DESIGN REVIEW BOARD
Wednesday, March 26, 2025
7:30 p.m.

Virtual Meeting using Zoom
Meeting ID: 837 5422 1747
(Instructions for accessing below)

Under Governor Baker's Act "Extending Certain COVID-10 Measures Adopted During the State of Emergency", extending the "Executive Order Suspending Certain Provisions of the Open Meeting Law G.L. c. 30A, S20,", issued June 16, 2021, and extended several times again through 2025, meeting of public bodies could be conducted virtually provided that adequate access is provided to the public.

To view and participate in this virtual meeting on your phone, download the "Zoom Cloud Meetings" app in any app store or at www.zoom.us. At the above date and time, click on "Join a Meeting" and enter the following Meeting ID: 837 5422 1747 Link: https://us02web.zoom.us/j/837 5422 1747

To view and participate in this virtual meeting on your computer, at the above date and time, go to www.zoom.us click "Join a Meeting" and enter the following ID: 837 5422 1747

HEARINGS: None.

APPLICANTS:

Michael Lake, Signarama – Framingham, representing Hope & Comfort Hygiene Hub, located at 33 4th Avenue, Needham, MA, and applying for signage.

Brian Canavan, representing St. Sebastians School, located at 1166 Greendale Avenue, Needham, MA, and applying for granite wall.

Nicole Handricken, Sign Design, representing MassDot, located at 200 Highland Avenue, Needham, MA, and applying for signage.

Adam Schaffer, Fast Signs of Needham, representing A to Z Child Care & Preschool, located at 126 Gould St, Needham Heights, MA 02494 and applying for signage.

Adam Schaffer, Fast Signs of Needham, representing Taylor TrueValue Rentals, located at 51 Fremont Street, Needham, MA, and applying for signage.

John Renzi, Graphic Impact Signs, Inc., representing Dedham Savings Bank, located at 695 Highland Avenue, Needham, MA, and applying for signage.

Dave Spatara, Signarama – Framingham, representing Burn Boot Camp, located at 77 Charles Street, Needham, MA, and applying for signage.

George Giunta Jr, Esq., Attorney representing Needham Enterprises, LLC, located at 339 Chestnut Street and applying for Comprehensive Permit site review.

REVIEW
Minutes of 2/10/2025 meeting.

Next Public Meeting – 4/28/2025 at 7:30pm

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 33 4TH AVENUE *Date:* 2/18/2025

Owner: LORI LOWINGER

Address: 39 EAST BEL AIR RD. (Street) CRANSTON (City) RI (State) 02920 (Zip)

Telephone: 401.944.8779

Applicant: HOPE & COMFORT HYGIENE HUB

Address: 33 4TH AVENUE (Street) NEEDHAM (City) MA (State) 02494 (Zip)

Telephone: 617.795.1608

Designer/Installer: SIGNARAMA FRAMINGHAM

Address: 2 SOUTHVILLE RD UNIT C (Street) SOUTHBOROUGH (City) MA (State) 01772 (Zip)

Telephone: 508.875.7446

Type of Application
☒ Sign
☐ Minor Project
☐ Exterior Alterations
Major Project (Site Plan Review) ☐ - preliminary ☐ - final
☐ Flexible Subdivision
☐ Planned Residential Development
☐ Residential Compound

Brief description of sign or project:

LOGO ON DOOR GLASS

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
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Major Project (Site Plan Review) ☐ - preliminary ☐ - final
☐ Flexible Subdivision
☐ Planned Residential Development
☐ Residential Compound

Brief description of sign or project:

ROADSIDE POST & PANEL SIGN

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 33 4TH AVENUE ***Date:*** 2/18/2025

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☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

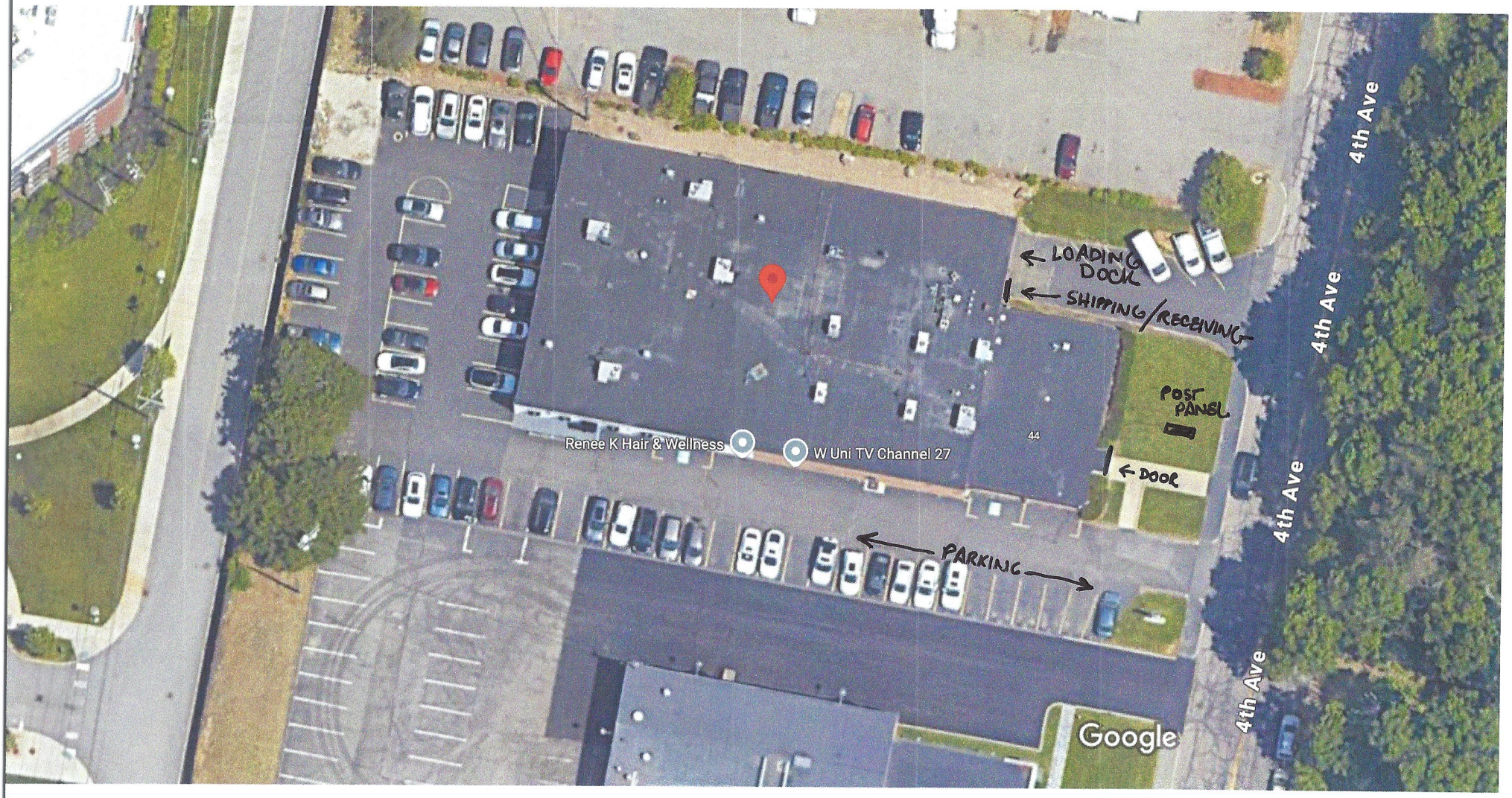
SHIPPING & RECEIVING INFORMATIONAL SIGN AT LOADING DOCK

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

Google Maps

33 4th Ave



Imagery ©2025 Airbus, Map data ©2025 20 ft

JOB #:	69133	**PROJECT TYPE:**	POST & PANEL	**REVISION DATE:**	11.25.24
QUANTITY:	1	**PROOF DATE:**	11.18.24	**REVISION #:**	2





36" H x 60" W x 1" D white PVC sign panel with 3M digitally printed vinyl and 3M clear matte overlaminate applied to two (2) sides, per the approved proof. Qty (2) 6" x 6" x 8' pressure-treated posts (6' above ground) with vinyl sleeves, with New England post caps. Sign mounted with white post clips.

COPY:
Hope & Comfort logo

PLEASE NOTE: PRICING INCLUDES UP TO TWO (2) REVISION CYCLES; AN ADDITIONAL COST MAY BE APPLIED FOR EXTRA DESIGN TIME.

These plans are the exclusive property of Sign*A*Rama and are the result of the original work of its employees. Their sole purpose is for client consideration as to whether or not to purchase the propsed plans or to purchase from Sign*A*Rama, a sign manufactured according to these plans. Distribution or exhibition of these plans to anyone other than employees of your company, or use of these plans to construct a sign similar to the one embodied herin, is expressly forbidden. In the event that such exhibition occurs, Sign*A*Rama expects to be reimbursed for time and effort entailed in creating these plans.

IMPORTANT: SUPERIMPOSED PHOTOS ARE NOT TO BE VIEWED AS 100% ACCURATE DEPICTIONS, THEY ARE SIMPLY A ROUGH REPRESENTATION OF SIGN PLACEMENT.

Signarama
The way to grow your business.
www.framinghamsigns.com
2 SOUTHVILLE ROAD, UNIT C
SOUTHBOROUGH, MA 01772
508.875.7446 **P** 508.875.7470 **F**

JOB #:	69133	**PROJECT TYPE:**	RTA VINYL	**REVISION DATE:**	10.21.24
QUANTITY:	1	**PROOF DATE:**	10.11.24	**REVISION #:**	2



OVERALL GRAPHIC SIZE: 5.8" x 30"



5.8" H x 30" W contour cut digital vinyl applied to the door, per the approved sign proof.

COPY:

Hope & Comfort logo

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508.875.7446 **P** 508.875.7470 **F**

JOB #:	69133	**PROJECT TYPE:**	ALUMINUM	**REVISION DATE:**	11.15.24
QUANTITY:	1	**PROOF DATE:**	10.15.24	**REVISION #:**	3





24" H x 24" W x .080 gauge Aluminum Sign Panel with 3M digitally printed vinyl with clear matte overlaminate applied to one (1) side, per the approved sign proof.

COPY:
Hope & Comfort logo
WAREHOUSE
HOURS
7AM - 2PM

Includes:
* QTY (2) 3/8" diameter Holes vertically aligned 1.5" inset
* 1.5" Radius Corners

PLEASE NOTE: PRICING INCLUDES UP TO TWO (2) REVISION CYCLES; AN ADDITIONAL COST MAY BE APPLIED FOR EXTRA DESIGN TIME.

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508.875.7446 **P** 508.875.7470 **F**

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 1160 Greendale Ave *Date:* 3.4.25

Owner: St Sebastians School

Address: 1191 Greendale Ave Needham MA 02492
Street *City* *State* *Zip*

Telephone: 781-449-5200

Applicant: Brian Canavan

Address: 1191 Greendale Ave Needham MA 02492
Street *City* *State* *Zip*

Telephone: 781-247-0158

Designer/Installer: Bohler Engineering

Address: 45 Franklin St Boston MA 02110
Street *City* *State* *Zip*

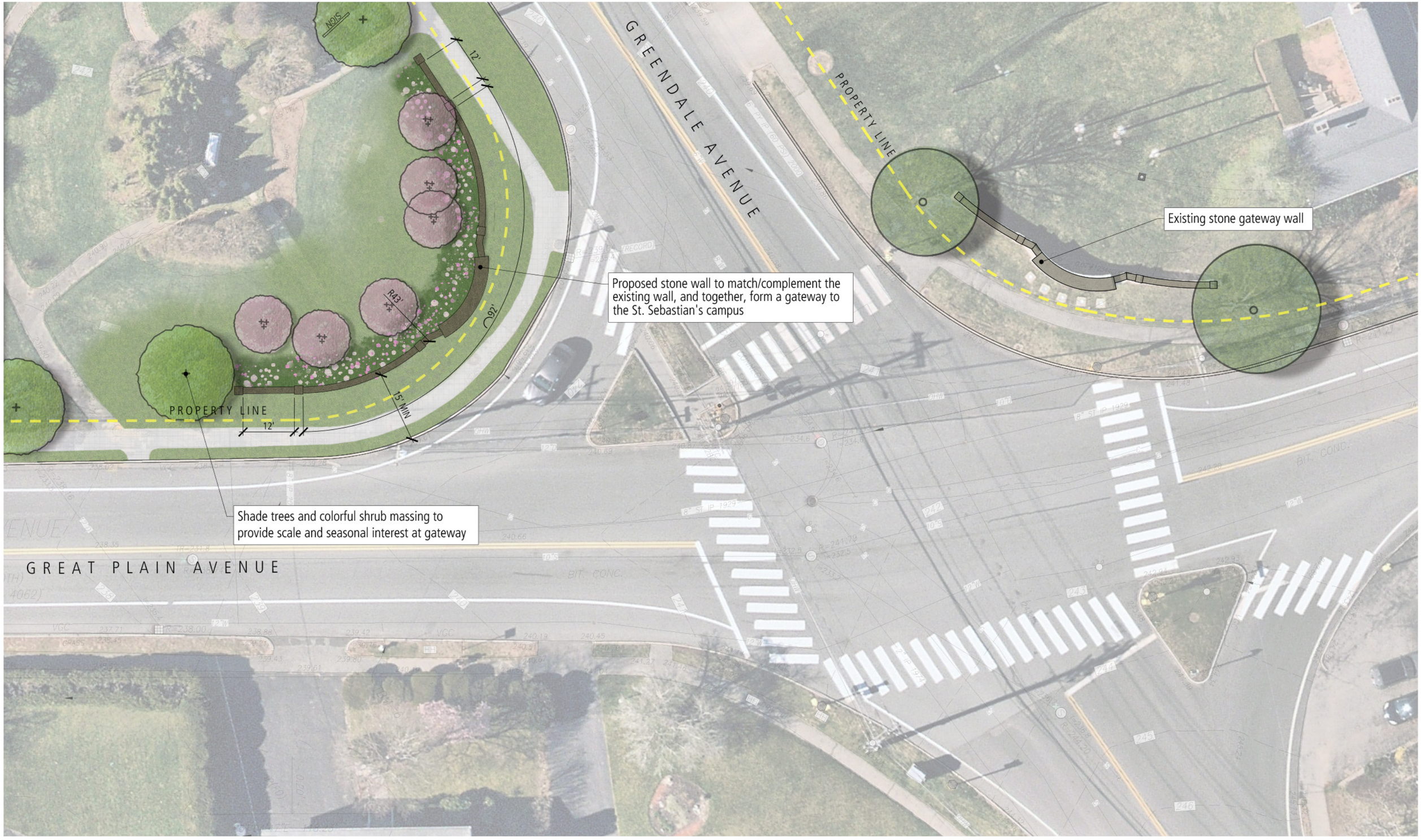
Telephone: 617 849-8040

Type of Application
☑ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review)
☐ **- preliminary**
☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:
Constructing a granit wall with the school name engraved into the wall at the corner of Greendale Ave & Great Plain Ave.

Please email completed application to elitchman@needhamma.gov

Revised 2/2020



St. Sebastian's School Class of '25 Gateway Wall / Conceptual Design / Plan View - Proposed Improvements

BOHLER



Wall Elevation: Overall

Limestone motto sign
- approximate size 2'x6'
- 3.5" tall lettering etched into stone:
"LOVE GOD, WORK HARD, AND TAKE GOOD CARE OF ONE ANOTHER"



Wall Elevation: St. Sebastian's School Gateway




ST. SEBASTIAN'S SCHOOL


SCHOOL

General Notes:

1. As this part of campus is a significant public space for students and vehicular traffic, coordination of the project site with the School and temporary, movable fencing or barriers will be required in order to maintain a constant functioning access and workable jobsite within the Limit of Work.
2. Construction access will be allowed from Great Plain Road. Secondary access points may be allowed, if necessary, with written permission from the Landscape Architect and the School assuming proper protections are given.
3. Staging, storage and stocklpile areas shall be contained within the limit of work unless written permission is given by the School.
4. Contractor shall notify DIG-SAFE at 811 and the School at least 72 hours (excluding Saturdays, Sundays, and holidays) before starting any excavation in public or private property.
5. Contractor shall be responsible for repairing damage inside and outside the limit of work line due to contract operations. Contractor shall restore damaged areas beyond contract limits to their original condition at no additional cost to the School.
6. Contractor shall comply with all requirements of permits and licensees issued by the federal, state and local agencies.

Demolition Notes:

1. The Contractor shall verify all conditions in the field and report any discrepancies to the Landscape Architect and Civil Engineer prior to commencing work.
2. The Contractor shall be responsible for a thorough site examination to determine the extent of demolition necessary to prepare the site for construction and shall verify all items to be demolished or salvaged with the Landscape Architect prior to beginning work.
3. Demolition shall not begin without installation of the erosion and sedimentation control being installed.
4. Care shall be taken not to damage any items designated to remain or protected; repair or replacement of damaged items designated to remain or protected shall be at the Contractor's expense.
5. Disposal of property designated to be removed shall conform to all applicable laws and regulations. All salvageable material shall be delivered by the Contractor to storage areas outside of any jurisditional wetland buffer zones and as designated by the School. Contractor shall remove all existing unsuitable materials from the site.
6. The Contractor shall coordinate with and obtain all necessary approvals from appropriate utility companies and School officials prior to the start of construction.
7. The Contractor shall tag trees to be removed and disposed in order for Landscape Architect to review the tagging prior to cutting and disposing. Tree protection shall be installed prior to the start of demolition.
8. All work & equipment shall not extend past the Limit of Work line without written permission from the School.
9. Prior to cutting concrete or asphalt, obtain approval of the saw cut line from the Landscape Architect.

Grading Notes:

1. Consult all drawings and specifications for coordination requirements between all trades before commencing new construction. Contractor shall notify Landscape Architect and Civil Engineer immediately of any and all conflicts between proposed site work and work of all other trades.
2. Contractor shall verify all conditions in the field and report any discrepancies to the Landscape Architect and Civil Engineer prior to commencing work. Any proposed alterations to these drawings made in the field shall be promptly reported by the Contractor to the Landscape Architect and Civil Engineer for review and approval prior to making alterations.
3. All dimensions, elevations and layout shall be verified in the field by the Contractor and approved by the Landscape Architect and Civil Engineer prior to beginning work.
4. The Contractor is responsible for insuring all proposed areas to be seeded shall receive a minimum of 6" loam after compaction (compaction of 80%) unless otherwise directed. All additional loam borrow needed to achieve specified depth shall be clean material and have a nutrient analysis approved by the Landscape Architect.
5. Pitch evenly between spot grades as shown in cross sections. All paving areas must pitch to drain at min. pitch of 1/8'' per foot (1%) unless otherwise shown. Report any discrepancies between existing and proposed spot grades that do not pitch accordingly to the Landscape Architect before commencing work.
6. Maintain a maximum of 2% cross slope on all paved pathways, unless otherwise noted.
7. All paved walks, plazas, crosswalks, accessible parking spaces, associated access aisles and accessible routes shall be graded such that they are in full compliance with the Massachusetts Architectural Access Board.
8. Excavation adjacent to existing and proposed utility lines shall be done by hand.
9. All slopes steeper than 3:1 (run length : rise height) shall receive erosion control fabric. Fabric must be approved the Landscape Architect and Town prior to use.
10. Upon completion of rough grading, Contractor shall notify Landscape Architect for approval prior to final grading.
11. Slope grades to direct water away from buildings and to prevent ponding; except in designed areas. Finish subgrades to required elevations within the following tolerances: Lawn or Unpaved Areas: Plus or minus 1" / Pavement & Walks: Plus or minus 1/4"
12. Place backfill and fill soil materials in layers not more than 8" in loose depth for material compacted by heavy compaction equipment, and not more than 4" in loose depth for material compacted by hand-operated tampers.
13. Compact subgrade and base courses at optimum moisture content to required grades, limes, cross sections, and thickness to not less than 95% of maximum dry unit weight according to ASTM D 1557
14. Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirement and grade to cross sections, lines, and elevations indicated

Layout Notes:

1. Consult all drawings and specifications for coordination requirements between all trades prior to commencing new construction. Contractor shall notify Landscape Architect immediately of any and all conflicts between proposed site work and work of all other trades.
2. The Contractor shall stake control and layout points including but not limited to, layout of centerlines, edges of pavement, and improvements in the field for approval by Landscape Architect prior to finish grading and installation. The Contractor is responsible for maintaining all layout stakes and any base points or lines established by the School.
3. The Contractor shall stake out all site improvements both horizontally and vertically in the field, and such stakeout to be approved by the Landscape Architect prior to construction
4. The Contractor shall verify all layout, dimensions, grades, and inverts prior to construction; report any and all discrepancies to the Landscape Architect and Civil Engineer. All discrepancies shall be resolved in writing prior to beginning work.
5. All lines or points are perpendicular or parallel to lines from which they are measured unless otherwise noted.
6. The dimensions shown on the drawings show design intent and must be field verified prior to preparation of shop drawings.
7. All curves shall be smooth, continuous radii. No straight sections or abrupt transitions.
8. Contractor shall provide the School as built dimensioning of all underground utilities encountered or installed.

Materials Notes:

1. Expansion joint filler and sealant shall be placed where aggregate concrete pavement meets curbing, walls or other vertical elements, including light bases, hydrants, frames and covers, buildings and building columns, stairs and at other conditions as shown on the drawings.
2. Provide expansion joints in concrete walks at 30' O.C. and control joints at 10' O.C. unless otherwise indicated on drawings.
3. Make transitions between changes in paving smooth and gradual with no sharp or abrupt changes, unless otherwise shown.
4. All construction and materials shall meet or exceed the requirements of any state highway department specification section referred to or noted on the drawings, which pertain to paving base course design, materials, preparation, and or execution. All materials shall be as indicated on the drawings and shall comply with Massachusetts State Highway specification regarding source, quality, gradation, liquic limit, plasticity index, and mix proportioning.
5. Compacted subgrade and base courses at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95% of maximum dry unit weight according to ASTM D 1557
6. Provide hot-mix bituminous concrete pavement according to the materials, workmanship, and other applicable requirements of the standard specifications of the state or of authorities having jurisdiction.
7. Exposed aggregate concrete to match the campus standard. Prepare concrete design mixes for each type and strength of concrete.
8. Imported general fill, gravel base and/or structural fill materials shall be certified fill free of hazardous substances and meeting all applicable regulations.
9. Following trenching work per other trades, Contractor is responsible for restoring any damaged surface to its original condition as per the standard landscape details, unless otherwise specified or noted. Contractor shall notify the Landscape Architect if an existing damaged surface due to trenching is not detailed in the drawings.

Landscaping Notes:

1. All nursery stock shall meet the horticultural standards of the American Association of Nurserymen as to grading and quality.
2. All plants shall conform to the measurements specified, except that plants larger than those specified may be used if approved by the Landscape Architect.
3. All plants shall be nursery grown in accordance with good horticultural practices and shall be grown under climatic conditions similar to those in the project locality for at least two years.
4. All plants to be tagged at an approved nursery by the Landscape Architect prior to delivery to the site.
5. The Contractor shall supply all plant material in quantities sufficient to complete the planting shown on drawings.
6. Balled and burlapped plants (B&B) shall be moved with the root system as solid units; roots balls shall be firmly wrapped with burlap. Container grown plants shall not be removed from the container prior to the time of installation; root systems shall be set firmly in the container.
7. Planting soil mix shall consist of seven (7) parts loam and one (1) part compost by volume, with a pH value of 5.0 to 6.0. to a minimum depth of 12".
8. All plant materials shall be guaranteed for one full growing year (one year) after substantial completion. Landscape Architect to perform one spring and one fall inspection after original planting. As seasonal conditions allow, any plant material that dies, turns brown, or unexpectedly defoliates shall be removed from the site and replaced with material of the same species, quality, size, and meeting all planting specifications.
9. If there is a discrepancy between the number of plants shown on the plan and the number of plants shown in the plant list, the number of plants shown on the plan will take precedence. Notify Landscape Architect with any discrepancies.
10. All proposed plants shall be located carefully as shown on the plans prior to the Landscape Architect arriving on site for final approval. Contractor to notify Landscape Architect (3) full days prior to scheduled installation. Landscape Architect may direct Contractor to relocate plants in the field.
11. All planting beds are to receive a minimum of 3" of premium black mulch. A sample is to be approved by the Landscape Architect prior to installation.
12. Scarify all areas under the existing pavement areas to be removed which will have lawn and or planting above to a minimum depth of 12".

Irrigation Notes:

1. Irrigation system to be Contractor designed & submitted to landscape architect for review prior to installation. Submit shop drawings showing full design for irrigation system. Shop drawings shall indicate layout of all components.
2. Use the existing point of connection for repair and expansion of the irrigation system.
3. Equipment to be included are but not limited to sprinklers, valves, controller, climate sensors, valve boxes, pipe and fittings, filters, wire and connectors, grounding equipment, miscellaneous materials.
4. Irrigation coverage areas may extend beyond the Limit of Work line but not across walkways or other paved surfaces, unless otherwise noted. All proposed irrigation work to stay within the Limit of Work line.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
ENVIRONMENTAL SERVICES
PERMITTING SERVICES
TRANSPORTATION SERVICES

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REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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ISSUED FOR CONSTRUCTION

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	MAA240026.01_24X36
DRAWN BY:	LEC/BC
CHECKED BY:	BC
DATE:	02/182025
CAD I.D.:	X-CPTA-TTLB

PROJECT:

SITE DEVELOPMENT PLANS

FOR

CLASS OF '25 GATEWAY WALL

1191 GREENDALE AVENUE, NEEDHAM, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD, 3rd FLOOR
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

M.J. MRVA

REGISTERED LANDSCAPE ARCHITECT
MASSACHUSETTS No. 1217
RHODE ISLAND No. 419
NEW YORK No. 002359
NEW HAMPSHIRE No. 109
CONNECTICUT No. 1359
MAINE No. 4245
VERMONT No. 01337
OHIO No. 250433

SHEET TITLE:

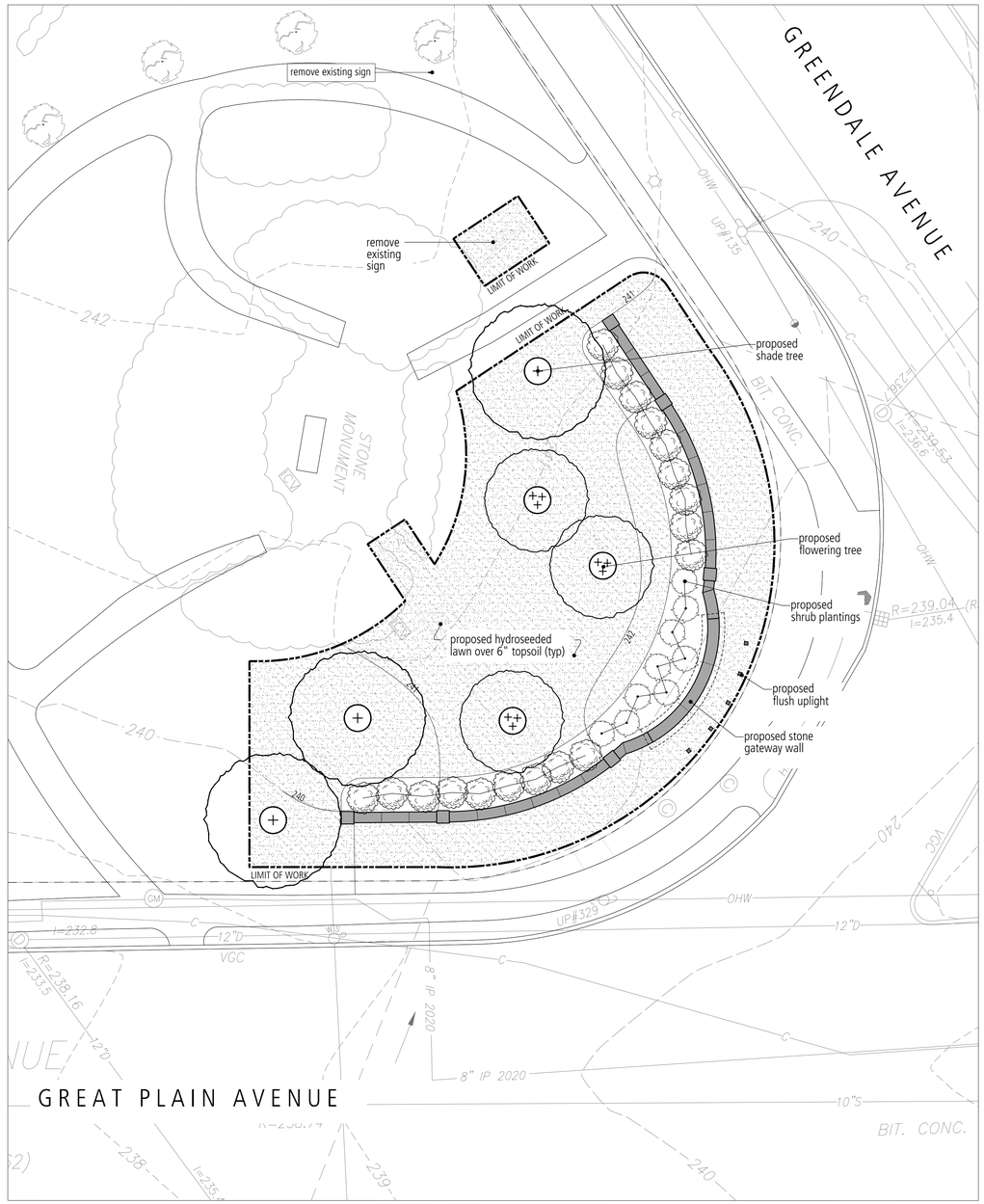
PROJECT NOTES

SHEET NUMBER:

L-100

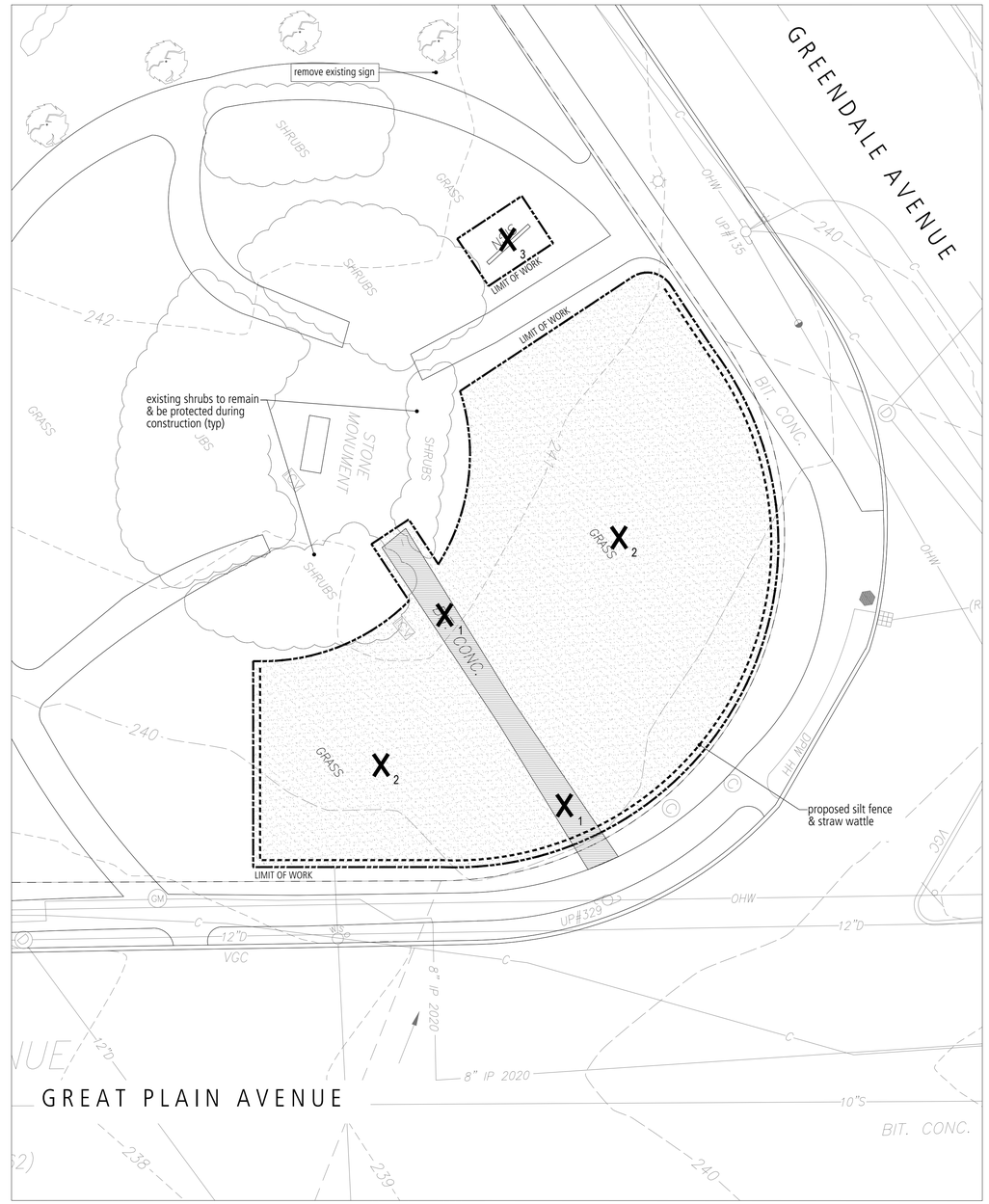
ORG. DATE - 02/18/2025

P:\2024\MAA240026.01\CAD\DRAWINGS\PLAN SETS\LANDSCAPE ARCHITECTURE PLANS\P-PLAD-PROP-MAA240026.01-BC---LAYOUT L-001 NOTES
BC



OVERALL PLAN

0 5 10 20 ft



DEMOLITION PLAN

0 5 10 20 ft

X # Remove & Dispose Key

1. remove and dispose of existing bituminous concrete pavement
2. remove and dispose of existing sign
3. clear & grub existing lawn / vegetation, strip & stockpile loam

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
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DRAWN BY:	LEC/BC
CHECKED BY:	BC
DATE:	02/182025
CAD I.D.:	X-CPTA-TTLB

PROJECT:

SITE DEVELOPMENT PLANS

FOR

CLASS OF '25 GATEWAY WALL

1191 GREENDALE AVENUE, NEEDHAM, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD, 3rd FLOOR
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com

M.J. MRVA

REGISTERED LANDSCAPE ARCHITECT
MASSACHUSETTS No. 1217
RHODE ISLAND No. 419
NEW YORK No. 002359
NEW HAMPSHIRE No. 109
CONNECTICUT No. 1359
MAINE No. 1
VERMONT No. 01337
OHIO No. 250433

SHEET TITLE:

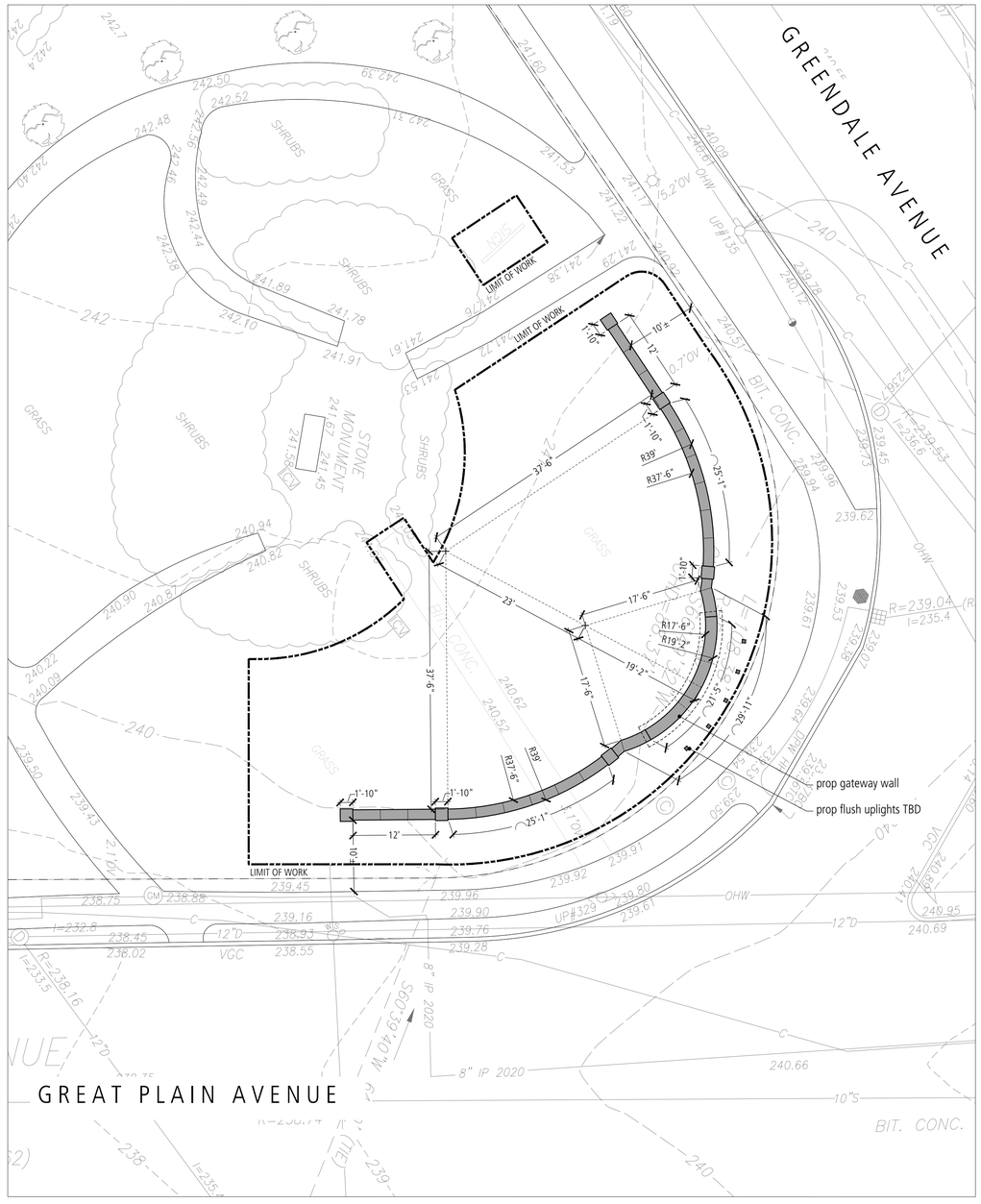
OVERALL & DEMOLITION PLANS

SHEET NUMBER:

L-101

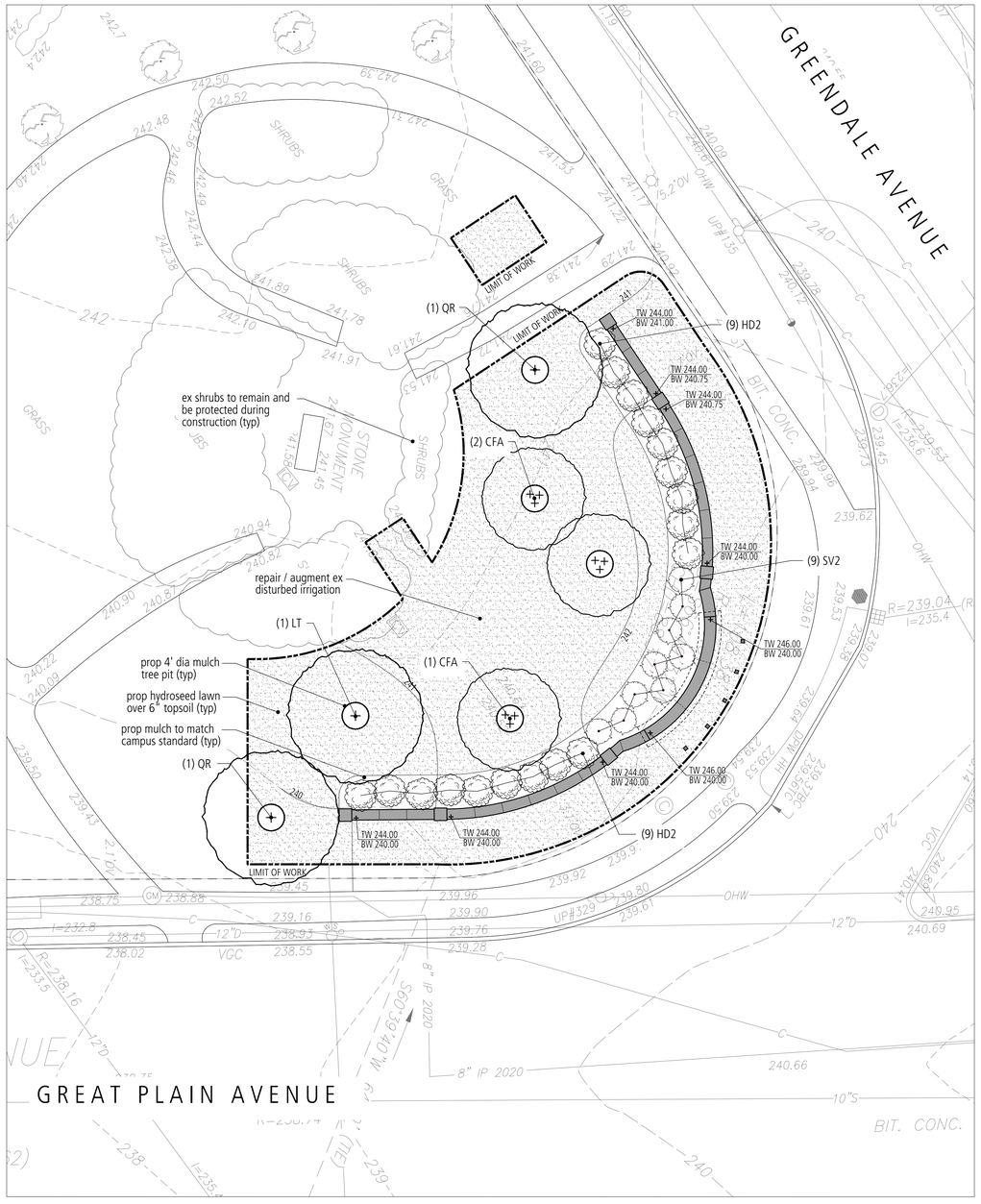
ORG. DATE - 02/18/2025

P:\2024\MAA240026.01\CAD\DRAWINGS\PLAN SETS\LANDSCAPE ARCHITECTURE PLANS\P-PLAD-PROP-MAA240026.01-SB-----1xLAYOUT, L-101 OVERALL - DEMO



LAYOUT & MATERIALS PLAN

0 5 10 20 ft



GRADING & PLANTING PLAN

0 5 10 20 ft

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
CANOPY TREES					
LT	1	LIRIODENDRON TULIPIFERA	TULIP TREE	2.5"-3" CAL.	B&B
QR	2	QUERCUS RUBRA	NORTHERN RED OAK	2.5"-3" CAL.	B&B
ORNAMENTAL TREES					
CFA	3	CORNUS FLORIDA 'APPALACHIAN SNOW'	APPALACHIAN SNOW DOGWOOD	8-10'	B&B
SHRUBS					
HD2	18	HYDRANGEA PANICULATA 'SMNHPH'	LITTLE LIME PUNCH® HYDRANGEA	24-30"	CONTAINER
SV2	9	SYRINGA VULGARIS	COMMON LILAC	24-30"	CONTAINER

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PROJECT No.:	MAA240026.01_24X36
DRAWN BY:	LEC/BC
CHECKED BY:	BC
DATE:	02/182025
CAD I.D.:	X-CPTA-TTLB

PROJECT:

SITE DEVELOPMENT PLANS

FOR

CLASS OF '25 GATEWAY WALL

1191 GREENDALE AVENUE, NEEDHAM, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD, 3rd FLOOR
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NEW HAMPSHIRE No. 109
CONNECTICUT No. 1359
MAINE No. 4248
VERMONT No. 01337
OHIO No. 250433

SHEET TITLE:

SITE IMPROVEMENT PLANS

SHEET NUMBER:

L-102

ORG. DATE - 02/18/2025

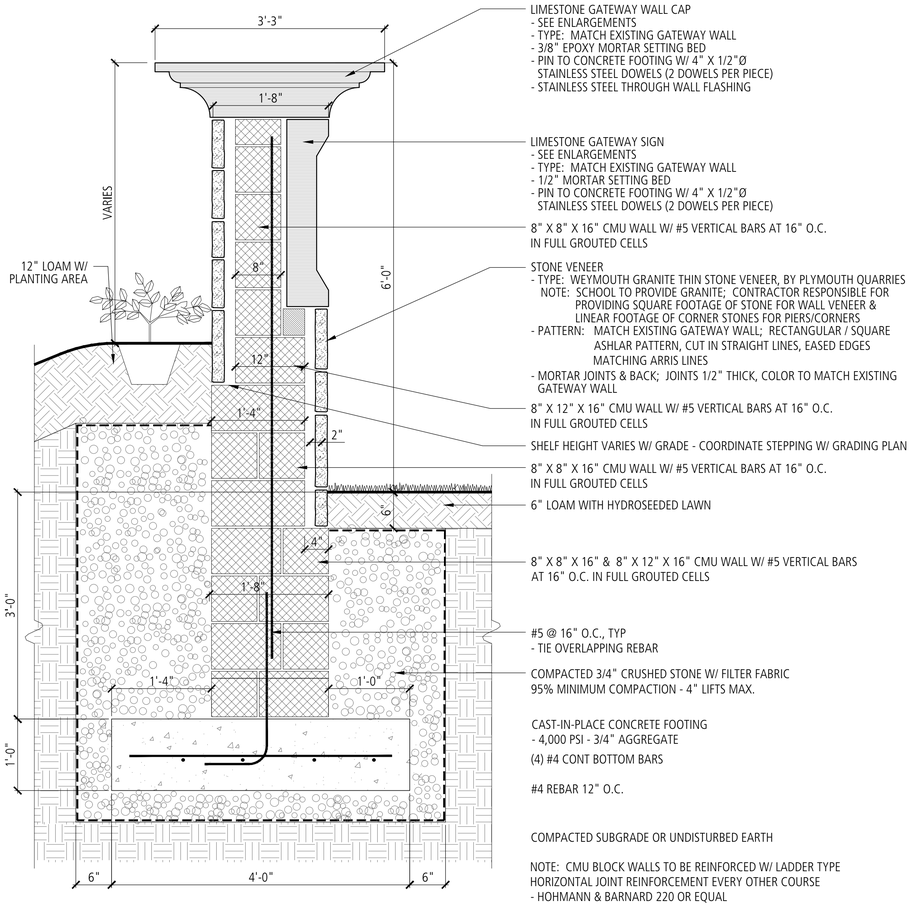
P:\2024\MAA240026.01\CAD\DRAWINGS\PLAN SET\SLA\01SCAPE ARCHITECTURE PLAN\P-PLAD-PROP-MAA240026.01-SB-----LAYOUT, L-102 LAYOUT + MATERIALS







EXISTING ST. SEBASTIAN'S SCHOOL STONE WALL TO MATCH



LIMESTONE GATEWAY WALL CAP
- SEE ENLARGEMENTS
- TYPE: MATCH EXISTING GATEWAY WALL
- 3/8" EPOXY MORTAR SETTING BED
- PIN TO CONCRETE FOOTING W/ 4" X 1/2"Ø STAINLESS STEEL DOWELS (2 DOWELS PER PIECE)
- STAINLESS STEEL THROUGH WALL FLASHING

LIMESTONE GATEWAY SIGN
- SEE ENLARGEMENTS
- TYPE: MATCH EXISTING GATEWAY WALL
- 1/2" MORTAR SETTING BED
- PIN TO CONCRETE FOOTING W/ 4" X 1/2"Ø STAINLESS STEEL DOWELS (2 DOWELS PER PIECE)

8" X 8" X 16" CMU WALL W/ #5 VERTICAL BARS AT 16" O.C. IN FULL GROUTED CELLS

STONE VENEER
- TYPE: WEYMOUTH GRANITE THIN STONE VENEER, BY PLYMOUTH QUARRIES
NOTE: SCHOOL TO PROVIDE GRANITE; CONTRACTOR RESPONSIBLE FOR PROVIDING SQUARE FOOTAGE OF STONE FOR WALL VENEER & LINEAR FOOTAGE OF CORNER STONES FOR PIERS/CORNERS
- PATTERN: MATCH EXISTING GATEWAY WALL; RECTANGULAR / SQUARE ASHLAR PATTERN, CUT IN STRAIGHT LINES, EASED EDGES MATCHING ARRIS LINES
- MORTAR JOINTS & BACK; JOINTS 1/2" THICK, COLOR TO MATCH EXISTING GATEWAY WALL

8" X 12" X 16" CMU WALL W/ #5 VERTICAL BARS AT 16" O.C. IN FULL GROUTED CELLS

SHELF HEIGHT VARIES W/ GRADE - COORDINATE STEPPING W/ GRADING PLAN

8" X 8" X 16" CMU WALL W/ #5 VERTICAL BARS AT 16" O.C. IN FULL GROUTED CELLS

6" LOAM WITH HYDROSEEDED LAWN

8" X 8" X 16" & 8" X 12" X 16" CMU WALL W/ #5 VERTICAL BARS AT 16" O.C. IN FULL GROUTED CELLS

#5 @ 16" O.C., TYP
- TIE OVERLAPPING REBAR

COMPACTED 3/4" CRUSHED STONE W/ FILTER FABRIC
95% MINIMUM COMPACTION - 4" LIFTS MAX.

CAST-IN-PLACE CONCRETE FOOTING
- 4,000 PSI - 3/4" AGGREGATE

(4) #4 CONT BOTTOM BARS

#4 REBAR 12" O.C.

COMPACTED SUBGRADE OR UNDISTURBED EARTH

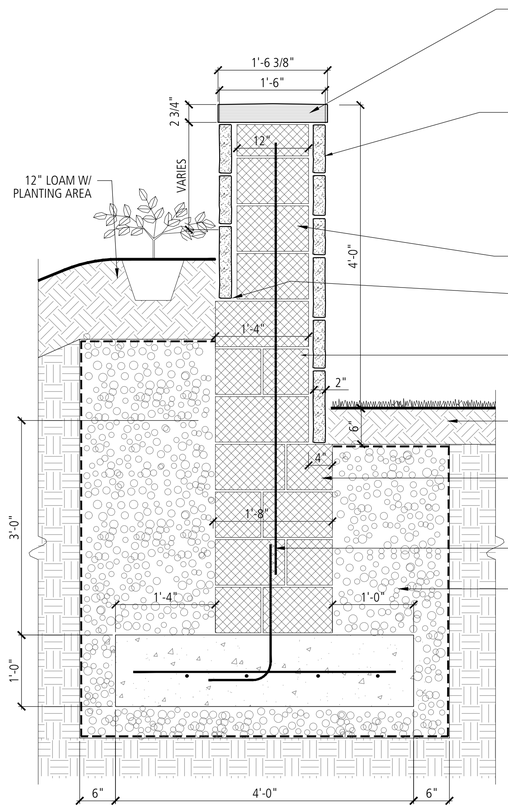
NOTE: CMU BLOCK WALLS TO BE REINFORCED W/ LADDER TYPE HORIZONTAL JOINT REINFORCEMENT EVERY OTHER COURSE
- HOHMANN & BARNARD 220 OR EQUAL

NOTE: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS STAMPED BY A STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO INSTALLATION

NOTE: PROVIDE FIELD MOCKUP TO CONFIRM PROPOSED STONE ASHLAR PATTERN MATCHES THE EXISTING GATEWAY WALL ACROSS GREENDALE AVENUE

NOTE: PROVIDE SHOP DRAWINGS OF ALL WALL COMPONENTS FOR APPROVAL PRIOR TO FABRICATION

WALL SECTION AT GATEWAY



LIMESTONE WALL CAP
- SEE ENLARGEMENTS
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SHELF HEIGHT VARIES W/ GRADE
- COORDINATE STEPPING W/ GRADING PLAN

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#5 @ 16" O.C., TYP
- TIE OVERLAPPING REBAR

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95% MINIMUM COMPACTION - 4" LIFTS MAX.

CAST-IN-PLACE CONCRETE FOOTING
- 4,000 PSI - 3/4" AGGREGATE

(4) #4 CONT BOTTOM BARS

#4 REBAR 12" O.C.

COMPACTED SUBGRADE OR UNDISTURBED EARTH

NOTE: CMU BLOCK WALLS TO BE REINFORCED W/ LADDER TYPE HORIZONTAL JOINT REINFORCEMENT EVERY OTHER COURSE
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NOTE: PROVIDE SHOP DRAWINGS OF ALL WALL COMPONENTS FOR APPROVAL PRIOR TO FABRICATION

WALL SECTION

1 STONE VENEER WALL

SCALE: N.T.S.

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NEW HAMPSHIRE No. 559
CONNECTICUT No. 1359
MAINE No. 4246
VERMONT No. 01337
OHIO No. 250433

SHEET TITLE:

DETAILS

SHEET NUMBER:

L-103

ORG. DATE - 02/18/2025

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BC



ELEVATION: OVERALL



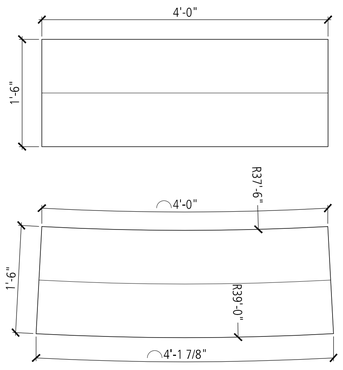
ELEVATION: ST. SEBASTIAN'S SCHOOL MOTTO



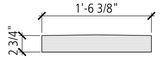
ELEVATION: ST. SEBASTIAN'S SCHOOL GATEWAY SIGN

1 WALL ELEVATIONS

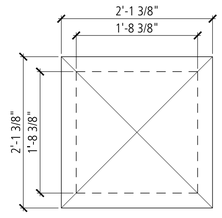
SCALE: N.T.S.



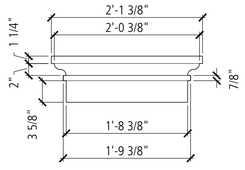
PLAN: WALL CAP



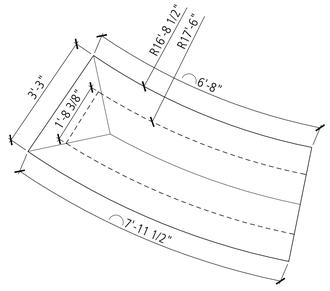
SECTION: WALL CAP

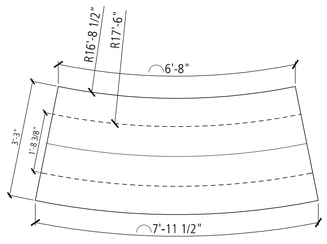


PLAN: PIER CAP

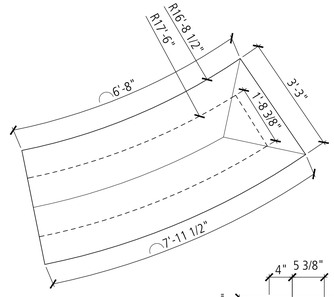


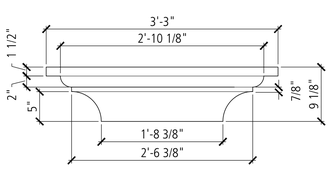
SECTION: PIER CAP



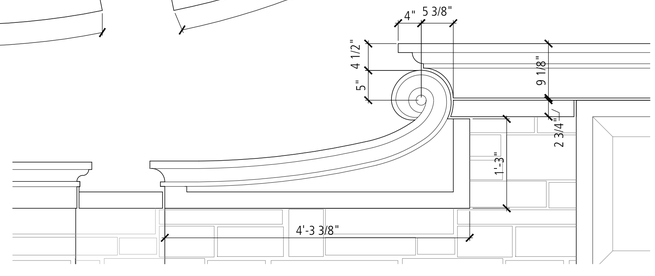


PLAN: GATEWAY WALL CAP





SECTION: GATEWAY WALL CAP

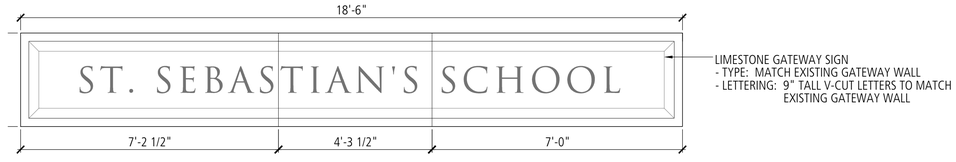


ELEVATION: SCROLL & GATEWAY WALL CAP

NOTE: DIMENSIONS ARE APPROXIMATE; FIELD CONFIRM & PROVIDE SHOP DRAWINGS OF ALL LIMESTONE WALL CAPS, PIER CAPS, & SCROLL FOR APPROVAL PRIOR TO FABRICATION

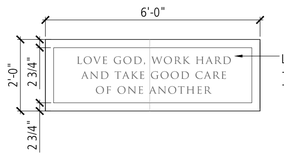
2 LIMESTONE WALL & PIER CAP STONE

SCALE: N.T.S.



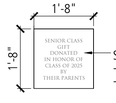
LIMESTONE GATEWAY SIGN
- TYPE: MATCH EXISTING GATEWAY WALL
- LETTERING: 9" TALL V-CUT LETTERS TO MATCH EXISTING GATEWAY WALL

GATEWAY PANEL SIGN



LIMESTONE MOTTO SIGN
- TYPE: MATCH EXISTING GATEWAY WALL
- LETTERING: 3" TALL V-CUT LETTERS TO MATCH EXISTING GATEWAY WALL

SCHOOL MOTTO



STONE VENEER ACKNOWLEDGMENT
- SANDBLASTED LETTERS
- MATCH STONE ACKNOWLEDGEMENT ON EXISTING GATEWAY SIGN

CLASS ACKNOWLEDGEMENT

NOTE: DIMENSIONS ARE APPROXIMATE; FIELD CONFIRM & PROVIDE SHOP DRAWINGS OF ALL LIMESTONE PANELS FOR APPROVAL PRIOR TO FABRICATION

3 GATEWAY PANEL, SCHOOL MOTTO, CLASS ACKNOWLEDGEMENT

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PROJECT:

SITE DEVELOPMENT PLANS

FOR

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AVENUE, NEEDHAM,
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VERMONT No. 015737
OHIO No. 250433

SHEET TITLE:

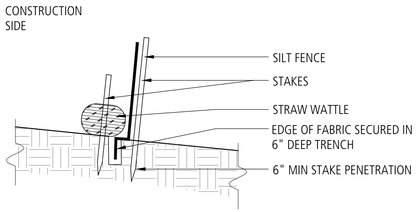
DETAILS

SHEET NUMBER:

L-104

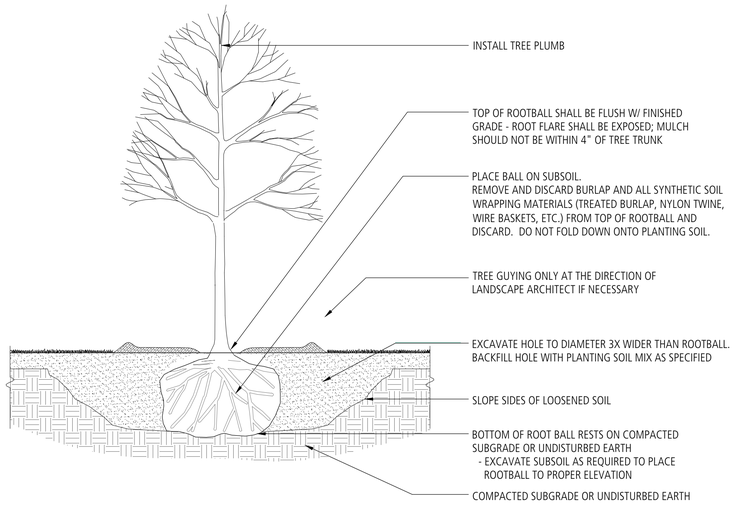
ORG. DATE - 02/18/2025

P:\2024\MAA240026.01\CAD\DRAWINGS\PLAN SETS\LANDSCAPE ARCHITECTURE PLANS\P-PLAD-PROP-MAA240026.01-05-----1A LAYOUT 1 - L-104 DETAILS



1 SILT FENCE & STRAW WATTLE

SCALE: N.T.S.

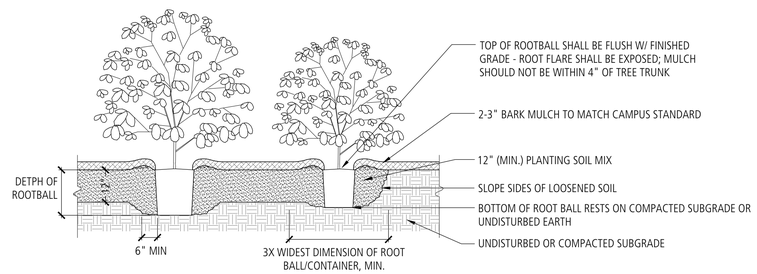


NOTE: PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND THE ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN THE PLANTING HOLE HAS BEEN BACKFILLED, POUR WATER AROUND THE ROOT BALL TO SETTLE THE SOIL.

NOTE: APPLY ROOT STIMULANT FERTILIZER TO EACH PLANT AS SPECIFIED BY MANUFACTURER

2 DECIDUOUS TREE PLANTING

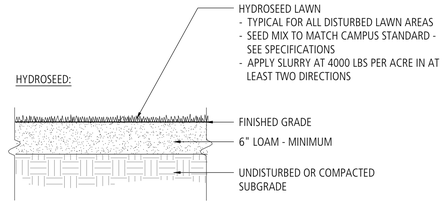
SCALE: N.T.S.



NOTES:
1. APPLY ROOT STIMULANT FERTILIZER TO EACH PLANT AS SPECIFIED BY MANUFACTURER
2. SCARIFY ROOTS OF CONTAINERIZED PLANTS PRIOR TO PLANTING
3. ALL SLOPES STEEPER THAN 2:1 (RUN LENGTH : RISE HEIGHT) SHALL RECEIVE EROSION CONTROL FABRIC.
4. PROTECT EXISTING TREES & ROOT SYSTEM

3 SHRUB PLANTING

SCALE: N.T.S.



5 HYDROSEEDED LAWN

SCALE: N.T.S.

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SHEET TITLE:

DETAILS

SHEET NUMBER:

L-105

ORG. DATE - 02/18/2025

P:\2024\MAA240026.01\CAD\DRAWINGS\PLAN SETS\LANDSCAPE ARCHITECTURE PLANS\PLAN-PLAD-PROP-MAA240026.01-24B-----A1LAYOUT L-104 DETAILS
BC



TECHNICAL SPECIFICATIONS

FOR

CLASS OF '25 GATEWAY WALL

AT

ST. SEBASTIAN'S SCHOOL
NEEDHAM, MASSACHUSETTS

Landscape Architect:

BOHLER
352 Turnpike Road
Southborough MA 01772

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SECTION 033000
CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

B. References in the contract documents to the "Owner" shall mean St. Sebatian’s School

C. Related Sections include the following:

1. Section 033000 “Cast-in-Place Concrete”
2. Section 042000 “Unit Masonry”
3. Section 311000 “Landscape Demolition & Site Preparation”
4. Section 312000 “Earthwork”
5. Section 329100 “Landscaping”

1.2 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Design Mixtures: For each concrete mixture.

C. Shop Drawings: For steel reinforcement and formwork.

D. Material test reports

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

B. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:

1. ACI 301, "Specification for Structural Concrete,"
2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

C. Pre-installation Conference: Conduct conference at Project site.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.

B. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

2.2 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
   1. Epoxy-Coated Reinforcing Bars: ASTM A 775/A 775M, epoxy coated, with less than 2 percent damaged coating in each 12-inch (300-mm) bar length.

B. Plain-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from as-drawn steel wire into flat sheets.

C. Deformed-Steel Welded Wire Reinforcement: ASTM A 497, flat sheet.

D. Galvanized-Steel Welded Wire Reinforcement: ASTM A 185, plain, fabricated from galvanized steel wire into flat sheets.

E. Epoxy-Coated Welded Wire Reinforcement: ASTM A 884/A 884M, Class A coated, Type 1, plain steel.

F. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

2.3 CONCRETE MATERIALS

A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:

   1. Portland Cement: ASTM C 150, Type I, II, or III, gray. Supplement with the following:

      a. Fly Ash: ASTM C 618, Class **C**.

B. Normal-Weight Aggregates: ASTM C 33, graded, 3/4-inch (19-mm) nominal maximum coarse-aggregate size.

   1. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

C. Water: ASTM C 94/C 94M.

D. Air-Entraining Admixture: ASTM C 260.

E. Chemical Admixtures: As necessary provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions

exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.4 WATERSTOPS

A. Flexible Rubber Waterstops: CE CRD-C 513, with factory-installed metal eyelets, for embedding in concrete to prevent passage of fluids through joints. Factory fabricate corners, intersections, and directional changes.

2.5 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.

C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

D. Water: Potable.

E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.

2.6 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.

2.7 CONCRETE MIXTURES

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.

B. Concrete Mix Designs: submit mix designs for each class of concrete.
   1. Indicate the following for each mix design
      a. Class designation
      b. Proportions of cement, fine and coarse aggregates, and water
      c. Water-cement ratio, design strength, slump, and air content.
      d. Type of cement and aggregates
      e. Type and dosage of admixtures
   2. Mix designs shall be adjusted as required by weather and jobsite conditions to maintain the specific strengths throughout the course of the work without additional cost to the Owner.

3. As strength data becomes available during the progress of work, mix designs may be adjusted in accordance with ACI 318.
4. Minimum Cement Content: Cement content shall not be less than 320 pounds per cubic yard.
5. Fly ash content shall be limited to 30 percent of weight of Type 1 Portland Cement used.
6. Mixes to obtain required strengths in 28 days or less from the day of placement.

2.8 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.9 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

C. Chamfer exterior corners and edges of permanently exposed concrete.

3.2 EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 STEEL REINFORCEMENT

A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

3.4 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- (3.2-mm-) wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

E. Waterstops: Install in construction joints and at other joints indicated according to manufacturer's written instructions.

3.5 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.

C. Cold-Weather Placement: Comply with ACI 306.1.

D. Hot-Weather Placement: Comply with ACI 301.

3.6 FINISHING FORMED SURFACES

A. Rough-Formed Finish: As-cast concrete texture imparted by form-facing material with tie holes and defects repaired and patched. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

1. Apply to concrete surfaces not exposed to public view.

B. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and

defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

1. Apply to concrete surfaces exposed to public view.

C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

3.7 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

3.8 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

3.9 FIELD QUALITY CONTROL

A. Testing and Inspecting: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.

1. Testing Services: Tests shall be performed according to ACI 301.

END OF SECTION

SECTION 042000
UNIT MASONRY

PART 1 GENERAL

1.01 SUMMARY

A. The work of this Section consists of providing all equipment and materials and do all work necessary to build masonry structures as indicated on the Contract Documents and as defined in this Section, or both. Build work of other trades into Work of this Section as required by other Sections of this Specification. The Work of this Section shall include, but is not limited to, the following:

1. Stone-faced walls
2. Installation of stone wall caps
3. Masonry reinforcement, pins and accessories
4. Flashing

B. References in the contract documents to the "Owner" shall mean St. Sebastian’s School

C. Related Sections include the following:

1. Section 033000 “Cast-in-Place Concrete”
2. Section 311000 “Landscape Demolition & Site Preparation”
3. Section 312000 “Earthwork”
4. Section 329100 “Landscaping”

1.02 REFERENCES

A. The following standards shall apply to the work of this Section.

1. National Concrete Masonry Association Standard "Specifications for the Design and Construction of Load Bearing Concrete Masonry." (NCMA)
2. "Recommended Practices for Cold Weather Masonry Construction" by the International Masonry Industry All-Weather Council.
3. ACI: American Concrete Institute

530-99/530.1-99	Building Code Regulations for Masonry Structures and Specifications for Masonry Structures and Commentaries

4. ASTM: American Society for Testing and Materials

A82-97a	Standard Specification for Steel Wire, Plain, for Concrete Reinforcement
A153/ A153M	Standard Specification for Zinc Coating (Hot-dip) on Iron and Steel Hardware
A276	Standard Specification for Stainless Steel Bars and Shapes
B5	Standard Specification for High Conductivity Tough-Pitch Copper Refinery Shapes
B101	Standard Specification for Lead-Coated Copper Sheet and Strip for Building Construction
B370	Standard Specification for Copper Sheet and Strip for Building Construction.

C31/C31M	Standard Specification for Making and Curing Concrete Test Specimens in the Field
C62	Standard Specification for Building Brick (Solid Masonry Units Made from Clay or Shale)
C67	Standard Test method for Sampling and Testing Brick and Structural Clay Tile
C90	Standard Specification for Loadbearing Concrete Masonry Units
C144	Standard Specification for Aggregate for Mortar Masonry
C150	Standard Specification for Portland Cement
C207	Standard Specification for Hydrated lime for Masonry Purposes
C216	Standard Specification for Facing Brick
C260	Standard Specification for Air-entraining Admixtures for Concrete
C270	Standard Specification for Mortar for Unit Masonry
C426	Standard Test Method for Linear Drying Shrinkage for Concrete Masonry Units
C827	Standard Test Method for change in Height at Early Ages of Cylindrical specimens from Cementious Mixtures

5. SMACNA: Sheet Metal and Air Conditioning Contractors Association, Ownerural and Sheet Metal Manual, latest edition.
6. FS: Federal Specifications as indicated

1.03 SUBMITTALS

A. Shop Drawings: Submit Shop Drawings for the stone-faced gateway wall. Include plans, sections, and details as required to completely show materials, layout, jointing, clearances and connections for all items required. Shop Drawings requiring accurate dimensional relationships to as-built construction, shall be prepared following a review and confirmation of as-built measurements and conditions for areas scheduled to receive site improvements. Items include the following:

1. Stone-faced walls, showing all aspects of construction, including but not limited to, footings, wall caps, stone coursing, weep hole locations, ties to concrete wall, etc. Portions over 4’ tall must be stamped by a structural engineer.

B. Material Samples to show range of colors:
1. Limestone material proposed with a 9” tall v-cut letter and a 3” tall v-cut letter

C. Submit one sample for each material of the following:
1. Mortar. Submit range of colors.
2. Stainless steel pin

D. Manufacturer's Literature: 3 copies each of manufacturer's material descriptions and installation instructions for the following:

1. Joint filling materials
2. Non-shrink grout
3. Flashing
4. Anchors, ties and accessories.
5. PVC pipe and filter fabric for weep holes.

E. Test Reports: Pay for and submit to the Owner independent laboratory test reports for each type of masonry unit prior to completion of mock-up. Test in accordance with the referenced ASTM specification:

1. Compressive strength ASTM C216
2. 24-hour cold water absorption ASTM C216
3. 5-hour boil absorption ASTM C216
4. Freezing and thawing (50 cycles) ASTM C216
5. Saturation coefficient ASTM C216
6. Initial rate of absorption (suction) ASTM C216
7. Efflorescence ASTM C216

F. Constructed Sample:

1. Review the existing gateway wall at the corner of Greendale Avenue and Great Plain Avenue with the Landscape Architect and Owner to discuss the details of the stone pattern and layout, jointing, arias lines, and general design intent. Landscape Architect and Owner will visit Plymouth Quarries with the Contractor to discuss stone work and design intent if helpful to the Contractor.

2. Fabricate a stone mockup in a completed 4-foot long x 4-foot high, sample section of granite thin stone veneer for review prior to fabrication. Upon approval samples shall be the standard of quality for all walls by individual type. In the event the sample is not approved, the Contractor shall immediately remove the unapproved sample and submit a new, similarly dimensioned, constructed sample for approval. Repeat preparation of samples until acceptance by the Owner. Following the completion of the wall work, the sample shall be removed from the site.

3. Notify the Owner one week in advance of the dates and times when constructed samples will be erected.

4. Protect constructed samples from the elements with weather-resistant membranes for the duration of the Project.

1.04 QUALITY STANDARDS

A. Installer of masonry items shall have completed masonry installation similar in material and extent to that indicated on the Contract Documents and in this Section and that has resulted in construction with a record of successful in-service performance.

B. Installer shall have on staff a supervising Foreman assigned full time to this Project, from time of full-scale sample installation until completion of the Work. Foreman shall have at least 10 years total masonry work experience and at least 5 years experience in face brick façade installation of equivalent type and similar scope of this Project.

C. Use numbers of skilled workmen, in addition to required Apprentices, equal to work requirement or occasion. The skilled workmen shall be thoroughly trained and experience in the necessary crafts and shall be completely familiar with the specific requirements and methods needed for performance of the Work of this Section.

D. Single-source Responsibility for Masonry Units: Obtain exposed masonry units of uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from

one manufacturer for each different product required for each continuous surface or visually related surface.

1.05 DELIVERY, STORAGE AND HANDLING

A. Protect masonry units and manufactured products of all types from wetting by rain or snow, and keep covered when not in use.

B. Masonry face units: Handle all face materials carefully in transit and on the site so as to keep units whole, edges sharp and faces clean and undamaged. Do not dump masonry face units but deliver on pallets, handled individually or in suitable groups and properly stacked with minimum protection for the following items:
   1. Bricks
   2. Caps

C. Manufactured items: Deliver all manufactured products in their original containers, plainly marked with product identification and manufacturer's name.

D. Store cement, lime and similar products under cover and away from direct contact with earth or floor slabs.

E. Store metal accessories and the like under cover, away from direct contact with ground, and in a manner to prevent corrosion and accumulation of dirt, grease and oil.

F. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

G. Damaged material: Remove all damaged and contaminated materials from job site immediately, including materials in broken packages and packages bearing water marks or other evidence of damage, unless Owner specifically authorizes correction and use on the project.

1.06 PROTECTION OF WORK

A. During masonry installation, cover exposed tops of exterior masonry work with heavy waterproof sheeting at end of each day's work. Cover partially completed structures when work is not in progress. Extend cover a minimum of 24 inches down both sides and hold cover securely in place.

B. Staining: Prevent grout, mortar or soil from staining the face of masonry to be left exposed. Remove immediately grout, soil or mortar that comes in contact with such masonry. Protect base of walls from rain-splashed mud and mortar splatter by means of coverings spread on ground and over wall surfaces.

1.07 COLD WEATHER PRECAUTIONS

A. Follow recommended practices for cold weather masonry construction noted by the in addition to or except as follows.

B. Remove ice and snow formed on masonry beds. Carefully apply heat until top surface is dry to the touch.

C. Remove all masonry frozen or damaged by freezing conditions.

D. When mean daily temperature is 40 degrees Fahrenheit and below maintain completed masonry temperature above 40 degrees Fahrenheit for 72 hours using enclosures and supplementary heat, electric heating blankets, infrared lamps, or other acceptable methods.

E. When so approved in writing by the Owner, the following optional procedures may be used:

1. Change to a higher type of mortar in accordance with ASTM C270. (If Type N mortar is specified for normal temperature, change to Type S or Type M).
2. Increase the protection time to 96 hours with no change made in the type of mortar.
3. Without changing the mortar type and while maintaining 24-hour protection, replace Type I Portland cement in the mortar with Type III.

F. Do not lay masonry units that are wet or frozen.

PART 2 - PRODUCTS

2.01 GRANITE WALL VENEER

A. General:

1. Granite thin stone wall veneer – type: Weymouth Granite, as provided by Plymouth Quarries in Hingham, MA
2. Owner to purchase and furnish the granite thin stone wall veneer.
3. Contractor to provide square footages of thin stone veneer and linear footage for thin stone veneer corners pieces as required for proposed wall installation

2.02 LIMESTONE WALL CAPS & SIGNAGE PANELS

A. Limestone wall caps color and type are to match the existing gateway wall at the corner of Greendale Avenue and Great Plain Avenue

2.03 MORTAR MATERIALS

A. Setting bed mortar shall conform to ASTM C 270, Type S, except that latex polymer additive shall be mixed with the cementitious materials and aggregate in lieu of water.

B. Cement: Shall be an American Portland cement conforming to ASTM C150, Type I or II, except Type III may be used for cold-weather construction, as selected by the Owner and shall exhibit no efflorescence when cast into 2 inch x 7 inch x ½ inch (50 mm x 178 mm x 13 mm) slabs comprising the mortar under test.

C. Water: clean, fresh and potable, from public water system.

D. Sand: clean, washed, uniformly well-graded, conforming to ASTM C144 with 100 percent passing No. 8 sieve (2.37 mm), and not more than 35 percent passing No. 50 sieve (300 um), with a fineness modulus maintained at 2.25 plus or minus 0.10.

1. White-Mortar Aggregates: Natural, white sand or ground, white stone.
2. Colored-Mortar Aggregates: Natural, colored sand or ground marble, granite, or other sound stone; as required to match Owner's sample.

E. Hydrated Lime: provide plastic hydrate, conforming to ASTM C207, Type "S" as approved by the Owner.

F. Integral waterproofing: for all mortar use Master Builder's "Omicron Mortar-proofing", Sonneborn "Hydrocide", Pardee "Drycrete", or equal.

G. Mortar Pigments: shall be pure, non-fading mineral pigmented mortar cement equal to Medusa, Flamingo or Hydroment as approved by the Owner. Use only pigments with record of satisfactory performance in masonry mortars. Color materials shall not exceed 2 percent of weight of cement used. Color shall be as selected by the Owner.

H. Anti-freeze admixtures and accelerators shall not be used in mortar.

2.04 MASONRY REINFORCEMENT, ANCHORS AND PINS

A. Reinforcing Ties and Anchors

1. Horizontal Joint Reinforcing and masonry to Masonry Ties: Provide ladder type, welded wire units fabricated from 9 gauge ASTM A82 cold-drawn galvanized steel wire with deformed side wires and smooth cross wires spaced not more than 16 inches on center. Provide prefabricated corners and tees.
2. Masonry to concrete anchors:
   a. Dovetail anchor slots shall be hot dip galvanized sheet steel as specified, provided, installed and paid for under Division 3 Section, CAST-IN-PLACE CONRETE, of this Specification.
   b. Provide pre-galvanized brick anchors compatible with the dovetail anchor slot specified and approved under Division 3 Section, CAST-IN-PLACE CONCRETE, of this Specification. Dovetail anchors shall be 12 gauge strip and 3/8 inch diameter rounds and shall be provided, installed and paid for under this Division 4 Section, UNIT MASONRY.
3. Miscellaneous anchors and ties: Provide stainless steel straps, bars, rods and similar items which are fabricated from stainless steel complying with ASTM A 276 or ASTM A 666, Type 304.
4. Galvanizing: Provide hot-dipped galvanized, ASTM A153, class B2, 1.5 ounces per square foot zinc coating on all ties, anchors and similar items which extend into an exterior wall assembly.

B. Pins

1. Stainless steel pins used in the placement of caps shall be stainless steel bar stock conforming to the requirements of ASTM A276-98B Type 304, sized as shown on the Contract Documents, and provided, delivered, installed and paid for under this Division 4 Section, UNIT MASONRY.

2.05 GROUT

A. Prepackaged grout (ready mix) complying with ASTM C 1107, or site-mixed Portland cement grout complying with ASTM C 476 may be used.

B. Grout for setting equipment, anchor bolts, elevator guide rails, structural steel elements and miscellaneous metals: Non-metallic high-strength controlled expansion grout of flowable con-

sistency, having a compressive strength of 6,500 pounds per square inch (44.9 MPa) at 28 days; slump 8 to 10 inches.

1. Basis of Design: Five Star Products, Inc., Fairfield CT, product "Five Star Grout."
2. L&M Construction Chemicals, Omaha NE, Product: "Crystex."
3. Master Builders, Cleveland, OH, product "Masterflow 713".
4. Sika Corporation, Lyndhurst, NJ, product "SikaGrout 212".
5. Sonneborn Building Products, Minneapolis, MN, product "Sonogrout 10K".
6. Symons Corporation, DesPlaines, IL, product "Symons Multi Purpose Grout".

C. Grout for engineered masonry (core fill): Course grout having a compressive strength of 2,000 to 2,250 pounds per square inch (13.8 to 15.5 MPa) at 28 days; slump 8 to 10 inches.

1. Use 1/3 fly ash cement replacement in grout for exposed walls to reduce risk and intensity of efflorescence. Comply with ASTM C 476, for fine grout.
   a. Proportions by volume 1:1/3:3 (Portland cement, fly ash, sand).
   b. Fly ash: Class F.

D. Grout for bond beams and lintels: Fine grout having a compressive strength of 2,500 to 3,000 pounds

2.06 JOINT FILLING MATERIALS

A. Filler materials, including filler, sealants, backer rods and joint primers shall be specified, provided, installed and paid for under the Division 7 Section, JOINT SEALERS, of this Specification.

2.07 WEEP HOLES

A. Pipe: Provide 2 inch PVC, schedule 40, as manufactured by Triangle Inc., or equal.

B. Filter Fabric: Provide "Mirafi 140" as manufactured by Celanese Fibers Marketing Co., New York, New York, 10036, or approved equal.

C. Drainage material shall be 0.75 inch crushed stone specified, installed and paid for under the Division 2 Section: EARTHWORK, of this Specification.

2.08 CONCRETE AND REINFORCEMENT

A. Concrete foundation walls, concrete caps, concrete infill and reinforcing steel shall be specified, furnished, installed and paid for under the Division 3 Section, CAST-IN-PLACE CONCRETE, of this Specification.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Contractor shall inspect the job site conditions prior to commencing Work of this Section. Examine conditions for compliance with requirements for installation tolerances and other specific conditions, and other conditions affecting performance of unit masonry

B. Examine existing conditions for coordination with other trades and other section of this Specification

C. Do not proceed until any unsatisfactory conditions have been corrected.

3.02 WORKMANSHIP - GENERAL

A. Comply with ACI 530/530.1 for unit masonry standards applicable to each type of installation included in Project.

B. Erect all masonry work in compliance with line and level tolerances specified in this Section. Correct or replace, as directed by the Owner, non-conforming masonry work at no additional cost to the Owner.

C. Lay no exposed unit having chipped edges or face defects. Remove any such unit, if installed, and replace with an undamaged unit, and bear all costs of this Work.

D. Examine all Contract Documents as to requirements for the accommodation of work of other trades and Contractors. Take every precaution to minimize cutting and patching. Deliver inserts and other anchorage items required to be cast into concrete in sufficient time to prevent any delay in such work. Closely coordinate the location and placement of such items.

E. Thickness: Build masonry construction to the full thickness shown.

F. Leave openings for equipment to be installed before completion of masonry. After installation of equipment, complete masonry to match construction immediately adjacent to the opening.

G. Protect all masonry from rain prior to, and during the installation thereof. If ambient temperature is in excess of 80 degrees Fahrenheit at time of installation, lightly moisten contact surfaces of masonry units by brushing with water.

H. Do all cutting and patching of masonry required for the Work. Cut exposed masonry units with motor-driven saws to provide clean, sharp, unchipped edges. Cut units as required to provide continuous pattern and to fit adjoining construction. Use full-size units without cutting where possible.

I. Provide protection against breakage and weather damage to all masonry work, including coverings over the tops of walls and wherever necessary to protect work at all stages of completion. Protect masonry at all times when masons are not working on the walls. Apply tarpaulins or waterproof paper properly weighted or nailed to assure their remaining in place to protect masonry.

J. Lay out all coursing before setting to eliminate cutting closures or jumping bond. Do not spread any more mortar than can be covered before surface of mortar has begun to dry. Do not endanger bond or mortar by moving masonry when once laid; if necessary to readjust any items, remove entirely, clean off mortar, and reset with fresh mortar.

K. Except for cleaning down and re-pointing, finish all masonry as the walls and partitions are carried up. Take special care to avoid soiling or staining masonry that is to remain exposed in finish work.

3.03 MORTAR BEDDING AND JOINTING

A. Brick and concrete masonry unit laying: Set brick and concrete masonry units in full bed of mortar with all vertical joints slushed full. Fill dowel, anchor, and similar holes solid. Apply enough mortar at bed and end joints to allow mortar to be forced out both sides of the face shell. Wet brick and concrete masonry unit joint surfaces thoroughly before setting. For brick and concrete masonry unit surfaces that are soiled, clean bedding and exposed surfaces with fiber brush and soap powder and rinse thoroughly with clear water.

B. Cut joints flush for masonry walls to be concealed or to be covered by other materials, unless otherwise indicated.

C. Point and fill all holes and cracks in new mortar joints with additional fresh mortar; do not merely spread adjacent mortar over defect or use dead mortar dropping. Do all pointing while mortar is still soft and plastic. If hardened, chisel defect out and refill solidly with fresh additional mortar and tool as specified.

D. Lay all masonry in full mortar beds. Completely butter vertical edges with mortar. Completely fill cells of masonry units with mortar where in anchorage and vertical reinforcement items are to be installed and in other locations specified or indicated on the Contract Documents.

E. Joints: Tooled, concave

3.04 ALLOWABLE TOLERANCES FOR MASONRY WORK

A. Maximum variation from true surface level for walls:
   1. Unit-to-unit tolerance – one-eighth inch.
   2. Surface, overall tolerance – 0.25 inch in 10 feet in any direction when tested with 10-foot straightedge.
   3. Maximum variation from true vertical plumb lines: 0.25 inch in 10 feet in lines of walls.
   4. Maximum variation of linear building line from an established position in plan:
      a. 0.5 inch in up to 20 feet
      b. 0.75 inch in 40 feet maximum

3.05 MORTAR PROPORTIONING AND MIXING

A. Except as otherwise specified in this Section, conform to the property and proportion requirements of ASTM C270 for all mortar.

B. Mortar for all masonry shall be Type M with integral waterproofing added in proportions recommended by the manufacturer, and integral colorant proportions to match joints of approved color.

C. Measurements: Proportions shall be by volume. One bag of Portland cement (94 pounds) shall be considered as one cubic foot; one bag of lime (50 pounds) as 1-1/4 cubic feet; and sand shall be measured in dry condition (90 pounds being equal to one cubic foot) .

D. Mixing: Mortars shall be machine-mixed in an approved type of mixer in which the quantity of water can be accurately and uniformly controlled. Where hydrated limes are used for mortars requiring a lime content, the materials for each batch shall be well-raked and turned over together before the water is added until the even color of the mixed materials indicates that the cement materials have been thoroughly distributed throughout the mass, after which the water shall be gradually added until a thoroughly mixed mortar of the required plasticity is obtained. The same mortar mixture shall be used for all similar work.

E. The color of mortar shall be strictly controlled to assure uniformity of color through the work.

F. The method of measuring materials shall be such that the specified proportions of the materials can be controlled and accurately maintained. Shovel measurement will not be allowed.

G. All cement materials and aggregates shall be mixed at least 3 minutes in the mixer with the minimum amount of water required to produce a workable consistency. Hand mixing shall not be used unless specifically approved.

H. Mortar that has begun to set or which is not used within 2-1/2 hours after initial mixing shall be discarded. Mortar that has stiffened due to evaporation within the 2-1/2 hour period shall be re-tempered to restore its workability. Re-tempering mortar that has partially hardened without additional cement aggregate or water, will not be permitted.

I. Grout for Masonry: Except as otherwise specified grouting and poured fills shall conform to ASTM C270, Type M. Grout shall have the minimum quantity of water required to produce suitable consistency for pouring and shall be continuously stirred to prevent segregation of the aggregate. Slump shall not exceed 10 inches (250 mm).

J. Mortar boxes and all tools shall be thoroughly cleaned at the end of each day's work, and between batches.

3.06 BOND AND JOINT TREATMENT

A. Bond: Exterior face masonry shall be laid up in Flemish bond and running bond pattern as indicated on the Contract Documents.

B. Joint widths: 3/8-inch width for horizontal and vertical joints, except as otherwise indicated on the Contract Documents.

C. Fill joints with mortar, strike off flush, and when mortar is thumbprint hard, tool exterior joints concave to uniform density.

3.07 WALL CONSTRUCTION

A. Build concrete foundation and walls as specified and paid for under the Division 3 Section: CAST-IN-PLACE CONCRETE, of this Specification. Walls shall have a smooth form finish on all surfaces.

B. Build masonry walls indicated on the Contract Documents and as specified in this Section. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint widths and for accurate locating of openings, movement-type joints, returns, and offsets. Avoid the use of less-than-half-size units at corners, jambs, and at other locations.

C. Build in reinforcement as the work progresses.

D. Lay first course of new masonry on a smooth bed of mortar after concrete foundation wall has been cleaned. Fill cells of first course of concrete masonry units with mortar to one half the height of the masonry units in all cases. Where vertical reinforcing rods occur therein, completely fill the cells as each course is laid up.

E. Built-in Work: As construction progresses, build-in items specified under this and other Sections of the Specifications. Fill in solidly with masonry around built-in items.

1. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath in the joint below and rod mortar or grout into core.

F. Do not realign, tap, or in any way move brick after initial placement and after 2.5 hours have elapsed since initial mortar mixing.

G. Form expansion joints in concrete masonry units as follows:

1. Fit bond breaker strips into hollow contour in ends of block units on one side of control joint. Fill the resultant core with grout and rake joints in exposed faces.
2. Install preformed control joint gaskets designed to fit standard sash block.
3. Install special shapes designed for control joints. Install bond breaker strips at joint. Keep head joints free and clear of mortar or rake joint.
4. Build in joint fillers where indicated.
5. Form open joint of width indicated but not less than 3/8 inch for installation of sealant and backer rod specified in Division 7 Section, JOINT SEALERS, of this Specification. Maintain joint free and clear of mortar.

3.08 GROUTING

A. Grout metal items embedded or built into masonry work solidly with grout or mortar materials.

B. Grout around sleeves, pipes, and all other items that pass through masonry walls solidly with mortar materials. Place grouting to be air tight and to prevent air leakage.

C. Fill vertical cells of masonry units solid with grout that have anchoring, reinforcing, supporting, or hanging devices embedded in the cell

D. Fill vertical cells of masonry units solid with mortar at the end of walls to 16 inches (400 mm) beyond.

E. Place wire mesh in horizontal joint below masonry unit cells to be filled with mortar, to prevent mortar dropping into cells below.

3.09 FIELD QUALITY CONTROL

A. Testing Frequency: Tests and evaluations listed in this article will be performed during construction for each 5000 sq. It. of wall area or portion thereof.

1. Mortar properties will be tested per property specification of ASTM C 270.
2. Mortar composition and properties will be evaluated per ASTM C 780.

B. Evaluation of Quality Control Tests: In absence at other indications of noncompliance with requirements, masonry will be considered satisfactory if results from construction quality control tests comply with minimum requirements indicated.

3.10 STONEWORK

A. General

1. Clean stone before setting by scrubbing with fiber brushes followed by a thorough drenching with clear water. Use only mild cleaning compounds that contain no caustic or harsh fillers or abrasives.
2. Set stone in accordance with Contract Documents and final Shop Drawings. Provide anchors, supports, fasteners, and other attachments shown, specified or necessary

to secure stonework in place in accordance with the best practices of the trade. Shim and adjust accessories as required for proper setting of stone. Completely fill holes, slots and other sinkages for anchors, dowels, fasteners, and supports with non-shrinking, non-staining mortar during setting of stones.

3. Dress joints (bed and vertical) straight and at 90-degree angle to face unless otherwise shown or required.
4. Joint widths: Cut stonework to provide uniform joint widths as shown. Cut stonework to allow for uniform 3/8-inch wide joints, unless otherwise shown.
5. Rake out joints 0.75 inch deep before mortar sets to allow for mortar pointing. Clean face of stone after raking. After mortar is set, wet raked joints thoroughly and force pointing mortar into joints. Tool joints slightly concave. Provide pointing mortar using specified materials in colors approved by Owner.
6. Do not allow any petroleum-based fillers or sealants to come into contact with stonework.

B. Stone Repair and Cleaning

1. Remove and replace stone units that are broken, chipped, stained or otherwise damaged. Where directed, remove and replace units that do not match adjoining stonework. Provide new matching units, install as specified and point-up joints to eliminate evidence of replacement. Repoint defective and unsatisfactory joints to provide a neat, uniform appearance.
2. All stone work shall be cleaned thoroughly to remove stains, excess mortar, dirt and other discoloration or blemishes.
3. Cleaning operations shall commence following a minimum 28-day curing period for the masonry construction.
4. Follow manufacturer's instructions for the use, handling and application of masonry cleaners. In addition, the following will be required.
   a. Prepare an approximately 10 square foot sample area for each cleaning application for approval by University's Representative prior to proceeding with the balance of cleaning work.
   b. Provide polyethylene coverings or other temporary protection approved by the University's Representative for all lawn, planting and other non-working areas or improvements adjacent to masonry cleaning zone. Remove coverings from lawn or planting areas immediately following completion of cleaning operations.
   c. All residual cleaning solutions shall be collected and removed from the site.

C. Protection

1. The Contractor shall obtain, from the installer, advice on the proper procedures required to protect the stonework from deterioration, discoloration or damage during construction and until acceptance of the work. Contractor shall implement all necessary procedures required to protect completed stonework from damage

3.11 WEEP HOLES

A. General: Install PVC weep holes through the walls in locations as indicated on the Contract Documents. Slope pipe 0.25 inches per foot (6 mm per 33 mm) to provide positive drainage to relieve hydrostatic pressure.

B. Place filter fabric over the end of the PVC pipe to be buried as shown on the contract documents.

C. Granular base behind wall shall be provided, installed and paid for under the Division 3 Section, EARTHWORK, of this Specification.

3.12 CLEANING OF WORK

A. During the progress of the Work, keep the exposed surfaces of masonry clean at all times and protected against damage. As each segment of the new masonry is erected, dry-brush the surfaces free of mortar spots and dropping. Remove mortar fins and smears from masonry before tooling joints.

B. Prior to final cleaning work, examine all face joints in new exposed masonry to locate cracks, holes or other defects and point up all such defects and fill with mortar as specified herein. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or if units do not match adjoining units. Install new units to match adjoining units and in fresh mortar or grout, pointed to eliminate evidence of replacement. Where necessary, in the opinion of the Owner, cut out defective joints in masonry, and replace with new materials, exercising extreme care to match original work.

C. Provide polyethylene coverings or other temporary protection approved by the Owner for all lawn, planting and other non-working areas or improvements adjacent to masonry cleaning zone. Plant beds shall be further protected from foot traffic and the associated soil compaction by the placement of planking wherever foot traffic is anticipated. Remove protective coverings from lawn or planting areas immediately following completion of cleaning operations.

D. Final Cleaning: After mortar is thoroughly set and cured and before Final Completion at a time approved by the Owner, clean exposed masonry as follows:
   1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
   2. Submit proposed cleaning procedures and cleaning materials to the Owner for approval before commencing work. Test cleaning methods on sample wall panel; leave 1/2 panel uncleaned for comparison purposes. Obtain the Owner approval of sample cleaning before proceeding with cleaning of masonry. General cleaning shall not commence until the test area has been approved by the Owner.
   3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent, polyethylene film, or waterproof masking tape.
   4. All cleaning operations shall proceed from the top down.

E. Final cleaning work shall be performed only when atmospheric temperature is above 40 degrees Fahrenheit and rising.

F. Use of wire brushes or other abrasive tools for cleaning will not be permitted.

G. New concrete masonry units; Perform final cleaning by scrubbing with stiff bristle fiber brushes and water. Rinse all surfaces thoroughly with clean water.

H. Provide suitable protective coverings for all other surfaces and materials during the final cleaning procedures, and bear full responsibility for correcting any damaged caused by these operations, to the satisfaction of the Owner.

I. Remove from the site and legally dispose of all cartons, rubbish and debris resulting from work under this Section not less often than once per week.

END OF SECTION

SECTION 311000
LANDSCAPE DEMOLITION & SITE PREPARATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes but is not limited to the following as outlined in these Specifications or shown of the Contract Documents:

1. Protecting existing trees and vegetation to remain.
2. Protecting existing utilities.
3. Protecting existing lighting to remain, including but not limited to electrical and data conduits and handholes.
4. Protecting existing buildings.
5. Protecting existing walls to remain.
6. Protecting existing sidewalks and pavement to remain.
7. Protecting irrigation systems to remain.
8. Installation erosion control measures.
9. Remove and disposal of asphalt paving.
10. Clear and grub existing lawn areas.
11. Strip topsoil – protect root systems of trees to remain.
12. Installation of temporary construction fence.
13. Installation of tree protection.

B. References in the contract documents to the "Owner" shall mean the St. Sebastian’s School.

C. Related Sections include the following:

1. Section 033000 “Cast-in-Place Concrete”
2. Section 042000 “Unit Masonry”
3. Section 311000 “Landscape Demolition & Site Preparation”
4. Section 329100 “Landscaping”

D. DEFINITIONS

E. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of weeds, roots, and other deleterious materials.

F. Remove and Dispose: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the Owner's property.

G. Remove and Salvage: Items indicated to be removed and salvaged remain the Owner's property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver to Owner's designated storage area within one mile of the site.

H. Remove and Relocate: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in the same locations or in locations indicated.

I. PROTECT: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Owner, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.

1.2 MATERIALS OWNERSHIP

A. Except for materials indicated to be salvaged or to remain Owner's property, cleared materials shall become Contractor's property and shall be properly removed from the site.

B. Historical items indicated remain the Owner's property. Carefully remove and salvage each item in a manner to prevent damage and deliver promptly to the Owner.

C. Historical items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to the Owner, which may be encountered during selective demolition, remain the Owner's property. Notify, before disturbing any items listed above. Items already disturbed should be removed and salvaged carefully to a safe location and in a manner designated by the Owner.

Cooperate with Owner's archaeologist or historical adviser.

1.3 SUBMITTALS

A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing or other construction activity.

B. Inventory of items to be PROTECTED.

C. Inventory of items to be Removed and Salvaged.

D. Inventory of items to be Removed and Relocated.

1.4 QUALITY ASSURANCE

A. Pre-installation Conference: Conduct conference at Project site to comply with requirements in the General Requirements

1.5 PROJECT CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

B. Improvements on Adjoining Property: Authority for performing indicated removal and alteration work on property adjoining Owner's property will be obtained by Owner before award of Contract.

C. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated within one mile of the site or at the City of Fitchburg storeyard on Caldwell St in Fitchburg, MA within two miles of the site.

D. Notify utility locator service for area where Project is located before site clearing.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified in the Specification "Earthwork" (Section 312000) and the Geotechnical Engineering Review.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect and maintain benchmarks and survey control points including survey bounds from disturbance during construction. The Contractor must restore any benchmarks or survey control points when such items are disturbed.

B. Provide erosion-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

C. Locate and clearly flag trees and vegetation to be PROTECTED.

D. Protect existing site improvements to remain from damage during construction.

1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TREE PROTECTION

A. Erect and maintain a temporary fence around drip line of individual trees or around perimeter drip line of groups of trees to remain. If fence must be located within the drip line of a protected tree, obtain approval of Landscape Architect prior to proceeding. Remove fence when construction is complete.

1. Do not store construction materials, debris, or excavated material within drip line of remaining trees.
2. Do not permit vehicles, equipment, or foot traffic within drip line of remaining trees.

B. Do not excavate within drip line of trees, unless otherwise indicated.

C. Where excavation for new construction is required within drip line of trees, consult with the Landscape Architect for direction prior to proceeding. The Landscape Architect will assess the situation and give proper instructions to the Contractor.

D. Repair or replace trees and vegetation indicated to be PROTECTED that are damaged by construction operations, in a manner approved by Owner.

1. Employ a qualified arborist, licensed in jurisdiction where Project is located, to submit details of proposed repairs and to repair damage to trees and shrubs.
2. Replace trees that cannot be repaired and restored to full-growth status, as determined by the qualified arborist.

3.3 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction. Removal includes digging out stumps and obstructions and grubbing roots.

1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
3. Completely remove and properly dispose of stumps, roots, obstructions, and debris.

Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated. Place fill material in horizontal layers not exceeding 8-inch loose depth, and compact each layer to a density equal to adjacent original ground.

3.4 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.

B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.

1. Strip surface soil of unsuitable topsoil, including trash, debris, weeds, roots, and other waste materials.

C. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Limit height of topsoil stockpiles to ten feet.
2. Do not stockpile topsoil within drip line of remaining trees.
3. Do not remove topsoil from site unless directed by the Owner.

3.5 SURFACE / SUBSURFACE OBSTRUCTIONS

A. The drawings indicate surface conditions only and do not purport to show any positive identification of subsurface conditions, building foundations, piles, walls or other abandoned structures, utility lines of miscellaneous materials. Whenever such materials are encountered during the prosecution of the work and the Owner judges their removal necessary, they shall be removed and disposed of, off-site, by the Contractor.

3.6 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated on contract drawings.

B. Remove aggregate base as indicated in Specification “Earthwork” (Section 312000).

3.7 DISPOSAL

A. Disposal: Remove demolished materials and waste materials, including trash and debris, (as described in this specification and the Contract Drawings) and legally dispose of them off Owner's property.

END OF SECTION

SECTION 312000
EARTHWORK

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes, but is not limited to, the following as outlined in these Specifications or Contract Drawings:
   1. Excavate and backfill for site walls and footings.
   2. Excavate and backfill for utilities.
   3. Removal and legal disposal of surplus and unsuitable materials, designated for disposal, away from the project site. – Disposal documentation to be copied and submitted to Owner.
   4. Preparing subbase for planting areas
   5. Rough grading and finish grading

B. References in the contract documents to the "Owner" shall mean St. Sebastian’s School.

C. Related Sections include the following:

   1. Section 033000 “Cast-in-Place Concrete”
   2. Section 042000 “Unit Masonry”
   3. Section 311000 “Landscape Demolition & Site Preparation”
   4. Section 329100 “Landscaping”

1.2 DEFINITIONS

A. Backfill: Soil materials used to fill an excavation.

B. Base Course: Layer placed above the subgrade.

C. Bedding Course: Layer placed over the excavated subgrade under unit paving.

D. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.

E. Excavation: Removal of material encountered above subgrade elevations.

   1. Additional Excavation: Excavation below subgrade elevations as directed by Owner. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
   2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated dimensions without direction by Owner. Unauthorized excavation, as well as remedial work directed by Owner, shall be without additional compensation.

F. Fill: Soil materials used to raise existing grades.

G. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.

H. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.

1.3 SUBMITTALS

A. Product Data: For the following:
1. Filter fabric.
2. Geotextile.

B. Samples: For the following:

1. 30-lb samples of each proposed soil material from on-site or borrow sources.
2. 12-by-12-inch sample of filter fabric and geotextile.

1.4 QUALITY ASSURANCE

A. Pre-excavation Conference: Conduct conference at Project site to comply with requirements in the General and Supplementary Conditions

B. Testing Agency: The Owner will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing to assure compliance with specifications.

C. The following standard forms a part of these specifications and indicates the minimum standards required:
1. American Society for Testing and Materials (ASTM)
ASTM D1557 Test for Moisture – density relations of soils and soil-aggregate mixtures using 10-lb rammer and 18” drop

Commonwealth of Massachusetts Highway Department (MHD) Standard Specifications for Highways and Bridges as last amended.

1.5 PROJECT CONDITIONS

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Owner and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Owner not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Owner's written permission.
3. Contact utility-locator service for area where Project is located before excavating.

B. Pursuant to M.G.L. c. 82A § 1 and 520 CMR 14.00, a Trench Permit is required and must be obtained by Excavation Contractor.

C. The program of excavation, dewatering, sheeting, and bracing shall be carried out in such a manner as to prevent any undermining or disturbance to the foundations or floors of existing structures or of work previously completed under this contract or under other contracts.

D. The contractor shall make excavations in such manner and to such width as shown on the drawings as will give suitable room for laying and jointing the piping or for installation of structures; shall furnish and place all sheeting, bracing, and supports; shall do all cofferdamming, pumping, and draining; and shall render the bottoms of the excavations firm and dry and acceptable in all respects.

E. Should the bottom of any excavation be taken out beyond the limits indicated or prescribed, the resulting void shall be backfilled at the contractor's expense with thoroughly compacted gravel borrow as directed by the Owner and/or Owner's representative.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations, reclamation, and after screening of excavated soils. Notify the Owner prior to the need for borrowed materials.

B. Backfill and Fill: Satisfactory soil materials on-site. If satisfactory materials on-site are exhausted, notify the Owner prior to selecting borrowed materials. Materials shall be of such a nature that they will form a stable, dense fill. Materials shall not contain vegetation, masses of roots, individual roots not more than 12-inches long or more than 1/2-inch in diameter, trash, clays, or plastic fines. Organic matter shall not exceed two percent (2%). Non-plastic fines (silts) shall not exceed 20 percent (20%). Backfill materials are subdivided according to the maximum allowable size of stone or blacktop piece as follows:

Type	Largest Stone Diameter
1. Select Backfill	3-inches
2. Class B Backfill	6-inches
3. Class C Backfill	12-inches

C. Base: On-site excavated, reclaimed and screened materials or, if necessary, naturally or artificially graded, mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-inch sieve and shall meet the gradation requirements listed in MHD Specification M1.03.0, Type b.

D. Surface Gravel: On-site excavated and screened materials or, if necessary, naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1/4-inch sieve.

E. Bedding: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

F. Crushed Stone: Crushed stone shall consist of sound, hard, durable, crushed rock consisting of the angular fragments obtained by breaking and crushing solid or shattered natural work.

Crushed stone shall not contain vegetation, masses of roots, loam and other organic matter, clay, and other fine or harmful substances. Crushed stone shall be well graded and shall meet the gradation requirements listed in MHD Specification Section M2.01.4 (3/4-inch column).

G. Tailings: Waste material of the screening process of gravel (no topsoil) on-site.

H. Sand Borrow:

1. Sand borrow for all electrical and water line bedding shall be installed the full width of the trenched to a minimum depth of 12".

2. Sand borrow shall consist of clean, inert, hark, durable grains of quartz or other hard durable rock, free from loam or clay, surface coating and deleterious materials, The allowable amount of material passing the No. 200 sieve is determined by ASHSTO – T11 shall not exceed 10% by weight.
3. The maximum particle size for Sand borrow shall be as follows:
   M1.04.0 Type a ¼ in.

I. Aggregate Materials

All construction and materials shall meet or exceed the requirements of this section and any state highway department specification section referred to or noted on the drawings, which pertain to paving base course design, materials, preparation, and/or execution. All materials shall be as indicated on Drawings and shall comply with Massachusetts State Highway specification regarding source, quality, gradation, liquid limit, plasticity index, and mix proportioning.

The following tables serve as a guidance for the gradations of the various aggregate materials. Local availability and variances with Massachusetts requirements may change the gradations and parameters of these materials. The contractor shall indicate when submitting materials to be tested what the various applications will be.

Material Description	3"	1/2"	2"	3/4"	1-1/2"	1"	1/2"	#4	#16	#50	#200
3" Surface and Roadstone		100	90-100			60-90	35-70	20-40	5-35	4-12	4-1
Large Stone Aggregate		100	86-100		35-75	0-16	0-6				
RR Ballast, RipRap Bedding				100	94-100	15-65	0-10	0-6			
Stabilized Base Course					100	90-100	60-90	35-56	10-40		4-12
Utility Trench Bedding					100	90-100	30-60	0-10			

Material Description	3"	1/2"	2"	3/4"	1/2"	1"	1/2"	#4	#16	#50	#200
Pea Gravel							100	15-45	0-4		
Non Porous Embankment and Backfill	100							45-85	25-65	10-30	5-15
Porous Embankment and Backfill	100					90-100		50-100	30-80	0-20	0-4

Large Subbase (No Fines)	2" - 4" Limestone
Small RipRap	4" - 12" Pieces
RipRap	6" - 18" Pieces

Material Description	3/8"	#4	#8	#16	#40	#50	#100	#200

Fill Sand	100	94-100	45-85	3-29	0-10
Mason Sand		100		15-45	0-10

2.2 ACCESSORIES

A. Filter Fabric: Woven geotextile, specifically manufactured for use as a separation geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:

1. Grab Tensile Strength: 200 lbf; ASTM D 4632.
2. Tear Strength: 75 lbf; ASTM D 4533.
3. Puncture Resistance: 90 lbf; ASTM D 4833.
4. Water Flow Rate: 4 gpm per sq. ft.; ASTM D 4491.
5. Apparent Opening Size: No. 30; ASTM D 4751.

B. Geotextile Fabric: Woven geotextile, specifically manufactured for use as a separation geotextile; made from polyolefins, polyesters, or polyamides; and with the following minimum properties determined according to ASTM D 4759 and referenced standard test methods:

1. Grab Tensile Strength: 3000 lbf; ASTM D 4632.
2. Puncture Resistance: 90 lbf; ASTM D 4833.
3. Water Flow Rate: 70 gpm per sq. ft.; ASTM D 4491.
4. Apparent Opening Size: No. 40; ASTM D 4751.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

B. Protect subgrades of walks and terraces against freezing temperatures or frost. Provide protective insulating materials as necessary.

C. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

D. When fences interfere with the contractor’s operations, he shall remove and, unless directed otherwise, later restore them to a condition at least as good as that in which they were found immediately prior to the commencement of the work.

E. The contractor shall enclose the trunks of trees which are adjacent to his work and not to be removed, with substantial wooden boxes of such height as may be necessary to protect them from injury from piled material, from equipment, from his operations, or otherwise due to his work. Excavating machinery and cranes shall be of suitable type and be operated with care to prevent injury to trees that are not to be removed, particularly overhanging branches and limbs.

F. Branches, limbs, and roots shall not be cut except by permission of the owner and/or owner’s representative. All cutting shall be smoothly and neatly done without splitting or crushing. When there is cutting or unavoidable injury to branches, limbs, and trunks of trees, the cut or injured portions shall be neatly trimmed and covered with an application of grafting wax or tree healing paint as directed.

G. Cultivated hedges, shrubs, and plants, which could be injured by the contractor’s operations, shall be protected by suitable means or shall be dug up, balled, and temporarily replanted and maintained. After construction operations have been substantially completed, they shall be replanted in their original positions and maintained until growth is re-established. If cultivated hedges, shrubs, and plants are injured to such a degree as to affect their growth or diminish their beauty or usefulness, they shall be replaced by items of a kind and quality at least equal to that existing at the beginning of the work.

H. On paved surfaces, the contractor shall not use or operate tractors, bulldozers, or other power-operated equipment with treads or wheels that are shaped so as to cut or otherwise damage such surfaces.

I. All property damaged by the contractor’s operations shall be restored to a condition at least equal to that in which it was found immediately prior to commencement of the work. Suitable materials and methods shall be used for such restoration.

J. Restoration of existing property and structures shall be done as promptly as practicable and shall not be left until the end of the construction period.

3.2 DEWATERING

A. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area prior to landscaping.

3.3 EXCAVATION, GENERAL

A. Excavate site as shown on Drawings. All suitable topsoil and gravel must stockpiled on-site order to be screened and re-used. Surplus or unsuitable materials shall be removed and disposed of off-site with the permission of the Owner.

B. TRENCH EXCAVATION:

1. Pursuant to M.G.L. c. 82A § 1 and 520 CMR 14.00, a Trench Permit is required and must be obtained by Excavation Contractor.

2. Trenches in pavement shall have the traveled way surface cut in a straight line by a concrete saw or equivalent method, to the full depth of pavement. Excavation shall only be between these two lines. Cutting operations shall not be done by backhoe, gradall, or other ripping equipment.

3. Trenches shall be excavated to such depths as will permit the pipe to be laid at the elevations, slopes, or depths of cover as indicated on the drawings.

4. Where pipe is to be laid in crushed stone bedding, filter bedding, or a concrete cradle, the trench may be excavated by machinery to, or to just below the designated depth, provided that the material remaining at the bottom of the trench remains undisturbed.

5. If a pipe is to be laid in embankments or other recently filled areas, the fill material shall first be placed to a height of at least one foot above the top of the pipe before excavation.

6. Pipe trenches shall be made as narrow as practicable and shall not be widened by scraping or loosening materials from the sides. Every effort shall be made to keep the sides of the trenches firm and undisturbed until backfilling has been completed.

7. Trenches shall be excavated with vertical sides between the elevation of the center of the pipe and one foot above the top of the pipe.

8. The trench shall not be excavated beyond the limits shown on the drawings. In case material is loosened or is removed beyond the indicated widths, the contractor shall provide crushed stone, filter bedding, or concrete as appropriate for the full width of the trench as directed by the Owner or Owner's representative at no additional cost to the Owner.

9. Should it be necessary to lower the pipeline below the grade indicated on the drawings for any reason, the contractor shall complete the additional excavation and backfill as directed.

C. BUILDING AND FOUNDATION EXCAVATION

1. Excavations shall not be wider than required to set, brace, and remove forms for concrete, or perform other necessary work. Maximum widths of excavations for foundations shall be two (2) feet wider than footing, mat, wall, or other structures to be installed.

2. After the excavation has been made, and before forms are set for footings, mats, slabs, or other structures, and before reinforcing is placed, all loose or disturbed material shall be removed from the subgrade. The bearing surface shall then be compacted with at least four (4) passes of a vibratory roller or compactor weighing at least 300 pounds and imparting a dynamic force of at least 4000 pounds.

3. If, in the opinion of the Owner and/or Owner's representative, the existing material at subgrade elevation is unsuitable for structural support, the contractor shall excavate and dispose of the unsuitable material to the required width and depth and replace it with gravel borrow or filter bedding material.

D. EXCAVATION NEAR EXISTING STRUCTURES

1. Attention is directed to the fact that there are pipes, manholes, drains, and other utilities in certain locations. An attempt has been made to locate all utilities on the drawings, but the completeness or accuracy of the given information is not guaranteed or warranted.

2. As the excavation approaches pipes, conduits, or other underground structures, excavation by machinery shall be discontinued and excavation shall be done by means of hand tools, as required. Such manual excavation when incidental to normal excavation shall be included in the work to be done under items involving normal excavation.

3. Where determination of the exact location of a pipe or other underground structure is necessary for properly performing the work, the contractor may need to excavate test pits to determine such locations.

3.4 EXCAVATION FOR WALKS, WALLS, AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades.

3.5 APPROVAL OF SUBGRADE

A. Notify Owner when excavations have reached required subgrade.

B. If Owner determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.

1. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

C. Proof roll subgrade with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof roll wet or saturated subgrades.

D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Owner.

3.6 STORAGE OF SOIL MATERIALS

A. Stockpile satisfactory excavated soil materials and borrow materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.7 BACKFILL AND FILL

A. Preparation: Remove vegetation, topsoil, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface before placing fills. Screen excavated materials to assure compliance with specifications.

B. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

C. Place and compact fill material in layers to required elevations as follows:

1. Under grass and planted areas, use satisfactory soil material installed in layers not to exceed a loose depth of 12”.
2. Under walks and pavements, use satisfactory soil material installed in layers not to exceed a loose depth of 4”.

3.8 MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction.

1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air-dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.9 COMPACTION OF BACKFILLS AND FILLS

A. General compaction of backfills and fills

1. In general, and unless other material is indicated on the drawings or specified or classified as unsuitable material by the Owner and/or the Owner's representative, material removed in the course of making the necessary excavation shall be considered suitable material for backfilling trenches.

2. Class C backfill available from the excavations may be used for filling and building embankments, except as otherwise specified.

3. The contractor shall remove loam and topsoil, loose vegetative matter, stumps, large roots, etc., from areas upon which embankments will be built or material will be placed for grading. The subgrade shall be shaped as indicated on the drawings and shall be so prepared by forking, furrowing, or plowing so that the first layer of the fill material placed on the subgrade will be well bonded to it.

4. If the material removed from the excavation is suitable for backfill with the exception that it contains stone or pavement sections having a maximum allowable size larger than that specified, the contractor has the option to remove the oversized materials from the backfill or to provide replacement backfill without additional compensation.

5. Frozen material shall not be placed in backfill. Frozen material shall be removed or shall be otherwise treated as required, prior to placing backfill.

6. After the subgrade has been prepared as specified, fill material shall be placed and built up in successive layers until the required elevation is reached.

7. Layers of fill shall not exceed 12 inches in thickness (loose). Thinner layers shall be used if necessary to achieve the required compaction. In embankments, the fill layers shall be slightly crowned or sloped to the edge(s) to facilitate drainage.

8. Each layer of material shall be compacted by the use of vibratory compaction equipment or rollers or other means to achieve the required compaction. At such points as cannot be reached by mobile mechanical equipment, the materials shall be thoroughly compacted by the use of suitable power-driven equipment.

9. All backfill shall be compacted to at least the specified percent of maximum dry density as determined by ASTM D1557.

10. Previously placed or new materials shall be moistened by sprinkling, if required, to ensure proper bond and compaction. No compacting shall be done when the material is too wet, from either rain or too great an application of water, to compact it properly; at

such times the work shall be suspended until the previously placed and new materials have dried out sufficiently to permit proper compaction. The contractor shall provide all labor and equipment to adjust the water content of the soil by wetting or drying as may be necessary to obtain proper compaction.

11. Water Jetting

a. If the backfill is to be compacted by water jetting, the entire layer shall be thoroughly saturated throughout its full depth across and along the trench until all slumping ceases. To accomplish this, the contractor shall furnish one or more jet pipes, each of sufficient length to reach to the specified depth and of sufficient diameter (not less than 2 inches) to supply an adequate flow of water to compact the material. The jet pipe shall be equipped with a quick-acting valve and be supplied through a fire hose or a pump having adequate pressure and capacity.

b. In general, water jetting may be used whenever the backfill material does not contain more than 10 percent (10%) passing the #200 sieve. Water jetting shall be used only when approved by the Owner and/or Owner's representative.

c. If water jetting is approved but does not adequately compact the backfill, mechanical compaction shall be used.

12. Compaction Requirements

a. The requirements for compaction of backfill shall conform to the following guidelines based on ASTM D1557 Method C:

Location	Percent Maximum Density
Below pipe centerline	95
Above pipe centerline	92
Below pavement (upper 3 ft.)	95
Embankments	92
Below pipe in embankments	95
Adjacent to structure	95
Below structure	98
Landscaping Areas	80

B. PIPE TRENCHES

1. Bedding as detailed and specified shall be furnished and installed beneath the pipeline prior to placement of pipeline. A minimum dimension shall be maintained between the pipe and undisturbed material, as shown on the drawings.

2. If, in the opinion of the Owner and/or the Owner's representative, existing material below trench grade is unsuitable for properly placing bedding material and laying pipe, the contractor shall excavate, remove, and dispose of the unsuitable material to the required width and depth and replace with gravel borrow as directed.

3. As soon as practicable after pipes have been laid, backfilling shall be started.

4. Unless otherwise indicated on the drawings, select backfill shall be placed with hand shovels in 6-inch thick lifts up to a level of 12-inches above the top of pipe. This area of backfill is considered the zone around pipe and shall be thoroughly compacted before the remainder of the trench is backfilled. Compaction of each lift in the zone around pipe shall be done by use of power-driven tampers weighing at least 20 pounds or by vibratory compactors. Care shall be taken that material close to the bank, as well as in all other portions of the trench, is thoroughly compacted to the required densities.

5. Class B backfill shall be placed from the top of the select backfill to grade. Compaction of the backfill in the remainder of the trench shall be done in layers not to exceed 12-inches in depth and by use of power driven tampers weighing at least 20 pounds or by vibratory plate compactors weighing at least 200 pounds and imparting a dynamic force of at least 2000 pounds. In lieu of mechanical compaction equipment, water jetting may be used when approved by the Owner and/or the Owner's representative.

6. Should the Owner and/or Owner's representative classify material above the trench bottom as unsuitable for backfill, and there is no available backfill material stockpiled, then the Owner and/or Owner's representative shall order the contractor to furnish and install gravel borrow.

7. Backfilling and compaction requirements for the gravel borrow shall otherwise conform to the trench details.

8. Should the Owner and/or Owner's representative order additional crushed stone for utility supports or for other purposes, the contractor shall furnish and install the crushed stone as directed.

9. Where the trench occurs adjacent to paved streets in shoulders or sidewalks, the contractor shall compact the backfill as specified elsewhere in these specifications and shall maintain the surface as the work progresses. If settlement takes place, the contractor shall immediately place additional fill to restore the level of the ground.

C. BACKFILLING AROUND STRUCTURES

1. The contractor shall not place backfill against or on structures until they have attained sufficient strength to support the loads to which they will be subjected. Excavated material approved by the Owner and/or the Owner's representative shall be used in backfilling around structures and shall be compacted. Backfilling material shall be spread in horizontal layers not exceeding 9-inches in thickness (loose) and thoroughly compacted to at least 92 percent (92%) of the maximum dry density as determined by ASTM D1557, Method C.

2. Tree stumps or roots more than 12-inches long or more than 1/2-inch in diameter and stones or rocks larger than 6-inches in greatest dimension shall not be considered suitable material for backfill around structures.

3. Material to be used as fill for supporting structures shall be Filter Bedding Material and/or Gravel Borrow as directed and approved in advance by the Owner and/or the Owner's representative. Where fill is required to support proposed footings, walls, slabs, and any other structure, the material shall be placed and compacted in layers not to exceed 8-inches. Compaction of each lift shall be to a density of 95 percent (95%) as determined by ASTM D1557, Method C.

4. Following placement and compaction of the fill material, crushed stone, if required, shall be placed immediately below the structure as detailed on the drawings

3.10 GRADING

A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

1. Provide a smooth transition between adjacent existing grades and new grades.
2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding, except in designed areas. Finish subgrades to required elevations within the following tolerances:

1. Lawn or Unpaved Areas: Plus or minus 1 inch.
2. Pavement and Walks: Plus or minus 1/4 inch.

3.11 SUBBASE, BASE, AND SURFACE GRAVEL COURSES

A. For pavement and walks, place base course on prepared subgrade and as follows:

1. Place base course material over subgrade as directed in contract drawings.
2. Compact subgrade and base courses at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.
3. Shape subbase and base to required sub-grades and slopes.
4. When thickness of base course exceeds 4 inches, place materials in equal layers, with no layer more than 4 inches thick when compacted.
5. When thickness of surface gravel course exceeds 4 inches, place materials in equal layers.

3.12 FIELD QUALITY CONTROL

A. Testing Agency: The Owner will engage a qualified independent geotechnical engineering testing agency to perform field quality-control testing to assure compliance with specifications.

B. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil to depth required; recompact and retest until specified compaction is obtained.

3.13 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

1. Scarify or remove and replace soil material to depth as directed by Owner; reshape and recompact.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to the greatest extent possible.

3.14 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Disposal: Remove surplus satisfactory soil and waste material, including unsatisfactory soil, trash, and debris, and legally dispose of it off Owner's property with the permission of the Owner.

END OF SECTION

SECTION 329100
LANDSCAPING

PART 1 - GENERAL

1.1 SUMMARY

A. Related Documents: Drawings and general provisions of Contract including General and Supplementary Conditions and applicable portions of Division 1 - General Requirements, apply to work of this Section.

B. References in the contract documents to the "Owner" shall mean St. Sebastian's School

C. Related requirements:

1. Section 033000 "Cast-in-Place Concrete"
2. Section 042000 "Unit Masonry"
3. Section 311000 "Landscape Demolition & Site Preparation"
4. Section 312000 "Earthwork"

D. Section includes, but is not limited to, the following as outlined in these Specifications and Contract Documents:

5. Trees.
6. Shrubs.
7. Ground covers.
8. Perennials.
9. Lawns.
10. Topsoil and soil amendments.
11. Fertilizers and mulches.

1.2 SUBMITTALS

A. General: Submit each item in this Article according to the Conditions of the Contract and General and Supplementary Conditions

B. Product certificates signed by manufacturers certifying that their products comply with specified requirements

1) Label data substantiating that plants, trees, shrubs, and planting materials comply with specified requirements

C. Certification of grass seed from sod and hydroseed vendor for each grass mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging

Certification of each seed mixture for sod and hydroseed, identifying sod and seed source, including name and telephone number of supplier

D. Qualification data for firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and address of OWNER, and other information specified

E. Material test reports from qualified independent testing agency indicating and interpreting test results relative to compliance of the following materials with requirements indicated.

1. Nutrient and sieve analysis of existing surface soil.
2. Nutrient and sieve analysis of imported topsoil.

F. Planting schedule indicating anticipated dates and locations for each type of planting, for approval by the OWNER.

G. Maintenance instructions recommending procedures to be established by OWNER for maintenance of landscaping during an entire year. Submit before expiration of required maintenance periods

1.3 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer who has completed landscaping work similar in material, design, and extent to that indicated for this Project and with a record of successful landscape establishment

Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on the Project site during times that landscaping is in progress

B. Testing Agency Qualifications: To qualify for acceptance, an independent testing agency must demonstrate to OWNER's satisfaction, based on evaluation of agency-submitted criteria conforming to ASTM E 699, that it has the experience and capability to satisfactorily conduct the testing indicated without delaying the Work

C. Provide quality, size, genus, species, and variety of trees and shrubs indicated, complying with applicable requirements of ANSI Z60.1 "American Standard for Nursery Stock

D. Topsoil Analysis: Furnish a soil analysis made by a qualified independent soil-testing agency stating percentages of organic matter, inorganic matter (silt, clay, and sand), deleterious material, pH, and mineral and plant-nutrient content of topsoil.

1. Report suitability of topsoil for growth of applicable planting material. State recommended quantities of nitrogen, phosphorus, and potash nutrients and any limestone, aluminum sulfate, or other soil amendments to be added to produce satisfactory topsoil.

E. Measurements: Measure trees and shrubs according to ANSI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches above ground for trees up to 4-inch caliper size, and 12 inches above ground for larger sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip

F. Preinstallation Conference: Conduct conference at Project site to comply with requirements of General and Supplementary Conditions

1.4 DELIVERY, STORAGE AND HANDLING

A. Packaged Materials: Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery and while stored at site

B. Trees and Shrubs: Deliver freshly dug trees and shrubs. Do not prune before delivery, except as approved by OWNER. Protect bark, branches, and root systems from sun scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy natural shape. Provide protective covering during delivery. Do not drop trees and shrubs during delivery

C. Handle balled and burlapped stock by the root ball

D. Deliver trees, shrubs, ground covers, and plants after preparations for planting have been completed and install immediately. If planting is delayed more than 6 hours after delivery, set planting materials in shade, protect from weather and mechanical damage, and keep roots moist

1. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
2. Do not remove container-grown stock from containers before time of planting.
3. Water root systems of trees and shrubs stored on site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition

1.5 PROJECT CONDITIONS

A. Utilities: Determine location of above grade and underground utilities and perform work in a manner which will avoid damage. Hand excavate, as required. Maintain grade stakes until removal is mutually agreed upon by parties concerned

B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify OWNER before planting

1.6 COORDINATION AND SCHEDULING

A. Coordinate installation of planting materials during normal planting seasons for each type of plant material required

1.7 WARRANTY

A. General Warranty: The special warranty specified in this Article shall not deprive the OWNER of other rights the OWNER may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents

B. Special Warranty: Warrant the following living planting materials for a period of one year after date of Substantial Completion, against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance after the end of the various contract maintenance periods specified herein, neglect, or abuse, abnormal weather conditions unusual for warranty period, or incidents that are beyond Contractor's control.

1. Trees.
2. Shrubs.
3. Ground covers.
4. Perennials and Ornamental Grasses.

C. Remove and replace dead planting materials immediately unless required to plant in the succeeding planting season.

D. Replace planting materials that exhibit more than 25 percent dead branches or massing or in an unhealthy condition at end of warranty period.

E. Each replacement plant will be guaranteed for a one-year period as specified above

1.8 TREE AND SHRUB MAINTENANCE

A. Maintain trees and shrubs by pruning, cultivating, watering, weeding, fertilizing, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Maintain trees and shrubs for the following period

Maintenance Period: 6 months following Substantial Completion

1.9 GROUNDCOVER AND PLANT MAINTENANCE

A. Maintain ground cover and plants by watering, weeding, fertilizing, and other operations as required to establish healthy, viable plantings for the following period

Maintenance Period: 3 months following Substantial Completion

1.10 LAWN MAINTENANCE

A. Begin maintenance of lawns immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:

1. Sodded Lawns: 60 days after date of Substantial Completion.

a. When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established at that time, continue maintenance during next planting season.

2. Seeded Lawns: 60 days after date of Substantial Completion or 60 days after full seed germination, whichever is later.

    a. When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established at that time, continue maintenance during next planting season.

B. Maintain and establish lawns by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn.

C. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawns uniformly moist to a depth of 4 inches.

1. Water lawn at the minimum rate of 1 inch per week.

D. Mow lawns as soon as there is enough top growth to cut with mower set at specified height for principal species planted. Repeat mowing as required to maintain specified height without cutting more than 40 percent of the grass height. Remove no more than 40 percent of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet

PART 2 - PRODUCTS

2.1 TREE AND SHRUB MATERIAL

A. General: Furnish nursery-grown trees and shrubs conforming to ANSI Z60.1, with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully-branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.

B. Grade: Provide trees and shrubs of sizes and grades conforming to ANSI Z60.1 for type of trees and shrubs required. Trees and shrubs of a larger size may be used if acceptable to OWNER, with a proportionate increase in size of roots or balls.

C. Label each tree and shrub with securely attached, waterproof tag bearing legible designation of botanical and common name.

D. Label at least 1 tree and 1 shrub of each variety and caliper with a securely attached, waterproof tag bearing legible designation of botanical and common name. Tags should be left loose enough to allow several years of plant growth without constriction

2.2 SHADE AND FLOWERING TREES

A. Shade Trees: Single-stem trees with straight trunk, well-balanced crown, and intact leader, of height and caliper indicated, conforming to ANSI Z60.1 for type of trees required.

B. Small Trees: Small upright or spreading type, branched or pruned naturally according to species and type, and with relationship of caliper, height, and branching recommended by ANSI Z60.1

C. Provide balled and burlapped trees.

1. Container-grown trees will be acceptable in lieu of balled and burlapped trees subject to meeting ANSI Z60.1 limitations for container stock:

2.3 DECIDUOUS SHRUBS

A. Provide alternates indicated on drawings; if not, as followsForm and Size: Deciduous shrubs with not less than the minimum number of canes required by and measured according to ANSI Z60.1 for type, shape, and height of shrub.

B. Provide balled and burlapped deciduous shrubs.

Container-grown deciduous shrubs will be acceptable in lieu of balled and burlapped deciduous shrubs subject to meeting ANSI Z60.1 limitations for container stock

2.4 BROADLEAF EVERGREENS

A. Form and Size: Normal-quality, well-balanced, broadleaf evergreens, of type, height, spread, and shape required, conforming to ANSI Z60.1.

B. Provide balled and burlapped broadleaf evergreens.

Container-grown broadleaf evergreens will be acceptable in lieu of balled and burlapped broadleaf evergreens subject to meeting ANSI Z60.1 limitations for container stocks

2.5 GROUNDCOVERS, PERENNIALS, AND ORNAMENTAL GRASSES

A. Provide ground covers, perennials, and ornamental grasses established and well rooted in removable containers or integral peat pots and with not less than the minimum number and length of runners required by ANSI Z60.1 for the pot size indicated

2.6 TURFGRASS SOD

A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.

C. Grass Seed Mix: Match existing St Mark’s School seed mix

2.7 TURFGRASS HYDROSEED

C. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.

D. Grass Seed Mix: Match existing St Mark’s School seed mix:

2.7 TOPSOIL

A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, 4 percent organic material minimum, free of stones 1 inch or larger in any dimension, and other extraneous materials harmful to plant growth.

Topsoil Source: Reuse surface soil stockpiled on the site. Verify suitability of surface soil to produce topsoil meeting requirements and amend when necessary. Supplement with imported topsoil when quantities are insufficient. Clean topsoil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful to plant growth

2.9 MISCELLANEOUS MATERIALS

A. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's instructions.

B. Trunk-Wrap Tape: Two layers of crinkled paper cemented together with bituminous material, 4 inches wide minimum, with stretch factor of 33 percent.

C. Weed Control Barrier: Nonwoven Geotextile Filter Fabric: Polypropylene or polyester fabric, 3 oz./sq. yd. minimum.

D. Root Barrier: Root resistant ECO fabric on top of drainage board – Hydrotech Root Stop HD or approved equal.

E. MULCH: Bark mulch to match the OWNER standard as visible on campus

F. STONE MULCH: 1 ½” minus crushed stone mulch (tans and browns color range) to depth shown in construction details.

G. Sand: Clean, washed, natural or manufactured, and free of toxic materials.

H. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through **1-inch** sieve; soluble salt content of **5 to 10** decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings

I. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or granular texture, with a pH range of 3.4 to 4.8.

J. Erosion Control Hydraulic Mulch: Profile Flexterra HP-FGM

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive landscaping for compliance with requirements and for conditions affecting performance of work of this Section. Do not proceed with installation until unsatisfactory conditions have been corrected

3.2 PREPARATION

A. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, and secure Landscape Architect's acceptance before the start of planting work. Make minor adjustments as may be required

3.3 PLANTING SOIL PREPARATION

A. Before mixing, clean topsoil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful to plant growth

B. For tree pit or trench backfill, mix planting soil before backfilling and stockpile at site

3.4 LAWN PREPARATION

A. Limit subgrade preparation to areas that will be planted in the immediate future.

B. Loosen subgrade to a minimum depth of 4 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous materials.

C. Spread planting soil mixture to depth required to meet thickness, grades, and elevations shown, after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen.

1. Place approximately 1/2 the thickness of planting soil mixture required. Work into top of loosened subgrade to create a transition layer and then place remainder of planting soil mixture.

D. Preparation of Unchanged Grades: Where lawns are to be planted in areas unaltered or undisturbed by excavating, grading, or surface soil stripping operations, prepare soil as follows:

1. Remove and dispose of existing grass, vegetation, and turf. Do not turn over into soil being prepared for lawns.
2. Till surface soil to a depth of at least 6 inches. Apply required soil amendments and initial fertilizers and mix thoroughly into top 4 inches of soil. Trim high areas and fill in depressions. Till soil to a homogenous mixture of fine texture.
3. Clean surface soil of roots, plants, sods, stones, clay lumps, and other extraneous materials harmful to plant growth.
4. Remove waste material, including grass, vegetation, and turf, and legally dispose of it off the OWNER's property.

E. Grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future. Remove trash, debris, stones larger than 1-1/2 inches in any dimension, and other objects that may interfere with planting or maintenance operations.

F. Moisten prepared lawn areas before planting when soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

G. Restore prepared areas if eroded or otherwise disturbed after fine grading and before planting

3.5 GROUNDCOVER, PERENNIALS, AND ORNAMENTAL GRASSES BED PREPARATION

A. Loosen subgrade of planting bed areas to a minimum depth of 6 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous materials

B. Spread planting soil mixture to depth required to meet thickness, grades, and elevations shown, after light rolling and natural settlement. Place approximately 1/2 the thickness of planting soil mixture required. Work into top of loosened subgrade to create a transition layer and then place remainder of planting soil mixture

3.6 EXCAVATION FOR TREES AND SHRUBS

A. Pits and Trenches: Excavate with vertical sides and with bottom of excavation slightly raised at center to assist drainage. Loosen hard subsoil in bottom of excavation.

1. Balled and Burlapped Trees and Shrubs: Excavate approximately 1-1/2 times as wide as ball diameter and equal to ball depth, plus the following setting layer depth:
   a. Setting Layer: Allow 6 inches of planting soil.

2. Container-Grown Trees and Shrubs: Excavate to container width and depth, plus the following setting-layer depth:
   a. Setting Layer: Allow 3 inches of planting soil.

B. Dispose of subsoil removed from landscape excavations. Do not mix with planting soil or use as backfill.

C. Obstructions: Notify OWNER if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.

D. Drainage: Notify OWNER if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.

E. Fill excavations with water and allow to percolate out, before placing setting layer and positioning trees and shrubs

3.7 PLANTING TREES AND SHRUBS

A. Set balled and burlapped stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.

1. Place stock on setting layer of compacted planting soil.
2. Remove burlap and wire baskets from tops of balls and partially from sides, but do not remove from under balls. Remove pallets, if any, before setting. Do not use planting stock if ball is cracked or broken before or during planting operation.

3. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately 1/2 backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.

B. Set container-grown stock plumb and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.

1. Carefully remove containers so as not to damage root balls.
2. Place stock on setting layer of compacted planting soil.
3. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately 1/2 backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill

3.8 TREE AND SHRUB PRUNING

A. Prune, thin, and shape trees and shrubs as directed by OWNER

3.9 PLANTING GROUNDCOVERS, PERENNIALS, AND ORNAMENTAL GRASSES

A. Space ground cover and plants as indicated

B. Dig holes large enough to allow spreading of roots, and backfill with planting soil. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water. Water thoroughly after planting, taking care not to cover plant crowns with wet soil

3.10 HYDROSEEDING

A. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer. Hydroseed slurry to be applied at a rate of 4000 lbs per acre. Provide hydraulic mulch slurry in locations noted on the plans and slopes greater than 5 (run) : 1 (rise).

C. Sow seed at a total rate of 25 lbs per acre.

D. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose thickness over seeded areas. Spread by hand, blower, or other suitable equipment.

1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.

E. Protect seeded areas from hot, dry weather or drying winds by applying planting soil within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of 3/16 inch, and roll surface smooth.

3.11 SODDING

A. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.

B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch

or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.

1. Lay sod across angle of slopes exceeding 1:3.
2. Anchor sod on slopes exceeding 1:6 with wood pegs spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.

C. Saturate sod with fine water spray within two hours of planting. During first week after planting, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches below sod

3.12 TURF MAINTENANCE

A. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation

B. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain height appropriate for species without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings

C. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written

recommendations. Coordinate applications with OWNER's operations and others in proximity to the Work. Notify OWNER before each application is performed

3.12 SATISFACTORY TURF

A. Turf installations shall meet the following criteria as determined by Architect:
1. Satisfactory Sodded or Hydroseeded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.

B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory

3.13 INSTALLATION OF MISCELLANEOUS MATERIALS

A. Apply antidesiccant using power spray to provide an adequate film over trunks, branches, stems, twigs, and foliage

3.14 CLEANUP AND PROTECTION

A. During landscaping, keep pavements clean and work area in an orderly condition

B. Protect landscaping from damage due to landscape operations, operations by other contractors and trades, and trespassers. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged landscape work as directed

3.15 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Disposal: Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of it off the OWNER's property

END OF SECTION

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 200 Highland Ave *Date:* 3-7-25

Owner: Pom Realty Trust.

Address: 15 Cefalo Rd. Boston MA 02132
Street *City* *State* *Zip*

Telephone: _____

Applicant: Sign Design (Nicole) For Mass DOT

Address: 170 Liberty St Brockton MA 02301
Street *City* *State* *Zip*

Telephone: 508-580-0094 x202

Designer/Installer: Sign Design

Address: 170 Liberty St. Brockton MA 02301
Street *City* *State* *Zip*

Telephone: 508-580-0094 x202

Type of Application
☑ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:
rebuild sign needed to be moved back due to the widening of the road.

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

Freestanding Sign (Non-Lit)

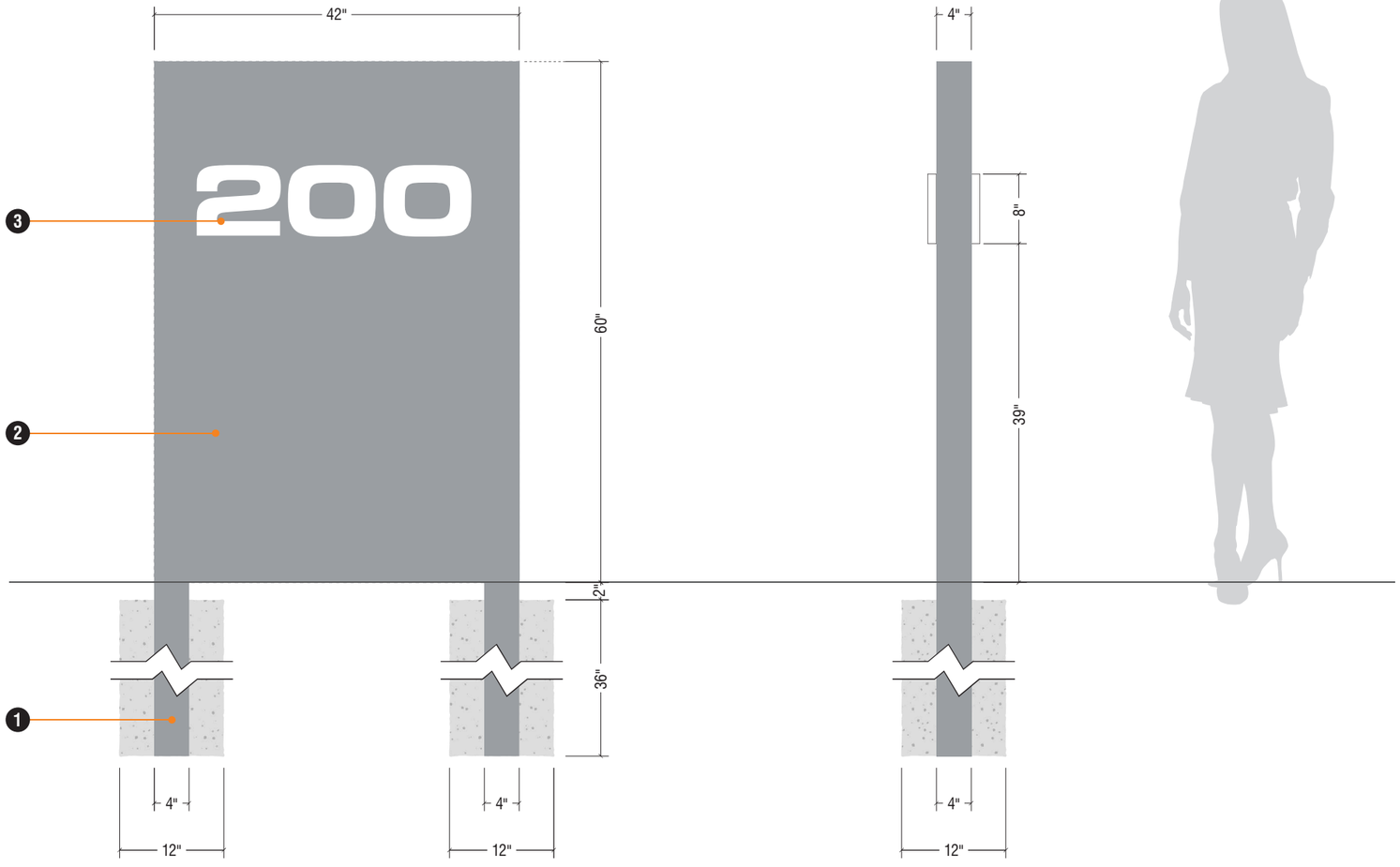
Quantity: 1 Double-Sided

1. Sign Structure / Installation
   - 4" Square-Tube Aluminum Frame/Posts
   - Direct Burial into Concrete Footing /
     Sign to be Install Directly Behind Existing Location 2' From the Proposed Highway Line

2. Sign Faces/Skirting
   - 080 Aluminum (Painted Ben Moore 1614 - Delray Gray)
   - Attached to Front / Back and Clad on Sides/Top of Posts

3. Dimensional Logo
   - 1" Deep (8"H) Aluminum (Painted White)
   - Flush to Sign Face; Stud Mounted and Bolted from Backside

Font: Eurostyle Bold Extended



172494

Version 13
03-06-25

Mass DOT
200 Highland Ave
Needham, MA

SIGNDESIGN
VISUAL COMMUNICATION SOLUTIONS

170 Liberty Street
Brockton, MA 02301
508-580-0094

SALES REPRESENTATIVE
Ron Ferrigno

INTERNAL PROJECT MANAGER
-

FIELD MANAGER
-

ACCOUNT COORDINATOR
Kelly Young

DESIGNER
CW / LF

SCALE 10%

SHEET
G01.00

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PROPOSED LOCATION



PREVIOUS SIGNAGE

172494

Version 13
03-06-25

Mass DOT
200 Highland Ave
Needham, MA

SIGNDESIGN
VISUAL COMMUNICATION SOLUTIONS

170 Liberty Street
Brockton, MA 02301
508-580-0094

SALES REPRESENTATIVE
Ron Ferrigno

INTERNAL PROJECT MANAGER
-

FIELD MANAGER
-

ACCOUNT COORDINATOR
Kelly Young

DESIGNER
CW / LF

SCALE 10%

SHEET
G02.00

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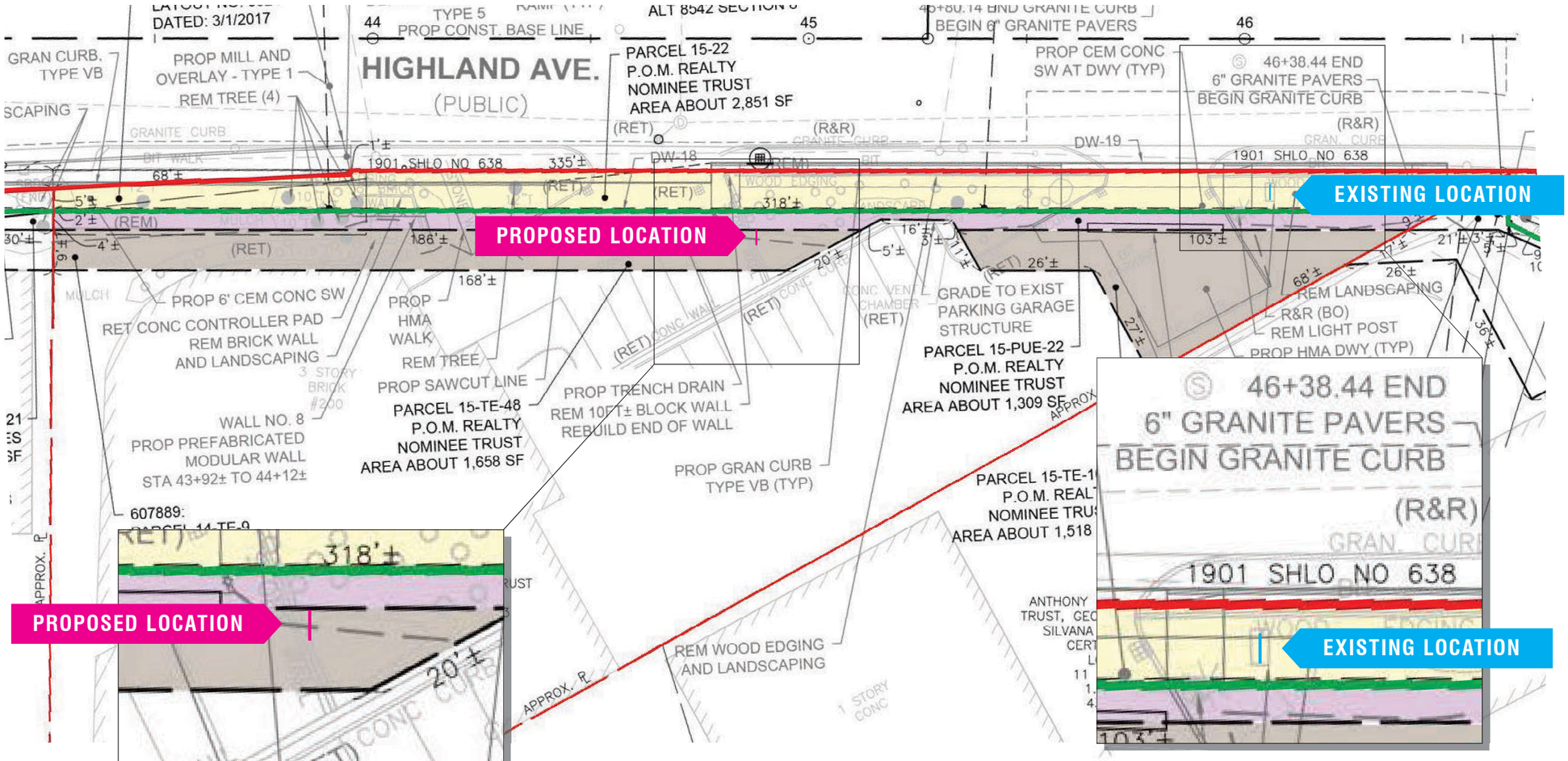

Proposed Highway Layout Line:

Existing Highway Layout Line:

Property Line:

172494
Version 13
03-06-25

Mass DOT
200 Highland Ave
Needham, MA

SIGNDESIGN
VISUAL COMMUNICATION SOLUTIONS
170 Liberty Street
Brockton, MA 02301
508-580-0094

SALES REPRESENTATIVE
Ron Ferrigno

INTERNAL PROJECT MANAGER
-

FIELD MANAGER
-

ACCOUNT COORDINATOR
Kelly Young

DESIGNER
CW / LF

SCALE 1.25%

SHEET
G03.00

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TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492

Application and Report

Property Location: 126 Gould St, Needham Heights, MA 02494 *Date:* 03/12/25

Owner: FNV Holding LLC

Address: 7 Lantern Lane | Natick | MA | 01760
Street | *City* | *State* | *Zip*

Telephone: 617.913.9919

Applicant: A to Z Child Care & Preschool

Address: 126 Gould St | Needham Heights | MA | 02494
Street | *City* | *State* | *Zip*

Telephone: 781.444.6541

Designer/Installer: Fastsigns of Needham

Address: 15 Kearney Road | Needham | MA | 02494
Street | *City* | *State* | *Zip*

Telephone: 781.444.4889

Type of Application
☒ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

Primary Sign for storefront. 40 " wide x 42.70" tall 1/4" Max Metal with Flat Printed Graphics

Wall mounted with galvanized steel hardware -- flush to wall. Similar to existing signage on same block.

Please email completed application to elitchman@needhamma.gov

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492

Application and Report

Property Location: 126 Gould St, Needham Heights, MA 02494 *Date:* 03/12/25

Owner: FNV Holding LLC

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Telephone: 617.913.9919

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Address: 126 Gould St | Needham Heights | MA | 02494
Street | *City* | *State* | *Zip*

Telephone: 781.444.6541

Designer/Installer: Fastsigns of Needham

Address: 15 Kearney Road | Needham | MA | 02494
Street | *City* | *State* | *Zip*

Telephone: 781.444.4889

Type of Application
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☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

Secondary Sign for storefront. 36 " wide x 38.43" tall 1/4" Max Metal with Flat Printed Graphics

Wall mounted with galvanized steel hardware -- flush to wall. Similar to existing signage on same block.

Please email completed application to elitchman@needhamma.gov

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More than fast. More than signs.™

11B Second Ave Needham, MA 02494 Tel 781-444-4889 Fax 781-444-8577 • 310@fastsigns.com

Primary Building Sign - Gould Street



40" wide x 42.7" wide
1/4" Max Metal Sign
with Digitally Printed Vinyl Graphics
Gloss Laminate Applied

Secondary Building Sign - Kearney Road



36" wide x 38.43" wide
1/4" Max Metal Sign
with Digitally Printed Vinyl Graphics
Gloss Laminate Applied

Customer Name: A to Z Childcare
Item Description: 1/4" Max Metal Signs
Address: 126 Gould Street, Needham, MA 02494

Primary Building Sign - Gould Street

Logo Height = 36.1373 in
Letter Height (A)= 2.972 in
Letter Height (C)= 3.0535 in
Total Sign Height = 42.6969 in
Total Sign Width = 40 in
Total Square Footage = 11.86 sq'
Grade to Ground = 11.25 in

Secondary Building Sign - Kearney Road

Logo Height = 32.5236 in
Letter Height (A)= 2.6748 in
Letter Height (C)= 2.7482 in
Total Sign Height = 38.4272 in
Total Sign Width = 36 in
Total Square Footage = 9.60 sq'
Grade to Ground = 11.66 in

Existing Signage



Proposed Sign Placement



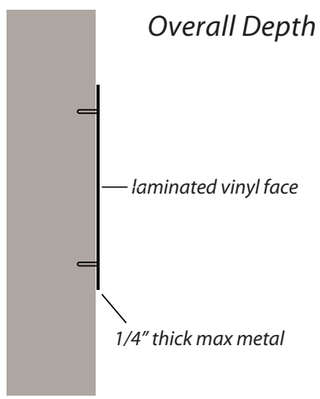
Existing Signage



Proposed Sign Placement



Overall Depth / Side View



**Graphics not to scale but are proportionate.*

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Neighborhood Signage

Customer Name: A to Z Childcare
Item Description: 1/4" Max Metal Signs
Address: 126 Gould Street, Needham, MA 02494

















Address: 126 Gould Street, Needham MA

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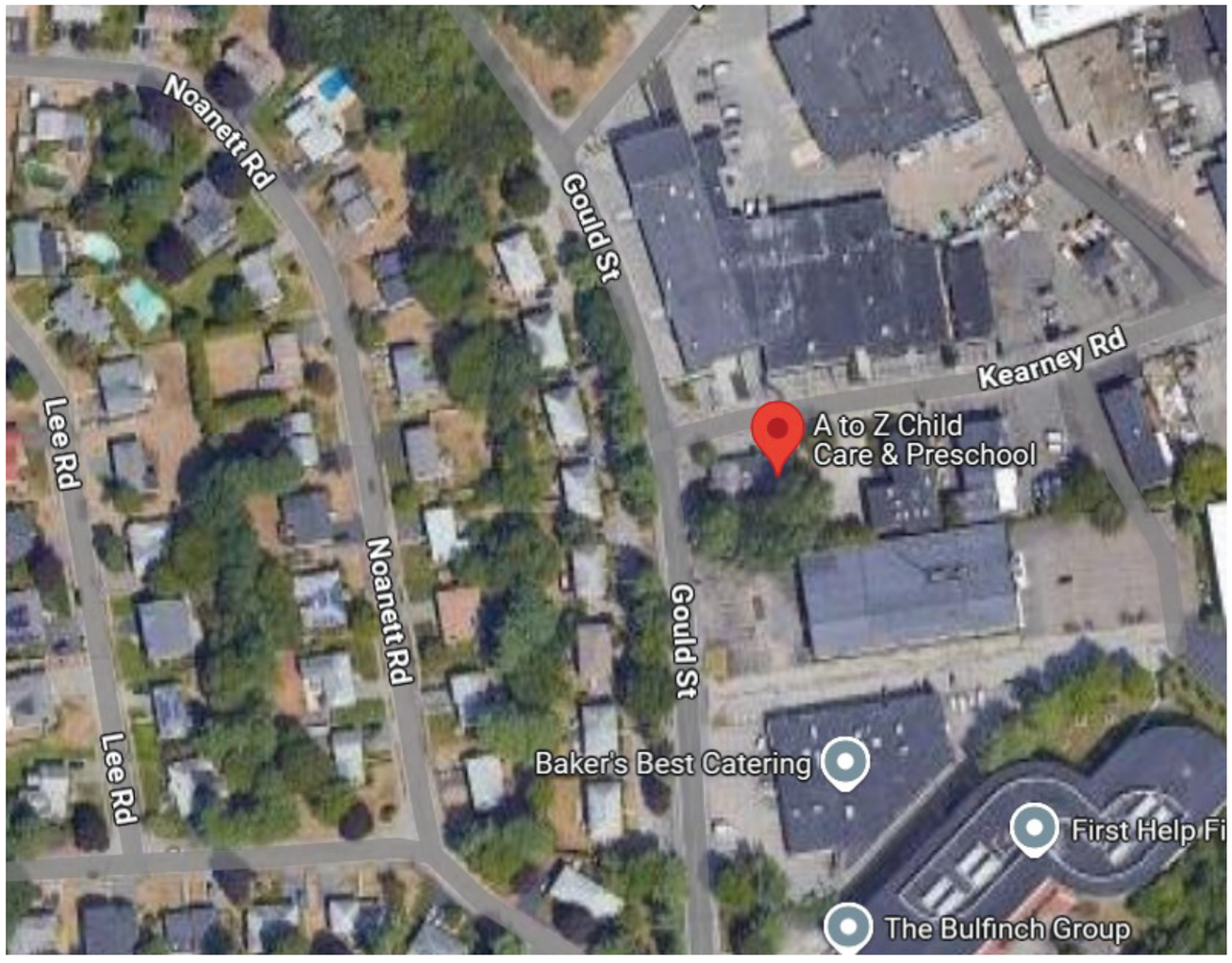
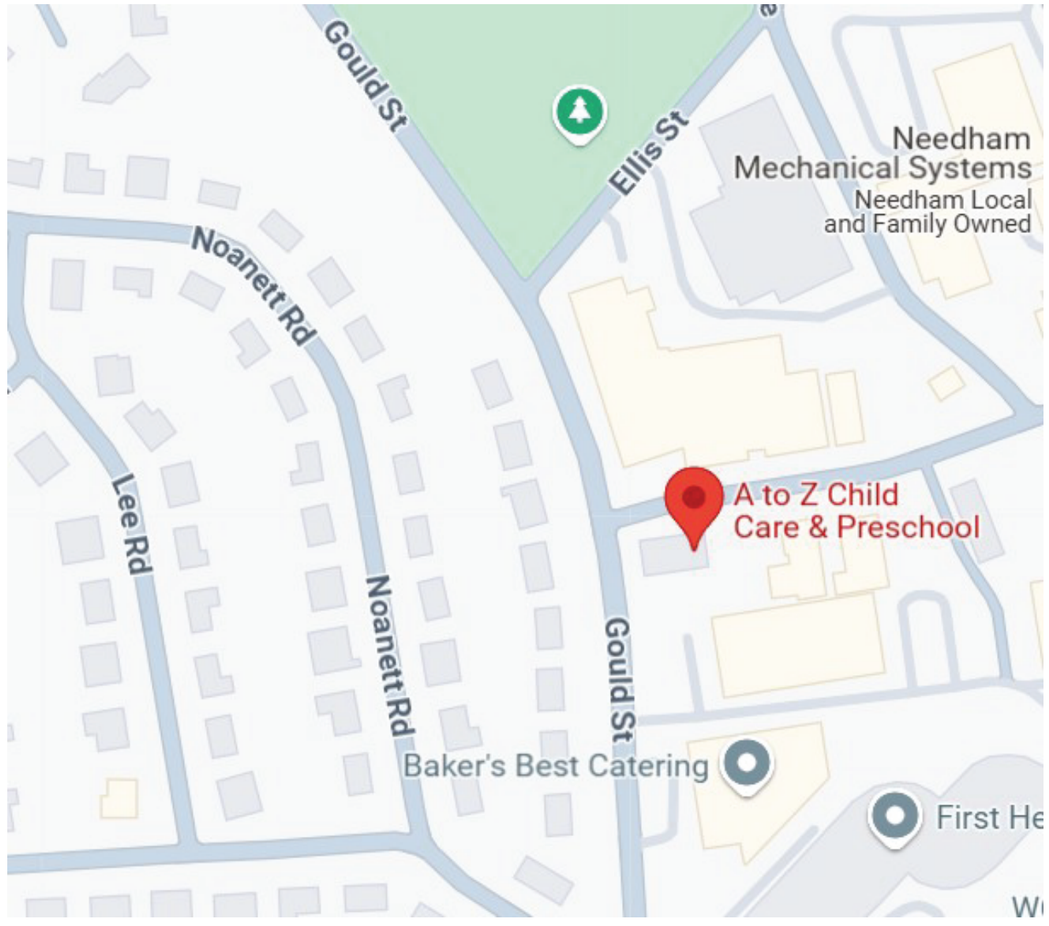
Aerial View

Customer Name: A to Z Childcare
Item Description: 1/4" Max Metal Signs
Address: 126 Gould Street, Needham, MA 02494





Address: 126 Gould Street, Needham MA

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TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 51 Fremont Street *Date:* 3/14/25

Owner: J. Derenzo Properties LLC

Address: 43 Charles Street | Needham | MA | 02494-2905
Street | *City* | *State* | *Zip*

Telephone: 781-449-0300

Applicant: Taylor TrueValue Rentals

Address: 26 Washington Street | Wellesley Hills | MA | 02481
Street | *City* | *State* | *Zip*

Telephone: 978-500-0291

Designer/Installer: Fastsigns of Needham

Address: 15 Kearney Road | Needham | MA | 02494
Street | *City* | *State* | *Zip*

Telephone: 781.444.4889

Type of Application
☒ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

Primary Sign for storefront. 168 " wide x 45" tall Pan Face with Flat Printed Graphics

Wall mounted with galvanized steel hardware.

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492

Application and Report

Property Location: 51 Fremont Street *Date:* 3/14/25

Owner: J. Derenzo Properties LLC

Address: 43 Charles Street | Needham | MA | 02494-2905
Street | *City* | *State* | *Zip*

Telephone: 781-449-0300

Applicant: Taylor TrueValue Rentals

Address: 26 Washington Street | Wellesley Hills | MA | 02481
Street | *City* | *State* | *Zip*

Telephone: 978-500-0291

Designer/Installer: Fastsigns of Needham

Address: 15 Kearney Road | Needham | MA | 02494
Street | *City* | *State* | *Zip*

Telephone: 781.444.4889

Type of Application
☒ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

Secondary Sign for storefront. 96 " wide x 48" tall 1/4" MaxMetal with Flat Printed Graphics

Pole mounted with galvanized steel hardware.

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

11B Second Ave Needham, MA 02494 Tel 781-444-4889 Fax 781-444-8577 • 310@fastsigns.com

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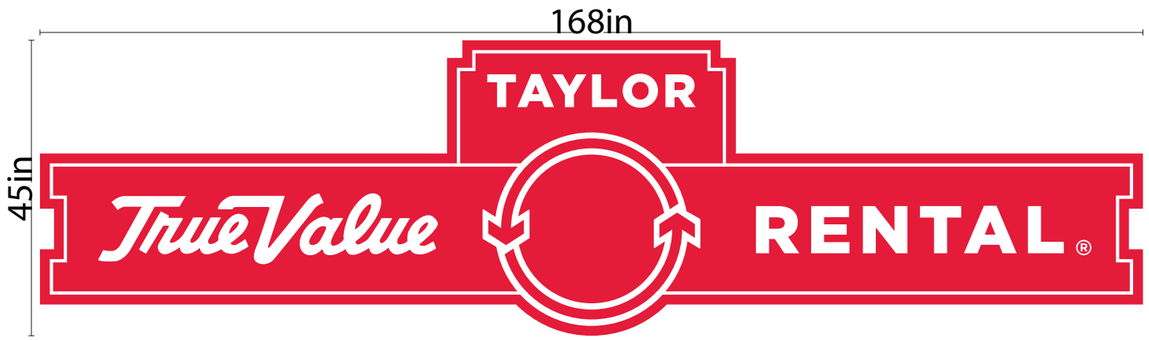
More than fast. More than signs.™

Customer Name: Taylor TrueValue Rental
Item Description: Max Metal Signage
Address: 51 Fremont Street, Needham, MA 02494

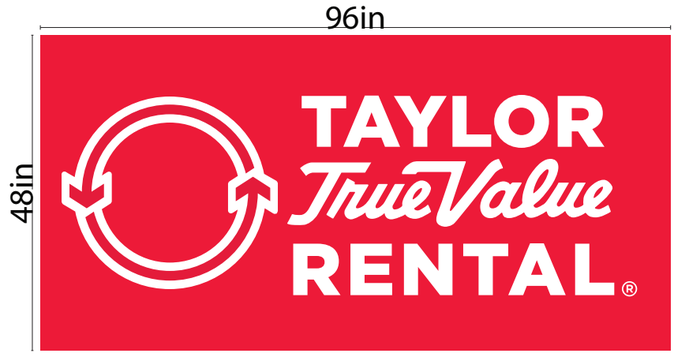
Primary Building Sign



Aluminum Signage
168" wide x 45" tall

Wall mounted with galvanized steel hardware -- flush to wall

Secondary Building Sign



1/4" Max Metal Signage
96" wide x 48" tall

Double Sided
Reverse side has same graphics

Pole mounted with steel hardware

Primary Sign - Aluminum

Letter Height T ("TrueValue") = 9.96 in
Letter Height R ("Rental") = 7.18 in
Total Sign Height = 45 in
Total Sign Width = 168 in
Total Square Footage = 33.125 sq'
Grade to Ground = 144 in

Secondary Sign - 1/4" Max Metal

Letter Height T ("Taylor") = 7.74 in
Letter Height T ("TrueValue") = 9.54 in
Letter Height R ("Rental") = 7.83 in
Total Sign Height = 48 in
Total Sign Width = 96 in
Total Square Footage = 32 sq'
Grade to Ground = 98 in

Existing Signage



Proposed Sign Placement

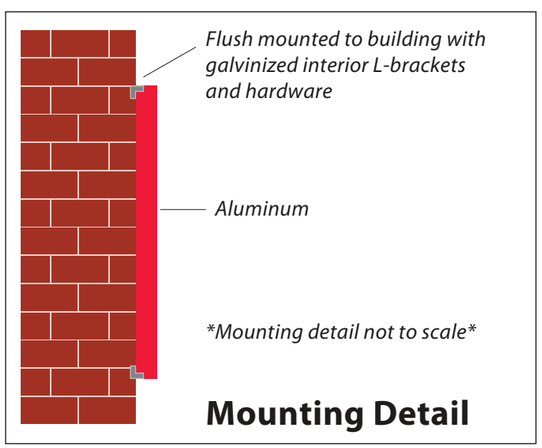


Existing Signage



Proposed Sign Placement





**Graphics not to scale but are proportionate.*

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11B Second Ave Needham, MA 02494 Tel 781-444-4889 Fax 781-444-8577 • 310@fastsigns.com

FASTSIGNS®
More than fast. More than signs.™

Customer Name: Taylor TrueValue Rental
Item Description: Max Metal Signage
Address: 51 Fremont Street, Needham, MA 02494

Neighborhood Signage

















Address: 51 Fremont Street, Needham MA

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11B Second Ave Needham, MA 02494 Tel 781-444-4889 Fax 781-444-8577 • 310@fastsigns.com

Customer Name: Taylor TrueValue Rental
Item Description: Max Metal Signage
Address: 51 Fremont Street, Needham, MA 02494

Aerial View



Address: 51 Fremont Street, Needham MA

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TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 695 HIGHLAND AVENUE ***Date:*** 3-13-2025

Owner: DEDHAM SAVINGS

Address: 55 ELM STREET (*Street*) DEDHAM (*City*) MA (*State*) 02026 (*Zip*)

Telephone: 781-320-1158

Applicant: GRAPHIC IMPACT SIGNS, INC.

Address: 575 DALTON AVENUE (*Street*) PITTSFIELD (*City*) MA (*State*) 01201 (*Zip*)

Telephone: 800-458-2376

Designer/Installer: GRAPHIC IMPACT SIGNS, INC.

Address: 575 DALTON AVENUE (*Street*) PITTSFIELD (*City*) MA (*State*) 01201 (*Zip*)

Telephone: 800-458-2376

Type of Application
☒ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

REFACE EXISTING 21 SQ FT FREESTANDING SIGN

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 695 HIGHLAND AVENUE *Date:* 3-13-2025

Owner: DEDHAM SAVINGS

Address: 55 ELM STREET (*Street*) DEDHAM (*City*) MA (*State*) 02026 (*Zip*)

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Type of Application
■ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

NEW 31 SQ FT FRONT ELEVATION WALL SIGN - FACING HIGHLAND AVENUE

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

Branch Renovation for:
Dedham Savings
695 Highland Ave
Needham, MA 02492



LOCATION OF DEDHAM SAVINGS

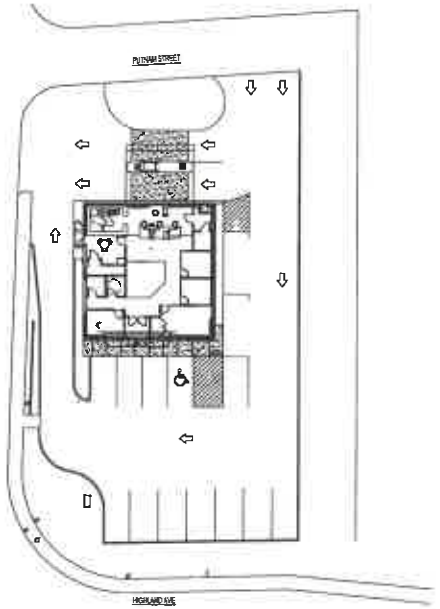
VICINITY MAP

NOT TO SCALE

NORTH

PROJECT NAME:	DEDHAM SAVINGS
LOCATION:	695 HIGHLAND AVE NEEDHAM, MA 02492
APPLICABLE CODE:	2015 INTERNATIONAL EXISTING BUILDING CODE 2015 MASSACHUSETTS STATE BUILDING CODE (CMR 780)(WITH ADDITION) 2010 ASHRAE 90.1 WITH AMENDMENTS 2015 INTERNATIONAL FIRE CODE 2015 INTERNATIONAL MECHANICAL CODE 2023 NATIONAL ELECTRICAL CODE ⚠ MASSACHUSETTS PLUMBING & GAS CODE, 248 CMR
ACCESSIBILITY CODE:	ANSI/ICC 117.1
PRIMARY USE CLASS:	B – BUSINESS
CONSTRUCTION TYPE:	II-B, UNPROTECTED
SPRINKLERED:	NOT SPRINKLERED
ACTUAL AREA:	ENCLOSED AREA: 2,230 S.F. DRIVE THRU CANOPY AREA: 500 S.F. TOTAL: 2730 S.F.
OCCUPANT LOAD:	22 PERSONS (1 PER 100 S.F. GROSS ENCLOSED AREA)
INT. WALL FINISHES (OFFICE)	EXIT ENCLOSURES AND PASSAGEWAYS (NONE) CLASS A CORRIDORS CLASS B ROOMS AND ENCLOSED SPACES CLASS C
INT. FLOOR FINISHES (OFFICE)	CLASS II

PROJECT DEFINITION



SITE PLAN

SCALE: 1" = 20'-0"

NORTH

CIVIL

ISSUE DATE	SHEET NO.	DESCRIPTION
10-15-24		SITE PLAN EXISTING CONDITIONS
10-15-24		SITE PLAN PROPOSED CONDITIONS
08-19-24	ES-1.0	SITE PHOTOMETRY PLAN

STRUCTURAL

ISSUE DATE	SHEET NO.	DESCRIPTION
08-20-24	S001	STRUCTURAL GENERAL NOTES
08-20-24	S002	SPECIAL INSPECTIONS
08-20-24	S110	FOUNDATION PLAN
08-20-24	S120	ROOF FRAMING PLAN
08-20-24	S310	FOUNDATION SECTIONS
08-20-24	S320	ROOF FRAMING SECTIONS
08-20-24	S321	ROOF FRAMING SECTIONS

ARCHITECTURAL

ISSUE DATE	SHEET NO.	DESCRIPTION
08-20-24	AS-1.0	ARCHITECTURAL SITE PLAN
08-13-24	LS-1.0	LANDSCAPING PLAN
08-13-24	LS-2.0	LANDSCAPING NOTES
08-20-24	A-0.1	DEMOLITION PLAN
⚠ 01-31-25	A-1.0	FLOOR PLAN
08-20-24	A-1.3	PARTITION TYPES AND DETAILS
08-20-24	A-2.0	EXTERIOR ELEVATIONS – DEMOLITION
⚠ 01-31-25	A-2.1	EXTERIOR ELEVATIONS
08-20-24	A-2.2	STOREFRONT ELEVATIONS
⚠ 01-31-25	A-3.0	WALL SECTIONS
08-20-24	A-4.1	REFLECTED CEILING PLAN
08-20-24	A-5.1	SCHEDULES AND INTERIOR ELEVATIONS

PLUMBING

ISSUE DATE	SHEET NO.	DESCRIPTION
08-20-24	MEP-1.0	MEP STUB-UP DIMENSIONS
08-20-24	P-0.0	PLUMBING LEGEND
08-20-24	P-0.1	PLUMBING DEMOLITION PLAN
08-20-24	P-1.0	PLUMBING WATER & GAS
08-20-24	P-1.1	PLUMBING SANITARY & VENT

MECHANICAL

ISSUE DATE	SHEET NO.	DESCRIPTION
08-20-24	M-0.0	MECHANICAL LEGEND
08-20-24	M-1.0	MECHANICAL FLOOR PLAN
08-20-24	M-1.1	MECHANICAL ROOF PLAN
08-20-24	M-6.1	MECHANICAL SCHEDULES
08-20-24	M-6.2	MECHANICAL SEQUENCES

ELECTRICAL

ISSUE DATE	SHEET NO.	DESCRIPTION
08-20-24	E-0.0	ELECTRICAL LEGEND AND SCHEDULES
08-20-24	E-0.1	ELECTRICAL DEMO POWER PLAN
08-20-24	E-0.2	ELECTRICAL DEMO LIGHTING PLAN
08-20-24	E-1.0	ELECTRICAL LIGHTING PLAN
08-20-24	E-1.1	ELECTRICAL POWER PLAN
08-20-24	E-2.0	ELECTRICAL DETAILS
08-20-24	E-3.1	ELECTRICAL LUMINAIRE SCHEDULES
08-20-24	E-3.0	ELECTRICAL RISER DIAGRAM & SCHEDULES
08-20-24	E-6.1	ENERGY COMPLIANCE FORMS
08-20-24	ES-1.0	ELECTRIC – SITE PHOTOMETRIC PLAN

DRAWING INDEX

⚠ 01-31-25 CONSTRUCTION BULLETIN ONE
08-20-24 ISSUED FOR PERMIT AND CONSTRUCTION

ISSUE DATES

DESIGN / BUILDER:

1550 Kemper Meadow Dr.
Cincinnati, Ohio 45240
(513) 825-5800 [p]
513.825.1947 [f]
www.dei-corp.com

ARCHITECT:

R S L COMMERCIAL ARCHITECTURE

8927 Rossash Road
Cincinnati, OH 45236

513-891-9950 PHONE
www.rslarch.com 513-891-9951 FAX

STRUCTURAL ENGINEER:

ADVANTAGE GROUP ENGINEERS, INC
1527 MADISON ROAD, 2ND FLOOR
CINCINNATI, OHIO 45206
(513) 396-8900

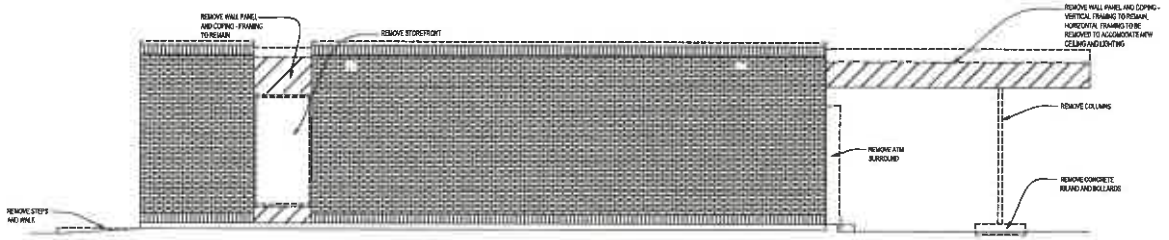
MECHANICAL / ELECTRICAL / PLUMBING ENGINEER:

MARQUE ENGINEERING
4850 SMITH ROAD, SUITE 101
CINCINNATI, OH 45212
(513) 901-0040

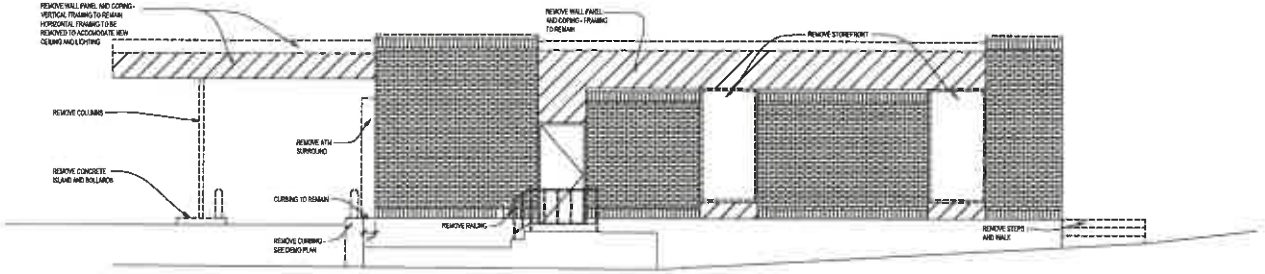
REGISTERED ARCHITECT No. AR-11136

NOTE:
THE SPECIFICATIONS FOR DEDHAM SAVINGS DATED 08-20-24 ARE HEREBY INCORPORATED BY REFERENCE AS A PART OF THE CONSTRUCTION DOCUMENTS REFERRED TO IN THE PART 2 AGREEMENT.

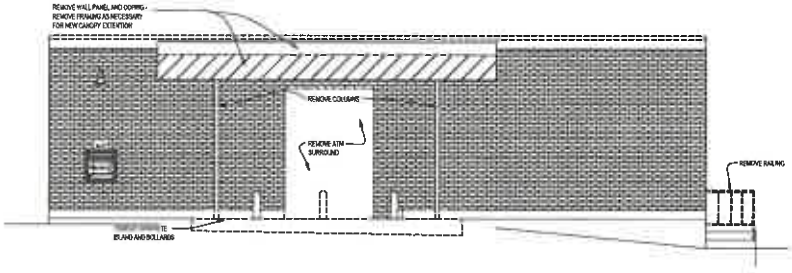
DEDHAM SAVINGS, NEEDHAM, MA – 224059



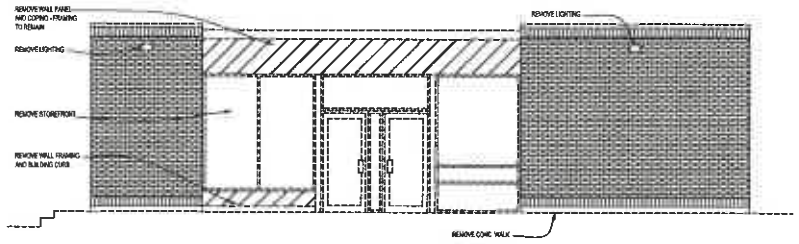
4 EAST ELEVATION - DEMOLITION
SCALE 1/4" = 1'-0"



3 WEST ELEVATION - DEMOLITION
SCALE 1/4" = 1'-0"



2 NORTH ELEVATION - DEMOLITION
SCALE 1/4" = 1'-0"



1 SOUTH ELEVATION - DEMOLITION
SCALE 1/4" = 1'-0"

AR-11

R S L COMMERCIAL ARCHITECTURE
8927 Rossath Road
Cincinnati, OH 45236
513-891-9950 PHONE
513-891-9951 FAX
www.rslarch.com

1550 Kemper Meadow Dr.
Cincinnati, Ohio 45240
(513) 825-5800 [p]
513.825.1947 [f]
www.del-corp.com

EXTERIOR ELEVATIONS - DEMOLITION

BRANCH RENOVATION FOR:
Dedham Savings
695 Highland Ave
Needham, MA 02492

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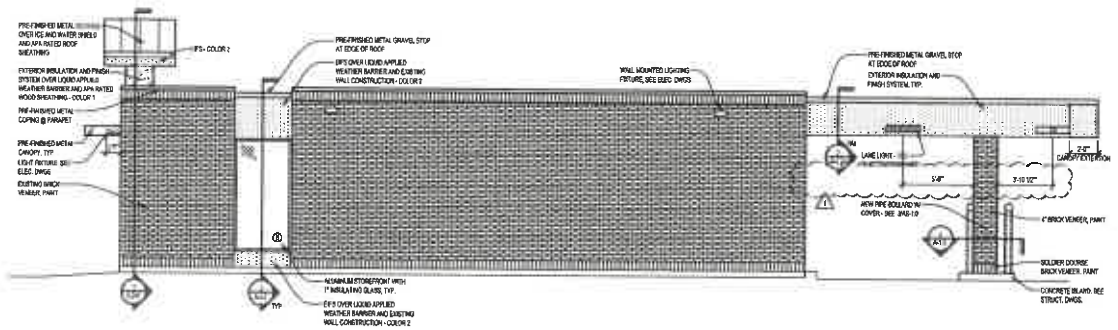
REVISIONS

BY
GR
ISSUE DATE
08-20-24
JOB NO.
224059
SHEET NO.
A-2.0

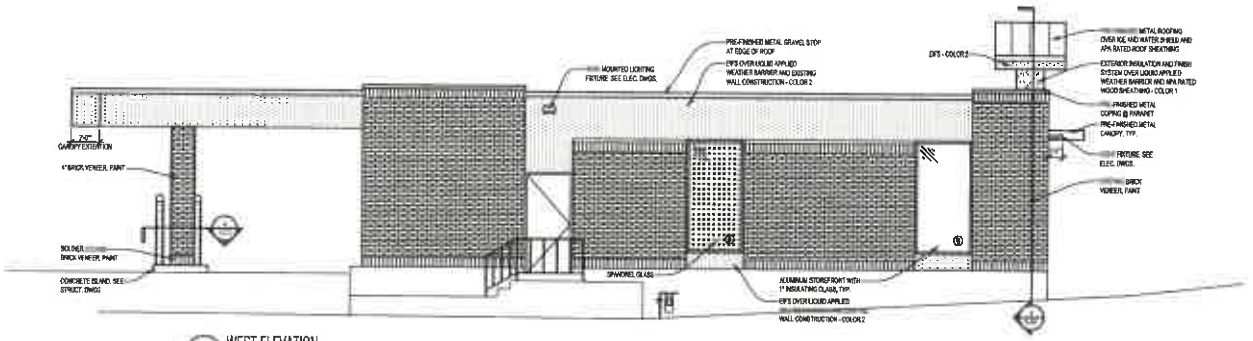
EXISTING



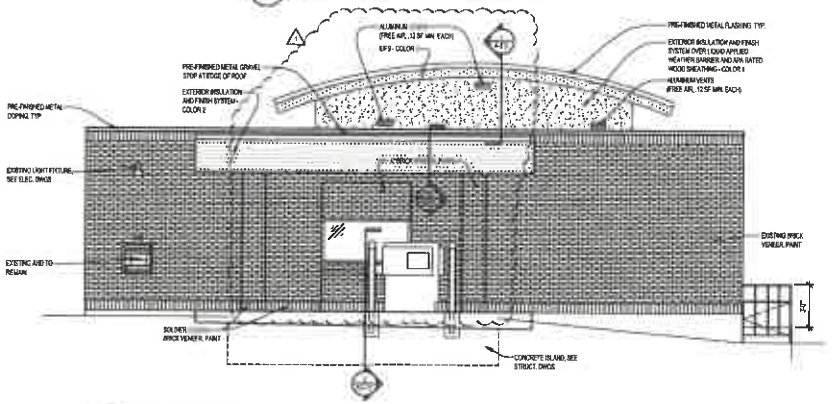
4 EAST ELEVATION
SCALE: 1/4" = 1'-0"

EXTERIOR SELECTION SCHEDULE			
BRICK VENEER		EXISTING	
BRICK - FIELD		SW 7016 - MINDFUL GRAY	
BRICK - SOLDIER COURSES		SW 7018 DOVETAIL	
EIFS - COLOR 1		SW 7757 - HIGH REFLECTIVE WHITE SANDFINISH FINISH	
EIFS - COLOR 2	DRIVIT	SW 7027 - EAST COAST GRAY	
FRAMING	GLACIERTE	LIGHT BRONZE 700 LT	
EXTERIOR GLAZING	VERO	CLEAR	SOLAR BAN 70
EXTERIOR GLAZING	VITRO	SPANDREL	
PRE-FAB ALUMINUM CANOPY	PAC-CLAD	ORIGINAL RED	
GRAPHIC LIGHTS		TYPE 1 - 8171	
METAL ROOF		SIR21	
METAL COPING		SANDSTONE STELL	
		GRANITE	
PAINT AT H.M. DOOR AND FRAME, RAILING		SW 7018 DOVETAIL	

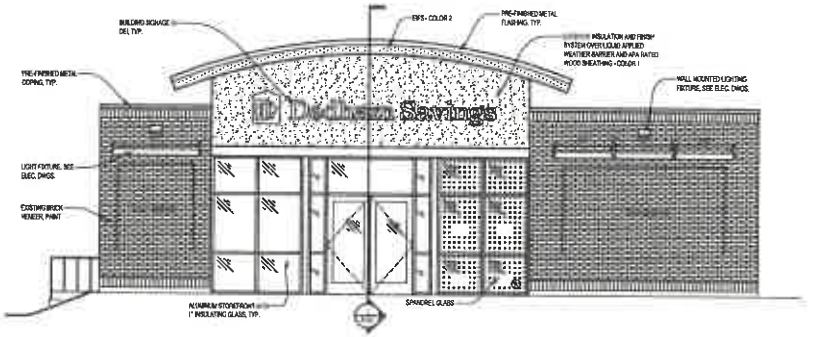
NOTES:
1. SEE SPECIFICATIONS FOR ALL ITEMS RELATING TO THIS SHEET.
2. ALL STOREFRONT DIMENSIONS THIS SHEET ARE TO OPENING. CONTRACTOR TO PROVIDE SHTAILED SHOP DRAWINGS TO REFLECT ALL MANUFACTURER RECOMMENDED CLEARANCES / SIGHT SPACING.
3. CONTRACTOR TO FIELD VERIFY ALL OPENINGS PRIOR TO MANUFACTURING OF STOREFRONT SYSTEMS.
4. VERIFY ALL COLORS AND FINISHES WITH OD.
5. SEE SPECIFICATIONS FOR SUBSTITUTION PROCEDURES OF "EQUAL" MATERIALS.



3 WEST ELEVATION
SCALE: 1/4" = 1'-0"



2 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



1 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

PROPOSED

RSL COMMERCIAL ARCHITECTURE
8627 Fossash Road
Cincinnati, Oh 45236
513-891-0950 phone
513-891-0951 fax
www.rslarch.com

1550 Kemper Meadow Dr.
Cincinnati, Ohio 45240
(513) 825-5600 [p]
513.825.1947 [f]
www.dei-[illegible].com

EXTERIOR ELEVATIONS

BRANCH RENOVATION FOR:
Dedham Savings
695 Highland Ave
Needham, MA 02492

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REVISIONS
1 COVID SUBMITTAL NOTE

BY
XX
ISSUE DATE
08-20-24
JOB NO.
224059
SHEET NO.
A-2.1



Previous Condition



Proposed



A...Re-Face Existing Double Sided Illuminated Pylon Sign...NTS 21.0 Sq. Ft. Area

** retro-fit existing cabinet lighting to new LED white modules...120 VAC 60 W power sup[ply*

graphic impact signs
800.458.2376
fax 413.443.0034
575 dalton ave. pittsfield, ma 01201
gisigns.com

Dedham Savings

Sales Rep:	John Renzi
Job Name:	Dedham Savings
Job Location:	Needham, MA
Sheet:	1 of 5
Date:	2/25/25
Job #:	
Scale:	as noted
Drawn by:	LH

Dedham Savings
695 Highland Ave.
Needham, MA

Rev 3/13/25

☐ APPROVED

☐ APPROVED AS NOTED

CLIENT SIGNATURE

DATE

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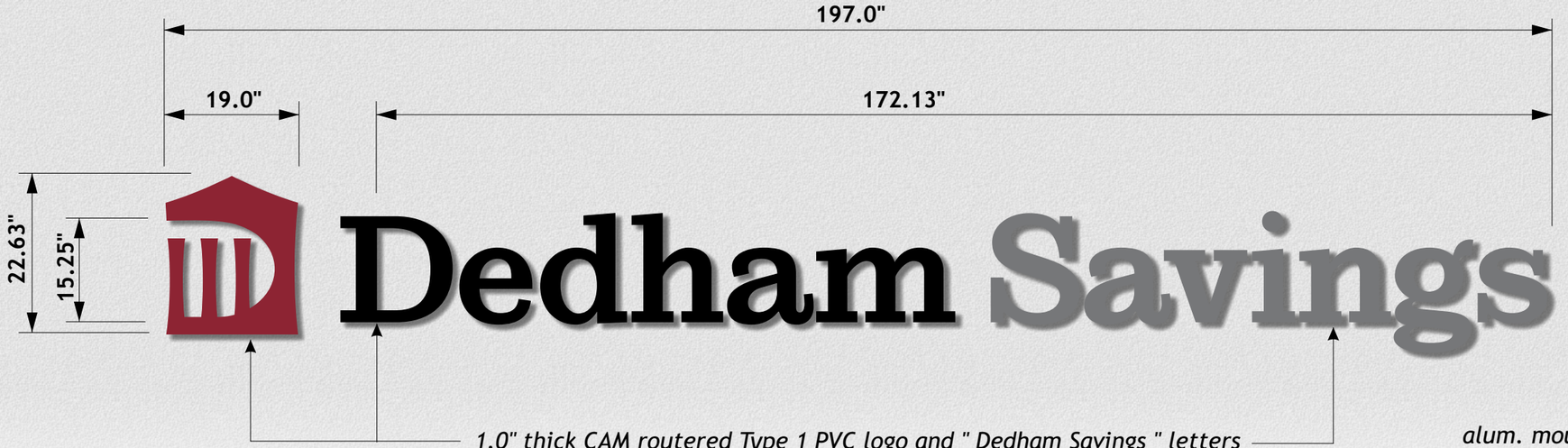
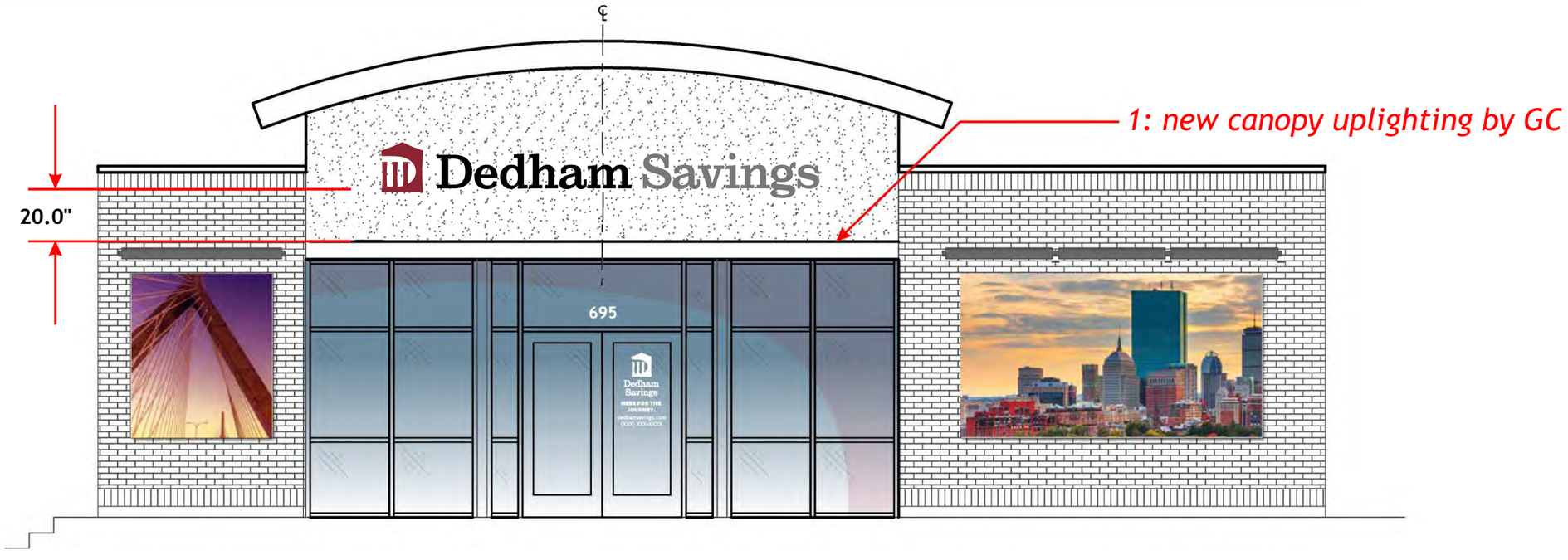




Side View



B...(1) Set Raised Dimensional Logo and Letters (Southeast Elevation)....NTS 31.0 Sq. Ft. Area

** externally illuminated from new canopy uplighting (note 1)*

graphic impact signs
800.458.2376
fax 413.443.0034
575 dalton ave. pittsfield, ma 01201
gisigns.com

Dedham Savings

Sales Rep:	John Renzi
Job Name:	Dedham Savings
Job Location:	Needham, MA
Sheet:	2 of 5
Date:	2/25/25
Job #:	
Scale:	as noted
Drawn by:	LH

Dedham Savings
695 Highland Ave.
Needham, MA
Rev 3/13/25

APPROVED
APPROVED AS NOTED
CLIENT SIGNATURE
DATE

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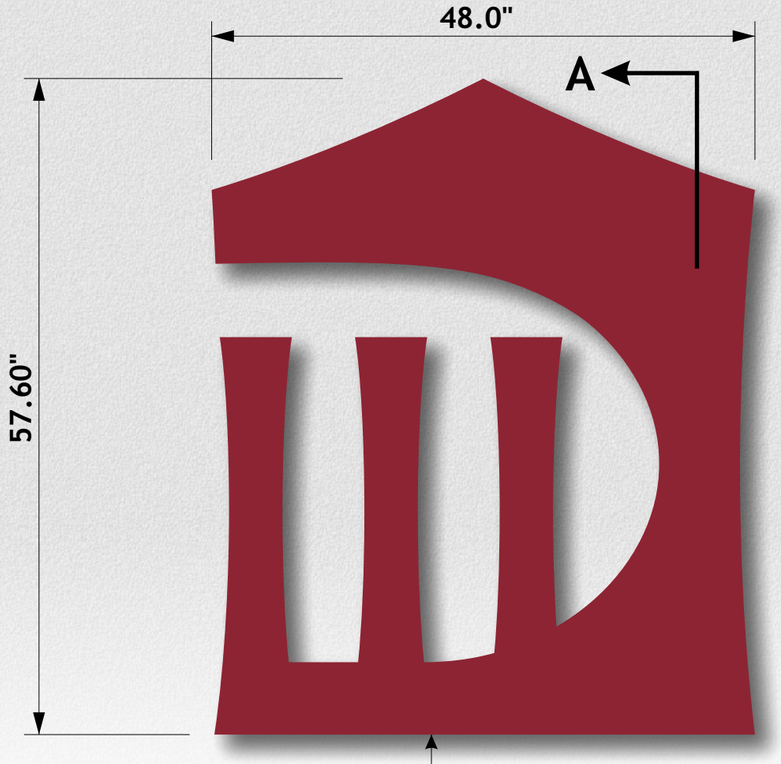
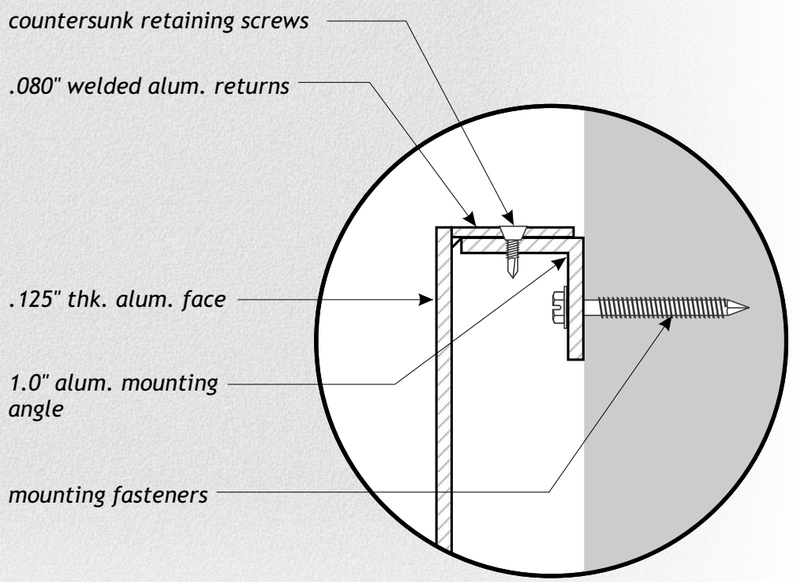
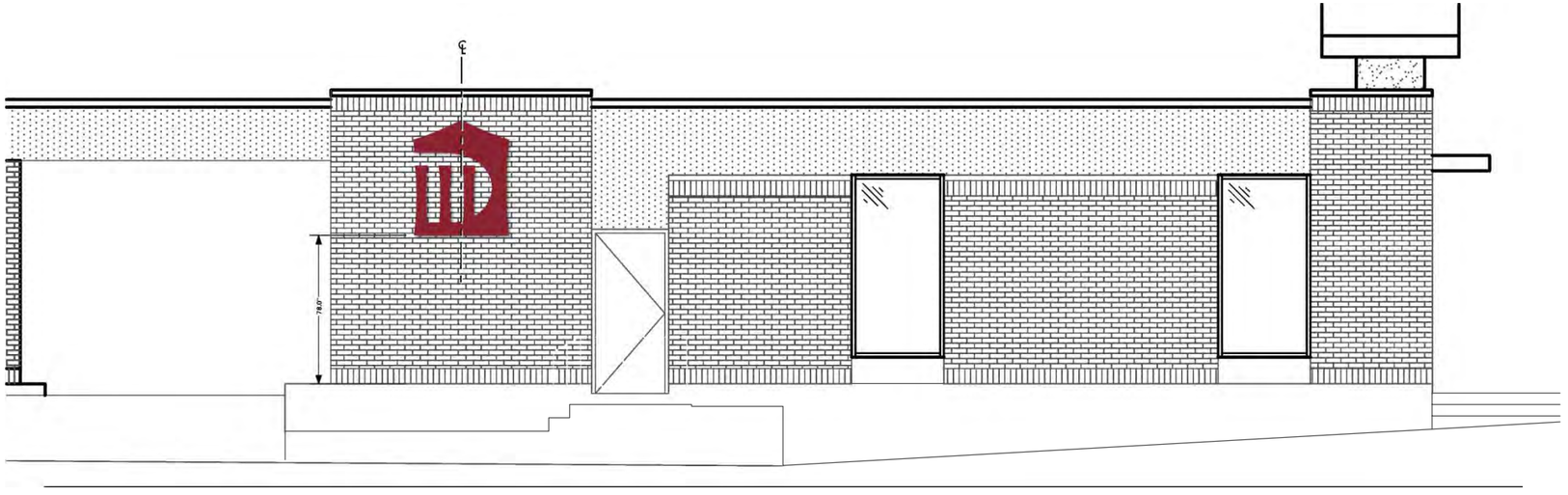




Section A

1.0" deep aluminum fabricated logo pan (shell)...logo face and returns painted to match DSB Red..logo mounts flush to wall with 1.0" aluminum angle rails/shoes

Side View



C...(1) Non-Illuminated Raised Dimensional Logo (West Elevation)....NTS 19.2 Sq. Ft. Area

graphic impact signs

800.458.2376
fax 413.443.0034
575 dalton ave. pittsfield, ma 01201
gisigns.com

Dedham Savings

Sales Rep:	John Renzi
Job Name:	Dedham Savings
Job Location:	Needham, MA
Sheet:	3 of 5
Date:	2/25/25
Job #:	
Scale:	as noted
Drawn by:	LH

Dedham Savings
695 Highland Ave.
Needham, MA

Rev 3/13/25

☐ APPROVED

☐ APPROVED AS NOTED

CLIENT SIGNATURE

DATE

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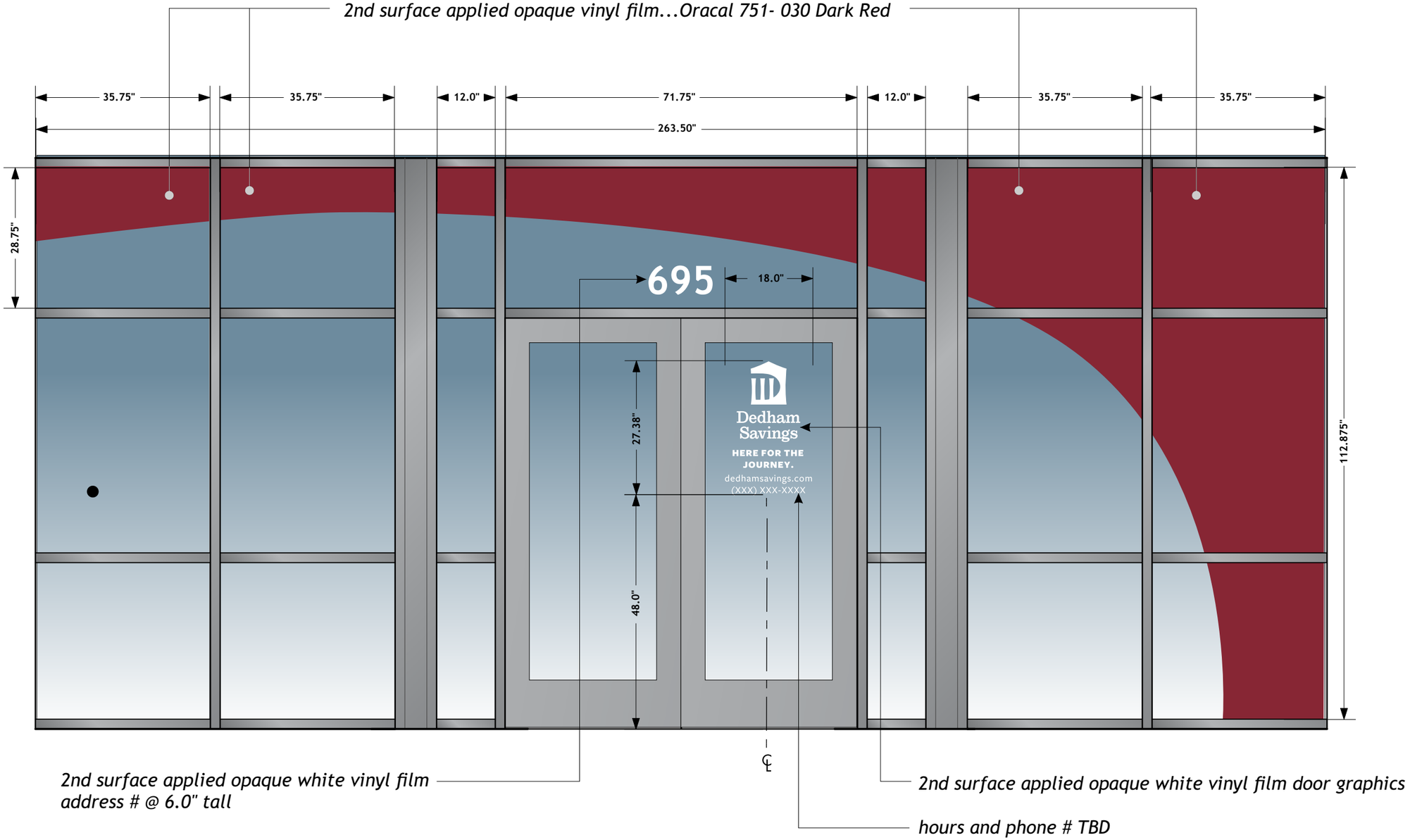

D...Window Graphics(Southeast Elevation)....NTS

graphic impact signs
800.458.2376
fax 413.443.0034
575 dalton ave. pittsfield, ma 01201
gisigns.com

Dedham Savings

Sales Rep:	John Renzi
Job Name:	Dedham Savings
Job Location:	Needham, MA
Sheet:	4 of 5
Date:	2/25/25
Job #:	
Scale:	as noted
Drawn by:	LH

Dedham Savings
695 Highland Ave.
Needham, MA

Rev 3/13/25

APPROVED

APPROVED AS NOTED

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DATE

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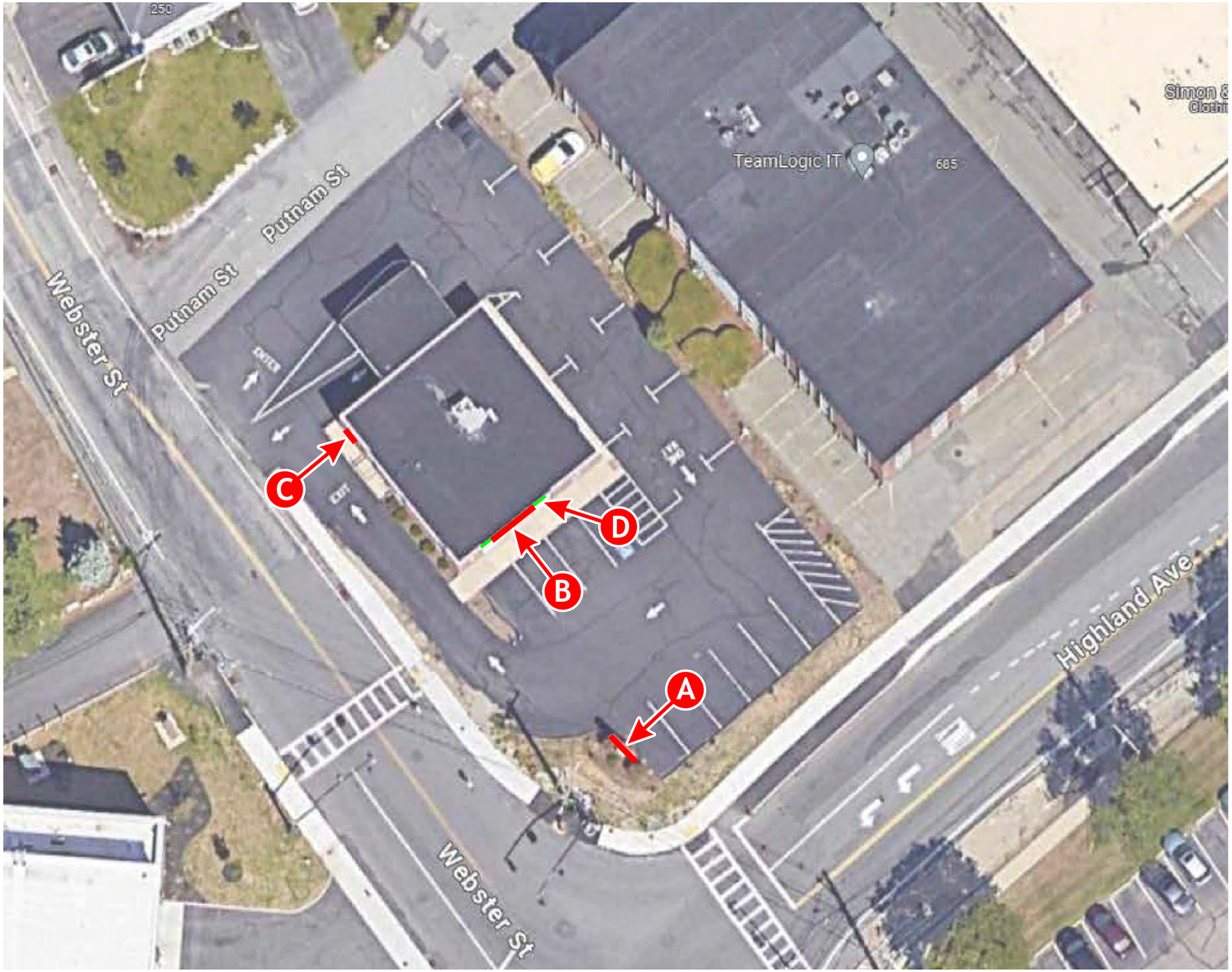

Elevation...Sign Locations

graphic impact signs
800.458.2376
fax 413.443.0034
575 dalton ave. pittsfield, ma 01201
gisigns.com

Dedham Savings

Sales Rep:	John Renzi
Job Name:	Dedham Savings
Job Location:	Needham, MA
Sheet:	5 of 5
Date:	2/25/25
Job #:	
Scale:	as noted
Drawn by:	LH

Dedham Savings
695 Highland Ave.
Needham, MA

Rev 3/13/25

☐ APPROVED

☐ APPROVED AS NOTED

CLIENT SIGNATURE

DATE

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TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492

Application and Report

Property Location: 77 Charles St *Date:* _____

Owner: Commercial Street 229, LLP

Address: 22 Comeau Street | Wellesley | MA | 02481
Street | *City* | *State* | *Zip*

Telephone: _____

Applicant: Christine Sandonato

Address: 77 Charles St | Needham | MA | 02494
Street | *City* | *State* | *Zip*

Telephone: _____

Designer/Installer: Signarama Framingham

Address: 2 Southville Rd. Unit C | Southborough | MA | 01772
Street | *City* | *State* | *Zip*

Telephone: _____

Type of Application
☒ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

Brief description of sign or project:

Replacing sign face in existing lightbox on building above main entrance.

Please email completed application to elitchman@needhamma.gov

Revised 2/2020

fast : splits™
precision multisport

CLOSED WILL RETURN
Please Call Again

WE'VE MOVED

Authorized Retailer
GU

fast : splits™
precision multisport

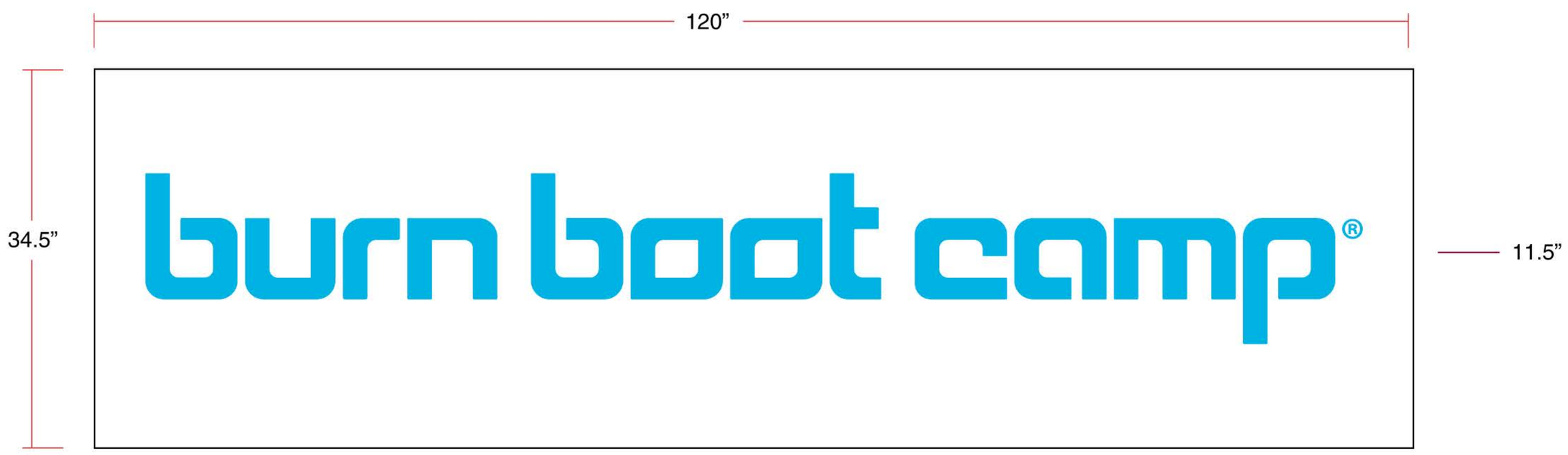
monday-friday 11:00am - 7:00pm
saturday 11:00am - 5:00pm
sunday closed

JOB #:	69568	**PROJECT TYPE:**	SIGN FACE	**REVISION DATE:**	2.14.25
QUANTITY:	1	**PROOF DATE:**	2.14.25	**REVISION #:**	1



Qty: (1) 34.5" H x 120" W x 3/16" D White Polycarbonate Sign Face with Translucent Vinyl & gloss laminate applied to one (1) side per sign face, per the approved sign proof.

COPY 306C:
(BURN BOOT CAMP LOGO)



PLEASE NOTE: PRICING INCLUDES UP TO TWO (2) REVISION CYCLES; AN ADDITIONAL COST MAY BE APPLIED FOR EXTRA DESIGN TIME.

These plans are the exclusive property of Sign*A*Rama and are the result of the original work of its employees. Their sole purpose is for client consideration as to whether or not to purchase the propsed plans or to purchase from Sign*A*Rama, a sign manufactured according to these plans. Distribution or exhibition of these plans to anyone other than employees of your company, or use of these plans to construct a sign similar to the one embodied herin, is expressly forbidden. In the event that such exhibition occurs, Sign*A*Rama expects to be reimbursed for time and effort entailed in creating these plans.

IMPORTANT: SUPERIMPOSED PHOTOS ARE NOT TO BE VIEWED AS 100% ACCURATE DEPICTIONS, THEY ARE SIMPLY A ROUGH REPRESENTATION OF SIGN PLACEMENT.

Signarama
The way to grow your business.
www.framinghamsigns.com
2 SOUTHVILLE ROAD, UNIT C
SOUTHBOROUGH, MA 01772
508.875.7446 **P** 508.875.7470 **F**

TOWN OF NEEDHAM

DESIGN REVIEW BOARD

Public Service Administration Building
500 Dedham Avenue
Needham, MA 02492
Application and Report

Property Location: 339 Chestnut Street, Needham, MA 02492 *Date:* Maech 20, 2025

Owner: Needham Enterprises, LLC

Address: 105 Chestnut Street, Needham, MA 02492
Street *City* *State* *Zip*

Telephone: 617-435-1090

Applicant: Needham Enterprises, LLC

Address: 105 Chestnut Street, Needham, MA 02492
Street *City* *State* *Zip*

Telephone: 617-435-1090

Designer/Installer: Scott Melching Architect, LLC

Address: 116 Arch Street, Needham, MA 02492
Street *City* *State* *Zip*

Telephone: 718-578-3354

Type of Application
☐ **Sign**
☐ **Minor Project**
☐ **Exterior Alterations**
Major Project (Site Plan Review) ☐ **- preliminary** ☐ **- final**
☐ **Flexible Subdivision**
☐ **Planned Residential Development**
☐ **Residential Compound**

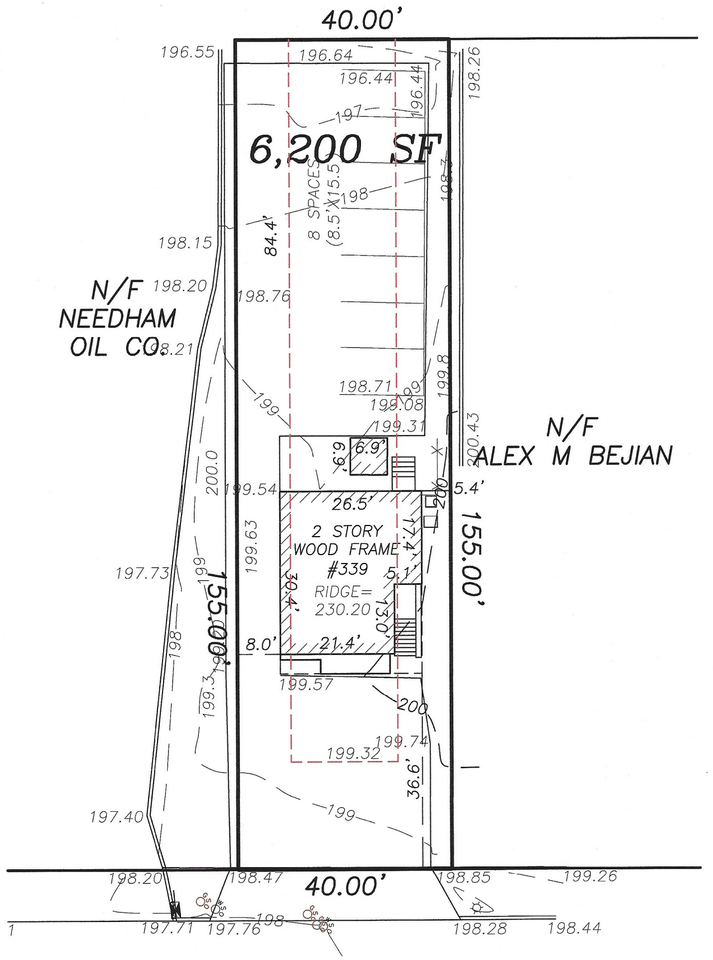
X Comprehensive permit

Brief description of sign or project:

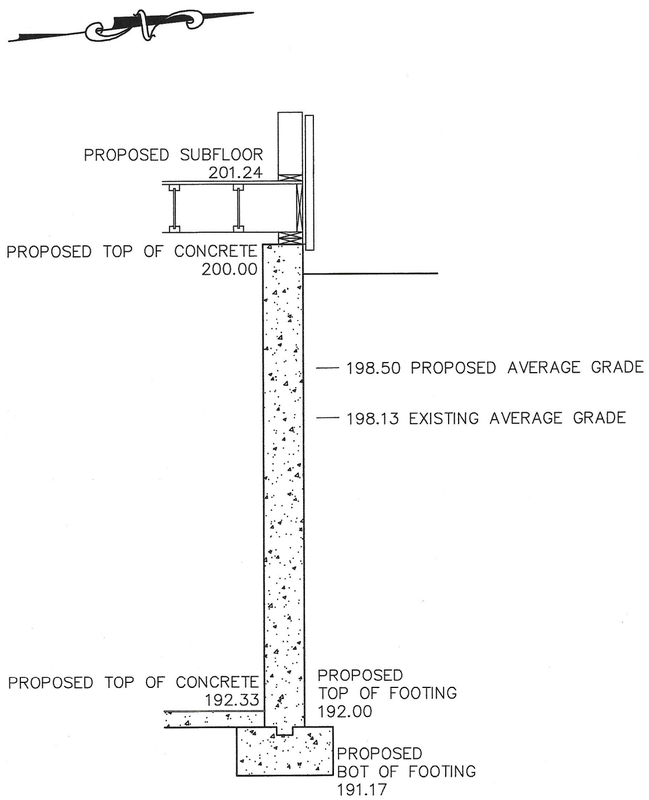
Redevelopment of commercial property at 339 Chestnut Street via comprehensive permit, to include one new, three story building containing six units (including two affordable), and associated parking.

Please email completed application to elitchman@needhamma.gov

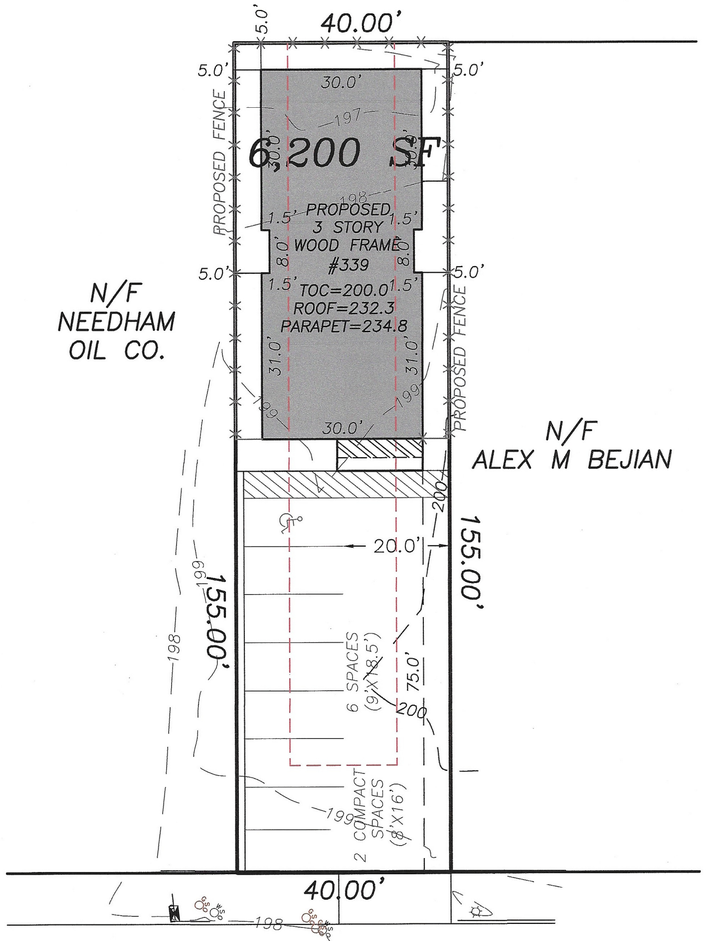
Revised 2/2020



CHESTNUT STREET



FOUNDATION WALL SECTION
NOT TO SCALE



CHESTNUT STREET

1) *ELEVATIONS REFER TO PROJECT DATUM*

2) *CONTOUR INTERVAL EQUALS ONE (1) FOOT.*

3) *UTILITY INFORMATION SHOWN IS BASED ON BOTH A FIELD SURVEY AND THE LATEST PLANS OF RECORD. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM THE AFOREMENTIONED RECORD PLANS AND ARE APPROXIMATE ONLY. BEFORE PLANNING FUTURE CONNECTIONS, THE PROPER UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED AND THE ACTUAL LOCATION OF SUB-SURFACE STRUCTURES SHOULD BE DETERMINED IN THE FIELD. CALL, TOLL-FREE, THE DIG SAFE CALL CENTER AT 1-888-344-7233 (1-888-DIG-SAFE) SEVENTY-TWO HOURS PRIOR TO EXCAVATION.*

PARKING SPACE SUMMARY

339 CHESTNUT	FULL SIZE	COMPACT	HANDICAP
EXISTING		8 SPACES	
PROPOSED	6 SPACES INCLUDES HP SPACE	2 SPACES	1 SPACE

ZONING INFORMATION: CHESTNUT STREET BUSINESS (CSB)

	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	10,000 SF	6,200 SF	6,200 SF.
MINIMUM LOT FRONTAGE	80 FEET	40 FEET	40 FEET
MINIMUM FRONT SETBACK	20 FEET	36.6 FEET	75.0 FEET
MINIMUM SIDE YARD	10 FEET	8.0 FEET	5.0 FEET
		5.4 FEET	5.0 FEET
MINIMUM REAR YARD	N/A	84.4 FEET	5.0 FEET
MAXIMUM FLOOR AREA RATIO	0.7		SEE ARCHITECTS DOCUMENTS
MAXIMUM BUILDING HEIGHT	35 FEET	31.87 FEET	34.17 FEET
MAXIMUM BUILDING HEIGHT	2 1/2 STORIES	2 STORIES	3 STORIES

PROPERTY REFERENCE

BOOK 36596 PAGE 548

ZONING REFERENCE

ASSESSORS MAP 46, PARCEL 54
ZONING DISTRICT: CSB

COMMONWEALTH OF MASSACHUSETTS
BRADLEY J. SIMONELLI
#47581
PROFESSIONAL LAND SURVEYOR

GRAPHIC SCALE
20 0 10 20 40

PROPOSED SITE PLAN
FOR COMPREHENSIVE PERMIT
339 CHESTNUT STREET
NEEDHAM, MASS.

Field Resources, Inc.
LAND SURVEYORS

OCTOBER 29, 2024 SCALE 1"=30'

P.O. BOX 324
AUBURN, MA
508 832 4332

281 CHESTNUT ST.
NEEDHAM, MA.
781 444 5936

fieldresources@hotmail.com

042-08

REVISED: FEBRUARY 12, 2025

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ILLUSTRATIVE FRONT ELEVATION - VIEW FROM CHESTNUT STREET

339 CHESTNUT STREET, NEEDHAM, MA 02492

PROJECT TEAM

OWNER / BUILDER

NEEDHAM ENTERPRISES, LLC
105 CHESTNUT STREET
NEEDHAM MA 02492
E : NEEDHAMENTERPRISES105@GMAIL.COM

ARCHITECT

SCOTT MELCHING ARCHITECT LLC
116 ARCH STREET
NEEDHAM MA 02492
E : SCOTT@SCOTTMELCHINGARCHITECT.COM
W : WWW.SCOTTMELCHINGARCHITECT.COM

SURVEYOR

FIELD RESOURCES
281 CHESTNUT STREET
NEEDHAM, MA 0249201760
T: 781.444.5936
W: WWW.FIELDRESOURCES.NET

STRUCTURAL ENGINEER

PROJECT INFORMATION

APPLICABLE CODES:

C.1 MASSACHUSETTS STATE BUILDING CODE 780 10TH EDITION
C.2 MASSACHUSETTS STATE ELECTRICAL CODE 524 CMR 12:00
C.3 MASSACHUSETTS STATE COMPREHENSIVE FIRE SAFETY CODE 527 CMR 1.00 (NFPA 2021)
C.4 MASSACHUSETTS STATE UNIFORM PLUMBING CODE 248 CMR 10.00
C.5 MASSACHUSETTS STATE FUEL GAS CODE 248 CMR 4.00
C.6 IECC 2018 W/ MASSACHUSETTS AMENDMENTS
C.7 MASSACHUSETTS ACCESS BOARD 521 CMR

DRAWING LIST

DOB PERMIT SET #			SELECT BOARD MEETING 2024 10-14	*LIP SUBMISSION 2024 11-05	ZBA SUBMISSION 2025 02-07				
	ARCHITECTURE								
1	T-1	TITLE SHEET, PROJECT INFORMATION & DRAWING LIST	●	●	●				
2	A-1	FOUNDATION PLAN	●	●	●				
3	A-2	FIRST & SECOND FLOOR PLANS	●	●	●				
4	A-3	THIRD FLOOR & ROOF PLANS	●	●	●				
5	A-4	EXTERIOR ELEVATIONS FRONT & RIGHT, & BUILDING SECTION	●	●	●				
6	A-5	EXTERIOR ELEVATIONS REAR & LEFT	●	●	●				

NOTES:

1. DRAWING LISTED ARE FOR INFORMATION ONLY. THESE DRAWINGS AS LISTED IN THE DRAWING LIST ALONE WITH THE CONTRACT FOR CONSTRUCTION, ADDENDUMS & OTHER INFORMATION AS PROVIDED TO THE GENERAL CONTRACTOR CONSTITUTE THE INSTRUMENTS OF SERVICE AND ARE CONSIDERED A SINGLE ENTITY. THE CONTRACTOR IS THEREFORE BOUND BY ALL INFORMATION INCLUDED. NONE OF THIS INFORMATION OR DRAWINGS SHEETS SHALL BE TAKEN SEPARATELY OR "STAND ALONE" FROM THE REMAINDER OF THE CONSTRUCTION DOCUMENTS. ANY DISCREPANCIES OR CONFLICTING INFORMATION NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO SUBMITTING A BID SHALL BE INTERPRETED AT THE SOLE DISCRETION OF THE ARCHITECT.
2. PRIOR TO STARTING ANY TYPE OF CONSTRUCTION, G.C. TO VERIFY DRAWINGS ARE MOST CURRENT (ISSUED FOR CONSTRUCTION.)

PROJECT SUMMARY

PROPOSED 3-STORY 6 UNIT MULTI-FAMILY RESIDENTIAL STRUCTURE WITH FULL HEIGHT BASEMENT. BASEMENT TO BE POURED-IN-PLACE CONCRETE WITH WOOD FRAMED CONSTRUCTION ABOVE. BUILDING TO BE FULLY SPRINKLERED AND ALL ELECTRIC, I.E. NO FOSSIL FUELS. OFF-STREET PARKING IS PROVIDED ALONG THE ENTRY DRIVE AISLE. 6 DEDICATED RESIDENTIAL PARKING SPOTS ARE TO BE PROVIDED ALONG WITH TWO VISITOR PARKING SPACES. ONE PARKING SPOT WILL BE VAN ACCESSIBLE. 2 UNITS WILL BE DESIGNATED AFFORDABLE, PART OF INCLUSIONARY HOUSING PROGRAM.

ADDRESS :	339 CHESTNUT STREET, NEEDHAM MA 02492
ZONING DISTRICT :	CHESTNUT STREET BUSINESS (CSB)
ZONING SUBDISTRICT (OVERLAY) :	LOWER CHESTNUT STREET OVERLAY DISTRICT (LC)
EXISTING USE :	COMMERCIAL / RESIDENTIAL
PROPOSED USE :	MULTI-FAMILY RESIDENTIAL
LOT AREA :	+ / - 6,200 SF

GROSS FLOOR AREA (FAR)

FLOOR	SQUARE FOOTAGE (SF)	USE
LEVEL 01	2,046 SF	LOBBY, LAUNDRY ROOM & 2 DWELLING UNITS
LEVEL 02	2,094 SF	LAUNDRY ROOM & 2 DWELLING UNITS
LEVEL 03	2,094 SF	LAUNDRY ROOM & 2 DWELLING UNITS
TOTAL	6,234 SF	
GROSS FAR	1.005	

INCLUSIONARY HOUSING SUMMARY

2 AFFORDABLE UNITS / 6 TOTAL UNITS = 33% AFFORDABLE UNITS

AFFORDABLE UNITS TO A MIX OF FIXED AND FLOATING. ALL UNITS TO HAVE THE SAME LEVEL OF INTERIOR FINISH.
UNIT 1A TO BE A FIXED AFFORDABLE UNIT. UNIT 3B TO BE A FLOATING AFFORDABLE UNIT.

SEE UNIT SUMMARY FOR THE PROPOSED UNIT LOCATIONS & SIZES.

DWELLING UNIT INFORMATION

FLOOR	DESCRIPTION	GROSS SQUARE FOOTAGE (SF)	USE
LEVEL 01	UNIT 1-A	598 SF	1 BEDROOM / 1 BATH (ACCESSIBLE & AFFORDABLE)
	UNIT 1-B	900 SF	2 BEDROOM / 2 BATH (ACCESSIBLE)
LEVEL 02	UNIT 2-A	986 SF	2 BEDROOM / 2 BATH
	UNIT 2-B	900 SF	2 BEDROOM / 2 BATH
LEVEL 03	UNIT 3-A	986 SF	2 BEDROOM / 2 BATH
	UNIT 3-B	900 SF	2 BEDROOM / 2 BATH (AFFORDABLE)
	6 TOTAL DWELLING UNITS		

339 CHESTNUT STREET
NEEDHAM MA 02492

NEEDHAM ENTERPRISES
NEEDHAM MA 02492

FOR DESIGN INTENT ONLY
NOT FOR CONSTRUCTION

REVISIONS | SUBMISSIONS	DATE
ZBA SUBMISSION	2025 02-07
LOCAL INITIATIVE PROJECT SUBMISSION	2024 11-05
SELECT BOARD MEETING	2024 10-14

SCOTT MELCHING ARCHITECT LLC
ARCHITECT
NEEDHAM, MA 02492 | (T) 718.578.3354

PROJECT:
339 CHESTNUT STREET
NEEDHAM | MA | 02492

DRAWING TITLE:
TITLE PAGE, RENDERING,
DWG LIST & BUILDING DEPT NOTES

SHEET NUMBER :
T - 1
1 OF 6

REGISTERED ARCHITECT SCOTT MELCHING NO. 32164 BOSTON MA COMMONWEALTH OF MASSACHUSETTS

SCALE :
DATE : 2025 02-07
ISSUE : ZBA SUBMISSION

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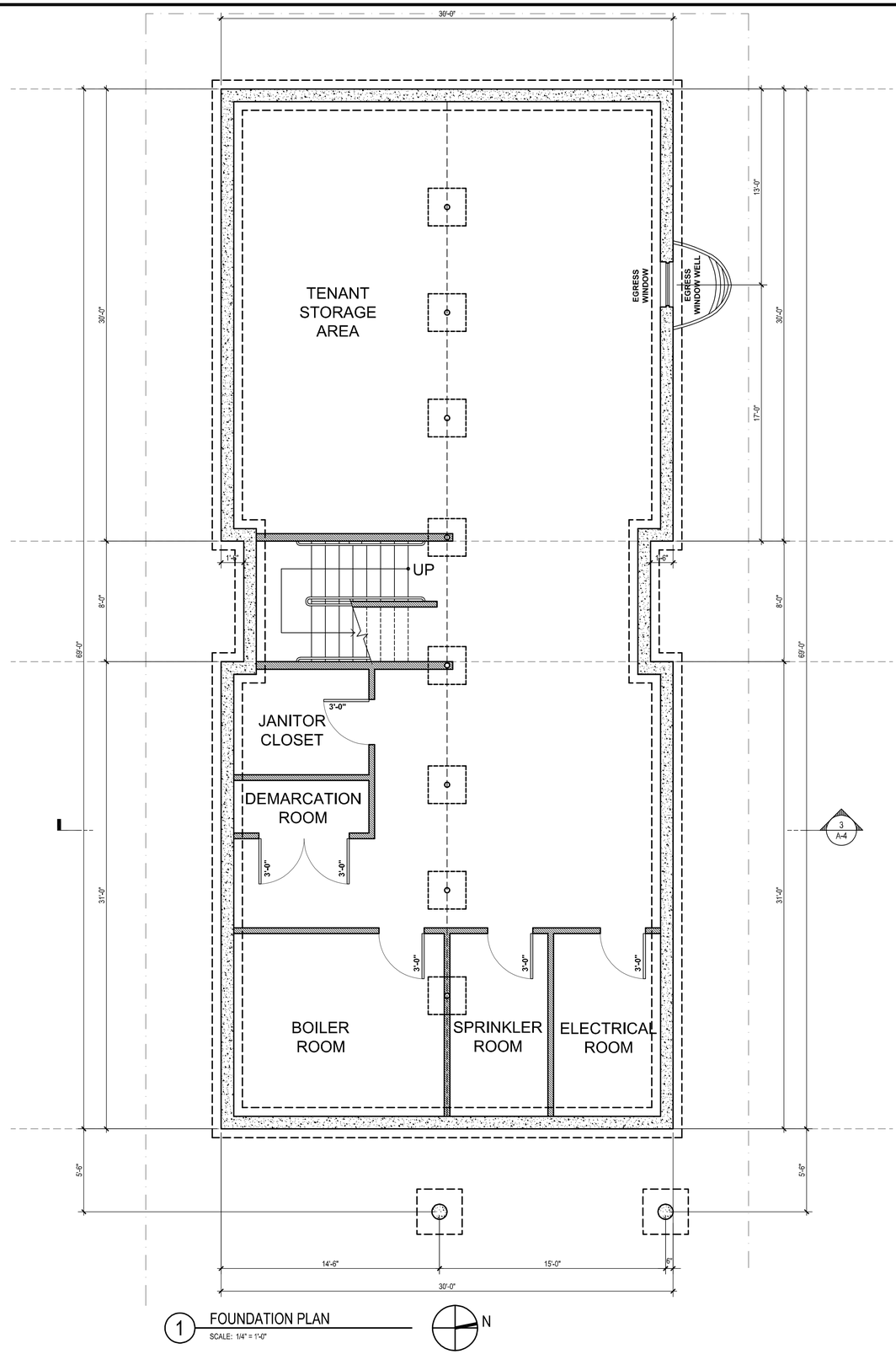

1 FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

339 CHESTNUT STREET

NEEDHAM MA 02492

NEEDHAM ENTERPRISES

NEEDHAM MA 02492

FOR DESIGN INTENT ONLY
NOT FOR CONSTRUCTION

REVISIONS | SUBMISSIONS	DATE
ZBA SUBMISSION	2025 02-07
LOCAL INITIATIVE PROJECT SUBMISSION	2024 11-05
SELECT BOARD MEETING	2024 10-14
ISSUED FOR OWNER REVIEW	2024 10-07
ISSUED FOR OWNER REVIEW	2024 10-03
ISSUED FOR OWNER REVIEW	2024 05-23

SCOTT MELCHING ARCHITECT LLC
ARCHITECT
NEEDHAM, MA 02492 | (T) 718.578.3354

PROJECT:
339 CHESTNUT STREET
NEEDHAM | MA | 02492

DRAWING TITLE:
FOUNDATION PLAN

SHEET NUMBER:
A - 1
2 OF 6

REGISTERED ARCHITECT
SCOTT H. MELCHING
NO. 32161
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE:
DATE: 2025 02 - 07
ISSUE: ZBA SUBMISSION

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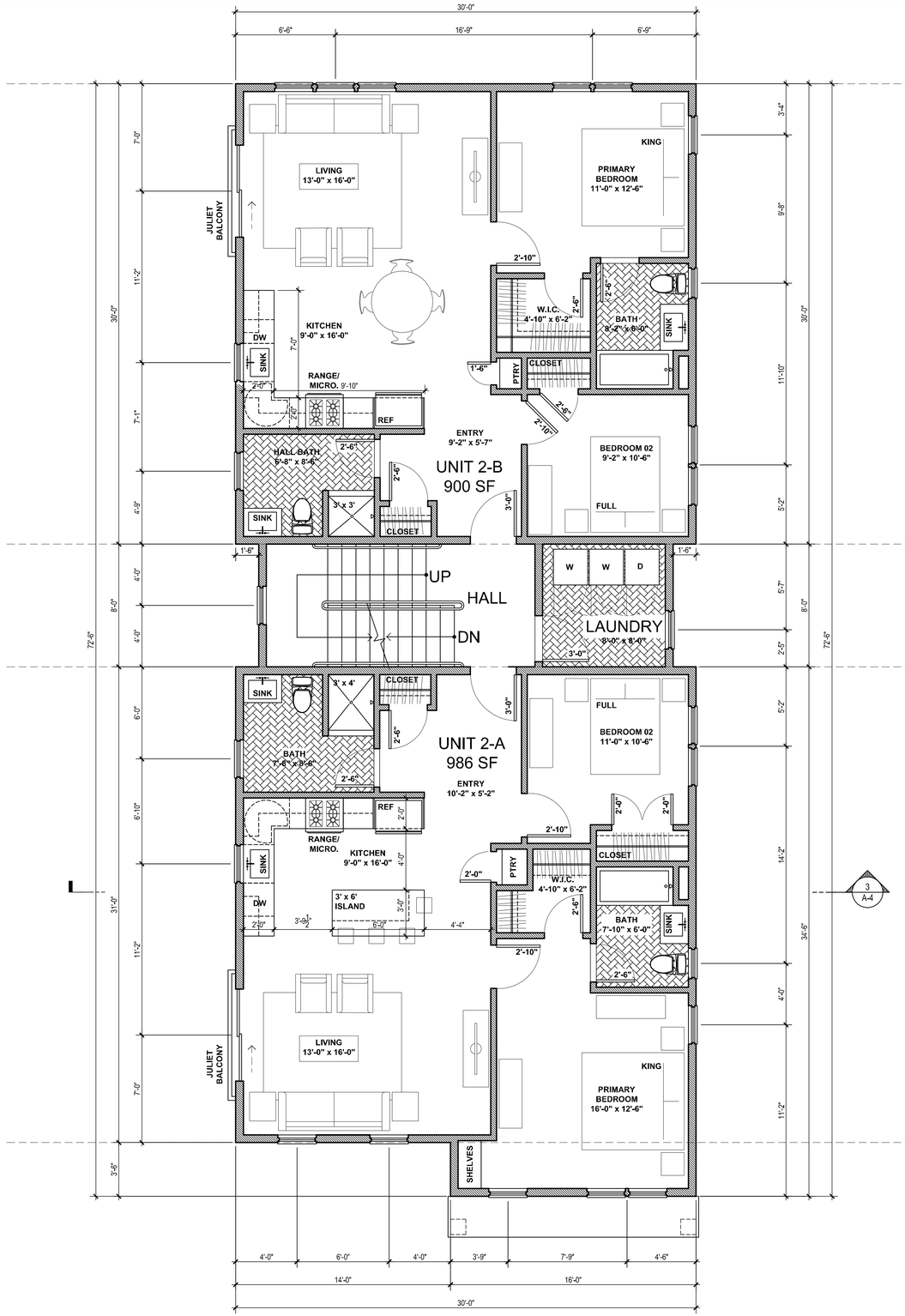
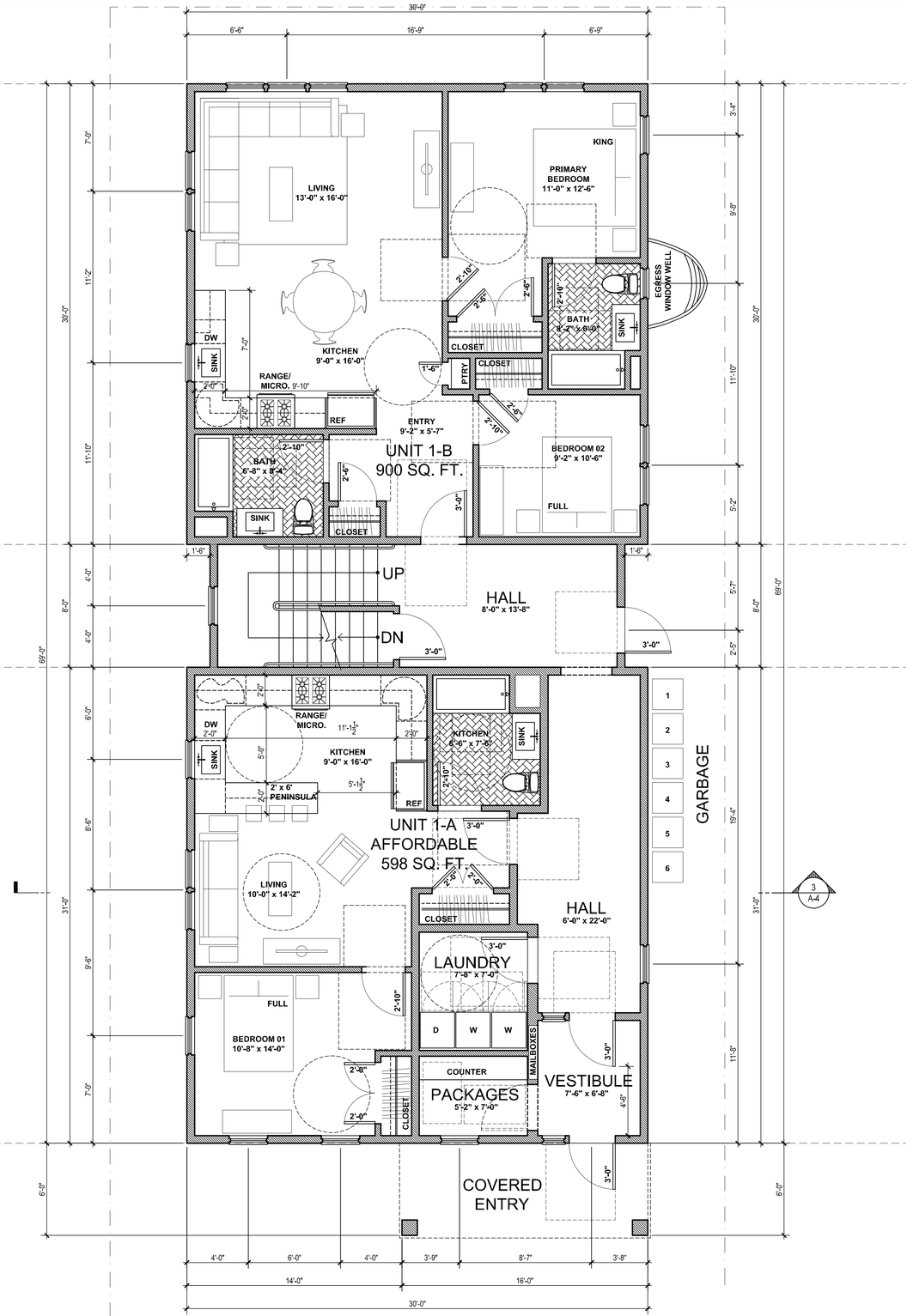


2 SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

N



1 FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

N

339 CHESTNUT STREET

NEEDHAM MA 02492

NEEDHAM ENTERPRISES

NEEDHAM MA 02492

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ISSUED FOR OWNER REVIEW	2024 10-07
ISSUED FOR OWNER REVIEW	2024 10-03
ISSUED FOR OWNER REVIEW	2024 05-23

SCOTT MELCHING ARCHITECT LLC
ARCHITECT
NEEDHAM, MA 02492 | (T) 718.578.3354

PROJECT:
339 CHESTNUT STREET
NEEDHAM | MA | 02492

DRAWING TITLE:
GROUND FLOOR &
SECOND FLOOR PLANS

SHEET NUMBER :
A - 2
3 OF 6

REGISTERED ARCHITECT
SCOTT H. MELCHING
NO. 32168
BOSTON, MA
COMMONWEALTH OF MASSACHUSETTS

SCALE :

DATE : 2025 02 - 07

ISSUE : ZBA SUBMISSION

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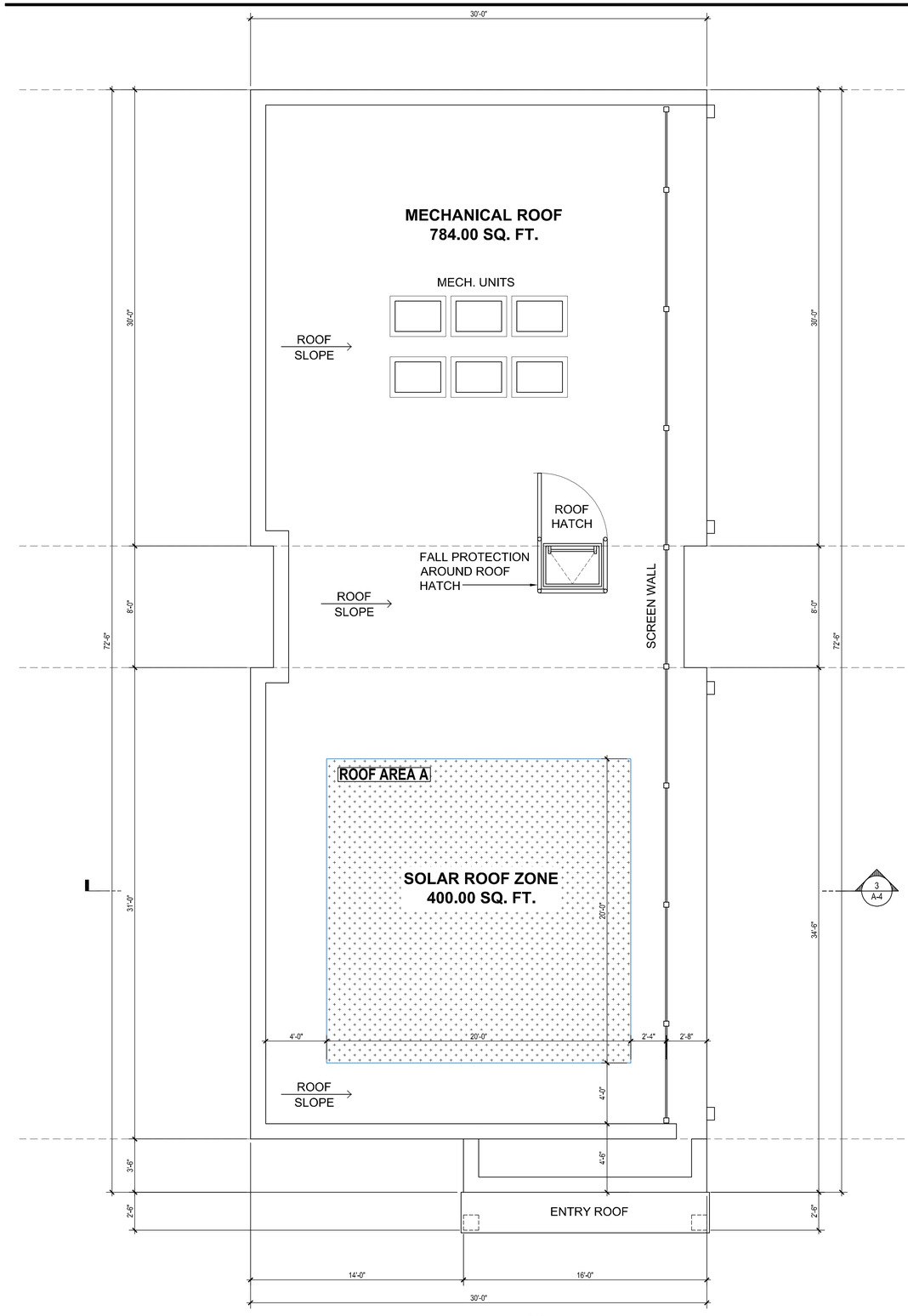
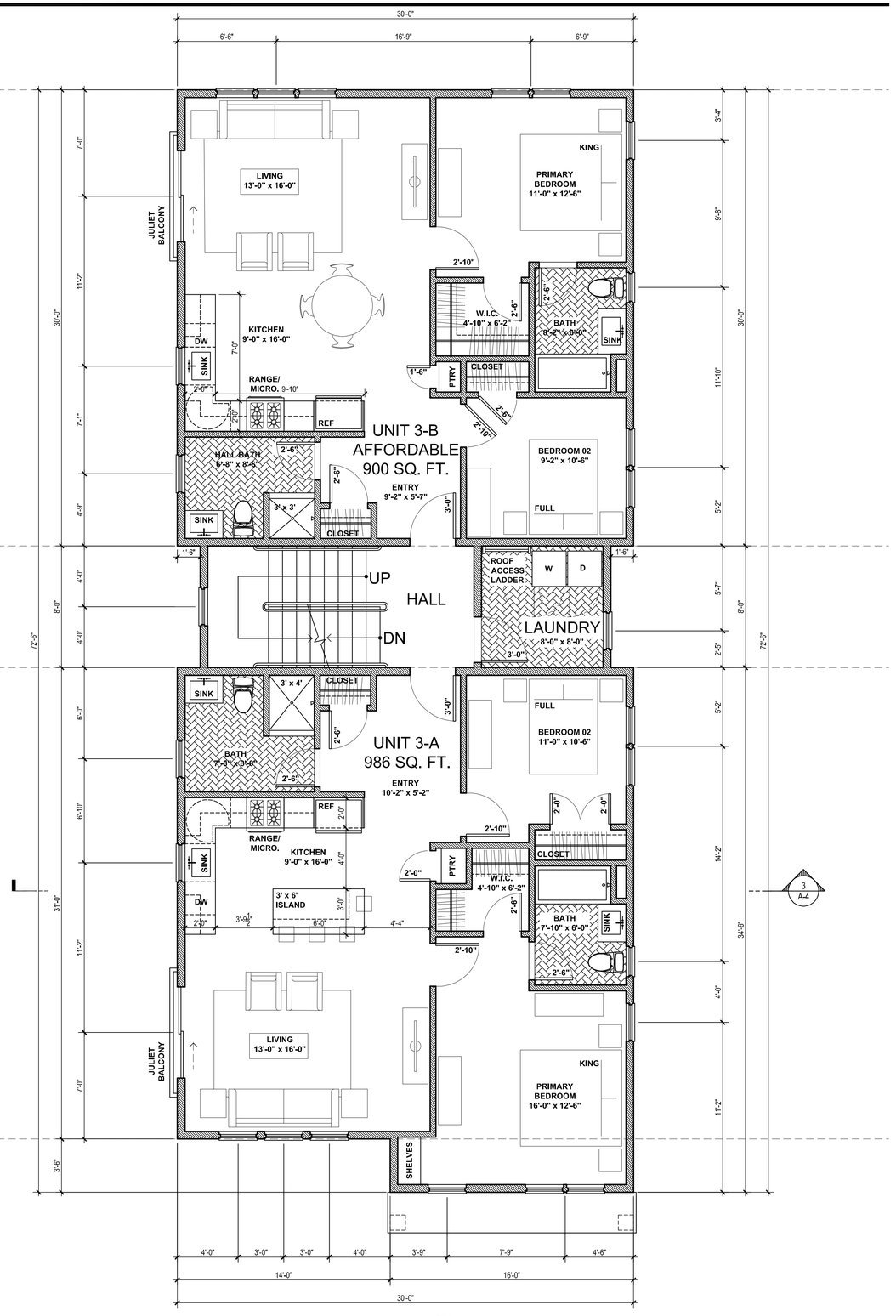


2 ROOF PLAN

SCALE: 1/4" = 1'-0"



1 THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"

N

339 CHESTNUT STREET

NEEDHAM MA 02492

NEEDHAM ENTERPRISES

NEEDHAM MA 02492

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REVISIONS | SUBMISSIONS	DATE
ZBA SUBMISSION	2025 02-07
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SELECT BOARD MEETING	2024 10-14
ISSUED FOR OWNER REVIEW	2024 10-07
ISSUED FOR OWNER REVIEW	2024 10-03
ISSUED FOR OWNER REVIEW	2024 05-23

SCOTT MELCHING ARCHITECT LLC
ARCHITECT
NEEDHAM, MA 02492 | (T) 718.578.3354

PROJECT:
339 CHESTNUT STREET
NEEDHAM | MA | 02492

DRAWING TITLE:
THIRD FLOOR PLAN &
ROOF PLAN

SHEET NUMBER :
A - 3
4 OF 6

REGISTERED ARCHITECT
SCOTT H. MELCHING
NO. 32169
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE :
DATE : 2025 02 - 07
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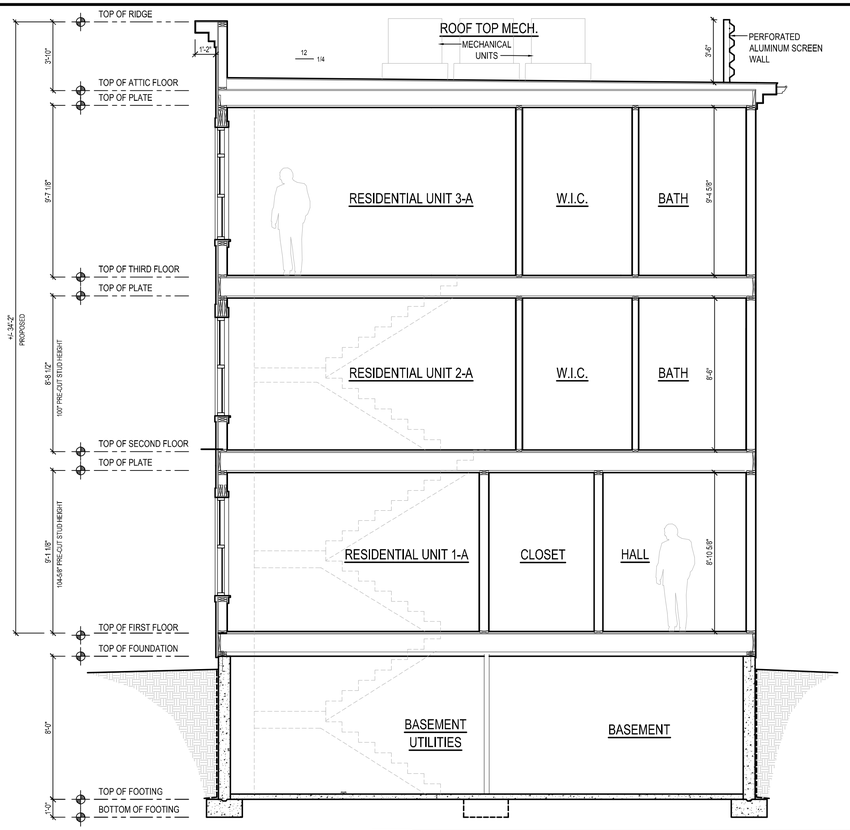
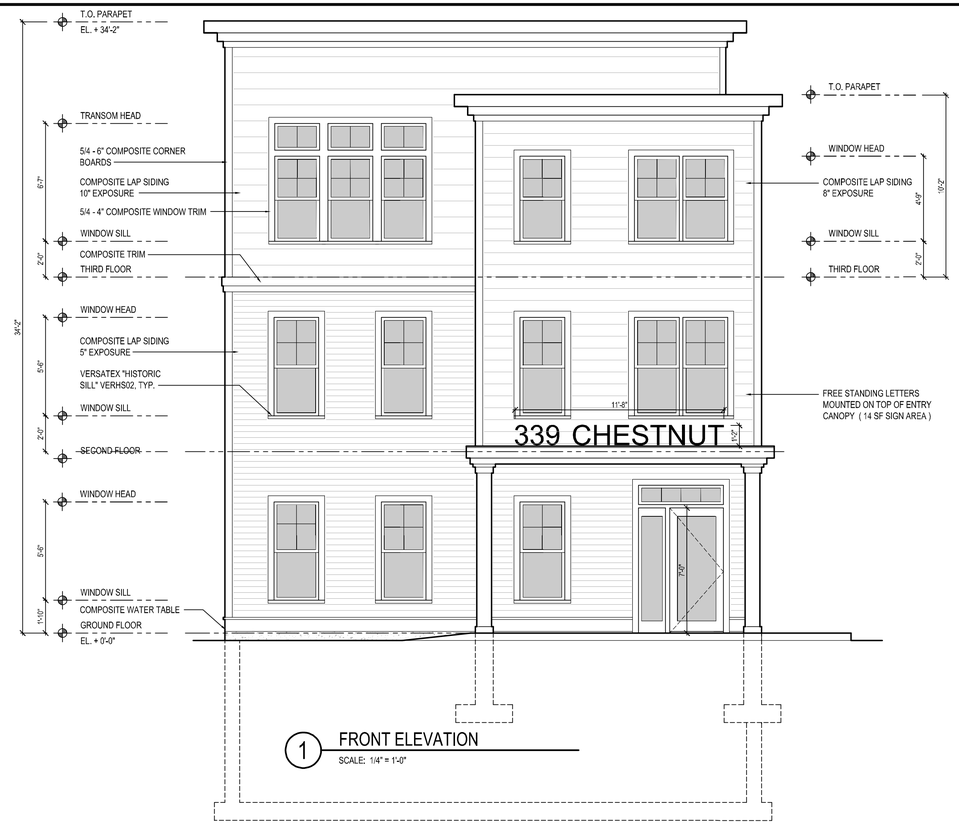


3 SECTION
SCALE: 1/4" = 1'-0"



1 FRONT ELEVATION
SCALE: 1/4" = 1'-0"



2 RIGHT ELEVATION
SCALE: 1/4" = 1'-0"

339 CHESTNUT STREET
NEEDHAM MA 02492

NEEDHAM ENTERPRISES
NEEDHAM MA 02492

FOR DESIGN INTENT ONLY
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ISSUED FOR OWNER REVIEW	2024 10-03
ISSUED FOR OWNER REVIEW	2024 05-23

SCOTT MELCHING ARCHITECT LLC
ARCHITECT
NEEDHAM, MA 02492 | (T) 718.578.3354

PROJECT:
339 CHESTNUT STREET
NEEDHAM | MA | 02492

DRAWING TITLE:
EXTERIOR ELEVATIONS FRONT & RIGHT, & BUILDING SECTION

SHEET NUMBER :
A - 4
5 OF 6

REGISTERED ARCHITECT SCOTT H. MELCHING NO. 32169 BOSTON MA COMMONWEALTH OF MASSACHUSETTS

SCALE :
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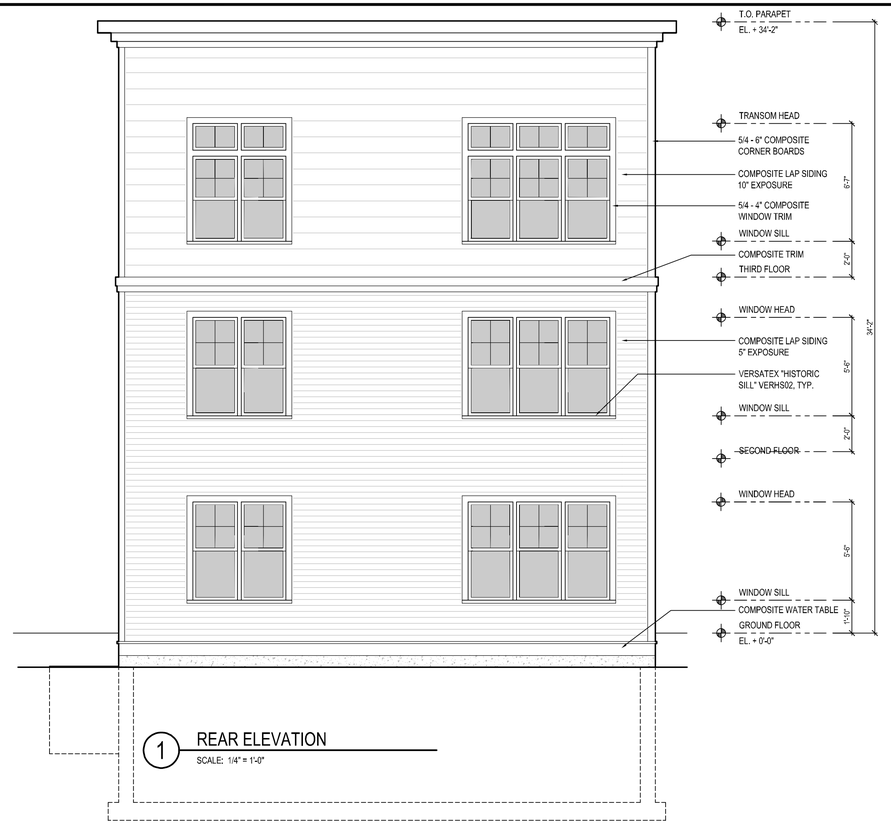

1 REAR ELEVATION

SCALE: 1/4" = 1'-0"



2 LEFT ELEVATION

SCALE: 1/4" = 1'-0"

339 CHESTNUT STREET

NEEDHAM MA 02492

NEEDHAM ENTERPRISES

NEEDHAM MA 02492

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ISSUED FOR OWNER REVIEW	2024 10-03
ISSUED FOR OWNER REVIEW	2024 05-23

SCOTT MELCHING ARCHITECT LLC
ARCHITECT
NEEDHAM, MA 02492 | (T) 718.578.3354

PROJECT:

339 CHESTNUT STREET

NEEDHAM | MA | 02492

DRAWING TITLE:

EXTERIOR ELEVATIONS
REAR & LEFT

SHEET NUMBER :

A - 5

6 OF 6

REGISTERED ARCHITECT
SCOTT M. MELCHING
NO. 32166
BOSTON
MA
COMMONWEALTH OF MASSACHUSETTS

SCALE :

DATE : 2025 02-07

ISSUE : ZBA SUBMISSION

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Design Review Board Meeting Minutes
Monday, February 10, 2025
7:30 p.m.

Board Members:
Mark Gluesing, Board Chair (P)
Steve Dornbusch, Board Member (P)
Susan Opton, Board Member (P)
Milee Pradhan, Board Member (P)
Felix Zemel, Board Member (P) [7:35pm]
Alex Clee, Planning & Community Development (P)

Mark Gluesing, Chair, called the meeting to order on February 10, 2025, at 7:30 p.m. He reviewed the remote meeting procedures.

Applicants & Attendees:

1. Mehmet Sahin, Falcon Graphics representing Monsoon Indian Kitchen
2. Carol Fournier, Boston Sign Installation LLC, representing In Focus Eyecare
3. Brian DiGiando, DiGiando Corp. representing Dedham Savings Bank
4. Maria Whack / Jeremy Satram - Architectural Sign Group representing Digital Realty

Agenda Item 1:
Mehmet Sahin, Falcon Graphics representing Monsoon Indian Kitchen located at 342 Chestnut Street and applying for signage.

Felix Zemel joined the meeting at 7:35pm.

Mehmet Sahin, Falcon Graphics representing Monsoon Indian Kitchen, explained that the proposed sign will have 3D Komacel white plastic letters and be a similar size to the existing sign. The existing frame will be used for the sign and painted the match the mansard roof color behind it.

Mr. Dornbusch asked if any lighting is proposed. Mr. Sahin stated that there are existing lights under the letters.

Ms. Opton stated that the size of the “Indian Kitchen” lettering may be difficult to see. Chair Gluesing stated that the letter coloring will help it stand out.

Upon motion duly made by Mr. Dornbusch and seconded by Mr. Zemel, it was voted to approve the signage for 342 Chestnut Street as proposed. Steve Dornbusch – aye; Milee Pradhan – aye; Mark Gluesing – aye; Susan Opton – aye; Felix Zemel – aye; Motion passed 5-0-0.

Agenda Item 2:

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Carol Fournier, Boston Sign Installation LLC, representing In Focus Eyecare located at 1211 Highland Avenue and applying for signage.

Carol Fournier, Boston Sign Installation LLC, representing In Focus Eyecare, explained that there is a rebranding proposed for this business. The existing door sign will be removed and replaced with new die cut lettering with the new name, In Focus Eyecare. The front door logo sign will include the businesses' hours at the bottom. The main sign will have an acrylic panel swap only and the structure will otherwise remain the same. The existing bright white color will be changed to a gray. The rear door is proposed to have the new name included on the door for those in the back parking lot.

Ms. Pradhan stated that she likes the proposed color contrast between the letters and sign. She suggested making the "In Focus" lettering on the main sign a bit heavier to stand out further.

Mr. Zemel stated that he prefers this new proposal to the existing signage. He agreed with increasing the line width a bit on the "In Focus" letters on the main sign. He asked if the main sign is internally illuminated. Ms. Fournier stated that the existing sign is internally illuminated, and this will not change. The smaller box sign underneath is also internally illuminated. Mr. Zemel stated that the proposed design fits in with the nearby businesses.

Chair Gluesing asked if the steel framework will be repainted. Ms. Fournier stated that, due to the weather, it can likely not be painted anytime soon, but she will pass along the recommendation.

Chair Gluesing expressed concern that the small box beneath the main sign was not originally approved but noted that the Board did not seem to express concern with approving it. Ms. Opton agreed with the concern expressed with the smaller, added on sign. Mr. Zemel noted that, if the sign has been there for more than ten years and has not been complained about, the Board could consider it a preexisting, nonconforming item similar to in zoning law. The applicant's proposal seems to improve this sign overall. Chair Gluesing stated that the Sign Bylaw specifically does not allow for grandfathering.

Upon motion duly made by Mr. Dornbusch and seconded by Mr. Zemel, it was voted to approve the signage package for 1211 Highland Avenue, with the condition that the steel frame of the main sign be repainted by July 1, 2025. Steve Dornbusch – aye; Milee Pradhan – aye; Mark Gluesing – aye; Susan Opton – aye; Felix Zemel – aye; Motion passed 5-0-0.

Agenda Item 3:

Brian DiGiando, DiGiando Corp. representing Dedham Savings Bank located at 1077 Great Plain Avenue and applying for exterior façade changes.

Brian DiGiando, DiGiando Corp. representing Dedham Savings Bank, explained that the proposal is to replace rotted wood trim around 11 existing windows of the Dedham Savings Bank. The proposal includes replacement of the rotting pilasters at the back of the building, with PVC AZEK. There is concern with water penetrating into the building with the rotting items. The window and soffits will be replaced essentially in-kind, but the rosettes will not be replaced

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as they cannot be made out of AZEK. The rosettes are embedded and could cause water leakage in the future. The existing trim will be replaced with PVC trim as closely as possible. The proposal also includes replacing the trim molding pilasters around the front and rear entrances with PVC trim to match the detailing to the greatest extent possible. Bright white paint will be applied to all of the new trim and moldings.

Chair Gluesing asked if there will be a recess where the rosettes are removed. Mr. DiGiando stated that it would be a flat panel.

Mr. Zemel stated that cleaning up the building is a good idea and AZEK is good for maintenance. He expressed some concern regarding the proposed bright white color. Chair Gluesing noted that the existing trim is already white.

Ms. Opton asked about AZEK collecting mildew in shady areas. Mr. DiGiando stated that a mold-resistant paint could be utilized. The mildew could easily be removed with cleaning.

Ms. Pradhan asked if the overall size of the trim will be kept. Mr. DiGiando agreed that it would be kept the same.

Chair Gluesing stated that he has no objections to the project as presented.

Upon motion duly made by Mr. Dornbusch and seconded by Mr. Zemel, it was voted to approve the façade repair changes for 1077 Great Plain Avenue, as presented. Steve Dornbusch – aye; Milee Pradhan – aye; Mark Gluesing – aye; Susan Opton – aye; Felix Zemel – aye; Motion passed 5-0-0.

Agenda Item 4:

Maria Whack / Jeremy Satram - Architectural Sign Group representing Digital Realty at 128 First Avenue and applying for signage.

Maria Whack, Architectural Sign Group representing Digital Realty, explained that the proposal is for a 13 s.f. directional sign, to be located 165’ off the existing right of way. There is an existing sign in this location which is unpermitted. The proposal is for an aluminum-based sign with cover panels. This will not be illuminated. All of the letters will be acrylic.

Chair Gluesing stated that there is a requirement that the sign not block the driveway entrance, which will be reviewed by the Building Commissioner. He suggested a site plan for the sign that includes the distance to the street. After review of the site plan, he noted it is located in the parking lot driveway and was not an issue with the street.

Ms. Pradhan suggested choosing a different text size for the lettering of “Digital Realty” to increase legibility. Ms. Whack explained that the intention is to point people toward the address but not necessarily the direct business.

Mr. Zemel expressed appreciation for this applicant coming before the Board to have the sign permitted.

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Upon motion duly made by Mr. Dornbusch and seconded by Mr. Zemel, it was voted to approve the signage package for 128 First Avenue, as presented. Steve Dornbusch – aye; Milee Pradhan – aye; Mark Gluesing – aye; Susan Opton – aye; Felix Zemel – aye; Motion passed 5-0-0.

REVIEW

Minutes of 01/13/2025 meetings.

Upon motion duly made by Mr. Dornbusch and seconded by Mr. Zemel, it was voted to approve the meeting minutes of January 13, 2025, as presented. Steve Dornbusch – aye; Milee Pradhan – aye; Mark Gluesing – abstain; Susan Opton – abstain Felix Zemel – aye; Motion passed 3-0-2.

Upon motion duly made by Mr. Dornbusch and seconded by Mr. Zemel, it was voted to adjourn at 8:16 p.m. Steve Dornbusch – aye; Milee Pradhan – aye; Mark Gluesing – aye; Susan Opton – aye; Felix Zemel – aye; Motion passed 5-0-0.

Next Public Meeting – March 24, 2025, at 7:30pm via Zoom Webinar

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