



1150 Great Plain Ave. # 920056
Needham, MA 02492
Phone: (617) 418-3575

November 9, 2023

Rich Benevento, Chair
Zoning Board of Appeals
Town of Middleton
195 North Main Street
Middleton, MA 01949

RE: ZBA Submission Cover Letter
Project: Villebridge Middleton
Applicant: Villebridge Acquisitions LLC
Owner: 10 Boston St. & 49 S. Main St.: Champlain Realty Trust; 18 Boston St.: Stigliano, Inc.
Property: 10 Boston St., a portion of 49 S. Main St., and a portion of 18 Boston St.

Dear Chair Benevento and other Board Members:

Thank you for our last meeting and discussion on October 26th. In lead up to the next meeting on November 16th, this cover letter provides some information requested and/or discussed at the October 26th meeting and lists the other submission materials being submitted by 3:00 PM today.

Commercial / Retail Concepts

Although not a part of this application, redevelopment of the Angelica's parcel was discussed briefly at the last meeting in the context of how the retail buildings may or may not screen or block from view the 40B residential application before you from S. Main Street. As part of addressing that topic, I stated that the retail concepts we were considering reflected a relatively small footprint of approximately 10,000-12,000 square feet of commercial space.

While we are still wrestling with dynamic variables regarding construction costs, lease rents, and the capital markets, I wanted to amend my previous statement to say that in recent days we have expanded the scenarios we are considering including site plans that reflect up to 20,000 square feet or more of commercial space. I respect that the Board is experienced with the fluid nature of commercial / retail development, however I felt it important to transparently convey we are working through several scenarios as we gain feedback from contractors, prospective tenants, capital partners, and other stakeholders. This may impact the magnitude of screening / blocking that may occur.

Pre- and Post- Development Impervious Area Calculations

Chair Benevento inquired as to the pre- and post-development impervious area calculations. It is my understanding this inquiry was for beyond the 40B residential application before you. Given the overall context, this is an understandable request, and the chart below summarizes the information requested. It should be noted that the commercial conceptual information reflects the plan we currently believe is most likely to be advanced and submitted for site plan review in the coming months.

Parcel	Total Lot Area		Total Impervious Area				Open Space Required
			Existing		Proposed		
	SF	Acres	SF	%	SF	%	%
40B Proposal (Lot 2)	99,268	2.28	38,124	38%	67,147	68%	5% [1]
Commercial Concept (Lot 3) [2]	121,344	2.79	106,252	88%	97,075	80%	25%
Total Land Area	220,612	5.06	144,376	65%	164,222	74%	16%

[1] Approximately 18,380 sq. ft. of Lot 2 is in the Business B zoning district, which requires $\geq 25\%$ open space.

[2] Current commercial concept subject to change; conceptual plan only.

Additional Materials Submitted

- Building Design Presentation by TAT
- Civil Presentation Exhibits by Hancock
- Civil Plan Revisions by Hancock
- Civil Peer Review Response Update by Hancock
- Traffic Peer Review Response Letter
- Landscaping Plan Revisions (including photometric study) by Hawk (for December meeting)
- Landscaping Rendering Revision

On behalf of Villebridge Acquisitions LLC and its project team, we look forward to the next meeting on November 16th. Ed Bradford from TAT will present the building design revisions. Regrettably, Joe Peznola of Hancock Associates has a conflict and will not be able to join us on November 16th. His colleague, Fred Keylor, who has been an integral part of the project team from the outset, will be joining us. Jeff Dirk from Vanasse & Associates will present the traffic study.

Kind regards,

Authorized Representative:

Lars Unhjem, Manager
Villebridge Acquisitions LLC

Villebridge Middleton

ZBA Meeting
November 16, 2023



September 20, 2023 (Hearing Opened) | COMPLETED

- 1. Overview Presentation_____COMPLETED
- 2. Review of Waiver Requests_____DEFERRED
- 3. Authorize Peer Reviewer_____COMPLETED
- 4. Guidance on Building Design Updates _____STARTED
- 5. Traffic: Determine Study Network_____COMPLETED
- 6. Board Questions_____COMPLETED
- 7. Public Comment_____COMPLETED

October 26, 2023 | COMPLETED

- 1. Building Size and Massing Review_____CONTINUED
- 2. Building Design_____CONTINUED
- 3. Civil: Site Plan, Grading, Utilities, Subdivision, Stormwater____STARTED
- 4. Septic _____STARTED
- 5. Follow-Up on Prior Topics _____COMPLETED
- 6. Board Question_____COMPLETED
- 7. Public Comment_____COMPLETED

November 16, 2023 | TONIGHT

- 1. Building Size and Massing Review - Continuation
- 2. Building Design (if needed)
- 3. Traffic
- 4. Follow-Up on Prior Topics
 - > Civil & Septic
- 5. Board Questions
- 6. Public Comment

December 14, 2023

- 1. Landscaping & Lighting
- 2. Follow-Up on Prior Topics
- 3. Board Questions
- 4. Public Comments

January 25, 2024

- 1. Follow-Up on Prior Topics
- 2. Review of Waivers
- 3. Decision Conditions Discussion
- 4. Board Questions
- 5. Public Comment

February 22, 2024

- 1. Follow-Up on Prior Topics
- 2. Close Public Hearing (before deadline of March 18, 2024, below)
- 3. Decision Conditions (Board discussion only)

March 18, 2024

Deadline for closing public hearing (180 days from first Public Hearing)

March 28, 2024

- 1. Decision/Conditions(40 days after close of public hearing, or April 2, 2024 if the hearing closes on February 22, 2024)



View from Boston Street | Alternate Roof Dormers Option 1



View from Boston Street | Alternate Roof Dormers Option 2



View from Boston Street | Alternate Roof Dormers Option 2.1



View from Route 114 Looking Northwest | October 26, 2023 Planning Board Meeting



View from Route 114 Looking Northwest | Alternate Roof Dormers Option 1



View from Route 114 Looking Northwest | Alternate Roof Dormers Option 2



View from Route 114 Looking Northwest | Alternate Roof Dormers Option 2.1



View from Route 114 Looking Northwest | Alternate Roof Dormers Option 3.1



View from Route 114 Looking Northwest | Alternate Roof Dormers Option 3.2



View from Rowell Lane Looking Northeast | October 26, 2023 Planning Board Meeting



View from Rowell Lane Looking Northeast | Alternate Roof Dormers Option 1



View from Rowell Lane Looking Northeast | Alternate Roof Dormers Option 2

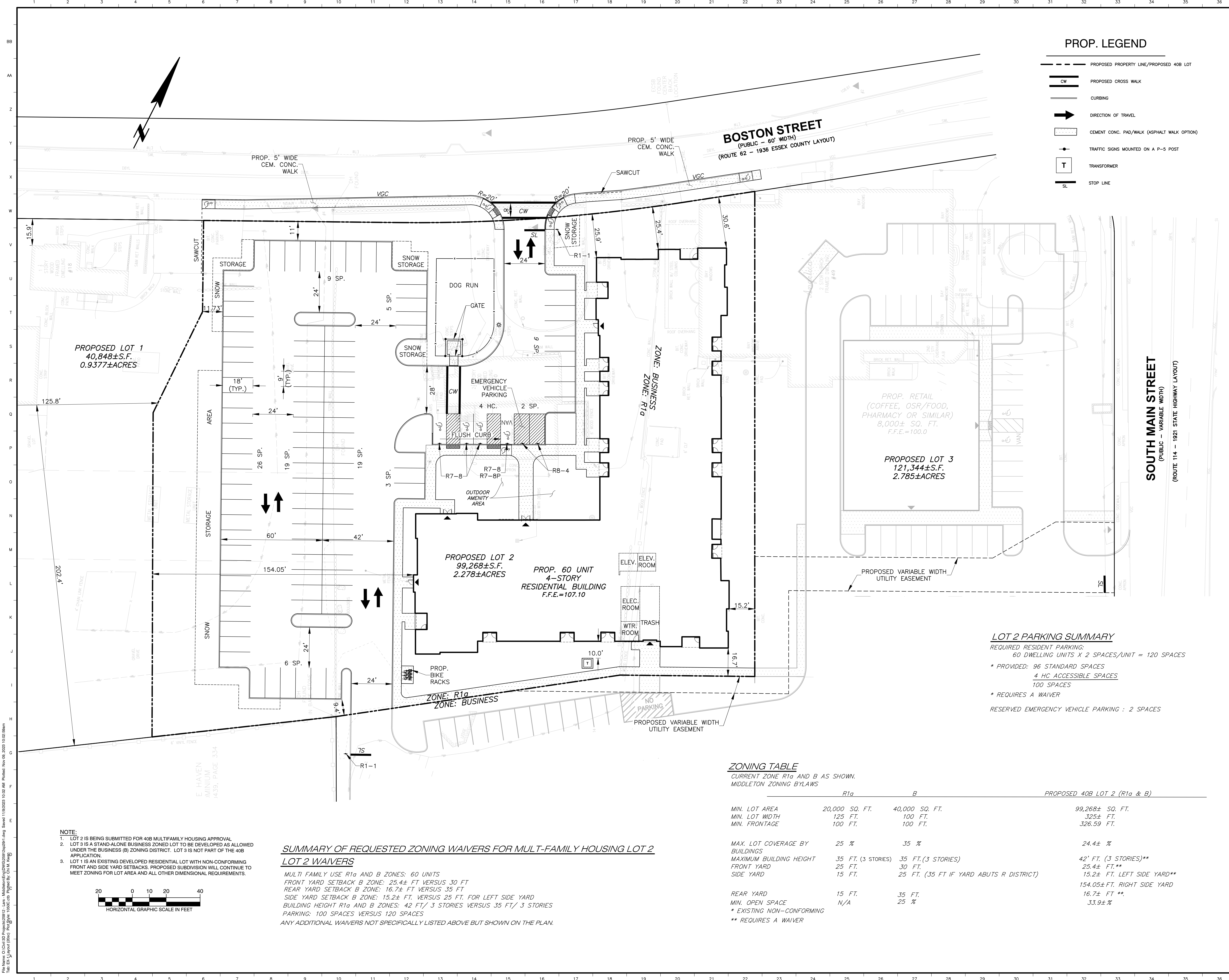


View from Rowell Lane Looking Northeast | Alternate Roof Dormers Option 2.1



Thank You





PROP. LEGEND

- PROPOSED PROPERTY LINE/PROPOSED 40B LOT
- PROPOSED CROSS WALK
- CURBING
- DIRECTION OF TRAVEL
- CEMENT CONC. PAD/WALK (ASPHALT WALK OPTION)
- TRAFFIC SIGNS MOUNTED ON A P-5 POST
- TRANSFORMER
- STOP LINE

MIDDLETON

10 & 18 Boston Street &
49 South Main Street
Middletown, Massachusetts 01949

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SOUTH MAIN STREET
(PUBLIC - VARIABLE WIDTH)
(ROUTE 114 - 1921 STATE HIGHWAY LAYOUT)

LOT 2 PARKING SUMMARY

REQUIRED RESIDENT PARKING:
60 DWELLING UNITS X 2 SPACES/UNIT = 120 SPACES

* PROVIDED: 96 STANDARD SPACES
4 HC ACCESSIBLE SPACES
100 SPACES

* REQUIRES A WAIVER

RESERVED EMERGENCY VEHICLE PARKING : 2 SPACES

ZONING TABLE

CURRENT ZONE R1a AND B AS SHOWN.
MIDDLETON ZONING BYLAWS

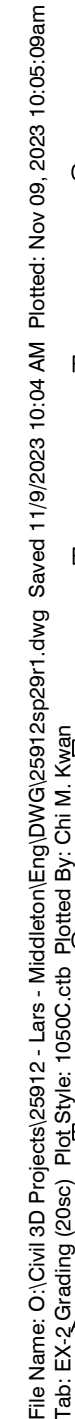
	R1a	B	PROPOSED 40B LOT 2 (R1a & B)
MIN. LOT AREA	20,000 SQ. FT.	40,000 SQ. FT.	99,268± SQ. FT.
MIN. LOT WIDTH	125 FT.	100 FT.	325± FT.
MIN. FRONTAGE	100 FT.	100 FT.	326.59 FT.
MAX. LOT COVERAGE BY BUILDINGS	25 %	35 %	24.4± %
MAXIMUM BUILDING HEIGHT	35 FT. (3 STORIES)	35 FT. (3 STORIES)	42' FT. (3 STORIES)**
FRONT YARD	25 FT.	30 FT.	25.4± FT.**
SIDE YARD	15 FT.	25 FT. (35 FT IF YARD ABUTS R DISTRICT)	15.2± FT. LEFT SIDE YARD**
			154.05± FT. RIGHT SIDE YARD
REAR YARD	15 FT.	35 FT.	16.7± FT **
MIN. OPEN SPACE	N/A	25 %	33.9± %
* EXISTING NON-CONFORMING			
** REQUIRES A WAIVER			

SUMMARY OF REQUESTED ZONING WAIVERS FOR MULT-FAMILY HOUSING LOT 2

LOT 2 WAIVERS

MULTI FAMILY USE R1a AND B ZONES: 60 UNITS
FRONT YARD SETBACK B ZONE: 25.4± FT VERSUS 30 FT
REAR YARD SETBACK B ZONE: 16.7± FT VERSUS 35 FT
SIDE YARD SETBACK B ZONE: 15.2± FT. VERSUS 25 FT. FOR LEFT SIDE YARD
BUILDING HEIGHT R1a AND B ZONES: 42 FT/ 3 STORIES VERSUS 35 FT/ 3 STORIES
PARKING: 100 SPACES VERSUS 120 SPACES
ANY ADDITIONAL WAIVERS NOT SPECIFICALLY LISTED ABOVE BUT SHOWN ON THE PLAN.

File Name: C:\GIS\3D\Projects\25912 - Luns - Middleton\Eng\DWG\25912.dwg Saved 11/09/2023 10:02 AM Plotted: Nov 09, 2023 10:02:00am
Title: EX -1 Layout (25912) Plotted By: CHM, NRG



25912







PROJECT NO.: 25912

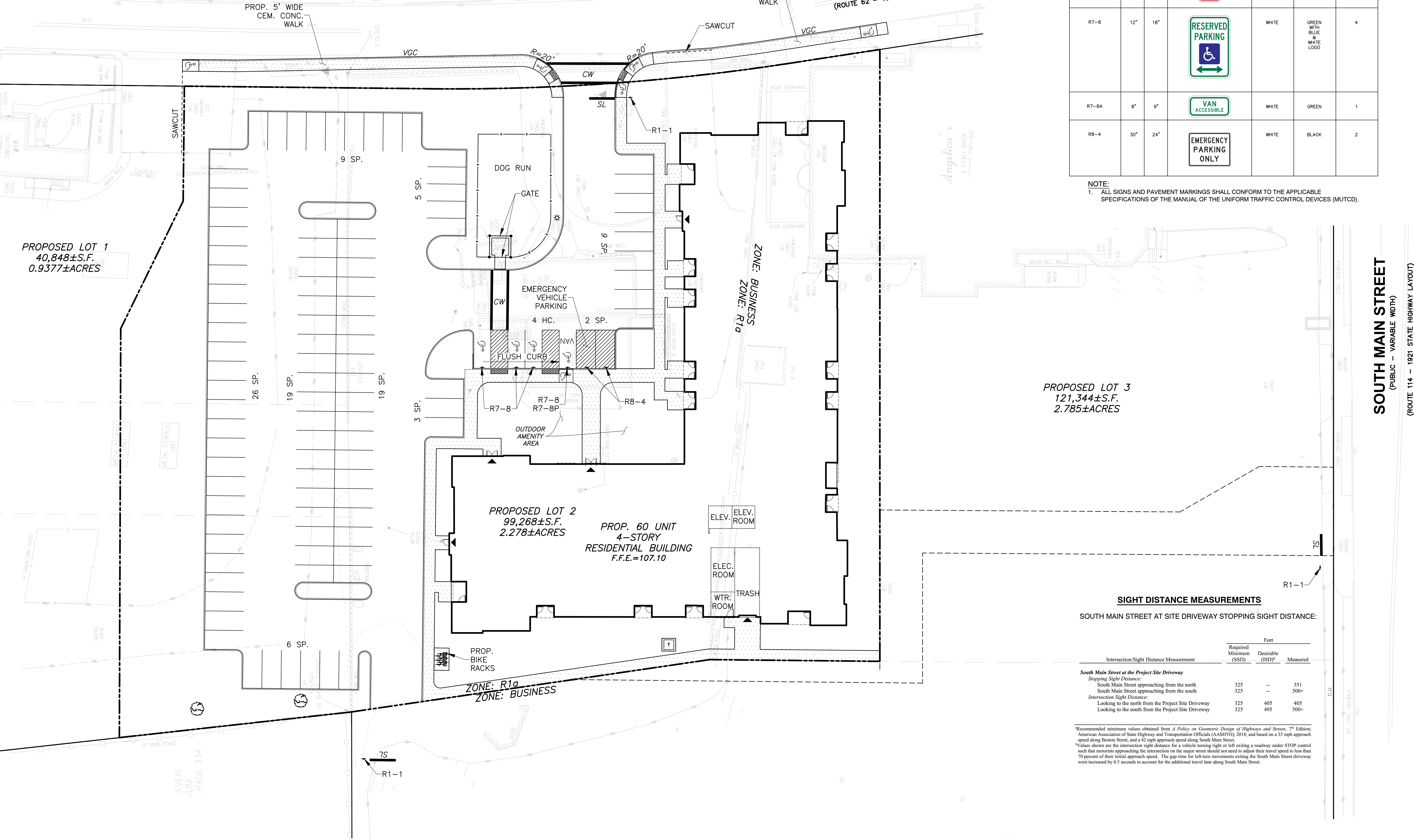
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User: CHM Pgn

BOSTON STREET AT SITE DRIVEWAY STOPPING SIGHT DISTANCE:			
Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)*	Measured
Boston Street at the Project Site Driveway Stopping Sight Distance: Boston Street approaching from the east Boston Street approaching from the west Intersection Sight Distance: Looking to the east from the Project Site Driveway Looking to the west from the Project Site Driveway	250	--	267
	250	390	292
	250	335	500+

SIGHT DISTANCE MEASUREMENTS			
Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)*	Measured
South Main Street at the Project Site Driveway Stopping Sight Distance: South Main Street approaching from the north South Main Street approaching from the south Intersection Sight Distance: Looking to the north from the Project Site Driveway Looking to the south from the Project Site Driveway	325	--	351
	325	405	405
	325	495	500+

TRAFFIC SIGNS (NOT TO SCALE)						
SIGN SUMMARY						
TEXT		BACKGROUND	LETTERING	No. of SIGNS REQUIRED		
		RED	WHITE	3		
		WHITE	GREEN WITH BLUE & WHITE LOGO	4		
		WHITE	GREEN	1		
		WHITE	BLACK	2		

NOTE:
1. ALL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE MANUAL OF THE UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).



SIGHT DISTANCE MEASUREMENTS			
SOUTH MAIN STREET AT SITE DRIVEWAY STOPPING SIGHT DISTANCE:			
Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD)*	Measured
South Main Street at the Project Site Driveway Stopping Sight Distance: South Main Street approaching from the north South Main Street approaching from the south Intersection Sight Distance: Looking to the north from the Project Site Driveway Looking to the south from the Project Site Driveway	325	--	351
	325	405	405
	325	495	500+

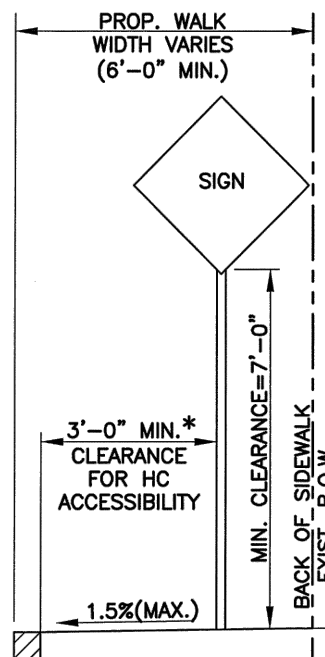
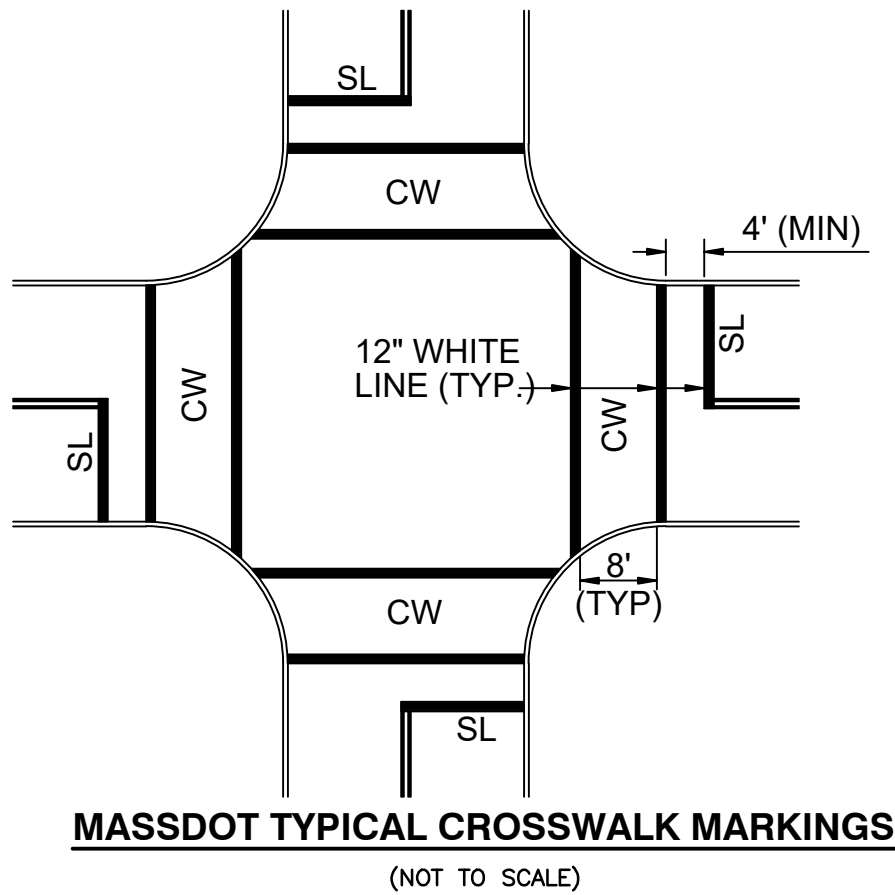
*Recommended minimum values obtained from A Policy on Geometric Design of Highways and Streets, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO), 2018; and based on a 35 mph approach speed along Boston Street, and a 42 mph approach speed along South Main Street.
*Values shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed. The gap time for left-turn movements exiting the South Main Street driveway were increased by 0.5 seconds to account for the additional travel time along South Main Street.

PAVEMENT MARKING NOTES:

- PARKING STALL STRIPING SHALL BE 4" WIDE WHITE LINES.
- CROSSWALKS AND STOP LINES SHALL BE 12" WIDE WHITE LINES.
- ACCESSIBLE PARKING STALL MARKINGS TO FOLLOW DETAILS ON SHEET C-7.

NOTE:

- LOT 2 IS BEING SUBMITTED FOR 40B MULTIFAMILY HOUSING APPROVAL.
- LOT 3 IS A STAND-ALONE BUSINESS ZONED LOT TO BE DEVELOPED AS ALLOWED UNDER THE BUSINESS (B) ZONING DISTRICT. LOT 3 IS NOT PART OF THE 40B APPLICATION.
- LOT 1 IS AN EXISTING DEVELOPED RESIDENTIAL LOT WITH NON-CONFORMING FRONT AND SIDE YARD SETBACKS. PROPOSED SUBDIVISION WILL CONTINUE TO MEET ZONING FOR LOT AREA AND ALL OTHER DIMENSIONAL REQUIREMENTS.



PROP. LEGEND

- PROPOSED PROPERTY LINE/PROPOSED 40B LOT
- PROPOSED CROSS WALK
- CURBING
- DIRECTION OF TRAVEL
- CEMENT CONC. PAD/WALK (ASPHALT WALK OPTION)
- TRAFFIC SIGNS MOUNTED ON A P-5 POST
- TRANSFORMER
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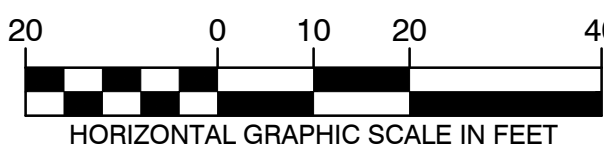
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NO.	BY	APP	DATE	ISSUE/REVISION	DESCRIPTION
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DATE: 11/09/23 SCALE: 1"=20'
DRAWN BY: CMK DESIGNED BY: JPK
CHECKED BY: DTW APPROVED BY: JPK

PAVEMENT
MARKING &
SIGNAGE
EXHIBIT

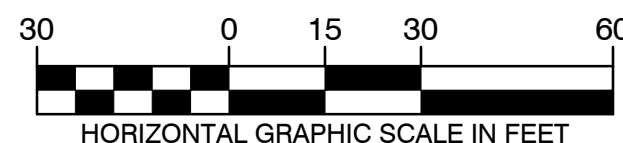
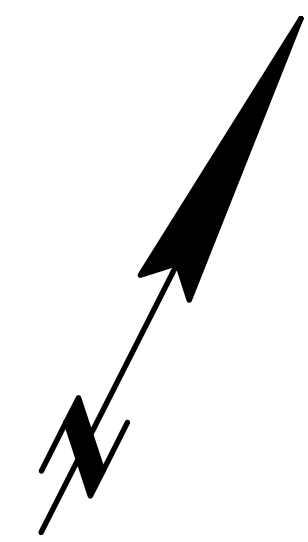
PLOT DATE: Nov 09, 2023 10:14 am
© 2023 Project 25912 - Lot 1 - Middleton (Eng) DWG







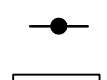

DWG: 25912sp29r1.dwg

LAYOUT: EX-5 Signage (20sc)

SHEET: EX-5

PROJECT NO.: 25912



	PROPOSED PROPERTY LINE/PROPOSED 40B LOT
	PROPOSED CROSS WALK
	CURBING
	DIRECTION OF TRAVEL
	CEMENT CONC. PAD/WALK (ASPHALT WALK OPTION)
	TRAFFIC SIGNS MOUNTED ON A P-5 POST
	TRANSFORMER
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Middleton, Massachusetts 01949

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LOT 2 PARKING SUMMARY

REQUIRED RESIDENT PARKING:
60 DWELLING UNITS X 2 SPACES/UNIT = 120 SPACES

* PROVIDED: 96 STANDARD SPACES
4 HC ACCESSIBLE SPACES
100 SPACES

* REQUIRES A WAIVER

RESERVED EMERGENCY VEHICLE PARKING : 2 SPACES

ZONING TABLE

CURRENT ZONE R1a AND B AS SHOWN.
MIDDLETON ZONING BYLAWS

	<i>R1a</i>	<i>B</i>	<i>PROPOSED 40B LOT 2 (R1a & B)</i>
<i>MIN. LOT AREA</i>	<i>20,000 SQ. FT.</i>	<i>40,000 SQ. FT.</i>	<i>99,268± SQ. FT.</i>
<i>MIN. LOT WIDTH</i>	<i>125 FT.</i>	<i>100 FT.</i>	<i>325± FT.</i>
<i>MIN. FRONTAGE</i>	<i>100 FT.</i>	<i>100 FT.</i>	<i>326.59 FT.</i>
<i>MAX. LOT COVERAGE BY BUILDINGS</i>	<i>25 %</i>	<i>35 %</i>	<i>24.4± %</i>
<i>MAXIMUM BUILDING HEIGHT</i>	<i>35 FT. (3 STORIES)</i>	<i>35 FT. (3 STORIES)</i>	<i>42' FT. (3 STORIES)**</i>
<i>FRONT YARD</i>	<i>25 FT.</i>	<i>30 FT.</i>	<i>25.4± FT.**</i>
<i>SIDE YARD</i>	<i>15 FT.</i>	<i>25 FT. (.35 FT IF YARD ABUTS R DISTRICT)</i>	<i>15.2± FT. LEFT SIDE YARD**</i>
			<i>154.05± FT. RIGHT SIDE YARD</i>
<i>REAR YARD</i>	<i>15 FT.</i>	<i>35 FT.</i>	<i>16.7± FT **.</i>
<i>MIN. OPEN SPACE</i>	<i>N/A</i>	<i>25 %</i>	<i>33.9± %</i>
<i>* EXISTING NON-CONFORMING</i>			
<i>** REQUIRES A WAIVER</i>			



1	FAK	JP	11/09/23		RESPONSE TO PEER REVIEW # 1
NO.	BY	APP	DATE		ISSUE/REVISION DESCRIPTION
DATE: 08/22/23 SCALE: "1"=30'					
DRAWN BY: CMK			DESIGNED BY: FAK		
CHECKED BY:			DTW APPROVED BY: JP		

PRELIMINARY SITE LAYOUT PLAN

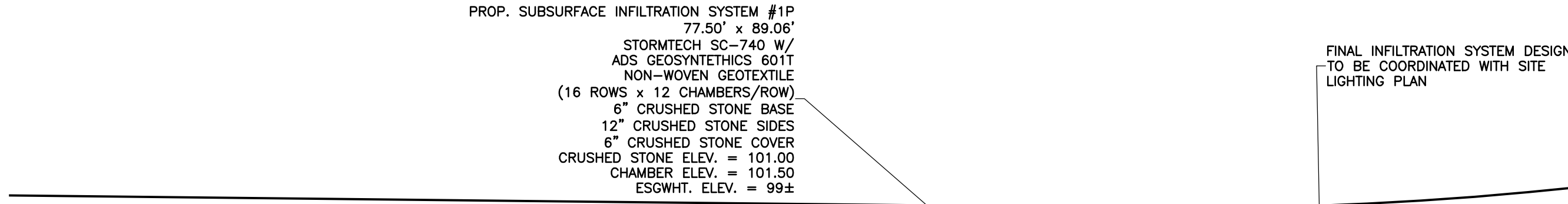
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DWG: 25912sp29r1.dwg

LAYOUT: C-1 U

SHEET: C-1

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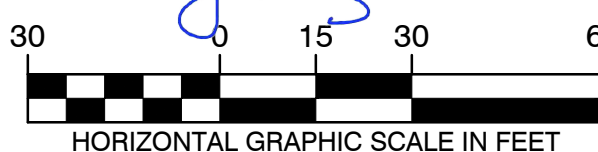


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 —F— FIRE SERVICE
 - - - - - DS DOMESTIC SERVICE
 ◆ HYD. HYDRANT
 - - - - - D DRAIN
 ■ CB CATCH BASIN
 ⊙ DMH DRAIN MANHOLE
 ⊙ OCS OUTLET CONTROL STRUCTURE
 —RD— ROOF DRAIN
 ——— PROPOSED PROPERTY LINE
 TP TEST PIT



PRELIMINARY GRADING & DRAINAGE PLAN

PROJECT NO.:	25912
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NOTE:
ADDITIONAL SOIL TESTING TO BE PERFORMED WITHIN
THE AREAS OF THE TWO PROPOSED STORMWATER
INFILTRATION SYSTEMS PRIOR TO PREPARATION OF
BUILDING PERMIT/CONSTRUCTION DRAWINGS.
INFILTRATION SYSTEM DESIGNS WILL BE ADJUSTED AS
REQUIRED BASED ON THIS ADDITIONAL SOIL TESTING

GZA GeoEnvironmental, Inc. <i>Engineers/Scientists</i> 243 Vandewater Avenue Norwood, MA 02062	Due-Diligence Geotechnical Evaluation Proposed Development 10 & 18 Boston St. & 49 South Main St. Middleton, Massachusetts	Test Pit No. Page No. 1 of 1 File No. Checked By: MAW/MJO	
GZA Rep. Weather	Juan Diego Lopez 50's, Sunny	Contractor Cryan Landscaping Contractors, Inc. Paulino Chirino Make CAT Model 308 Capacity 0.5 CY Reach 15 FT	Date 4/5/2022 Ground Elev. 123 Time Started 0920 Time Completed 0950

Depth	Soil Description (STRATUM DESCRIPTION)	Sample No.	Field Test Data	Excav. Effort	Boulders: Count/Class	Note No.
0"	Moist, bn/dark bn, f-c SAND and f-c GRAVEL, sm Silt, tr Boulders/Cobbles, tr Brick, tr Roots, (FILL) TOPSOIL	S-1	0.1 p.m	M	3A, 1B	1,2
1.5'				M	0	
2.25'	Moist, bn, f-c SAND, tr Silt, f-c GRAVEL, tr Boulders/Cobbles.	S-2	0.1 p.m	M	2A, 1B	
3'	Damp, bn, f-c SAND and f-c GRAVEL, sm Silt, tr(-) Roots. (FILL)	S-3	ND	M	2A, 1B	
4.0'				M	0	3
5.6'	Damp to wet, gr, f-c GRAVEL and f-c SAND, (f-c GRAVEL, tr Boulders/Cobbles. (SAND) GRAVEL	S-4	ND	D	1A, 1B	4
6'	Bottom of test pit at 5.6 feet. (Excavator bucket refusal on apparent nested Boulders or Bedrock)					
7'						
8'						
9'						
10'						
11'						
12'						
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14'						
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85'						

GZA Geoscientific, Inc. Engineers/Scientists 240 Vanderbilt Avenue New Bedford, MA 02052		Due Diligence Geotechnical Evaluation Proposed Development 10 S 18 Boston St & 48 South Main St Middletown, Massachusetts		Pest Pit No. 1 File No. 010175595-10 Checked By: MAR/MJO	
GZA Rep. M. Ostrowski		Excavation Equipment Operator Cyrus Landscaping Contractors, Inc. Operator: Hassler Lopez		Date 5/3/2022 Ground Elev. 105.5' Time Started 11:45 Time Completed 12:15	
Weather Partly Sunny, 40s - 50s		Make CAT Model 30.5 C.V. Reach 108 2ft.			

Depth	Soil Description - USDA FIELD CLASSIFICATION (STRATUM DESCRIPTION - USDA FIELD CLASSIFICATION)	Sample No.	PID Reading (gpm)	Excav. Effort	Boulders/Coarse Class	Note
0.7'	Dry, dark brown, Clayey SILT, sm f-c Sand, Ir H-C Gravel, Ir Roots, tr Boulders/Cobbles (ITP/SOL) - USDA (SAND)	S-1	ND	E		1, 2
1.6'	Moist, tan/brown, SILT, sm f-c Sand, tr f-c Gravel, tr sm f-c Boulders/Cobbles (ITL - USDA LOAM)	S-2	ND	E/M		
2'	Dry, tan, f-c GRAVEL and f-c SAND, Ir Cobbles/Boulders, tr SILT. (SAND/GRAVEL - USDA SAND)	S-3	ND	M		3
3.3'				M	58, 204, 1C	
4'				M/D		
6'	Dry to wet, tan/light brown, f-c SAND and f-c GRAVEL - Ir SILT, It to sm Cobbles/Boulders. (SAND/GRAVEL - USDA LOAMY SAND)	S-4	0.1	M/D		
7'				M/D		
7.7'	Bottom of test pit at 7.7 feet below ground surface.			M/D		4
10'						
12'						
14'						
16'						
18'						
20'						
22'						
24'						
26'						
28'						
30'						
32'						
34'						
36'						
38'						
40'						
42'						
44'						
46'						
48'						
50'						
52'						
54'						
56'						
58'						
60'						
62'						
64'						
66'						
68'						
70'						
72'						
74'						
76'						
78'						
80'						
82'						
84'						
86'						
88'						
90'						
92'						
94'						
96'						
98'						
100'						

Notes:

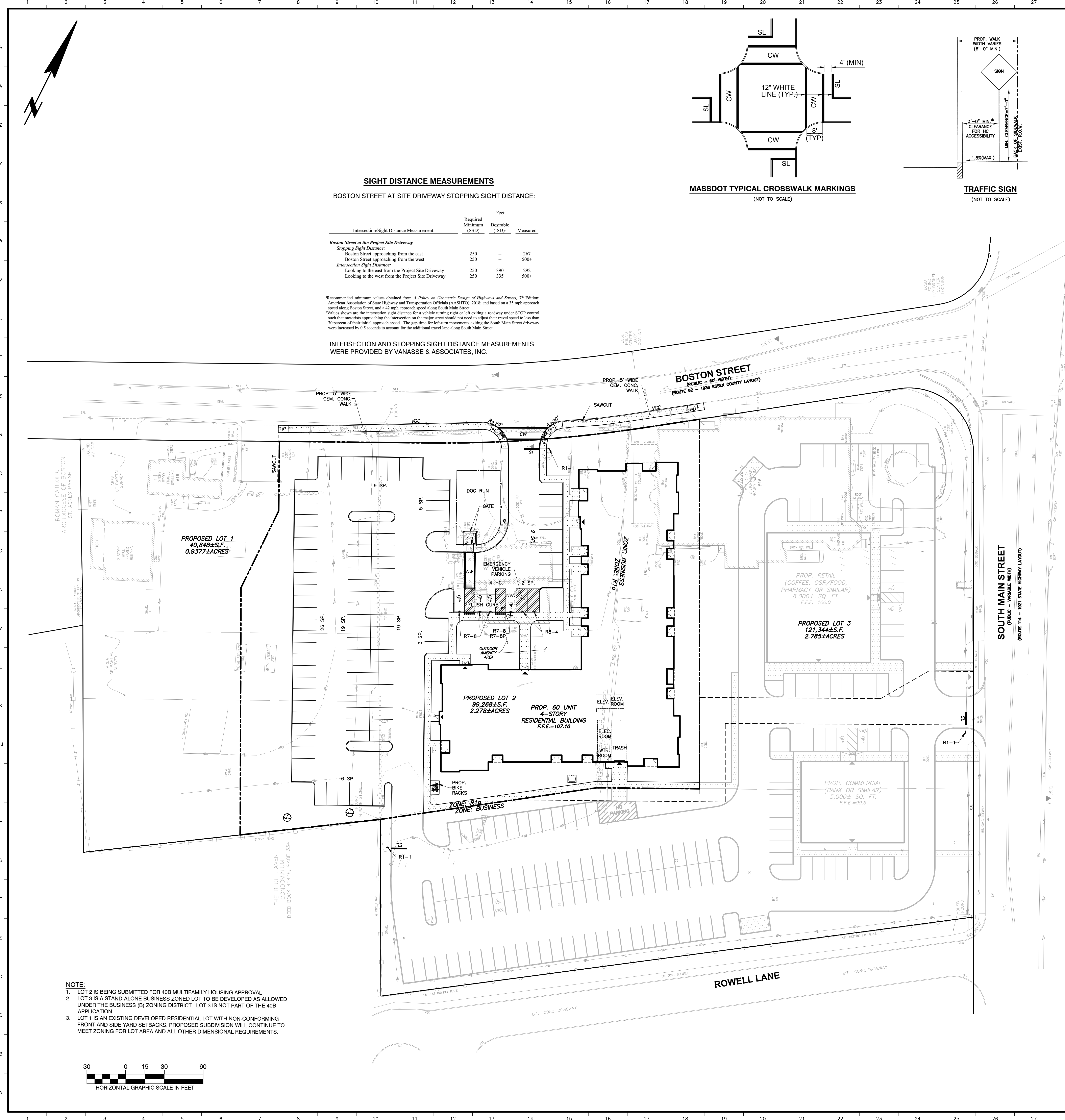
- Ground surface elevation estimated from topography shown on a plan prepared by Hancock Associates, Inc. entitled "Existing Conditions Plan of Land in Middletown, MA," dated 5/26/2022.
- Field testing results represent total organic vapor levels, referenced to a benzene standard, measured in the headspace of sealed soil sample jars using a Ion Science Phoscheck Tiger organic vapor meter equipped with a photoionization detector (PID) and 10.5eV lamp. Results in parts per million by volume (ppmv).
- Falling head permeability test by Dinitrol Engineering, Inc. (DEI) in the S-3 material at approximately 2.3 feet below ground surface (bgs).
- Test pit backfilled with excavated spoils placed in approximately 1 foot thick lifts/8 lifts each stamped with the excavator bucket. The ground surface was filled over the bottom and reseeded upon completion.

Test Pit Plan		Boulder Data		Properties Used		Abbreviations		GROUNDWATER	
		Letter Designation A Size Range 4" - 12" 12" and Larger 32" and Larger	Size Range 4" - 12" 12" and Larger 32" and Larger	TRACI (TN) 0 - 10% LITTLE (LT) 10 - 20% SOME (SM) 20 - 35% MOD 35 - 50%	1 = Fine M = Medium C = Coarse W = Very fine to medium N/C = No trace material SH = Shale SL = Silt CL = Clay	1 = Fine M = Medium C = Coarse W = Very fine to medium N/C = No trace material SH = Shale SL = Silt CL = Clay	1 = Encountered 2 = Not encountered	Depth Drilled Probe Reading Observed Ground water	7.3'

Stratification lines represent approximate boundaries between soil types, transitions may be gradual. Water level readings have been made at times and under conditions stated. Occurrences of groundwater may occur due to factors other than those present in the time measurements were made.

SHEET: C-4	
PROJECT NO.	05010

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Tab: C-5 Signage Plot Style: 3500.ctb Plotted By: Chai H. Kwan



SIGHT DISTANCE MEASUREMENTS

BOSTON STREET AT SITE DRIVEWAY STOPPING SIGHT DISTANCE:

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD) ^a	Measured
<i>Boston Street at the Project Site Driveway</i>			
Stopping Sight Distance:			
Boston Street approaching from the east	250	--	267
Boston Street approaching from the west	250	--	500+
Intersection Sight Distance:			
Looking to the east from the Project Site Driveway	250	390	292
Looking to the west from the Project Site Driveway	250	335	500+

^aRecommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO), 2018; and based on a 35 mph approach speed along Boston Street, and a 42 mph approach speed along South Main Street.
^bValues shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed. The gap time for left-turn movements exiting the South Main Street driveway were increased by 0.5 seconds to account for the additional travel time along South Main Street.

INTERSECTION AND STOPPING SIGHT DISTANCE MEASUREMENTS WERE PROVIDED BY VANASSE & ASSOCIATES, INC.

MASSDOT TYPICAL CROSSWALK MARKINGS
(NOT TO SCALE)

TRAFFIC SIGN
(NOT TO SCALE)

PROP. LEGEND

- PROPOSED PROPERTY LINE/PROPOSED 40B LOT
- PROPOSED CROSS WALK
- CURBING
- DIRECTION OF TRAVEL
- CEMENT CONC. PAD/WALK (ASPHALT WALK OPTION)
- TRAFFIC SIGNS MOUNTED ON A P-5 POST
- TRANSFORMER
- STOP LINE

NOTE:
1. ALL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE APPLICABLE SPECIFICATIONS OF THE MANUAL OF THE UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

SIGN SUMMARY					
IDENTIFICATION NUMBER	SIZE OF SIGN WIDTH HEIGHT	TEXT	BACKGROUND	LETTERING	No. OF SIGNS REQUIRED
R1-1	30" 30"	STOP	RED	WHITE	3
R7-B	12" 18"	RESERVED PARKING	WHITE	GREEN WITH BLUE & WHITE LOGO	4
R7-BA	8" 9"	VAN ACCESSIBLE	WHITE	GREEN	1
R8-4	30" 24"	EMERGENCY PARKING ONLY	WHITE	BLACK	2

TRAFFIC SIGNS
(NOT TO SCALE)

SIGHT DISTANCE MEASUREMENTS

SOUTH MAIN STREET AT SITE DRIVEWAY STOPPING SIGHT DISTANCE:

Intersection/Sight Distance Measurement	Feet		
	Required Minimum (SSD)	Desirable (ISD) ^a	Measured
<i>South Main Street at the Project Site Driveway</i>			
Stopping Sight Distance:			
South Main Street approaching from the north	325	--	351
South Main Street approaching from the south	325	--	500+
Intersection Sight Distance:			
Looking to the north from the Project Site Driveway	325	405	405
Looking to the south from the Project Site Driveway	325	495	500+

^aRecommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets*, 7th Edition; American Association of State Highway and Transportation Officials (AASHTO), 2018; and based on a 35 mph approach speed along Boston Street, and a 42 mph approach speed along South Main Street.
^bValues shown are the intersection sight distance for a vehicle turning right or left exiting a roadway under STOP control such that motorists approaching the intersection on the major street should not need to adjust their travel speed to less than 70 percent of their initial approach speed. The gap time for left-turn movements exiting the South Main Street driveway were increased by 0.5 seconds to account for the additional travel time along South Main Street.

INTERSECTION AND STOPPING SIGHT DISTANCE MEASUREMENTS WERE PROVIDED BY VANASSE & ASSOCIATES, INC.

PAVEMENT MARKING NOTES:

- PARKING STALL STRIPING SHALL BE 4" WIDE WHITE LINES.
- CROSSWALKS AND STOP LINES SHALL BE 12" WIDE WHITE LINES.
- ACCESSIBLE PARKING STALL MARKINGS TO FOLLOW DETAILS ON SHEET C-7.

MIDDLETON

10 & 18 Boston Street &
49 South Main Street
Middleton, Massachusetts 01949

PREPARED FOR:

VILLEBRIDGE DEVELOPMENT LLC.

1150 Great Plain Avenue
Needham, Massachusetts 02492

HANCOCK ASSOCIATES

Civil Engineers

Land Surveyors

Wetland Scientists

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PRELIMINARY PAVEMENT MARKING & SIGNAGE PLAN

PLOT DATE: Nov 09, 2023 10:48 am
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DWG: 25912sp29r1.dwg

LAYOUT: C-5 Signage

SHEET: C-5

PROJECT NO.: 25912

ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SETTLEMENT AND EROSION CONTROL MANUAL.

THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME. AREAS SHALL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING AND TEMPORARILY STABILIZED WITHIN 30 DAYS OF INITIAL DISTURBANCE OF THE SOIL. IF THE DISTURBANCE IS WITHIN 100 FEET OF A STREAM OR POND, THE AREA SHALL BE STABILIZED WITHIN 7 DAYS. ANY CANALS OR DRAINAGE AREAS SHALL BE STABILIZED IMMEDIATELY.

SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF THE CONTRIBUTING DRAINAGE AREA ABOVE THEM. MULCH NETTING SHALL BE USED PREVIOUSLY TO ANY SLOPE PROTECTION WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST THE SAME SHALL APPLY FOR ALL SLOPES GREATER THAN 8%.

INSTALL SILTATION BARRIER AT TOP OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE NOTE #5.

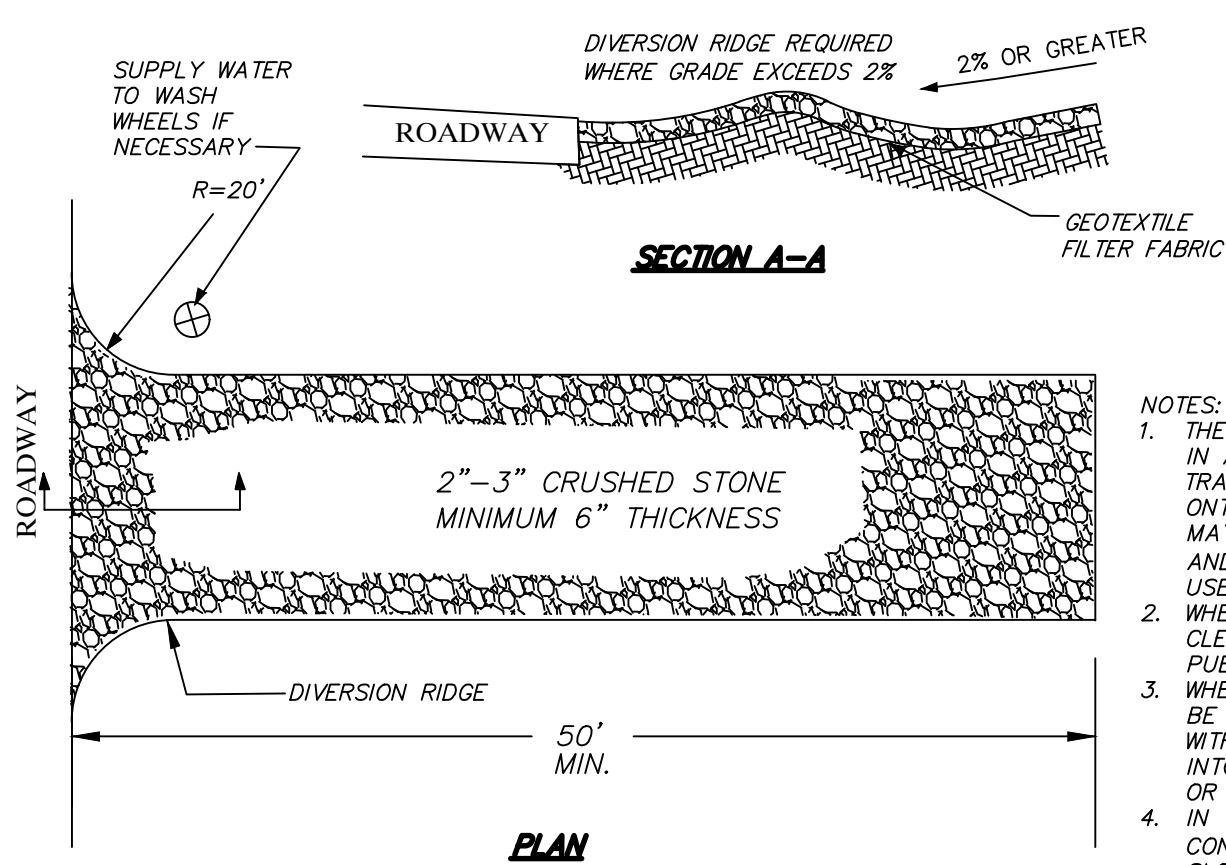
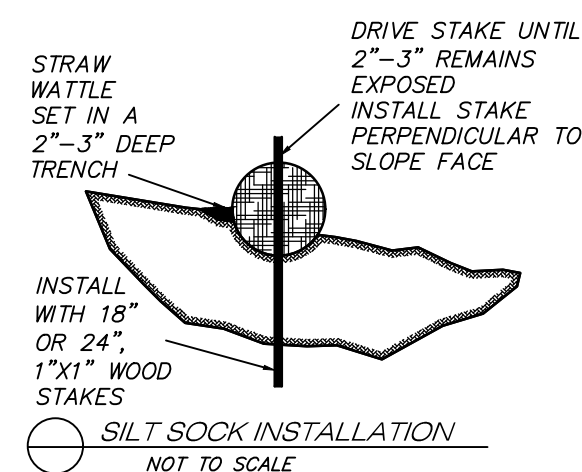
ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT WHEN NO LONGER REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MONITOR AND MAINTAIN THESE BARRIERS. BARRIERS MUST BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH ONE FOOT. ONE HUNDRED PERCENT OF THE BARRIERS SHOULD BE REMOVED AFTER EACH STORM EVENT. BARRIERS WILL BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSTREAM ARE STABILIZED BY TURF.

NO FLUPES, ERPOSED CONDITION OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1).

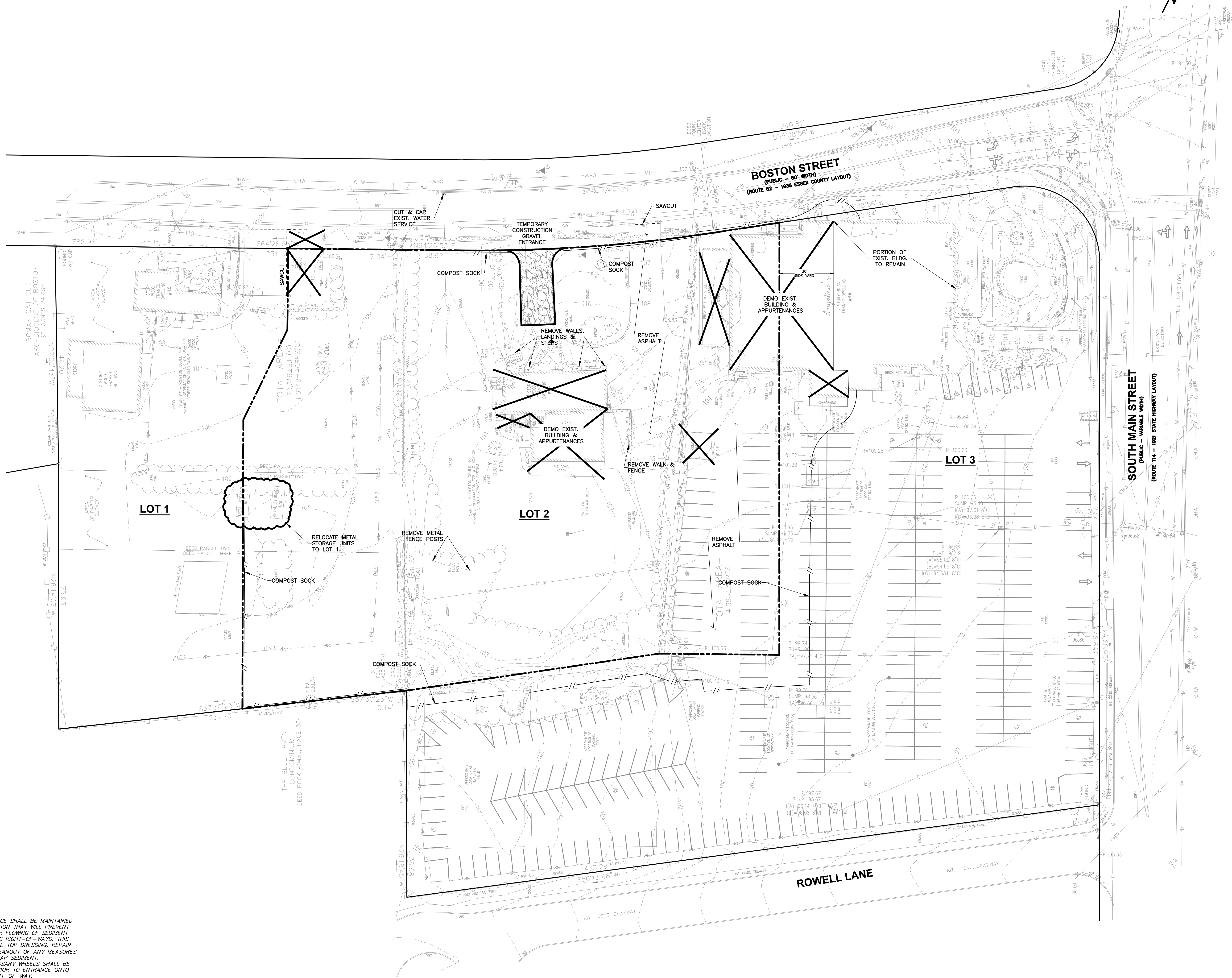
TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING Frost TO PROTECT FROM SPRING RUNOFF PRIOR TO PLANTING.

DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND REGRADED INTO OPEN AREAS.

1. CONTRACTOR TO COORDINATE WITH ALL AFFECTED UTILITY COMPANIES PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO PLANS & SPECIFICATIONS BY ARCHITECT FOR REQUIREMENTS RELATED TO DEMOLITION OF THE EXISTING BUILDING.
3. REMOVE ALL EXISTING SEPTIC SYSTEM STRUCTURES ON LOT 2.
4. REMOVE ALL EXISTING DRAINAGE STRUCTURES ON LOT 2.
5. REMOVE ALL ASPHALT AND CEMENT CONCRETE PAVEMENT, AND ALL CURBING ON LOT 2.



1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED BY EROSION CONTROL THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
4. IN THE DIRECTION OF TRAVEL, THE CONSTRUCTION ENTRANCE/EXIT SHALL SLOPE DOWN TOWARDS THE SITE AND AWAY FROM THE ROADWAY.



NOTE:

1. LOT 2 IS BEING SUBMITTED FOR 40B MULTIFAMILY HOUSING APPROVAL.
2. LOT 3 IS A STAND-ALONE BUSINESS ZONED LOT TO BE DEVELOPED AS ALLOWED UNDER THE BUSINESS (B) ZONING DISTRICT. LOT 3 IS NOT PART OF THE 40B APPLICATION.
3. LOT 1 IS AN EXISTING DEVELOPED RESIDENTIAL LOT WITH NON-CONFORMING FRONT AND SIDE YARD SETBACKS. PROPOSED SUBDIVISION WILL CONTINUE TO MEET ZONING FOR LOT AREA AND ALL OTHER DIMENSIONAL REQUIREMENTS.

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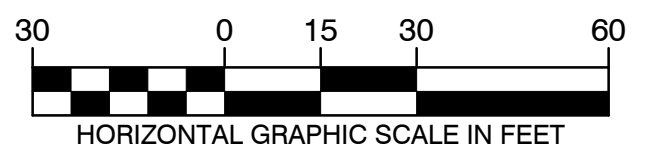
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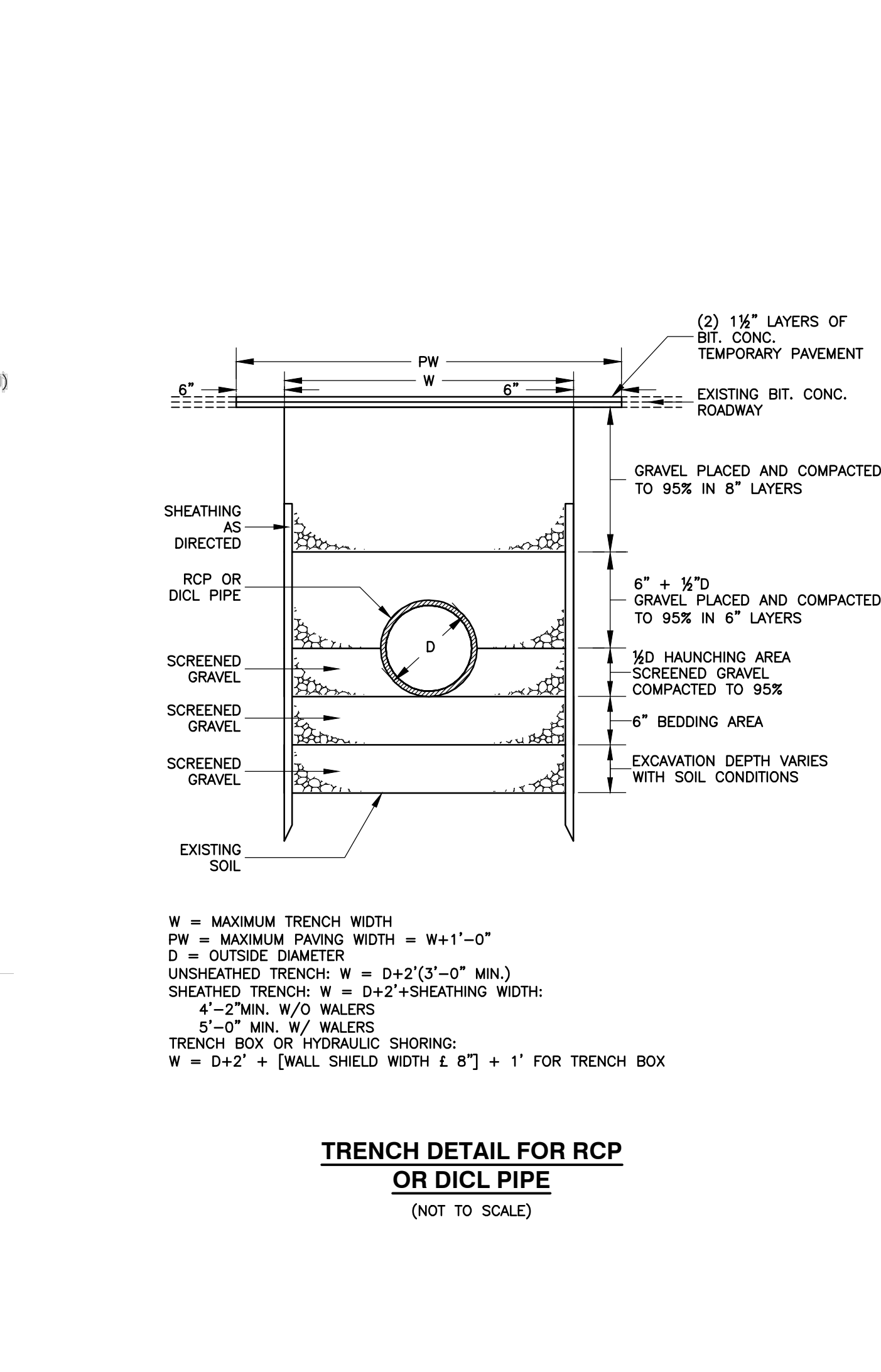
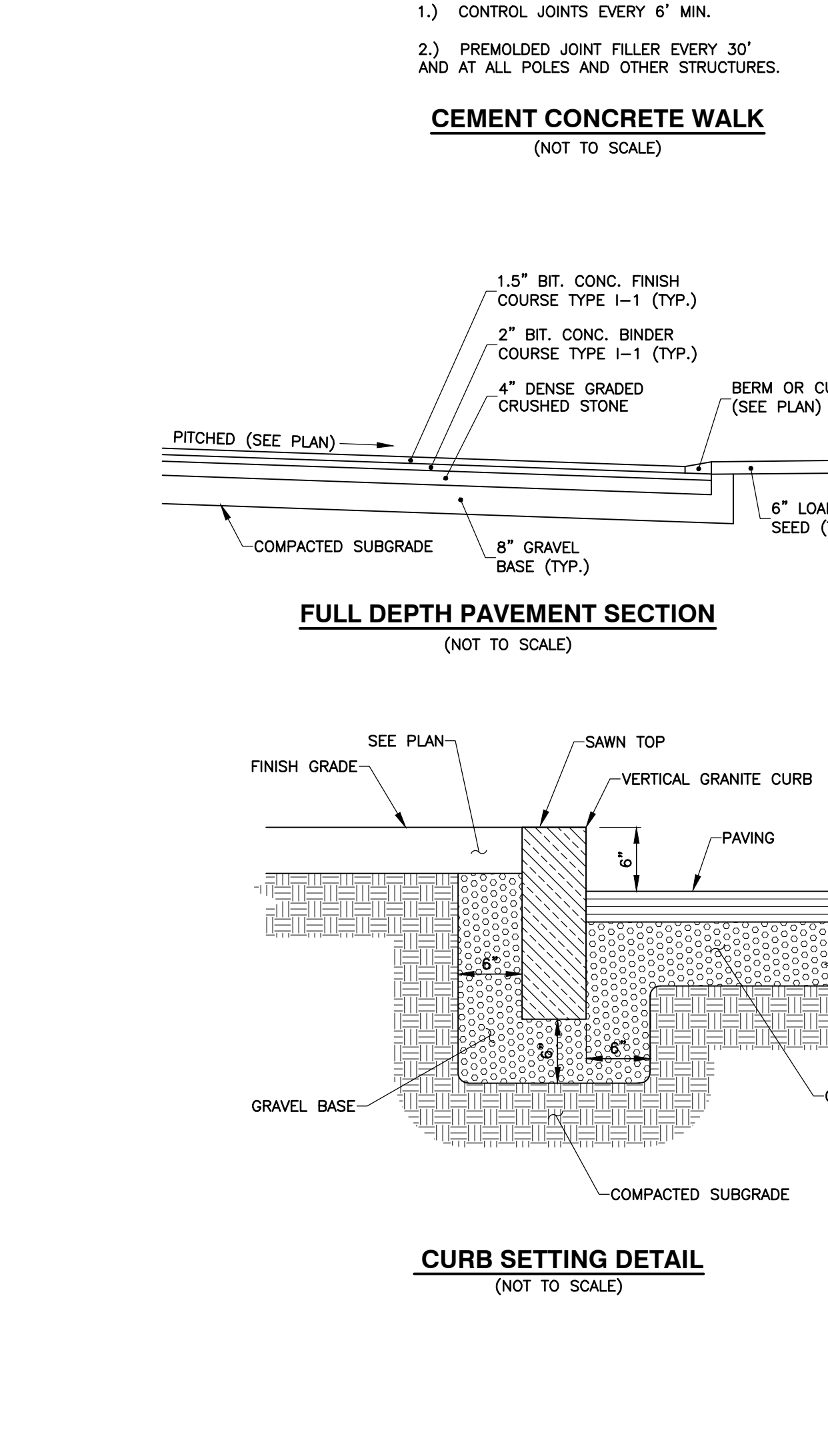
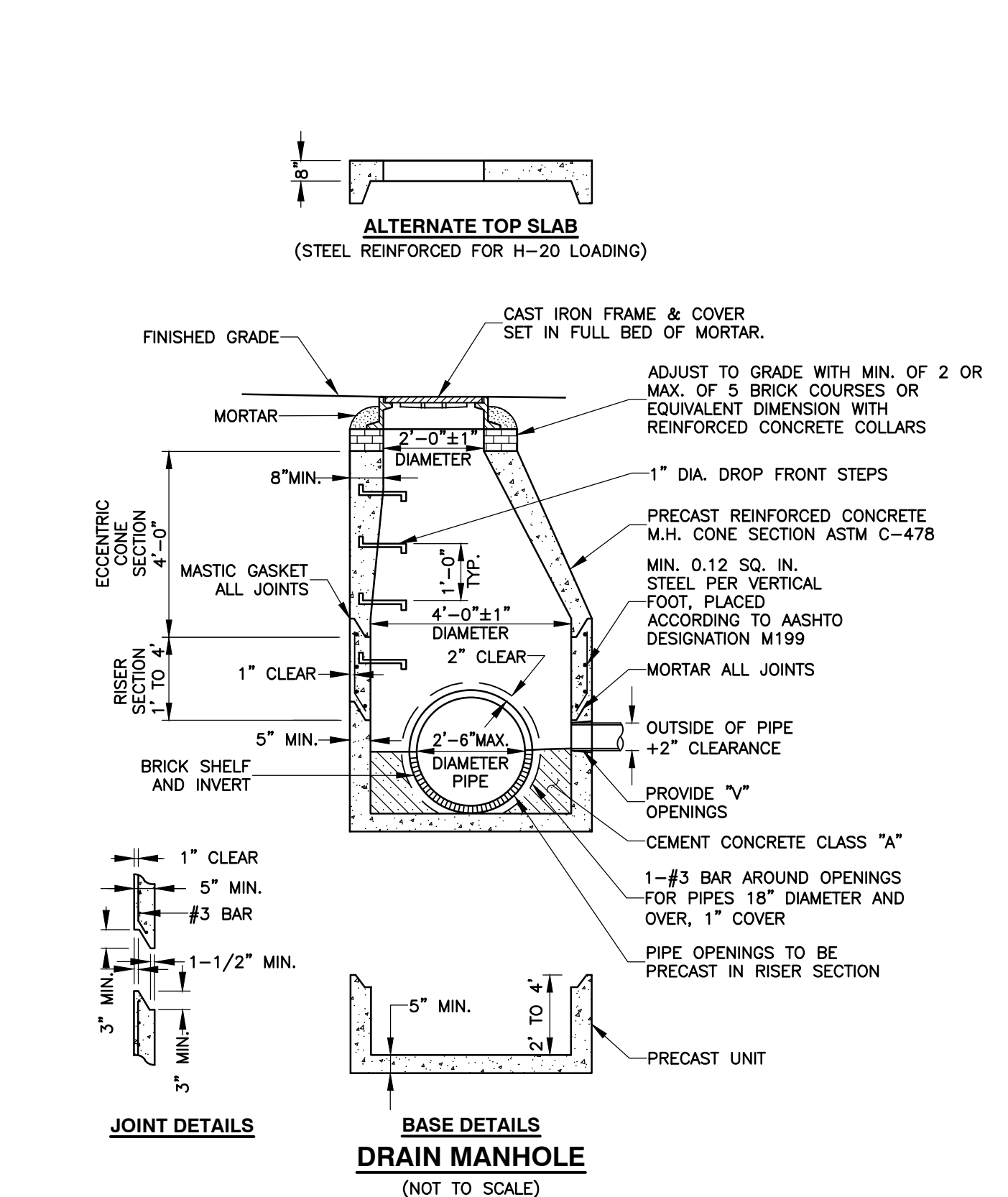
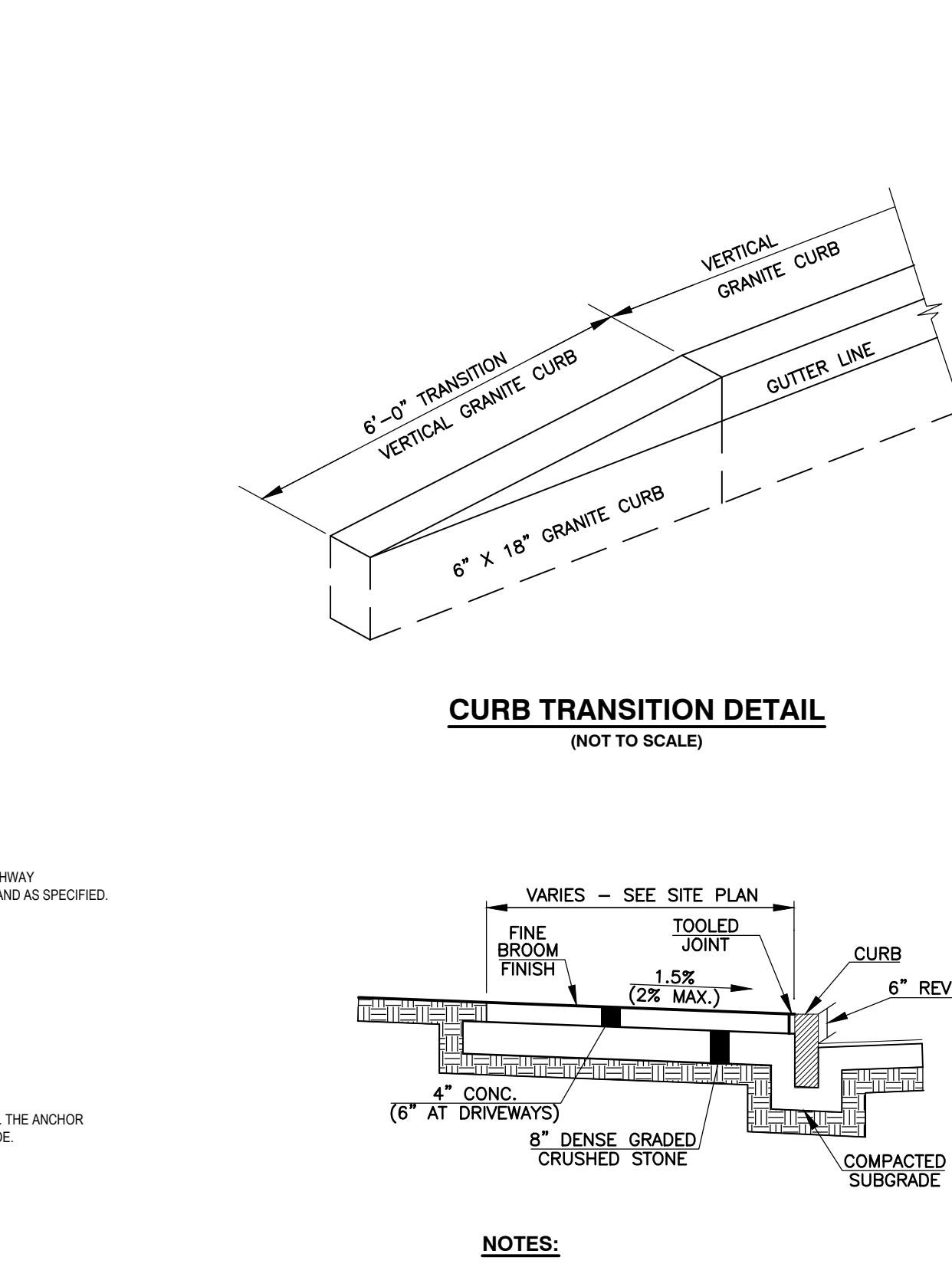
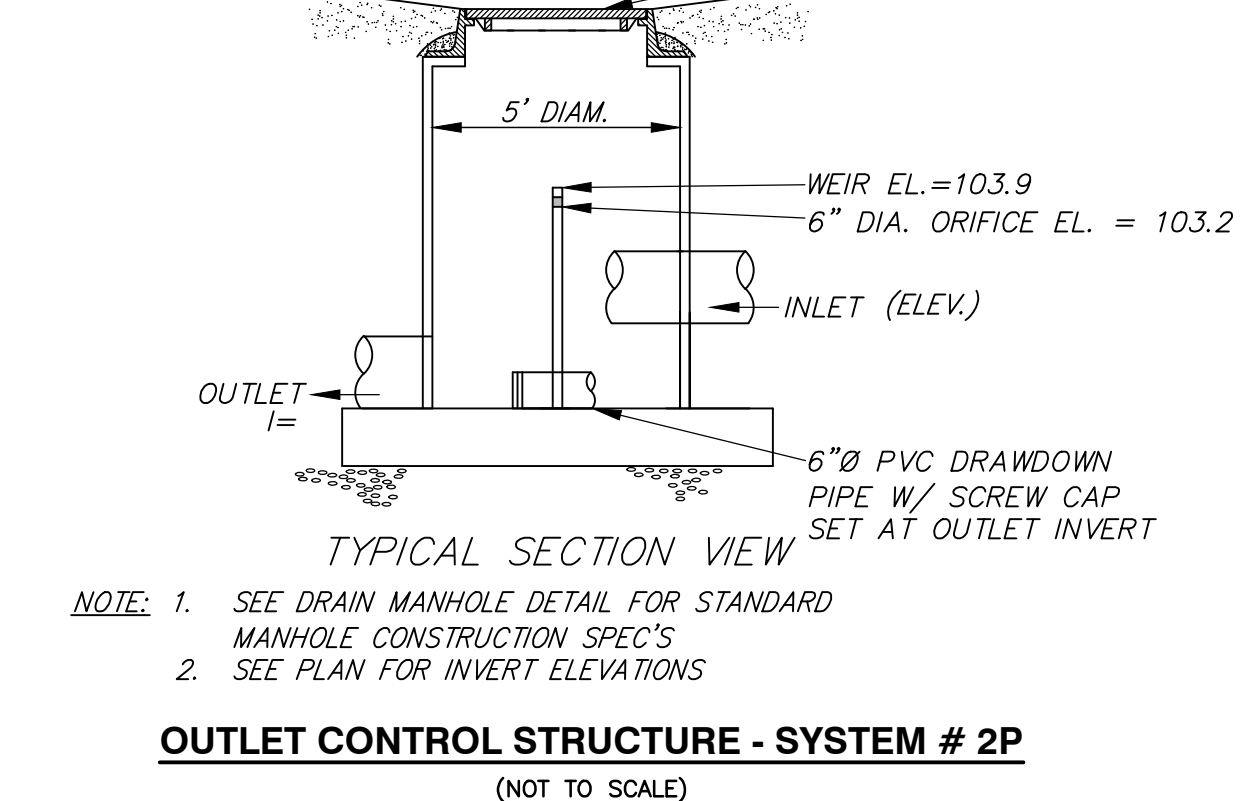
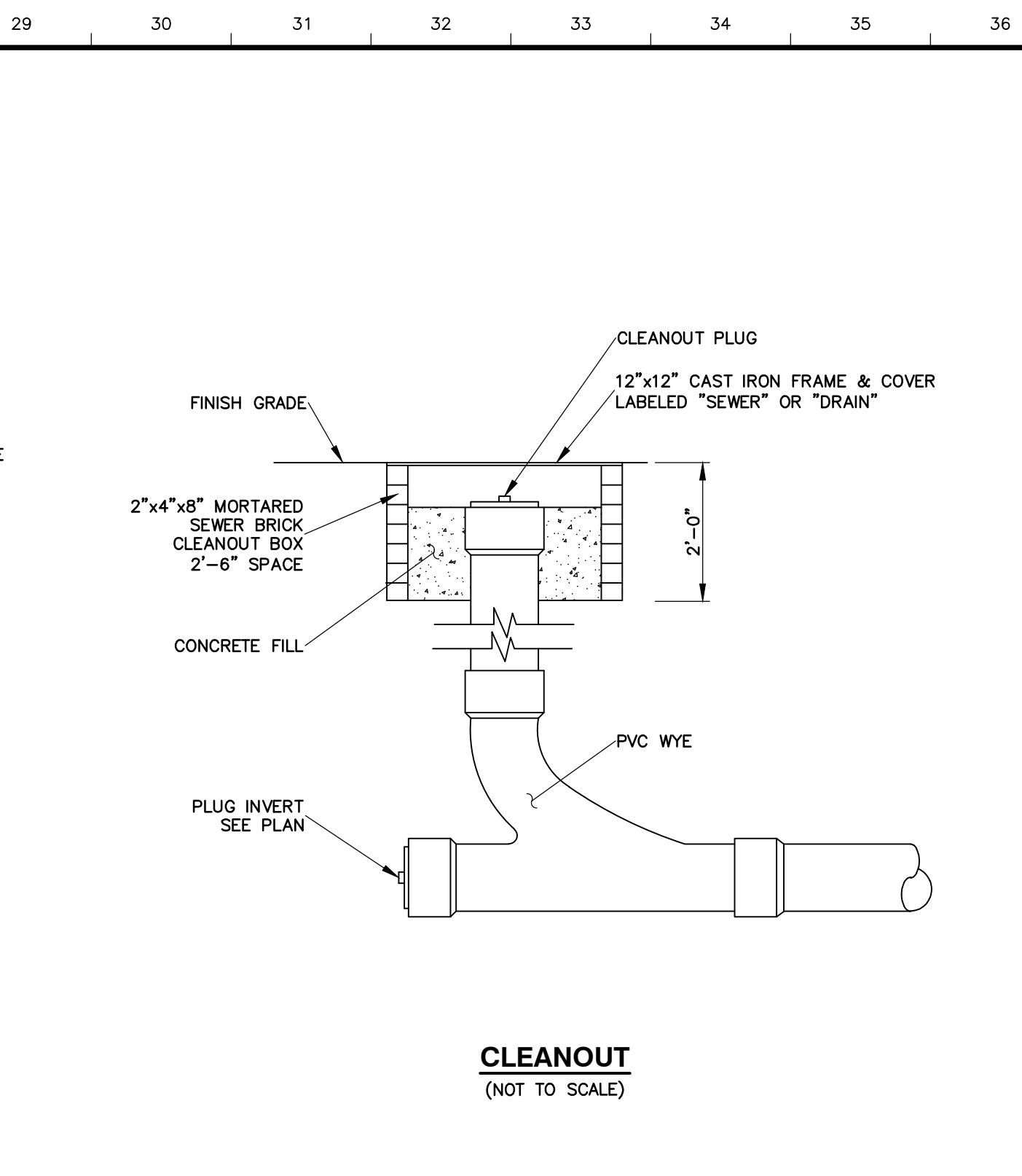
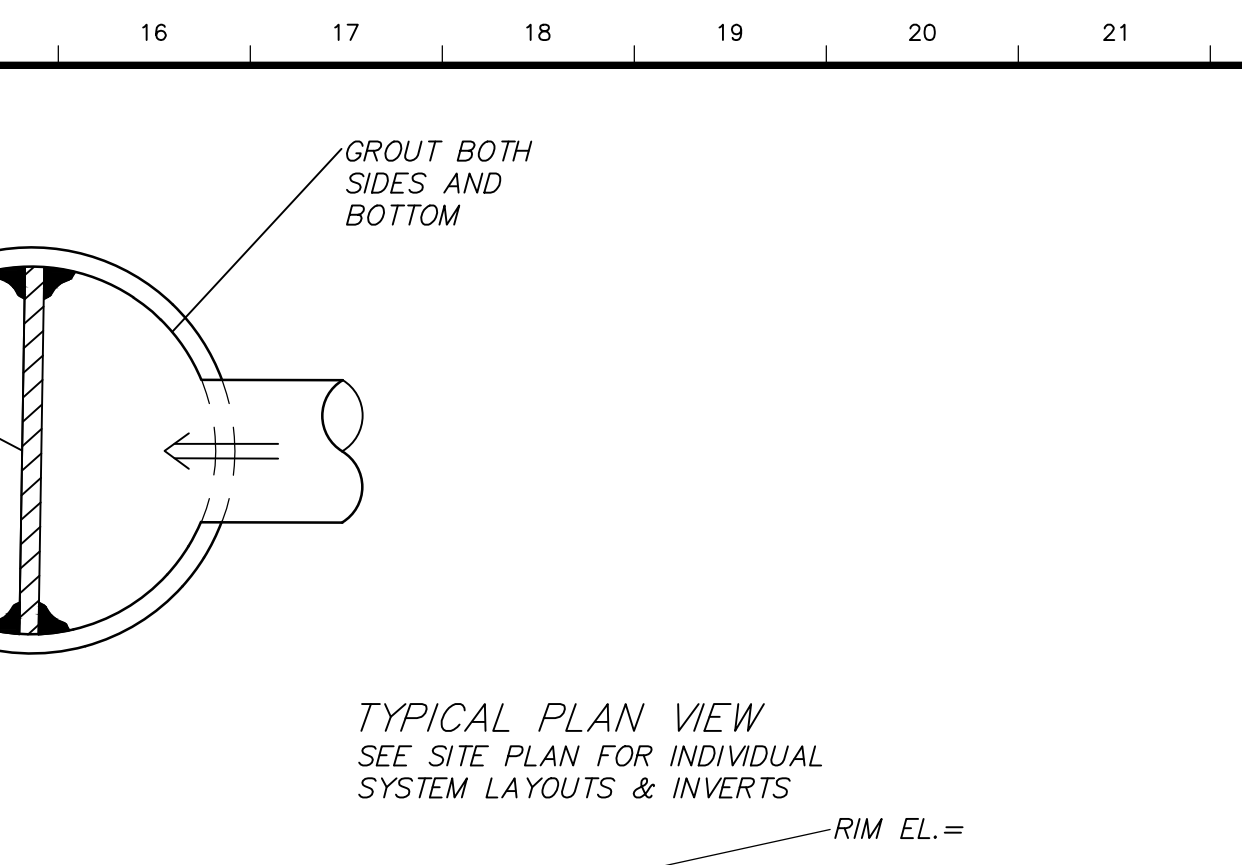
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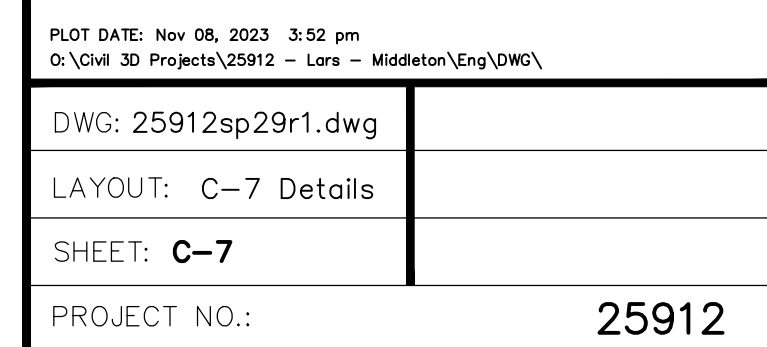
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SHEET: C-6

25912

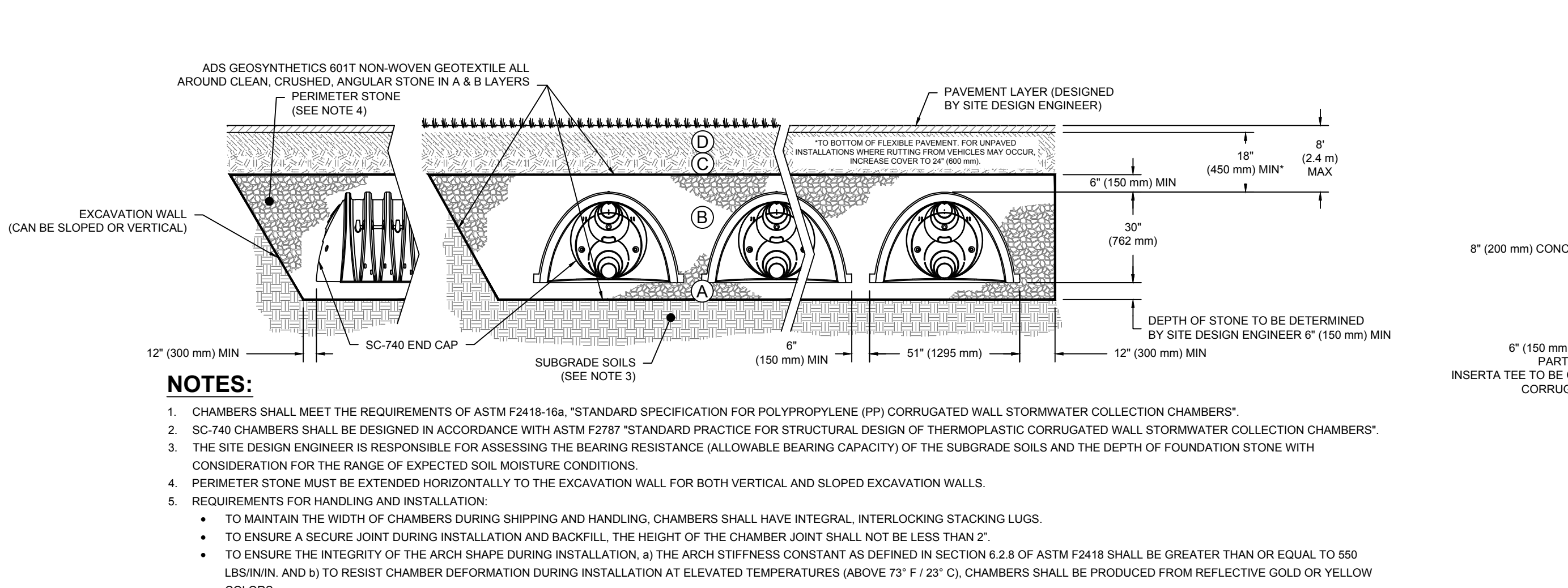


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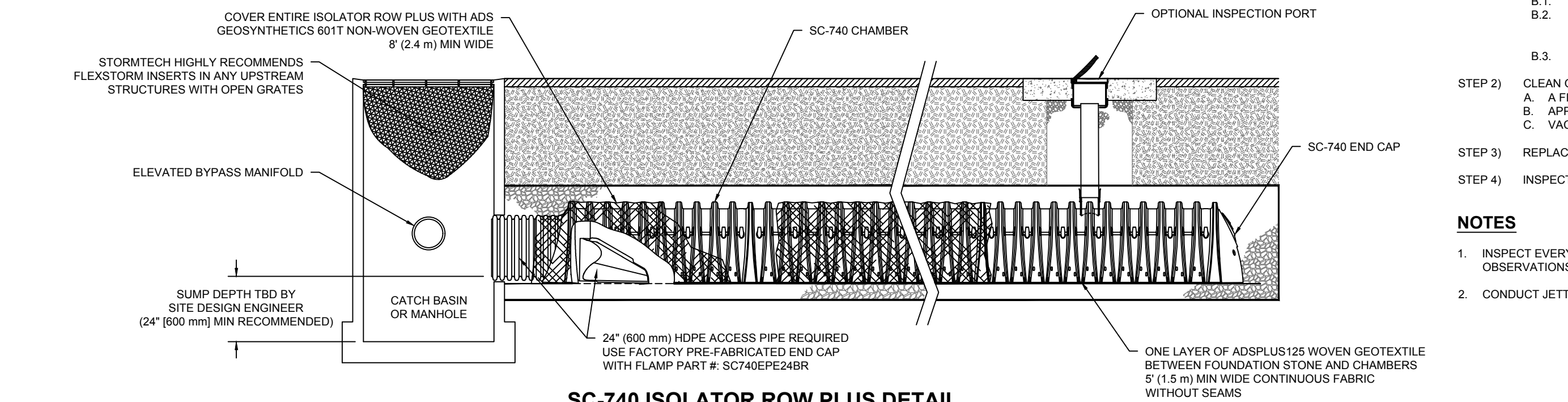
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STORMTECH SC-740 CROSS SECTION

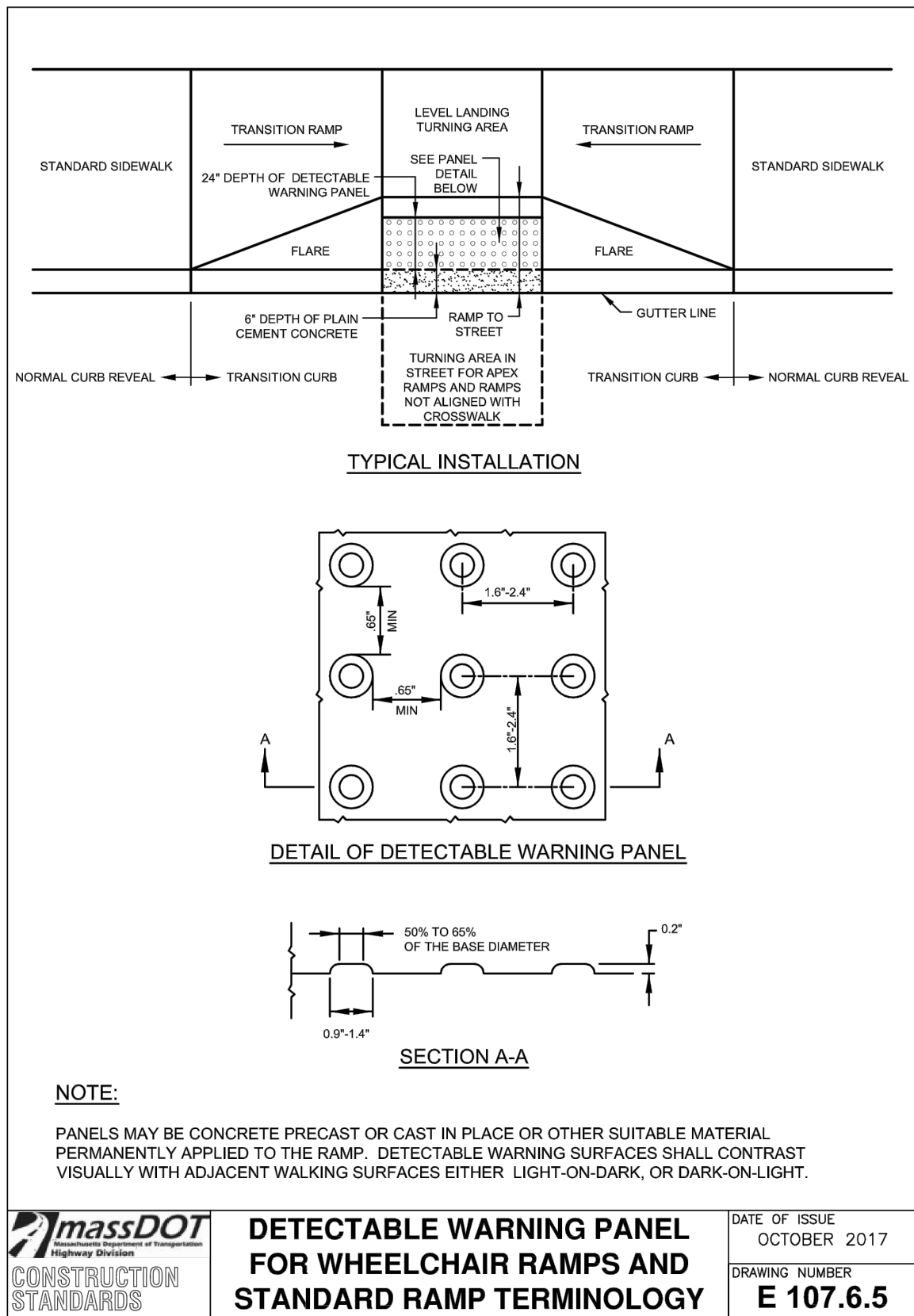
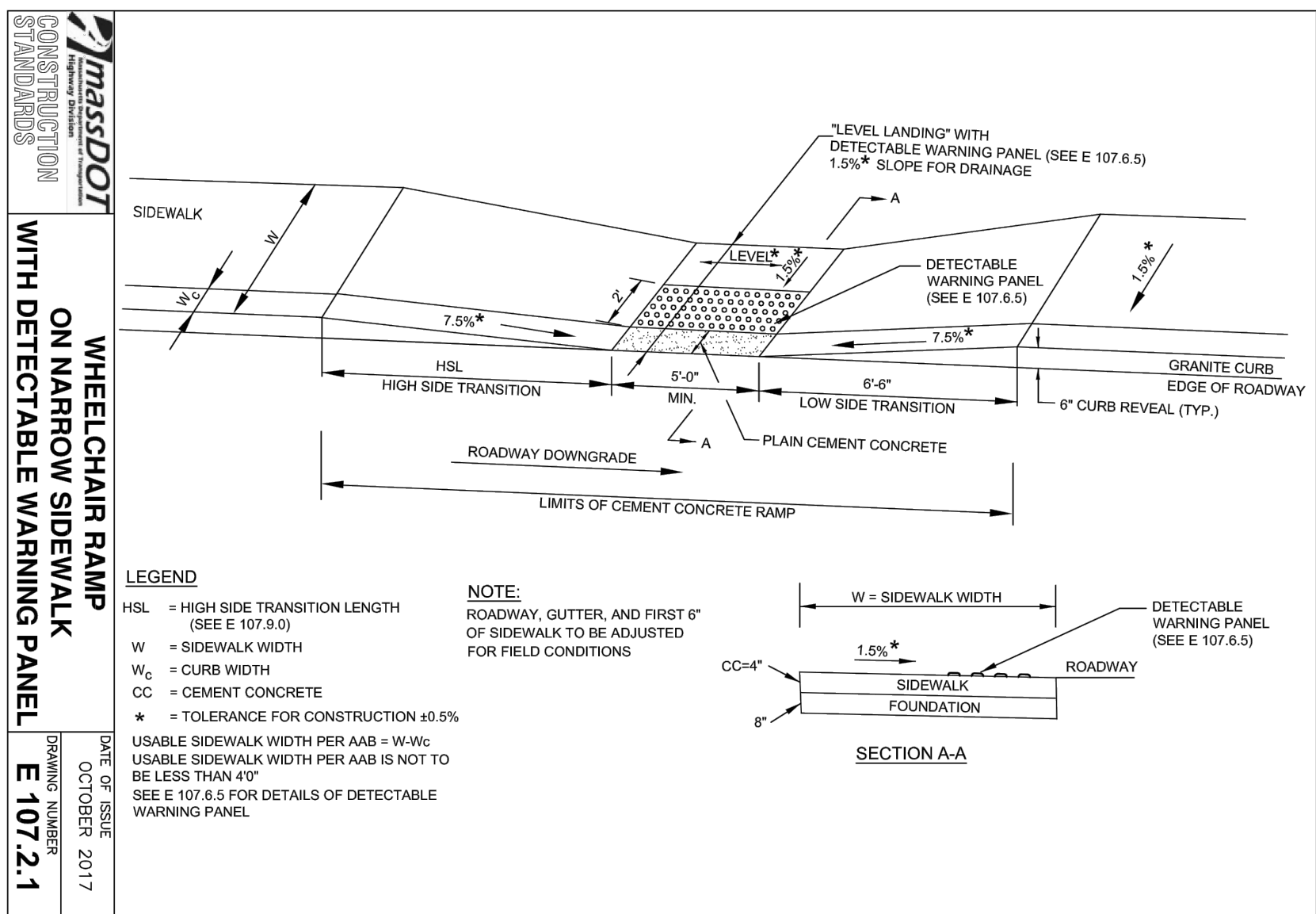
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PRELIMINARY INFILTRATION SYSTEM TABLE

SYSTEM	CHAMBERS	# OF ROWS	CHAMBERS PER ROW	FIELD WIDTH (FT)	FIELD LENGTH (FT)	CHAMBER INVERT	STONE INVERT	ESHWGT ** ELEVATION
1P	SC-740	15	12	77.5 FT	89.06 FT	101.5	101.0	99±
		1	11*					
2P	SC-740	1	6	6.25 FT	46.33 FT	101.5	101.0	95±

- ** 1 CHAMBER TO BE REMOVED TO ACCOMMODATE SITE LIGHT POLE.
** TO BE CONFIRMED WITH ADDITIONAL SOIL TESTING PRIOR TO PREPARATION OF BUILDING PERMIT/CONSTRUCTION DRAWINGS.



ROADWAY PROFILE GRADE	* HIGH SIDE TRANSITION LENGTH
ENGLISH UNITS	
%	
=0%	6'-6"
>0% TO 1%	7'-8"
>1% TO 2%	9'-0"
>2% TO 3%	11'-0"
>3% TO 4%	14'-0"
>4% TO 5%	15'-0" Max

NOTE:

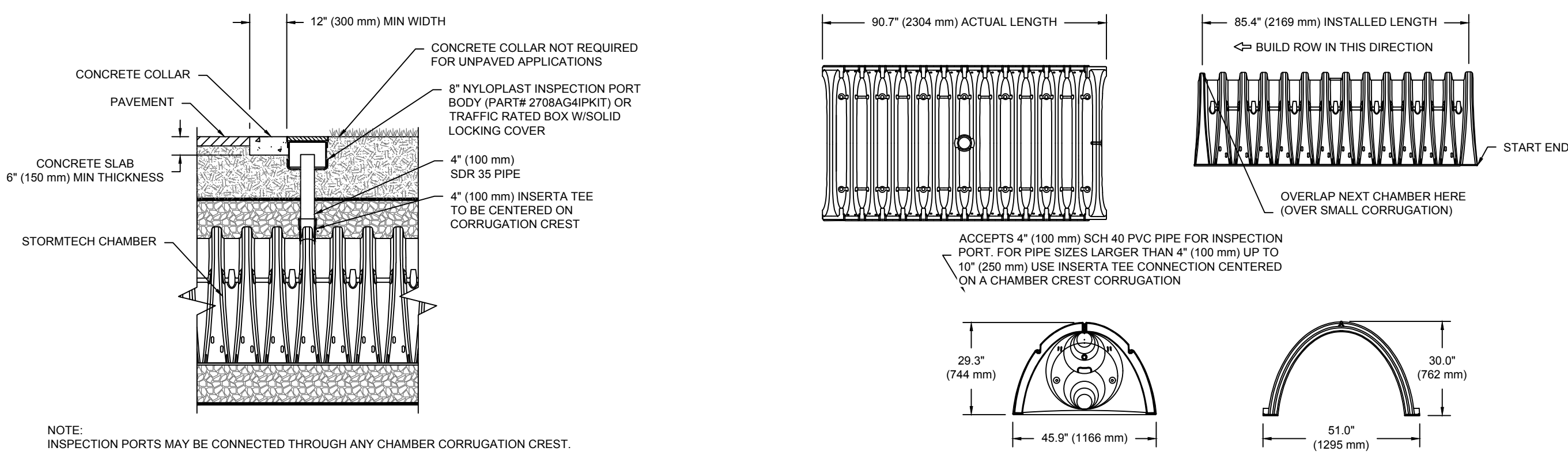
* BASED ON A DESIGN SLOPE OF 7.5% AND A REVEAL OF 6".

MASSDOT DETAIL - CURB TRANSITION LENGTH

(NOT TO SCALE)

SC-740 TECHNICAL SPECIFICATION

NTS



4" PVC INSPECTION PORT DETAIL

(SC SERIES CHAMBER)

NTS

INSPECTION & MAINTENANCE

- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
- A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
- A.3. USING A FLASHLIGHT AND STACH ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
- A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
- A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
- B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
- B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS, RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

- INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION, ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
- CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1296 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

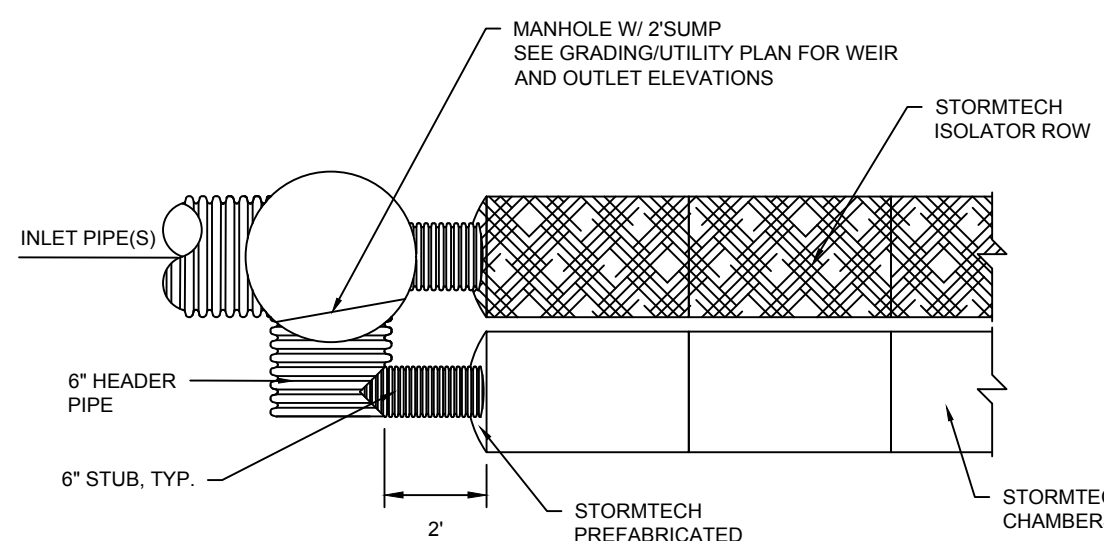
*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PART #	STUB	A	B	C
SC740EPE001 / SC740EPE002	6" (150 mm)	10.9" (277 mm)	18.9" (470 mm)	—
SC740EPE008 / SC740EPE009	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	0.8" (13 mm)
SC740EPE010 / SC740EPE011	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	0.8" (13 mm)
SC740EPE012 / SC740EPE013	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	0.7" (18 mm)
SC740EPE014 / SC740EPE015	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	1.2" (30 mm)
SC740EPE016 / SC740EPE017	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	1.3" (33 mm)
SC740EPE018 / SC740EPE019	24" (600 mm)	18.5" (470 mm)	—	1.6" (41 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE024B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-885-2684.

* FOR THE SC740EPE024B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.70" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL.



MIDDLETON

10 & 18 Boston Street &
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PREPARED FOR:

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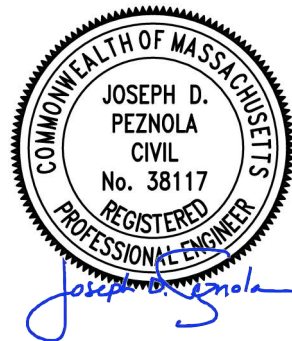
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**PRELIMINARY
DETAILS**

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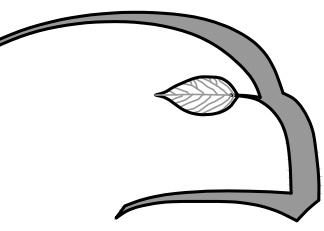
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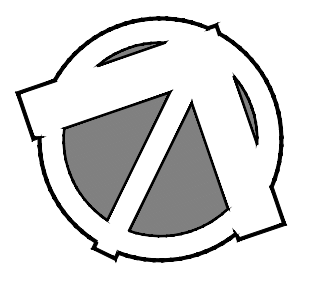
PROJECT NO.: 25912





Hawk Design, Inc.
Landscape Architecture
Land Planning
Sagamore, MA
508-833-8800
info@hawkdesigninc.com

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Date: 8/22/23

Revisions:

Num.	Date	Description
1.	11/9/23	Per peer review comments


10 Boston Street
Middleton, Massachusetts
Prepared for: Villabridge Development LLC of Needham, MA

Drawn By: BNL Checked By: TEM

Illustrative Site Plan

Scale: 1" = 20'-0"

Sheet: **SK**



SCALE: 1" = 20'
Base information provided electronically by:
Hancock Associates of Boston, MA

10 BOSTON STREET
MIDDLETON, MASSACHUSETTS

LANDSCAPE PERMIT SUBMISSION SET
REVISION # 1

LIST OF DRAWINGS:

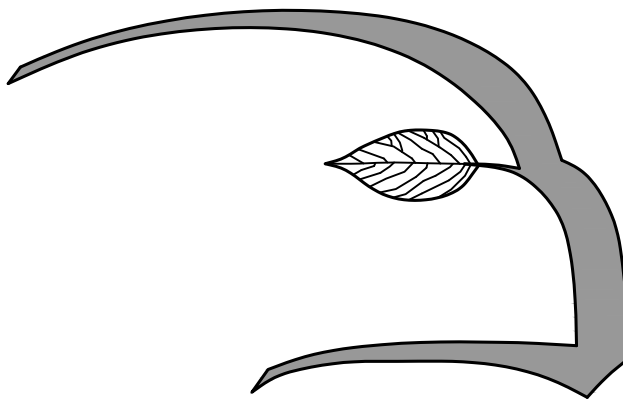
		SET DATE
L1.1	PLANTING PLAN	11/9/23
L2.1	LIGHTING PLAN	11/9/23
L2.2	LIGHTING SPECIFICATIONS	11/9/23
LD1	PLANTING SPECIFICATIONS	11/9/23
LD2	PLANTING DETAILS AND PLANT SCHEDULE	11/9/23

OWNER / APPLICANT:
VILLEBRIDGE REAL ESTATE DEVELOPMENT
1150 GREAT PLAIN AVENUE #920056
NEEDHAM, MA 02492
PHONE: 781-343-1239

CIVIL ENGINEER:
HANCOCK ASSOCIATES
121 E. BERKLEY STREET, 4TH FLOOR
BOSTON, MA 02118
PHONE: 617-357-8145

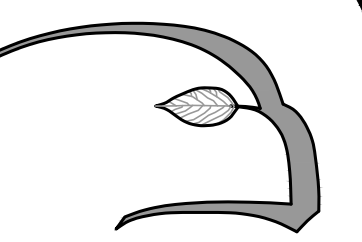
ARCHITECT:
THE ARCHITECTURAL TEAM
50 COMMANDANTS WAY
CHELSEA, MA 02150
PHONE: 617-889-4402

PREPARED BY:



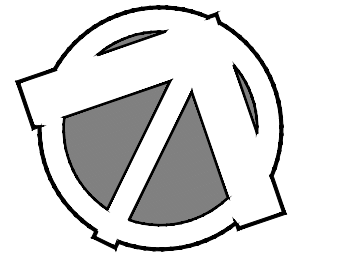
Hawk Design, Inc.
Landscape Architecture
Land Planning

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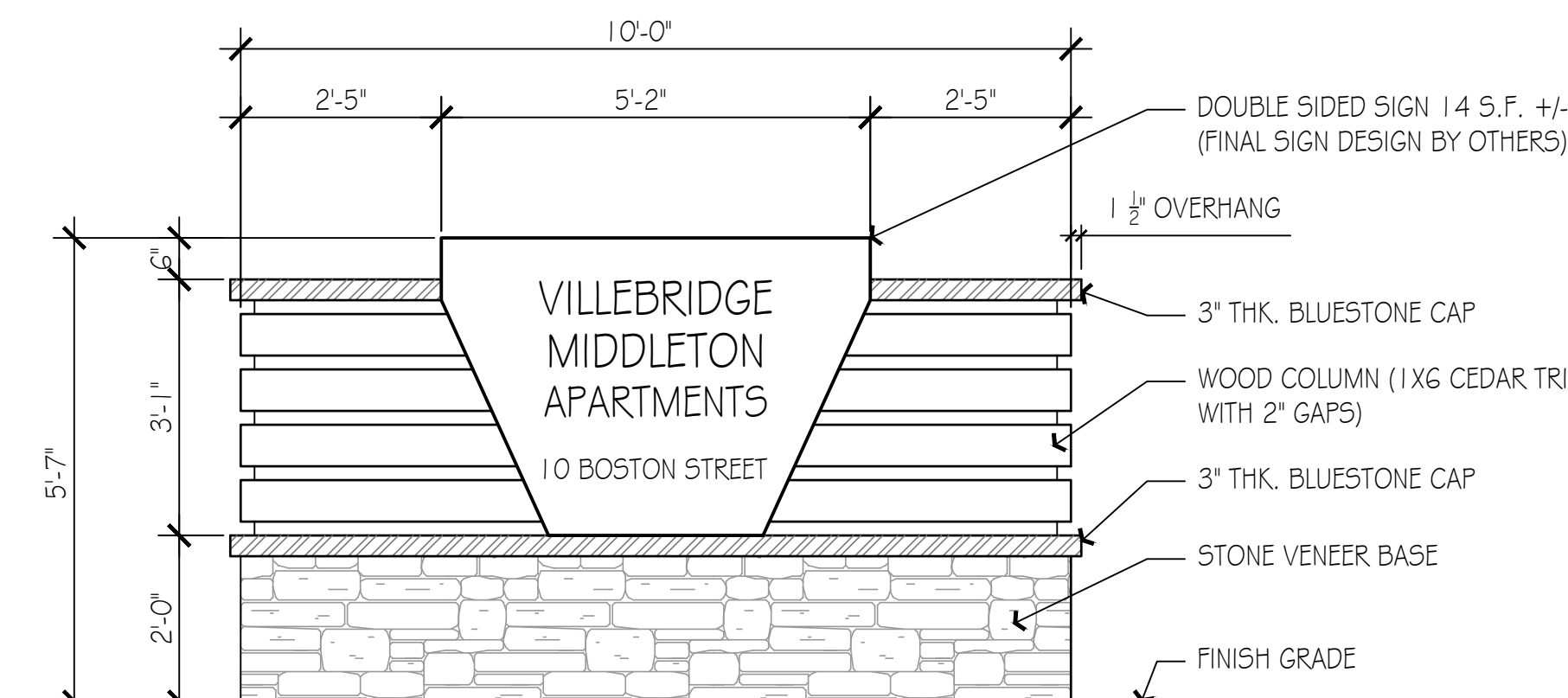
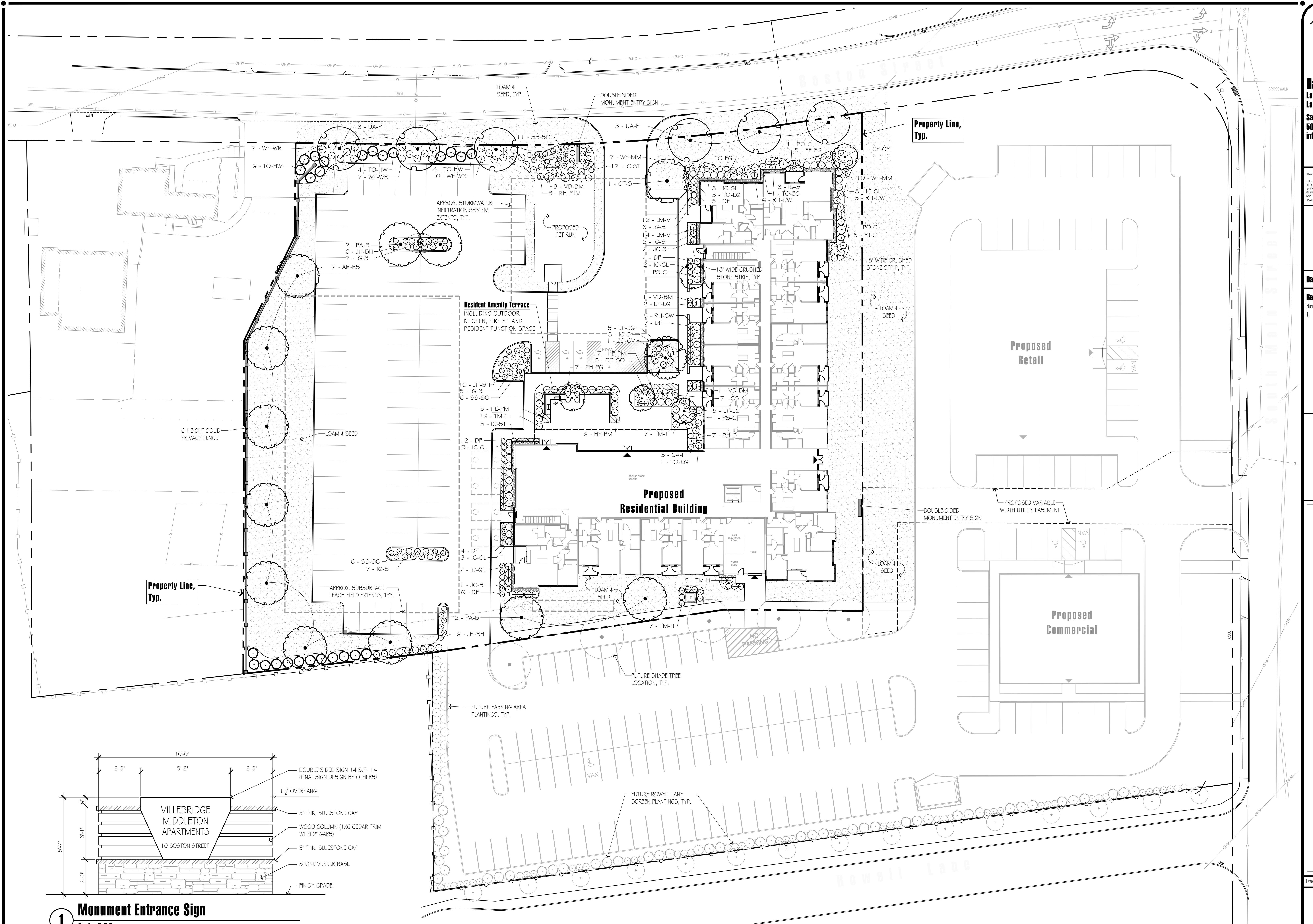
10 Boston Street
Middleton, Massachusetts
Prepared for: Villebridge Development LLC of Needham, MA

Drawn By: BNL Checked By: TEM

Planting
Plan

Scale: 1" = 20'-0"

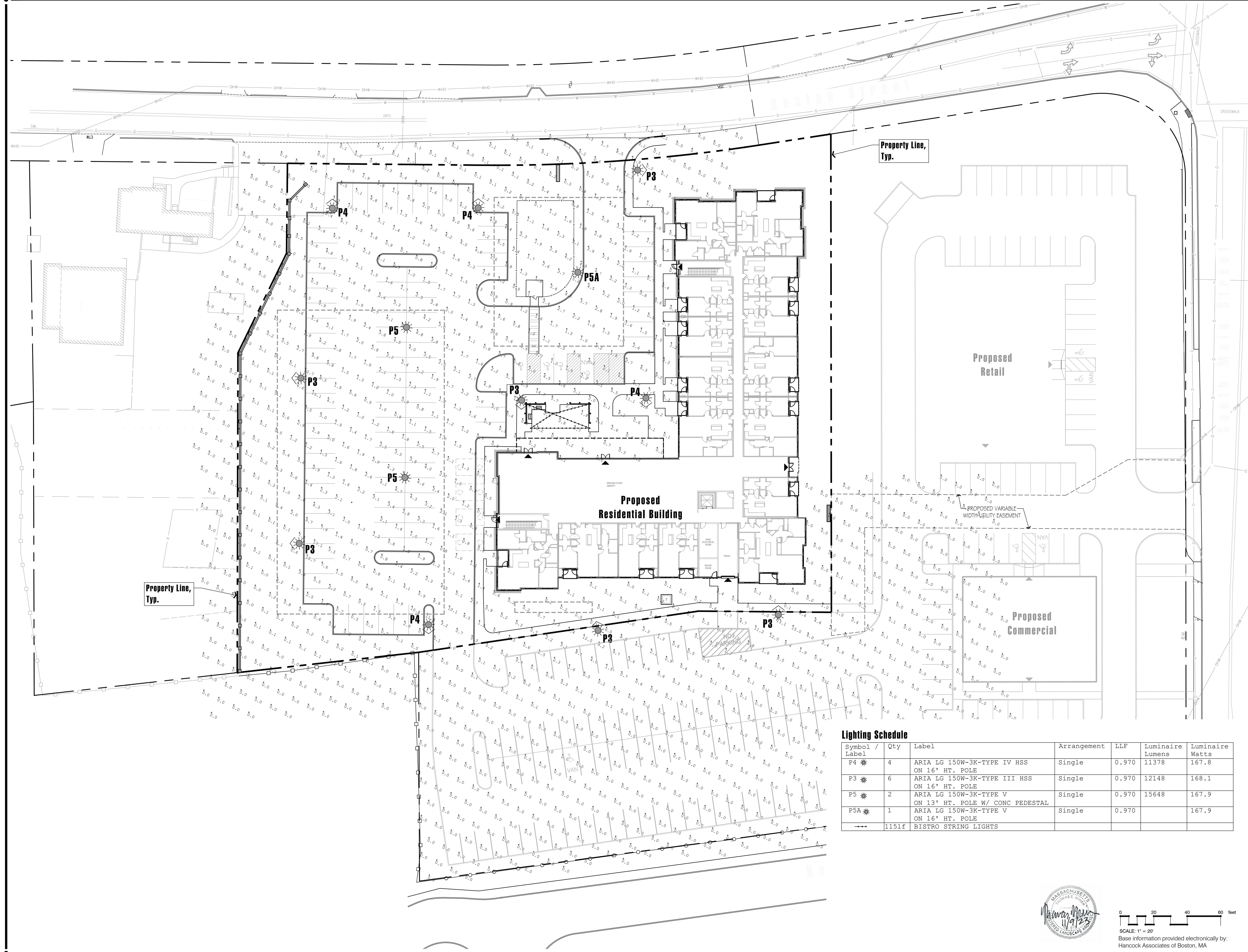
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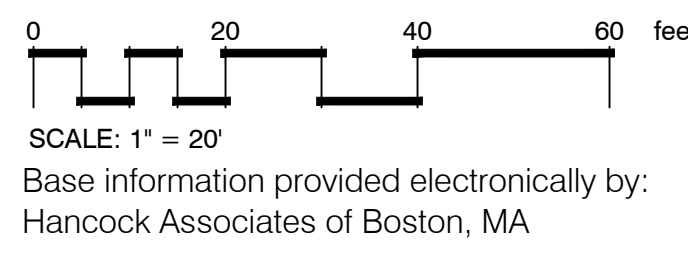
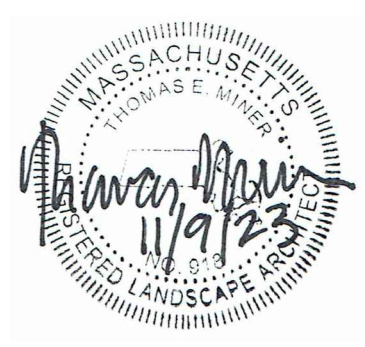
1 Monument Entrance Sign
Scale: N.T.S.

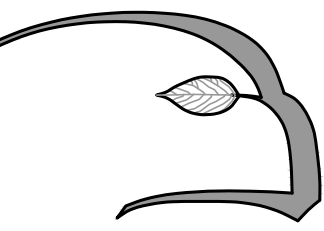


See Sht. LD2 for Plant Schedule
0 20 40 60 feet
SCALE: 1" = 20'
Base information provided electronically by:
Hancock Associates of Boston, MA



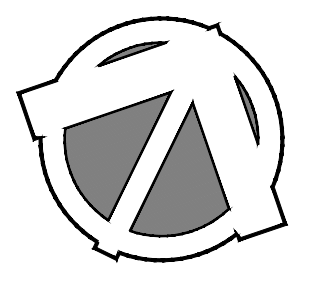
Lighting Schedule						
Symbol / Label	Qty	Label	Arrangement	LLF	Luminaire Lumens	Luminaire Watts
P4 ✱	4	ARIA LG 150W-3K-TYPE IV HSS ON 16' HT. POLE	Single	0.970	11378	167.8
P3 ✱	6	ARIA LG 150W-3K-TYPE III HSS ON 16' HT. POLE	Single	0.970	12148	168.1
P5 ✱	2	ARIA LG 150W-3K-TYPE V ON 13' HT. POLE W/ CONC PEDESTAL	Single	0.970	15648	167.9
P5A ✱	1	ARIA LG 150W-3K-TYPE V ON 16' HT. POLE	Single	0.970		167.9
→→→	1151f	BISTRO STRING LIGHTS				





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10 Boston Street
Middleton, Massachusetts
Prepared for: Villabridge Development LLC of Needham, MA

Drawn By: BNL Checked By: TEM

Lighting Plan

Scale: 1" = 20'-0"

Sheet: **L2.1**

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P3



FEATURES + BENEFITS

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available. Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type III

OPTIONS: House side shield.

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver. Custom Colors and RAL Colors Available. Consult Factory. All exposed hardware shall be stainless steel.

CATALOG #

ARIA LG-150W-3K-SMT-TYPE III-HSS/SRAP4-16-AB01-COLOR

APPROVED BY

DATE :

ECHO

ECHO LIGHTING, INC.
Pole and Foundation
of Outdoor Lighting

Ph: +1-323-890-9008
Email: info@echo-lighting.com

5618 E. Washington Blvd.
Commercia, CA 90040
www.echo-lighting.com

Post Mount Site Light Type P3

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P4



FEATURES + BENEFITS

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available. Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type IV

OPTIONS: House side shield.

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver. Custom Colors and RAL Colors Available. Consult Factory. All exposed hardware shall be stainless steel.

CATALOG #

ARIA LG-150W-3K-SMT-TYPE IV-HSS/SRAP4-16-AB01-COLOR

APPROVED BY

DATE :

ECHO

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Pole and Foundation
of Outdoor Lighting

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Email: info@echo-lighting.com

5618 E. Washington Blvd.
Commercia, CA 90040
www.echo-lighting.com

Post Mount Site Light Type P4

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P5 13FT



FEATURES + BENEFITS

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available. Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type V

OPTIONS: N/A

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver. Custom Colors and RAL Colors Available. Consult Factory. All exposed hardware shall be stainless steel.

CATALOG #

N7W-150W-3K-SMT-TYPE V/SRAP4-13-AB01-COLOR

APPROVED BY

DATE :

ECHO

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Pole and Foundation
of Outdoor Lighting

Ph: +1-323-890-9008
Email: info@echo-lighting.com

5618 E. Washington Blvd.
Commercia, CA 90040
www.echo-lighting.com

Post Mount Site Light Type P5

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P5 16 FT



FEATURES + BENEFITS

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available. Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type V

OPTIONS: House side shield.

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver. Custom Colors and RAL Colors Available. Consult Factory. All exposed hardware shall be stainless steel.

CATALOG #

ARIA LG-150W-3K-SMT-TYPE V/SRAP4-16-AB01-COLOR

APPROVED BY

DATE :

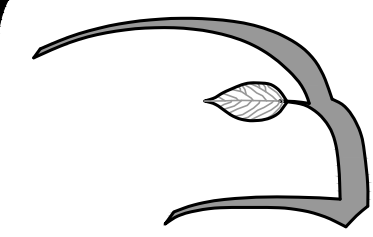
ECHO

ECHO LIGHTING, INC.
Pole and Foundation
of Outdoor Lighting

Ph: +1-323-890-9008
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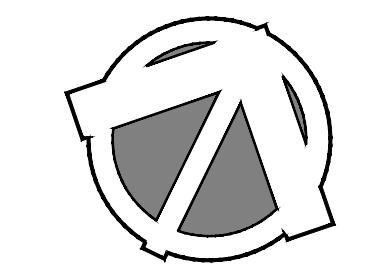
5618 E. Washington Blvd.
Commercia, CA 90040
www.echo-lighting.com

Post Mount Site Light Type P5A



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Prepared for: Villebridge Development LLC of Needham, MA

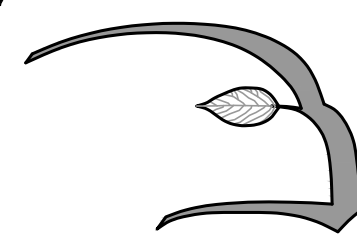
Drawn By: BNL Checked By: TEM

Lighting
Specifications

Scale: N/A

Sheet:

L2.2



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10 Boston Street
Middleton, Massachusetts
Prepared for: Villabridge Development LLC of Needham, MA

Drawn By: BNL Checked By: TEM

Planting Details
and
Plant Schedule

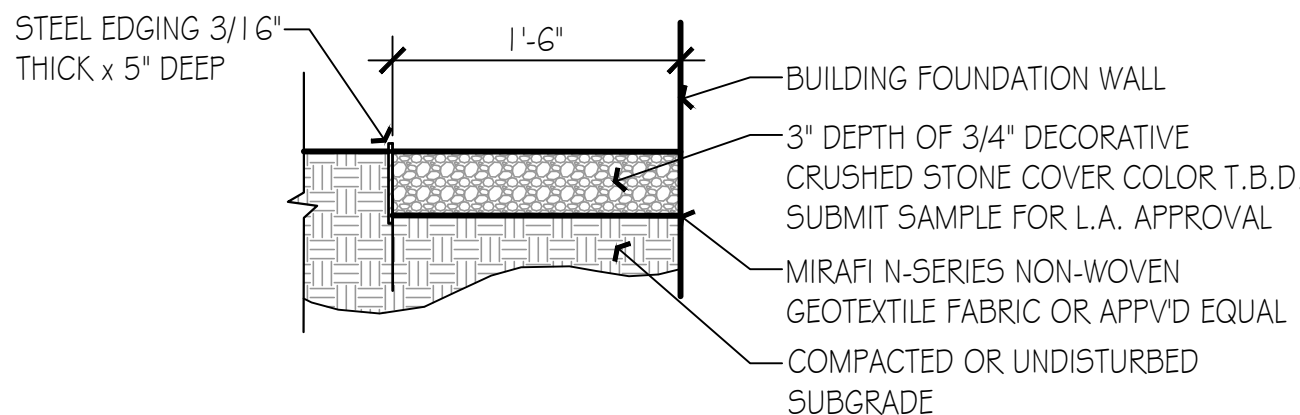
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LD2



Base information provided electronically by:
Hancock Associates of Boston, MA



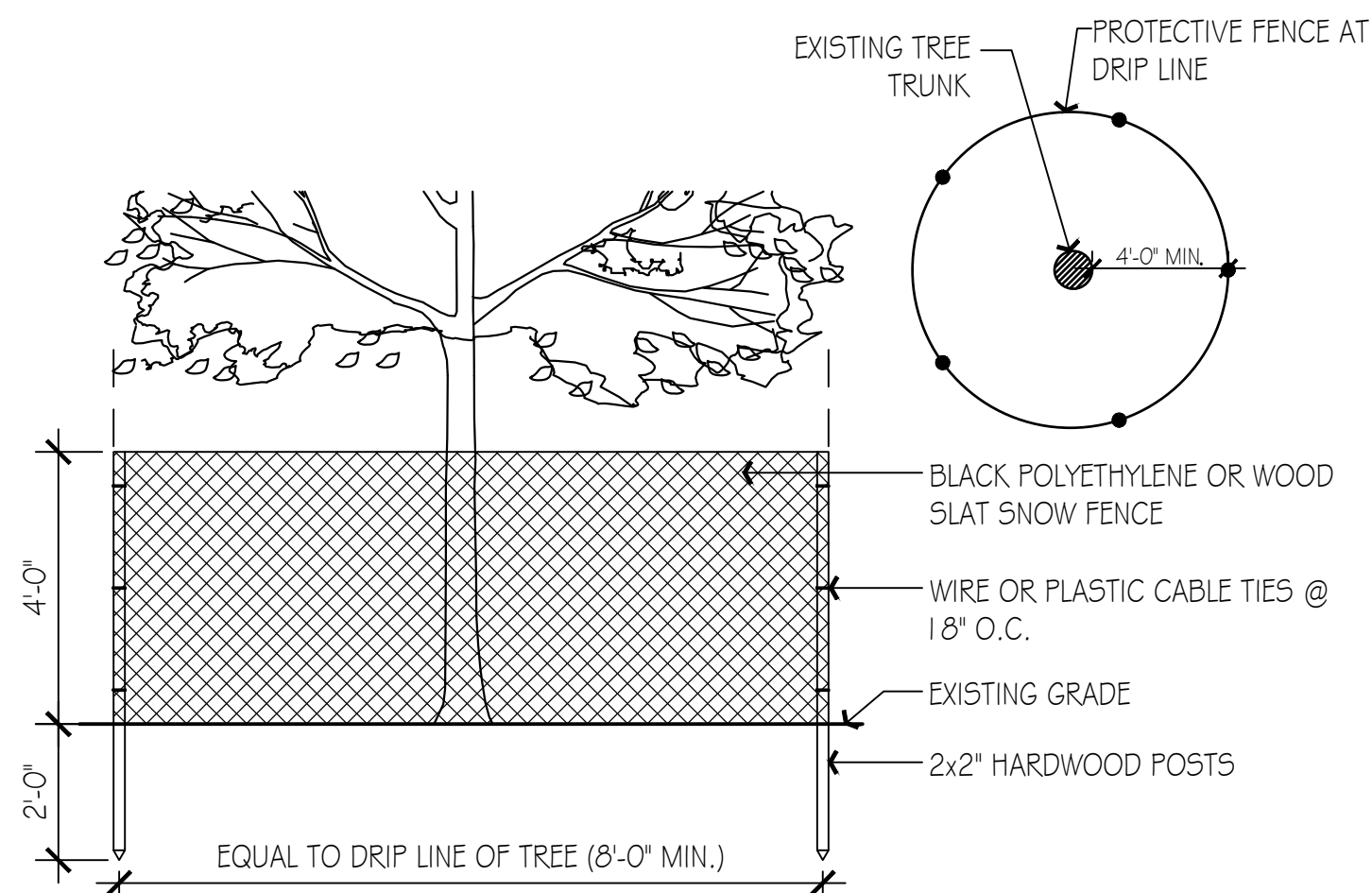
6 Metal Edged Crushed Stone Fire Protection Strip

Scale: N.T.S.

SCHEDULE OF TOPSOILS & ADDITIVES

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"	1/3 PEAT - MANURE BLEND 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL

PLANT SCHEDULE						
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
TREES						
AR-RS	7	Acer rubrum 'Red Sunset'	Red Sunset Red Maple	B & B	3-3.5" CAL.	
GT-S	1	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	B & B	3-3.5" CAL.	
PA-B	4	Platanus x acerifolia 'Bloodgood'	Bloodgood London Plane Tree	B & B	3-3.5" CAL.	
UA-P	6	Ulmus americana 'Princeton'	Princeton American Elm	B & B	3-3.5" CAL.	
ZS-GV	1	Zelkova serrata 'Green Vase'	Green Vase Sawleaf Zelkova	B & B	3-3.5" CAL.	
EVERGREEN TREES						
TO-HW	26	Thuja occidentalis 'Hetz Wintergreen'	Hetz Wintergreen Arborvitae	B & B		7-8" HT.
FLOWERING TREES						
OF-CP	1	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	B & B	2-2.5" CAL.	
PS-C	4	Prunus sargentii 'Columnaris'	Columnar Sargent Cherry	B & B	2-2.5" CAL.	
SHRUBS						
GA-H	3	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	Cont.		18-24" HT.
CS-K	7	Cornus sericea 'Kelsey'	Kelsey's Dwarf Red Twig Dogwood	Cont.		18-24" HT.
DF	38	Deschampsia flexuosa	Wavy Hair Grass	2 GAL		
EF-EG	17	Euonymus fortunei 'Emerald Gaiety'	Emerald Gaiety Euonymus	Cont.		18-24" HT.
IG-GL	32	Ilex crenata 'Green Lustre'	Green Lustre Japanese Holly	B & B	2-2.5" HT.	
IC-ST	22	Ilex crenata 'Soft Touch'	Soft Touch Japanese Holly	Cont.		18-24" SPD.
IG-S	30	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	Cont.		2-2.5" HT.
JC-S	3	Juniperus chinensis 'Spartan'	Spartan Juniper	B & B	4-4.5" HT.	
JH-BH	22	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Creeping Juniper	Cont.		18-24" SPD.
PI-C	5	Pieris japonica 'Cavatine'	Cavatine Japanese Pieris	Cont.		2-2.5" HT.
PO-C	2	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark	B & B	3-3.5" HT.	
RH-CW	16	Rhododendron x 'Cunningham's White'	Cunningham White Rhododendron	B & B	2-2.5" HT.	
RH-PG	7	Rhododendron x 'Purple Gem'	Purple Gem Rhododendron	Cont.		18-24" SPD.
RH-PJM	8	Rhododendron x 'P.J.M.'	P.J.M. Rhododendron	B & B	2-2.5" HT.	
RH-S	7	Rhododendron x 'Scintillation'	Scintillation Rhododendron	B & B	2-2.5" HT.	
SS-SO	28	Schizachyrium scoparium 'Standing Ovation'	Standing Ovation Little Bluestem	2 GAL		
TM-H	12	Taxus x media 'Hicksii'	Hicks Yew	B & B	4-4.5" HT.	
TM-T	23	Taxus x media 'Tauntoni'	Tauntoni's Anglo-Japanese Yew	B & B	2-2.5" SPD.	
TO-EG	15	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	B & B	6-7" HT.	
VD-BM	5	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	B & B	4-4.5" HT.	
WF-MM	17	Weigela florida 'My Monet'	My Monet Weigela	Cont.		15-18" SPD.
WF-WR	24	Weigela florida 'Wine & Roses'	Wine & Roses Weigela	B & B	2-2.5" HT.	
PERENNIALS / GROUND COVERS						
HE-PM	28	Hemerocallis x 'Pardon Me'	Pardon Me Daylily	4 QT.		
LH-V	26	Liriope muscari 'Variegata'	Variegated Liriope	4 QT.		



NOTES:

- PROTECTIVE FENCE TO REMAIN UNTIL CONSTRUCTION IS COMPLETE.
- NO TREE SHALL BE REMOVED UNLESS SPECIFICALLY TAGGED FOR REMOVAL BY THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE TREES THAT ARE TO REMAIN.
- DO NOT NAIL BOARDS OR FENCING TO TREES DURING CONSTRUCTION.
- ANY EXCAVATING WITHIN DRIFLINE MUST BE APPROVED BY LANDSCAPE ARCHITECT AND MUST BE HAND-DUG. CONTRACTOR SHALL NOT CUT ANY ROOTS AND/OR BRANCHES UNLESS APPROVED BY LANDSCAPE ARCHITECT.
- ROOTS EXPOSED AND/OR DAMAGED DURING GRADING & CONSTRUCTION OPERATIONS SHALL BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA AND TOPSOIL BE PLACED OVER THE ROOTS IMMEDIATELY. FEEDER ROOTS SHALL NOT BE CUT IN AN AREA INSIDE DRIP LINE OF THE TREE BRANCHES.
- ROOTS GREATER THAN 1" DIAMETER SHALL NOT BE CUT UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
- STOCKPILED MATERIALS OR UNNECESSARY VEHICULAR TRAFFIC SHALL NOT BE ALLOWED OVER ANY TREE ROOT SYSTEM.
- INSPECT FENCE ON WEEKLY BASIS AND REPAIR DAMAGE IMMEDIATELY.

1 Tree Protection

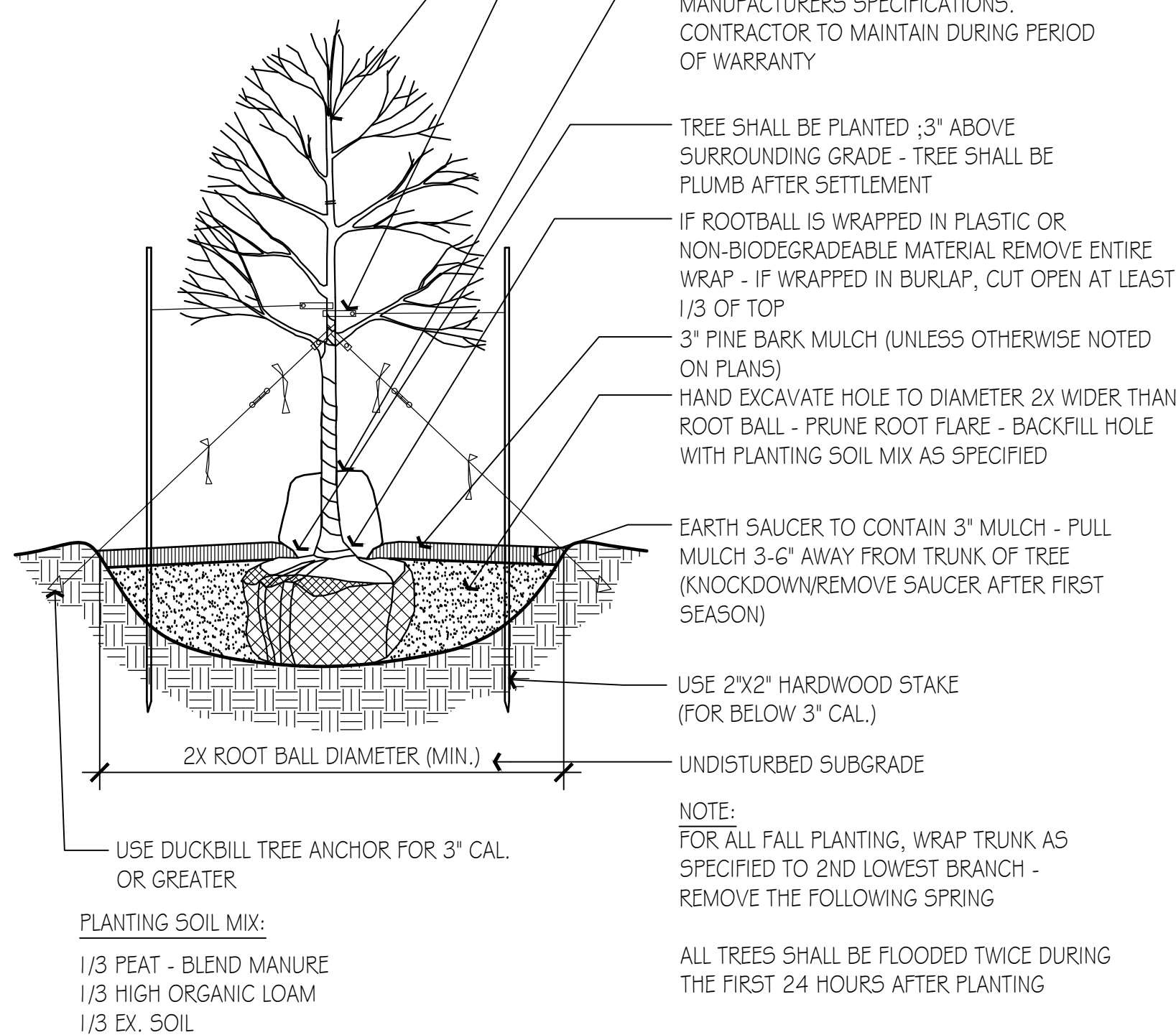
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NOTES:

ON TREES BELOW 3" CAL.
USE WOOD STAKES.

ON TREES 3" CAL. OR GREATER
USE GUYING CABLES.

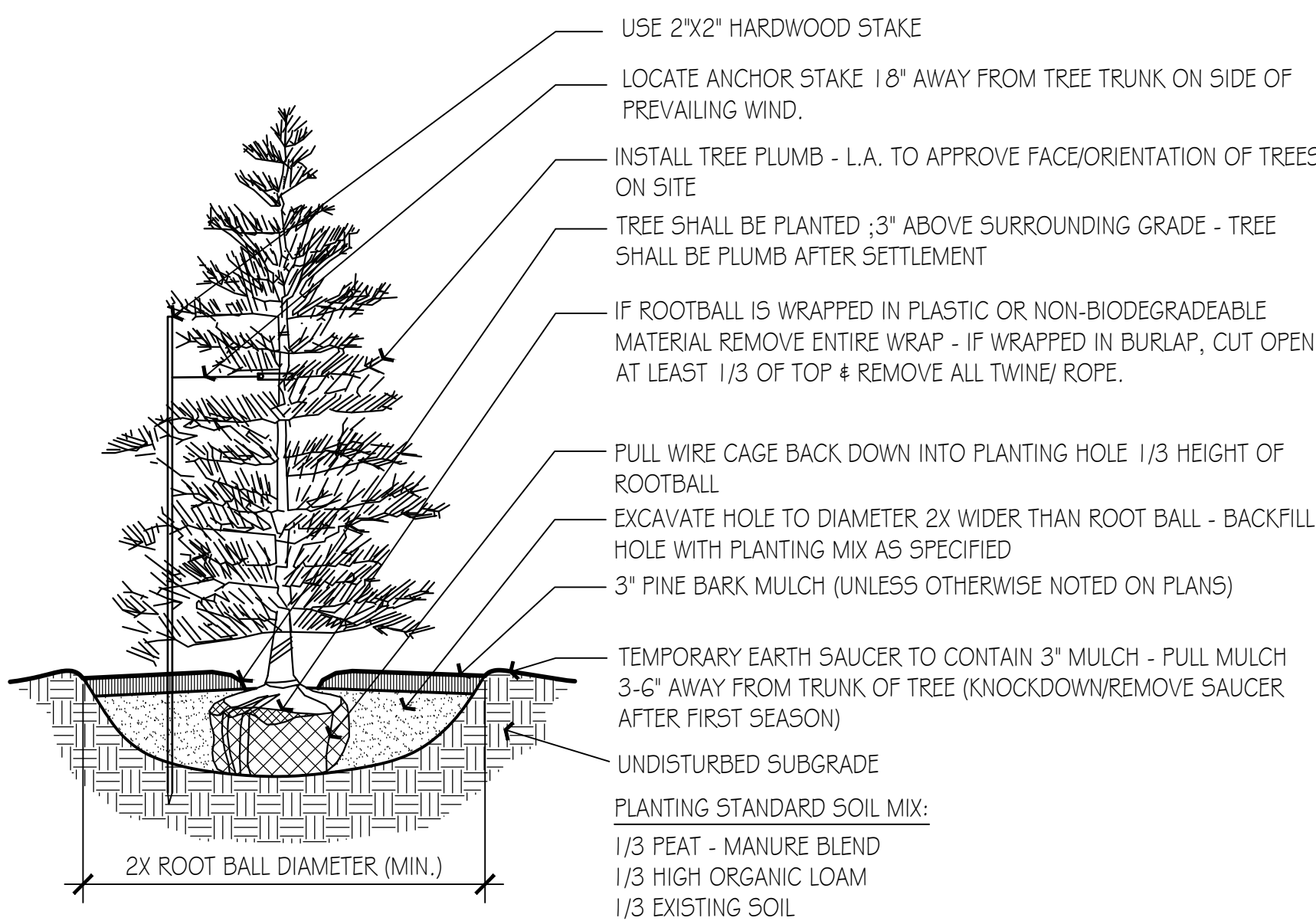
IF GUYING CABLES USE 3 PER TREE



PLANTING SOIL MIX:
1/3 PEAT - BLEND MANURE
1/3 HIGH ORGANIC LOAM
1/3 EX. SOIL

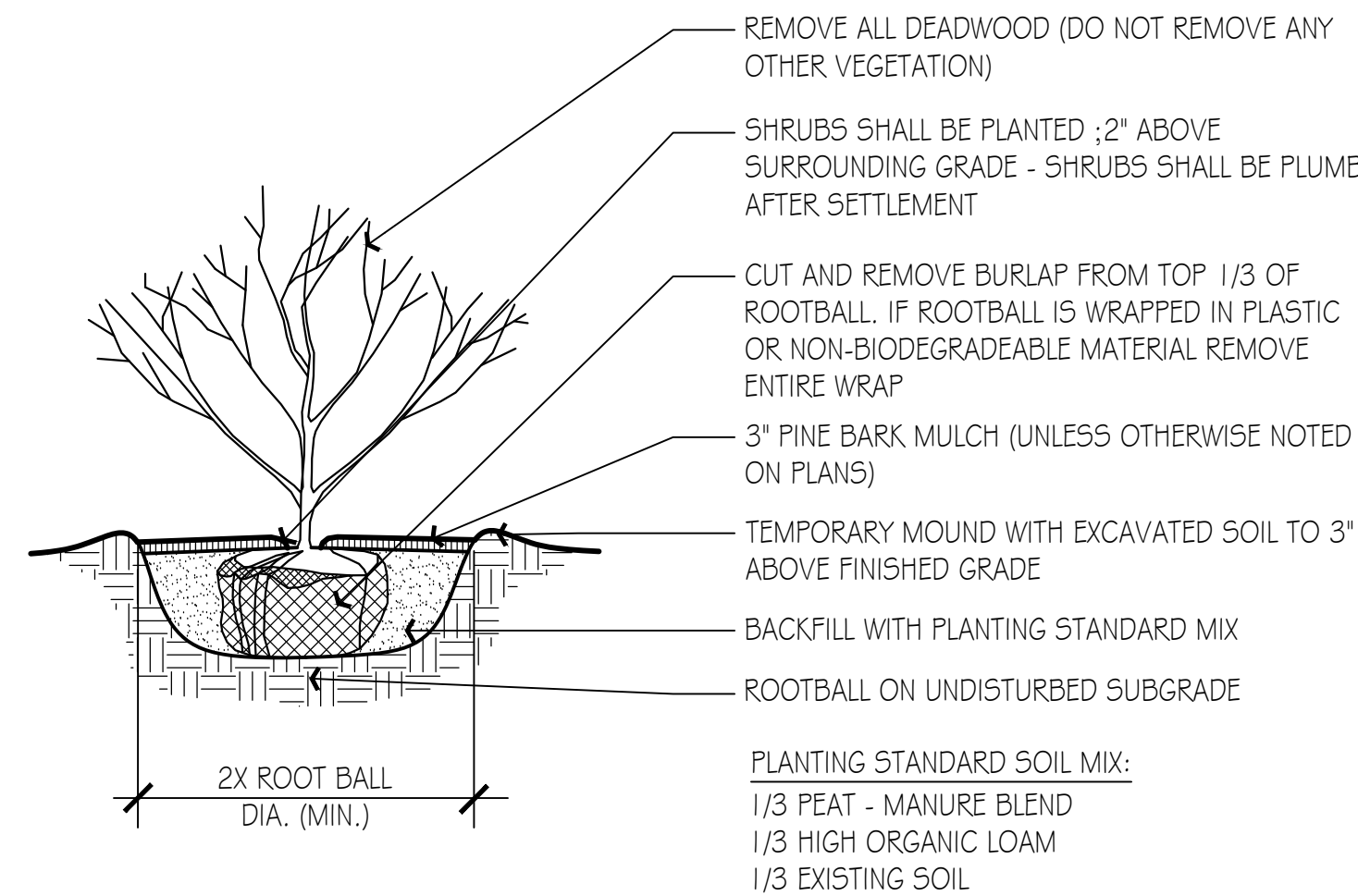
2 Deciduous Tree Planting

Scale: N.T.S.



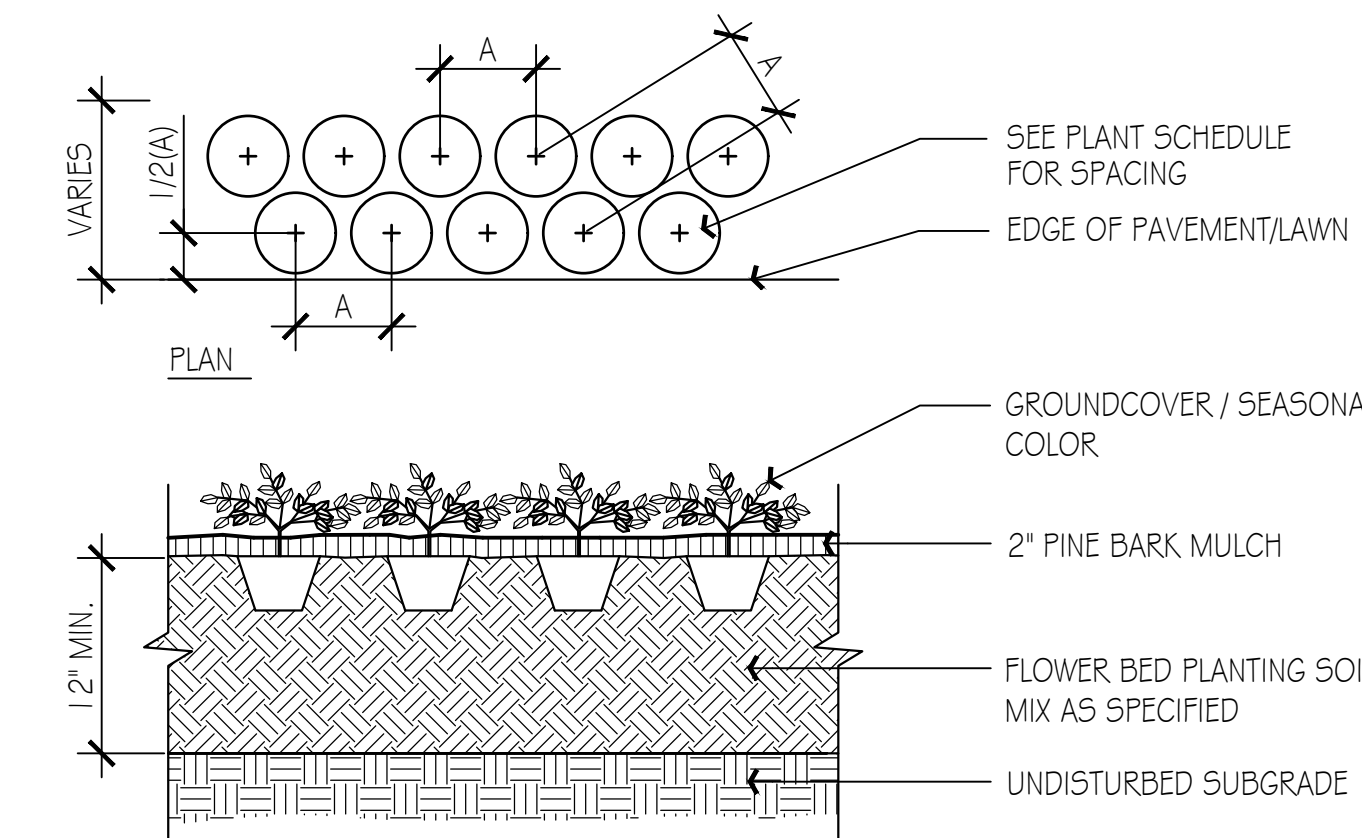
3 Coniferous Tree Planting

Scale: N.T.S.



4 Shrub Planting

Scale: N.T.S.



5 Perennial, Groundcover & Seasonal Color Planting

Scale: N.T.S.

10 BOSTON STREET
MIDDLETON, MASSACHUSETTS

LANDSCAPE PERMIT SUBMISSION SET
REVISION # 1

LIST OF DRAWINGS:

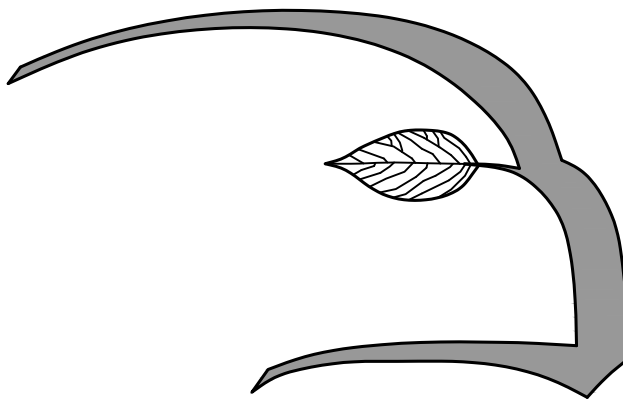
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L2.1	LIGHTING PLAN	11/9/23
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LD2	PLANTING DETAILS AND PLANT SCHEDULE	11/9/23

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PHONE: 617-357-8145

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PREPARED BY:



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Landscape Architecture
Land Planning

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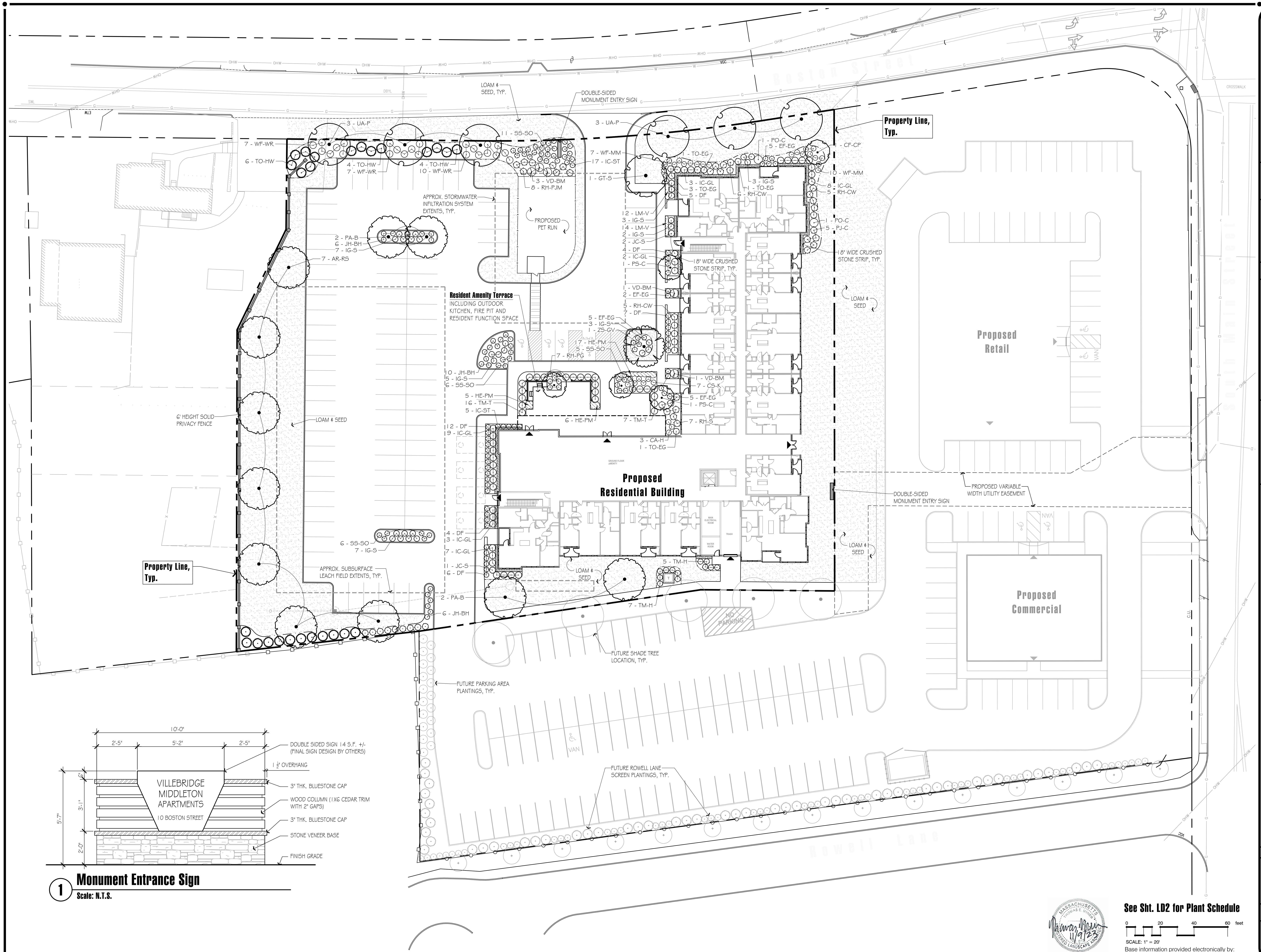


Rev. Date	Description
11/9/23	Per peer review comments

**10 Boston Street
Middleton, Massachusetts
Prepared for: Vinebridge Development LLC of Needham, MA**

Planting Plan

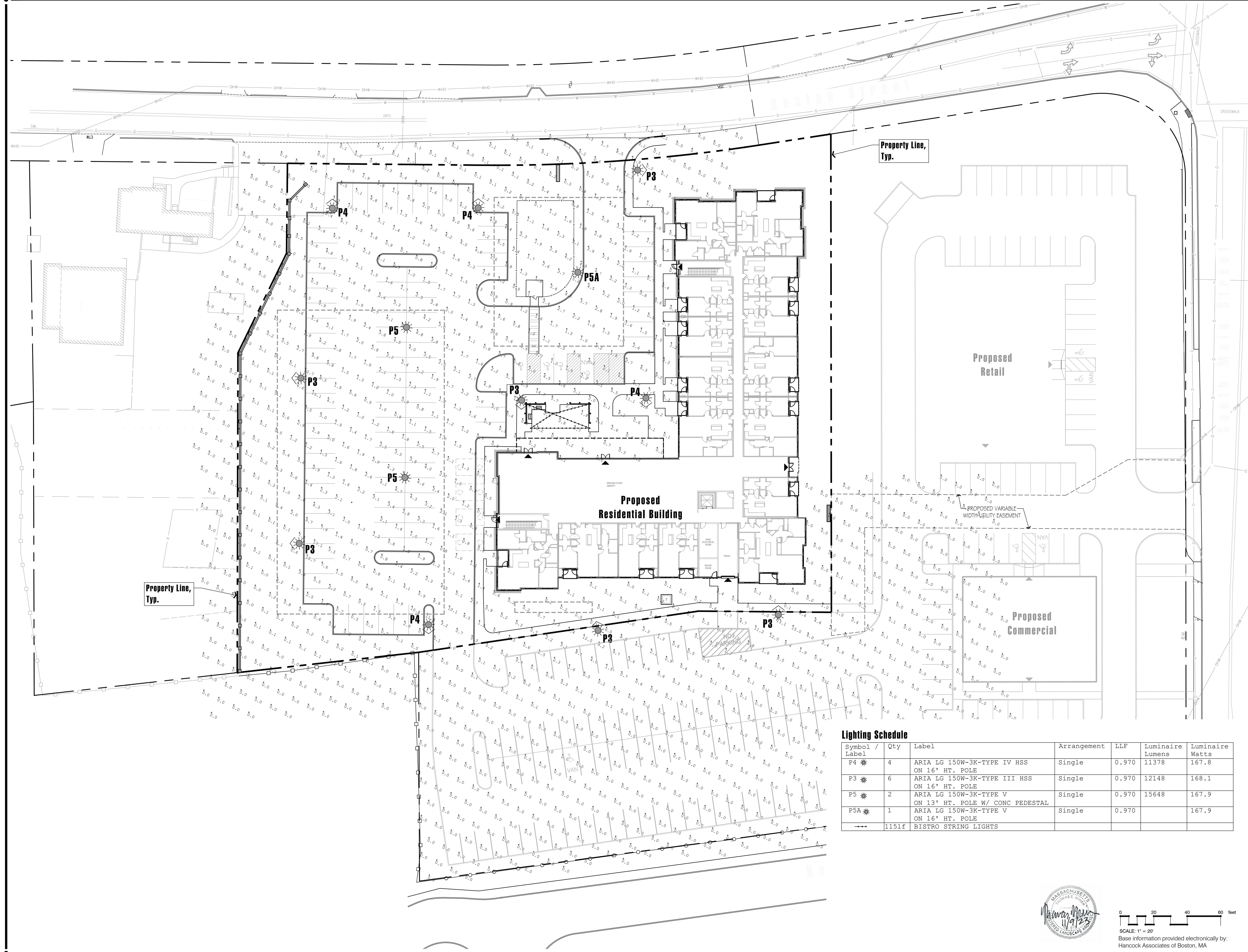
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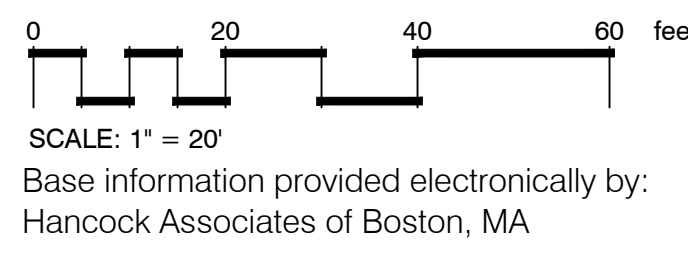
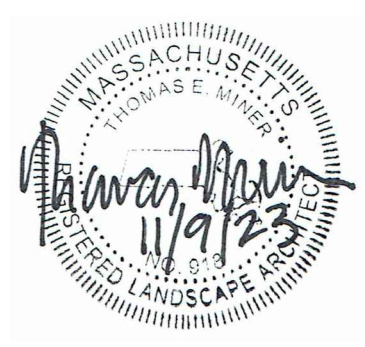
0 20 40 60 feet

SCALE: 1" = 20'

Base information provided electronically by:
Hancock Associates of Boston, MA



Lighting Schedule						
Symbol / Label	Qty	Label	Arrangement	LLF	Luminaire Lumens	Luminaire Watts
P4 ✱	4	ARIA LG 150W-3K-TYPE IV HSS ON 16' HT. POLE	Single	0.970	11378	167.8
P3 ✱	6	ARIA LG 150W-3K-TYPE III HSS ON 16' HT. POLE	Single	0.970	12148	168.1
P5 ✱	2	ARIA LG 150W-3K-TYPE V ON 13' HT. POLE W/ CONC PEDESTAL	Single	0.970	15648	167.9
P5A ✱	1	ARIA LG 150W-3K-TYPE V ON 16' HT. POLE	Single	0.970		167.9
→→→	1151f	BISTRO STRING LIGHTS				



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Landscape Architecture
Land Planning
Sagamore, MA
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Date: 8/22/23

Revisions:
Num. Date Description
1. 11/9/23 Per peer review comments

10 Boston Street
Middleton, Massachusetts
Prepared for: Villabridge Development LLC of Needham, MA

Drawn By: BNL Checked By: TEM

Lighting Plan

Scale: 1" = 20'-0"

Sheet: **L2.1**

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P3



CATALOG #

ARIA LG-150W-3K-SMT-TYPE III-HSS/SRAP4-16-AB01-COLOR

APPROVED BY

DATE :



ECHO LIGHTING, INC.
Pole and Foundations
of Outdoor Lighting

Ph: +1-323-890-9008

5618 E. Washington Blvd.
Commercia, CA 90040

Email: info@echolighting.com

www.echolighting.com

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P3

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available.
Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type III

OPTIONS: House side shield.

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver.
Custom Colors and RAL Colors Available. Consult Factory
All exposed hardware shall be stainless steel.

Post Mount Site Light Type P3

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P4



CATALOG #

ARIA LG-150W-3K-SMT-TYPE IV-HSS/SRAP4-16-AB01-COLOR

APPROVED BY

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AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P4

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available.
Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type IV

OPTIONS: House side shield.

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver.
Custom Colors and RAL Colors Available. Consult Factory
All exposed hardware shall be stainless steel.

Post Mount Site Light Type P4

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P5 13FT



CATALOG #

N7W-150W-3K-SMT-TYPE V/SRAP4-13-AB01-COLOR

APPROVED BY

DATE :



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AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P5 13FT

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available.
Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type V

OPTIONS: N/A

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver.
Custom Colors and RAL Colors Available. Consult Factory
All exposed hardware shall be stainless steel.

Post Mount Site Light Type P5

AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P5 16 FT



CATALOG #

ARIA LG-150W-3K-SMT-TYPE V/SRAP4-16-AB01-COLOR

APPROVED BY

DATE :



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AREALIGHTING | POLE MOUNT

PROJECT: VILLEBRIDGE MIDDLETON TYPE: P5 16 FT

- Industry leading LED systems
- High efficiency & energy savings
- Environmentally friendly
- Reliable & low-maintenance
- 5-year limited warranty
- UL Listed electrical components
- Suitable for wet conditions

SPECIFICATIONS

LUMINAIRE: All aluminum construction

LIGHT SOURCE: 150W LED 3000K

DRIVER: Electronic LED Driver, 120V-277V, 480V Available.
Dimming Leads Optional 0-10V

DIFFUSER: Injection molded lens

OPTICS: Type V

OPTIONS: House side shield.

ARM: N/A

POLE: 4" OD Straight round aluminum pole .125wall with decorative 2 pc base cover.

ANCHOR BOLTS: (4) 3/4" x 24" x 3" hot dipped galvanized anchor bolts.

FINISH: Powder coat. Standard colors are Black, White, Dark Bronze, and Silver.
Custom Colors and RAL Colors Available. Consult Factory
All exposed hardware shall be stainless steel.

Post Mount Site Light Type P5A

Base information provided electronically by:
Hancock Associates of Boston, MA

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Date: 8/22/23

Revisions:

Num.	Date	Description
1.	11/9/23	Per peer review comments

10 Boston Street
Middleton, Massachusetts
Prepared for: Villebridge Development LLC of Needham, MA

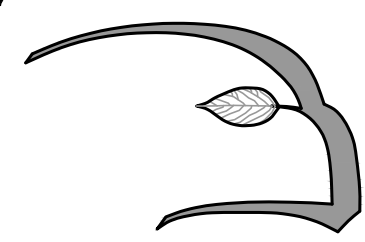
Drawn By: BNL Checked By: TEM

Lighting
Specifications

Scale: N/A

Sheet:

L2.2



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Date: 8/22/23

Revisions:

Num.	Date	Description
1.	11/9/23	Per peer review comments

10 Boston Street
Middleton, Massachusetts
Prepared for: Villabridge Development LLC of Needham, MA

Drawn By: BNL Checked By: TEM

Planting
Specifications

Scale: N/A

Sheet:

LD1



Base information provided electronically by:
Hancock Associates of Boston, 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 NURSERMEN. 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 BAILED 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 PRUF" NCF OR EQUAL APPLY AS PER MANUFACTURERS' SPECIFICATIONS.
- Plant Installation:
- 3.1) SOIL TESTING: LANDSCAPE CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL ANALYSIS PRIOR TO ANY PLANT INSTALLATION TO DETERMINE ANY NECESSARY AMENDMENTS TO THE EXISTING SOIL CONDITIONS FOR SEEDING AND PLANTING. THE ANALYSIS WILL ALSO BE REQUIRED FOR ESTABLISHING THE FERTILIZER PROGRAM REQUIRED. COORDINATE RESULTS AND PROVIDE WRITTEN RECOMMENDATIONS TO HAWK DESIGN, INC. 15 DAYS PRIOR TO INSTALLATION.
- 3.2) ALL PLANTS SHALL BE TRANSPORTED TO THE SITE IN COVERED TRUCKS, TARPULIN COVERS SHALL BE UTILIZED TO PREVENT WIND DAMAGE OF LOAD.
- 3.3) 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.
- 3.4) 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.
- 3.5) 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.
- 3.6) 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.
- 3.7) 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.
- 3.8) 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 BAILED & 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.
- 3.9) 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) BAILED AND BURLAPPED (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 CONTRACTORS 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 FREESTLY 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 UNDESIRABLE 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 TREES/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:

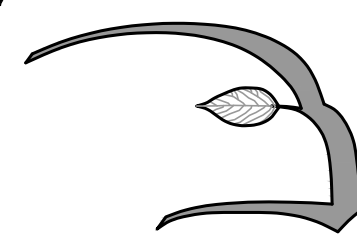
- *CONTRACTOR SHALL GUARANTEE IN WRITING ALL PLANT MATERIAL AND LANDSCAPE IMPROVEMENTS FOR A PERIOD OF ONE YEAR. THE GUARANTEE IS TO INCLUDE THE FOLLOWING:
- 6.1) INSPECTIONS: PERFORM PERIODIC INSPECTIONS DURING GUARANTEE PERIOD WITH RESULTING WRITTEN REPORTS TO OWNER, PROJECT ADMINISTRATOR AND LANDSCAPE 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 INSPECTIONS).
- 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, MODELS/TYPES T.B.D. AND VERIFIED BY LANDSCAPE ARCHITECT AND IRRIGATION CONTRACTOR.



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Date: 8/22/23

Revisions:

Num. Date Description
1. 11/9/23 Per peer review comments

10 Boston Street
Middleton, Massachusetts
Prepared for: Villabridge Development LLC of Needham, MA

Drawn By: BNL Checked By: TEM

Planting Details
and
Plant Schedule

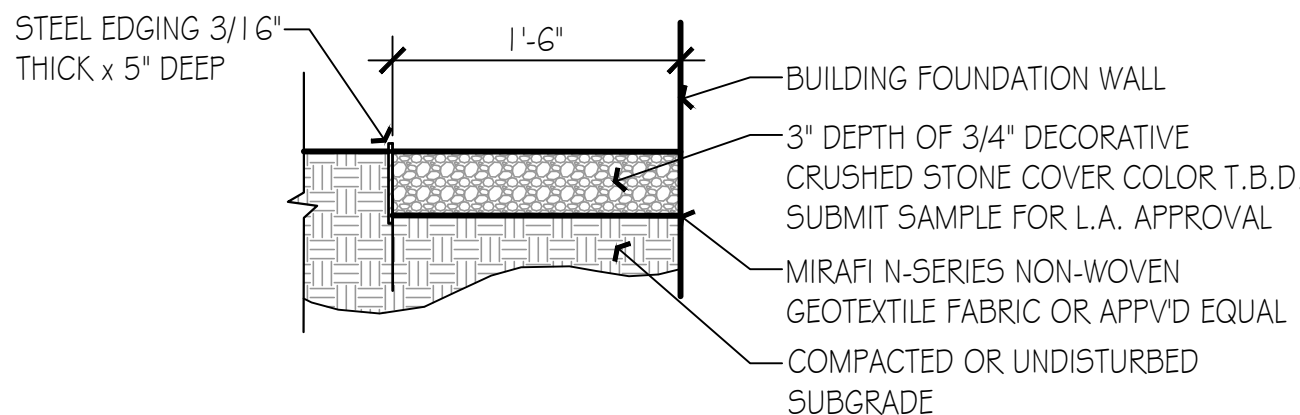
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LD2



Base information provided electronically by:
Hancock Associates of Boston, MA



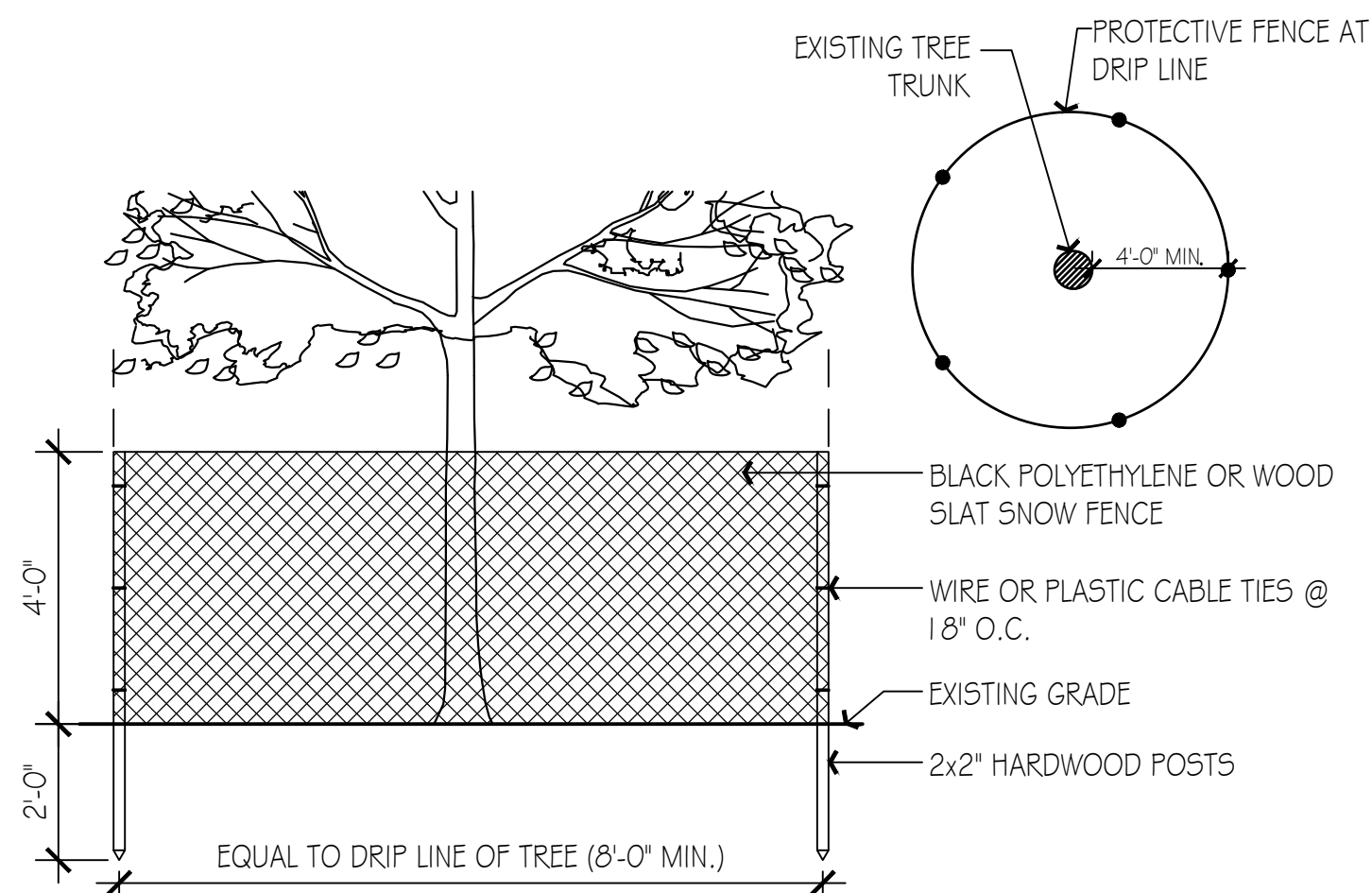
6 Metal Edged Crushed Stone Fire Protection Strip

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SCHEDULE OF TOPSOILS & ADDITIVES

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"	1/3 PEAT - MANURE BLEND 1/3 HIGH ORGANIC LOAM 1/3 EXISTING SOIL

PLANT SCHEDULE						
CODE	QTY	BOTANICAL NAME	COMMON NAME	CONT	CAL	PLANT SIZE
TREES						
AR-RS	7	Acer rubrum 'Red Sunset'	Red Sunset Red Maple	B & B	3-3.5" CAL.	
GT-S	1	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	B & B	3-3.5" CAL.	
PA-B	4	Platanus x acerifolia 'Bloodgood'	Bloodgood London Plane Tree	B & B	3-3.5" CAL.	
UA-P	6	Ulmus americana 'Princeton'	Princeton American Elm	B & B	3-3.5" CAL.	
ZS-GV	1	Zelkova serrata 'Green Vase'	Green Vase Sawleaf Zelkova	B & B	3-3.5" CAL.	
EVERGREEN TREES						
TO-HW	26	Thuja occidentalis 'Hetz Wintergreen'	Hetz Wintergreen Arborvitae	B & B		7-8" HT.
FLOWERING TREES						
OF-CP	1	Cornus florida 'Cherokee Princess'	Cherokee Princess Dogwood	B & B	2-2.5" CAL.	
PS-C	4	Prunus sargentii 'Columnaris'	Columnar Sargent Cherry	B & B	2-2.5" CAL.	
SHRUBS						
GA-H	3	Clethra alnifolia 'Hummingbird'	Hummingbird Summersweet	Cont.		18-24" HT.
CS-K	7	Cornus sericea 'Kelsey'	Kelsey's Dwarf Red Twig Dogwood	Cont.		18-24" HT.
DF	38	Deschampsia flexuosa	Wavy Hair Grass	2 GAL		
EF-EG	17	Euonymus fortunei 'Emerald Gaiety'	Emerald Gaiety Euonymus	Cont.		18-24" HT.
IG-GL	32	Ilex crenata 'Green Lustre'	Green Lustre Japanese Holly	B & B	2-2.5" HT.	
IC-ST	22	Ilex crenata 'Soft Touch'	Soft Touch Japanese Holly	Cont.		18-24" SPD.
IG-S	30	Ilex glabra 'Shamrock'	Shamrock Inkberry Holly	Cont.		2-2.5" HT.
JC-S	3	Juniperus chinensis 'Spartan'	Spartan Juniper	B & B	4-4.5" HT.	
JH-BH	22	Juniperus horizontalis 'Bar Harbor'	Bar Harbor Creeping Juniper	Cont.		18-24" SPD.
PI-C	5	Pieris japonica 'Cavatine'	Cavatine Japanese Pieris	Cont.		2-2.5" HT.
PO-C	2	Physocarpus opulifolius 'Coppertina'	Coppertina Ninebark	B & B	3-3.5" HT.	
RH-CW	16	Rhododendron x 'Cunningham's White'	Cunningham White Rhododendron	B & B	2-2.5" HT.	
RH-PG	7	Rhododendron x 'Purple Gem'	Purple Gem Rhododendron	Cont.		18-24" SPD.
RH-PJM	8	Rhododendron x 'P.J.M.'	P.J.M. Rhododendron	B & B	2-2.5" HT.	
RH-S	7	Rhododendron x 'Scintillation'	Scintillation Rhododendron	B & B	2-2.5" HT.	
SS-SO	28	Schizachyrium scoparium 'Standing Ovation'	Standing Ovation Little Bluestem	2 GAL		
TM-H	12	Taxus x media 'Hicksii'	Hicks Yew	B & B	4-4.5" HT.	
TM-T	23	Taxus x media 'Tauntoni'	Tauntoni's Anglo-Japanese Yew	B & B	2-2.5" SPD.	
TO-EG	15	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	B & B	6-7" HT.	
VD-BM	5	Viburnum dentatum 'Blue Muffin'	Blue Muffin Arrowwood Viburnum	B & B	4-4.5" HT.	
WF-MM	17	Weigela florida 'My Monet'	My Monet Weigela	Cont.		15-18" SPD.
WF-WR	24	Weigela florida 'Wine & Roses'	Wine & Roses Weigela	B & B	2-2.5" HT.	
PERENNIALS / GROUND COVERS						
HE-PM	28	Hemerocallis x 'Pardon Me'	Pardon Me Daylily	4 QT.		
LH-V	26	Liriope muscari 'Variegata'	Variegated Liriope	4 QT.		



NOTES:

- PROTECTIVE FENCE TO REMAIN UNTIL CONSTRUCTION IS COMPLETE.
- NO TREE SHALL BE REMOVED UNLESS SPECIFICALLY TAGGED FOR REMOVAL BY THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE TREES THAT ARE TO REMAIN.
- DO NOT NAIL BOARDS OR FENCING TO TREES DURING CONSTRUCTION.
- ANY EXCAVATING WITHIN DRIFLINE MUST BE APPROVED BY LANDSCAPE ARCHITECT AND MUST BE HAND-DUG. CONTRACTOR SHALL NOT CUT ANY ROOTS AND/OR BRANCHES UNLESS APPROVED BY LANDSCAPE ARCHITECT.
- ROOTS EXPOSED AND/OR DAMAGED DURING GRADING & CONSTRUCTION OPERATIONS SHALL BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA AND TOPSOIL BE PLACED OVER THE ROOTS IMMEDIATELY. FEEDER ROOTS SHALL NOT BE CUT IN AN AREA INSIDE DRIP LINE OF THE TREE BRANCHES.
- ROOTS GREATER THAN 1" DIAMETER SHALL NOT BE CUT UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
- STOCKPILED MATERIALS OR UNNECESSARY VEHICULAR TRAFFIC SHALL NOT BE ALLOWED OVER ANY TREE ROOT SYSTEM.
- INSPECT FENCE ON WEEKLY BASIS AND REPAIR DAMAGE IMMEDIATELY.

1 Tree Protection

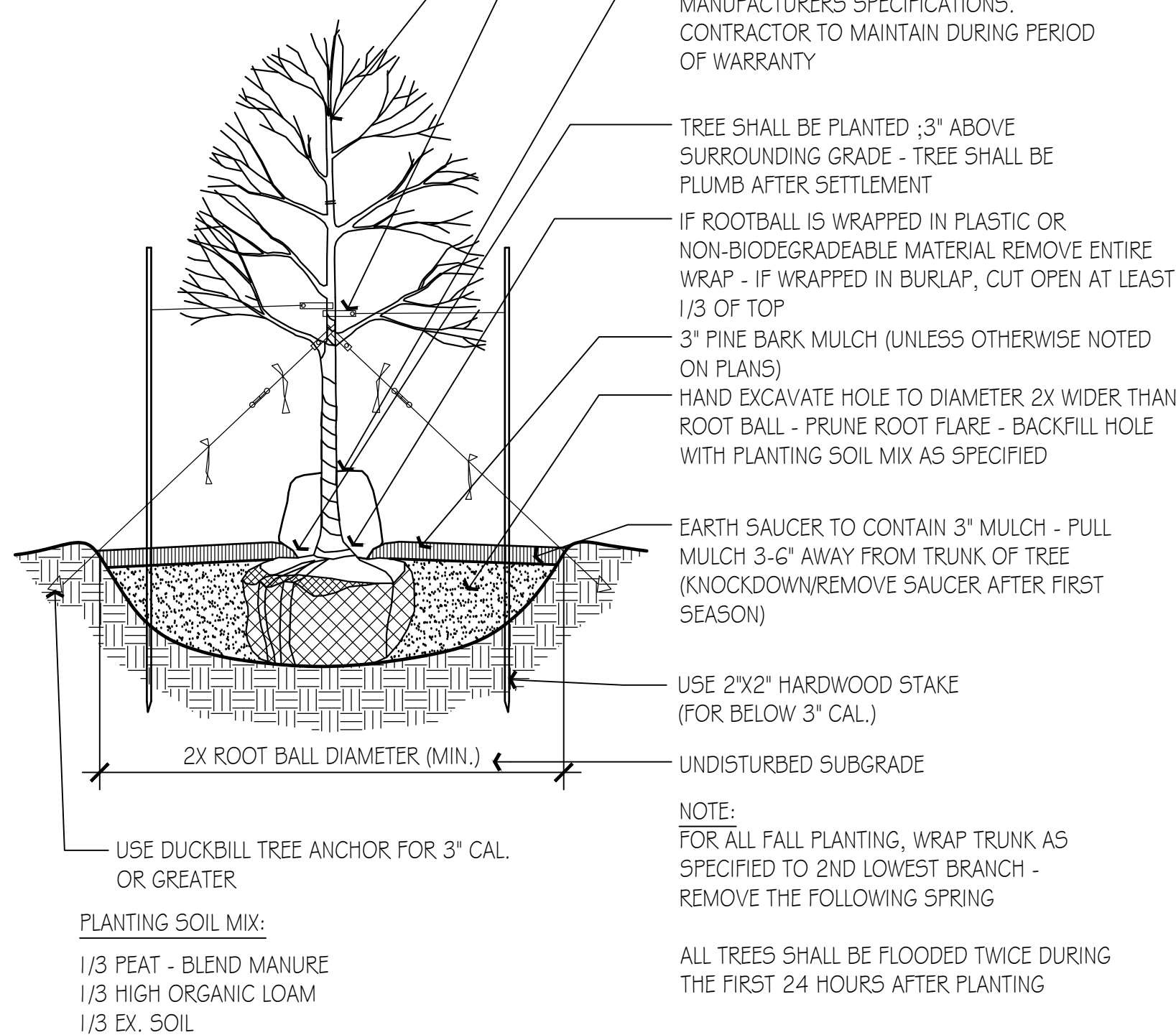
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NOTES:

ON TREES BELOW 3" CAL.
USE WOOD STAKES.

ON TREES 3" CAL. OR GREATER
USE GUYING CABLES.

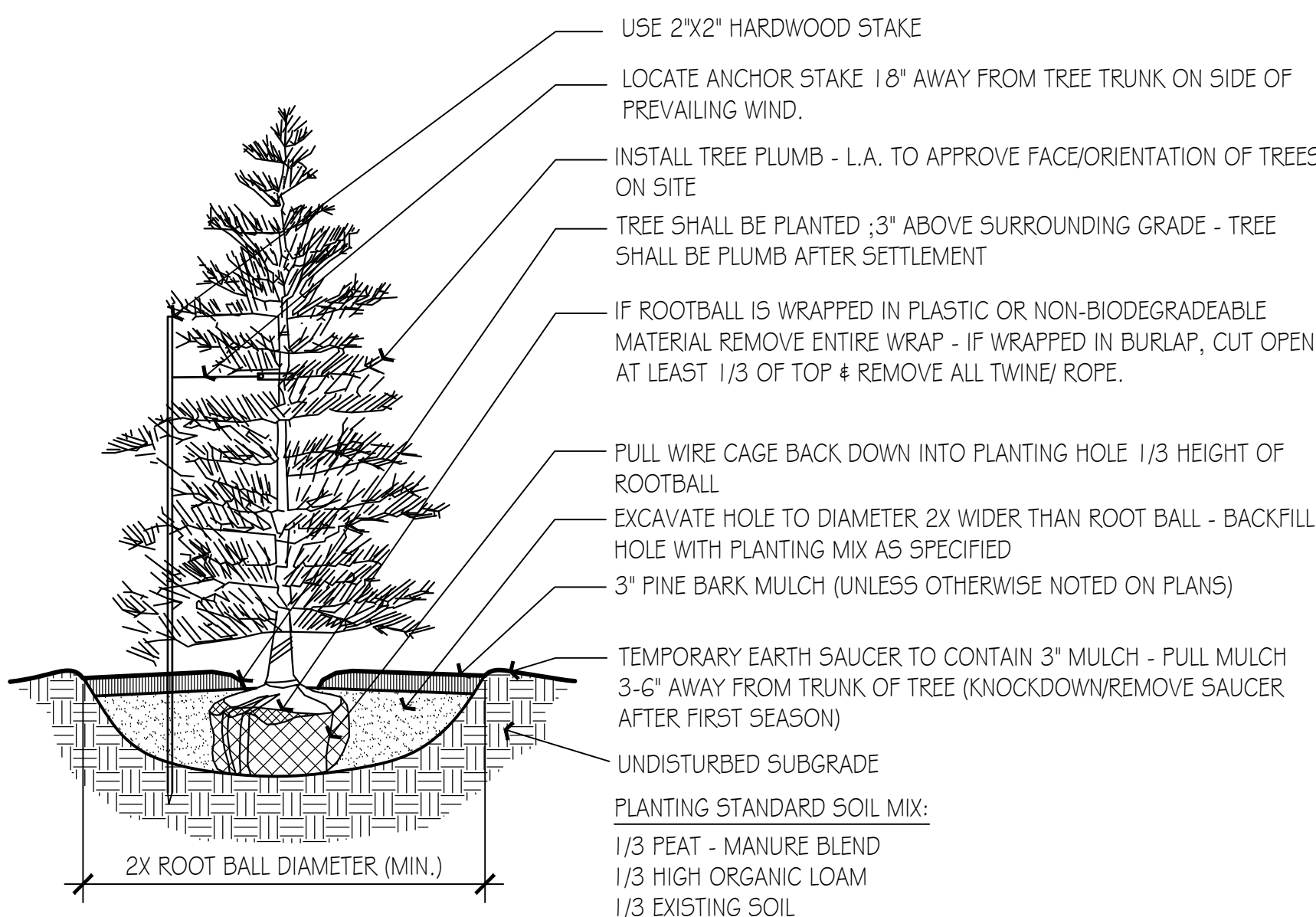
IF GUYING CABLES USE 3 PER TREE



PLANTING SOIL MIX:
1/3 PEAT - BLEND MANURE
1/3 HIGH ORGANIC LOAM
1/3 EX. SOIL

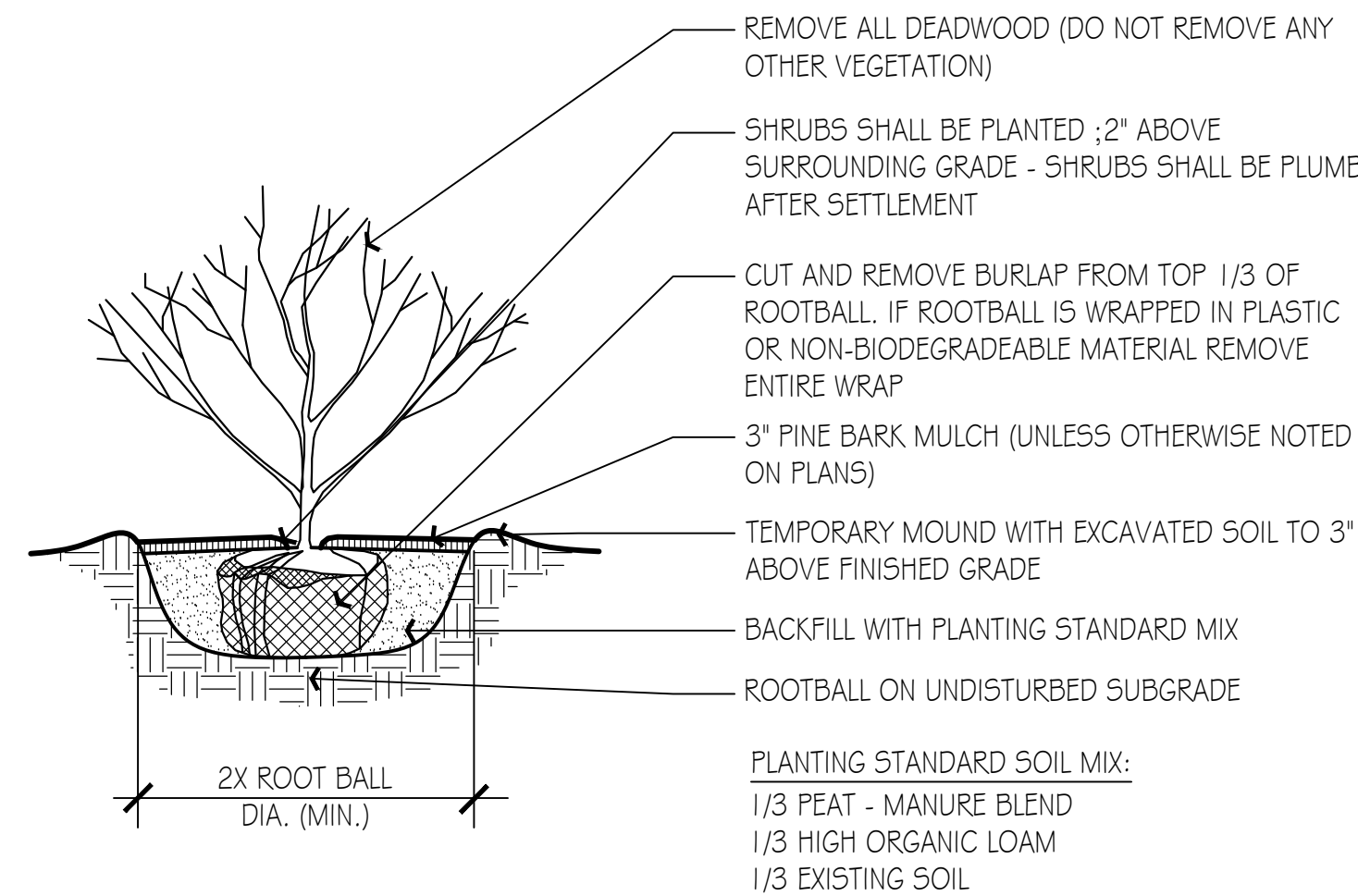
2 Deciduous Tree Planting

Scale: N.T.S.



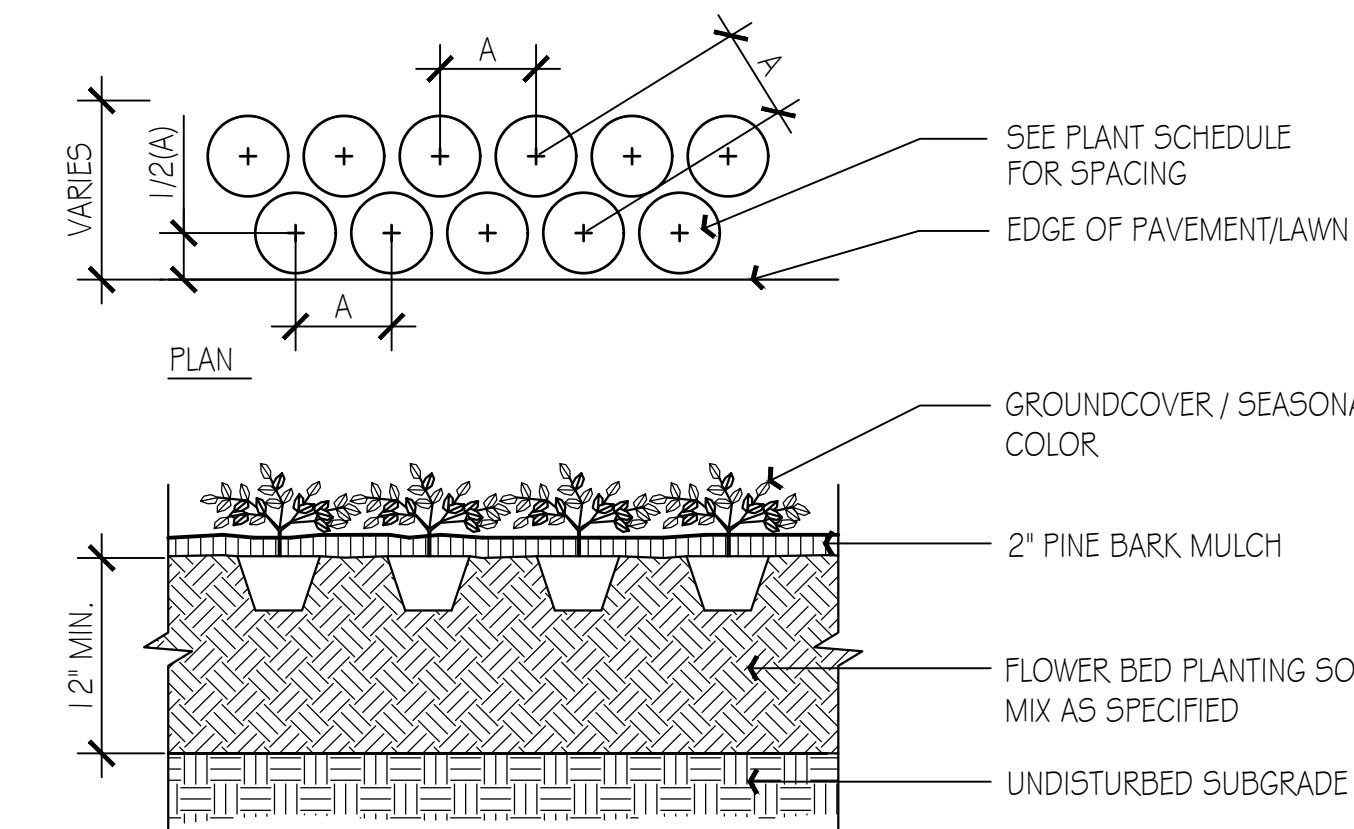
3 Coniferous Tree Planting

Scale: N.T.S.



4 Shrub Planting

Scale: N.T.S.



5 Perennial, Groundcover & Seasonal Color Planting

Scale: N.T.S.