

TOWN OF NEEDHAM
MASSACHUSETTS

500 Dedham Ave
Needham, MA 02192
781-455-7550
~~February 28, 2022~~
June 10, 2022

PLANNING BOARD

APPLICATION FOR SITE PLAN REVIEW
AND SPECIAL PERMITS

Project Determination: ☒ Major Project
☐ Minor Project

This application must be completed, signed, and submitted with the filing fee by the applicant or his representative in accordance with the Planning Board's Rules as adopted under its jurisdiction as a Special Permit Granting Authority pursuant to Section 7.4 of the By-laws.

Location of Property: 100-110 West Street, Needham, MA 02492

Name of Applicant: WELL Balfour Needham Landlord LLC

Address: 4500 Dorr Street, Toledo, Ohio 43615 Tel.#: (419) 247-2800

Applicant is Owner ☐ Tenant ☒

Property Owner's Name: HCRI Massachusetts Properties Trust II

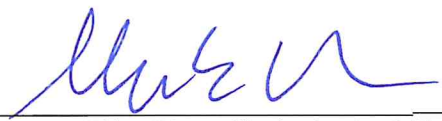
Address: 4500 Dorr Street, Toledo, Ohio 43615 Tel.#: (419) 247-2800

Characteristics of Property: Lot Area: 4.298 acres Present Use: Vacant Building

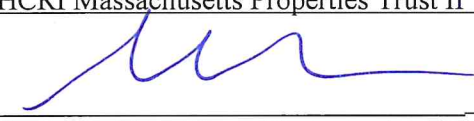
Map #: 63 Parcel #: 37 Zoning District: ASB, SRB, and ASOD

Description of Project for Site Plan Review and Special Permits under Sections 1.4.6, 3.15.3.1 and/or 3.15.3.2., 5.1.1.5, 5.1.1.7, 5.1.3, and 7.4. of the Zoning By-law:

See Exhibit A attached hereto.

Signature of Applicant (or his representative) 
By: Mary Ellen Pisanelli, Authorized Signatory

Address if not Applicant n/a

Owner's permission if other than applicant HCRI Massachusetts Properties Trust II

By: Mary Ellen Pisanelli, Authorized Signatory

SUMMARY OF PLANNING BOARD ACTION

Received by Planning Board _____ Date _____

Hearing Date _____

Decision Required by _____ (date) Parties in Interest Notified
(90 days after hearing for special permit) of Public Hearing _____ (date)

Granted _____ (date) Decision and Notices of the
Decision sent _____ (date)

Denied _____ (date)

Withdrawn _____ (date) Fee Paid _____
Fee Waived _____

NOTE: Reports on Minor Projects must be issued within 35 days of filing date.

Exhibit A
Application for Site Plan Review
And Special Permits
WELL Balfour Needham Landlord LLC
Property at 100-110 West Street, Needham, MA

Description of Project for Site Plan Review Under Section 7.4 of the Zoning By-Law and Special Permit

On or about May 26, 2021, this Board issued a Major Project Site Plan Review Special Permit for this property, approving a facility that would have been run by LCB Senior Living, and would have included Independent Living apartments, Assisted Living apartments, and Memory Care units. Welltower, which owns the entity that is the legal owner of this property, no longer intends to proceed with LCB to develop the site according to that Special Permit.

Welltower and Balfour are proposing to redevelop the property at 100 West Street to a 155-unit Assisted Living facility, including 28 Alzheimer's/Memory Care units. The project will be known as Balfour at Needham, and the facility will be operated by WELL Balfour Needham Landlord LLC. The existing 3 story brick building will remain. The existing footprint of the building will not change. As allowed by Section 3.15 of the Town's Zoning Bylaws, a partial fourth story will be added to create 11 of the proposed Assisted Living Apartments. The parking lot to the south of the building will remain unchanged except for selected new landscaping and the parking lot west of the building and adjacent to the railroad right of way will be modified slightly, including selected new landscaping, and an appropriately fenced and gated Memory Care courtyard.

All of the foregoing is more particularly shown on the plans filed herewith.

Welltower and Balfour seek Site Plan Review pursuant to Section 7.4 of the Bylaw, and Special Permits, pursuant to:

- Section 1.4.6 of the Bylaw (alteration of a non-conforming structure, which is nonconforming with respect to the requirements of Sections 4.4.8.4 and 4.4.9);
- Section 3.15.3.1 (b) (uses allowed in the underlying district as of right) and/or 3.15.3.2 (b) (uses allowed in the ASOD by Special Permit), and
- Sections 5.1.1.5 and 5.1.1.7, waiving strict compliance with the requirements of Section 5.1.3 (h) and (i) of the Bylaw.

FRIEZE CRAMER ROSEN & HUBER LLP
C O U N S E L L O R S A T L A W

60 WALNUT STREET, WELLESLEY, MASSACHUSETTS 02481
781-943-4000 • FAX 781-943-4040

EVANS HUBER

781-943-4043
EH@I28LAW.COM

June 10, 2022

Members of the
Needham Planning Board

And

Lee Newman
Director of Planning and Community Development
Public Services Administration Building
500 Dedham Ave
Needham, MA 02492

Re: 100 West Street, Needham

Dear Planning Board Members and Ms. Newman:

Pursuant to Chapter 40A of the Massachusetts General Laws, the Needham Zoning By-Law, the Needham Planning Board Rules, and Sections 3.3 and 4.2 of Major Project Site Plan Special Permit No. 93-4 dated October 12, 1993 (as amended), I hereby submit applications for Site Plan Review and Special Permits on behalf of WELL Balfour Needham Landlord LLC (“WELL Balfour”), of which this letter is a part. WELL Balfour, which will be the operator of the property at 100 West Street, is a joint venture between Balfour Senior Living, LLC and Welltower, Inc., which owns the property through HCRI Massachusetts Properties Trust II.

The property is a 4.298 acre parcel (187,219 square feet) located at the corner of Highland Avenue and West Street. The entire building, and the great majority of the property, is located in the Avery Square Business District (ASB) and the Avery Square Overlay District (ASOD), with a portion of the property located in the Single Residence B Zoning District. The property is currently vacant and is improved by a three-story brick building of approximately 136,000 square feet, outdoor parking areas to the south and west of the building and an indoor parking area.

The original Planning Board Decision authorizing the former uses at the site (nursing home and assisted living facilities) dated October 12, 1993, was amended on February 8, 1994, February 25, 1995, May 6, 1996, August 20, 1996 and April 20, 2004. Most recently, until 2017, the site was occupied by Avery Crossing, a 60 unit assisted living/memory care facility, Avery

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Manor, a 142-bed skilled nursing facility, and medical offices comprising approximately 8,308 square feet.

As members of this Board will no doubt recall, an application for a further amendment to the original Planning Board decision (as amended) was submitted on March 3, 2021, on behalf of a joint venture between Welltower and LCB Senior Living, LLC, and was approved on or about May 26, 2021. The project approved under that decision would have included 155 units of senior housing, consisting of Independent Living and Assisted Living Apartments, and Memory Care units. The business relationship between Welltower and LCB has ended, and those parties no longer intend to pursue the project that was approved by the May 26, 2021 decision.

WELL Balfour is proposing to redevelop the property to include 155 units of senior housing, consisting of 127 Assisted Living apartments and 28 Alzheimer's/Memory Care units. This is being proposed because Balfour believes that constraints imposed by this building make it best suited to two senior housing programs rather than three. Having every unit licensed as AL does not mean that residents will necessarily need, nor be required to pay for, the full range of levels of care that will be available to the residents as needed, and will allow AL residents to "age in place" in their apartments without the need for moving from IL to AL units when care is needed. Another benefit of WELL Balfour's vision for this property is that all amenities and common spaces previously separated into "IL amenity space" and "AL amenity space" will now be available to all of the residents of the building, apart from the MC residents.

The existing 3 story brick building will remain. The existing footprint of the building will not change and a partial fourth story will be added to create 11 of the proposed 127 Assisted Living Apartments. The parking lot to the south of the building will remain unchanged except for selected new landscaping and the parking lot west of the building and adjacent to the railroad right of way will be modified slightly, including selected new landscaping, all as more particularly shown on the Plans filed with the Application.

The Applicant certifies pursuant to the Zoning By-Law, Section 7.4 that the project can be constructed and/or that the proposed uses thereof can be commenced without need for the issuance of any variance from any provisions of the Zoning By-Law by the Zoning Board of Appeals.

The zoning relief required for the Project is the following:

1. A Special Permit for Site Plan Review of a Major Project, pursuant to Zoning By-Law Section 7.4, Article 2 of the Planning Board Rules, and Sections 3.3 and 4.2 of Major Project Site Plan Special Permit No. 93-4 dated October 12, 1993, as amended.
2. A Special Permit pursuant to Section 1.4.6 of the Zoning By-Law to allow alteration of a non-conforming structure. The structure is a legally pre-existing non-conforming as to the requirements of Sections 4.4.8.4 and 4.4.9.

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3. Possibly, a Special Permit pursuant to Section 3.15.3.2 (b) of the Zoning By-Law to allow a use allowed in the ASOD by Special Permit (Assisted Living). Section 3.15.3.1 of the Zoning Bylaw allows in the ASOD, as of right, certain uses that are allowed as of right in the underlying district (ASB), in which Assisted Living is a use allowed by right. There is thus an ambiguity in the Zoning Bylaw as to whether Assisted Living is allowed in the ASOD by right or only by Special Permit.

4. Special Permit pursuant to Sections 5.1.1.5 and 5.1.1.7 of the Zoning By-Law to waive strict adherence to the off-street parking requirements of Section 5.1.3 of the Zoning By-Law, with respect to subsections (h) (parking space layout) and (i) (width of maneuvering aisle). Please note that waivers with respect to the particular ways in which the structure does not comply with these requirements have previously been granted by prior decisions of this Board.

This Application for Site Plan Review and Special Permits is being filed with the following documents:

1. Application form dated June 10, 2022 signed by the applicant and owner.
2. Traffic Assessment, prepared by McMahon Associates, 120 Water Street, Unit 1, Boston, MA 02109, dated June 2, 2022.
3. Existing Conditions and Proposed Conditions Site Plans, and Zoning and Parking Tables, most recently revised June 2, 2022, prepared by Kelly Engineering Group, 0 Campanelli Drive, Braintree, MA 02184.
4. Stormwater management report prepared by Kelly Engineering Group, dated June 2, 2022.
5. Landscaping Plan, prepared by Hawk Design Inc., P.O. Box 1309, Sandwich, MA 02563.
6. Floor plans, roof plan, elevation plans, photographs and renderings (including existing and proposed views of the property from various vantage points), prepared by The Architectural Team, Inc., 50 Commandants Way, Chelsea, MA 02150.
7. Fiscal Impact Analysis dated May 31, 2022, prepared by Fougere Planning & Development.
8. Filing fee to the Town of Needham in the amount of \$19,325.

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Pursuant to the Board's Covid-19 procedures, these documents are being submitted electronically; additionally two (2) hard copies of the application (1 with original signatures) and all supporting materials, including wet-stamped plans, are being mailed to the Planning Department along with the application fee; and, lastly, one hard copy of (a) the Application for Site Plan Review and Special Permits, (b) this letter, (c) the Kelly Engineering Stormwater Management Report, and (d) all the plans (no smaller than 11 x 17), is being mailed to each Board member, and to Lee Newman.

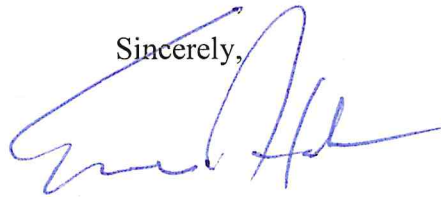
The Applicant hereby requests, pursuant to Zoning By-Law Section 7.4.4, that the Planning Board waive the submission by Applicant of any of the required information not submitted herewith.

The Applicant will be submitting a copy of the architectural plans and renderings, and the landscaping plan, to the Design Review Board ("DRB"). The Applicant is scheduled to meet with the Design Review Board on June 27, 2022.

As discussed, it is our understanding that this matter will be scheduled for hearing at the Board's August 16, 2022 meeting. Please confirm.

Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Evans Huber', is written over the word 'Sincerely,'.

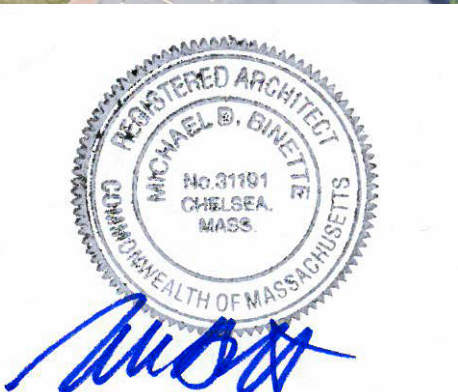
Evans Huber



Balfour at Needham

Needham, MA | June 2, 2022 | 18017 | © The Architectural Team, Inc.

Proposed Aerial View

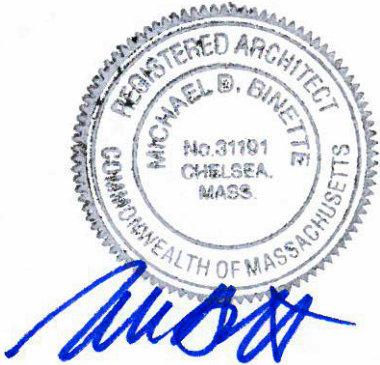




Balfour at Needham

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First Floor Plan

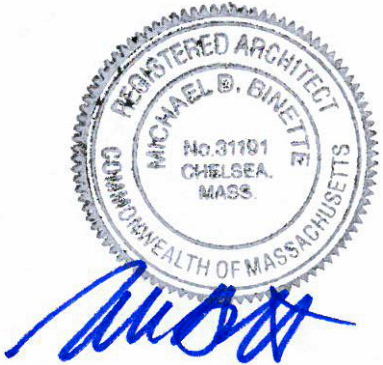


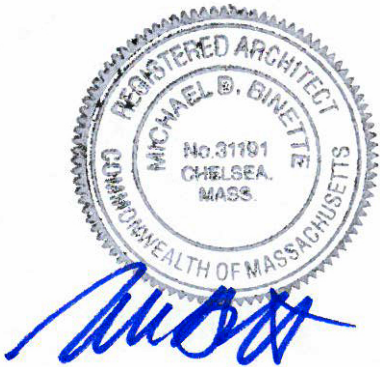
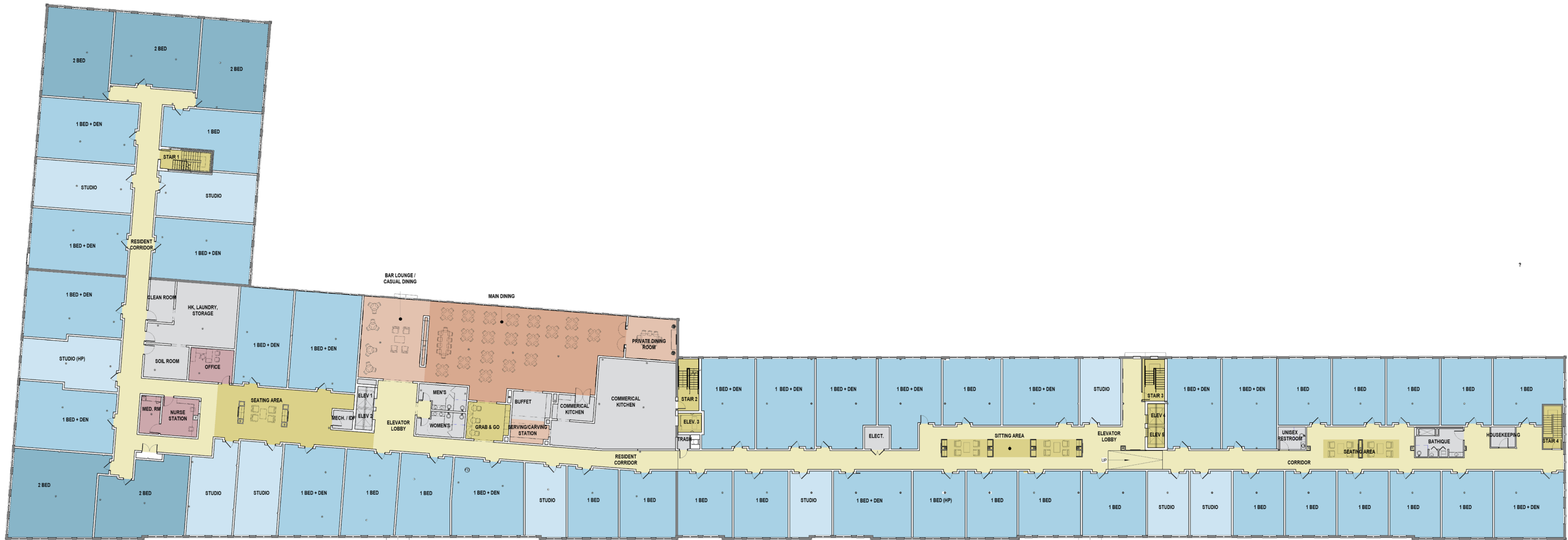


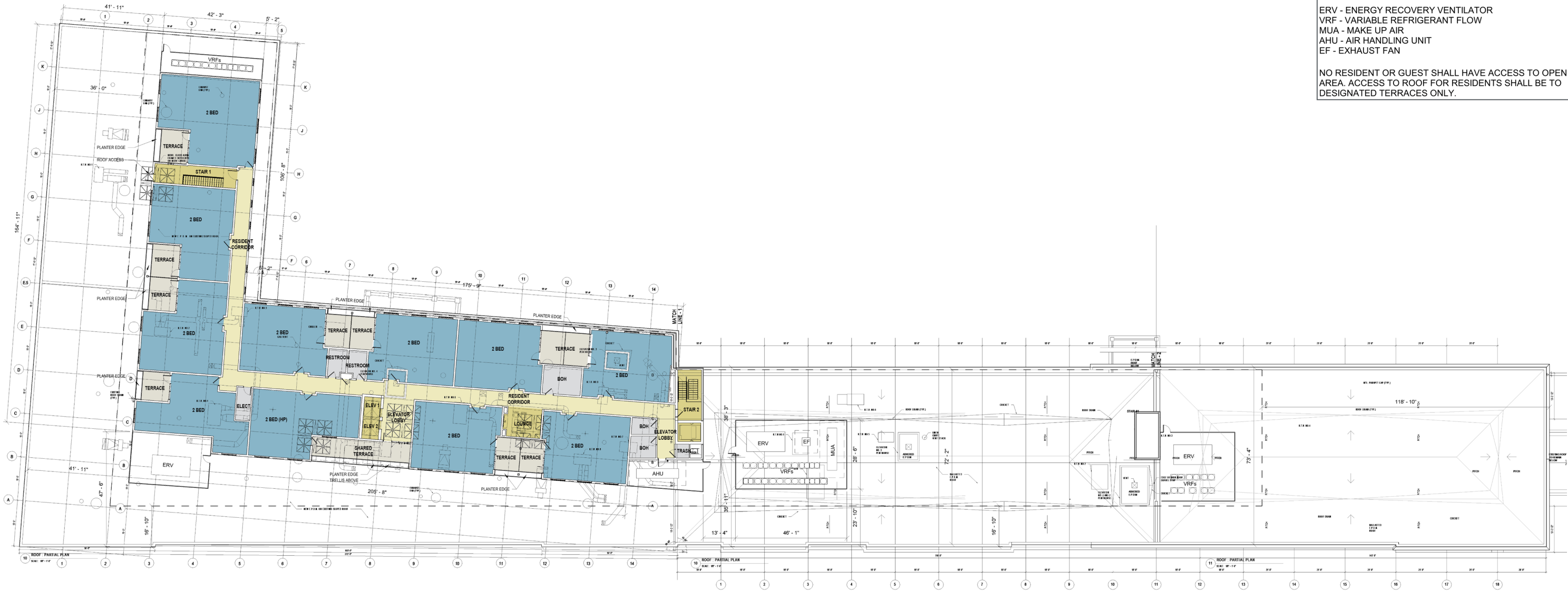
Balfour at Needham

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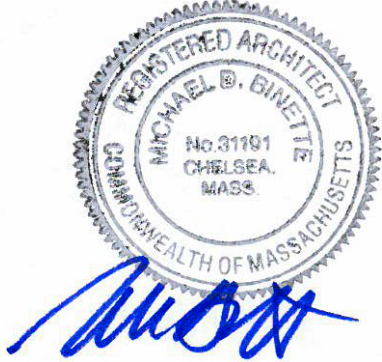
Second Floor Plan

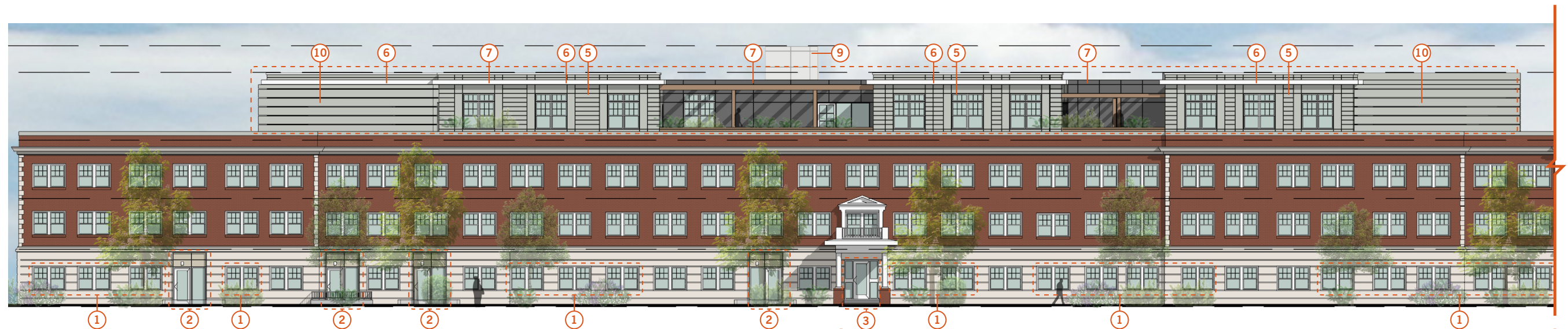
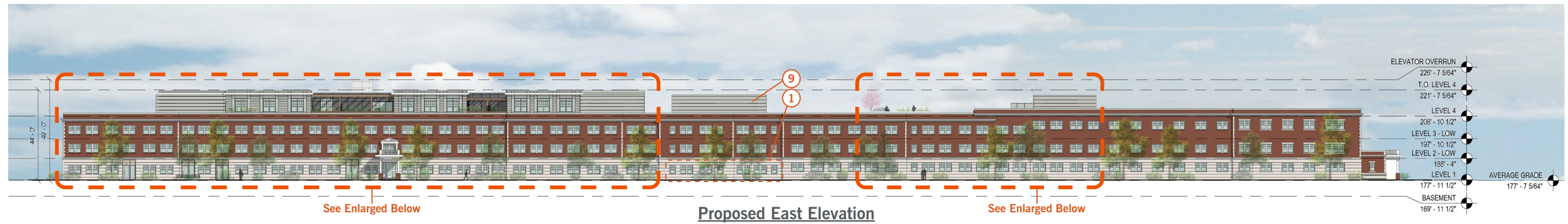






SQUARE FOOTAGE OF EXISTING ROOF	62,775 SF
SQUARE FOOTAGE OF PROPOSED AL FOURTH FLOOR (INCLUDING TERRACES)	18,325 SF
PERCENT OF ROOF COVERED (INCLUDING TERRACES)	29%
SQUARE FOOTAGE OF PROPOSED AL FOURTH FLOOR & AL COMMON SPACE (EXCLUDING TERRACES)	16,089 SF
PERCENT OF ROOF COVERED (EXCLUDING TERRACES)	26%
ERV - ENERGY RECOVERY VENTILATOR VRF - VARIABLE REFRIGERANT FLOW MUA - MAKE UP AIR AHU - AIR HANDLING UNIT EF - EXHAUST FAN NO RESIDENT OR GUEST SHALL HAVE ACCESS TO OPEN ROOF AREA. ACCESS TO ROOF FOR RESIDENTS SHALL BE TO DESIGNATED TERRACES ONLY.	

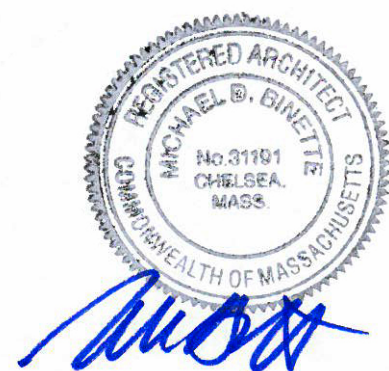




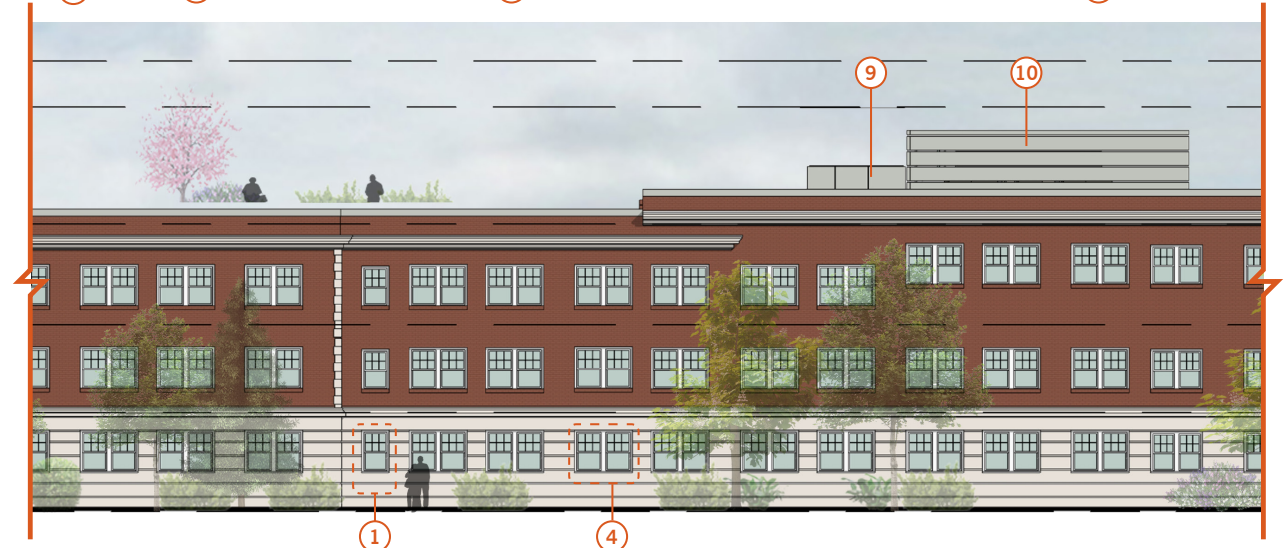
(Refer to materials page for further information)

- ① Upgraded windows in existing masonry opening with similar appearance to existing windows. All windows to be replaced.
- ② First floor single swing door additions
 - New full glass single swing door with sidelite
 - EIFS to be removed to underside of cornice, smooth fiber cement infill wall
 - PVC privacy screen where required at shared patios
 - New downlight over door
- ③ New full glass door with sidelites to replace existing door
- ④ Remove existing door, replace with window to match existing

- ⑤ Fiber cement panel with recessed trim and exposed fasteners
- ⑥ Arctic white trim banding
- ⑦ Assisted Living patios
 - Smooth fiber cement panel
 - Natural stain wood trellis and planter



fiber cement panel
to match



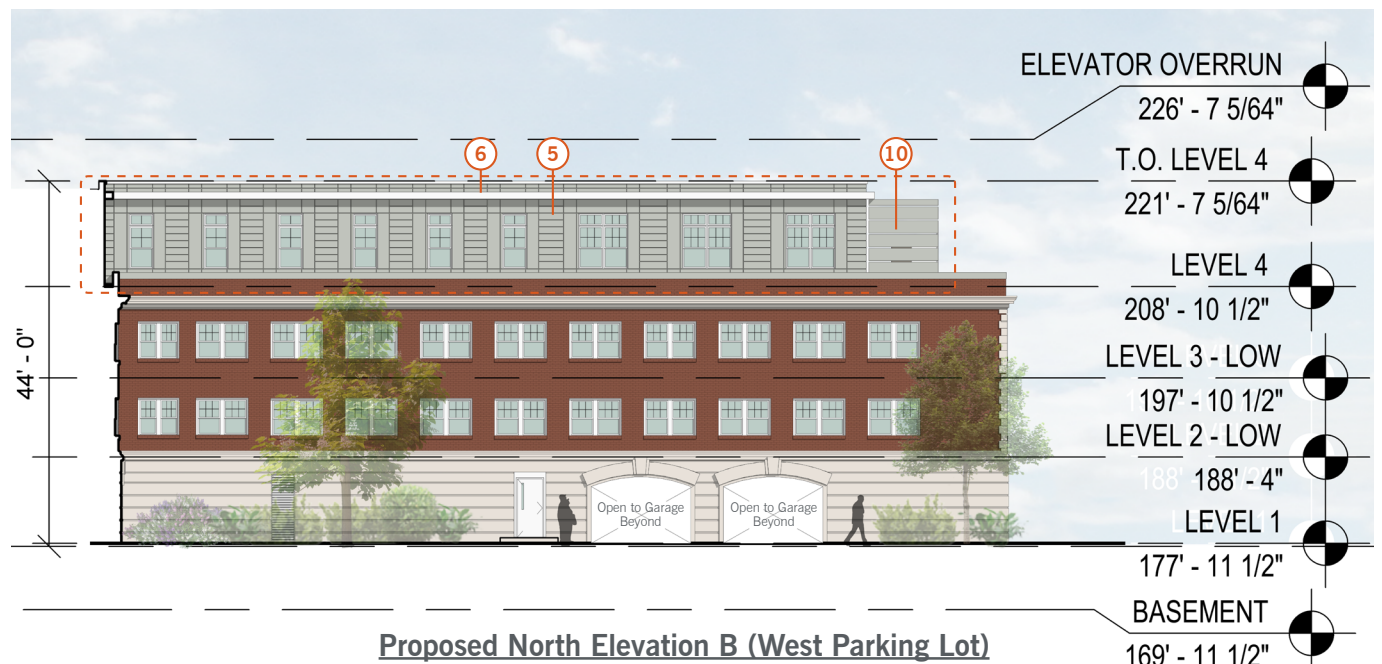
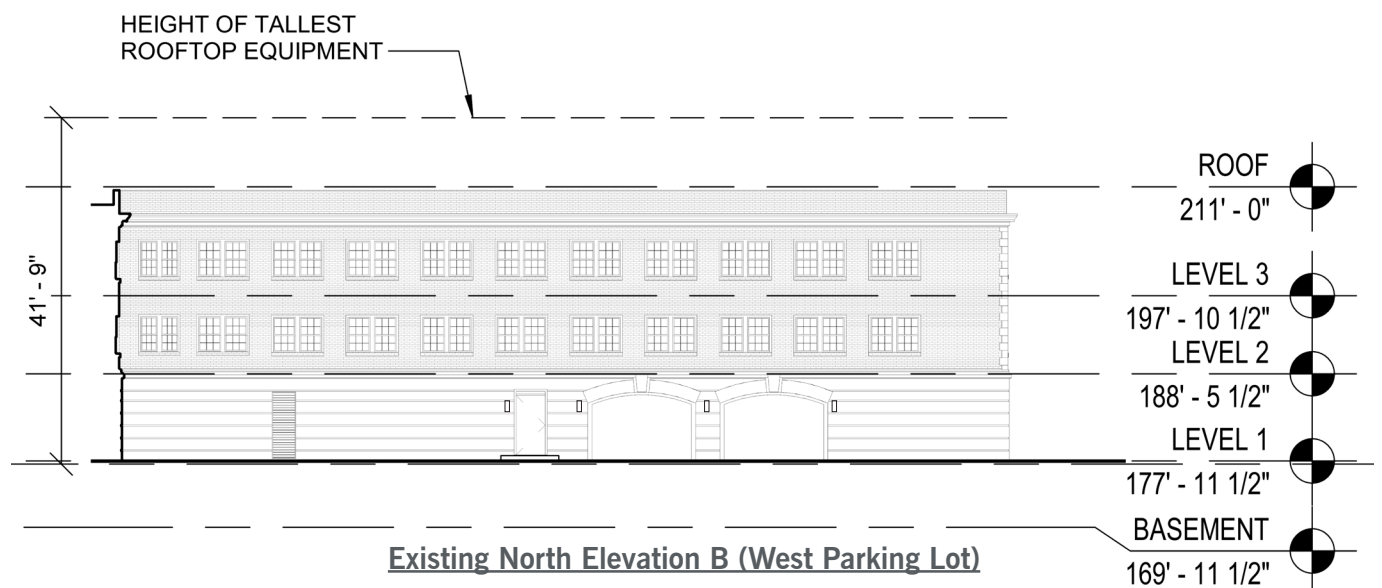
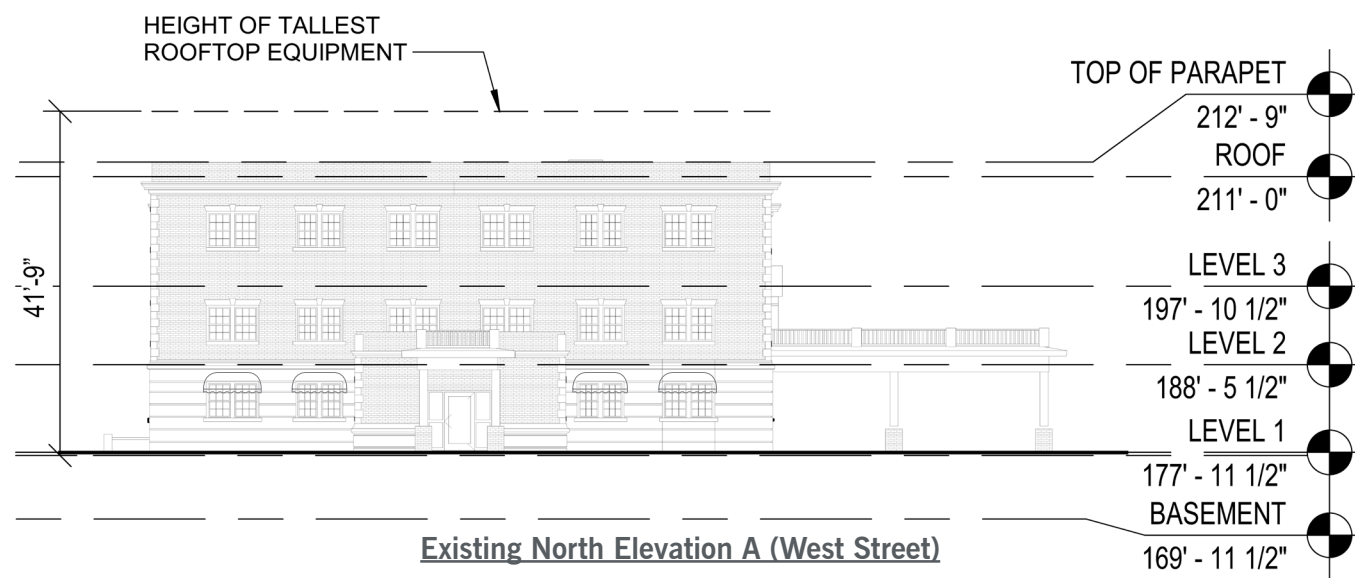
Balfour at Needham

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East Elevation (Highland Avenue)

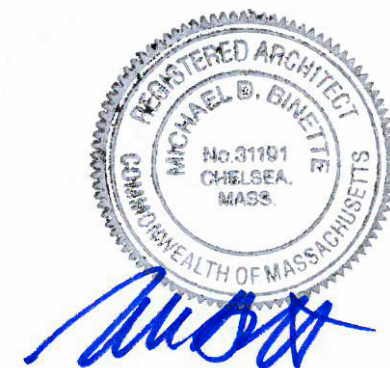


tat



(Refer to materials page for further information)

- 5** Fiber cement panel with recessed trim and exposed fasteners
- 6** Arctic white trim banding
- 9** Elevator overrun, smooth fiber cement panel
- 10** Mechanical screening, color to match
- 11** Remove awnings from windows





Existing West Elevation

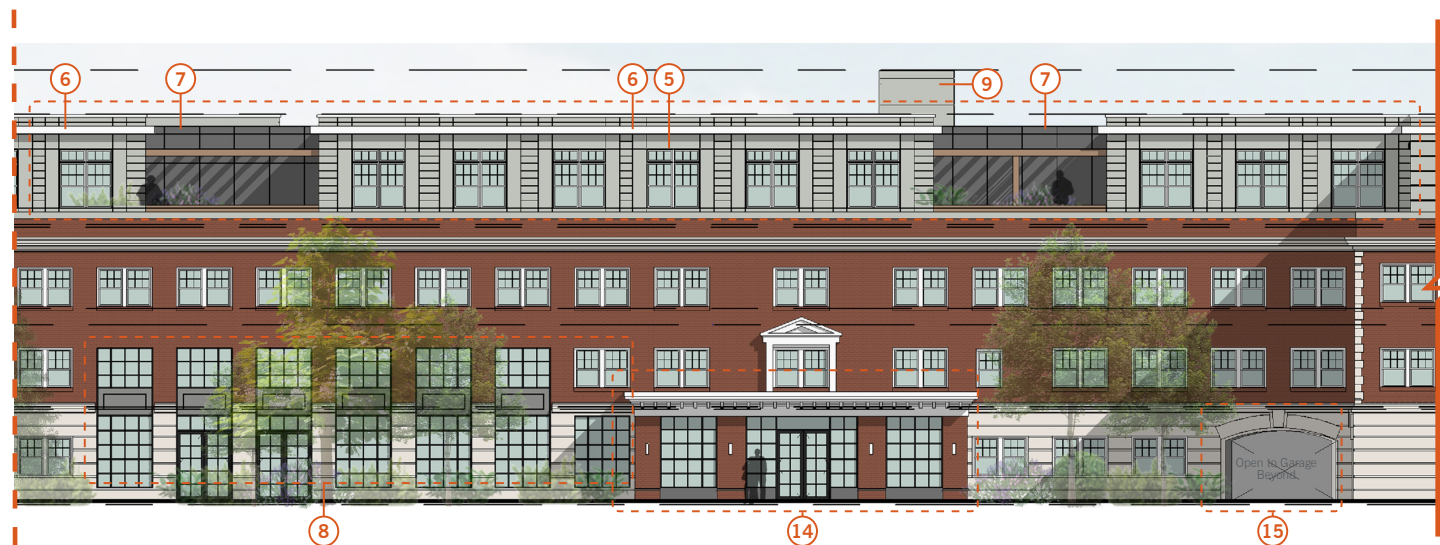


Proposed West Elevation



(Refer to materials page for further information)

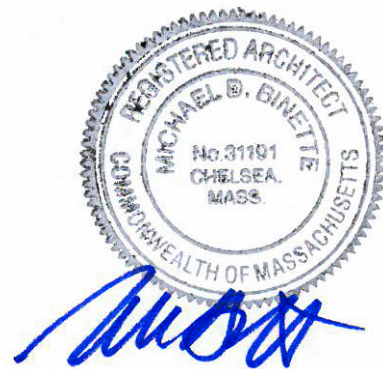
- ① Upgraded windows in existing masonry opening with similar appearance to existing. All windows to be replaced
- ② Porte-cochere
 - Remove EIFS to underside of roof
 - New glass entry vestibule with double door
 - Smooth fiber cement infill wall
 - Remove baluster from top of porte-cochere,
 - Clean and reface elements as needed
- ③ Infill existing garage openings with new storefront system.
- ④ Portico
 - Remove balusters from top of portico
 - Remove existing roof si
 - Replace all trim elemer
 - Enclose portico and cr
 - New enclosure to be fa
- ⑤ New opening into garage
- ⑥ Arctic white trim banding
- ⑦ Assisted Living Patios
 - Smooth fiber cement panel
 - Natural stain wood trellis and planter
- ⑧ Enlarged Double-Height Openings for Double-Height Amenity Space
- ⑨ Elevator Overrun, Smooth Fiber Cement Panel
- ⑩ Mechanical Screening, Color to Match
- ⑪ Remove Awnings from Windows

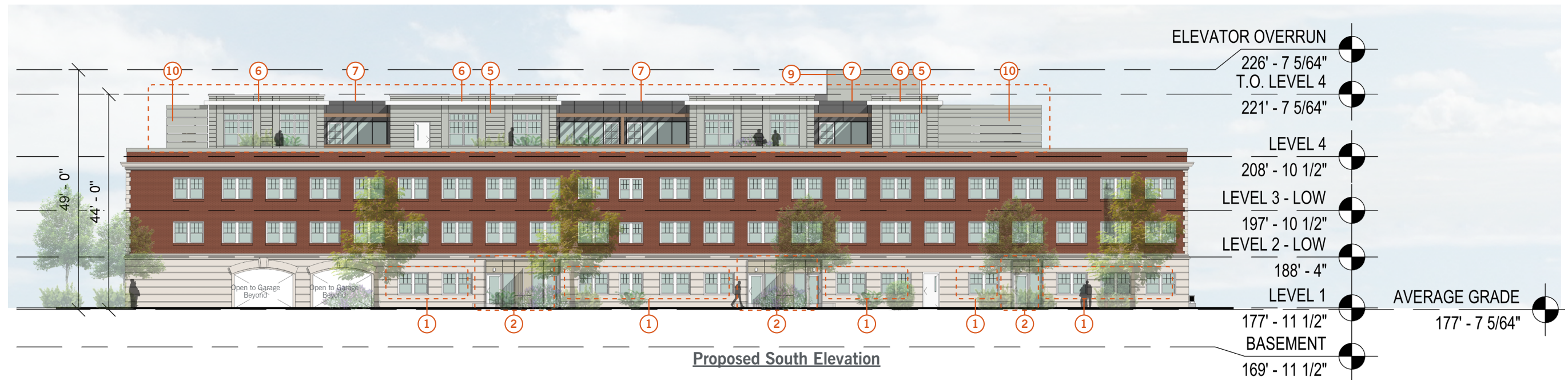
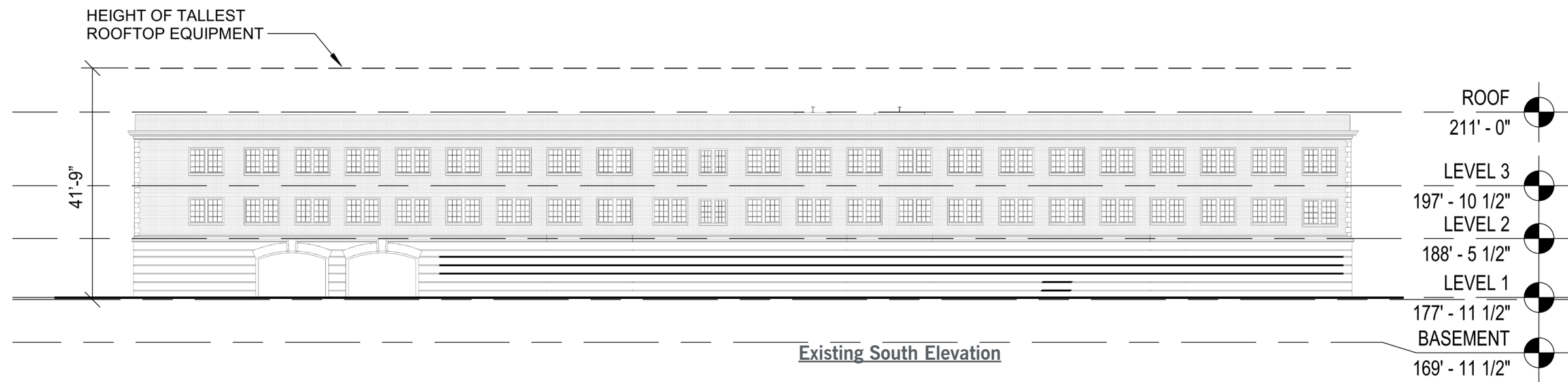


West Elevation

Balfour at Needham

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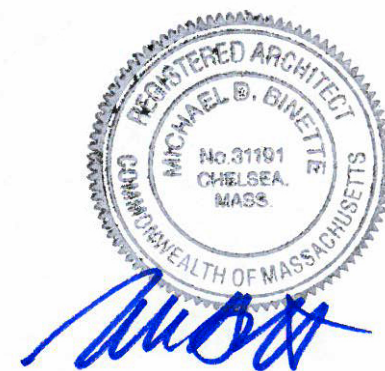


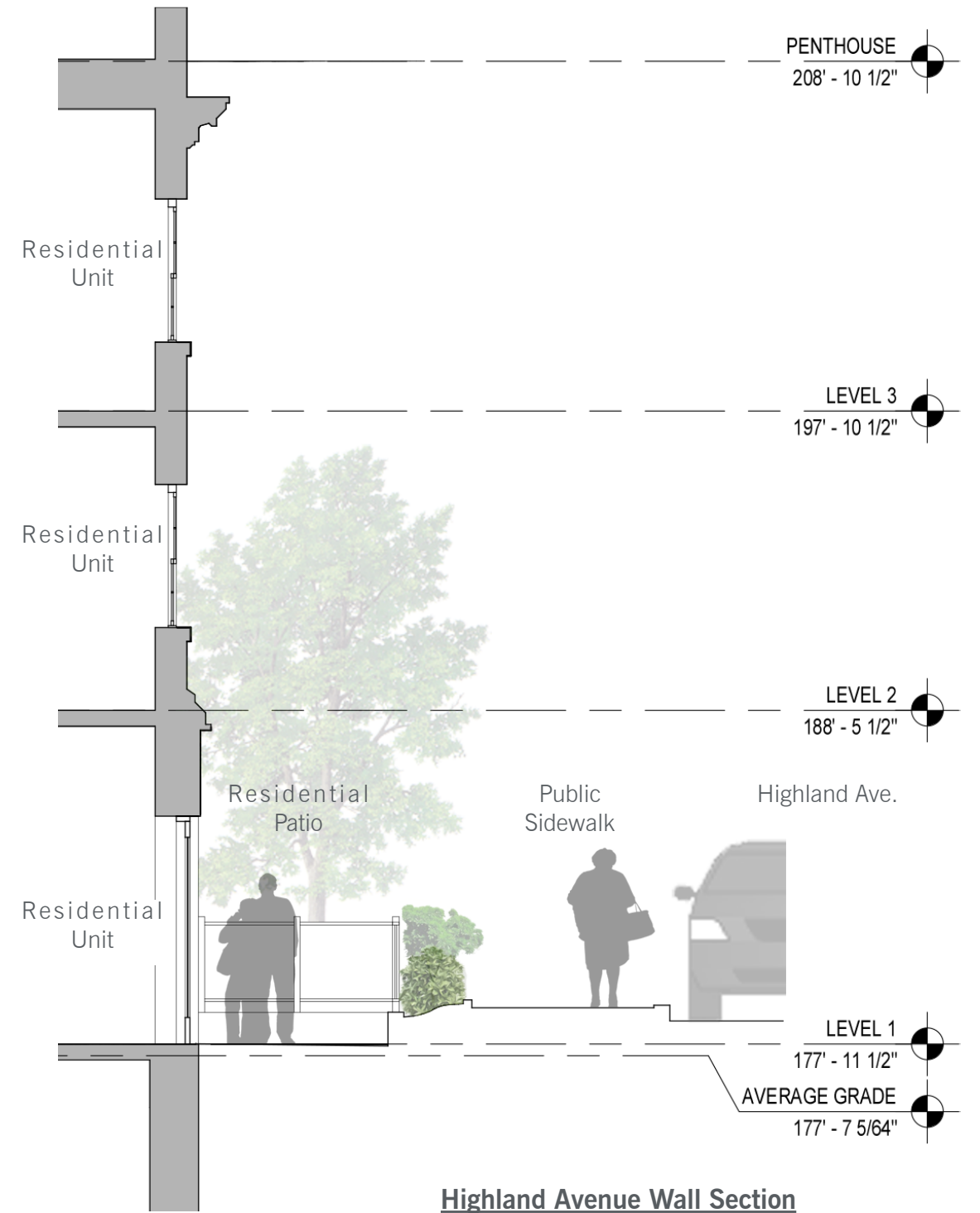
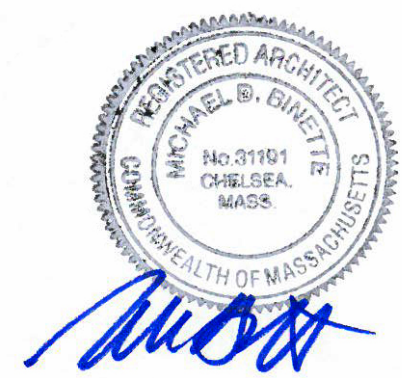
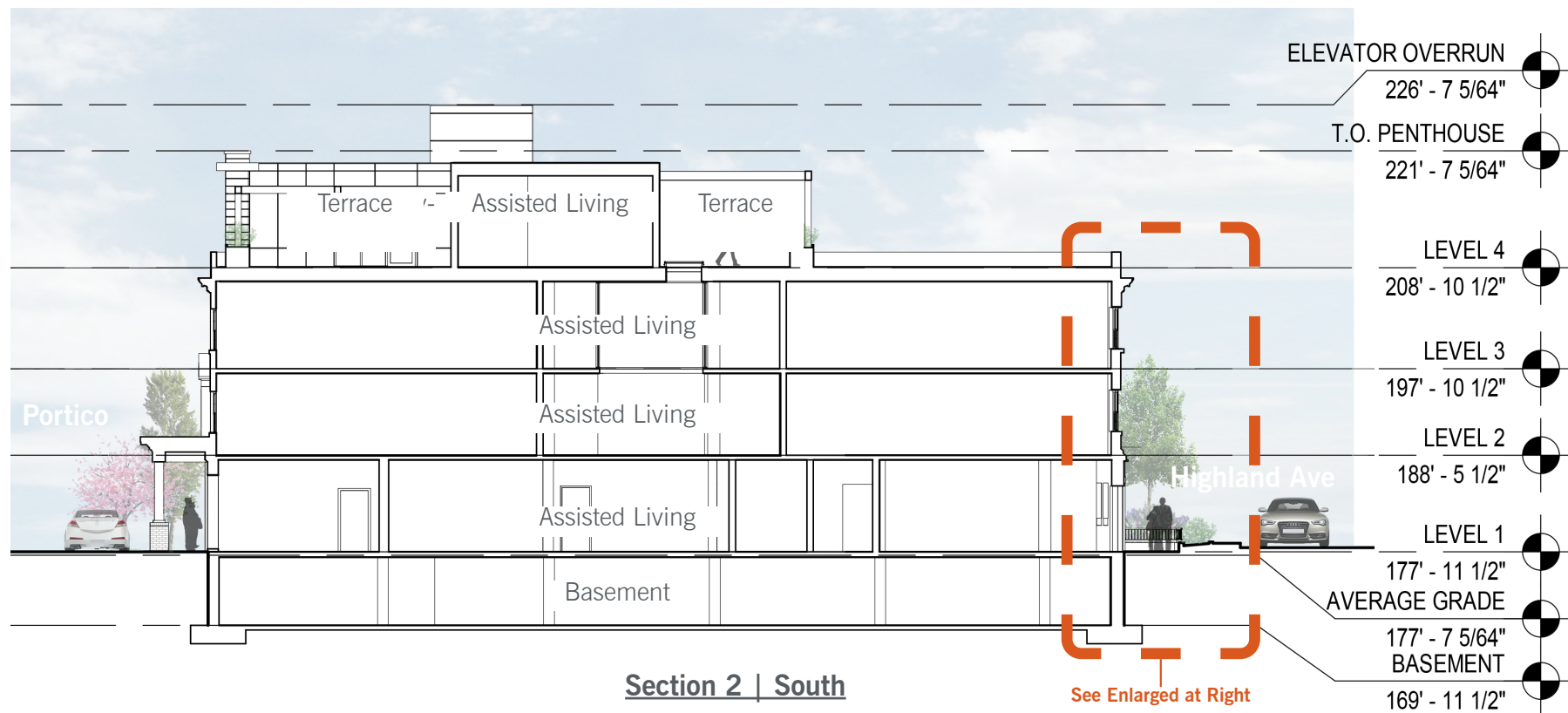
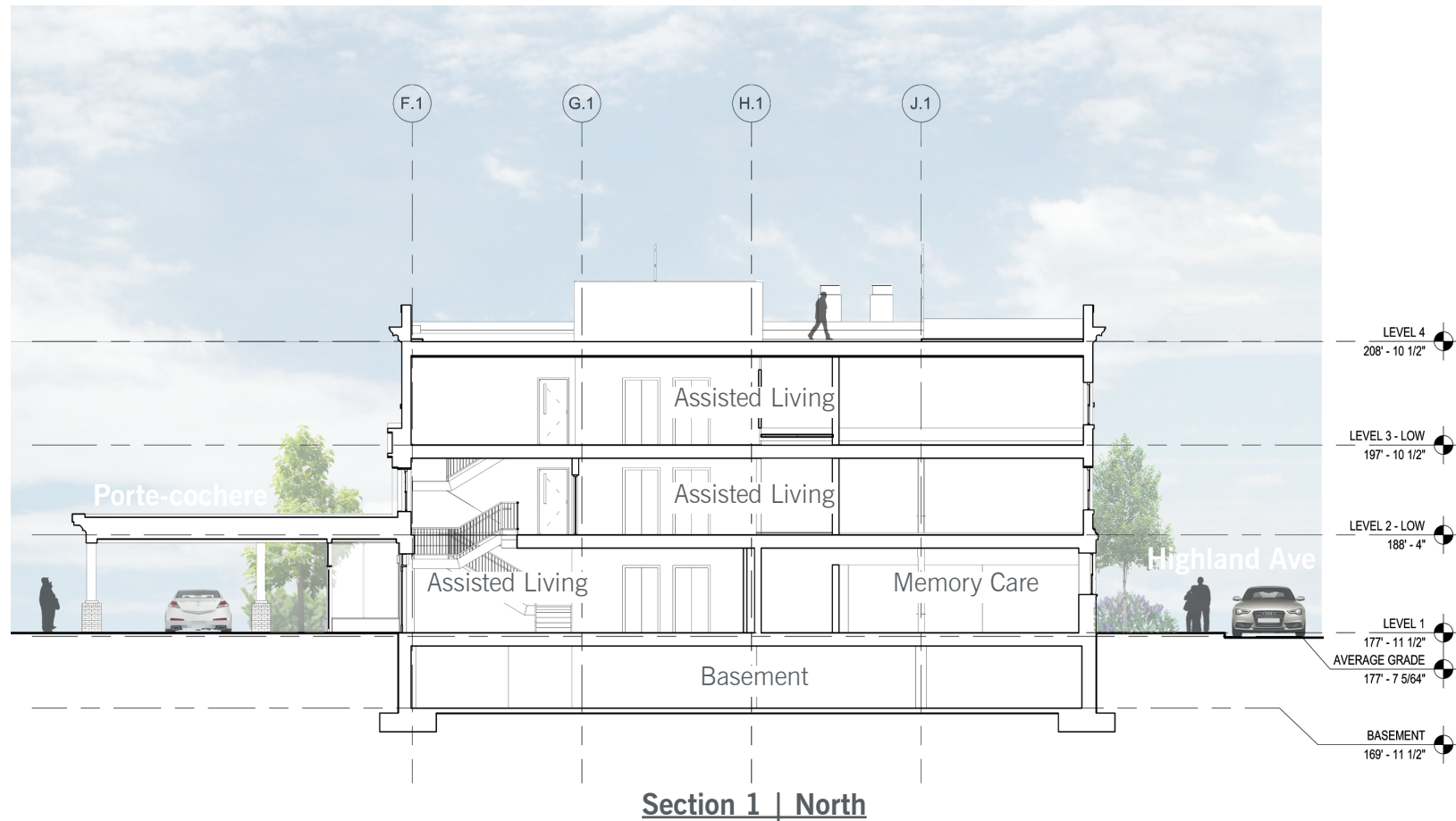


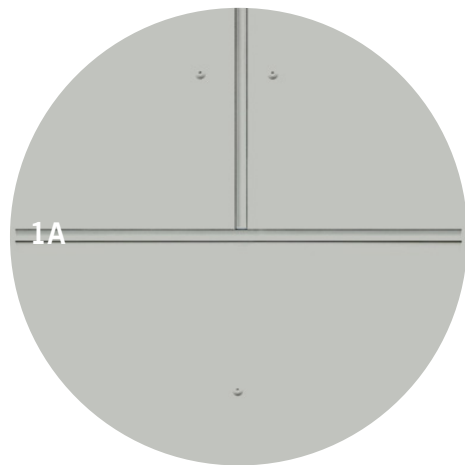
(Refer to materials page for further information)

- ① Upgraded windows in existing masonry opening with similar appearance to existing. All windows to be replaced.
- ② First floor single swing door additions
 - New full glass single swing door with sidelite
 - EIFS to be removed to underside of cornice, smooth fiber cement infill wall
 - PVC privacy screen where required at shared patios
 - New downlight over door (see provided spec)

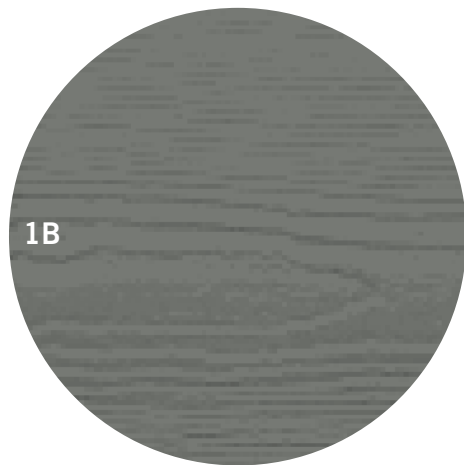
- ⑤ Fiber cement panel with recessed trim and exposed fasteners
- ⑥ Arctic white trim banding
- ⑦ Assisted Living patios
 - Smooth fiber cement panel
 - Natural stain wood trellis and planter
- ⑨ Elevator overrun, smooth fiber cement panel
- ⑩ Mechanical screening, color to match



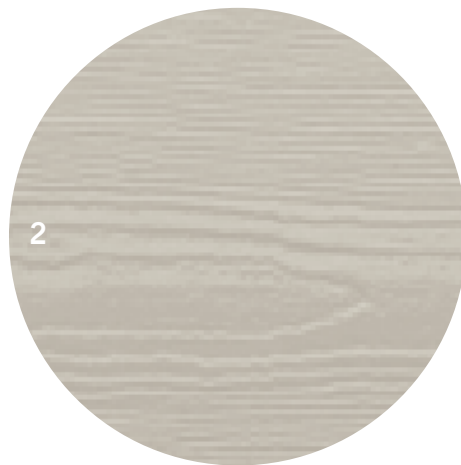




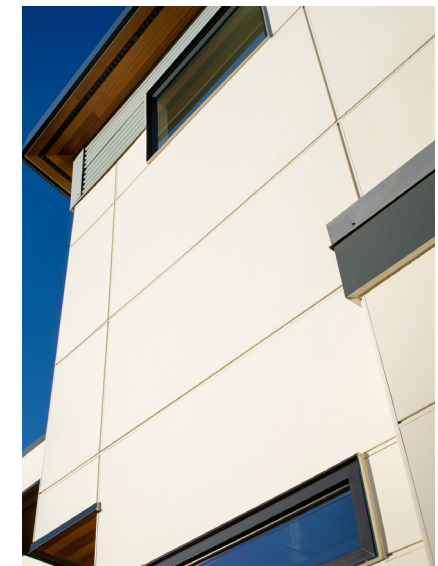
Fiber Cement - Panel with recess trim & exposed fasteners
Color - Light Mist



Fiber Cement - Panel with 3/4" reveal
Color - Night Gray



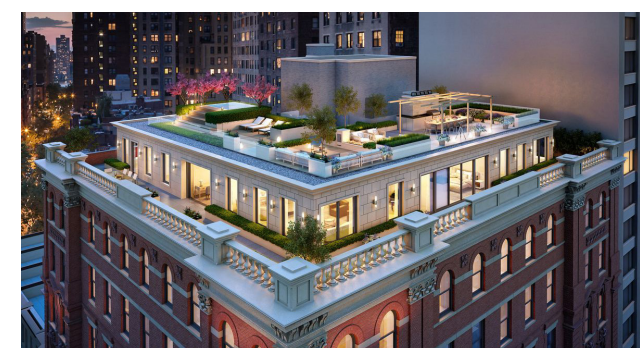
Fiber Cement - Panel with 3/4" reveal
Color - Cobble Stone



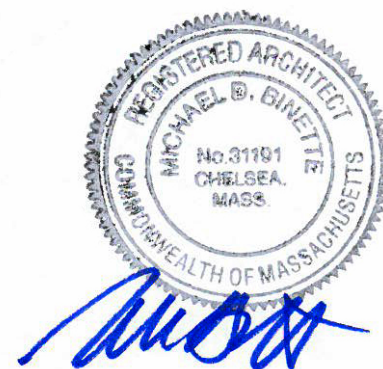
Recess reveal examples



Partial South Elevation



Precedent Images



SITE DEVELOPMENT PLANS

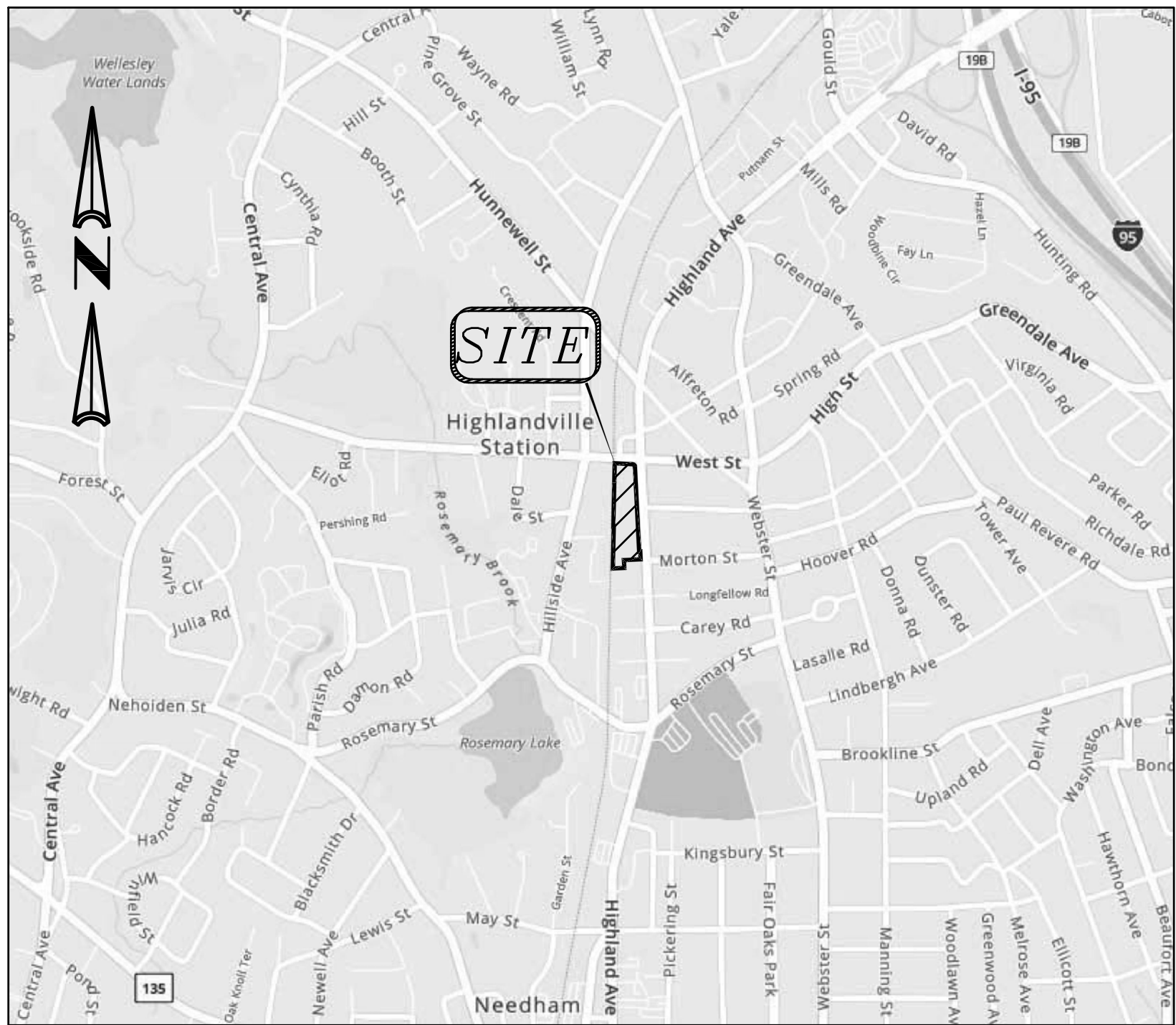
FOR

BALFOUR AT NEEDHAM

100 WEST STREET NEEDHAM, MA

JUNE 2, 2022

SHEET INDEX						
SHEET No.	DESCRIPTION	LATEST REVISED DATE	CONSTRUCTION	REVISIONS		
1	COVER SHEET					
2	EXISTING CONDITIONS PLAN					
3	LAYOUT PLAN					
4	SITE PLAN					
5	DETAIL SHEET					
	PHOTOMETRIC PLAN					



LOCATION MAP

OWNER:

HCRI MASSACHUSETTS PROPERTY TRUST II
4500 DORR STREET
TOLEDO, OHIO 43615

APPLICANT:

WELL BALFOUR NEEDHAM LANDLORD LLC
4500 DORR STREET
TOLEDO, OHIO 43615

CIVIL ENGINEERS:

KELLY ENGINEERING GROUP, INC.
0 CAMPANELLI DRIVE
BRAINTREE, MA 02184

ARCHITECT:

THE ARCHITECTURAL TEAM
50 COMMANDANT'S WAY AT ADMIRAL'S HILL
CHELSEA, MA 02150

LANDSCAPE ARCHITECT:

HAWK DESIGN, INC
P.O. 1309
SANDWICH, MA 02563

Digitally signed by David Noel
Kelly P.E.
DN: cn=David Noel Kelly P.E.,
o=Kelly Engineering Group, Inc.,
ou,
email=dnkelly@kellyengineeringg
roup.com, c=US
Date: 2022.06.07 12:21:13 -0400

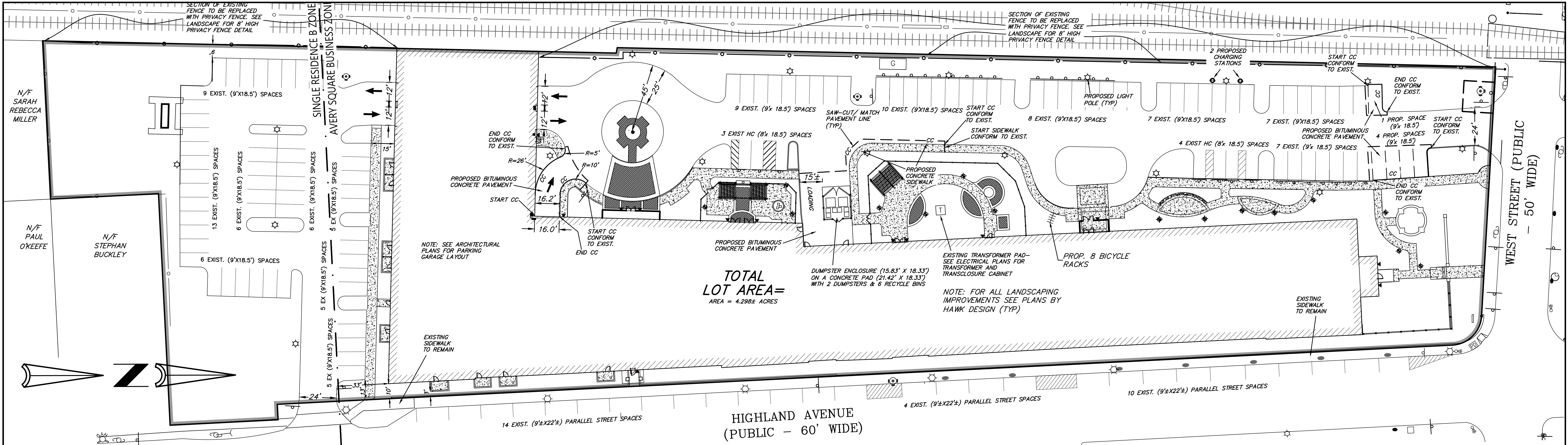
KELLY ENGINEERING GROUP SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, OR PROCEDURES UTILIZED BY THE CONTRACTOR, NOR FOR THE SAFETY OF PUBLIC OR CONTRACTOR'S EMPLOYEES; OR FOR THE FAILURE OF THE CONTRACTOR TO CARRY OUT THE WORKING ACCORDANCE WITH THE CONTRACT DOCUMENTS.
THE EXTENT OF KELLY ENGINEERING GROUP'S LIABILITY FOR THIS PLAN IS LIMITED TO THE EXTENT OF ITS FEE LESS THIRD PARTY COST

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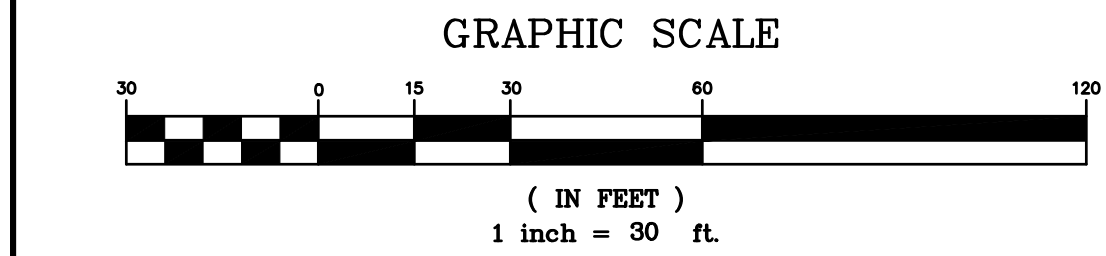
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	SCALE	JOB #		100 WEST STREET NEEDHAM, MA	SHEET NO. 1
	DATE	DRAWN BY			
	SHEET	CHKD BY			
	FILE #	APPD BY			
	NA	F:\P\2022-080			
	06/02/22	CIL			
	1 OF 6	DAM			
	TS02	DNK			

KELLY ENGINEERING GROUP
civil engineering consultants
0 Campanelli Drive, Braintree, MA 02184
Phone: 781-843-4333 www.kellyengineeringgroup.com



ZONING LEGEND				
ZONING DISTRICT: AVERY SQUARE BUSINESS DISTRICT/ SINGLE RESIDENCE B/ AVERY SQUARE OVERLAY DISTRICT (DIMENSIONAL REQUIREMENTS PROVIDED FOR AVERY SQUARE BUSINESS DISTRICT AND ASDO)				
	REQUIRED	EXISTING	PROPOSED	COMPLIANCE
MIN. AREA	10,000 S.F.	187,219 S.F. (4.30 AC)	SAME	YES
MIN. FRONTAGE	80'	856'±	SAME	YES
MIN. SETBACK FRONT	10'	10'±	10'	YES (NOTE 1)
MIN. SETBACK SIDE (RESIDENTIAL DISTRICT)	50' (NOTE 1)	33'±	SAME	PRE-EXISTING NONCONFORMING
MIN. SETBACK SIDE	NA	0'±	SAME	YES
MIN. SETBACK REAR	NA	NA	SAME	YES
MAX. STORIES	4	3	4	YES
4TH FL. SETBACKS (NOTE 2)				
EAST FACADE	15'	NA	15' (NOTE 2)	YES
WEST FACADE	0'	NA	0' (NOTE 2)	YES
SOUTH FACADE	35'	NA	35' (NOTE 2)	YES
NORTH FACADE	110'	NA	110' (NOTE 2)	YES
4TH FL. AREA (NOTE 3)	35%	NA	APPROX. 29% (NOTE 3)	YES
MAX. HEIGHT	44' - 49' (NOTE 4)	41'-9" (NOTE 4)	44' & 49' (NOTE 4)	YES
LOT COVERAGE	NA (NOTE 5)	0.34	SAME	YES
FLOOR AREA RATIO	1.1 (NOTE 6)	1.00±	1.03	YES
PARKING TOTAL	124 (NOTE 7)	193	145 (NOTE 7)	YES
DRIVEWAY OPENINGS	18'-25' (TWO WAY)	24'	24'	YES



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- NOTE 1. YARD ASSUMPTIONS:
HIGHLAND AVE. AND WEST ST. ARE FRONT YARDS
MBTA RAIL AND SOUTH LOT LINE ARE SIDE YARDS
THERE ARE NO REAR YARDS
- EXISTING BUILDING WILL REMAIN 10' FROM HIGHLAND AVE PROPERTY LINE. PROPOSED PATIOS ARE 3' FROM FRONT PROPERTY LINE, BUT ARE NOT CONSIDERED TO BE STRUCTURES.
- THE TOWN OF NEEDHAM ZONING BYLAW SECTION 4.4.8.4, 50' SETBACK TO RESIDENTIAL DISTRICT
- NOTE 2. SETBACKS ARE MEASURED FROM EXISTING BUILDING FACADE. (BYLAW SECTION 3.15.4.1) AS SHOWN ON THE ARCHITECTURAL PLANS, SETBACK DIMENSIONS VARY. PROPOSED SETBACKS ARE MINIMUMS.
- NOTE 3. PER BYLAW SECTION 3.15.4.1 TOTAL FLOOR AREA OF THE 4TH FLOOR MAY NOT EXCEED 35% OF THE TOTAL ROOF AREA OF THE BUILDING. MECHANICAL EQUIPMENT IS NOT INCLUDED IN THE CALCULATION OF MAXIMUM ALLOWABLE FLOOR AREA. THE PROPOSED PERCENTAGE OF ROOF COVERAGE INCLUDES ROOF TERRACES. IF THOSE ARE EXCLUDED, THE PERCENTAGE OF ROOF COVERAGE IS APPROX. 26%
- NOTE 4. EXISTING BUILDING HEIGHT OF 33±' TO TOP OF ROOF. 41'9" TO TOP OF HIGHEST POINT (MECHANICAL OR ELEVATOR OVERRIDE)
- MAX ALLOWABLE BUILDING HEIGHT IS 44' TO TOP OF 4TH STORY AND ALL MECHANICALS OTHER THAN ELEVATOR OVERRIDE; 49' TO TOP OF ELEVATOR OVERRIDE. ACTUAL HEIGHTS ARE PLANNED TO BE SLIGHTLY LESS THAN MAX ALLOWABLE.
- BUILDING HEIGHT WAS CALCULATED FROM THE AVERAGE GRADE PLANE OF THE EXISTING BUILDING OF 177.6±. THE PROPOSED 4TH STORY ELEVATION IS 221.6±. THE PROPOSED ELEVATOR OVERRUN ELEVATION IS 226.6±.
- NOTE 5. THE TOWN OF NEEDHAM ZONING BYLAW SECTION 4.4.2 (E) THERE IS NO LIMITATION ON LOT COVERAGE IN THE AVERY SQUARE BUSINESS DISTRICT OR THE AVERY SQUARE OVERLAY DISTRICT.
- TOTAL BUILDING COVERAGE= 63,700 S.F./ 187,219 S.F.= 0.34
- NOTE 6. FLOOR AREA RATIO:
EXISTING FAR = 186,300 S.F./187,219 S.F. = 1.00 FAR
PROPOSED FAR = 193,250 S.F./187,219 S.F. = 1.03 FAR
- THE CALCULATION OF PROPOSED FAR DOES NOT INCLUDE UNDERGROUND PARKING, AS ALLOWED IN THE AVERY SQUARE OVERLAY DISTRICT.
- THE APPLICABLE BYLAW DEFINITION OF FLOOR AREA EXCLUDES "UNENCLOSED PORCHES AND BALCONIES," THE FAR CALCULATION FOR THIS PROJECT DOES NOT INCLUDE THE AREA OF PROPOSED FIRST FLOOR PATIOS AND ROOF TERRACES, ALL OF WHICH WILL BE UNENCLOSED.
- NOTE 7. REQUIRED PARKING:
180 ASSISTED LIVING BEDS x 0.5 SPACES/ BEDS + 68± EMPLOYEES x 1 SPACE/2 EMPLOYEES ON LARGEST SHIFT= 124 SPACES REQUIRED
(TOWN OF NEEDHAM ZONING BYLAW SECTION 3.15.5)

PROVIDED:
30 GARAGE SPACES & 115 EXTERIOR PARKING SPACES = 145 SPACES (EXCLUDES 28 PARALLEL PARKING SPACES ON HIGHLAND AVE. ADJACENT TO THE PROPERTY THAT CAN BE COUNTED AS OFF-STREET PARKING PURSUANT TO SECTION 5.1.1.7 OF THE BYLAW FOR A TOTAL PARKING SUPPLY OF 173 SPACES.)

	REQUIRED	EXISTING	PROPOSED	COMPLIANCE
ZONING BYLAW 5.1.3 PARKING PLAN AND DESIGN REQUIREMENTS				
A) PARKING ILLUMINATION	AVG 1 FOOT CANDLE	NA	AVG 2± FC	YES
B) LOADING REQUIREMENTS	1	2	1	YES
C) HANDICAPPED PARKING	5	7±	9	YES
D) DRIVEWAY OPENINGS	2	2	SAME	YES
E) MAX. COMPACT CARS	50% (8'x16')	38%	21% (NOTE 8)	YES
F) PARKING SPACE SIZE	9'x18.5'	9'x18.5'	SAME	YES
G) BUMPER OVERHANG	1' OVERHANG	NONE REQUIRED	SAME	YES
H) PARKING SPACE LAYOUT	(NOTE 9)	0	INCL. 5 TANDEM (NOTE 9)	SPECIAL PERMIT
I) AISLE WIDTH EXTERIOR	24' (90 DEG. STALL)	24'	SAME	YES
J) AISLE WIDTH INTERIOR	24' (90 DEG. STALL)	16'-8"	SAME (NOTE 10)	SPECIAL PERMIT
J) PARKING SETBACK				
-FRONT	10'	13'±	SAME	YES
-SIDE	4'	9'±	SAME	YES
-REAR	4'	NA	SAME	YES
-BUILDING	5'	15'±	SAME	YES
K) LANDSCAPED AREAS	10%	>10% (NOTE 11)	11%- 12% (NOTE 11)	YES
L) TREES	1 PER 10 SPACES	(NOTE 12)	(NOTE 12)	YES
M) LOCATION	WITHIN LOT	WITHIN LOT	SAME	YES
N) BICYCLE RACKS	8	0	8	YES

- NOTE 8. COMPACT PARKING: 30 PROPOSED COMPACT SPACES IN PARKING GARAGE (21%).
- NOTE 9. PARKING SPACE LAYOUT:
5 TANDEM SPACES PROPOSED IN PARKING GARAGE. A SPECIAL PERMIT IS REQUESTED FROM THE PLANNING BOARD.
- NOTE 10: INTERIOR AISLE WIDTHS IN THE GARAGE ARE 16'-8". A SPECIAL PERMIT IS REQUESTED FROM THE PLANNING BOARD, BECAUSE THE EXISTING COLUMN TO COLUMN SPACING IS A UNIQUE CIRCUMSTANCE.
- NOTE 11. LANDSCAPE AREAS: BETWEEN 11% AND 12% OF THE INTERIOR PORTION OF THE PARKING AREAS IS LANDSCAPED. THE AREAS OUTSIDE THE PERIMETER OF THE PAVED PARKING AREAS ARE NOT INCLUDED IN THIS CALCULATION. THIS SATISFIES THE REQUIREMENT THAT 10% OF THE PARKING AREA BE LANDSCAPED, AS WELL AS THE REQUIREMENT THAT AT LEAST ONE QUARTER OF THE LANDSCAPED AREA BE LOCATED IN THE INTERIOR OF THE PARKING AREA.
- NOTE 12. TREES: SEE LANDSCAPE PLAN BY HAWK DESIGN, INC.

EXISTING LEGEND	
	SIGN
	LIGHT POLE
	EXISTING HYDRANT
	PROPERTY LINE

PROPOSED LEGEND	
	CONCRETE CURB
	PROPOSED PRIVACY FENCE
	VEHICLE CHARGING STATION
	PROPOSED LIGHT POLE
	LANDSCAPE LIGHTING
	WALL MOUNT LIGHT

SCALE 1"= 30'				
DATE 06/02/22	REV	DATE	REVISION	BY
SHEET 3 OF 6	BALFOUR AT NEEDHAM 100 WEST STREET NEEDHAM, MA LAYOUT AND ZONING PLAN			
FILE # LA02				
JOB # F:\P\2022-080	KELLY ENGINEERING GROUP civil engineering consultants 0 Campanelli Drive, Braintree, MA 02184 Phone: 781-843-4333 www.kellyengineeringgroup.com			
DRAWN BY C.J.L.				
CHKD BY BGL				
APPD BY DNK				

SEAL OF THE COMMONWEALTH OF MASSACHUSETTS

DAVID NOEL KELLY
CIVIL
NO. 37942
REGISTERED PROFESSIONAL ENGINEER

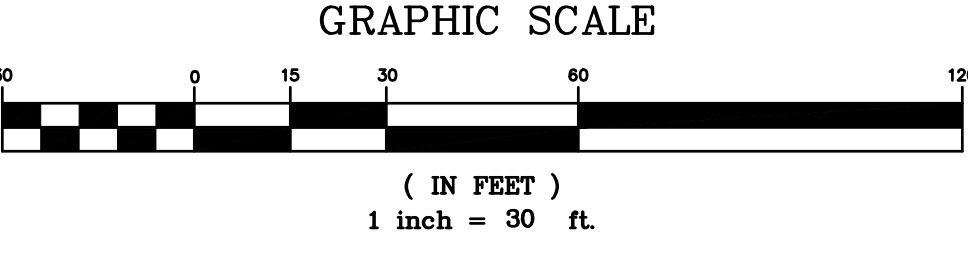
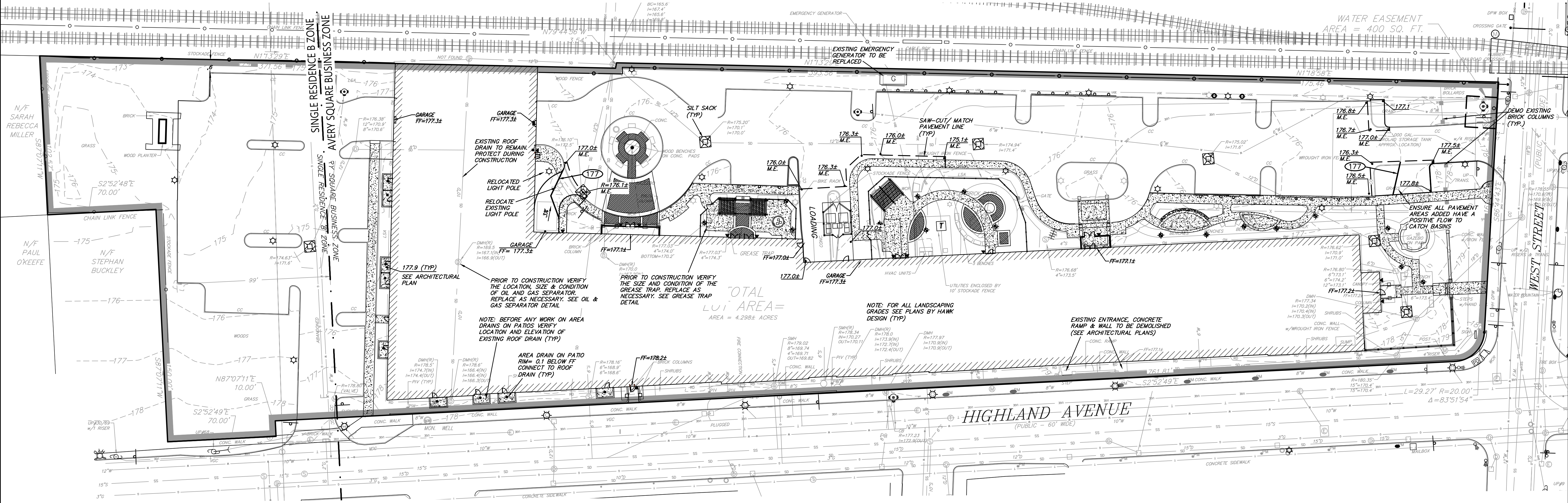
Digitally signed by David Noel Kelly P.E.
DN: cn=David Noel Kelly P.E., o=Kelly Engineering Group, Inc., ou, email=dnoel@kellyengr.com, c=US
Date: 2022.06.07 12:13:13 -0400

SHEET NO.
3

PROPOSED LEGEND

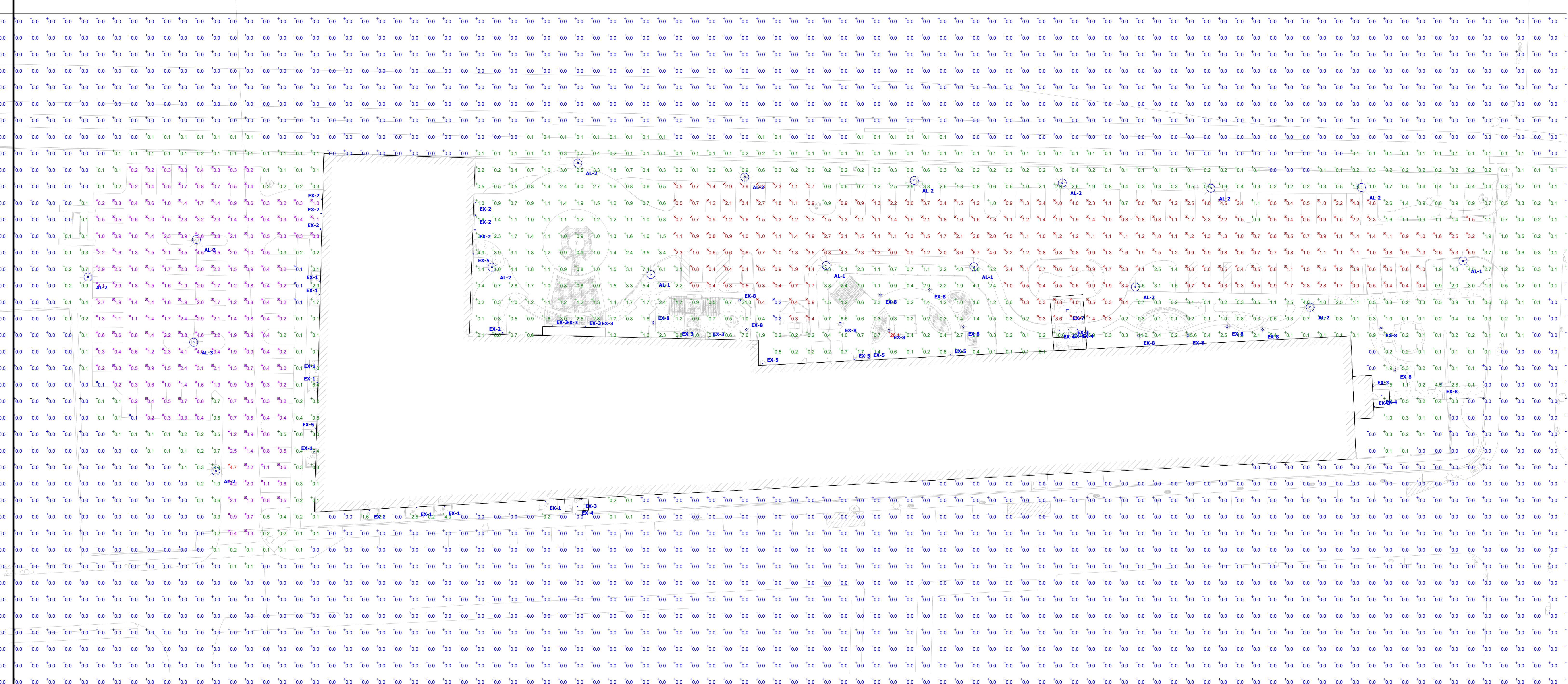
	SPOT GRADE
	MATCH EXISTING
	SAW CUT/ MATCH PAVEMENT LINE
	AREA DRAIN ON PATIO
	SILT SACK
	VEHICLE CHARGING STATION
	PROPOSED LIGHT POLE
	LANDSCAPE LIGHTING
	WALL MOUNT LIGHT

NOTE:FOR EXISTING SYMBOL LEGEND SEE SHEET 2



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SCALE 1"= 30'				
DATE 06/02/22	REV	DATE	REVISION	BY
SHEET 4 of 6	BALFOUR AT NEEDHAM 100 WEST STREET NEEDHAM, MA SITE PLAN			
FILE # SP02				
JOB # F:\P\2022-080	KELLY ENGINEERING GROUP civil engineering consultants 0 Campanelli Drive, Braintree, MA 02184 Phone: 781-843-4333 www.kellyengineeringgroup.com			
DRAWN BY C.J.L.				
CHKD BY BGL				
APPD BY DNK				
SHEET NO. 4				



Plan View
Scale - 1" = 28ft



Schedule								
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lumens Per Lamp	Light Loss Factor	Wattage
	AL-1	4	Lumenpulse	PUR100V 120 CSL M150 30K CRI 80 4 BK DIM TN4	Post Mounted Full cutoff with Type IV Distribution on 14' straight Steel Pole	9718	0.9	132
	AL-2	11	Lumenpulse	PUR100V 120 CSL M150 30K CRI 80 4BLS BK DIM TN4	Post Mounted Full cutoff with Type IV Distribution with backside shield on 14' straight Steel Pole	5246	0.9	132
	AL-3	2	Lumenpulse	PUR100V 120 CSL M150 30K CRI 80 5S BK DIM TN4	Post Mounted Full cutoff with Type V Distribution on 14' straight Steel Pole	10499	0.9	132
	EX-1	9	Lightology	TLG482514 30K	Bowman 4 Series	1653	0.35	39
	EX-2	7	Brownlee	7176 18 AS H08 30K XX	Wall Mounted 18" long vertical exterior sconce	698	0.9	7.88131
	EX-3	10	Brownlee	7176 34 AS H21 30K XX	Wall Mounted 34" long vertical exterior sconce	1946	0.9	20.83
	EX-4	5	Spectrum	SP4ES 20L 30K DX // AR4LED SG MF XX WL	Recessed 4" diameter exterior downlight	1653	0.9	19.5
	EX-5	6	Lightology	TLG749332 30K	Wall Mounted Sconce	140	0.9	11.99
	EX-6	0	Lightology	TLG482515 30K	Wall Mounted Sconce	1653	0.45	24
	EX-7	1	Lightology	TLG748574	Wall Mounted Sconce	2325	0.9	71
	EX-8	15	Lithonia	RADB LED P4 30K SYM DDBXD	Ground Mounted 42" high Type V Full Cutoff Bollard	1335	0.9	18.59

NOTES:

- REFLECTANCES ASSUMED:
 - SURFACE: 50
- MOUNTING HEIGHTS: 14'-0" AFG
 - RECESSED LIGHTS IN CANOPY @ 12'-0" AFG
 - WALL SCONCES @ 6'-0" & 8'-0" AFG
- TASK HEIGHT: AT SURFACE
- CALCULATION POINT SPACING: 7'X7' OC

STATISTICS						
DESCRIPTION	SYMBOL	AVG.	MAX	MIN.	MAX/MIN	AVG/MIN
Front Parking Lot	✖	1.5 fc	10.7 fc	0.2 fc	53.5:1	7.5:1
Side Parking Lot	✖	1.2 fc	4.7 fc	0.1 fc	47.0:1	12.0:1

DISCLAIMER:

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BALFOUR AT NEEDHAM

100 WEST STREET
NEEDHAM, MASSACHUSETTS

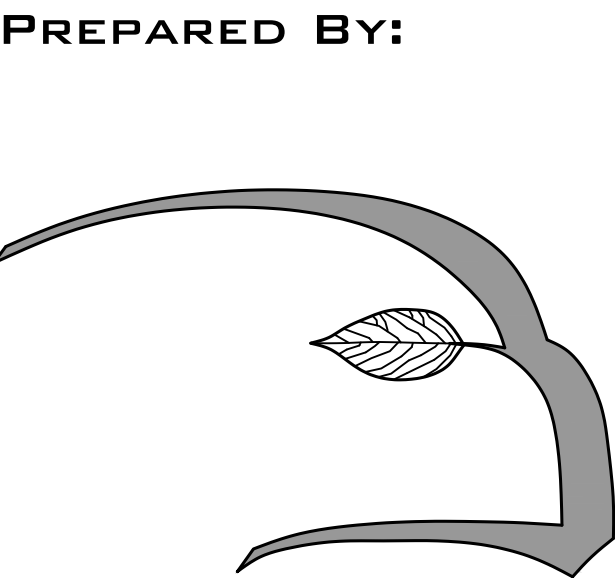
LANDSCAPE PERMIT PLANS

LIST OF DRAWINGS:

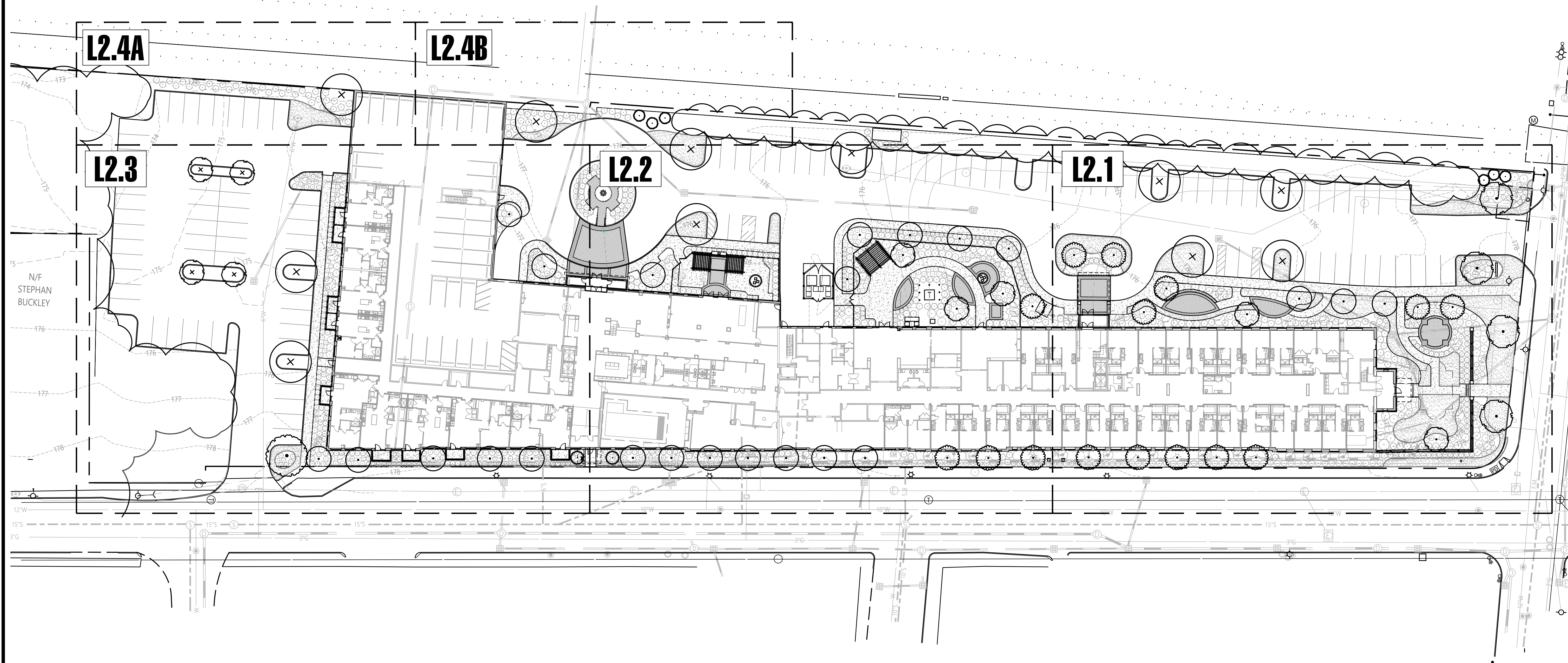
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L1.0	SITE LANDSCAPE MASTER PLAN	6/2/22
L2.1	NORTH PLANTING PLAN	6/2/22
L2.2	CENTRAL PLANTING PLAN	6/2/22
L2.3	SOUTH PLANTING PLAN	6/2/22
L2.4	WEST BUFFER PLANTING PLAN	6/2/22
L3.1	NORTH MATERIALS PLAN	6/2/22
L3.2	BUILDING ARRIVAL & RESIDENT COURTYARD MATERIALS PLAN	6/2/22
L3.3	ASSISTED LIVING ARRIVAL MATERIALS PLAN	6/2/22
LD1	PLANT SCHEDULE & PLANTING DETAILS	6/2/22
LD2	PLANTING NOTES	6/2/22
LD3	CONSTRUCTION DETAILS	6/2/22

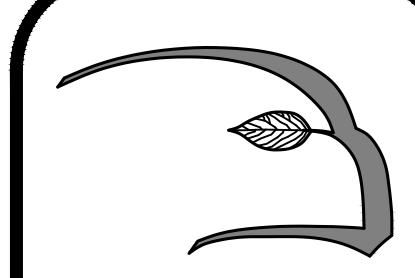
APPLICANT:
**WELL Balfour Needham
Landlord LLC**
**4500 Dorr Street
Toledo, OH 43615
Tel: 419-247-2800**

OWNER:
**HCRI Massachusetts
Properties Trust II**
**4500 Dorr Street
Toledo, OH 43615
Tel: 419-247-2800**



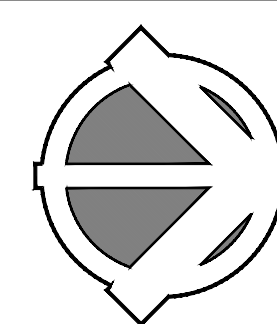
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Date: 6/2/22

Revisions:

Num.	Date	Description
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6/2/22

Balfour at Needham
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WELL Balfour Needham Landlord LLC
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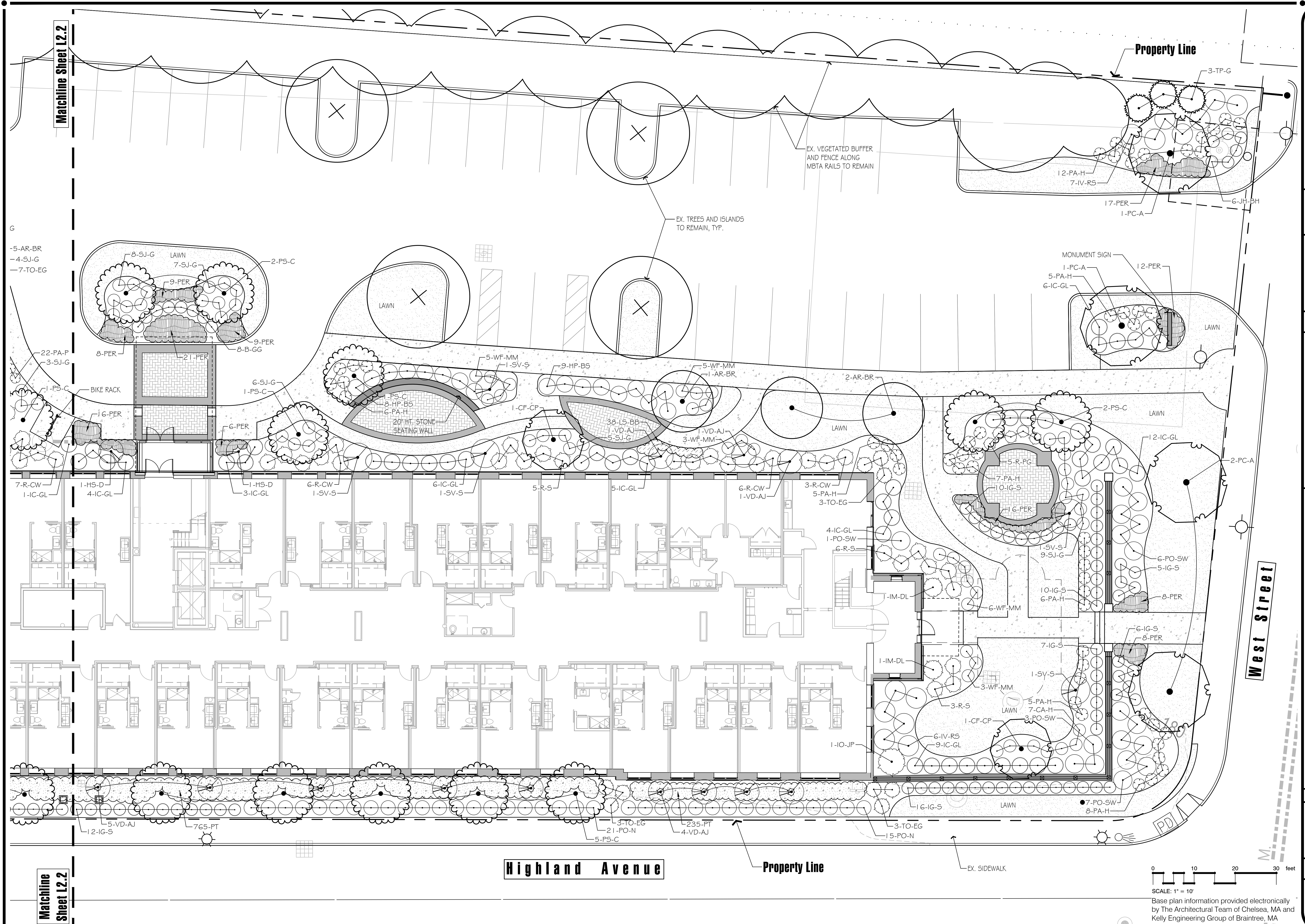
Drawn By: BNL Checked By: TEM

Landscape Master Plan

Scale: 1" = 30'-0"

Sheet: **L1.0**

0 30 60 90 feet
SCALE: 1" = 30'
Base plan information provided electronically by The Architectural Team of Chelsea, MA and Kelly Engineering Group of Braintree, MA





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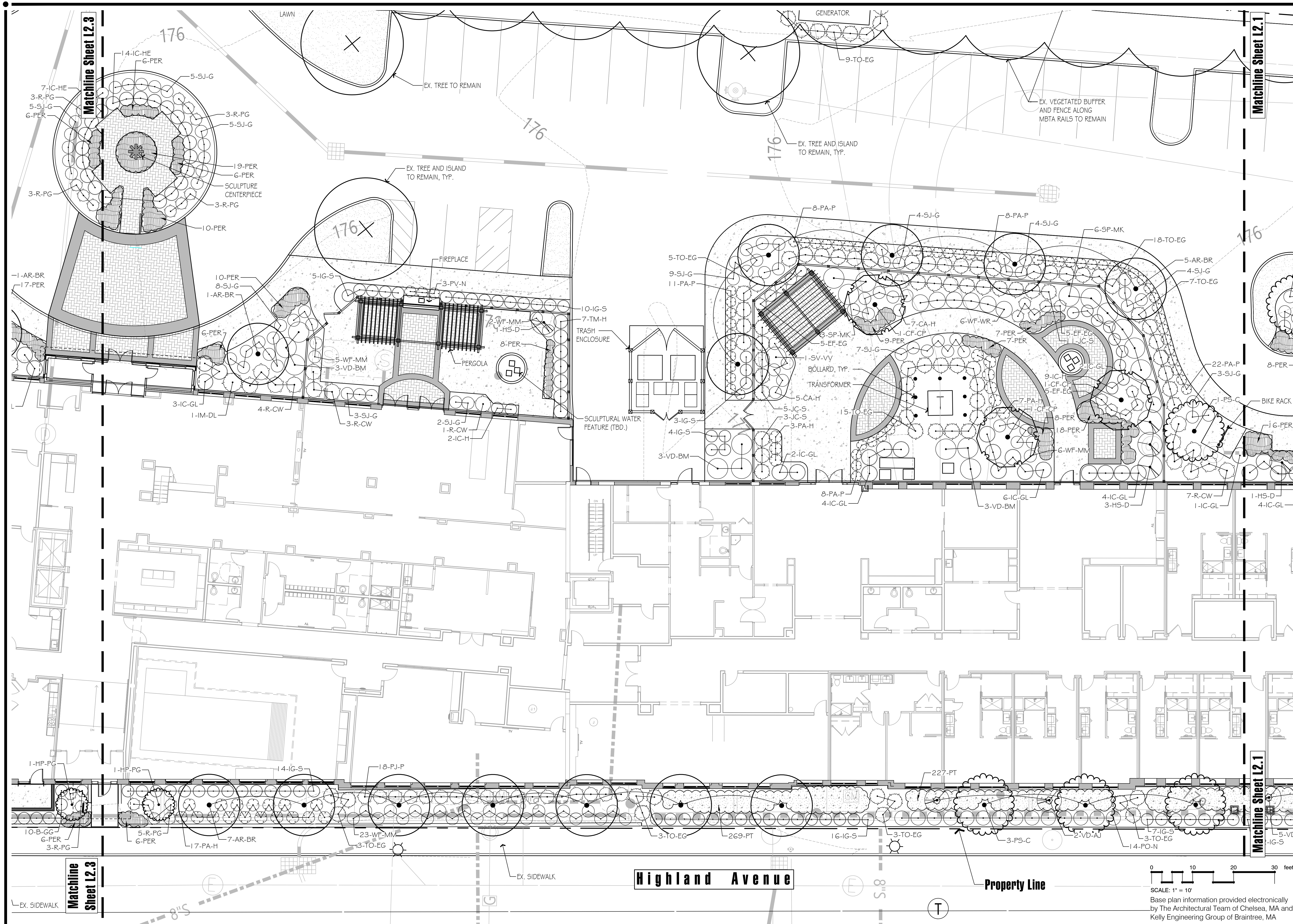
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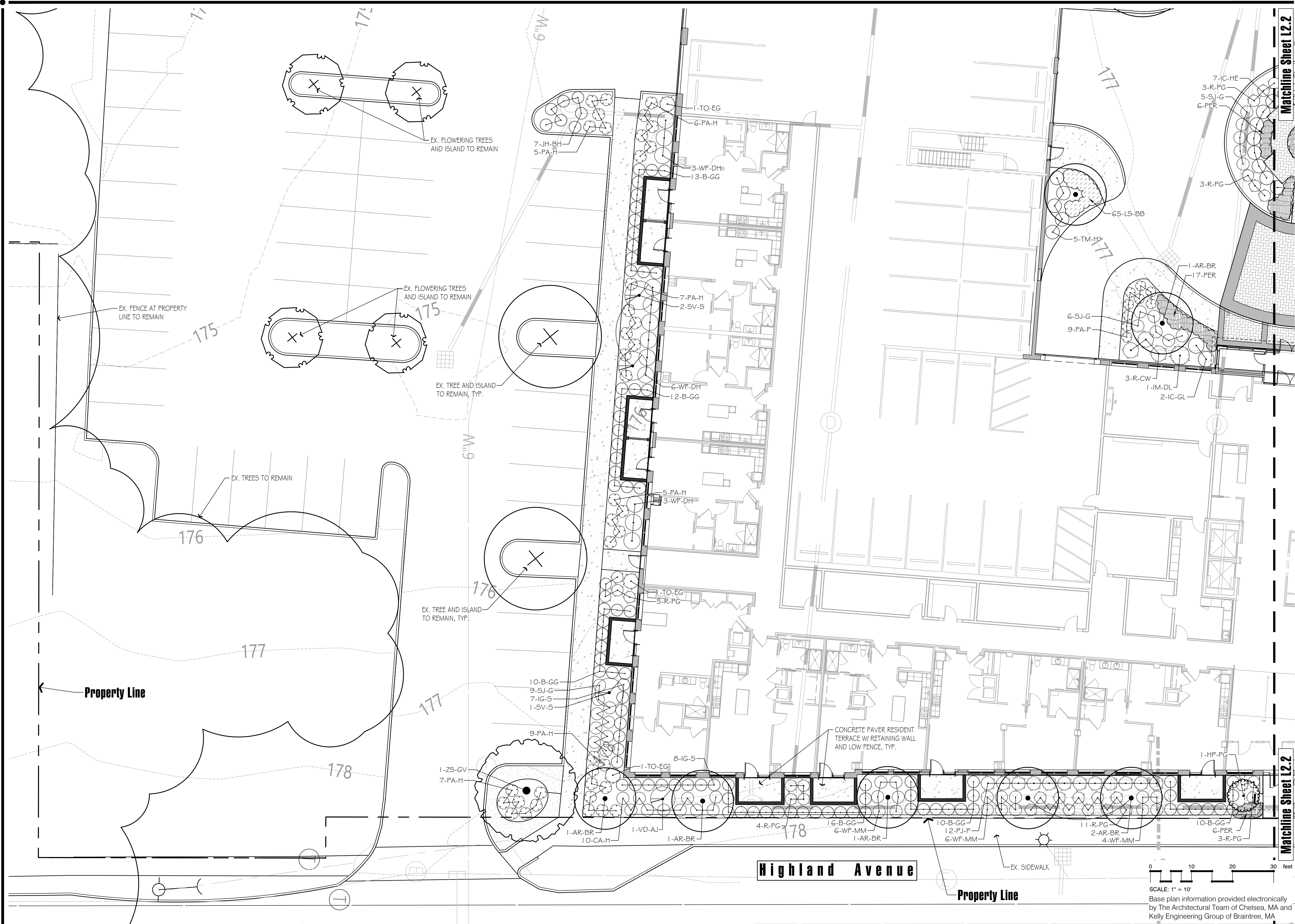


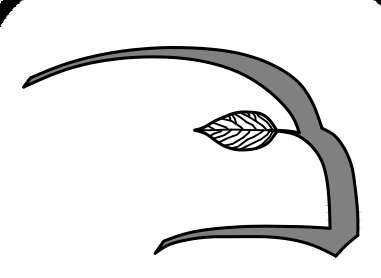
Drawn By: BNL	Checked By: TEM
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Central Planting Plan

Scale: 1" = 10'-0"

Sheet: **L2.2**

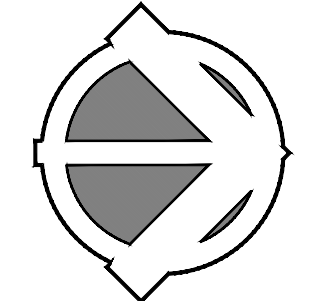




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South Planting Plan

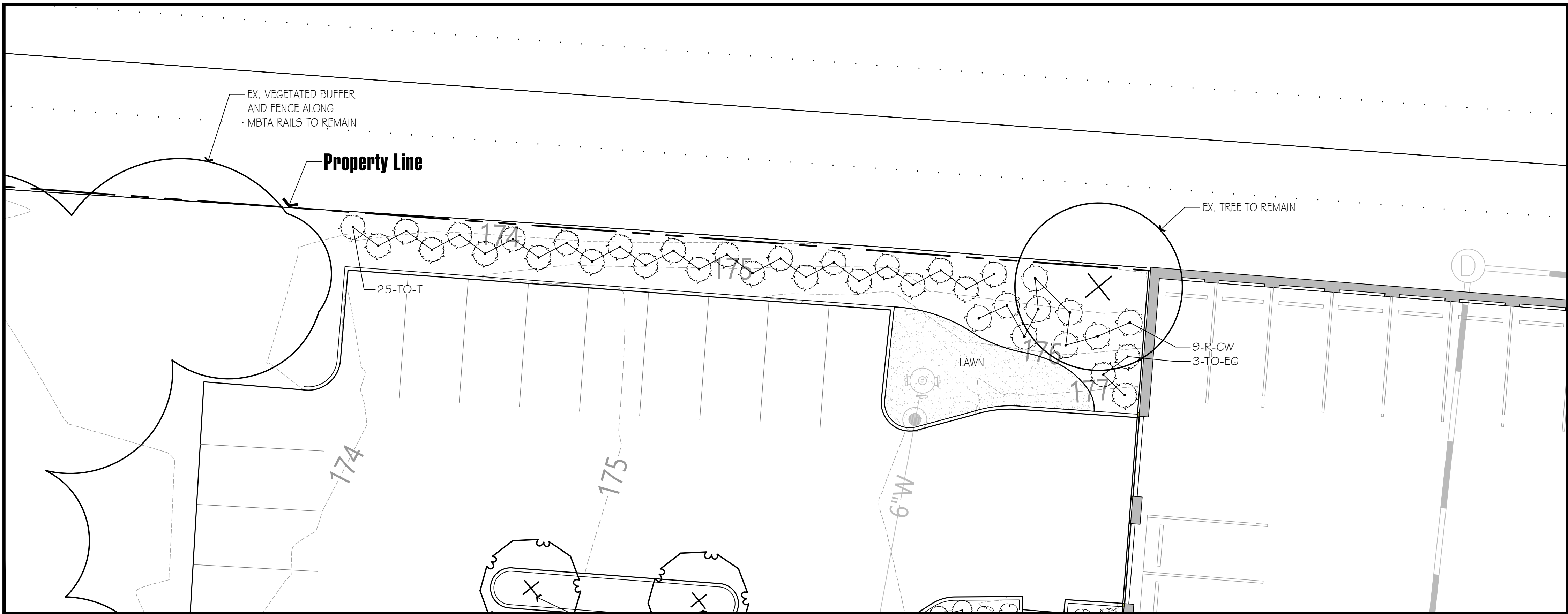
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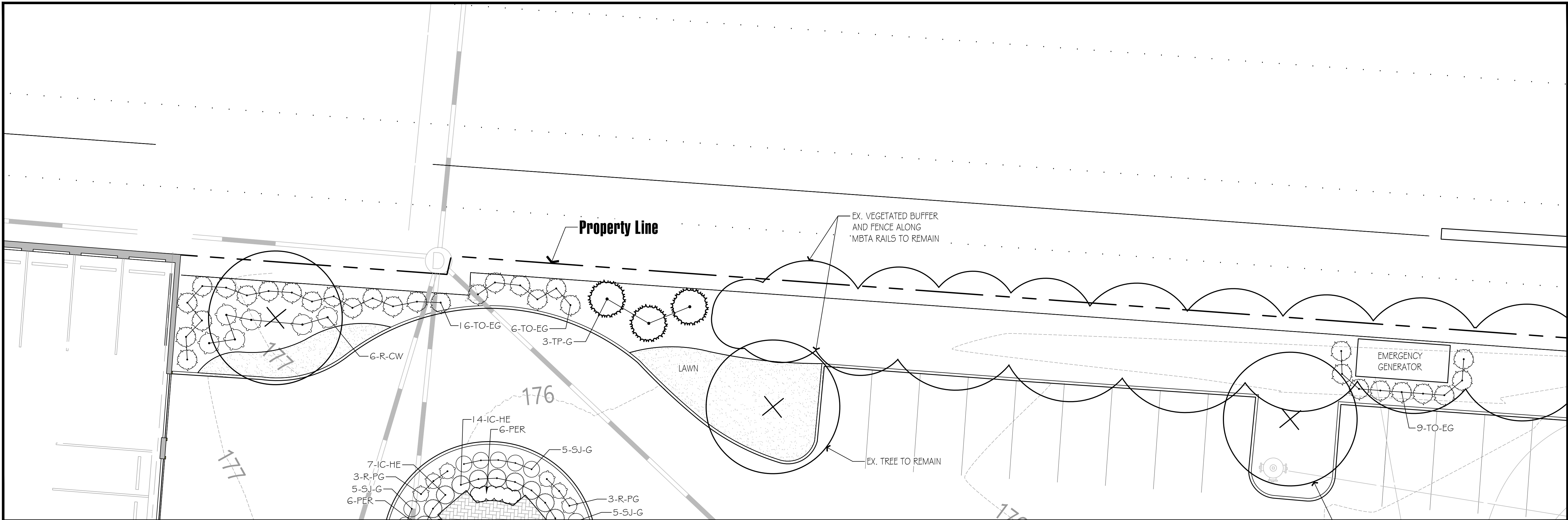
0 10 20 30 feet

SCALE: 1" = 10'

Base plan information provided electronically by The Architectural Team of Chelsea, MA and Kelly Engineering Group of Braintree, MA



A Property Line Buffer Planting
Scale: 1" = 10'-0"



B Property Line Buffer Planting
Scale: 1" = 10'-0"

0 10 20 30 feet
SCALE: 1" = 10'
Base plan information provided electronically
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Revisions:

Num.	Date	Description

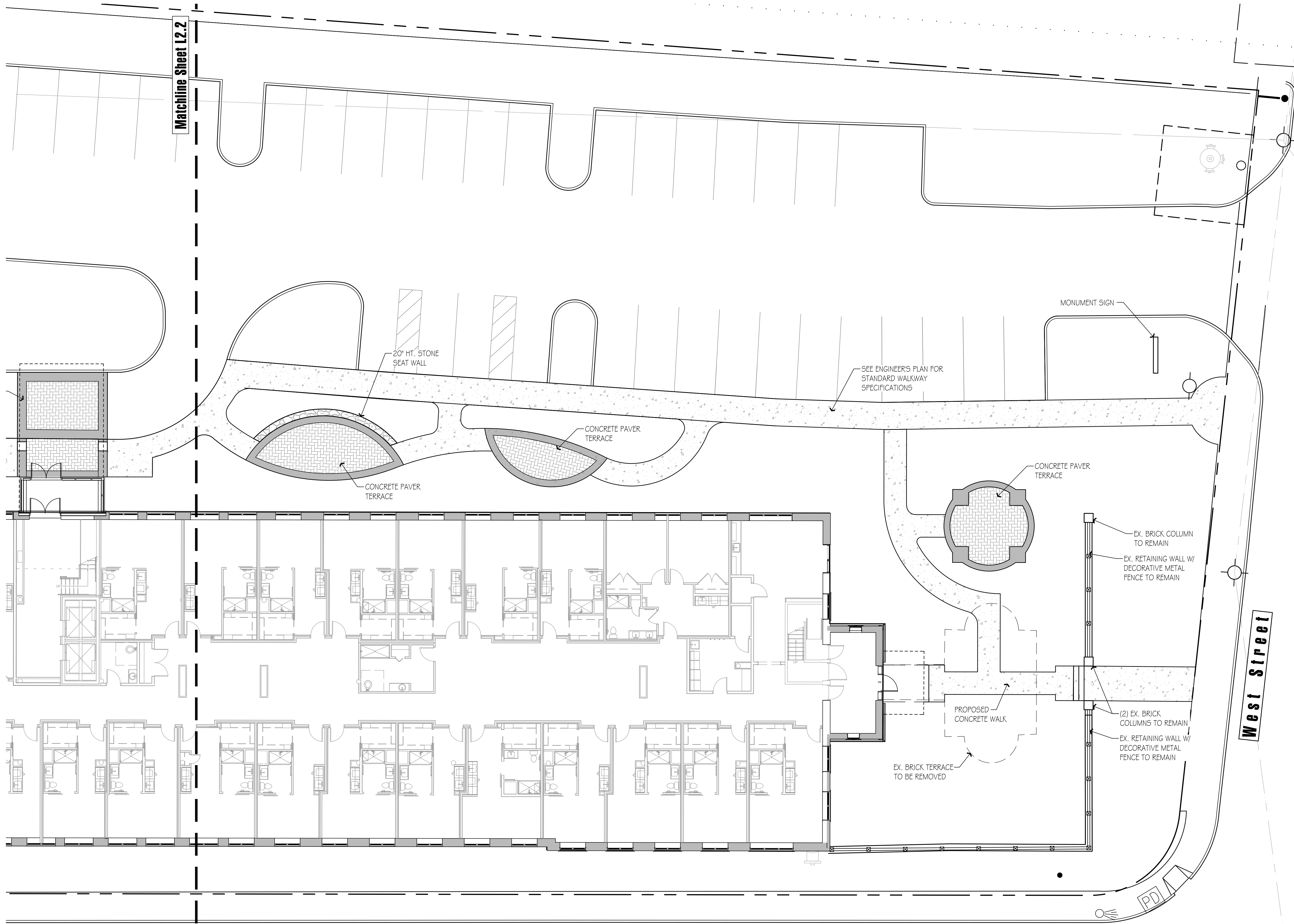
Balfour at Needham
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WELL Balfour Needham Landlord LLC
HCRI Massachusetts Properties Trust II
4500 Dorr Street, Toledo, Ohio 43615

Drawn By: BNL Checked By: TEM

**West Buffer
Planting Plans**

Scale: 1" = 10'-0"

Sheet: **L2.4**



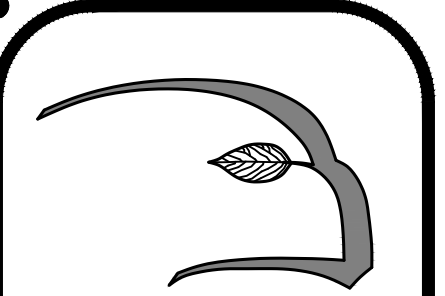
Matchline Sheet 12.2

Matchline Sheet 12.2

Highland Avenue

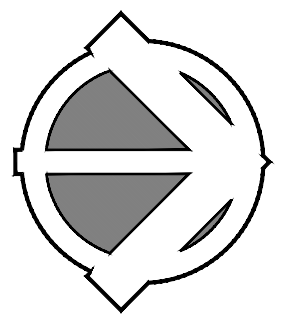
West Street

0 10 20 30 feet
SCALE: 1" = 10'
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Date: 6/2/22
Revisions:
Num. Date Description



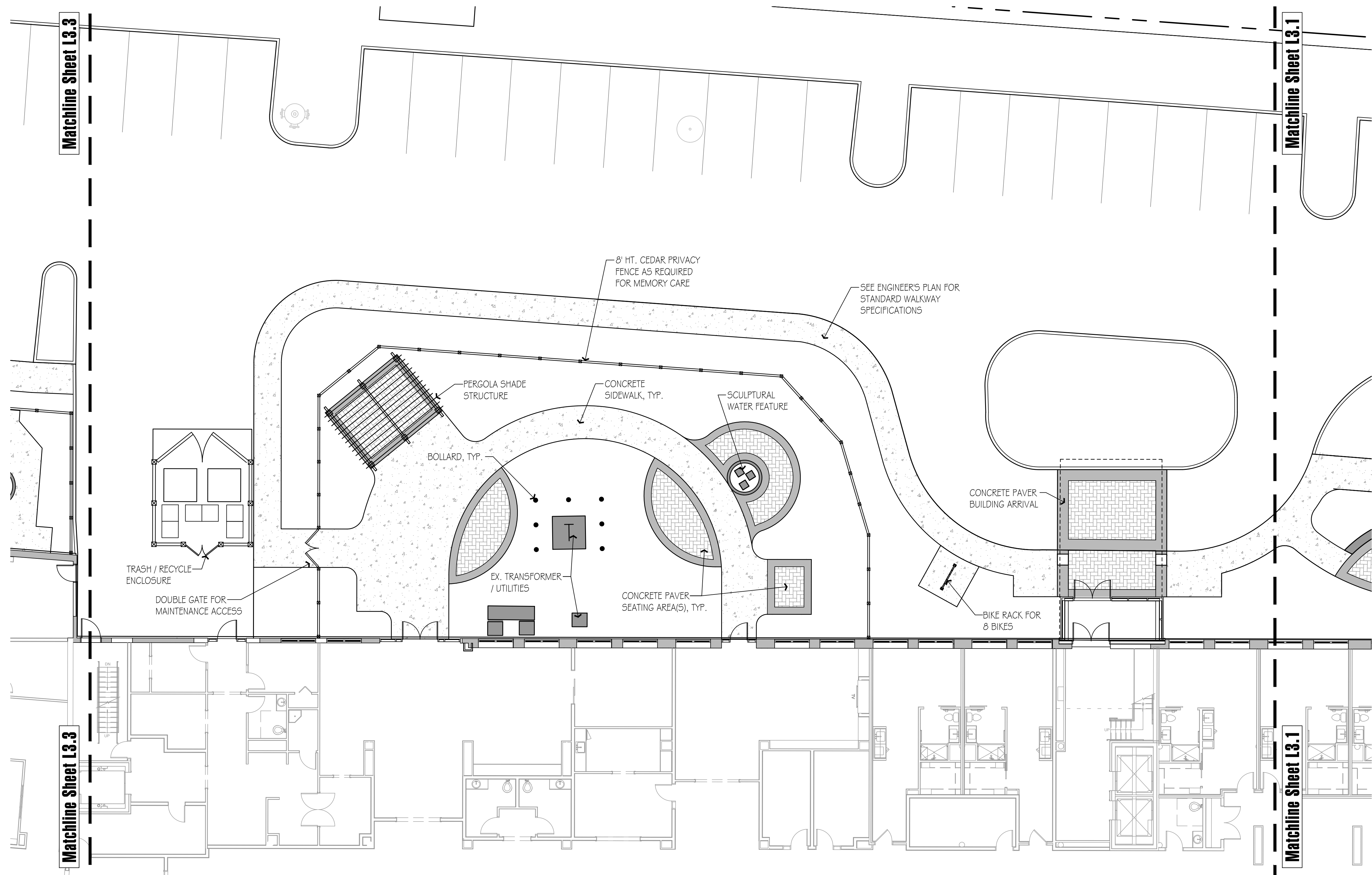
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4500 Dorr Street, Toledo, Ohio 43615

Drawn By: BNL Checked By: TEM

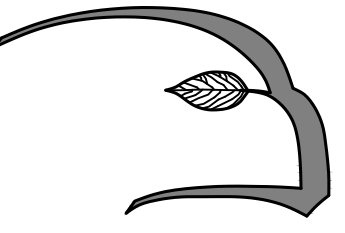
North Materials Plan

Scale: 1" = 10'-0"

Sheet: L3.1

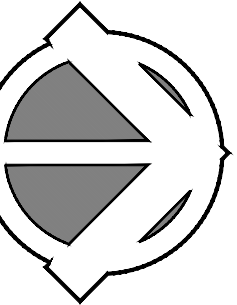


0 10 20 30 feet
SCALE: 1" = 10'
Base plan information provided electronically
by The Architectural Team of Chelsea, MA and
Kelly Engineering Group of Braintree, MA



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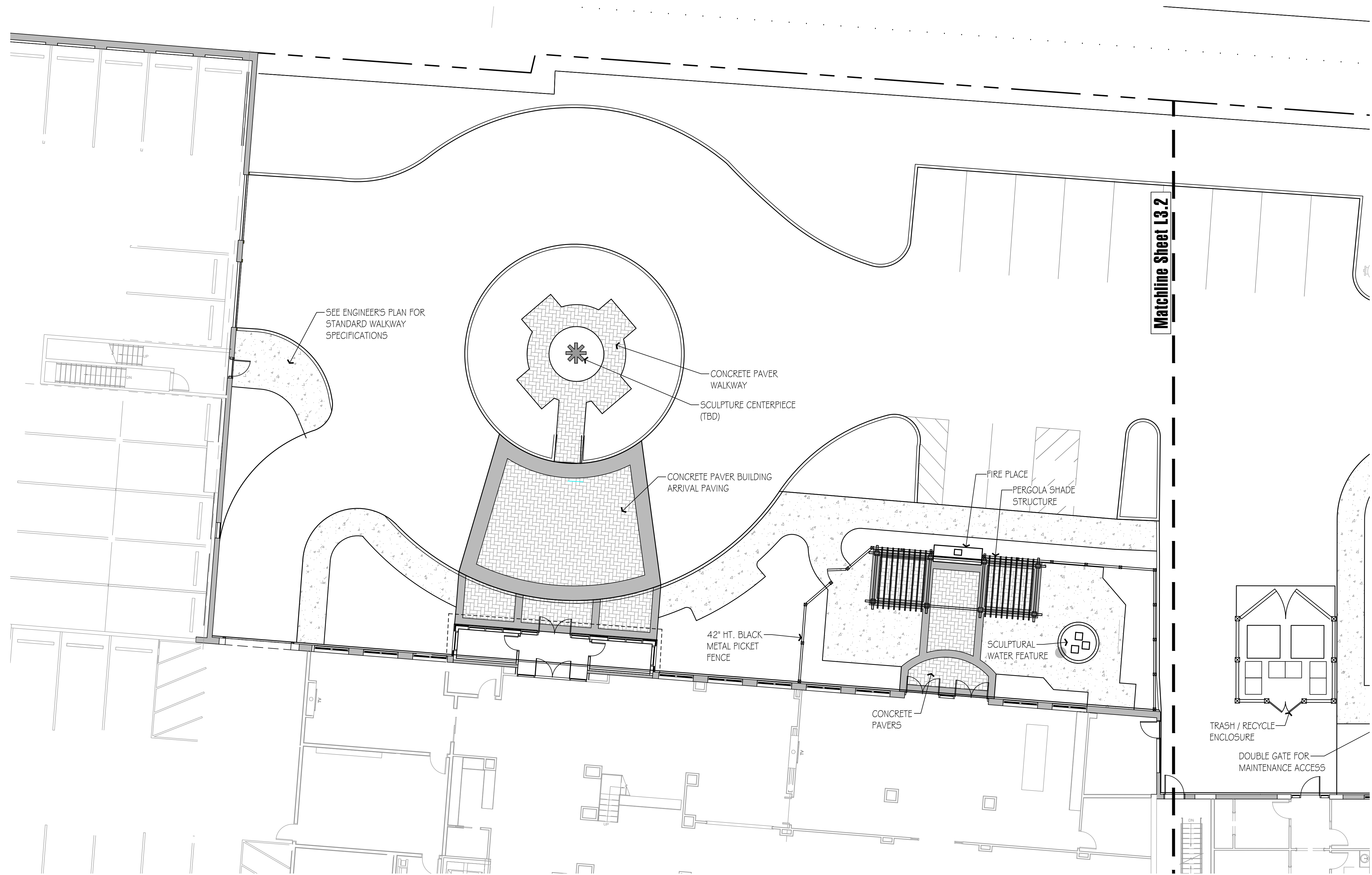
Balfour at Needham
100 West Street Needham, Massachusetts
WELL Balfour Needham Landlord LLC
HCRI Massachusetts Properties Trust II
4500 Dorr Street, Toledo, Ohio 43615

Drawn By: BNL Checked By: TEM

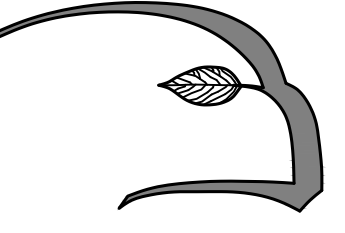
**Building Arrival &
Resident Courtyard
Materials Plan**

Scale: 1" = 10'-0"

Sheet: **L3.2**

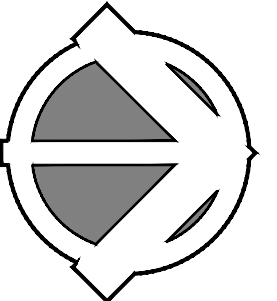


0 10 20 30 feet
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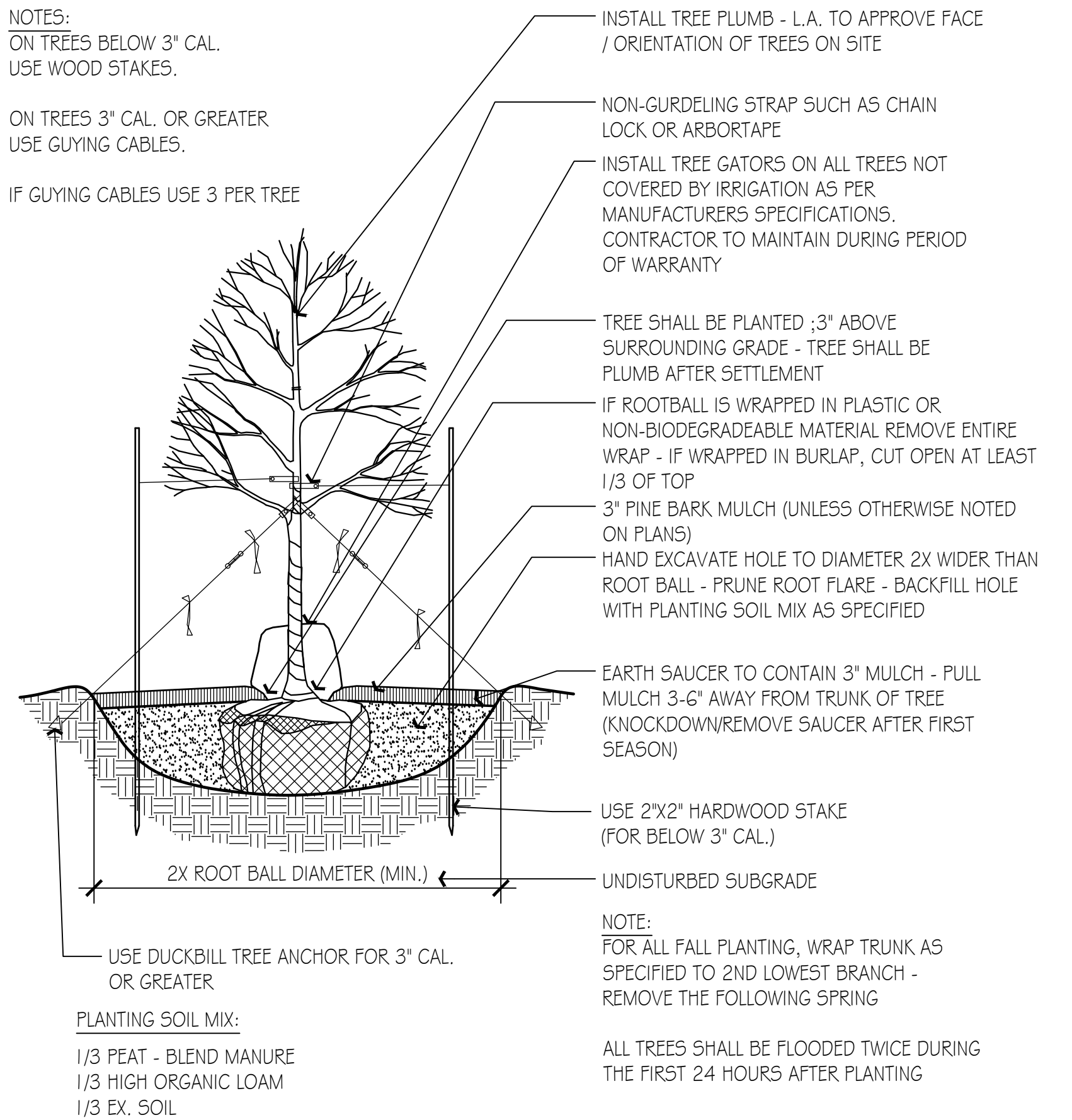
Balfour at Needham
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**Assisted Living
Entrance Materials
Plan**

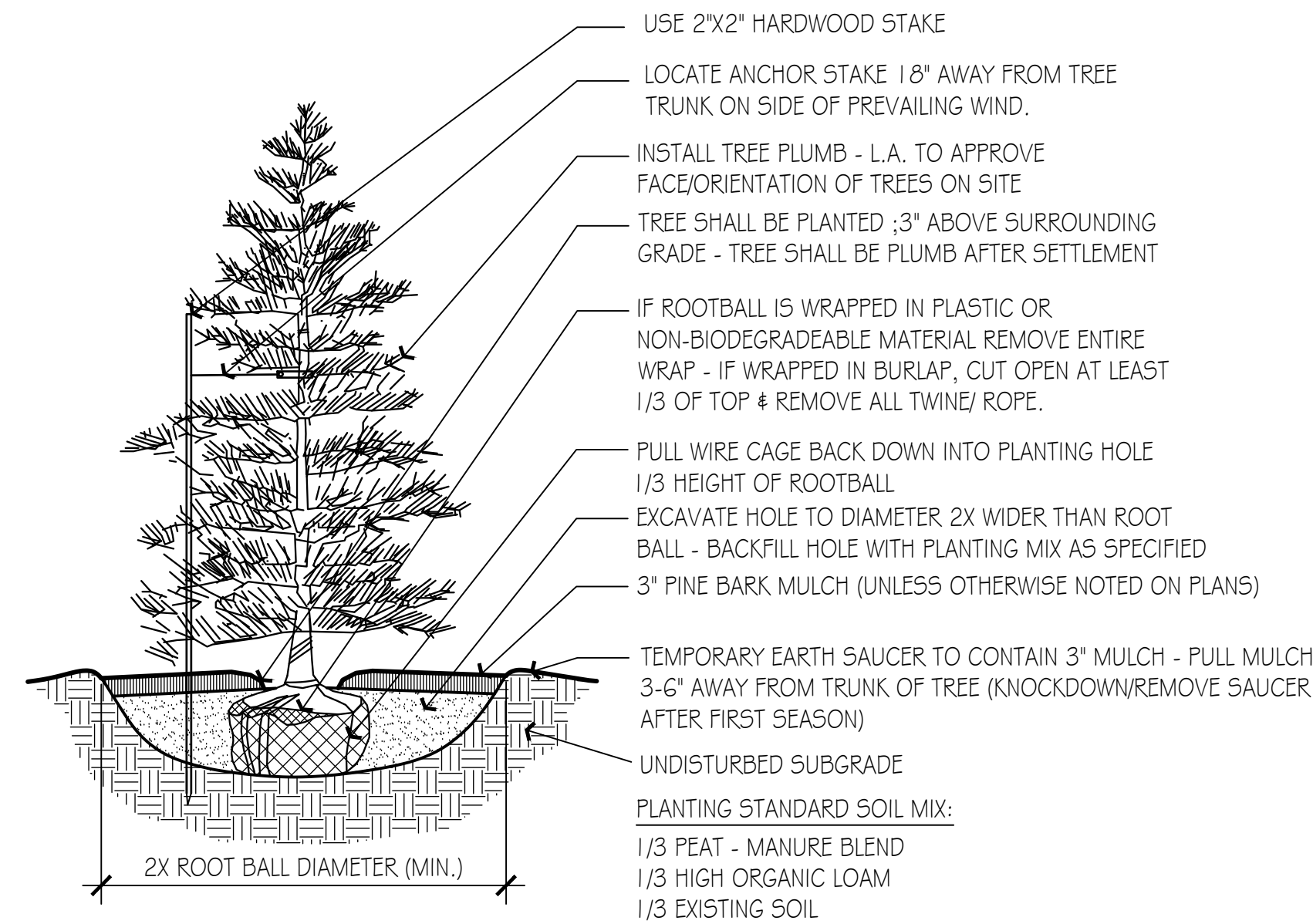
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Sheet: **L3.3**



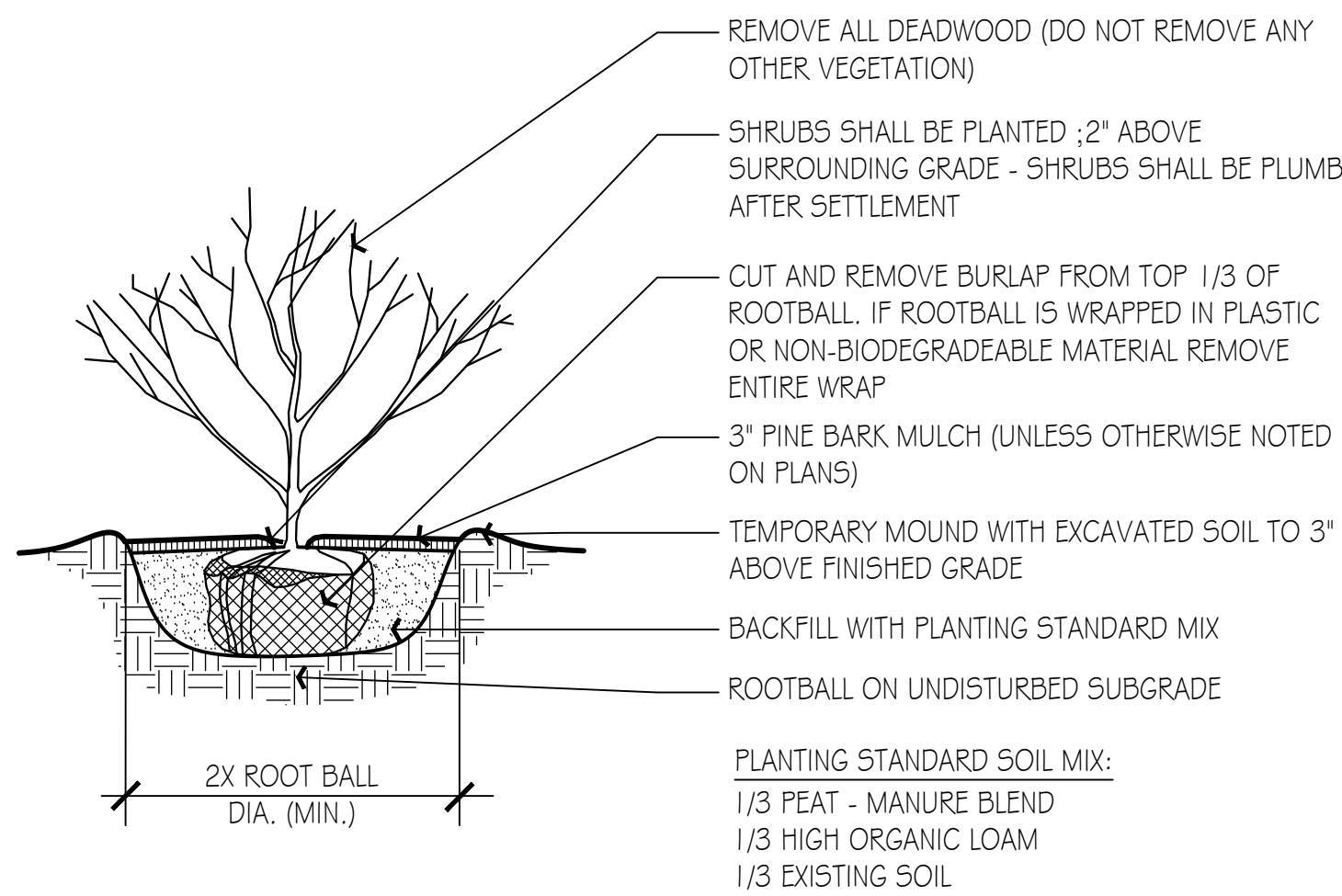
1 Deciduous Tree Planting

Scale: N.T.S.



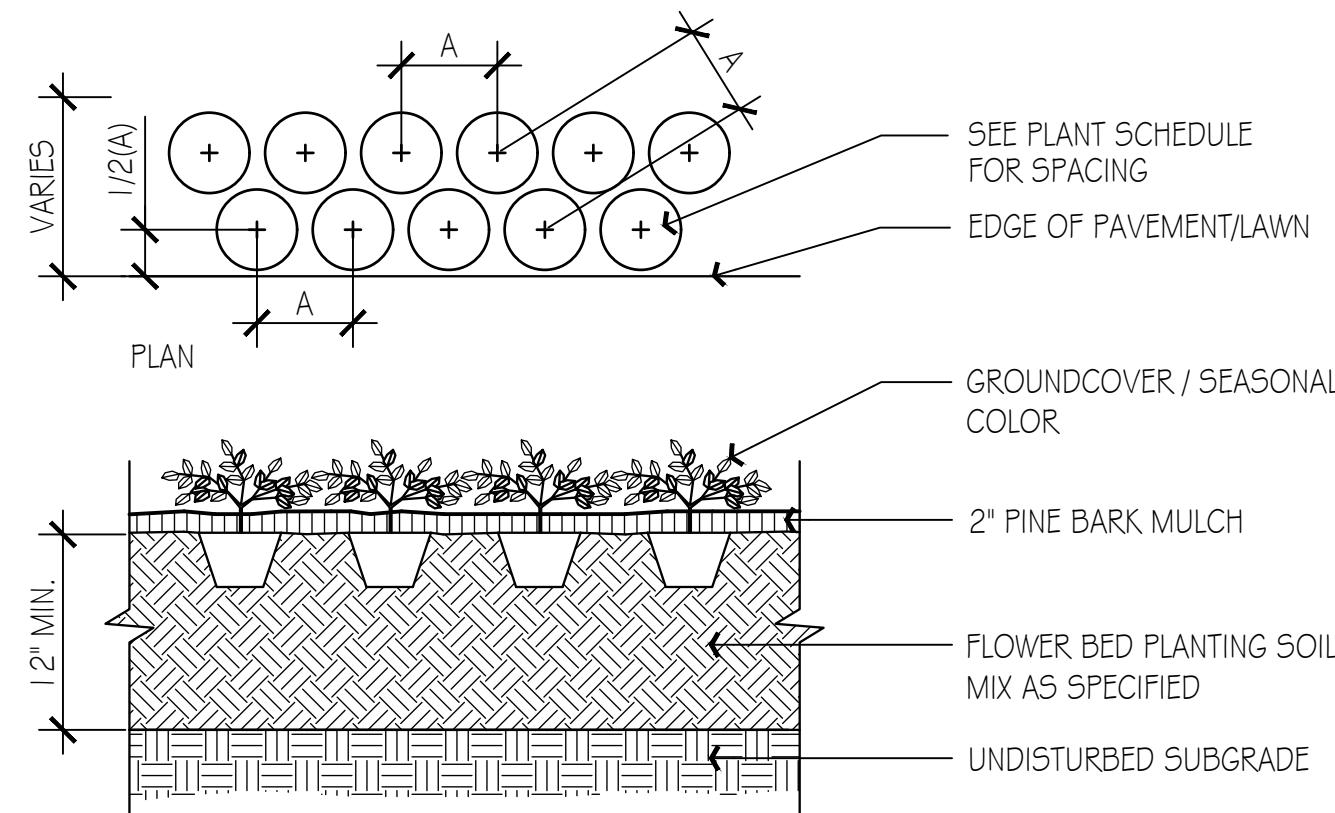
2 Conifer Tree Planting

Scale: N.T.S.



3 Shrub Planting

Scale: N.T.S.



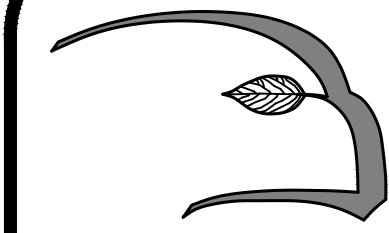
4 Perennial & Groundcover Planting

Scale: N.T.S.

Schedule of Soils

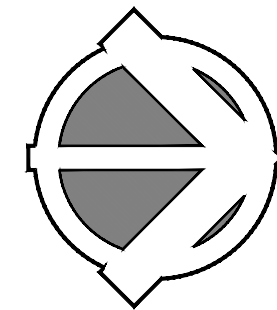
LOCATION	DEPTH	DESCRIPTION
GENERAL PLANTING BEDS	12"	1/3 PEAT - MANURE BLEND 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL
FLOWER BEDS	12"	SCREENED LOAM 1/3 PEAT - MANURE BLEND LIME - PELATIZED OR GROUND (50 LB. PER 100 SF.) GROUND BONE MEAL (50 LB. PER 100 SF.) 10-10-10 INORGANIC FERTILIZER (50 LB. PER 5000 SF.)
LAWNS - SOD & SEED	6"	6" SCREENED LOAM
PITS/TREE WELLS "STANDARD MIX" FOR BACKFILL	12"	SOIL MIX 'A' - 1/3 PEAT - MANURE BLEND 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL

PLANT SCHEDULE						
TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
AR-BR	23	Acer rubrum 'Bowhall Red'	Bowhall Columnar Red Maple	B & B	3-3.5" CAL.	
ZS-GV	1	Zelkova serrata 'Green Vase'	Green Vase Zelkova	B & B	3-3.5" CAL.	
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
TP-G	6	Thuja plicata 'Green Giant'	Green Giant Arborvitae	B & B		8-10' HT.
FLOWERING TREES	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
CF-CP	5	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	B & B	3-3.5" CAL.	
HP-PG	2	Hydrangea paniculata 'PeeGee Tree'	Tree Form Pee Gee Tree Hydrangea	B & B	2-2.5" CAL.	
PC-A	4	Pyrus calleryana 'Aristocrat'	Aristocrat Flowering Pear	B & B	3-3.5" CAL.	
PS-C	15	Prunus sargentii 'Columnaris'	Columnar Sargent Cherry	B & B	3-3.5" CAL.	
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE
B-GG	79	Buxus x 'Green Gem'	Green Gem Boxwood	Cont.		2' HT.
CA-H	29	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	B & B		18-24" HT.
EF-EG	15	Euonymus fortunei 'Emerald Gaiety'	Emerald Gaiety Euonymus	Cont.		18-24" HT.
HP-BS	17	Hydrangea paniculata 'Bombshell'	Bombshell Hydrangea	Cont.		2-2.5' HT.
HS-D	6	Hibiscus syriacus 'Diana'	Diana Rose of Sharon	B & B		5-6' HT.
IC-GL	73	Ilex crenata 'Green Lustre'	Green Luster Japanese Holly	B & B		2-2.5' HT.
ICH	11	Ilex crenata 'Helleri'	Heler Japanese Holly	Cont.		18-24" SPD.
IC-HE	21	Ilex crenata 'Hetzli'	Hetzli Japanese Holly	B & B		2-2.5' HT.
IG-S	140	Ilex glabra 'Shamrock'	Shamrock Inkberry	B & B		2-2.5' HT.
IM-DL	4	Ilex x meserveae 'Dragon Lady'	Dragon Lady Meserve Holly	B & B		5-6' HT.
IO-JP	1	Ilex opaca 'Jersey Princess'	Jersey Princess Holly	B & B		5-6' HT.
IV-RS	13	Ilex verticillata 'Red Sprite'	Red Sprite Winterberry	B & B		2-2.5' HT.
JC-S	19	Juniperus chinensis 'Spartan'	Spartan Juniper	B & B		6-8' HT.
JH-BH	13	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Creeping Juniper	Cont.		18-24" SPD.
PA-H	119	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	2 GAL		
PA-P	66	Pennisetum alopecuroides 'Piglet'	Piglet Dwarf Fountain Grass	2 GAL		
PJ-P	31	Pieris japonica 'Prelude'	Prelude Andromeda	Cont.		2-2.5' HT.
PO-N	50	Physocarpus opulifolius 'Nanus'	Dwarf Ninebark	B & B		2-2.5' HT.
PO-SW	17	Physocarpus opulifolius 'Summer Wine'	Summer Wine Ninebark	B & B		3-3.5' HT.
PV-N	3	Panicum virgatum 'Northwind'	Northwind Switch Grass	3 GAL		
R-CW	48	Rhododendron 'Cunningham's White'	Cunningham White Rhododendron	B & B		2-2.5' HT.
R-PG	45	Rhododendron 'Purple Gem'	Purple Gem Rhododendron	Cont.		18-24" HT.
R-S	14	Rhododendron 'Scintillation'	Scintillation Rhododendron	B & B		2-2.5' HT.
SJ-G	109	Spiraea japonica 'Goldflame'	Goldflame Spirea	Cont.		18-24" HT.
SP-MK	9	Syringa patula 'Miss Kim'	Miss Kim Lilac	B & B		4-5' HT.
SV-S	8	Syringa vulgaris 'Sensation'	Sensation Lilac	B & B		5-6' HT.
SV-VV	1	Syringa vulgaris 'Virtual Violet'	Virtual Violet Lilac	B & B		4-4.5' HT.
TM-H	12	Taxus x media 'Hicksii'	Hicks Yew	B & B		3-3.5' HT.
TO-EG	103	Thuja occidentalis 'Emerald Green'	Emerald Green Arborvitae	B & B		6-7' HT.
TO-T	25	Thuja occidentalis 'Techny'	Techny Arborvitae	B & B		6-7' HT.
VD-AJ	15	Viburnum dentatum 'Autumn Jazz'	Autumn Jazz Viburnum	B & B		5-6' HT.
VD-BM	9	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	B & B		5-6' HT.
WF-DH	12	Weigela florida 'Dark Horse'	Dark Horse Weigela	Cont.		2-2.5' HT.
WF-MM	74	Weigela florida 'My Monet'	My Monet Weigela	Cont.		15-18" HT.
WF-WR	6	Weigela florida 'Wine & Roses'	Wine & Roses Weigela	B & B		2-2.5' HT.
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT		
LS-BB	103	Liriope spicata 'Big Blue'	Creeping Lily Turf	4 QT.		
PER	289	Perennials	Assorted Perennials	1 gal		
PT	1,496	Pachysandra terminalis	Japanese Spurge	4"pot		
LAWN	QTY	BOTANICAL NAME	COMMON NAME	CONT		
LAWN	7,498 sf	Lawn	Lawn	seed		



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Drawn By: BNL Checked By: TEM

**Plant Schedule
and Planting
Details**

Scale: As Noted

Sheet: **LD 1**

Base plan information provided electronically
by The Architectural Team of Chelsea, MA and
Kelly Engineering Group of Braintree, MA

General Landscape Notes:

- 1.1) CONTRACTOR REQUIREMENTS:
A) ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND REGULATIONS, FROM ALL FEDERAL, STATE AND LOCAL AUTHORITIES.
- B) THE CONTRACTOR SHALL ARRANGE FOR AND OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR THE COMPLETE WORK SPECIFIED HEREIN AND SHOWN ON ALL THE DRAWINGS. THE CONTRACTOR SHALL PAY FOR ANY FEES NOT WAIVED.
- 1.2) UTILITIES:
A) LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE RELEVANT UTILITY COMPANIES PRIOR TO DOING ANY EXCAVATION ON THE SITE. IF ANY WORK IS TO BE DONE AROUND UNDERGROUND UTILITIES, THE APPROPRIATE AUTHORITY OF THAT UTILITY MUST BE NOTIFIED OF THE IMPENDING WORK.
- B) UTILITIES SHALL BE LOCATED AND MARKED PRIOR TO ANY INSTALLATION. ADJUSTMENTS MAY BE NECESSARY IN THE FIELD TO ACCOMMODATE UTILITY LOCATIONS. REPORT ANY CONFLICTS TO THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
- C) THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES DONE TO EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM THEIR FAILURE TO COMPLY.
- 1.3) PROTECTION OF EXISTING WORK: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN A MANNER THAT PROTECTS WORK COMPLETED BY OTHERS, SUCH AS CURBS, UTILITIES, STORM DRAINAGE, FENCES, DRIVEWAY APRONS, DRIVES, VEGETATION, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM THEIR FAILURE TO COMPLY.
- 1.4) QUANTITIES: A COMPLETE LIST OF PLANTS INCLUDING A SCHEDULE OF QUANTITIES, SIZES, TYPES, AND NAMES IS INCLUDED IN THIS SET OF DRAWINGS. IN THE EVENT OF DISCREPANCIES BETWEEN QUANTITIES OF PLANT IN THE PLANT LIST AND THE QUANTITIES SHOWN ON THE DRAWINGS, THE PLAN SHALL GOVERN. THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF UNLABELED PLANTS IN PLAN FOR CLARIFICATION. THE LANDSCAPE ARCHITECT SHALL BE ALERTED BY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO FINAL BID NEGOTIATION.
- 1.5) APPLICABLE PLANT MATERIALS STANDARDS: ALL PLANT MATERIALS ARE TO COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. PLANTING METHODS WILL BE IN ACCORDANCE WITH SITE-SPECIFIC REQUIREMENTS.
- 1.6) PLANT HARDINESS: ALL TREES AND SHRUBS SHALL BE NURSERY GROWN WITHIN A USDA PLANT HARDINESS ZONE, WHICH IS THE SAME AS, OR COLDER THAN, THE ZONE IN WHICH THE PROJECT IS LOCATED.
- 1.7) PLANTING SEASONS: PLANTING SHALL ONLY OCCUR DURING SPECIFIED SEASONS. SPRING SEASON SHALL BE FROM MARCH 1 TO JUNE 15. FALL PLANTING SEASON SHALL BE FROM SEPTEMBER 15 THROUGH NOVEMBER 15. NO PLANTING SHALL OCCUR WHEN THE GROUND IS FROZEN.
- 1.8) PLANT SUBSTITUTIONS: NO SUBSTITUTIONS OF PRODUCTS, PLANT TYPES OR SIZES SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. REQUESTS FOR SUBSTITUTION SHALL BE IN WRITING, AND SHALL STATE THE REASON FOR THE SUBSTITUTION REQUEST, THE SUGGESTED ALTERNATIVE AND THE CHANGES IN COST. REQUESTS FOR SUBSTITUTION IN PLANT MATERIALS SHALL STATE THE NAMES OF NURSERIES THAT HAVE BEEN UNABLE TO SUPPLY THE ORIGINALLY SPECIFIED MATERIAL.
- 1.9) THE LANDSCAPE ARCHITECT SHALL RESERVE THE RIGHT TO INSPECT ALL PLANT MATERIALS AT THE NURSERY, UPON SITE DELIVERY AND DURING INSTALLATION TO INSURE SPECIFICATIONS AND PROCEDURES ARE ADHERED TO.
- 1.10) MINIMUM SIZES: ALL PLANTS 3" OR GREATER IN HEIGHT OR SPREAD SHALL BE BALLED AND BURLAPPED. SIZES SPECIFIED IN THE PLANT LIST ARE MINIMUMS ON WHICH THE PLANTS ARE TO BE JUDGED.
- 1.11) DEAD PLANTS: DEAD PLANTS ARE TO BE REMOVED FROM THE SITE IMMEDIATELY, AND REPLACED WITH THE SAME PLANT & SIZE REGARDLESS OF SEASON, WEEKLY FROM THE JOB BY THE CONTRACTOR. THE CONTRACTOR SHALL MAINTAIN AN UPDATED COMPREHENSIVE LIST OF ALL DEAD MATERIALS REMOVED AND PRESENT A COPY OF THE LIST TO THE OWNER AND LANDSCAPE ARCHITECT AT THE END OF EVERY MONTH DURING THE CONTRACT PERIOD.
- 1.12) PLANT MATERIAL REMOVAL: NO EXISTING TREES SHALL BE REMOVED WITHOUT THE WRITTEN AUTHORIZATION FROM THE LANDSCAPE ARCHITECT EXCEPT WHERE NOTED ON THE PLANS. CONTRACTORS WHO REMOVE EXISTING TREES WITHOUT WRITTEN APPROVAL WILL BE REQUIRED TO MAKE REMEDIES DETERMINED BY THE GOVERNING URBAN FORESTER OR EQUIVALENT AUTHORITY. NO GRUBBING SHALL OCCUR WITHIN EXISTING TREE AREAS UNLESS SPECIFICALLY NOTED ON THE PLANS.
- 1.13) ALL DISTURBED AREAS NOT TO RECEIVE PLANT MATERIALS ARE TO BE LOAMED AND SEEDED AND BLENDED INTO EXISTING GRADE AND CONDITIONS. SEE SECTION 4.0.
- 1.14) LEDGE BOULDERS: IF DURING SITE EXCAVATION, LEDGE BOULDERS ARE AVAILABLE, THESE ARE TO BE STOCKPILED FOR USE IN EARTH BERMS IF APPLICABLE, WITH HAWK DESIGN, INC. PRIOR TO INSTALLATION. THIS ITEM WILL ONLY APPLY IF SO SPECIFIED ON DRAWINGS. BOULDERS SIZES TO BE STOCKPILED WILL RANGE FROM TWO TO FIVE FEET IN DIAMETER. SEE APPROPRIATE DETAIL FOR INSTALLATION COORDINATION.
- 1.15) SLEEVES: LANDSCAPE OR SITE CONTRACTOR SHALL PLACE INDIVIDUAL SLEEVES FOR LIGHTING AND IRRIGATION UNDER ANY PROPOSED WALKWAY OR VEHICULAR ROADWAY PRIOR TO INSTALLATION. COORDINATE SLEEVE LOCATIONS WITH IRRIGATION AND LIGHTING CONTRACTORS PRIOR TO INSTALLATION.
- 1.16) DO NOT CLOSE OR OBSTRUCT ANY STREET, SIDEWALK, ALLEY OR PASSAGEWAY WITHOUT PRIOR NOTIFICATION AND PERMISSION. CONDUCT OPERATIONS AS TO INTERFERE AS LITTLE AS POSSIBLE WITH THE USE ORDINARILY MADE OF ROADS, DRIVEWAYS, ALLEYS, SIDEWALKS OR OTHER FACILITIES NEAR ENOUGH TO THE WORK TO BE EFFECTED THEREBY.

Planting Materials:

- 2.1) PLANTING MATERIAL ITEMS IN SECTION 2.0 ARE TO BE INCORPORATED DURING PLANT INSTALLATION UNLESS OTHERWISE DEEMED UNNECESSARY IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS. SEE SECTION 3.1.
- MULCH - MULCH WILL BE DOUBLE-SHREDDED PINE BARK MULCH.
- TREES AND SHRUBS SHALL RECEIVE AN EVEN 3" MULCH LAYER.
- GROUNDCOVERS, PERENNIALS AND ANNUALS SHALL RECEIVE AN EVEN 2" MULCH LAYER.
- MANURE- TO BE WELL ROTTED, ODORLESS, UNLEACHED COW MANURE, CONTAINING NOT MORE THAN 15% BEDDED MATERIALS SUCH AS STRAW, WOOD CHIPS OR SHAVINGS, AGED NOT LESS THAN TWO YEARS OLD.
- HERBICIDE- A PRE-EMERGENCE WEED KILLER IS TO BE USED ON ALL LAWN AND PLANTING AREAS PRIOR TO INSTALLATION AS PER MANUFACTURER'S SPECIFICATIONS. *HERBICIDES ARE NOT TO BE APPLIED IN RESTRICTED CONSERVATION AREAS.
- FERTILIZER- ALL TREES AND SHRUBS TO HAVE SLOW RELEASE PACKET OR PELLET PLACED INTO THE PLANT PIT WITH A MINIMUM ANALYSIS OF 10-10-10. ALL GROUNDCOVERS, PERENNIALS AND ANNUALS ARE TO RECEIVE A BROADCAST APPLICATION OF A 14-14-14 FERTILIZER AT 3 LB PR 100 SQ. FT. APPLY AS PER MANUFACTURER'S INSTRUCTIONS. *FERTILIZERS ARE NOT TO BE APPLIED IN RESTRICTED CONSERVATION AREAS.
- TOPSOIL- ACCEPTABLE TOPSOIL SHALL BE FERTILE, FRIABLE NATURAL LOAM, UNIFORM IN COMPOSITION, FREE OF STONES, LIMBS, PLANTS AND THEIR ROOTS, DEBRIS AND OTHER EXTRANEOUS MATTER OVER ONE INCH IN DIAMETER. THE SOIL SHALL BE CAPABLE OF SUSTAINED PLANT GROWTH AND HAVE A 5% MINIMUM ORGANIC CONTENT. IN SITUATIONS WHICH REQUIRE A CUSTOM TOPSOIL OR STRUCTURAL SOIL, THE SOIL MIXTURE SPECIFICATION WILL BE PROVIDED BY THE LANDSCAPE ARCHITECT.
- SOIL AMENDMENTS: APPLY AS NECESSARY ACCORDING TO SOIL TEST RESULTS, AS PER MANUFACTURES SPECIFICATIONS.
- ANTI-DESICCANT- "WILT PRU" NCF OR EQUAL APPLY AS PER MANUFACTURERS' SPECIFICATIONS.
- 2.2) ALL PLANTS SHALL BE TRANSPORTED TO THE SITE IN COVERED TRUCKS, TARPULIN COVERS SHALL BE UTILIZED TO PREVENT WIND DAMAGE OF LOAD.
- 2.3) DELIVER PLANT MATERIALS IMMEDIATELY PRIOR TO PLACEMENT. KEEP PLANT MATERIALS MOIST. DO NOT STORE PLANT MATERIAL ON PAVED AREAS. ROOTS OR BALLS SHALL BE PROTECTED FROM THE SUN OR DRYING WINDS. AS REQUIRED BY TEMPERATURE OR WIND CONDITIONS, APPLY ANTI-DESICCANT EMULSION TO PREVENT DRYING OUT OF PLANT MATERIALS.
- 2.4) CONDITIONS FOR PLANT REJECTION:
A) REJECT PLANTS WHEN BALL OF EARTH SURROUNDING ROOTS HAS BEEN CRACKED OR BROKEN PREPARATORY TO OR DURING THE PROCESS OF PLANTING.
- B) WHEN BURLAP, STAVES AND ROPES REQUIRED IN CONNECTION WITH TRANSPLANTING HAVE BEEN DISPLACED PRIOR TO ACCEPTANCE.
- C) WIND DAMAGED PLANT MATERIAL FROM POOR TARPULIN COVER PROCEDURES ARE SUBJECT TO REJECTION.
- 2.5) ALL PLANT MATERIAL, WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY, SHALL BE SET ON THE GROUND IN A SHADED LOCATION AND SHALL BE TEMPORARILY PROTECTED WITH SOIL OR OTHER ACCEPTABLE MATERIAL. TEMPORARY WATERING OR IRRIGATION SHALL BE INCORPORATED AND REGULARLY CONDUCTED ON PLANTINGS IN HOLD AREAS.
- 2.6) IN CASE OF CONFLICTS DURING CONSTRUCTION WITH UTILITIES, ROCK MATERIALS, TREE ROOTS OR OTHER OBSTRUCTIONS FOR THE EXCAVATION OF SHRUB BEDS AND TREE PITS. CONTACT LANDSCAPE ARCHITECT FOR APPROVED ALTERNATE LOCATIONS.
- 2.7) SOIL PERMEABILITY: TEST DRAINAGE OF PLANTING BEDS AND PITS BY FILLING WITH WATER TWICE IN SUCCESSION. CONDITIONS PERMITTING THE RETENTION OF WATER FOR MORE THAN 24 HOURS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
- 2.8) SOIL EXCAVATIONS:
A) EXCAVATE TREE PITS AND SHRUB BEDS TO DEPTHS REQUIRED BY PLANTING DETAILS. ALL PITS SHALL BE CIRCULAR IN OUTLINE, EXCEPT FOR WHOLE BEDS. SEE APPROPRIATE PLANTING DETAILS.
- B) SOIL EXCAVATIONS FOR BALLED & BURLAP AND CONTAINER PLANTINGS MUST BE NO LESS THAN 2X ROOT BALL DIAMETER, SEE PLANTING DETAILS. IF QUESTIONABLE SUBSURFACE SOIL CONDITIONS EXIST SUCH AS POOR DRAINAGE CONDITIONS, RUBBLE OR OBSTRUCTIONS, REPORT TO THE LANDSCAPE ARCHITECT AND CONSTRUCTION MANAGER BEFORE PLANTING.
- 2.9) GRADING:
A) VERIFY GRADES PRIOR TO PLANTING, THE CONTRACTOR SHALL VERIFY THAT CONSTRUCTED GRADES ARE AS INDICATED ON PLANS. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IF ADJUSTMENTS TO PLANT PLACEMENT MAY BE REQUIRED DUE TO FIELD CONDITIONS AND FINAL GRADING.
- B) POSITIVE DRAINAGE SHALL BE MAINTAINED AWAY FROM AND AROUND BUILDINGS (REFER TO ENGINEERS GRADING PLANS). REPORT ANY CONFLICTS TO HAWK DESIGN, INC. PRIOR TO INSTALLATION.
- C) FINISH GRADE OF PLANTINGS SHALL BE EQUIVALENT TO FORMER EXISTING GRADE OF PLANT IN THE NURSERY.
- 3.10) BALLED AND BURLAPED (B&B) MATERIALS:
A) CUT WIRE BASKETS ONCE IN THE PLANT PIT AND PEEL WIRE BACK.
- B) TAGS AND TWINE ARE TO BE REMOVED AND BURLAP IS TO BE ROLLED BACK ONE-THIRD ON ALL B&B PLANT MATERIAL. ANY SYNTHETIC BURLAP SHALL BE COMPLETELY REMOVED FROM ANY PLANT MATERIAL

Plant Installation Cont'd

- 3.11) CONTAINER GROWN STOCK: SHALL BE REMOVED FROM CONTAINER BY CUTTING CONTAINER AWAY TO AVOID ROOT DAMAGE TO PLANT ROOT SYSTEM. IF PLANT ROOT IS BOUND, SLICE ROOT BALLS APPROXIMATELY 2" DEEP WITH KNIFE OR SHARP SPADE.
- 3.12) DO NOT USE MUDDY OR FROZEN SOIL TO BACKFILL PLANTINGS.
- 3.13) WATERING: THOROUGHLY WATER UNTIL SOIL IS SATURATED AROUND ALL TREES AND SHRUBS AFTER PLANTING AND THROUGHOUT THE TIME PERIOD UNTIL FINAL ACCEPTANCE FROM CLIENT. DURING DRY CONDITIONS, WATER AS REQUIRED TO MAINTAIN PLANTS IN A WILT-FREE CONDITION.
- 3.14) PRUNING: TREES SHALL BE PRUNED TO BALANCE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR NATURAL CHARACTER AND TYPICAL GROWTH HABIT. PRUNING SHALL BE RESTRICTED IN GENERAL TO THE SECONDARY BRANCHES AND SUCKER GROWTH. ALL CUTS TO BE FLUSH WITH TRUNK. DO NOT CUT A LEADER. THE LANDSCAPE ARCHITECT WILL REJECT ALL PLANTS DISFIGURED BY POOR PRUNING PRACTICES. ALL PRUNING CUTS SHALL REMAIN UNPAINTED.
- 3.15) STAKING AND GUYING: ALL TREES TO BE STAKED AND GUYED WITHIN 48 HOURS OF PLANTING. METHODS AND MATERIALS FOR STAKING AND GUYING ARE ILLUSTRATED IN INDIVIDUAL PLANTING DETAILS. NEATLY FLAG ALL GUY WIRES WITH ROT RESISTANCE YELLOW TREE MARKING RIBBON.
- 3.16) STAKE OUT PLANT LOCATIONS: PRIOR TO PLANTING THE CONTRACTOR SHALL LAYOUT THE EXTENT OF THE PLANT BEDS AND PROPOSED LOCATIONS FOR B&B PLANTS FOR REVIEW BY THE OWNER AND LANDSCAPE ARCHITECT.
- 3.17) PLANTING FIELD ADJUSTMENTS:
A) THE CONTRACTOR IS TO SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES.
- B) LARGE GROWING PLANTS ARE NOT TO BE PLANTED IN FRONT OF WINDOWS OR UNDER BUILDING OVERHANGS. NOTIFY THE LANDSCAPE ARCHITECT OF DISCREPANCIES IN PLANTING PLAN VS. FIELD CONDITIONS.
- C) SHRUBS PLANTED NEAR HVAC UNITS ARE TO BE LOCATED SO THAT SHRUBS AT MATURITY WILL MAINTAIN ONE FOOT (1') AIRSPACE BETWEEN THE UNIT AND THE PLANT. ANY PLANTING SHOWN ADJACENT TO CONDENSER UNITS SHALL BE PLANTED TO SCREEN THE UNITS. SHOULD THE CONDENSER UNITS BE INSTALLED IN LOCATIONS DIFFERENT FROM THOSE SHOWN ON THE PLAN, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE LANDSCAPE ARCHITECT AND INSTALL THE MATERIAL AROUND THE CONDENSERS AND ADJUST THE OTHER PLANTING ACCORDINGLY.
- 3.18) PLANT BED EDGES/LINES: GROUPS OF SHRUBS, PERENNIALS AND GROUNDCOVERS SHALL BE PLACED IN A CONTINUOUS MULCH BED WITH SMOOTH CONTINUOUS LINES. ALL MULCHED BED EDGES SHALL BE CURVILINEAR IN SHAPE, FOLLOWING THE CONTOUR OF THE PLANT MASS. TREES LOCATED WITHIN 4 FEET OF PLANT BEDS SHALL SHARE THE SAME MULCH BEDS.
- 3.19) A.D.A. - THE AMERICAN WITH DISABILITIES ACT STANDARDS REQUIRE THAT A 7 FOOT VERTICAL CLEARANCE BE MAINTAINED FROM TREE BRANCHES TO FINISHED GRADE WHERE PEDESTRIANS SIDEWALKS AND/OR TRAILS ARE LOCATED. THE CONTRACTOR IS TO ADJUST TREE PLANTINGS IN FIELD TO SLIGHTLY MINIMIZE BRANCH OVERHANG AND COMPLY WITH THE A.D.A. ACT.
- 3.20) TREE SPACING MINIMUMS: TREES SHALL BE LOCATED A MINIMUM OF 4 FEET FROM RETAINING WALLS AND WALKS WITHIN THE PROJECT. IF A CONFLICT ARISES BETWEEN ACTUAL SIZE OF AREA AND PLANS, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE MATERIALS.

Seeding and Sodding:

- 4.1) SEEDING OF LAWN AREAS: GRASS SEED APPLICATION SHALL BE SPREAD AT THE RATE OF 5 LBS. PER 1,000 SQUARE FEET, SEEDING SHALL BE ACCOMPLISHED BY MEANS OF A HYDRO-SEEDING PROCESS.
- 4.2) WATERING OF SEEDED AREAS: 24 HOURS AFTER HYDRO SEEDING, THE CONTRACTOR SHALL WATER THE SEEDED AREA LIGHTLY AND SUFFICIENTLY TO A DEPTH OF TWO INCHES (2") 2 TIMES A DAY (BETWEEN THE HOURS OF 7 PM AND 7 AM), UNTIL THE SEEDS ARE ESTABLISHED.
- 4.3) SEEDED AREA PROTECTION: THE CONTRACTOR SHALL ERECT SUITABLE SIGNS AND BARRICADES NOTIFYING THE PUBLIC TO KEEP OFF THE SEEDED AREAS UNTIL WELL ESTABLISHED. ANY TRAFFIC DAMAGE AND VANDALISM THAT MAY OCCUR PRIOR TO FINAL ACCEPTANCE OF THE WORK SHALL BE REPAIRED AND RESEEDED AT THE OWNER'S EXPENSE. ANY DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.
- 4.4) LAYING OF SOD: A KENTUCKY BLUEGRASS SOD MIX - BY LOCAL SOURCE AS SELECTED BY CONTRACTOR, SHALL BE FRESHLY CUT FROM THE SAME FIELD WITH 1/2 - 3/4 INCHES OF SOIL. SOD SHALL BE LAID IMMEDIATELY WITH ANY STORED SOD BEING UNROLLED GRASS SIDE UP AND KEPT WATERED. LAY COURSES TIGHTLY TOGETHER WITHOUT OVERLAPPING WITH THE JOINTS STAGGERED. AFTER SODDING IS COMPLETE, ROLL LIGHTLY. THE CONTRACTOR SHALL WATER THE SODDED AREAS TO A DEPTH OF AT LEAST SIX INCHES AFTER THE SODDING PROCESS. OWNER SHALL THEN BE RESPONSIBLE FOR WATERING. THE FREQUENCY SHALL BE DETERMINED BY RAIN FALL AND WINDS WITH THE UPPER TWO OR THREE INCHES OF SOIL NOT DRYING OUT MARKEDLY.
- 4.5) SODDED AREA: INSPECTION AND ACCEPTANCE: FOUR WEEKS AFTER CONTRACTOR COMPLETES INSTALLATION, LANDSCAPE ARCHITECT SHALL INSPECT THE LAWN TO DETERMINE THE ACCEPTABILITY OF THE INSTALLATION. SODDED AREAS FAILING TO SHOW ADEQUATE ROOTING INTO THE SUBSOIL, OVERLAPPING, COURSE SEPARATION, UNEVENNESS OF THE SURFACE, UNEVEN COURSE COLOR AND EXCESSIVE BROADLEAF WEED CONTENT SHALL BE REPLACED. THE COST SHALL BE BORNE BY THE CONTRACTOR EXCEPT WHERE VANDALISM OR NEGLECT ON THE PART OF OTHERS NOT UNDER THE CONTRACTORS CONTROL HAS RESULTED IN DAMAGE.
- 4.6) FINAL APPROVAL: SEEDED AND SODDED AREAS WILL RECEIVE FINAL APPROVAL IF COVERAGE IS FULL AND CONSISTENT, FREE OF BARE SPOTS AND WEED FREE. WHEN GRASS IS CUT AT 2" HEIGHT NO SOIL SHOULD BE VISIBLE. SOD AREAS MUST HAVE RECEIVED A MINIMUM OF TWO MOWINGS. AREAS SODDED AFTER NOVEMBER 1ST WILL BE ACCEPTED THE FOLLOWING SPRING - ONE MONTH AFTER THE START OF THE GROWING SEASON, IF THE ABOVE CRITERIA HAS BEEN MET.

Maintenance:

- 5.1) MAINTENANCE DURING INSTALLATION: MAINTENANCE OPERATIONS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE AS REQUIRED UNTIL FINAL ACCEPTANCE AND THEN FOR THE GUARANTEE PERIOD. PLANTS SHALL BE KEPT IN A HEALTHY, GROWING CONDITION BY WATERING, PRUNING, SPRAYING, WEEDING AND ANY OTHER NECESSARY OPERATIONS OF MAINTENANCE. PLANT SAUCERS AND BEDS SHALL BE KEPT FREE OF WEEDS, GRASS AND OTHER UNDESIRIED VEGETATION. PLANTS SHALL BE INSPECTED AT LEAST ONCE PER WEEK BY THE CONTRACTOR DURING THE INSTALLATION PERIOD AND ANY NEEDED MAINTENANCE IS TO BE PERFORMED PROMPTLY.
- 5.2) GRASS AND WEED CONTROL: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MOWING ALL GRASS AROUND LANDSCAPE BEDS AND INDIVIDUAL TREES AND SHRUBS UNTIL FINAL ACCEPTANCE. WEED CONTROL AREAS SHALL INCLUDE ALL LANDSCAPE BEDS AND THE AREA WITHIN 2 FEET OF THE OUTER EDGE OF THE MULCH AREA OR INDIVIDUAL TREE/SHRUBS.
- 5.3) THE CONTRACTOR SHALL WATER, FERTILIZE, WEED, CULTIVATE, REMULCH, SPRAY TO CONTROL INSECT INFESTATION AND DISEASE AND PERFORM ANY OTHER GOOD HORTICULTURAL PRACTICE NECESSARY TO MAINTAIN THE PLANTS IN A LIVING HEALTHY CONDITION UPON THE TIME FOR TERMINATION OF HIS RESPONSIBILITY FOR CARE AS SET OUT HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLANTS THROUGHOUT LIFE OF THE CONTRACT.
- 5.4) ALL PLANTS STOLEN, DAMAGED OR DESTROYED BY FIRE, AUTOMOBILES, VANDALISM OR ANY OTHER CAUSE, WITH THE EXCEPTION OF PLANTS DAMAGED OR DESTROYED BY THE OWNERS MAINTENANCE OPERATIONS, SHALL BE REPLACED BY THE OWNER PRIOR TO THE DATE OF FINAL ACCEPTANCE.
- 5.5) LANDSCAPE CONTRACTOR SHALL PREPARE MAINTENANCE SPECIFICATIONS AND SCHEDULE ANNUAL CARE OF ALL PLANTED AND LAWN AREAS INCLUDING FERTILIZING, WEEDING, MULCHING, BED EDGING, PRUNING AND PEST PREVENTION AND TREATMENT.

Plant Material Guarantee:

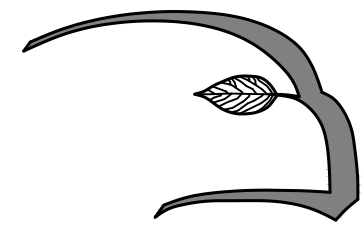
- *CONTRACTOR SHALL GUARANTEE IN WRITING ALL PLANT MATERIAL AND LANDSCAPE IMPROVEMENTS FOR A PERIOD OF ONE YEAR. THE GUARANTEE IS TO INCLUDE THE FOLLOWING:
- 6.1) INSPECTIONS: PERFORM PERIODIC INSPECTIONS DURING GUARANTEE PERIOD WITH RESULTING WRITTEN REPORTS TO OWNER, PROJECT ADMINISTRATOR AND LANDSCAPE ARCHITECT STATING CONDITIONS AND RECOMMEND MAINTENANCE MODIFICATIONS. THE CONTRACTOR MUST CONTACT THE OWNER AND LANDSCAPE ARCHITECT AT LEAST 10 DAYS IN ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S).
- 6.2) REMOVAL AND REPLACEMENT OF PLANTS PROVIDED BY CONTRACTOR TO BE DONE WITHIN THIRTY DAYS OF NOTIFICATION BY OWNER OF THEIR UNSATISFACTORY CONDITION DURING GROWING SEASONS. REPLACEMENT MATERIALS MUST BE EQUAL IN TYPE AND SIZE PER THE PROJECTS PLANT LIST.
- 6.3) WHEN REPLACEMENT PLANT SPECIES IS EITHER NOT READILY AVAILABLE OR NO LONGER SUITABLE TO EXISTING SITE CONDITIONS WRITTEN NOTICE RECOMMENDATION OF SUBSTITUTION TO BE PROVIDED TO THE OWNER AND LANDSCAPE ARCHITECT WITHIN FIFTEEN DAYS FOR APPROVAL.
- 6.4) REMOVAL OF TREE'S SUPPORTS AND DEAD LIMBS PRIOR TO END OF GUARANTEE INSPECTION PERIOD.
- 6.5) CONTINUE WITH MAINTENANCE, SEE SECTION 5.0
- 6.6) GUARANTEE SHALL BEGIN UPON DATE OF FINAL ACCEPTANCE FROM OWNER AND WILL CONTINUE FOR ONE YEAR.

Site Cleanup:

- 7.1) SITE WORK CONDITIONS: EXCESS WASTE MATERIAL SHALL BE REMOVED DAILY WHEN PLANTING IN AN AREA HAS BEEN COMPLETED, THE AREA SHALL BE CLEARED OF ALL DEBRIS, SOIL PILES AND CONTAINERS DAILY. WHERE EXISTING GRASS AREAS HAVE BEEN DAMAGED OR SCARRED DURING PLANTING OPERATIONS, THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITIONS AT HIS EXPENSE.
- 7.2) CLEAN PAVED AREAS UTILIZED FOR HAULING OR EQUIPMENT STORAGE AT END OF EACH WORKDAY.
- 7.3) MAINTAIN VEHICLES AND EQUIPMENT IN CLEAN CONDITION TO PREVENT SOILING OF ROADS, WALKS OR OTHER PAVED OR SURFACED AREAS.
- 7.4) REMOVE PROTECTIVE BARRIERS AND WARNING SIGNS AT TERMINATION OF LAWN ESTABLISHMENT.

Irrigation Notes:

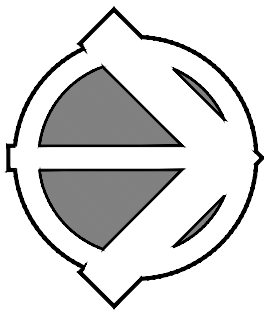
- 8.1) ALL IRRIGATION SYSTEM COMPONENTS SHALL BE SUPPLIED BY REGIONALLY AUTHORIZED DISTRIBUTORS TO PROVIDE SINGLE SOURCE RESPONSIBILITY FOR WARRANTY SERVICE AND OPERATIONS TO CONFORM TO SPECIFICATIONS IN ALL RESPECTS.
- 8.2) THE CONTRACTOR IS TO SUBMIT PLANS PREPARED BY A IRRIGATION SPECIALIST TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
- 8.3) ALL LINE VOLTAGE TO CONTROLLER AND ASSOCIATED BREAKER, CONDUIT ETC TO BE PERFORMED BY A LICENSED ELECTRICIAN.
- 8.4) ALL WIRES FOR RAIN SENSOR TO BE RUN IN SCHEDULE 40 PVC CONDUIT FOR APPLICATIONS IN EXPOSED AREAS UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT.
- 8.5) SLEEVES TO BE COORDINATED, LOCATED AND INSTALLED UNDER ALL HARDSCAPE FEATURES SUCH AS WALKS, WALLS AND DRIVEWAYS. THE CONTRACTOR IS TO IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT OF ALL CONFLICT AND DISCREPANCIES.
- 8.6) CONTRACTOR WILL REVIEW WITH CLIENT ALL IRRIGATION PROCEDURES AND PROCESSES (i.e. TIMERS, ZONES AND ALL OTHER ITEMS INVOLVED W/ THE IRRIGATION SYSTEM) AND PROVIDE NECESSARY DOCUMENTATION FOR OPERATION OF IRRIGATION SYSTEM.
- 8.7) THE CONTRACTOR IS TO PROVIDE WIRES FOR FUTURE EXPANSION IN 1/2" DIAMETER VALVE BOX AS DIRECTED BY THE LANDSCAPE ARCHITECT OR CLIENT.
- 8.8) UNLESS INDICATED OTHERWISE, ALL PLANT BEDS ARE TO BE IRRIGATED WITH DRIP IRRIGATION, ALL LAWN AREAS TO BE IRRIGATED WITH SPRAY HEADS.



Hawk Design, Inc.
Landscape Architecture
Land Planning

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Date: 6/2/22

Revisions:

Num. Date Description



Balfour at Needham
100 West Street Needham, Massachusetts
WELL Balfour Needham Landlord LLC
HCRI Massachusetts Properties Trust II
4500 Dorr Street, Toledo, Ohio 43615

Drawn By: BNL Checked By: TEM

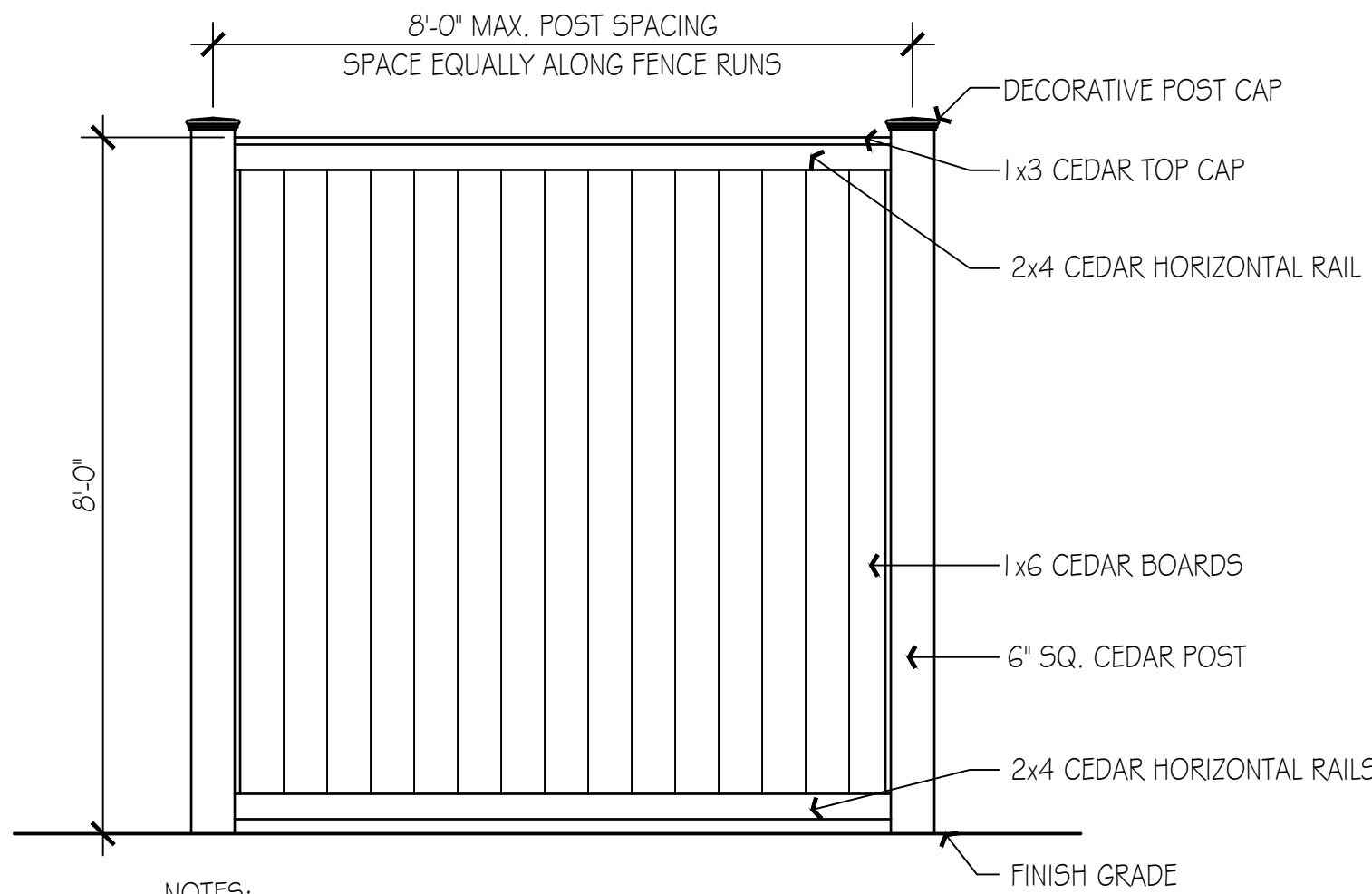
Planting
Notes

Scale: As Noted

Sheet:

LD 2

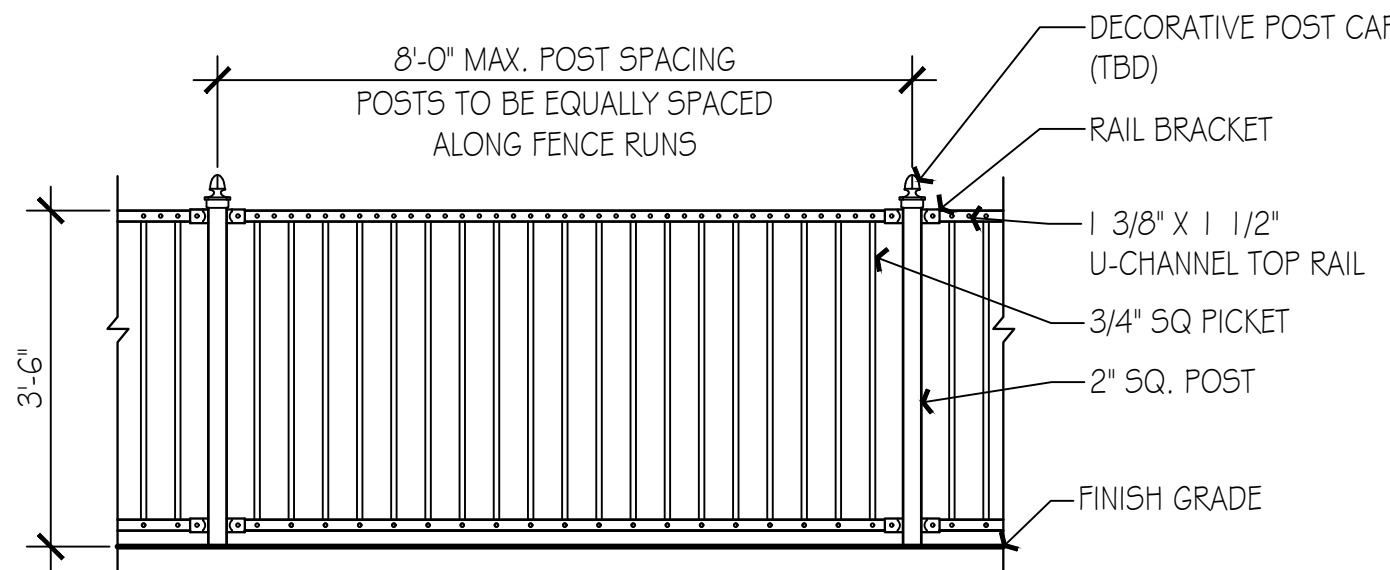
Base plan information provided electronically by The Architectural Team of Chelsea, MA and Kelly Engineering Group of Braintree, MA



- NOTES:
1. TOP CAP TO HAVE 5% WATER SHED
 2. ALL SCREWS AND FASTENERS TO BE STAINLESS STEEL
 3. ALL FASTENERS AND PLUGS SHOULD BE ALIGNED TO FORM A PATTERN AND SANDED SMOOTH

1 8' Height Privacy Fence

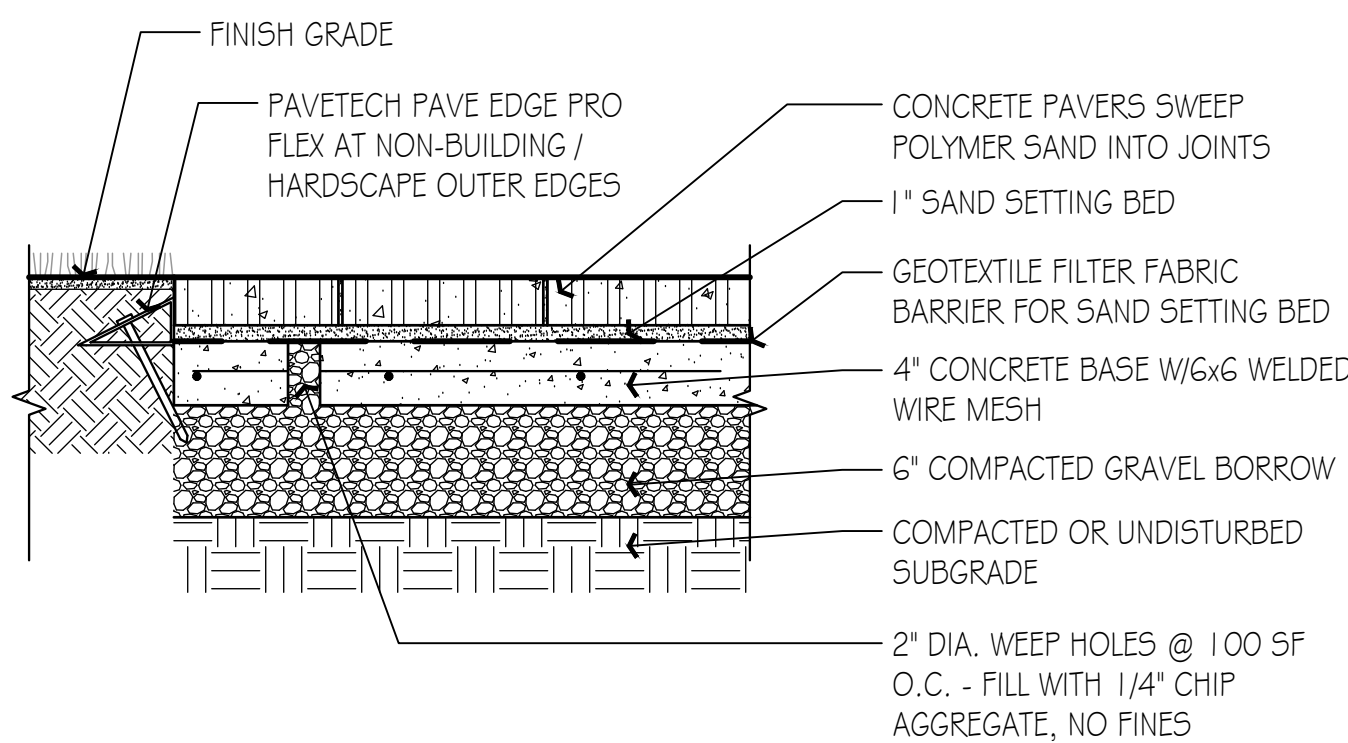
Scale: 1/2" = 1'-0"



- NOTES:
1. ALL FENCE COMPONENTS TO BE POWDER COATED BLACK COLOR

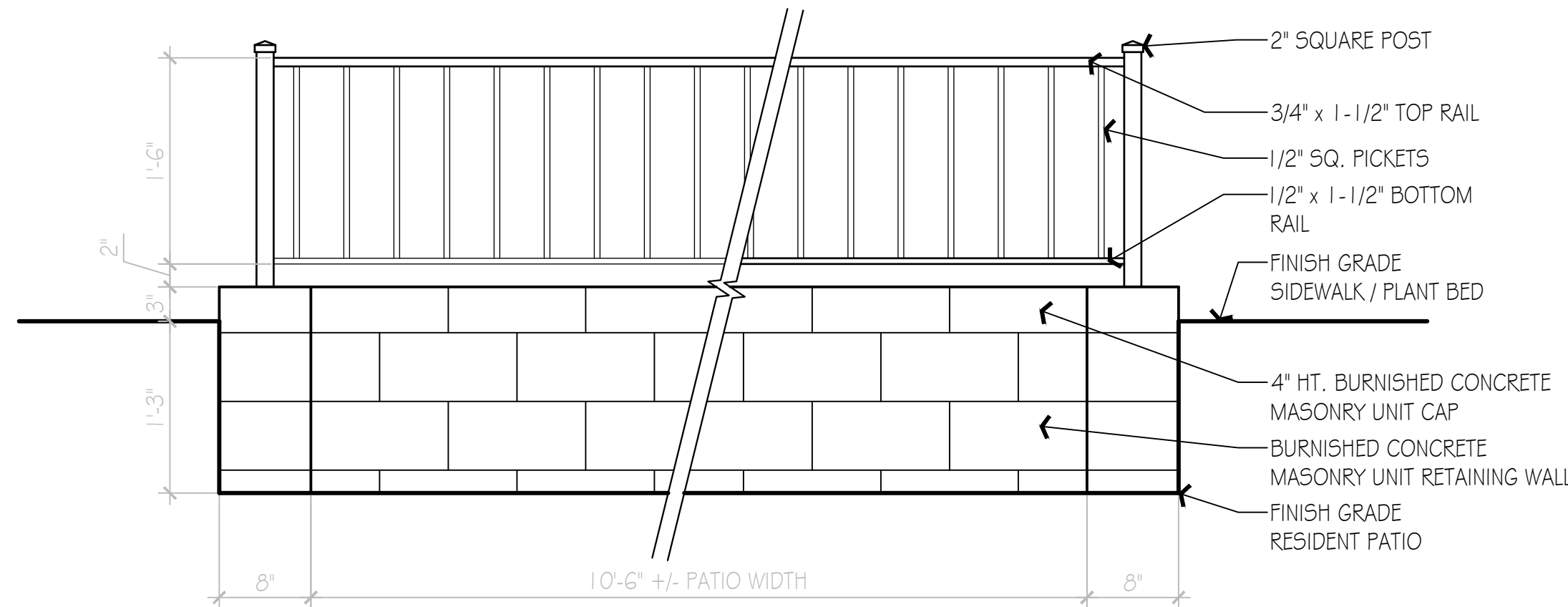
2 42" Height Ornamental Metal Fence

Scale: 1/2" = 1'-0"



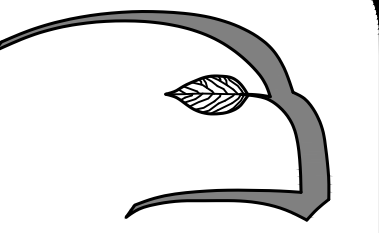
3 Brick Paver

Scale: 1" = 1'-0"



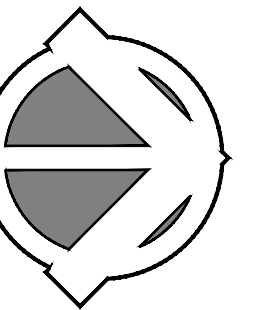
4 Resident Patio Retaining Wall and Fence

Scale: 1" = 1'-0"



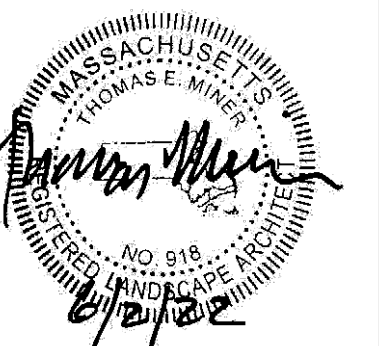
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Date: 6/2/22

Revisions:
Num. Date Description



Balfour at Needham
100 West Street Needham, Massachusetts
WELL Balfour Needham Landlord LLC
HCRI Massachusetts Properties Trust II
4500 Dorr Street, Toledo, Ohio 43615

Drawn By: BNL Checked By: TEM

**Construction
Details**

Scale: As Noted

Sheet: **LD 3**

Base plan information provided electronically
by The Architectural Team of Chelsea, MA and
Kelly Engineering Group of Braintree, MA

MEMORANDUM

TO: Lee Newman, Director of Planning & Community Development
FROM: Erin Fredette, P.E.
DATE: June 2, 2022
RE: Traffic Assessment
Balfour at Needham
100 West Street
Needham, Massachusetts

McMahon has completed a traffic assessment for the proposed Balfour at Needham assisted living redevelopment at 100 West Street in Needham, Massachusetts. The Balfour at Needham proposal would include the redevelopment of the site and building to provide 155 units of senior assisted living and memory care. An assisted and independent senior living development previously proposed for the site by LCB Senior Living, LLC (The Residence at Carter Mill) was granted a Major Project Site Plan Review Special Permit by the Needham Planning Board on May 18, 2021. The previously-approved Residence at Carter Mill project would have converted the existing building at 100 West Street into 83 units of senior assisted living and 72 units of independent senior housing, for a total of 155 senior living units.

The projected transportation impacts to the surrounding roadway network under the Residence at Carter Mill, were documented in a Traffic Impact Study, prepared by McMahon Associates, dated February 2021, and submitted to the Planning Board as part of their site plan review application. The findings of that study indicated that the proposed Residence at Carter Mill redevelopment was not shown to have a significant impact on the overall traffic operations of the study area roadways and was not shown to require improvements to mitigate its limited impacts.

The following memorandum describes the existing conditions of the site and the surrounding roadway network and provides a comparison of the proposed Balfour at Needham development plan to the previously-proposed and approved LCB development plan as it relates to projected traffic and transportation impacts.

Adjacent Roadway Network

The study area for the Traffic Impact Study for the Residence at Carter Mill included the following study area intersections:

- Highland Avenue at West Street
- West Street at Hillside Avenue
- West Street at the Site Driveway/Avery Square
- Highland Avenue at the Site Driveway/Morton Street

Highland Avenue generally runs in the north-south direction and is classified as an urban principal arterial under Town of Needham jurisdiction. Highland Avenue generally provides one travel lane in each direction, each measuring approximately 14 feet in width with 8-foot-wide parking lanes on both sides of the roadway adjacent to the site. A sidewalk is provided on both sides of Highland Avenue and crosswalks are provided

across Highland Avenue at its signalized intersection with West Street. No bicycle facilities are provided. South of the site on Highland Avenue, a speed limit of 30 mph is posted for vehicles travelling in the southbound direction, and a speed limit of 25 mph is posted for vehicles travelling in the northbound direction.

West Street generally runs in the east-west direction and is classified as an urban collector under Town of Needham jurisdiction. West of the site, West Street provides one travel lane in each direction, measuring approximately 16.5 feet wide in the eastbound direction and approximately 12.5 feet wide in the westbound direction. Sidewalks are provided on the north and south side of West Street. At the signalized intersection of West Street and Highland Avenue, crosswalks and left turn lanes are provided on the West Street approaches. No bicycle facilities are provided on West Street. An advisory speed limit of 30 miles per hour (mph) is posted west of the site for vehicles travelling westbound, and an advisory speed limit of 25 mph is posted in both directions of travel to the east of the site.

Hillside Avenue generally runs in the north-south direction through the Town of Needham and is classified as an urban collector under Town of Needham jurisdiction. Hillside Avenue provides one travel lane in each direction, with sidewalks provided on both sides of the roadway north of West Street, and a sidewalk provided on the west side of the roadway south of West Street. A crosswalk is provided across Hillside Avenue on the north side of its intersection with West Street. An advisory speed limit of 30 miles per hour is posted in the southbound direction south of West Street.

Crash Analysis

Crash data for the study area intersections was obtained from the Massachusetts Department of Transportation (MassDOT) for the most recently available five-year period from 2015 through 2019. A summary of the crash data is attached to this memorandum. MassDOT Crash Rate Worksheet calculations were used to determine whether the crash frequencies at the study area intersections were unusually high given the travel demands at each location. The MassDOT Crash Rate Worksheet calculates a crash rate expressed in crashes per million entering vehicles. The calculated rate is then compared to the average rate for signalized and unsignalized intersections statewide and within MassDOT District 6. For signalized intersections, the statewide average crash rate is 0.78 crashes per million entering vehicles and the MassDOT District 6 crash rate is 0.71 crashes per million entering vehicles. For unsignalized intersections, the statewide average crash rate is 0.57 crashes per million entering vehicles and the MassDOT District 6 crash rate is 0.52 crashes per million entering vehicles.

The signalized intersection of West Street at Highland Avenue is reported to have experienced a total of 27 crashes during the five-year period analyzed, resulting in a crash rate of 0.69 crashes per million entering vehicles, which is lower than the statewide and District 6 average crash rates. The intersection is not currently identified as a MassDOT Highway Safety Improvement Project (HSIP) high-crash cluster. Of the 27 reported crashes at the intersection of West Street at Highland Avenue, eight were sideswipe collisions, six were angle collisions, six were rear-end collisions, three were single-vehicle collisions, two crashes involved bicyclists, one was a head-on collision, and the type of the remaining crash was not reported. Two of the reported crashes resulted in personal injury, 24 resulted in property damage only, and the severity of one crash was not reported.

The unsignalized intersection of West Street at Hillside Avenue is reported to have experienced a total of 45 crashes from 2015 to 2019, resulting in a crash rate of 2.16 crashes per million entering vehicles, which is higher than both the statewide and MassDOT District 6 crash rates for unsignalized intersections. Of the 45 crashes, a significant majority (36) were angle collisions. Of the remaining nine crashes, two were rear-end collisions, two were single-vehicle crashes, one was a head-on collision, one crash involved a bicyclist collision, and the type of three of the crashes is unknown. Of the 45 crashes, 29 crashes resulted in property damage only, while 13 resulted in personal injury and three were of unknown severity. The intersection is listed as a MassDOT HSIP high-crash cluster between the years of 2015 and 2019. The highest number of reported crashes during the five-year analysis period occurred in 2015 (12), and the lowest number of crashes was reported during 2019 (6).

The Town of Needham has identified the intersection of West Street and Hillside Avenue for inclusion in their prioritization plan through the MassDOT Complete Streets Funding Program. MassDOT Complete Streets Funding Program provides technical assistance and construction funding to eligible municipalities for safe and accessible improvements for all modes of travel and for people of all ages and abilities. The Town of Needham has requested funding in the amount of \$125,000 for pedestrian improvements at this location.

A total of seven crashes were reported at the intersection of West Street at the site driveway/Avery Square from 2015 to 2019. The resulting in a crash rate of 0.39 crashes per million entering vehicles is lower than the statewide and District 6 average crash rates for unsignalized intersections. Four of the reported crashes were angle collisions. All of the reported crashes at the intersection resulted in property damage only.

At the intersection of Highland Avenue at the site driveway/Morton Street, four crashes were reported during the five-year study period, resulting in a crash rate of 0.17 crashes per million entering vehicles, which is lower than the statewide and District 6 average crash rates. The severity of one crash is unknown, one crash involved a pedestrian, and the other two crashes were angle and sideswipe collisions. Of the four crashes, one crash resulted in property damage only, one resulted in personal injury and two were of unknown severity.

Project Site Generated Trips

As part of this assessment, the trip generating characteristics of the project site were reviewed. To establish the trip generation of the project, the Institute of Transportation Engineers (ITE) publication, *Trip Generation Manual, 11th Edition* was used as a reference. ITE is a national research organization of transportation professionals, and their publication provides traffic generation information for various land uses compiled from studies conducted by members nationwide.

Vehicle trip generation for the proposed Balfour at Needham project was calculated based on data published for ITE Land Use Code 254 (Assisted Living). The trip generation data contained within ITE for this land use is considered to include all manner of vehicle trips (employee, resident, community, emergency, etc.) and is intended to be considered as an average projection of vehicle trips to/from the project site. Vehicle trip rates were established in trips per number of beds in the proposed facility. The trip estimates associated with Balfour at Needham are summarized in Table 1 below.

Table 1: Project Trip Generation Summary

Description	Size	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily		
		In	Out	Total	In	Out	Total	In	Out	Total
Proposed Assisted Living ¹	180 beds	19	13	32	17	26	43	234	234	468

¹ ITE Land Use Code 254 (Assisted Living), based on 180 beds.

As shown in Table 1, the proposed Balfour at Needham project is estimated to generate approximately 32 vehicle trips (19 entering vehicles and 13 exiting vehicles) during the weekday morning peak hour and 43 vehicle trips (17 entering vehicles and 26 exiting vehicles) during the weekday afternoon peak hour. Over the course of a typical weekday the proposed Balfour at Needham project is estimated to project approximately 468 vehicle trips per day.

To provide a comparative scale of traffic impact relative to the previous on-site operations, the previously-approved Residence at Carter Mill project, and the proposed Balfour at Needham project, Table 2 provides a summary and comparison of the trip generating characteristics of each. Trip generation estimates for the previous project were estimated using ITE data for Land Use Codes 252 (Senior Adult Housing – Attached) and 254 (Assisted Living). Trip generation estimates for the previous on-site land uses were estimated using ITE data for Land Use Codes 254 (Assisted Living), 620 (Nursing Home), and 720 (Medical-Dental Office Building). The trip generation for the previous on-site operations and the previously-approved development was estimated based on the *Trip Generation Manual, 10th Edition*, which was the most current edition of the *Trip Generation Manual* at the time of the Residence at Carter Mill Traffic Impact Study. In order to provide consistency with the February 2021 Traffic Impact Study for the project, the trips in the below table are the previous estimates made using the 10th Edition.

Table 2: Historic Site Trip Generation Comparison

Description	Weekday AM Peak Hour			Weekday PM Peak Hour			Weekday Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Previous On-Site Land Uses ¹	48	18	66	27	59	86	463	463	926
Residence at Carter Mill ¹	16	16	32	20	24	44	257	257	514
Balfour at Needham Heights	19	13	32	17	26	43	234	234	468

¹ Based on analysis in the Residence at Carter Mill Traffic Impact Study - February 2021

As seen in Table 2, the previous on-site land uses are estimated to have generated nearly twice as many vehicle trips as the proposed Residence at Carter Mill redevelopment and the Balfour at Needham redevelopment during the weekday morning and weekday afternoon peak hours. The previously-approved Residence at Carter Mill project was estimated to generate approximately 32 vehicle trips (16 entering vehicles and 16 exiting vehicles) during the weekday morning peak hour, the same number of total trips as the current project proposal. During the weekday afternoon peak hour, the previously-approved project was estimated to result in 44 vehicle trips (20 entering vehicles and 24 exiting vehicles), one more than the proposed Balfour at Needham plan. With a lesser number of total trips associated with the Balfour at Needham project than the Residence at Carter Mill project, the impacts to the adjacent roadway network

are expected to be the same or less than those documented in the Traffic Impact Study for the Residence at Carter Mill. The very slight variation in entering trips versus exiting trips would not result in a significant change in the impacts to the adjacent roadway network.

Table 2 also documents the estimated total number of trips over the course of a typical weekday. The proposed Balfour at Needham project is estimated to result in approximately 468 vehicle trips per day which is less than the previously-approved Residence at Carter Mill project and approximately half of the previous on-site land uses.

Parking Supply & Utilization

The project proposes to include a total of 145 parking spaces on-site, including seven disability-accessible spaces and 30 interior garage spaces. In order to estimate the peak parking demand for the proposed assisted living development, parking generation data from the ITE publication *Parking Generation Manual, 5th Edition* was referenced. The *Parking Generation Manual* provides parking generation information for various land uses compiled from studies conducted by members nationwide. Weekday parking demand estimates for the proposed development were developed based on data presented in this publication for Land Use Code 254 (Assisted Living) and are presented in Table 3 below.

Table 3: Estimated Parking Demand

Description	Size	Weekday Peak Parking Demand
Proposed Assisted Living ¹	180 beds	59

¹ ITE Land Use Code 254 (Assisted Living), based on 180 beds.

As shown in Table 3, the proposed Balfour at Needham development is projected to generate an average peak parking demand of 59 vehicles during a typical weekday based on ITE data. The project proposes to include 145 parking spaces: 30 interior garage spaces and 115 exterior spaces. Comparing the projected parking demand to the proposed parking supply shows that the site would have an estimated peak period utilization rate of approximately 41%.

The *Parking Generation Manual* also provides information indicating how much parking is supplied at each of the studies included in the analysis. For an assisted living site that is located within a half mile of rail transit, an average parking supply ratio of 0.4 parking spaces per unit was identified. A parking supply reflective of this average parking rate would result in 62 parking spaces for the proposed 155 units.

The Town of Needham has separate zoning requirements for assisted living communities which include the following parking supply requirements:

- 0.5 parking spaces per bed for the assisted living community (180 beds proposed)
- 1 parking space for every two employees on the largest shift of the assisted living community (68 employees on the largest shift)

Based on the zoning requirements outlined above, the proposed project would require a parking supply of 124 parking spaces. With 145 parking spaces proposed on site, the proposed project is expected to provide a parking supply that exceeds the peak demand and zoning parking requirements of the proposed project.

Site Access and Circulation

Access to the Balfour at Needham project site is proposed to continue to be provided by two full-access driveways, one located on West Street opposite Avery Square, and one located on Highland Avenue opposite Morton Street. The proposed site driveways would not be significantly modified as part of the project and therefore, the safety and operations at the driveways are not expected to be impacted. The driveways are estimated to experience less traffic volume than the previously occupied site, further reducing potential operational issues associated with the site driveways.

Capacity Analysis

The capacity analysis presented in the Traffic Impact Study for the Residence at Carter Mill indicates that the proposed assisted living development was projected to have a limited impact on the operations of the roadway network adjacent to the site. The signalized intersection of Highland Avenue at West Street was projected to operate at overall level-of-service D during the weekday morning and weekday afternoon peak hours under future conditions, with or without the proposed project in place. The intersection was shown to experience an increase of less than one second of additional overall average vehicle delay during the analyzed peak hours as a result of the project.

The northbound and southbound approaches to the intersection of West Street and Hillside Avenue were shown to operate at LOS F under existing conditions during the weekday morning peak hour. Based on the capacity analysis completed for the previous Traffic Impact Study, the proposed project was not shown to have a significant impact on the overall average delay at the intersection. The project was projected to result in a negligible increase in delay on the stop-controlled Avery Square and Morton Street approaches opposite the site driveways. During both the weekday morning and weekday afternoon peak hours, the exiting movements from the site driveway on West Street were projected to operate at LOS B and the exiting movements from the site driveway on Highland Avenue were projected to operate at LOS C.

Findings

The proposed Balfour at Needham project would redevelop the existing building located at 100 West Street in Needham, MA to provide 155 units (with 180 total beds) of senior assisted living and memory care. Access to the site would continue to be provided via existing full-access driveways on West Street and Highland Avenue. Based on the most recent review of the study area and trip generating characteristics of the proposed project, McMahon offers the following findings:

- A review of the most recently available crash data for the study area intersections does not indicate a significant change in safety conditions for the proposed Balfour at Needham project, when compared to those documented in the Traffic Impact Study for the Residence at Carter Mill.
- The proposed Balfour at Needham project is estimated to generate approximately 32 vehicle trips (19 entering vehicles and 13 exiting vehicles) during the weekday morning peak hour and 43 vehicle trips (17 entering vehicles and 26 exiting vehicles) during the weekday afternoon peak hour. These peak hour trip estimates are nearly identical to the estimated trip generation associated with the

previous approved Residence at Carter Mill which were documented in a February 2021 Traffic Impact Study.

- Over the course of a typical weekday the number of daily trips estimated to be entering and exiting the site is shown to be lower than previously documented estimates for the Residence at Carter Mill and considerably lower than the previous land uses on the project site.
- The proposed parking supply for the project (145 parking spaces) is shown to exceed the estimated parking demand based ITE data as well as the parking required by the Town of Needham Zoning Bylaws for the proposed assisted living development.
- With peak hour generating characteristics comparable to the trip generation associated with the previously approved Residence at Carter Mill, the finding of no significant impact to the overall operations of the adjacent roadway network would also apply to the proposed Balfour at Needham redevelopment.

CRASH SUMMARY

Balfour at Needham Needham, MA

	West Street at Highland Avenue	West Street at Hillside Avenue	West Street at Avery Square/ Site Driveway	Highland Avenue at Morton Street/ Site Driveway
Year				
2015	7	12	1	0
2016	3	9	1	1
2017	5	10	2	1
2018	4	8	3	0
2019	8	6	0	2
Type				
Angle	6	36	4	1
Rear-end	6	2	1	0
Sideswipe	8	0	1	1
Head-on	1	1	0	0
Pedestrian	0	0	0	1
Bicycle	2	1	0	0
Single Vehicle	3	2	1	0
Unknown	1	3	0	1
Severity				
Property Damage	24	29	7	1
Personal Injury	2	13	0	1
Fatality	0	0	0	0
Unknown	1	3	0	2
Weather				
Clear	18	32	7	4
Cloudy	5	10	0	0
Rain	2	2	0	0
Snow	0	1	0	0
Sleet	2	0	0	0
Road Surface				
Dry	22	37	7	4
Wet	3	5	0	0
Ice	1	0	0	0
Other	0	1	0	0
Unknown	1	2	0	0
Time				
7:00 AM to 9:00 AM	4	3	1	0
9:00 AM to 4:00 PM	13	31	4	1
4:00 PM to 6:00 PM	4	6	0	1
6:00 PM to 7:00 AM	6	5	2	2
Total	27	45	7	4
Crash Rate	0.69	2.16	0.39	0.17
State Average	0.78	0.57	0.57	0.57
District 6 Average	0.71	0.52	0.52	0.52

Source: MassDOT

Fiscal Impact Analysis

**Balfour at Needham
100 – 110 West Street
Needham, MA**

**Carter Mill
Assisted Living Community
May 31, 2022**



FOUGERE PLANNING & DEVELOPMENT, Inc.

Mark J. Fougere, AICP

1. Introduction

Fougere Planning and Development, Inc. has been engaged by Balfour Assisted Living to undertake a Fiscal Impact Analysis in order to outline estimated revenues and service demands to the Town of Needham from a proposal to redevelop the former Avery Square nursing home/assisted living complex. The closed facility contained 200 beds and 11,800 square feet of medical office space. The proposed 155 unit assisted living program will consist of 127 assisted living units and 28 memory care units. This Report updates findings from the August 4th. 2020 analysis prepared for LCB Senior Living. The proposed project will be located at 100 West Street and will occupy an existing three story vacant building on a 4.29 acre site. Existing surface parking and garage parking will be available. Numerous on site amenities are proposed including full meal service, an indoor pool, gym, transportation, outdoor gathering areas; along with support services to those who are in need. Construction is anticipated to take 20 months to complete with an estimated opening in the fourth quarter 2024.

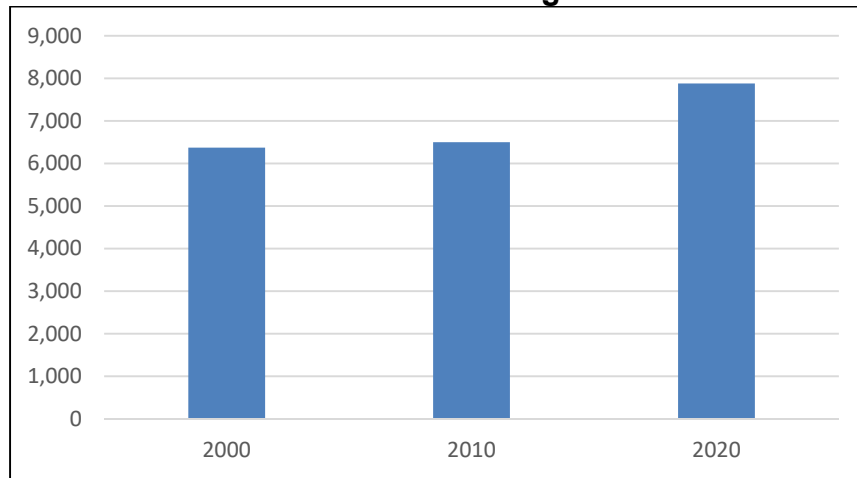
2. Local Trends

Population

Needham's population has seen modest growth over the last 10 years, with new residential development attracting young families along with the sale of existing housing units. Census figures report that from 2010 to 2020 Needham's population increased from 28,886 to 32,091 representing an 11% growth rate over the 10-year census period. During this same timeframe school enrollments have increased 3.8%, rising from 5,311 to 5,515. Even with the migration of young families, Needham has aged, with those over the age of 60 increasing from 6,371 to 7,880 (a 23.6% increase) since 2000, Figure One. Balfour will be

serving this aging population, as it is estimated that 35% - 40% of their residents will be from Needham.

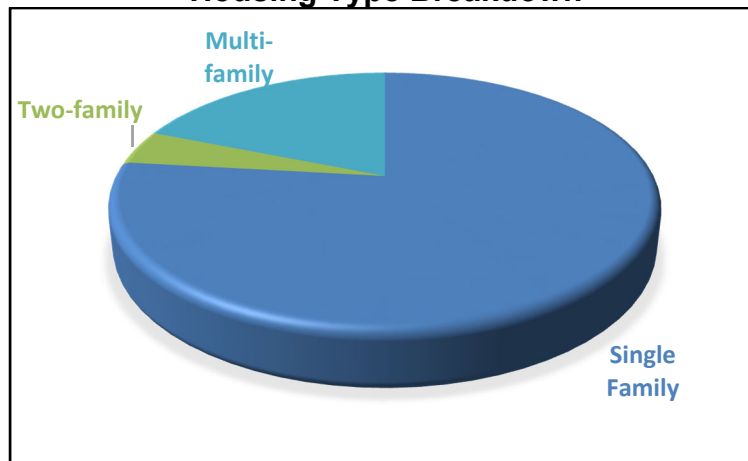
Figure One
Residents Over the Age of 60



Housing

The majority of Needham's housing stock consists of single family homes, with Census data¹ showing 8,420 units (76.8%) out of a total housing stock of 10,963 as detailed in Figure Two.

Figure Two
Housing Type Breakdown

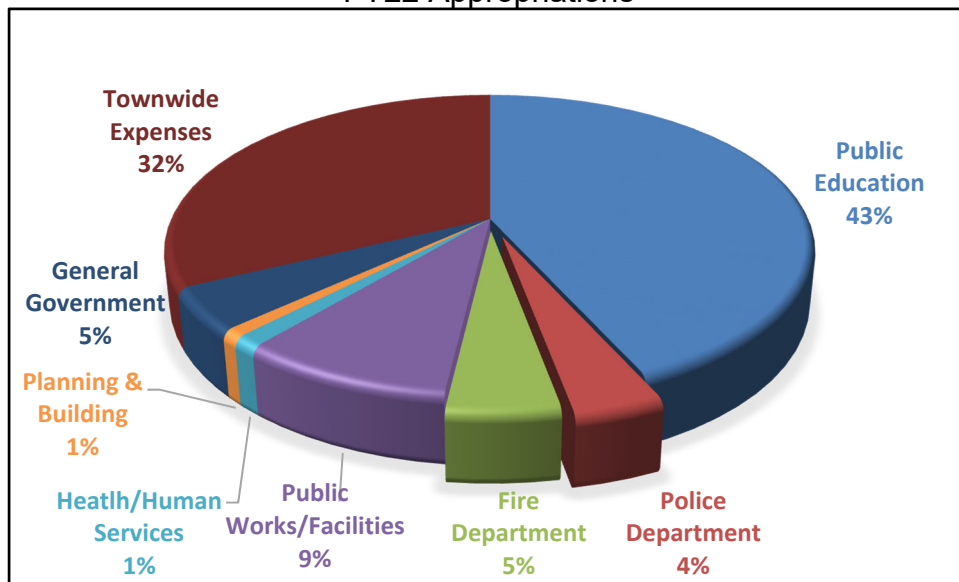


¹ American Community Survey 2017

Budget History

Needham' total operating budget for 2023 is \$205,137,150 with Education and Public Safety Departments having some of the largest budgets as outlined in Figure Two. The Education Department has seen the largest dollar increase over the last three years, escalating by 9.4%. Debt accounts for 9.8% of total costs, with FY2023 forecast estimated to be \$20,198,294.

Figure Two
FY22 Appropriations



3. Fiscal Methodology

There are a number of methodologies that are used to estimate fiscal impacts of proposed development projects. The Per Capita Multiplier Method is the most often used analysis to determine municipal cost allocation. This method is the classic “average” costing method for projecting the impact of population growth on local spending patterns and is used to establish the costs of existing services for a new development. The basic premise of this method is that current revenue/cost ratios per person and per unit are a potential indicator of future revenue/cost impacts occasioned by growth. New capital expenditures required for provision of services to a development are not added to current costs; instead, the present debt service for previous improvements is included to represent ongoing capital projects. The advantage of this approach is its

simplicity of implementation and its wide acceptance by both consultants and local officials. The downside of this approach is that the methodology calculates the “average” cost as being the expected cost, which is often not the case and costs are exaggerated - significantly in some instances. (For example, if one student is added to a school system, limited cost impacts will occur; however based on an “average” cost to educate one student the cost could be noted as \$18,000/year, which includes such costs as existing debt, building maintenance, administrative and other factors, all of which will be minimally impacted by the addition of one student. The “true cost” could be significantly less, especially in those communities with declining enrollment.)

The Marginal Cost Approach is a more realistic methodology that can be used to estimate and measure developmental impacts based on actual costs that occur in the community. At this time, a “level of service” exists in Needham to serve the community. This existing service level, for the most part, addresses the needs of the community through existing tax collections. As new development occurs, pressures are placed on some departments to address increased demands, while other departments experience negligible, if any impacts. In reviewing the potentially impacted town departments specifically, a truer picture of anticipated cost impacts can be determined. Both fiscal models will be applied in this analysis.

Given the nature of the contemplated redevelopment of the 100 West Street property, as will be shown by the analysis below, measurable impacts will be limited to a few Town departments. Any required off-site traffic and roadway improvements are expected to be addressed during the approval processes with the Town. Also, a very similar use existed on the property for many years with little traffic impact. Solid waste generated by the proposed use will be removed by a private hauler, consistent with existing practices. Any ongoing sewer and water expenses associated with potable water use and sewage generated by the proposed use will be offset through user fees. All on-site property improvements will be private and all maintenance expenses will be paid for by this project owner. This report does not intend to imply that no costs will occur as a result of

this project. Measurable impacts of the redevelopment are expected to result to a few Town departments, most notably the Police and Fire Departments. Other Town agencies are projected to experience little or no measurable impacts from the project redevelopment proposal.

4. Local Revenues

Property Tax Revenue

Local property taxes provide the bulk of General Fund Revenues² for Needham, with 2021 figures showing that 81.7% are generated from this source, with remaining income being derived from state aid and other receipts. The 2021 Real Estate Tax Rate for residential uses is \$13.37 and \$26.43 for Commercial/Industrial uses and Personal Property.

The income approach is traditional used to estimate project values. After speaking to local assessing officials, reviewing the Needham marketplace for comparable properties along with preliminary data on projected revenues and expenses, we have estimated a project assessed value of \$38,750,000, generating \$518,087 in annual revenues to the General Fund as outlined in Table One. This major investment will increase the value of the site by over \$29,000,000 compared to the existing site's assessment³.

Table One
Anticipated Yearly Property Tax Revenue

Site	Units	Assessed Value
Balfour Assisted Living	155 Units	\$38,750,000
Estimated Property Taxes @ \$13.37		\$518,087

Personal Property

Another source of income will be from Personal Property, which Balfour estimates will be worth \$3,000,000. These assets are taxed at the Commercial rate of \$26.43 and will generate **\$79,290** in yearly revenue.

² FY2020 Recommended Budget.

³ Existing property assessed for \$9,636,300.

Community Preservation Surcharge

The Town of Needham has adopted the Community Preservation Act allowing the community to impose a 2% surcharge on property taxes. Based upon the projected taxes outlined in Table One, an estimated CPA surcharge of **\$10,361** was calculated as outlined in Table Three.

Table Three
Community Preservation Surcharge

Property Taxes	CPA Surcharge	Surcharge
\$518,087	2%	\$10,361

Total Estimated Yearly Project Revenues

The proposed West Street development is estimated to generate \$604,329 in annual revenues from property taxes, personal property taxes, and CPA surcharge as outlined in Table Four.

Table Four
Estimated Yearly Revenue

Property Taxes	\$518,087
Personal Property	\$79,290
Total Taxes	\$597,377
CPA Surcharge	\$10,361
Total Revenues	\$604,329

Additional one-time payment revenues will also be realized as part of the development, these will be detailed further below.

5. Department Impacts

Public Safety

The Police and Fire Departments are projected to have the most measurable operational influences from the proposed project. To assess the degree of impact this project may have on these departments, emergency calls from similar uses in other communities and from a Needham comparable facility were analyzed. The call data was averaged to determine the numbers of annual calls per unit. Table Five and Six summarizes these findings.

Table Five
Emergency Police Service Calls

Project	Units	Avg. Police Calls Per Year	Avg. Call Per Unit	Projected Yearly Calls
Assisted Living Projects ⁴	300	101	0.3367	
Avita Needham	62	10	0.1613	
Total Average	362	111	0.3066	
Projected Balfour - Assisted	155			48
Avery Square - closed Nursing Home/Assisted living	200	17	0.0675	

Table Six
Emergency Fire/EMS Service Calls

Project	Units	Avg. Fire Call Per Year	Avg. Call Per Unit	Projected Yearly Calls
Assisted Living Projects	300	185	0.337	
Avita Needham	62	2	0.032	
Total Average	362	187		0.517
Projected Balfour Assisted	155			80
Avery Square - closed Nursing Home/Assisted living	200	10	0.050	
Project	Units	Avg. EMS Call Per Year	Avg. Call Per Unit	Projected Yearly Calls
Assisted Living Projects	300	250	0.833	
Avita Needham	62	31	0.500	
Total Average	362	281	0.776	
Projected Balfour Assisted	155			120
Avery Square - closed Nursing Home/Assisted living	200	68	0.340	

⁴ Waltham Crossings, Bridges Westford & Whitney Place Natick.

Extrapolating from the comparable call data, increases are projected to the Town's Police and Fire Departments. Annual police calls are projected to increase by 48 calls; annual fire/EMS calls are projected to increase by 200 calls. It should also be noted that the former Avery Square nursing home use generated⁵ 17 police calls and 78 fire/EMS calls annually.

Balfour regularly undertakes census audits of its existing communities and typically finds that between 35% and 40% of the residents who reside in a facility are from the town where the community is located. For the West Street development it is anticipated that 67+/- residents will be from Needham. As existing residents of the community they may already be placing demands on Public Safety services and therefore are not creating any "new" demand. Although estimated emergency calls will not be discounted to account for these existing demands, they should be taken into consideration when evaluating police and fire impacts.

Police Department

The Police Department presently has a staff of 47 police officers along with supporting staff. The Department's FY2023 budget was \$7,901,280. Over the last three years calls for service to the Department ranged from 48,098 to 49,027.

To assign some cost as a result of this estimated demand for service, a number of options were reviewed including cost per call and cost per capita. Since calls for service provides a clear measure of impact on the Department, this approach was used and results in an estimated annual impact of \$10,368 as outlined in Table Eight.

Table Seven Police Department Costs					
Department	FY 2023 Budget	Calls⁶	Cost/call	Est. Calls	Annual Cost
Police	\$7,901,280	36,697	\$216	48	\$10,368

⁵ Historical call data obtained from the Police and Fire Departments.

⁶ Town Reports call data, Police call discounted by 25% to account for minor calls.

The estimated police calls for the proposed assisted living use is significantly less than the former LCB program which estimated a total of 102 annual calls. The proposed independent units in the LCB program generated a majority of these police calls (77), as these types of units tend to create greater internal personal conflicts than assisted living units.

Taking into consideration the former nursing home use (17 calls), actual “new” site calls are estimated to be 31 calls annually (48 – 17 police calls) for the proposed assisted living community. The full budget cost of a Needham police officer salary is approximately \$110,000. To be extremely conservative, we will allocate the cost of ½ an officer’s salary (**\$55,000**), as we accounted for with the LCB program, for this project.

Fire Department

The 2023 Fire Department gross budget was \$9,413,465. In FY2021 the Department responded to 4,073 calls (78 per week), consisting of 1,975 fire related calls and 2,098 EMS calls. The Fire Department will realize a greater impact from the proposed facility, with an estimated 80 fire calls and 120 EMS calls (total estimated calls 200 annually). Taking into consideration the former Avery nursing home’s demands on the Department, 78 calls a year, results in an increased demand of service of 122 new calls (2.3 per week).

EMS calls generates revenues for the Town of Needham. In 2021 \$1,046,564 in ambulance revenue was collected, an average of \$498 a call. An estimated 120 EMS calls will be generated by the proposed use, generating \$59,760 in new ambulance revenue. Given the high levels of income in the community and the expectation that most of the residents will have adequate health care coverage, it is anticipated that estimated ambulance revenue will be higher than noted.

Balfour’s operational standards are very proactive which will reduce impacts to Needham’s emergency service providers. Balfour will have on site 24/7 nursing staff to limit the number of 911 calls generated by the facility. Based upon actual

experience of Balfour operated facilities, EMS calls are expected to average of one call per week. This low call impact is the result of having nursing staff on site (not just on call) 24/7 leading to the demand for EMS services that are significantly below that of other senior housing companies. In the true medical emergency Balfour will call 911. The benefit to this management model and 24 hour nurse staffing is that Balfour will have a nurse who can respond to medical emergencies and assess the situation prior to calling 911. This model limits the number of calls to 911 and the expense to the community. In addition, Balfour's staff have the ability to assist a resident off the ground after a fall.

Balfour's management model includes the following attributes:

Staff trained and educated on protocols and importance of prevent re-hospitalization;

- Work with local hospitals and coalitions to learn protocols/expectations
- Balfour staff and provider training on SBAR

24-hour licensed nurse staff:

- Ability to complete clinical assessment after fall or other injury
- Trained on transfers and lifting residents up after fall
- Staff trained on changes in condition and signs

Hoyer/Lift system available in Balfour communities:

- Enables staff to be able to assist residents after a fall, instead of calling EMS

Partnership with Physician Rounding Service:

- 24-hour access to physician services and urgent line.
- Balfour nurse and care team works closely with physician or physician extender to follow-up after fall, injury or change of condition. Limits used of EMS. If resident needs follow-up care, such services can often be obtained in community and/or via non-urgent transport.

Ancillary Services: To assist with early identification of changes in condition and help residents maintain their highest level of independence:

- Therapy – PT, OT, ST
- Home health
- Physiatry – pain doctor
- Audiology

- Optometrist
- Podiatrist
- Dentist
- Pharmacy
- Lab
- X-ray

Based upon Balfour's proactive care program, it is estimated that the assisted living community will generate, on average, 1 EMS call per week. To be conservative, we have assumed a higher level of demand for services as outlined above.

We discussed the revised program, estimated calls and Balfour's operational details with Fire Chief Dennis Condon. The Chief noted that although this one project will not significantly impact his Department, general growth in the community is straining operations. He did note that the estimated calls may be higher than indicated, but realizes the data is from like facilities. He did not believe that additional staff would have to be hired in order to address the increase demand for services. The average cost of a Needham firefighter, including benefits, is approximately \$120,000 annually. As the estimated calls to the proposed facility is slightly higher than the previous use (total calls increasing from 186 to 200), we will account for this cost in this analysis.

In addition, the Chief noted that the Department has implemented a new policy of charging operators \$499 per lift assist if calls should come in for this service. The Department had to implement this charge several years ago, as facilities were instructing their personnel not help residents back to a chair or bed. Balfour's operational program, which includes proper training and equipment, will address these incidents internally and such request for services are not envisioned.

5. Health Department

Given the proposed use, it is estimated that two to three inspections are anticipated per year of the new facility. The kitchen area, along with other spaces will be inspected to ensure all relevant standards are being adhered to.

Determining cost impacts is challenging and required annual fees will cover most costs. To account for unexpected expenses, we will carry a **\$1,000** cost impact for this Department.

6. Other Departments

In reviewing other Town department, no other measurable impacts were seen. Building permit costs, \$10/\$1000 will more than offset any costs in the Building Department. Based upon the estimated construction costs of \$59,000,000 it is anticipated that \$590,000 will be generated in buildings permit fees. Additional fees will be paid for plumbing and electrical work.

7. Other Benefits

Other economic benefits are projected as a result of the proposed residential community, including additional meals taxes, local economic growth, and new construction jobs. The single phase construction lasting approximately 20 months will infuse a significant economic boost into the local and regional economy, with dozens of tradesmen involved in building the project and millions of dollars spent on construction supplies and materials.

8. Summary

Table Eight summarizes the estimated revenues and expenses associated with the proposed assisted living development. Gross revenues are anticipated to be \$607,738 a year with a net positive yearly benefit of \$431,739. This cost estimate is not inferring the Needham's budget will increase as a result of the proposed development, but assigns a "cost" to account for this new land use in the community. Appropriate discussions with key decision makers within the community will determine if budgets need to be adjusted to address demands estimated in the Report. It is anticipated that these total costs will not actually be realized.

Table Eight
Revenue & Expense Summary

Projected Tax Revenue	\$607,738
Projected Municipal Costs	
Police	-\$55,000
Fire	-\$120,000
Board of Health	-\$1,000
Total Costs	-\$176,000
Net Positive Fiscal Impact	+\$431,739

Summary of Findings

Given the following facts and the nature of the proposed Balfour Assisted Living project few impacts will be felt by town departments:

- All on site improvements will be private and all maintenance expenses will be paid for by this project owner.
- No school related impacts will occur.
- Solid waste generated by this project will be removed by a private hauler.
- Any water/sewer expenses will be offset through user fees.
- Measureable financial impacts upon non-Public Safety departments will be minimal.

This is not to infer that no costs will occur as a result of this project. Measurable demands for services will be felt by the Police and Fire Departments.

Key findings of the assisted living analysis include:

- Reflective of New England wide trends, Needham is aging with those individuals over the age of 60 increasing 23.6% since 2000.
- The proposed community will generate approximately \$607,738 in gross revenue per year. Taking into consideration estimated municipal costs of \$176,000, the proposed project will yield approximately **\$431,739** in net positive yearly revenue annually.
- The existing property assessment is anticipated to increase from \$9,636,300 to \$38,500,000, an increase of over \$29,000,000. Property taxes are estimated to increase from \$128,833 to \$518,087.
- Annual calls to the Police Department are projected to increase by 48 calls, a marked decrease from the LCB program which estimated 102 calls annually. The Departments annual call volume is over 49,000. The former nursing home/office use generated approximately 17 calls annually.

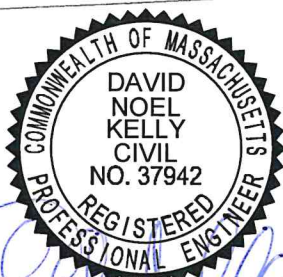
- The Fire Department is projected to receive approximately 200 fire calls annually from the proposed use. Ambulance calls are to generate \$59,760 annual revenue for the community. The former nursing home use generated 78 yearly calls.
- All onsite maintenance will be private; along with all trash collection. No projected impact to the DPW Department is anticipated.

STORMWATER MANAGEMENT REPORT

06/02/2022

BALFOUR AT NEEDHAM
100-110 WEST STREET
NEEDHAM, MA

WELL BALFOUR NEEDHAM LANDLORD LLC
4500 DORR ST.
TOLEDO, OH 43615



Digitally signed by David
Noel Kelly P.E.
DN: cn=David Noel Kelly P.E.,
o=Kelly Engineering Group,
Inc., ou,
email=dkelly@kellyengineeri
nggroup.com, c=US
Date: 2022.06.07 12:19:57
-04'00'



PREPARED BY:

KELLY ENGINEERING GROUP
civil engineering consultants
0 Campanelli Drive, Braintree, MA 02184
Phone: 781-843-4333 www.kellyengineeringgroup.com

TABLE OF CONTENTS

Stormwater Letter

Stormwater Maintenance System Operation and Maintenance Plan & Long Term Pollution Prevention Plan

NPDES Requirements for Public Outreach Letter



June 2, 2022

Town of Needham Planning Board
500 Dedham Ave.
Needham MA 02492
Attn: Lee Newman

Cc: Michael K. Schonbrun – Balfour Senior Living
Thomas Ryder – Department of Public Works

Re: **Stormwater**
Special Permit & Site Plan Review
Balfour at Needham
100-110 West St.
Needham, MA

Dear Members of the Board:

The existing site is serviced by a fully developed storm drainage system as shown on the existing conditions plan provided with this application. We have consulted with site maintenance personnel and town staff and are not aware of any drainage issues on the property. The applicant and our office has met with the Town of Needham Engineering Department and agreed the Needham Stormwater Bylaw Article 7 is not applicable to the proposed project. There is no increase to the existing building footprint. The renovations and floor areas in the garage and penthouse are not increasing the footprint of the building and are not considered an Addition. There is no change in impervious parking areas. The impervious area from the proposed 5 new parking spaces is balanced by removal of the existing garage entrance. There are 1,000 s.f. of additional sidewalks, patios, and other pedestrian areas which are not considered parking areas and therefore exempt from the Needham Stormwater Bylaw. Façade treatments, interior renovations, and less than 1,500 s.f. increase in parking area are exempt under section 7.4.2 of the Stormwater Bylaw.

As part of the Town of Needham DPW NPDES requirements, the applicant will comply with the Public Outreach & Education and Public Participation & Involvement control measures. Attached is a letter to the DPW identifying the measures selected and dates by which the measures will be completed in order to incorporate it into the Planning Board's decision.

We look forward to presenting this project to you at your next scheduled meeting. If you have any questions or desire any additional information regarding this matter, please do not hesitate to call our office.

Sincerely,

KELLY ENGINEERING GROUP, INC.

Digitally signed by David Noel Kelly P.E.
DN: cn=David Noel Kelly P.E., o=Kelly
Engineering Group, Inc., ou,
email=dkelly@kellyengineeringgroup.co
m, c=US
Date: 2022.06.07 12:19:37 -04'00'

David N. Kelly, P.E. President

0 Campanelli Drive – Braintree – MA 02184
Phone 781 843 4333 www.kellyengineeringgroup.com

**BALFOUR AT NEEDHAM
100-110 WEST STREET NEEDHAM, MA**

**STORMWATER MANAGEMENT SYSTEM
OPERATION AND MAINTENANCE PLAN
&
LONG-TERM POLLUTION PREVENTION PLAN**

06/02/2022

Prepared by:

KELLY ENGINEERING GROUP, INC.
Zero Campanelli Drive
Braintree, Massachusetts 02184

OWNER:
HRCI Massachusetts Properties Trust II
4500 Dorr St.
Toledo, OH 43615

APPLICANT AND RESPONSIBLE PARTY:
WELL Balfour Needham Landlord LLC
4500 Dorr St.
Toledo, OH 43615

WELL Balfour Needham Landlord LLC

Note: If ownership of this property changes then the new owner becomes the responsible party.
The Owner may assign responsibility to a tenant on the property.

Introduction

The stormwater management system consists of a number of Best Management Practices (BMP's). These BMP's combine to ensure that storm runoff from the site will not damage the sensitive environmental resources surrounding the site. In order to ensure that these BMP's operate as designed it is very important that the procedures in this operation and maintenance plan be followed. Most of these operation procedures require observation and measurement; however, at certain times more extensive maintenance measures may be needed. The following is an itemization of each of these BMP's and their maintenance needs.

The party responsible for maintenance should contract with a maintenance organization capable of performing the more extensive measures such as pumping of catch basin sumps, etc.

BMP No. 1 – Paved Road Surface:

- Regularly pick up and remove litter from the paved road surface and landscaped areas.
- The paved area is to be swept on a quarterly average, with sweeping scheduled primarily in spring and fall with a high efficiency vacuum sweeper or a regenerative air sweeper. If a mechanical sweeper is used, the paved area is to be swept on a monthly average.

BMP No. 2 - Deep Sump Catch Basins:

- Basins are to be inspected 4 times per year.
 1. Verify that tees are secure and free-flowing.
 2. Measure depth of sediment below water line.
- Basins are to be cleaned whenever sediment and hydrocarbons are observed. Basins are to be cleaned a minimum of twice per year. One of these cleanings shall occur before April 15th of each year and one shall occur before September 15th of each year. Basins may be cleaned either using a clamshell or a vacuum pump.
- All liquid shall be pumped from the sump of each basin at least once per year.
- All sediments and hydrocarbons should be properly handled and disposed of, in accordance with local, state and federal guidelines and regulations.

Note: See catch basin detail for explanation of terms.

Snow Removal:

- Road salts and de-icing materials shall be stored on impervious pads and covered to protect from wind and precipitation.
- There shall be no plowing or stock piling of snow within any resource areas and any area subject to the jurisdiction of local and state regulations without the prior written permission from state or local approving authority.
- No de-icing materials shall be stored nor used within all resource areas and any area subject to the jurisdiction of local and state regulations without the prior written permission from state or local approving authority.

Storage and Use of Chemicals:

- No pesticides, herbicides, nor insecticides shall be stored nor used within all resource areas and any area subject to the jurisdiction of local and state regulations without the prior written permission from state or local approving authority.
- Chemical storage on site shall be limited. Any chemicals that must be stored shall be stored in a secure area in accordance with Local and State regulations.

Hazardous Waste:

- Containment – In the event of a discharge or spill of oil or another hazardous material, outlets to stormwater management ponds shall be plugged so that hazardous material do not enter resource areas.
- Reporting - In the event of a discharge or spill of oil or another hazardous material, responsible facility personnel, oil spill and/or hazardous material removal organizations, federal, state, and local regulatory agencies, the Town of Needham Department of Public Works, and the EPA National Response Center 1-800-424-8802 shall be rapidly notified.
- Hazardous Waste – All hazardous waste materials will be disposed of in the manner specified by local, state and/or federal regulations and by the manufacturer of such products.
- There shall be no illicit discharges to the stormwater management system.

Training for Long Term Pollution Prevention Plan:

- All staff or personnel involved and responsible for implementing the Stormwater Management System Operations and Maintenance Plan and the Long-Term Pollution Prevention Plan shall be properly trained as required under the DEP Stormwater Management Regulations. Training shall be documented with records kept with other stormwater maintenance records.

Pet Waste Management:

- Pooper-scooper laws for pets shall be followed.
- Never dump pet waste into storm drains, catch basins, or the drainage system.
- Pet waste shall be scooped up and disposed of properly in the garbage.

Lawn and Garden activities:

- No pesticides, herbicides, nor insecticides shall be stored nor used within any resource areas its buffers, and any area subject to the jurisdiction of local and state regulations without the prior written permission from state or local approving authority.
- Fertilizers and pesticides shall be applied properly, sparingly, and outside any resource areas and its buffers.

To reduce the impact of fertilizers, consider the following tips;

- Don't fertilize before a rain storm.
- Consider using organic fertilizers. They release nutrients more slowly.
- Test soils before applying fertilizers. Some soils may not need fertilizers. A standard soil test costs \$9.00. (Call the UMass Extension Soil Testing Lab at 413-545-2311 or download a soil test order form at <http://www.umass.edu/plsoils/soiltest/>.)

June 2, 2022

Needham Planning Board
Needham Town Hall
500 Dedham Avenue
Needham, MA 02492
Attention: Lee Newman

RE: NPDES requirements
Balfour at Needham
100-110 West St.
Needham, MA

Dear Members of the Board,

As part of the NPDES requirement for Control Measure #1: Public Education and Outreach, the applicant will place an advertisement in the local newspaper to encourage environmental awareness. This advertisement will be published prior to occupancy of the building.

As part of the NPDES requirement for Control Measure #2: Public Participation and Involvement, the catch basins will include a plaque with the words "NO DUMPING - DRAINS TO RIVER" by Almetek. These plaques will be installed at prior to occupancy of the building.

If you have any questions, please contact me.

Sincerely,

Balfour at Needham

Copy: Thomas Ryder, Town Engineer