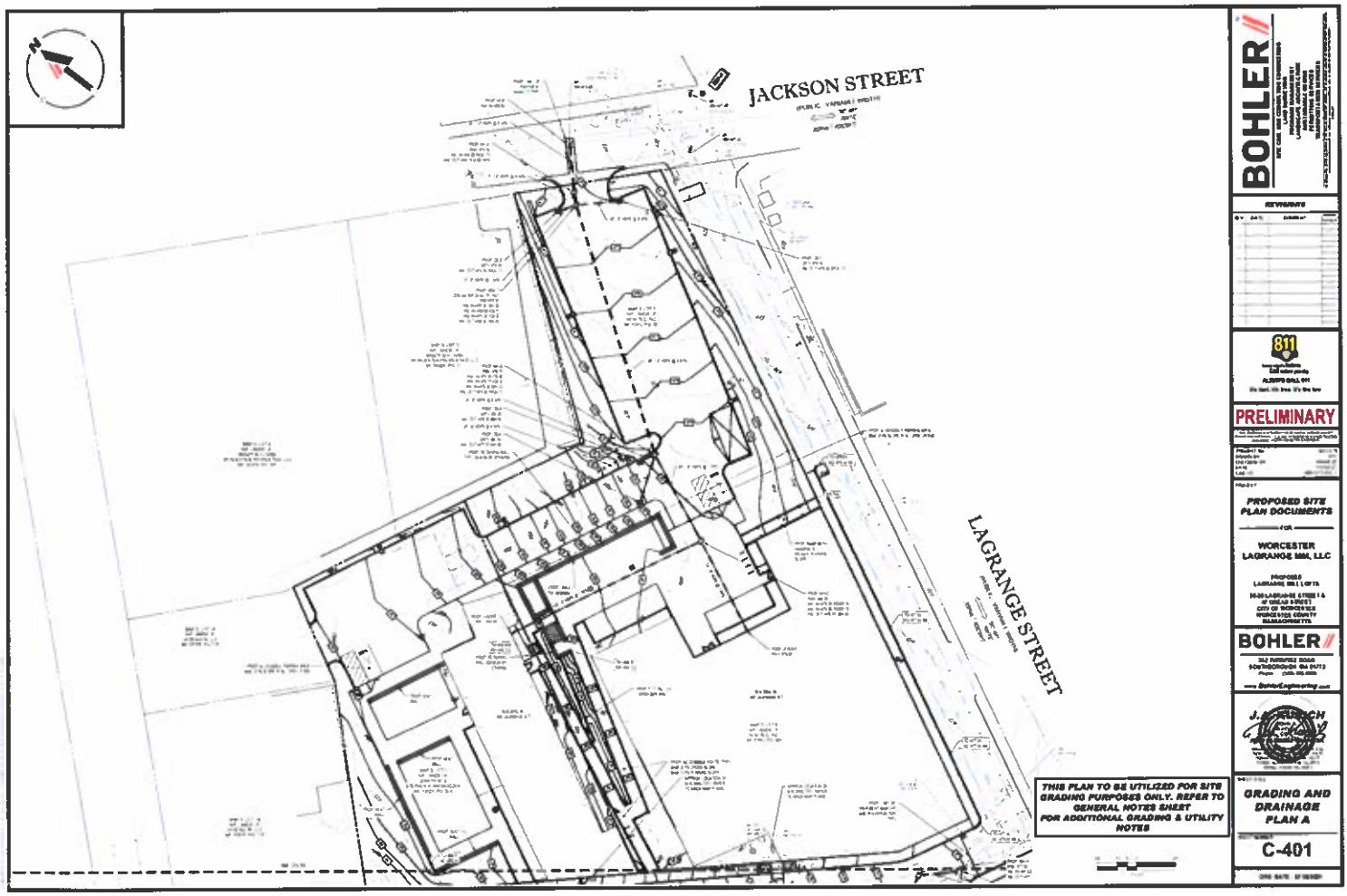
WORCESTER
LAGRANGE MM, LLC

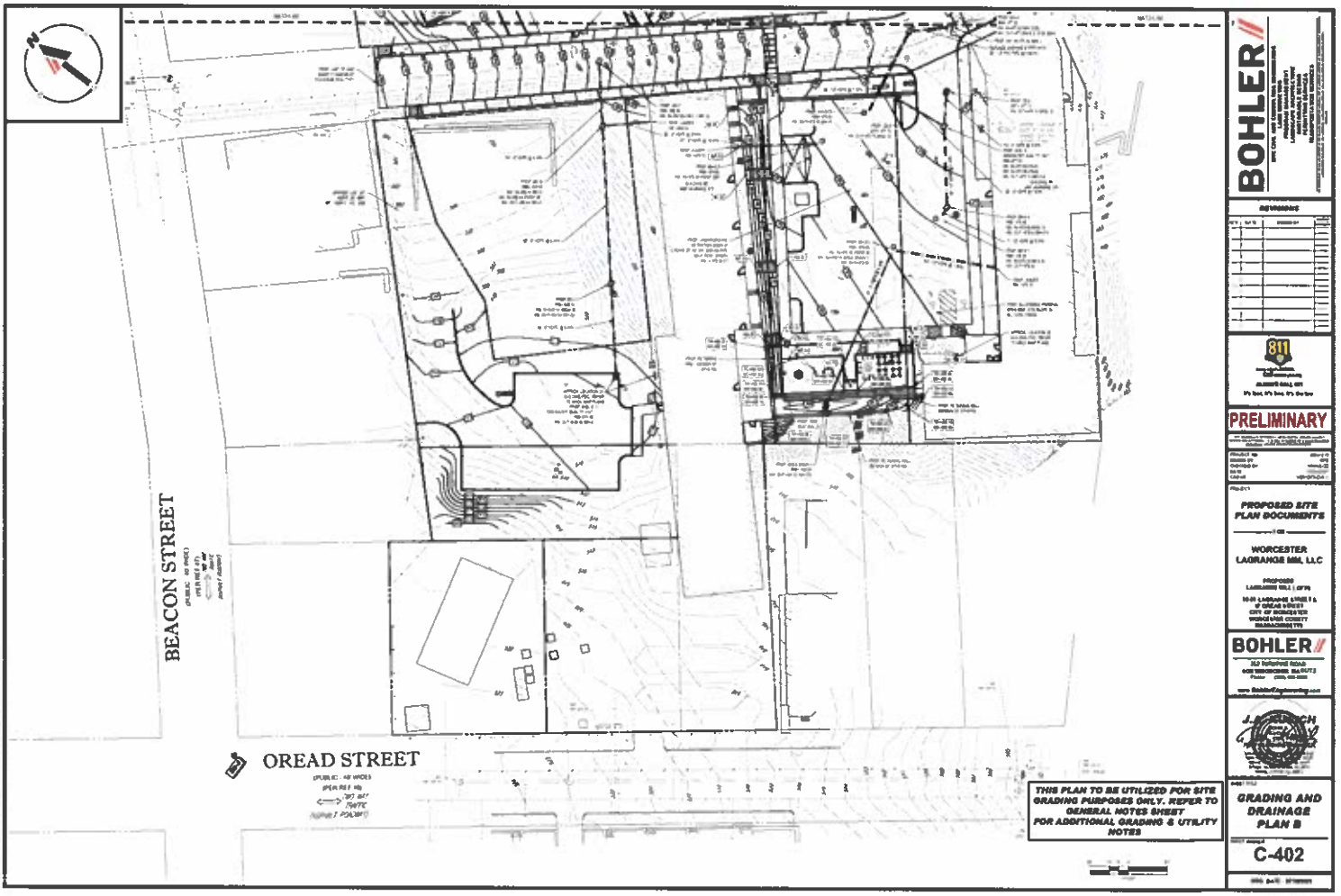
BOHLER

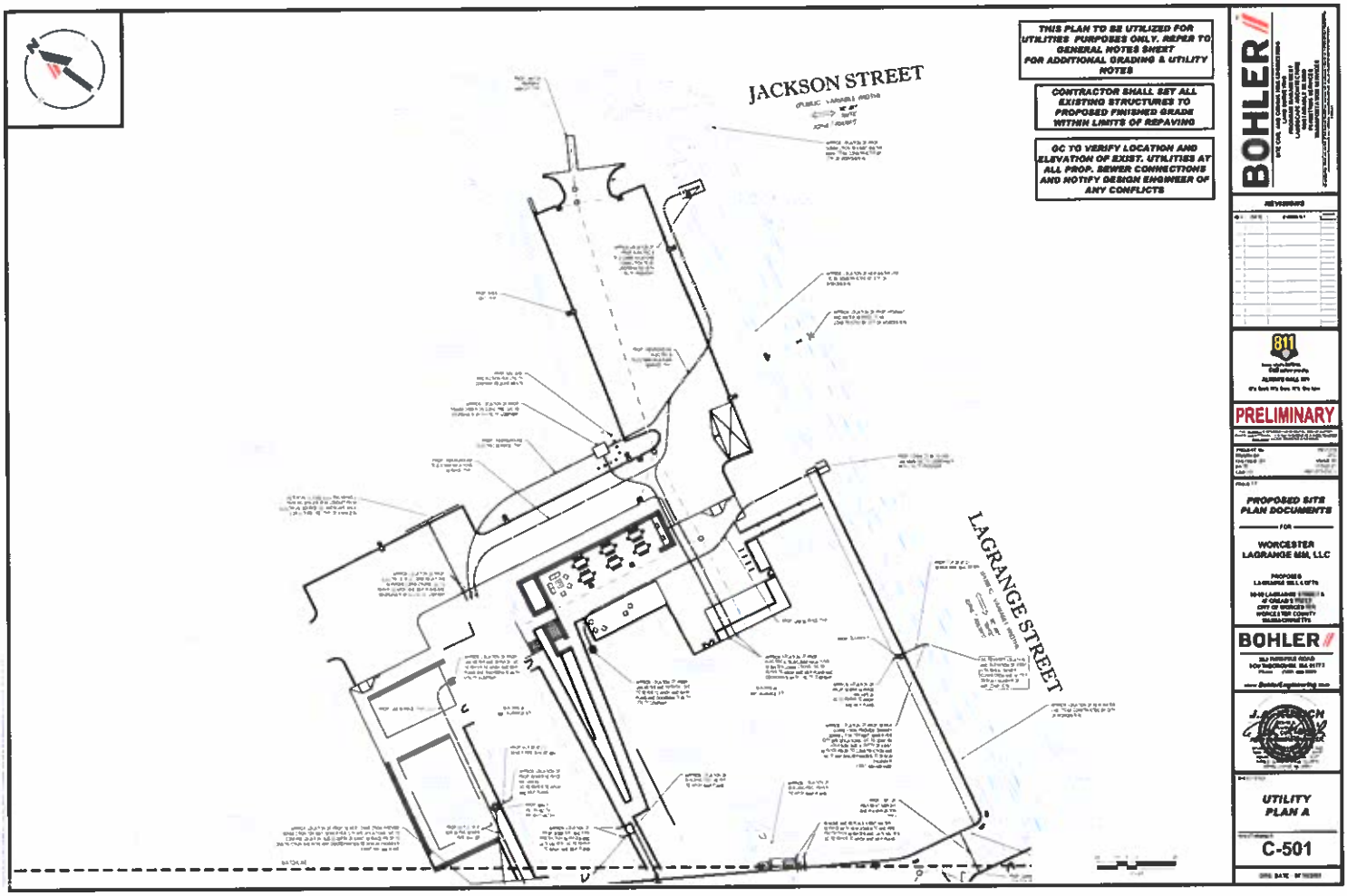
SITE LAYOUT PLAN A

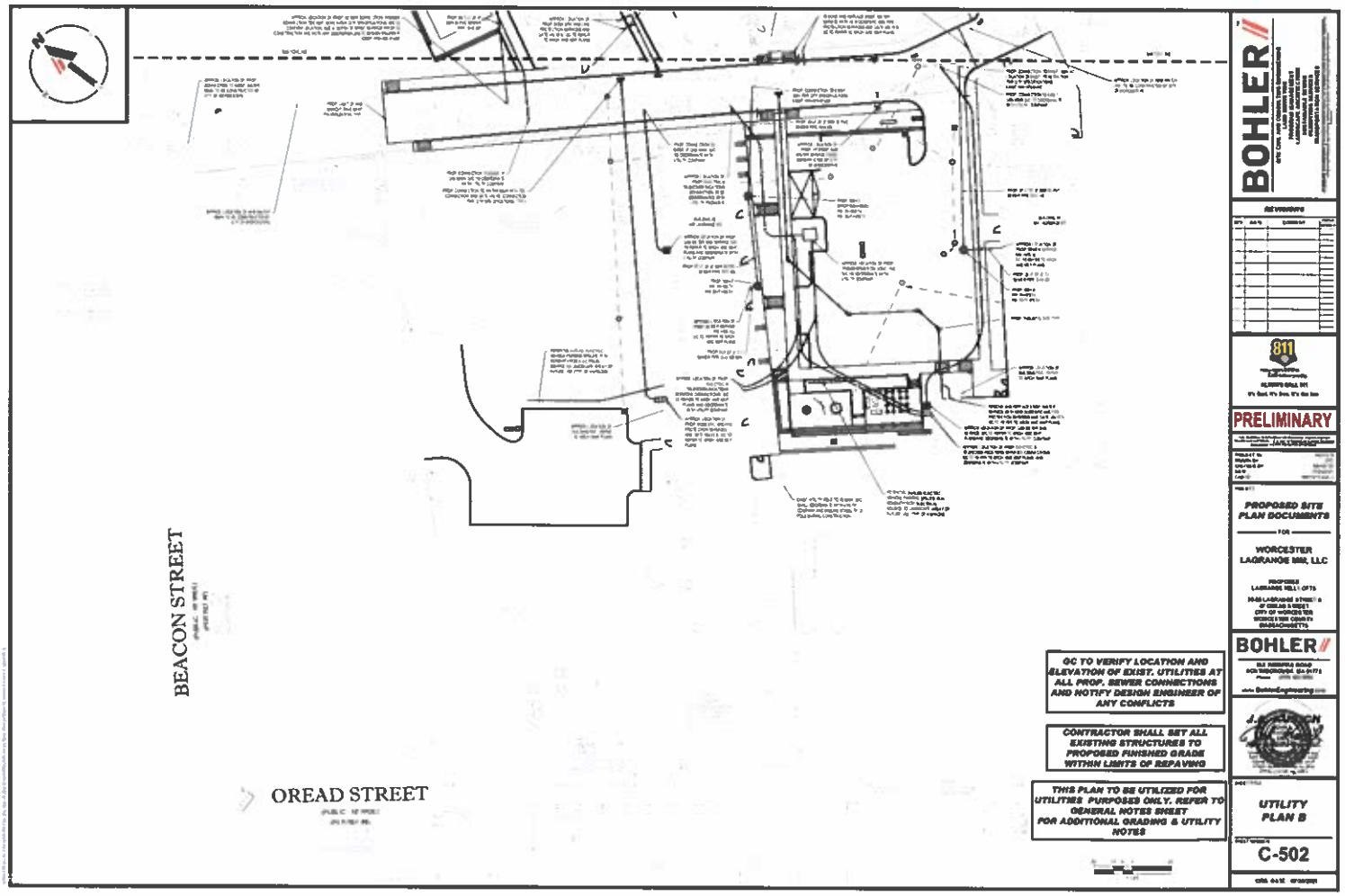
C-302

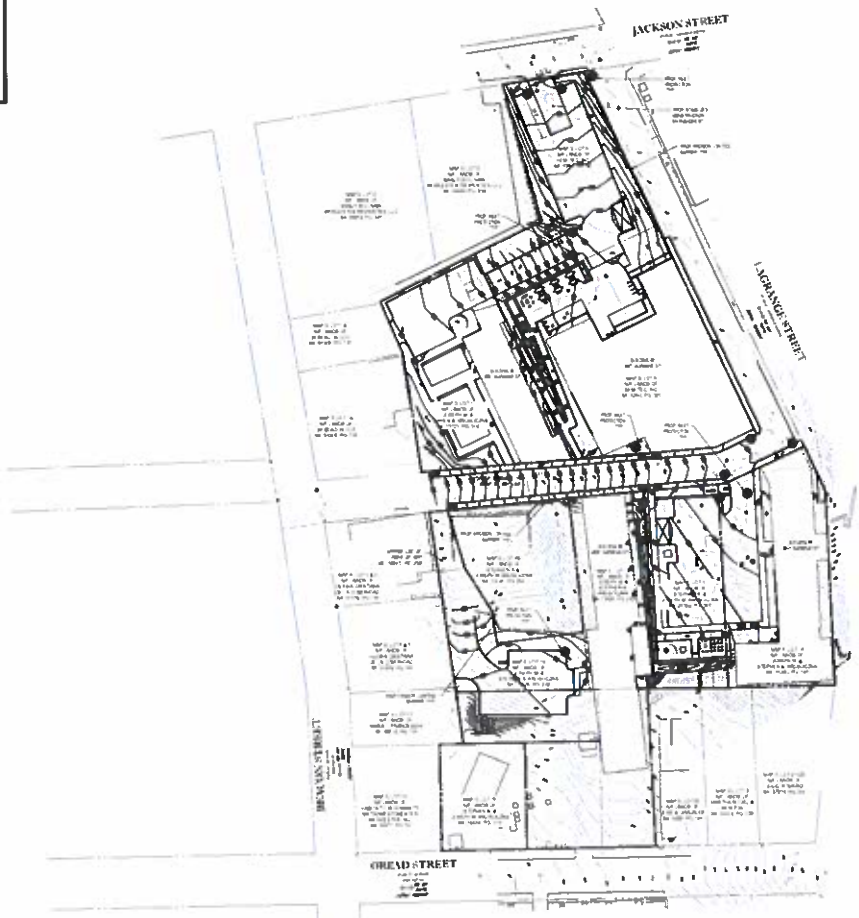

BEACON STREET
OREAD STREET
CONTRACTOR SHALL REPAIR AND/OR REPLACE EXISTING SITE FEATURES INCLUDING BUT NOT LIMITED TO, SIDEWALK AND CURBING, IN KIND THAT ARE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES
GENERAL CONTRACTOR TO PROVIDE A SITE SPECIFIC WALL DESIGN AND CALCULATIONS THROUGH THE GENERAL CONTRACTOR'S SELECTED WALL MANUFACTURER'S LICENSED PROFESSIONAL STRUCTURAL ENGINEER.
MAINTENANCE OF A CLEAR SIGHT LINE IS THE RESPONSIBILITY OF THE PROPERTY OWNER
THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES
BOHLER
811
PRELIMINARY
PROPOSED SITE PLAN DOCUMENTS
WORCESTER LAGRANGE MM, LLC
BOHLER
SITE LAYOUT PLAN B
C-303


JACKSON STREET
LAGRANGE STREET
THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES
BOHLER
811
PRELIMINARY
PROPOSED SITE PLAN DOCUMENTS
WORCESTER LAGRANGE MM, LLC
BOHLER
GRADING AND DRAINAGE PLAN A
C-401


BEACON STREET
OREAD STREET
THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES
BOHLER
PRELIMINARY
PROPOSED SITE PLAN DOCUMENTS
WORCESTER LAGRANGE MM, LLC
BOHLER
GRADING AND DRAINAGE PLAN B
C-402


THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES
CONTRACTOR SHALL SET ALL EXISTING STRUCTURES TO PROPOSED FINISHED GRADE WITHIN LIMITS OF REPAVING
QC TO VERIFY LOCATION AND ELEVATION OF EXIST. UTILITIES AT ALL PROP. SEWER CONNECTIONS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS
JACKSON STREET
LAGRANGE STREET
BOHLER
811
PRELIMINARY
PROPOSED SITE PLAN DOCUMENTS
FOR
WORCESTER LAGRANGE MM, LLC
BOHLER
UTILITY PLAN A
C-501


BEACON STREET
OREAD STREET
GC TO VERIFY LOCATION AND ELEVATION OF EXIST. UTILITIES AT ALL PROP. SEWER CONNECTIONS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS
CONTRACTOR SHALL SET ALL EXISTING STRUCTURES TO PROPOSED FINISHED GRADE WITHIN LIMITS OF REPAVING
THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL GRADING & UTILITY NOTES
BOHLER
811
PRELIMINARY
PROPOSED SITE PLAN DOCUMENTS
FOR
WORCESTER LAGRANGE MM, LLC
BOHLER
UTILITY PLAN B
C-502



THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

BOHLER

REVISIONS

PRELIMINARY

PROPOSED SITE PLAN DOCUMENTS

WORCESTER
LAGRANGE MM, LLC

BOHLER

SOIL EROSION & SEDIMENT CONTROL PLAN

C-601

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH DISTURBANCE AND SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED.

2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION AND SHALL ARRANGE FOR A PRE-CONSTRUCTION MEETING WITH THE LOCAL CONSERVATION COMMISSION AND ENGINEER.

3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND AFTER EACH RAINFALL EVENT. ANY DAMAGED OR INEFFECTIVE MEASURES SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

4. SILT FENCE SHALL BE INSTALLED ALONG THE DOWNGRADIENT LIMIT OF WORK AND AT THE TOE OF ALL SLOPES AS SHOWN ON THE PLANS. SILT FENCE SHALL BE KEPT A MINIMUM OF 10 FEET FROM THE EDGE OF WETLANDS.

5. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF FINAL GRADING. TEMPORARY SEEDING SHALL CONSIST OF ANNUAL RYEGRASS AT A RATE OF 40 LBS/ACRE.

6. PERMANENT SEEDING SHALL CONSIST OF A MIXTURE OF CREEPING RED FESCUE, KENTUCKY BLUEGRASS, AND PERENNIAL RYEGRASS AT A RATE OF 100 LBS/ACRE.

7. MULCH SHALL BE APPLIED TO ALL SEEDED AREAS WITHIN 24 HOURS OF SEEDING AT A RATE OF 2 TONS/ACRE.

8. ALL CATCH BASINS AND DRAINAGE STRUCTURES SHALL BE PROTECTED WITH INLET SEDIMENT CONTROL DEVICES.

9. STOCKPILES SHALL BE LOCATED AWAY FROM WETLANDS AND SURFACE WATERS AND SHALL BE SURROUNDED BY SILT FENCE.

10. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED AFTER PERMANENT STABILIZATION IS ACHIEVED.

11. THE CONTRACTOR SHALL MAINTAIN A STABILIZED CONSTRUCTION ENTRANCE AT ALL POINTS OF ACCESS TO THE SITE.

12. DUST CONTROL SHALL BE PROVIDED BY WATERING AS NECESSARY DURING CONSTRUCTION.

13. ALL WASTE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.

14. THE CONTRACTOR SHALL KEEP A LOG OF ALL INSPECTIONS AND MAINTENANCE PERFORMED ON EROSION CONTROL MEASURES.

15. ALL EXCAVATED MATERIAL SHALL BE USED ON SITE WHERE POSSIBLE. EXCESS MATERIAL SHALL BE DISPOSED OF AT AN APPROVED LOCATION.

16. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES PRIOR TO EXCAVATION.

17. ALL EMPLOYEES SHALL BE TRAINED IN THE PROPER INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES.

18. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED EROSION CONTROL PLAN ON SITE AT ALL TIMES.

19. ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKET.

20. THE CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION TO REMAIN FROM DAMAGE DURING CONSTRUCTION.

21. ALL DISTURBED AREAS SHALL BE GRADED TO PREVENT PONDING OF WATER.

22. THE CONTRACTOR SHALL INSTALL TEMPORARY SEDIMENT TRAPS AS NECESSARY DURING CONSTRUCTION.

23. ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES.

24. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SPILLS OF HAZARDOUS MATERIALS.

25. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED AND ACCEPTED BY THE OWNER.

EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

1. WINTER CONSTRUCTION SHALL BE DEFINED AS ANY CONSTRUCTION ACTIVITY OCCURRING BETWEEN NOVEMBER 15 AND APRIL 15.

2. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING DURING WINTER CONSTRUCTION.

3. TEMPORARY MULCH SHALL BE APPLIED AT A RATE OF 4 TONS/ACRE DURING WINTER CONSTRUCTION.

4. SNOW AND ICE SHALL BE REMOVED FROM SILT FENCE AND OTHER EROSION CONTROL MEASURES AS NECESSARY TO MAINTAIN THEIR EFFECTIVENESS.

5. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AFTER EACH SNOWMELT EVENT.

6. ADDITIONAL SILT FENCE AND HAY BALES SHALL BE INSTALLED AS NECESSARY TO PROTECT WETLANDS AND WATERWAYS.

7. NO DISTURBED AREAS SHALL BE LEFT UNSTABILIZED OVERNIGHT.

8. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EROSION CONTROL MEASURES FOR INSPECTION AND MAINTENANCE.

9. ALL WINTER CONSTRUCTION ACTIVITIES SHALL BE REPORTED TO THE LOCAL CONSERVATION COMMISSION.

10. THE CONTRACTOR SHALL PROVIDE ADDITIONAL STAFF AS NECESSARY TO MAINTAIN EROSION CONTROL MEASURES DURING WINTER CONSTRUCTION.

11. ALL STOCKPILES SHALL BE COVERED WITH TARPS DURING WINTER CONSTRUCTION.

12. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBANCE DURING WINTER CONSTRUCTION.

13. ALL EXCAVATED MATERIAL SHALL BE USED ON SITE WHERE POSSIBLE DURING WINTER CONSTRUCTION.

14. THE CONTRACTOR SHALL KEEP A LOG OF ALL WINTER INSPECTIONS AND MAINTENANCE PERFORMED.

15. ALL WINTER CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES.

16. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SPILLS OF HAZARDOUS MATERIALS DURING WINTER CONSTRUCTION.

17. ALL EMPLOYEES SHALL BE TRAINED IN THE PROPER INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES DURING WINTER CONSTRUCTION.

18. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED EROSION CONTROL PLAN ON SITE AT ALL TIMES DURING WINTER CONSTRUCTION.

19. ALL SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH EROSION CONTROL BLANKET DURING WINTER CONSTRUCTION.

20. THE CONTRACTOR SHALL PROTECT ALL EXISTING VEGETATION TO REMAIN FROM DAMAGE DURING WINTER CONSTRUCTION.

21. ALL DISTURBED AREAS SHALL BE GRADED TO PREVENT PONDING OF WATER DURING WINTER CONSTRUCTION.

22. THE CONTRACTOR SHALL INSTALL TEMPORARY SEDIMENT TRAPS AS NECESSARY DURING WINTER CONSTRUCTION.

23. ALL WINTER CONSTRUCTION ACTIVITIES SHALL COMPLY WITH THE NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES.

24. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SPILLS OF HAZARDOUS MATERIALS DURING WINTER CONSTRUCTION.

25. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL THE SITE IS FULLY STABILIZED AND ACCEPTED BY THE OWNER DURING WINTER CONSTRUCTION.

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH STRAW TUBULES AND SILT FENCE UNLESS OTHERWISE NOTED

EROSION CONTROL BARRIER (ECB) DETAIL

TEMPORARY STOCKPILE DETAIL

STABILIZED CONSTRUCTION EXIT

FILTER SACKS (GRATED INLETS)

CONSTRUCTION SEQUENCE

BOHLER

811 DIG SAFE

PRELIMINARY

PROPOSED SITE PLAN DOCUMENTS

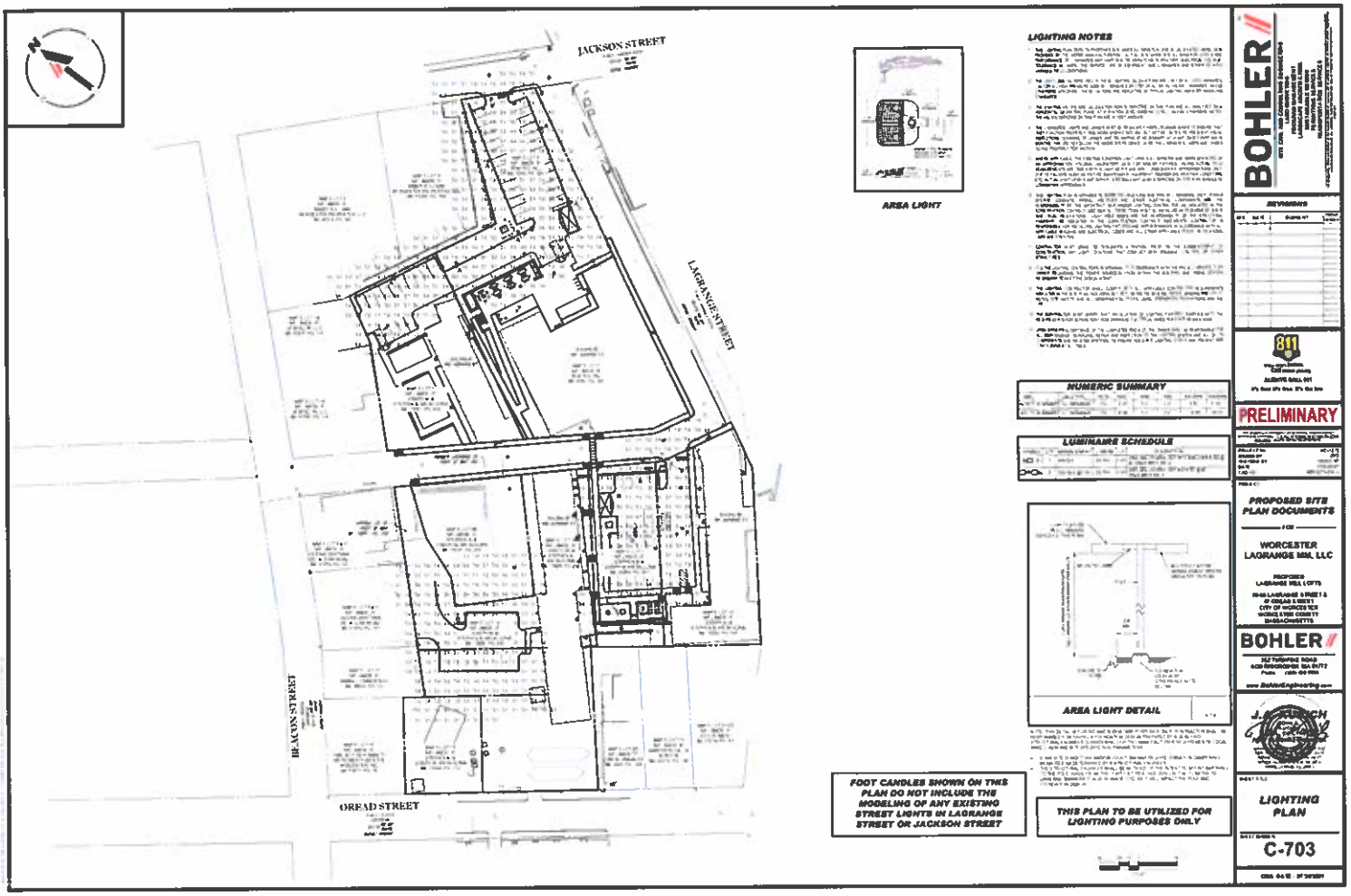
FOR

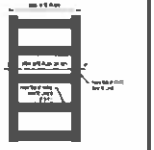
WORCESTER LAGRANGE MM, LLC

BOHLER

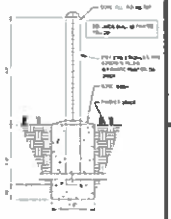
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

C-602


JACKSON STREET
LAGRANGE STREET
BEACON STREET
OREAD STREET
AREA LIGHT
LIGHTING NOTES
NUMERIC SUMMARY
LUMINAIRE SCHEDULE
AREA LIGHT DETAIL
FOOT CANDLES SHOWN ON THIS PLAN DO NOT INCLUDE THE MODELING OF ANY EXISTING STREET LIGHTS IN LAGRANGE STREET OR JACKSON STREET
THIS PLAN TO BE UTILIZED FOR LIGHTING PURPOSES ONLY
BOHLER
PRELIMINARY
PROPOSED SITE PLAN DOCUMENTS
WORCESTER LAGRANGE MM, LLC
LIGHTING PLAN
C-703

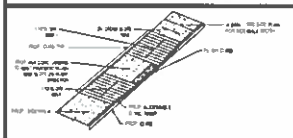


CROSSWALK DETAIL

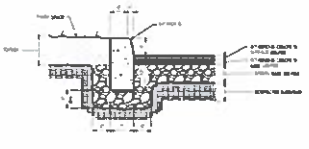


BOLLARD DETAIL

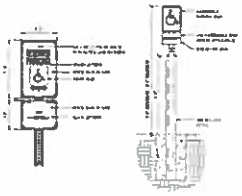
TRANSITION CURB



ACCESSIBLE RAMP

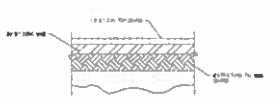


PRECAST CONCRETE CURB

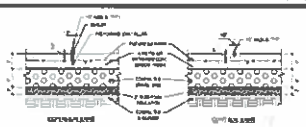


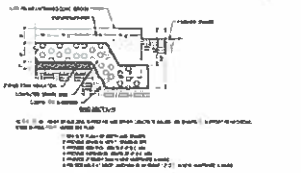
ACCESSIBLE PARKING SIGN
W/ BOLLARD DETAIL

MONUMENT SIGN DETAIL

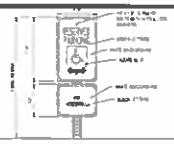


TYPICAL PAVEMENT
SECTION



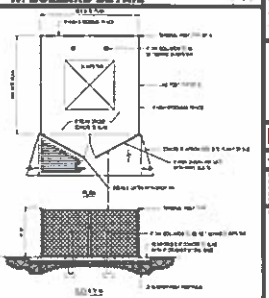


CONC. SIDEWALK DETAILS

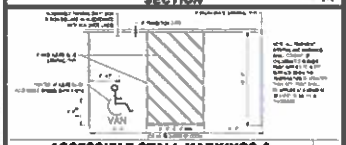


HANDICAP SIGN

'PED. CROSSING'
SIGN



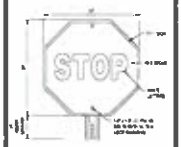
TRASH ENCLOSURE DETAIL



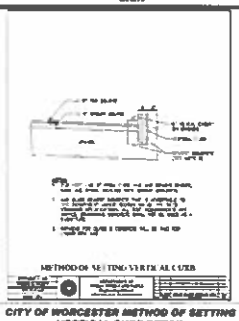
ACCESSIBLE STALL MARKINGS &
PARKING LOT STRIPING DETAIL

ACCESSIBLE PARKING SPACE
PAINTING DETAIL

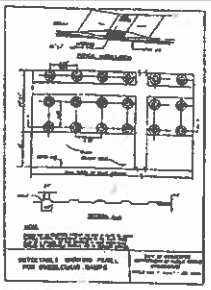
"STOP" BAR DETAIL



STOP SIGN



CITY OF WORCESTER METHOD OF SETTING
VERTICAL CURB DETAIL



CITY OF WORCESTER DETECTABLE WARNING
PANEL DETAIL

BOHLER

PRELIMINARY

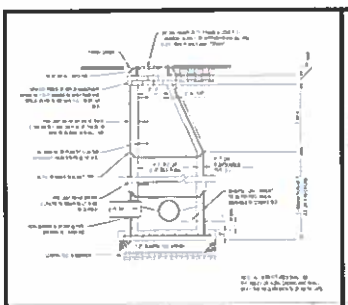
PROPOSED SITE
PLAN DOCUMENTS

WORCESTER
LAGRANGE MM, LLC

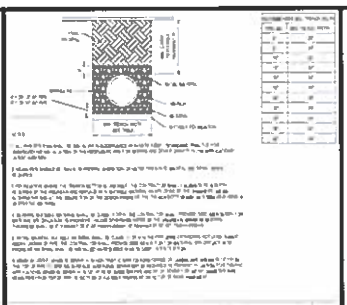
BOHLER

DETAIL
SHEET

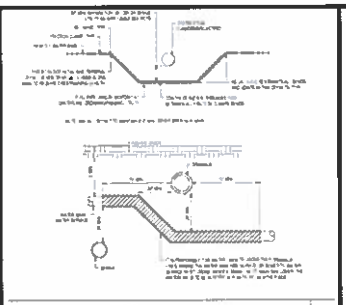
C-901



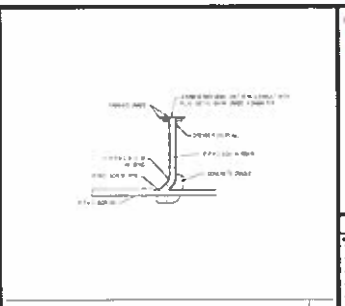
PRECAST CONCRETE STORM DRAIN MANHOLE



HDPE STORM DRAINAGE TRENCH



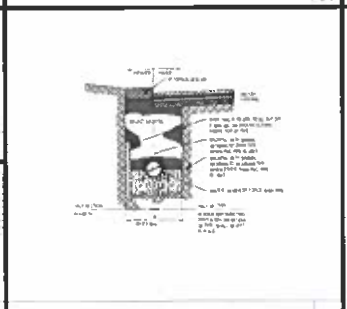
WATER/SEWER CROSSING



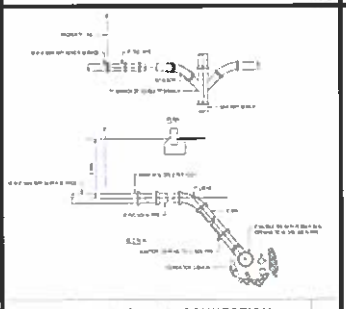
CLEANOUT

GATE VALVE

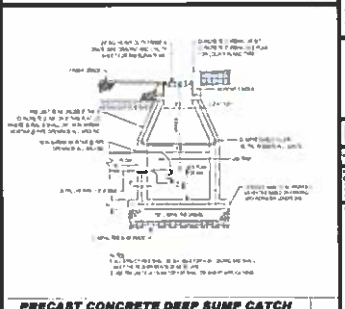
VERTICAL THRUST BLOCKING



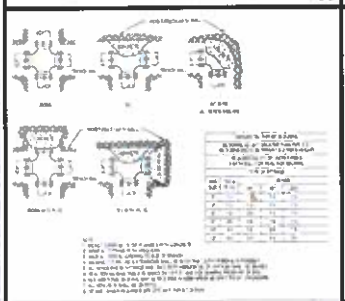
TYPICAL UTILITY TRENCH



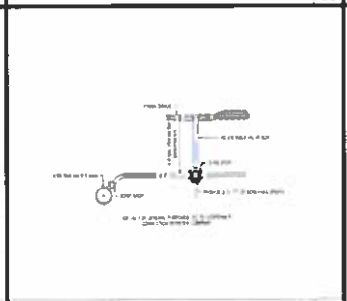
STANDARD (SEWER) CONNECTION



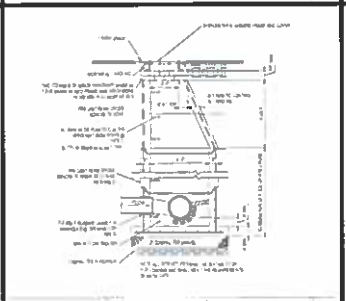
PRECAST CONCRETE DEEP SUMP CATCH BASIN



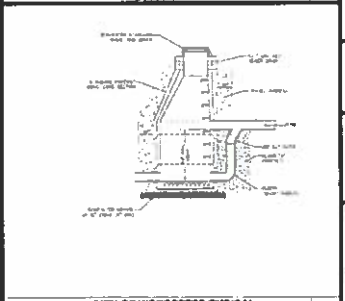
HORIZONTAL THRUST BLOCKING



WATER CONNECTION



TYP. PRECAST CONCRETE SANITARY MANHOLE



CITY OF WORCESTER TYPICAL SEWER DROP MANHOLE

BOHLER

REVISIONS

811

PRELIMINARY

PROPOSED SITE PLAN DOCUMENTS

FOR

WORCESTER LAGRANGE 6M, LLC

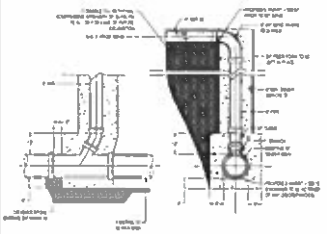
PROPOSED

BOHLER

DETAIL SHEET

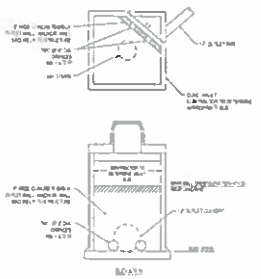
C-902

NOT USED

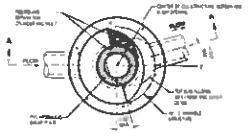


CHIMNEY CONNECTION DETAIL

NOT USED

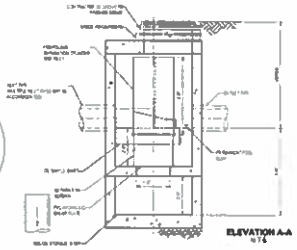


OUTLET CONTROL STRUCTURE (OCS)



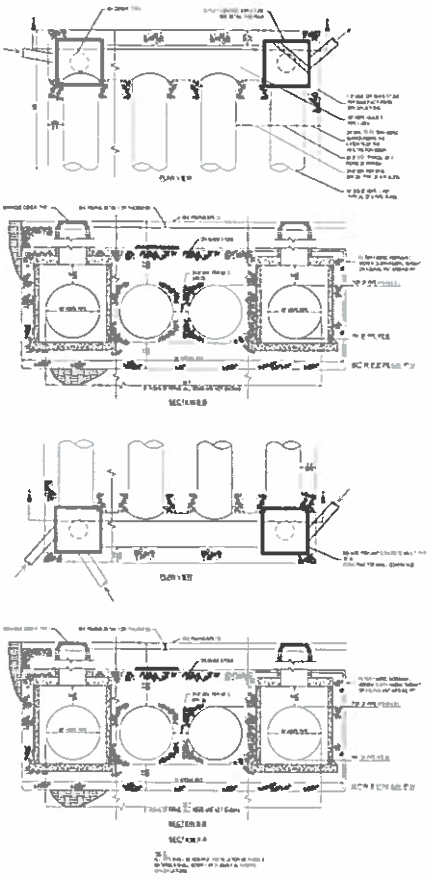
PLAN VIEW B-B
N.T.S.

FRAME AND COVER
N.T.S.



ELEVATION A-A
N.T.S.

CONTECH CDS2015-4-C STANDARD DETAIL



UNDERGROUND DETENTION BASIN

BOHLER

REVISIONS

811

PRELIMINARY

PROPOSED SITE PLAN DOCUMENTS

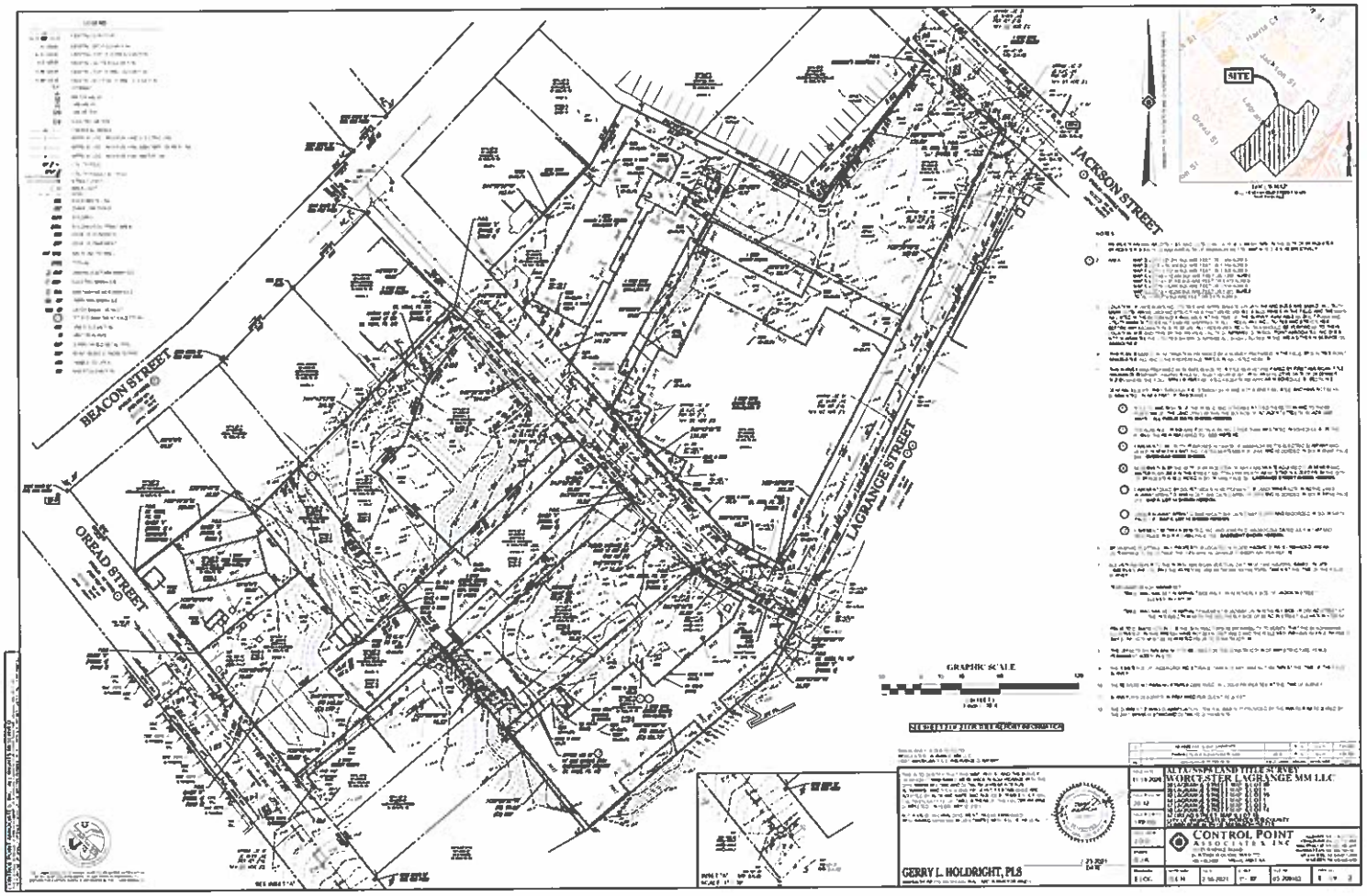
FOR

WORCESTER LAGRANGE MM, LLC

BOHLER

DETAIL SHEET

C-903


BEACON STREET
OREAD STREET
LAGRANGE STREET
JACKSON STREET
SITE
GRAPHIC SCALE
GERRY L. HOLDRIGHT, PLS
CONTROL POINT ASSOCIATES, INC.

GERRY L. HOLDRIGHT, PLS

BUILDING 1 - 35 LAGRANGE				
	TYPE	BED	BATH	GSF
FLOOR 1	1C.2	2	2	1057
	1B	1	1	662
	1C	2	1	872
	1B.1	1	1	760
FLOOR 2	1C.1	2	1	952
	1B	1	1	671
	1C	2	1	884
	1A	STUDIO	1	503
FLOOR 3	1C	2	1	895
	1C.1	2	1	972
	1B	1	1	678
	1A	STUDIO	1	514
FLOOR 4	1C.1	2	1	958
	1B	1	1	679
	1C	2	1	895
	1A	STUDIO	1	514
UNIT TOTAL				12,466
BUILDING TOTAL				18,588

GENERAL NOTES - OVERALL PLANS

A FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES

B TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT. THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS. FOR ENERGY CONSERVATION, EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED

C TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED. WHERE POSSIBLE, THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE. WHERE CONDITIONS CANNOT BE IMPROVED, A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE.

D TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED

E FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE

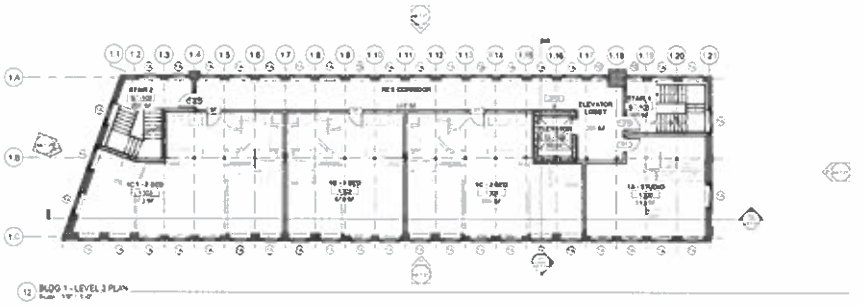
F TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH

KEYNOTE LEGEND - OVERALL PLANS

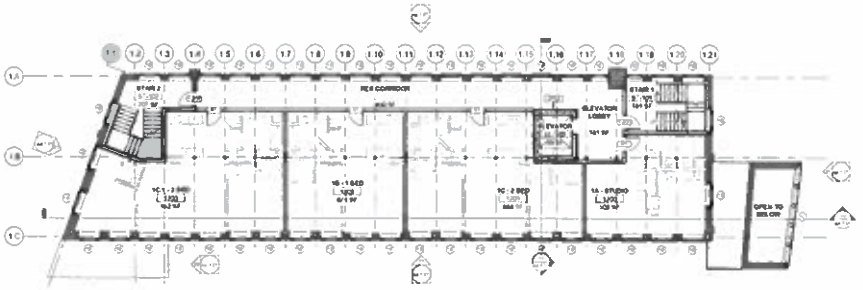
OP03 EXISTING FREIGHT ELEVATOR DOORS TO BE CLEANED, PREPPED AND INSTALLED AT NEW LOCATION

OP06 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL

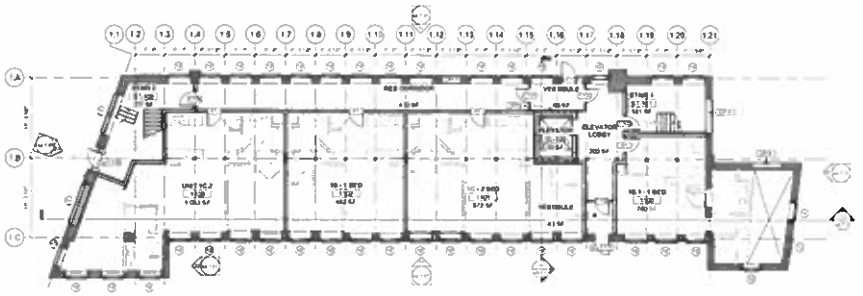
OP17 HISTORIC DOOR REPLICA TO BE PINNED IN CLOSED POSITION. WALL TO BE INSULATED AND FURRED AT INTERIOR



12 BLDG 1 - LEVEL 3 PLAN



11 BLDG 1 - LEVEL 2 PLAN



10 BLDG 1 - LEVEL 1 PLAN

tat
© The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
T 617.889.4400
F 617.884.4432
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated
Key Plan

Project Name
LaGrange Mill Lofts

35 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 1 -
OVERALL
FLOOR PLANS -
LEVELS 1, 2 & 3

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A1.1.01

GENERAL NOTES - OVERALL PLANS

A FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES

B TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT, THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS. FOR ENERGY CONSERVATION, EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED

C TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED. WHERE POSSIBLE, THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE. WHERE CONDITIONS CANNOT BE IMPROVED, A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE.

D TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED

E FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING. NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE

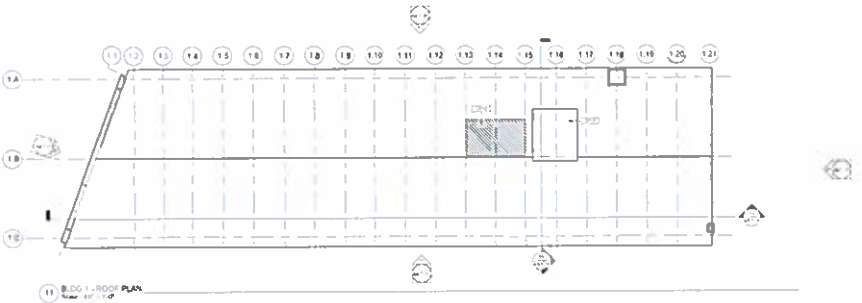
F TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH

KEYNOTE LEGEND - OVERALL PLANS

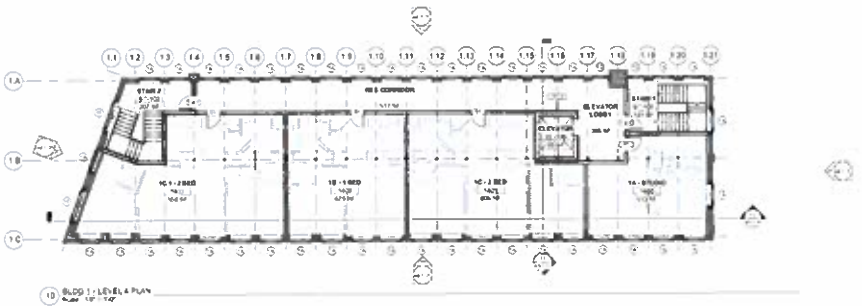
OP03 EXISTING FREIGHT ELEVATOR DOORS TO BE CLEANED, PREPPED AND INSTALLED AT NEW LOCATION

OP07 NEW ELEVATOR OVER-RUN

OP18 PROPOSED LOCATION OF NEW ROOF MECHANICAL EQUIPMENT. TO BE POSITIONED AS TO MITIGATE INTERFERENCE WITH HISTORIC SITE LINES



11 BLDG 1 - ROOF PLAN



10 BLDG 1 - LEVEL 4 PLAN

tat

© The Architectural Team, Inc
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
O 617 889 440
F 617 884 432
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated

Key Plan

Project Name
LaGrange Mill Lofts

35 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 1 - OVERALL FLOOR PLANS - LEVEL 4 & ROOF

Project Number
20094.00

Issue Date
JUNE 30, 2021

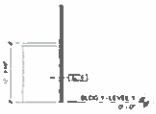
Sheet Number
A1.1.02

GENERAL NOTES - EXTERIOR ELEVATIONS

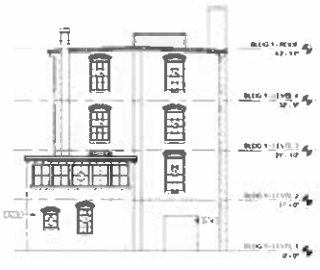
A FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.
B ALL EXISTING ELEMENTS TO REMAIN IN-SITU ARE TO BE PROTECTED FROM DAMAGE.
C. ALL EXISTING MASONRY AND STONE SHALL BE CLEANED. SELECTIVE REPOINTING OF MORTAR JOINTS AND REPAIR OF MASONRY WILL BE PERFORMED AS NECESSARY. ALL MASONRY SCOPE SHALL UTILIZE METHODS AND PRODUCTS APPROVED BY THE NPS
D ALL EXISTING WINDOWS ARE TO BE REPLACED WITH NEW ALUMINUM WINDOWS WITH CUSTOM EXTRUDED MOLDING TO REPLICATE HISTORIC BRICK MOLDS, HEAD TRIM, AND SILL TRIM (WHERE APPLICABLE). WINDOW PANES TO MATCH PROFILE OF HISTORIC WINDOWS TO THE BEST KNOWLEDGE POSSIBLE
E ALL EXISTING WOOD CORNICE ELEMENTS (BRACKETS, FASCIA, TRIM BOARD, ETC.) ARE TO BE CLEANED AND REUSED TO THE GREATEST EXTENT POSSIBLE. ALL WOOD SHALL BE SCRAPED OF ALL FRIABLE EXISTING PAINT, SURFACED TO BE PRIMED AND REPAINTED. ELEMENTS WILL BE REPAIRED OR REPLACED UTILIZING CUSTOM PROFILES TO MATCH EXISTING CONDITIONS
F ALL EXISTING BUILT-UP ROOFING SYSTEMS & ASSEMBLIES SHALL BE REPLACED WITH NEW INSULATED TPO ROOF, NEW FLASHING AND SHEET METAL TO REPLACE EXISTING
G. WHERE NOTED, REMOVE EXTERIOR APPLIED PAINT WITH METHODS APPROVED BY THE NPS. IF UNABLE TO ACHIEVE WITHOUT DAMAGING EXISTING MASONRY, AN APPROPRIATE OPAQUE MASONRY SEALER WILL BE USED IN THOSE AREAS THAT HAVE ALREADY BEEN PAINTED

KEYNOTE LEGEND - EXTERIOR ELEVATIONS

EL01 EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED PLANS & ELEVATIONS
EL04 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL. NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS
EL05 REMOVE EXTERIOR APPLIED PAINT - TYPICAL AT ENTIRE GROUND FLOOR
EL06 NEW ALUMINUM GUTTER AND DOWNSPOUTS
EL07 NEW ELEVATOR OVER-RUN



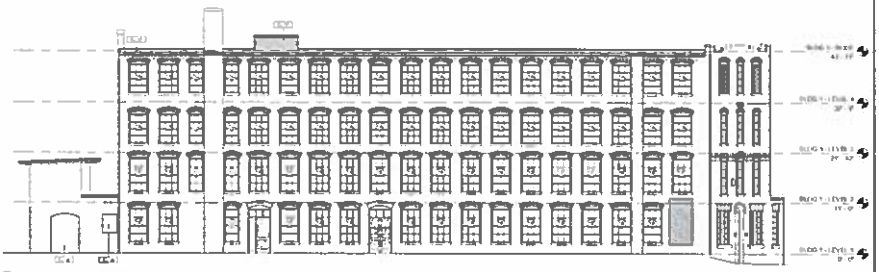
22 BLDG 1 - ALCOVE ELEVATION



21 BLDG 1 - EAST ELEVATION

11 BLDG 1 - SOUTH ELEVATION

20 BLDG 1 - WEST ELEVATION



10 BLDG 1 - NORTH ELEVATION

tat
© The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
P 617.889.4400
F 617.884.4332
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn: EH
Checked: Checker
Scale: As indicated
Key Plan:

Project Name
LaGrange Mill Lofts

35 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 1 - EXTERIOR ELEVATIONS

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A4.1.01

BUILDING 2 - 42 LAGRANGE				
TYPE	BED	BATH	DEN	GSF
2B.1	1	1.5	1	1344
2C.3	2	1.5	-	1417
2B	1	1.5	-	1090
2C.2	2	1.5	1	1453
2C	2	1.5	1	1369
2C	2	1.5	1	1363
2C	2	1.5	1	1369
2C.1	2	2	-	1093
UNIT TOTAL				10,498
COMMERCIAL TENNANT				5,108
BUILDING TOTAL				16,196

GENERAL NOTES - OVERALL PLANS

A FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES

B TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT, THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS FOR ENERGY CONSERVATION, EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED.

C TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED WHERE POSSIBLE, THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE. WHERE CONDITIONS CANNOT BE IMPROVED, A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE.

D TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED

E FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING. NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE.

F TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH

KEYNOTE LEGEND - OVERALL PLANS

OP01 EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED ELEVATIONS

OP02 EXISTING OPENING TO BE CONVERTED TO A DOOR OPENING. REFER TO PROPOSED ELEVATIONS. MASONRY INFILL SURROUNDING DOOR TO MATCH EXISTING AND BE SET BACK FOR 1" EXTERIOR REVEAL

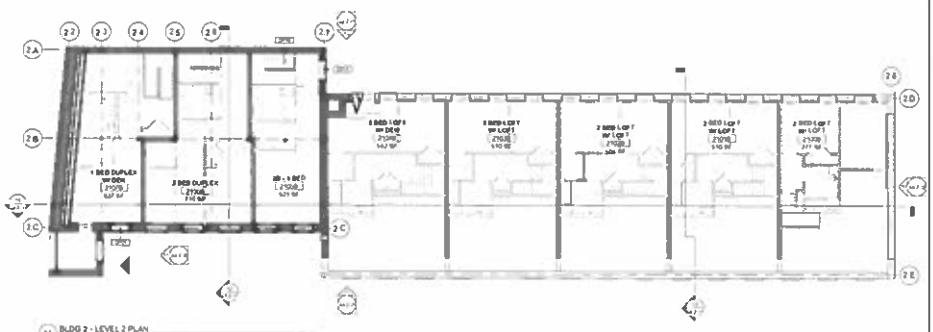
OP06 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL

OP08 NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS

OP09 NEW DOOR TO BE INSTALLED IN EXISTING OPENING. REFER TO DOOR SCHEDULE

OP10 NEW COMPLIANT STAIR IN LOCATION OF EXISTING STAIR

OP11 NEW WALL PANEL SYSTEM IN EXISTING OPENING



11 BLDG 2 - LEVEL 2 PLAN

10 BLDG 2 - LEVEL 1 PLAN

tat
© The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
O 617.889.4400
F 617.884.4312
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn: EH
Checked: Checker
Scale: As indicated

Key Plan

Project Name:
LaGrange Mill Lofts

42 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name:
BLDG 2 - OVERALL FLOOR PLANS - LEVELS 1 & 2

Project Number:
20094.00

Issue Date:
JUNE 30, 2021

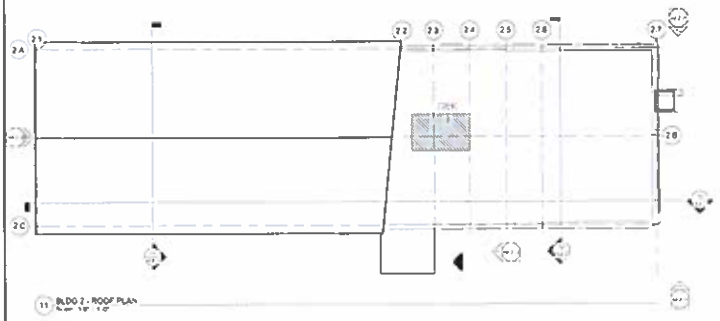
Sheet Number:
A1.2.01

GENERAL NOTES - OVERALL PLANS

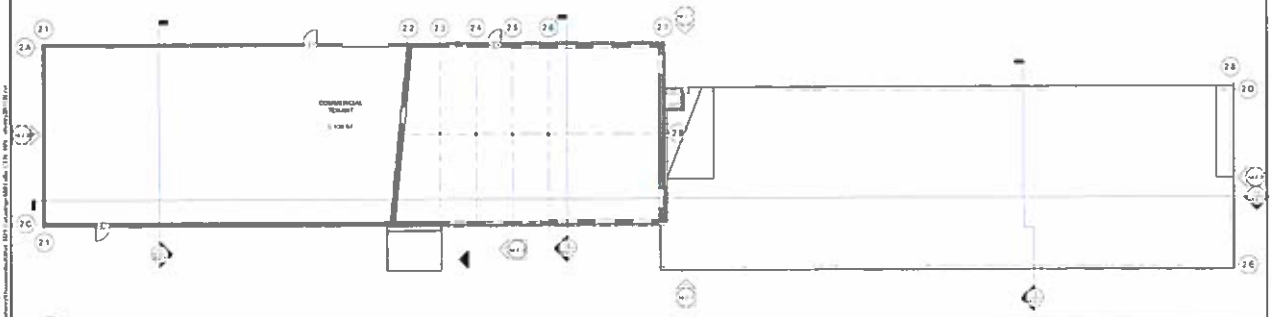
A. FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES
B. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT, THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS. FOR ENERGY CONSERVATION, EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED.
C. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED WHERE POSSIBLE. THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE WHERE CONDITIONS CANNOT BE IMPROVED. A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE
D. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED
E. FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING. NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE
F. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH

KEYNOTE LEGEND - OVERALL PLANS

OP18 PROPOSED LOCATION OF NEW ROOF MECHANICAL EQUIPMENT. TO BE POSITIONED AS TO MITIGATE INTERFERENCE WITH HISTORIC SITE LINES



11 BLDG 2 - ROOF PLAN



10 BLDG 2 - LEVEL 3 PLAN

tat
© The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
T 617 889 4404
F 617 884 4321
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated

Key Plan

Project Name
LaGrange Mill Lofts

42 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 2 - OVERALL FLOOR PLANS - LEVEL 3 & ROOF

Project Number
20094.00

Issue Date
JUNE 30, 2021

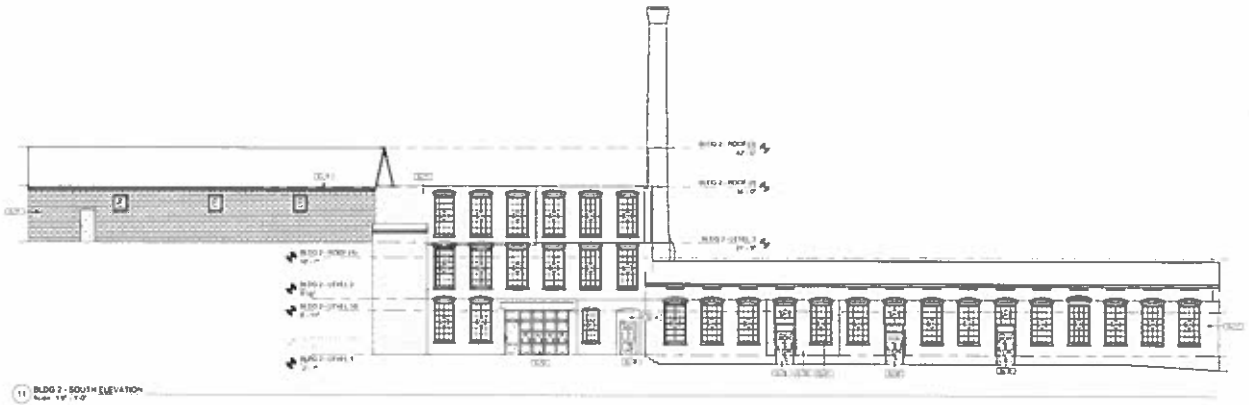
Sheet Number
A1.2.02

GENERAL NOTES - EXTERIOR ELEVATIONS

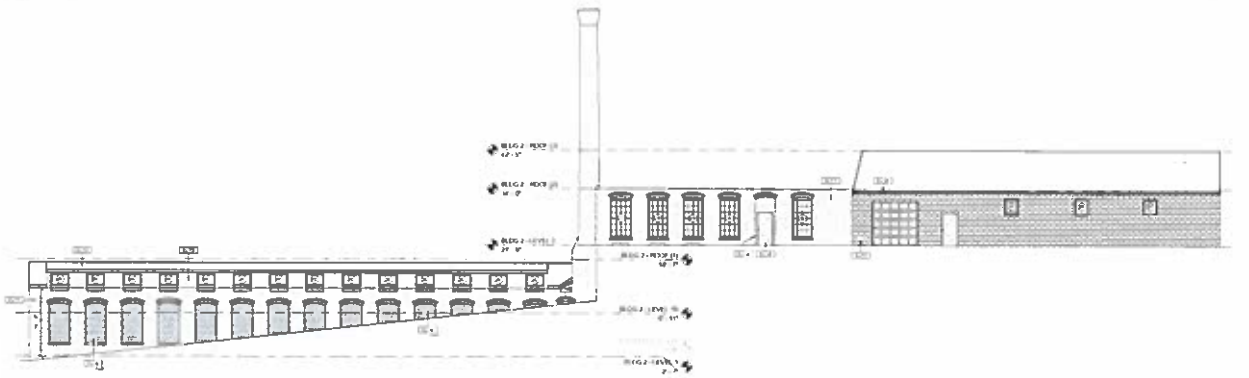
A FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.
B ALL EXISTING ELEMENTS TO REMAIN IN-SITU ARE TO BE PROTECTED FROM DAMAGE.
C ALL EXISTING MASONRY AND STONE SHALL BE CLEANED. SELECTIVE REPOINTING OF MORTAR JOINTS AND REPAIR OF MASONRY WILL BE PERFORMED AS NECESSARY. ALL MASONRY SCOPE SHALL UTILIZE METHODS AND PRODUCTS APPROVED BY THE NPS.
D ALL EXISTING WINDOES ARE TO BE REPLACED WITH NEW ALUMINUM WINDOWS WITH CUSTOM EXTRUDED MOLDING TO REPLICATE HISTORIC BRICK MOLDS, HEAD TRIM, AND SILL TRIM (WHERE APPLICABLE). WINDOW PANES TO MATCH PROFILE OF HISTORIC WINDOWS TO THE BEST KNOWLEDGE POSSIBLE.
E ALL EXISTING WOOD CORNICE ELEMENTS (BRACKETS, FASCIA, TRIM BOARD, ETC.) ARE TO BE CLEANED AND REUSED TO THE GREATEST EXTENT POSSIBLE. ALL WOOD SHALL BE SCRAPED OF ALL FRIABLE EXISTING PAINT, SURFACED TO BE PRIMED AND REPAINTED. ELEMENTS WILL BE REPAIRED OR REPLACED UTILIZING CUSTOM PROFILES TO MATCH EXISTING CONDITIONS.
F ALL EXISTING BUILT-UP ROOFING SYSTEMS & ASSEMBLIES SHALL BE REPLACED WITH NEW INSULATED TPO ROOF, NEW FLASHING AND SHEET METAL TO REPLACE EXISTING.
G WHERE NOTED, REMOVE EXTERIOR APPLIED PAINT WITH METHODS APPROVED BY THE NPS. IF UNABLE TO ACHIEVE WITHOUT DAMAGING EXISTING MASONRY, AN APPROPRIATE OPAQUE MASONRY SEALER WILL BE USED IN THOSE AREAS THAT HAVE ALREADY BEEN PAINTED.

KEYNOTE LEGEND - EXTERIOR ELEVATIONS

EL01 EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED PLANS & ELEVATIONS.
EL02 EXISTING OPENING TO BE CONVERTED TO A DOOR OPENING. REFER TO PROPOSED PLANS & ELEVATIONS.
EL04 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL. NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS.
EL08 NEW ALUMINUM GUTTER AND DOWNSPOUTS.
EL08 NEW DOOR TO BE INSTALLED IN EXISTING OPENING. REFER TO DOOR SCHEDULE.
EL09 NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS.
EL10 NEW CONTINUOUS SHED ROOF WITH CLERESTORY WINDOWS.
EL11 EXTERIOR PAINT TO REMAIN. NEW OPAQUE MASONRY SEALER TO BE APPLIED AFTER MASONRY AND MORTOR RESTORATION HAS BEEN COMPLETED.
EL12 NEW WALL PANEL SYSTEM IN EXISTING OPENING.
EL13 NEW EXTERIOR MASONRY ADDITION. NEW MASONRY TO MATCH EXISTING ADJACENT CONDITIONS. NEW STANDING SEAM ROOF TO BE SET LOWER THAN EXISTING ROOF LINE.



11 BLDG 2 - SOUTH ELEVATION



10 BLDG 2 - NORTH ELEVATION

tat
The Architectural Team Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
O 617 889 4449
F 617 884 4432
architecturalteam.com

Consultant

Revision:

Architect of Record

Drawn: EH
Checked: Checker
Scale: As indicated
Key Plan:

Project Name
LaGrange Mill Lofts

42 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 2 - EXTERIOR ELEVATIONS

Project Number
20094.00

Issue Date
JUNE 30, 2021

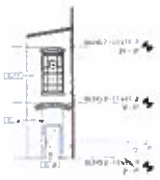
Sheet Number
A4.2.01

GENERAL NOTES - EXTERIOR ELEVATIONS

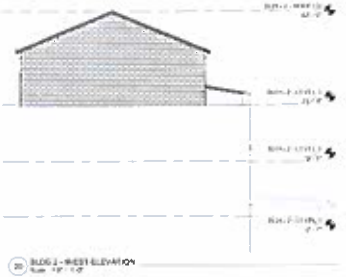
A FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.
B ALL EXISTING ELEMENTS TO REMAIN IN-SITU ARE TO BE PROTECTED FROM DAMAGE.
C ALL EXISTING MASONRY AND STONE SHALL BE CLEANED. SELECTIVE REPOINTING OF MORTAR JOINTS AND REPAIR OF MASONRY WILL BE PERFORMED AS NECESSARY. ALL MASONRY SCOPE SHALL UTILIZE METHODS AND PRODUCTS APPROVED BY THE NPS.
D ALL EXISTING WINDOWS ARE TO BE REPLACED WITH NEW ALUMINUM WINDOWS WITH CUSTOM EXTRUDED MOLDING TO REPLICATE HISTORIC BRICK MOLDS, HEAD TRIM, AND SILL TRIM (WHERE APPLICABLE). WINDOW PANES TO MATCH PROFILE OF HISTORIC WINDOWS TO THE BEST KNOWLEDGE POSSIBLE.
E ALL EXISTING WOOD CORNICE ELEMENTS (BRACKETS, FASCIA, TRIM BOARD, ETC.) ARE TO BE CLEANED AND REUSED TO THE GREATEST EXTENT POSSIBLE. ALL WOOD SHALL BE SCRAPED OF ALL FRIABLE EXISTING PAINT, SURFACED TO BE PRIMED AND REPAINTED. ELEMENTS WILL BE REPAIRED OR REPLACED UTILIZING CUSTOM PROFILES TO MATCH EXISTING CONDITIONS.
F ALL EXISTING BUILT-UP ROOFING SYSTEMS & ASSEMBLIES SHALL BE REPLACED WITH NEW INSULATED TPO ROOF, NEW FLASHING AND SHEET METAL TO REPLACE EXISTING.
G WHERE NOTED, REMOVE EXTERIOR APPLIED PAINT WITH METHODS APPROVED BY THE NPS. IF UNABLE TO ACHIEVE WITHOUT DAMAGING EXISTING MASONRY, AN APPROPRIATE OPAQUE MASONRY SEALER WILL BE USED IN THOSE AREAS THAT HAVE ALREADY BEEN PAINTED.

KEYNOTE LEGEND - EXTERIOR ELEVATIONS

EL01 EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED PLANS & ELEVATIONS.
EL04 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL. NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS.
EL08 NEW DOOR TO BE INSTALLED IN EXISTING OPENING. REFER TO DOOR SCHEDULE.
EL10 NEW CONTINUOUS SHED ROOF WITH CLERESTORY WINDOWS.
EL11 EXTERIOR PAINT TO REMAIN. NEW OPAQUE MASONRY SEALER TO BE APPLIED AFTER MASONRY AND MORTOR RESTORATION HAS BEEN COMPLETED.
EL13 NEW EXTERIOR MASONRY ADDITION. NEW MASONRY TO MATCH EXISTING ADJACENT CONDITIONS. NEW STANDING SEAM ROOF TO BE SET LOWER THAN EXISTING ROOF LINE.



15 BLDG 2 - ALCOVE ELEVATION



20 BLDG 2 - WEST ELEVATION

19 BLDG 2 - EAST ELEVATION

tat
© The Architectural Team, Inc.
50 Commandant's Way, Chelsea Hill
Chelsea, MA 02150
P 617 889 4400
F 617 884 4321
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated
Key Plan

Project Name
LaGrange Mill Lofts

42 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 2 - EXTERIOR ELEVATIONS

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A4.2.02

BUILDING 3 - 47 LAGRANGE					
	TYPE	BED	BATH	DEN	GSF
FLOOR 1	3C.5	2	2	-	1041
	3B	1	1	-	773
	3C.4	2	2	-	1159
	3C.3	2	1	-	975
	3B.2	1	1	-	640
	3B.1	1	1	1	1016
	3C.2	2	1	-	1046
	3C	2	2	-	1011
	3A	STUDIO	1	-	591
	3B	1	1	-	677
	3C	2	2	-	999
	3C.1	2	2	-	1023
FLOOR 2	3C.2	2	1	-	1044
	3C	2	2	-	1018
	3A	STUDIO	1	-	595
	3B	1	1	-	683
	3C	2	2	-	1007
	3C.1	2	2	-	1039
FLOOR 2/3	3D	3	2	-	1545
	3D.1	3	2	-	1539
	3D.1 (B)	3	2	-	1594
	3D (B)	3	2	-	1588
UNIT TOTAL					22,603
BUILDING TOTAL					33,961

GENERAL NOTES - OVERALL PLANS

A FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.

B TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT, THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS. FOR ENERGY CONSERVATION, EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED.

C TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED WHERE POSSIBLE. THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE. WHERE CONDITIONS CANNOT BE IMPROVED, A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE

D TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED.

E FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING. NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE

F TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH.

KEYNOTE LEGEND - OVERALL PLANS

OP01 EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED ELEVATIONS

OP02 EXISTING OPENING TO BE CONVERTED TO A DOOR OPENING. REFER TO PROPOSED ELEVATIONS

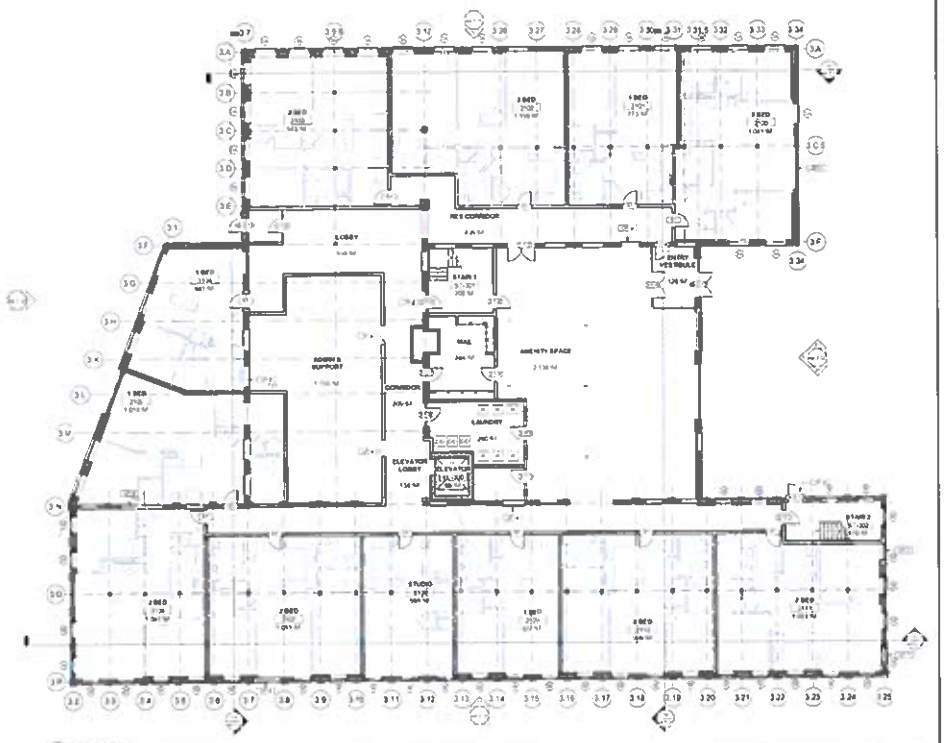
OP03 MASONRY INFILL SURROUNDING DOOR TO MATCH EXISTING AND BE SET BACK FOR 1" EXTERIOR REVEAL

OP04 EXISTING METAL FIRE DOOR TO BE CLEANED, PREPPED AND INSTALLED AT NEW LOCATION

OP05 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL

OP08 NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS.

OP11 NEW WALL PANEL SYSTEM IN EXISTING OPENING



10 BLDG 3 - LEVEL 1 PLAN

tat
The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
T 617 889 4402
F 617 884 432
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated
Key Plan

Project Name
LaGrange Mill Lofts

47 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 3 - OVERALL FLOOR PLAN - LEVEL 1

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A1.3.01

GENERAL NOTES - OVERALL PLANS

A. FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.

B. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT, THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS. FOR ENERGY CONSERVATION, EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED.

C TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED WHERE POSSIBLE. THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE. WHERE CONDITIONS CANNOT BE IMPROVED, A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE

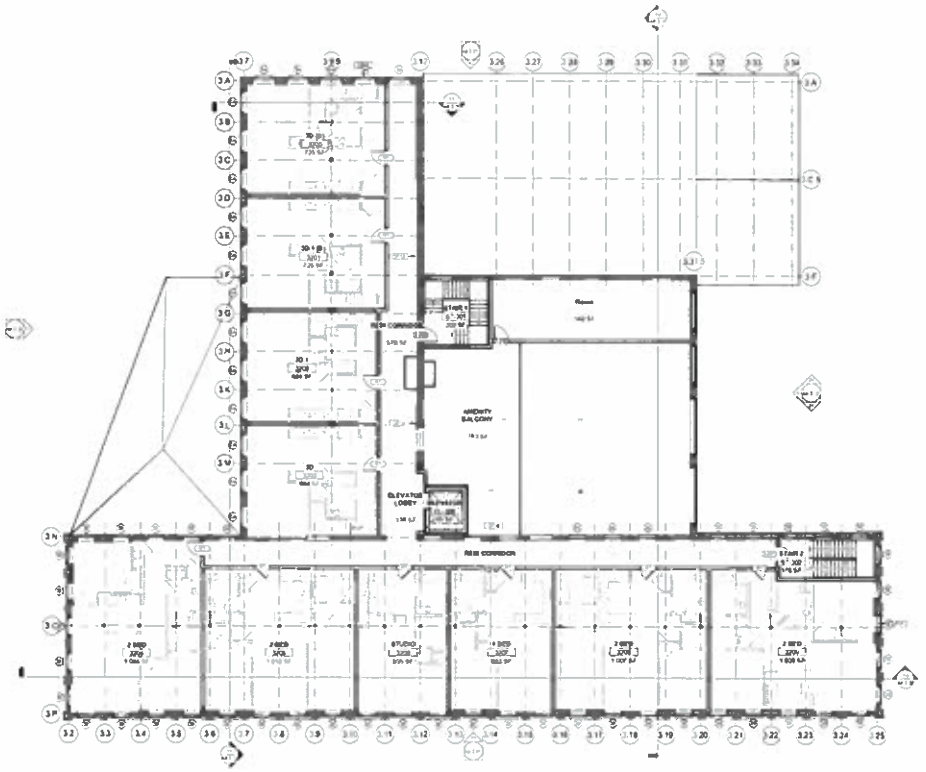
D TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED.

E FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING. NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE

F TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH

KEYNOTE LEGEND - OVERALL PLANS

OP01	EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED ELEVATIONS
OP04	EXISTING METAL FIRE DOOR TO BE CLEANED, PREPPED AND INSTALLED AT NEW LOCATION
OP12	EXISTING VAULT DOOR TO BE CLEANED, PREPPED AND INSTALLED AT NEW LOCATION



10 BLDG 3 - LEVEL 2 PLAN

tat
© The Architectural Team, Inc.
50 Commandants Way at Admiral's Hill
Chelsea MA 02150
O 617 889 440
F 617 884 432
architecturalteam.com

Consultant

Revisions

Architect of Record

Drawn: EH
Checked: Checker
Scale: As indicated
Key Plan:

Project Name
LaGrange Mill Lofts

47 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 3 - OVERALL FLOOR PLAN - LEVEL 2

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A1.3.02

GENERAL NOTES - OVERALL PLANS

A FIELD VERIFY ALL EXISTING CONDITIONS VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS COORDINATE SCOPE OF WORK WITH ALL TRADES

B TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT, THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS FOR ENERGY CONSERVATION. EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED

C TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED WHERE POSSIBLE. THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE. WHERE CONDITIONS CANNOT BE IMPROVED, A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE

D TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED

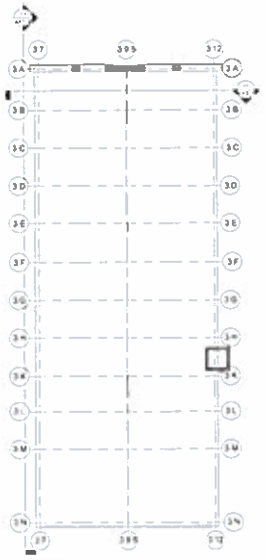
E FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING. NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE.

F TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH

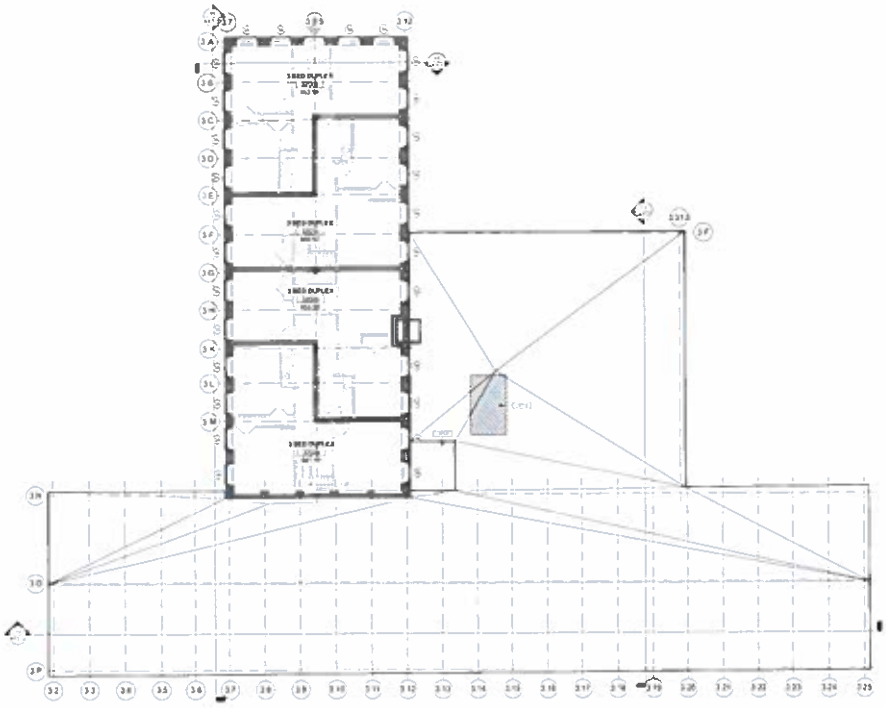
KEYNOTE LEGEND - OVERALL PLANS

OP07 NEW ELEVATOR OVER-RUN

OP18 PROPOSED LOCATION OF NEW ROOF MECHANICAL EQUIPMENT. TO BE POSITIONED AS TO MITIGATE INTERFERENCE WITH HISTORIC SITE LINES



30 BLDG 3 - ROOF PLAN



10 BLDG 3 - LEVEL 3 PLAN

tat
© The Architectural Team, Inc
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
O 617 889 4400
F 617 884 4332
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn BH
Checked Checker
Scale As indicated

Key Plan

Project Name
LaGrange Mill Lofts

47 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 3 - OVERALL FLOOR PLANS - LEVEL 3 & ROOF

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A1.3.03

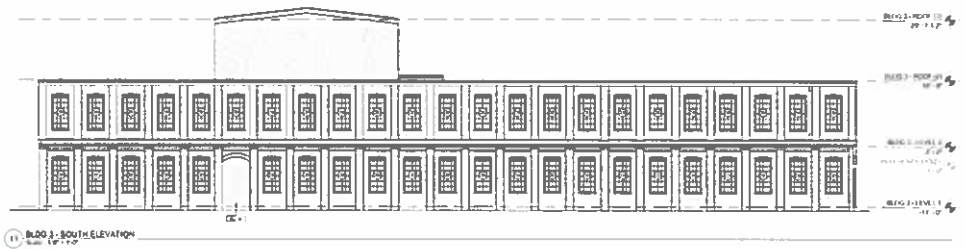
GENERAL NOTES - EXTERIOR ELEVATIONS

A. FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.
B. ALL EXISTING ELEMENTS TO REMAIN IN-SITU ARE TO BE PROTECTED FROM DAMAGE.
C. ALL EXISTING MASONRY AND STONE SHALL BE CLEANED. SELECTIVE REPOINTING OF MORTAR JOINTS AND REPAIR OF MASONRY WILL BE PERFORMED AS NECESSARY. ALL MASONRY SCOPE SHALL UTILIZE METHODS AND PRODUCTS APPROVED BY THE NPS
D. ALL EXISTING WINDOES ARE TO BE REPLACED WITH NEW ALUMINUM WINDOWS WITH CUSTOM EXTRUDED MOLDING TO REPLICATE HISTORIC BRICK MOLDS, HEAD TRIM, AND SILL TRIM (WHERE APPLICABLE). WINDOW PANES TO MATCH PROFILE OF HISTORIC WINDOWS TO THE BEST KNOWLEDGE POSSIBLE
E. ALL EXISTING WOOD CORNICE ELEMENTS (BRACKETS, FASCIA, TRIM BOARD, ETC.) ARE TO BE CLEANED AND REUSED TO THE GREATEST EXTENT POSSIBLE. ALL WOOD SHALL BE SCRAPED OF ALL FRIABLE EXISTING PAINT, SURFACED TO BE PRIMED AND REPAINTED. ELEMENTS WILL BE REPAIRED OR REPLACED UTILIZING CUSTOM PROFILES TO MATCH EXISTING CONDITIONS.
F. ALL EXISTING BUILT-UP ROOFING SYSTEMS & ASSEMBLIES SHALL BE REPLACED WITH NEW INSULATED TPO ROOF. NEW FLASHING AND SHEET METAL TO REPLACE EXISTING.
G. WHERE NOTED, REMOVE EXTERIOR APPLIED PAINT WITH METHODS APPROVED BY THE NPS. IF UNABLE TO ACHIEVE WITHOUT DAMAGING EXISTING MASONRY, AN APPROPRIATE OPAQUE MASONRY SEALER WILL BE USED IN THOSE AREAS THAT HAVE ALREADY BEEN PAINTED

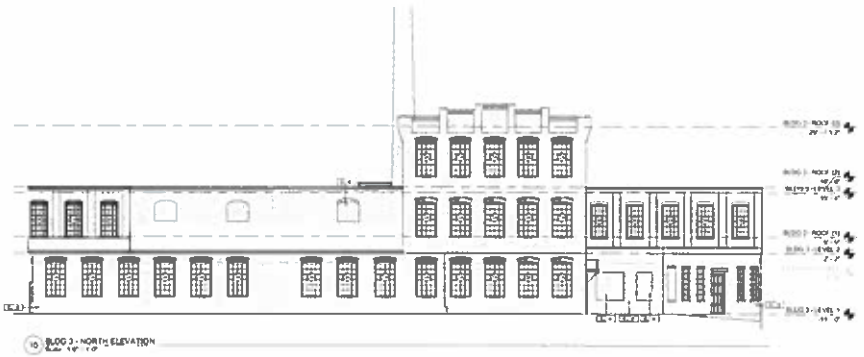
KEYNOTE LEGEND - EXTERIOR ELEVATIONS

EL04 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL. NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS

EL05 REMOVE EXTERIOR APPLIED PAINT - TYPICAL AT ENTIRE GROUND FLOOR.



11 BLDG 3 - SOUTH ELEVATION



10 BLDG 3 - NORTH ELEVATION

tat
© The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
O 617.889.4400
F 617.884.4512
architecture@tatteam.com

Consultant

Revision

Architect of Record

Drawn: EH
Checked: Checker
Scale: As indicated
Key Plan:

Project Name:
LaGrange Mill Lofts

47 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name:
BLDG 3 - EXTERIOR ELEVATIONS

Project Number
20094.00

Issue Date
JUNE 30, 2021

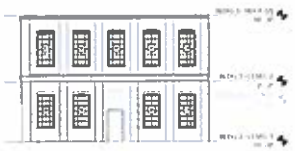
Sheet Number
A4.3.01

GENERAL NOTES - EXTERIOR ELEVATIONS

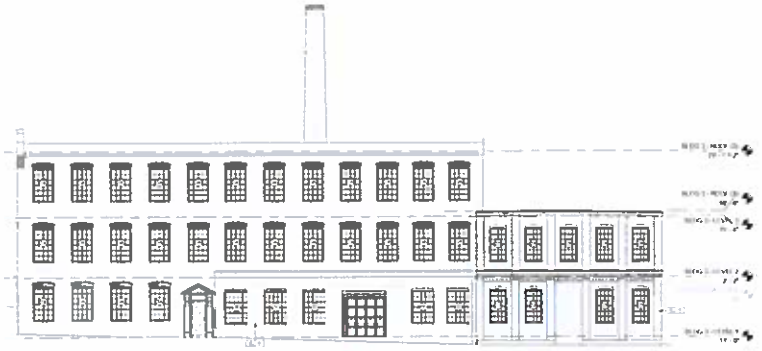
A FIELD VERIFY ALL EXISTING CONDITIONS VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS COORDINATE SCOPE OF WORK WITH ALL TRADES
B ALL EXISTING ELEMENTS TO REMAIN IN-SITU ARE TO BE PROTECTED FROM DAMAGE
C ALL EXISTING MASONRY AND STONE SHALL BE CLEANED SELECTIVE REPOINTING OF MORTAR JOINTS AND REPAIR OF MASONRY WILL BE PERFORMED AS NECESSARY ALL MASONRY SCOPE SHALL UTILIZE METHODS AND PRODUCTS APPROVED BY THE NPS
D ALL EXISTING WINDOES ARE TO BE REPLACED WITH NEW ALUMINUM WINDOWS WITH CUSTOM EXTRUDED MOLDING TO REPLICATE HISTORIC BRICK MOLDS, HEAD TRIM, AND SILL TRIM (WHERE APPLICABLE) WINDOW PANES TO MATCH PROFILE OF HISTORIC WINDOWS TO THE BEST KNOWLEDGE POSSIBLE
E ALL EXISTING WOOD CORNICE ELEMENTS (BRACKETS, FASCIA, TRIM BOARD, ETC.) ARE TO BE CLEANED AND REUSED TO THE GREATEST EXTENT POSSIBLE ALL WOOD SHALL BE SCRAPED OF ALL FRIABLE EXISTING PAINT, SURFACED TO BE PRIMED AND REPAINTED ELEMENTS WILL BE REPAIRED OR REPLACED UTILIZING CUSTOM PROFILES TO MATCH EXISTING CONDITIONS
F ALL EXISTING BUILT-UP ROOFING SYSTEMS & ASSEMBLIES SHALL BE REPLACED WITH NEW INSULATED TPO ROOF, NEW FLASHING AND SHEET METAL TO REPLACE EXISTING
G WHERE NOTED, REMOVE EXTERIOR APPLIED PAINT WITH METHODS APPROVED BY THE NPS. IF UNABLE TO ACHIEVE WITHOUT DAMAGING EXISTING MASONRY, AN APPROPRIATE OPAQUE MASONRY SEALER WILL BE USED IN THOSE AREAS THAT HAVE ALREADY BEEN PAINTED

KEYNOTE LEGEND - EXTERIOR ELEVATIONS

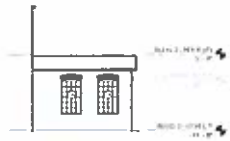
EL05 REMOVE EXTERIOR APPLIED PAINT - TYPICAL AT ENTIRE GROUND FLOOR
EL07 NEW ELEVATOR OVER-RUN
EL09 NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS
EL12 NEW WALL PANEL SYSTEM IN EXISTING OPENING



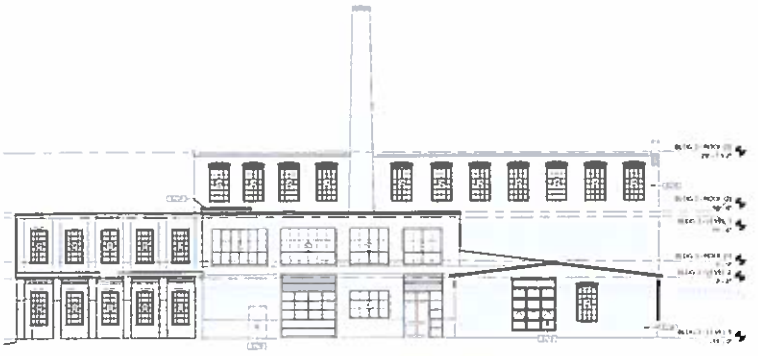
21 BLDG 3 - WING 2 ELEVATION



11 BLDG 3 - WEST ELEVATION



20 BLDG 3 - WING 1 ELEVATION



10 BLDG 3 - EAST ELEVATION

tat
The Architectural Team, Inc.
50 Commandants Way at Admiral's Hill
Chelsea, MA 02150
O 617 889 4400
F 617 884 432
architecturalteam.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated
Key Plan

Project Name
LaGrange Mill Lofts

47 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 3 - EXTERIOR ELEVATIONS

Project Number
20094.00

Issue Date
JUNE 30, 2021

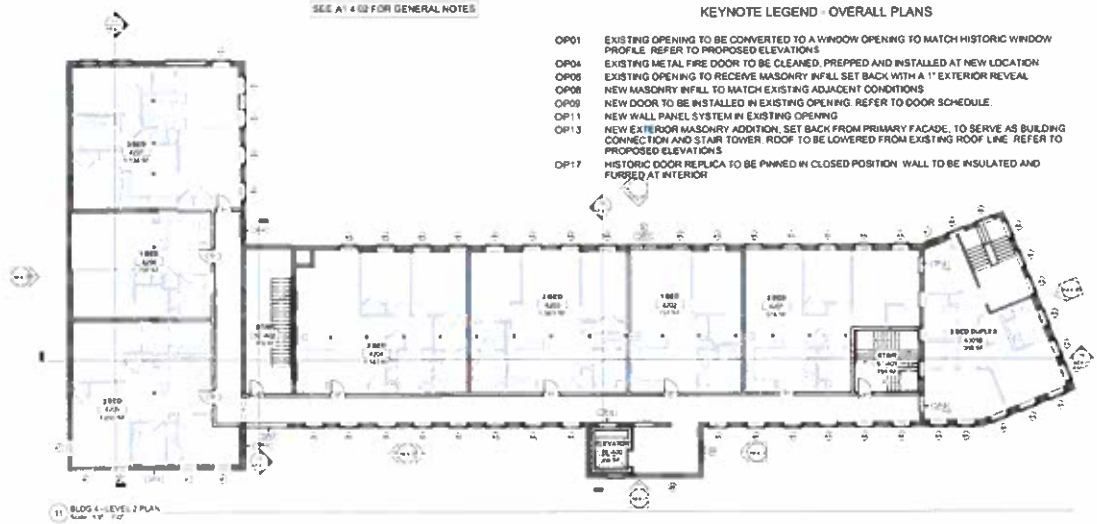
Sheet Number
A4.3.02

BUILDING 4 - 50 LAGRANGE					
	TYPE	BED	BATH	DEN	GSF
FLOOR 1	4C.2	2	2	-	1136
	4C.1	2	2	-	1026
	4A	STUDIO	1	-	539
	4C	2	1	-	963
	4D	3	2.5	1	1765
FLOOR 2	4D.1	3	2	-	1132
	4B.1	1	1	-	707
	4C.3	2	2	-	1015
	4C.1	2	2	-	1035
	4C.2	2	2	-	1143
	4B	1	1	-	765
	4C	2	1	-	974
FLOOR 3	4C.2	2	2	-	1144
	4C.1	2	2	-	1036
	4B	1	1	-	764
	4B.1	1	1	-	723
	4D.2	3	2	-	1174
UNIT TOTAL					17,041
BUILDING TOTAL					25,061

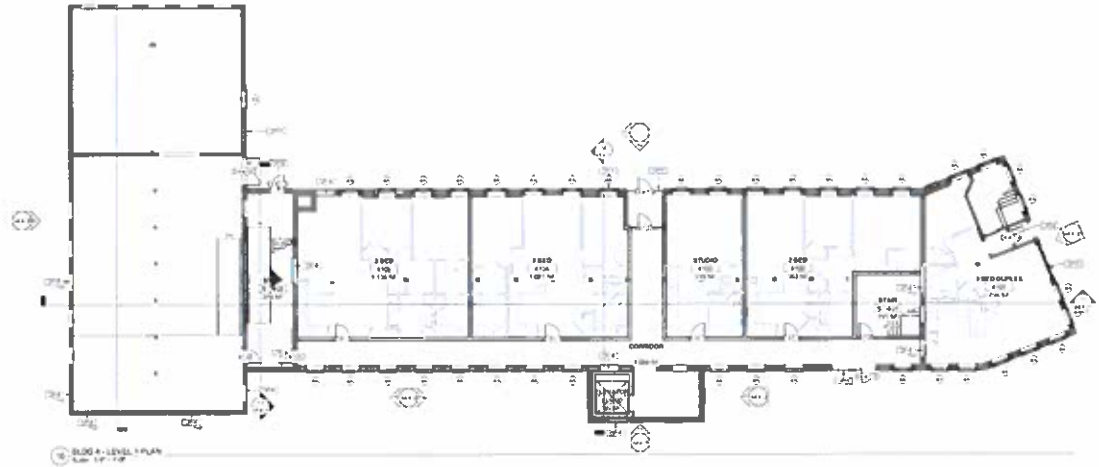
SEE A1.4.02 FOR GENERAL NOTES

KEYNOTE LEGEND - OVERALL PLANS

OP01	EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED ELEVATIONS
OP04	EXISTING METAL FIRE DOOR TO BE CLEANED, PREPPED AND INSTALLED AT NEW LOCATION
OP05	EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL
OP08	NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS
OP09	NEW DOOR TO BE INSTALLED IN EXISTING OPENING. REFER TO DOOR SCHEDULE.
OP11	NEW WALL PANEL SYSTEM IN EXISTING OPENING
OP13	NEW EXTERIOR MASONRY ADDITION, SET BACK FROM PRIMARY FACADE, TO SERVE AS BUILDING CONNECTION AND STAIR TOWER. ROOF TO BE LOWERED FROM EXISTING ROOF LINE. REFER TO PROPOSED ELEVATIONS
OP17	HISTORIC DOOR REPLICA TO BE PINNED IN CLOSED POSITION. WALL TO BE INSULATED AND FURRED AT INTERIOR



11 BLDG 4 - LEVEL 2 PLAN



10 BLDG 4 - LEVEL 1 PLAN

tat
© The Architectural Team, Inc.
50 Commandants Way at Admiral's Hill
Chelsea MA 02150
T 617.889.4400
F 617.884.4432
thearchitecturalteam.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated
Key Plan

Project Name
LaGrange Mill Lofts

50 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 4 -
OVERALL
FLOOR PLANS -
LEVELS 1 & 2

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A1.4.01

GENERAL NOTES - OVERALL PLANS

A. FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.

B. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, INTERIOR BRICK MASONRY WALLS SHALL BE REPAIRED AND LEFT EXPOSED. AREAS OF CHIEF CONCERN WILL BE PUBLIC AREAS & APARTMENT LIVING AREAS. OF LESSER CONERN WILL BE WALLS IN BATHROOMS, KITCHENS, & CLOSETS. WHERE PAINTED FINISHES ARE PRESENT, THESE ARE TO BE RESTORED TO THEIR ORIGINAL APPEARANCE WITH METHODS APPROVED BY NPS. FOR ENERGY CONSERVATION, EXTERIOR WALLS IN BEDROOMS, BATHROOMS, & CLOSETS WILL BE FURRED TO A MAXIMUM OF 4", UNLESS OTHERWISE NOTED.

C. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING CONCRETE FLOORS WILL BE RETAINED. WHERE POSSIBLE, THESE SHALL BE POLISHED AND LEFT EXPOSED IN THEIR NATURAL STATE. WHERE CONDITIONS CANNOT BE IMPROVED, A NEW FLOORING FINISH WILL BE PROVIDED AS TO NOT DAMAGE THE EXISTING CONCRETE

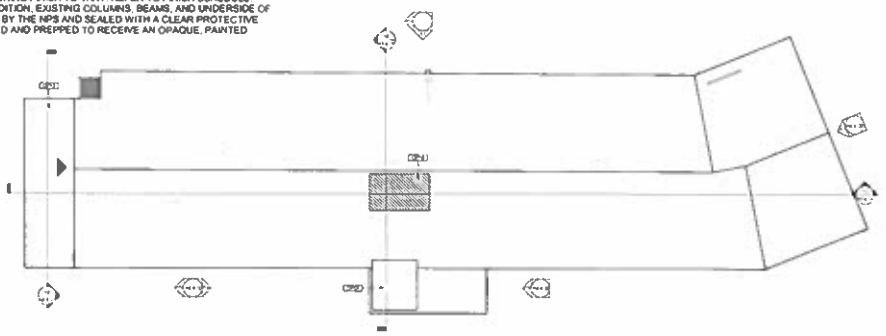
D. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING WOOD FLOORS AT GROUND LEVEL WILL BE RETAINED, LIGHTLY SANDED, AND SEALED WITH A CLEAR PROTECTIVE FINISH. WHERE CONDITIONS CANNOT BE IMPROVED, NEW REPLACEMENT WOOD FLOORING WILL BE PROVIDED.

E. FOR ACOUSTIC PURPOSES, EXISTING WOOD FLOORING AT ALL LEVELS ABOVE GROUND FLOOR WILL BE COVERED IN AN ACOUSTIC MAT AND POURED CEMENTICIOUS TOPPING. NEW FLOORING FINISH TO VARY. REFER TO FINISH SCHEDULE.

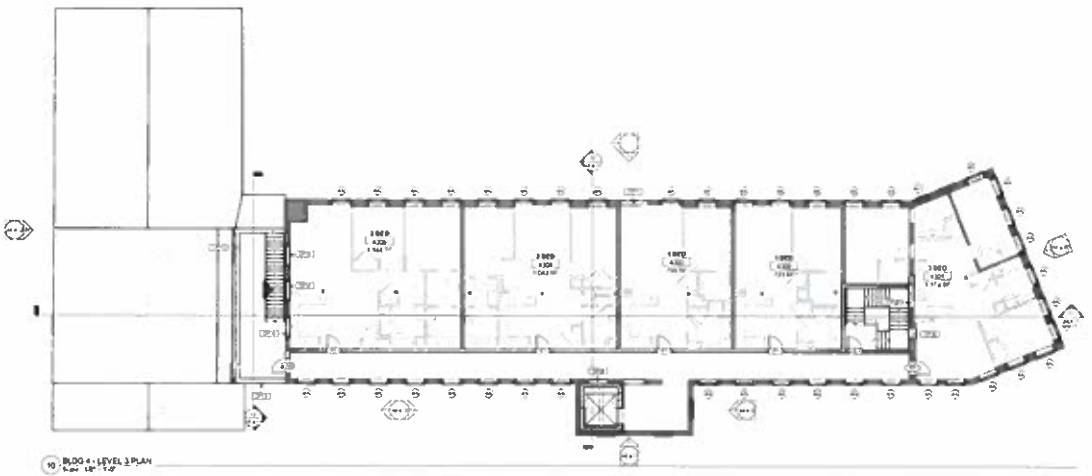
F. TO THE GREATEST EXTENT POSSIBLE, AND WHERE IN GOOD CONDITION, EXISTING COLUMNS, BEAMS, AND UNDERSIDE OF WOOD DECKING WILL BE RESTORED USING METHODS APPROVED BY THE NPS AND SEALED WITH A CLEAR PROTECTIVE SEALANT. EXPOSED STRUCTURAL COMPONENTS WILL BE CLEANED AND PREPPED TO RECEIVE AN OPAQUE, PAINTED FINISH

KEYNOTE LEGEND - OVERALL PLANS

OP06	EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL
OP07	NEW ELEVATOR OVER-RUN
OP08	NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS
OP11	NEW WALL PANEL SYSTEM IN EXISTING OPENING
OP13	NEW EXTERIOR MASONRY ADDITION, SET BACK FROM PRIMARY FACADE, TO SERVE AS BUILDING CONNECTION AND STAIR TOWER. ROOF TO BE LOWERED FROM EXISTING ROOF LINE. REFER TO PROPOSED ELEVATIONS
OP18	PROPOSED LOCATION OF NEW ROOF MECHANICAL EQUIPMENT, TO BE POSITIONED AS TO MITIGATE INTERFERENCE WITH HISTORIC SITE LINES



11 BLDG 4 - ROOF PLAN
Scale: 1/8" = 1'-0"



10 BLDG 4 - LEVEL 3 PLAN
Scale: 1/8" = 1'-0"

tat
© The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
O 617.889.4400
F 617.884.4432
architecturalteam.com

Consultant:

Revision:

Architect of Record:

Drawn: EH
Checked: Checker
Scale: As indicated
Key Plan:

Project Name:
LaGrange Mill Lofts

50 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name:
BLDG 4 - OVERALL FLOOR PLANS - LEVEL 3 & ROOF

Project Number:
20094.00

Issue Date:
JUNE 30, 2021

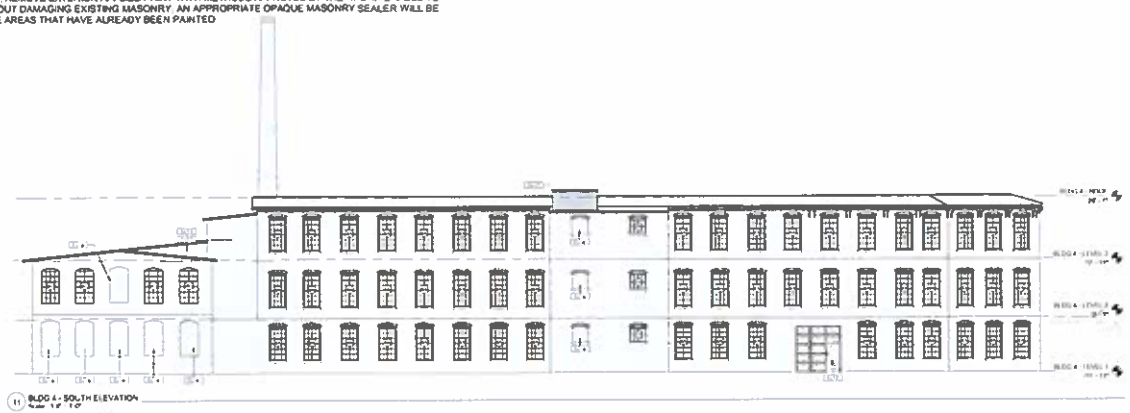
Sheet Number:
A1.4.02

GENERAL NOTES - EXTERIOR ELEVATIONS

A FIELD VERIFY ALL EXISTING CONDITIONS VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS COORDINATE SCOPE OF WORK WITH ALL TRADES
B ALL EXISTING ELEMENTS TO REMAIN IN-SITU ARE TO BE PROTECTED FROM DAMAGE
C ALL EXISTING MASONRY AND STONE SHALL BE CLEANED SELECTIVE REPOINTING OF MORTAR JOINTS AND REPAIR OF MASONRY WILL BE PERFORMED AS NECESSARY ALL MASONRY SCOPE SHALL UTILIZE METHODS AND PRODUCTS APPROVED BY THE NPS
D ALL EXISTING WINDOWS ARE TO BE REPLACED WITH NEW ALUMINUM WINDOWS WITH CUSTOM EXTRUDED MOLDING TO REPLICATE HISTORIC BRICK MOLDS, HEAD TRIM, AND SILL TRIM (WHERE APPLICABLE) WINDOW PANES TO MATCH PROFILE OF HISTORIC WINDOWS TO THE BEST KNOWLEDGE POSSIBLE
E ALL EXISTING WOOD CORNICE ELEMENTS (BRACKETS, FASCIA, TRIM BOARD, ETC.) ARE TO BE CLEANED AND REUSED TO THE GREATEST EXTENT POSSIBLE. ALL WOOD SHALL BE SCRAPED OF ALL FRIABLE EXISTING PAINT, SURFACED TO BE PRIMED AND REPAINTED. ELEMENTS WILL BE REPAIRED OR REPLACED UTILIZING CUSTOM PROFILES TO MATCH EXISTING CONDITIONS
F ALL EXISTING BUILT-UP ROOFING SYSTEMS & ASSEMBLIES SHALL BE REPLACED WITH NEW INSULATED TPO ROOF. NEW FLASHING AND SHEET METAL TO REPLACE EXISTING
G WHERE NOTED, REMOVE EXTERIOR APPLIED PAINT WITH METHODS APPROVED BY THE NPS. IF UNABLE TO ACHIEVE WITHOUT DAMAGING EXISTING MASONRY, AN APPROPRIATE OPAQUE MASONRY SEALER WILL BE USED IN THOSE AREAS THAT HAVE ALREADY BEEN PAINTED

KEYNOTE LEGEND - EXTERIOR ELEVATIONS

EL01 EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED PLANS & ELEVATIONS.
EL04 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL. NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS.
EL07 NEW ELEVATOR OVER-RUN
EL12 NEW WALL PANEL SYSTEM IN EXISTING OPENING
EL13 NEW EXTERIOR MASONRY ADDITION. NEW MASONRY TO MATCH EXISTING ADJACENT CONDITIONS. NEW STANDING SEAM ROOF TO BE SET LOWER THAN EXISTING ROOF LINE



11 BLDG 4 - SOUTH ELEVATION

10 BLDG 4 - NORTH ELEVATION

tat
The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea, MA 02150
T 617 889 4400
F 617 884 4321
architecture@tatpa.com

Consultant

Revision

Architect of Record

Drawn EH
Checked Checker
Scale As indicated
Key Plan

Project Name
LaGrange Mill Lofts

50 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 4 - EXTERIOR ELEVATIONS

Project Number
20094.00

Issue Date
JUNE 30, 2021

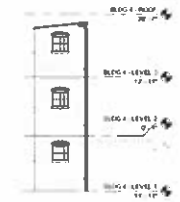
Sheet Number
A4.4.01

GENERAL NOTES - EXTERIOR ELEVATIONS

A. FIELD VERIFY ALL EXISTING CONDITIONS. VERIFY ACTUAL SITE CONDITIONS AND DIMENSIONS. COORDINATE SCOPE OF WORK WITH ALL TRADES.
B. ALL EXISTING ELEMENTS TO REMAIN IN-SITU ARE TO BE PROTECTED FROM DAMAGE.
C. ALL EXISTING MASONRY AND STONE SHALL BE CLEANED. SELECTIVE REPOINTING OF MORTAR JOINTS AND REPAIR OF MASONRY WILL BE PERFORMED AS NECESSARY. ALL MASONRY SCOPE SHALL UTILIZE METHODS AND PRODUCTS APPROVED BY THE NPS.
D. ALL EXISTING WINDOWS ARE TO BE REPLACED WITH NEW ALUMINUM WINDOWS WITH CUSTOM EXTRUDED MOLDING TO REPLICATE HISTORIC BRICK MOLDS, HEAD TRIM, AND SILL TRIM (WHERE APPLICABLE). WINDOW PANES TO MATCH PROFILE OF HISTORIC WINDOWS TO THE BEST KNOWLEDGE POSSIBLE.
E. ALL EXISTING WOOD CORNICE ELEMENTS (BRACKETS, FASCIA, TRIM BOARD, ETC.) ARE TO BE CLEANED AND REUSED TO THE GREATEST EXTENT POSSIBLE. ALL WOOD SHALL BE SCRAPED OF ALL FRIABLE EXISTING PAINT, SURFACED TO BE PRIMED AND REPAINTED. ELEMENTS WILL BE REPAIRED OR REPLACED UTILIZING CUSTOM PROFILES TO MATCH EXISTING CONDITIONS.
F. ALL EXISTING BUILT-UP ROOFING SYSTEMS & ASSEMBLIES SHALL BE REPLACED WITH NEW INSULATED TPO ROOF. NEW FLASHING AND SHEET METAL TO REPLACE EXISTING.
G. WHERE NOTED, REMOVE EXTERIOR APPLIED PAINT WITH METHODS APPROVED BY THE NPS. IF UNABLE TO ACHIEVE WITHOUT DAMAGING EXISTING MASONRY, AN APPROPRIATE OPAQUE MASONRY SEALER WILL BE USED IN THOSE AREAS THAT HAVE ALREADY BEEN PAINTED

KEYNOTE LEGEND - EXTERIOR ELEVATIONS

EL01 EXISTING OPENING TO BE CONVERTED TO A WINDOW OPENING TO MATCH HISTORIC WINDOW PROFILE. REFER TO PROPOSED PLANS & ELEVATIONS
EL04 EXISTING OPENING TO RECEIVE MASONRY INFILL SET BACK WITH A 1" EXTERIOR REVEAL. NEW MASONRY INFILL TO MATCH EXISTING ADJACENT CONDITIONS
EL07 NEW ELEVATOR OVER-RUN
EL08 NEW DOOR TO BE INSTALLED IN EXISTING OPENING. REFER TO DOOR SCHEDULE
EL12 NEW WALL PANEL SYSTEM IN EXISTING OPENING
EL13 NEW EXTERIOR MASONRY ADDITION. NEW MASONRY TO MATCH EXISTING ADJACENT CONDITIONS. NEW STANDING SEAM ROOF TO BE SET LOWER THAN EXISTING ROOF LINE
EL14 NEW OPENING TO RECEIVE NEW WINDOW TO MATCH EXISTING CONDITIONS
EL15 HISTORIC DOOR REPLICA TO BE PINNED IN CLOSED POSITION. WALL TO BE INSULATED AND FURRED AT INTERIOR

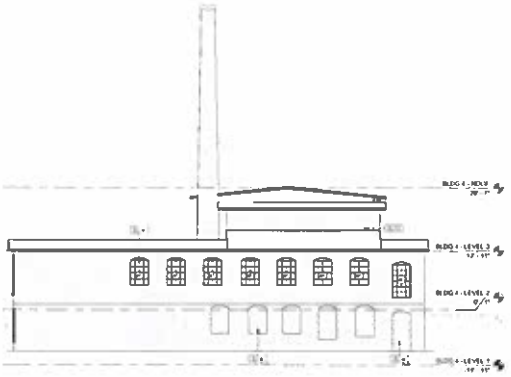


21B BLDG 4 - ALCOVE ELEVATION B

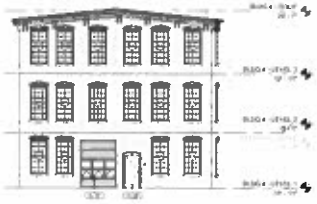
21A BLDG 4 - ALCOVE ELEVATION A

11B BLDG 4 - WING ELEVATION B

11A BLDG 4 - WING ELEVATION A



20 BLDG 4 - WEST ELEVATION



10 BLDG 4 - EAST ELEVATION

tat
© The Architectural Team, Inc.
50 Commandant's Way at Admiral's Hill
Chelsea MA 02150
O 617.889.4400
F 617.884.4432
architecturalteam.com

Consultant

Revision:

Architect of Record

Drawn: EH
Checked: Checker
Scale: As indicated
Key Plan:

Project Name
LaGrange Mill Lofts

50 LAGRANGE ST
WORCESTER, MA 01608

Sheet Name
BLDG 4 - EXTERIOR ELEVATIONS

Project Number
20094.00

Issue Date
JUNE 30, 2021

Sheet Number
A4.4.02

	BLDG 1	BLDG 2	BLDG 3	BLDG 4	TOTAL	% OF UNITS
STUDIO	3	-	2	1	6	10%
1 BED	5	-	4	4	13	25%
1 BED + DEN	-	-	1	-	1	
1 BED / 1.5 BATH		1	-	-	1	
1 BED + DEN (1.5 BATH)		1	-	-	1	
2 BED / 1 BATH	7	-	3	2	12	54%
2 BED / 1.5 BATH	-	1	-	-	1	
2 BED / 2 BATH	1	1	8	7	17	
2 BED + DEN (1.5 BATH)	-	4	-	-	4	
3 BED / 2 BATH	-	-	4	2	6	11%
3 BED + DEN (2.5 BATH)	-	-	-	1	1	
TOTAL	16	8	22	17	63	