

PROPOSED SITE PLAN DOCUMENTS



PROPOSED

EARLY EDUCATION FACILITY

LOCATION OF SITE

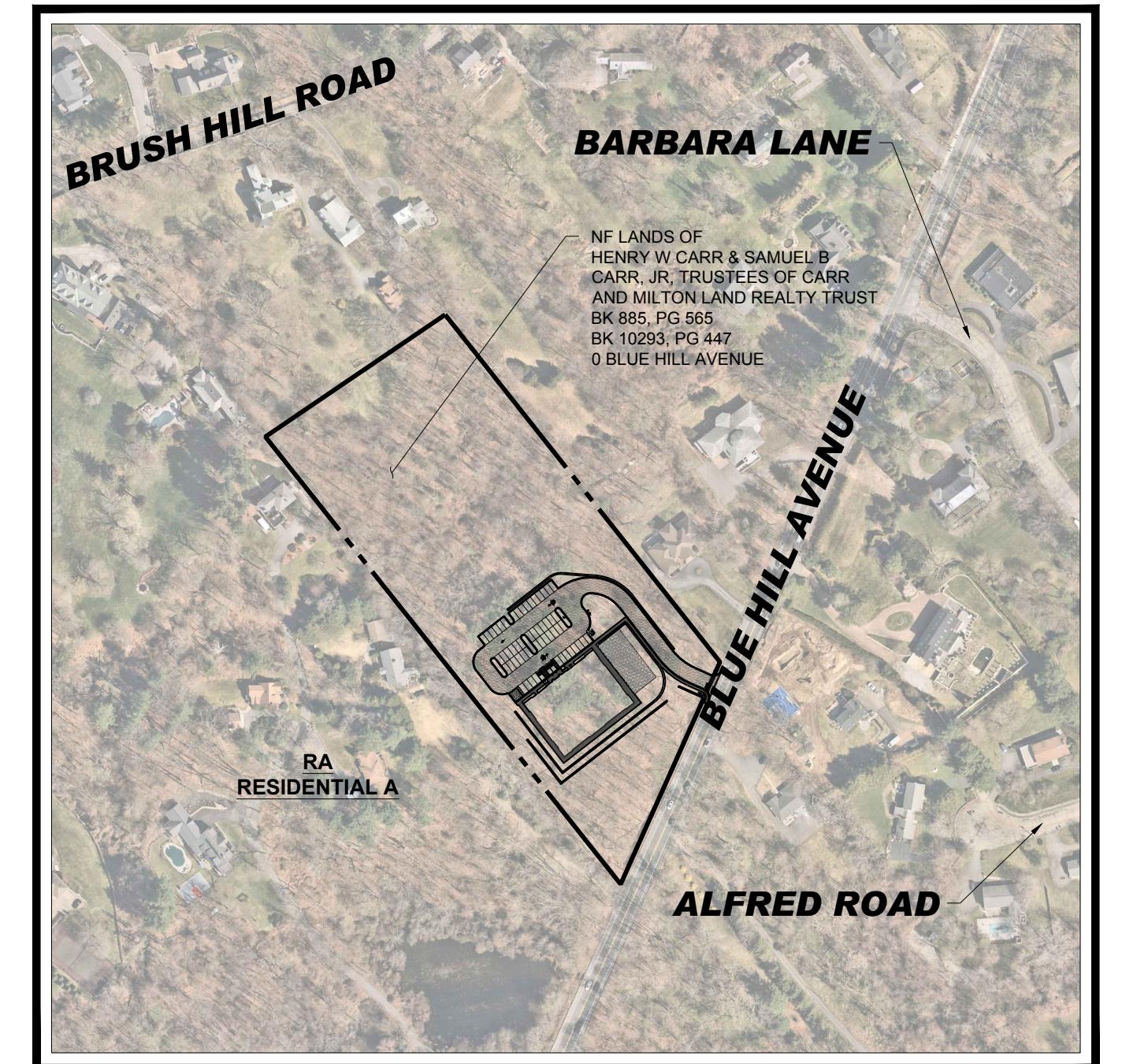
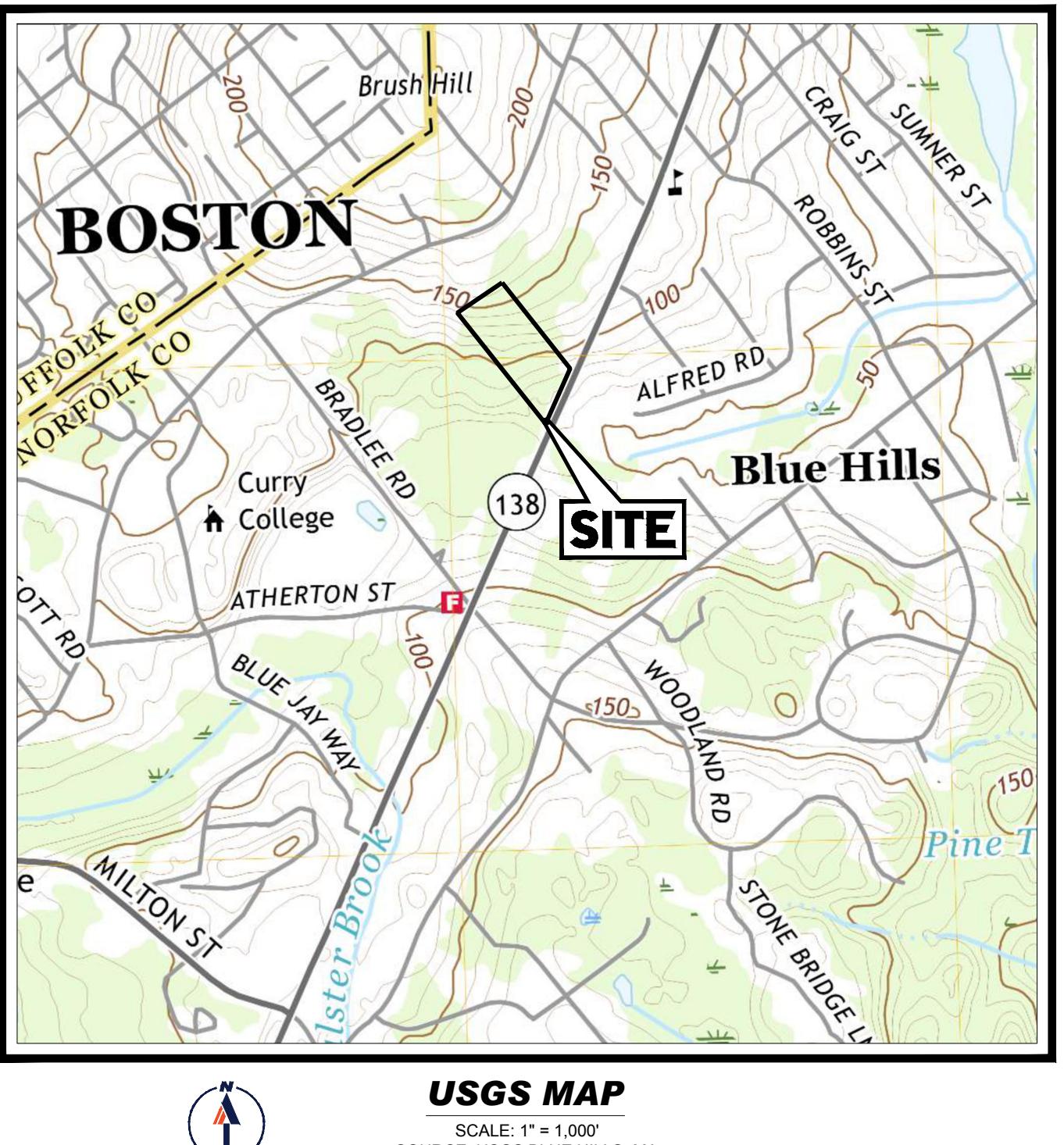
0 BLUE HILL AVENUE, TOWN OF MILTON
NORFOLK COUNTY, MASSACHUSETTS

MAP B7, LOT 5

REFERENCES AND CONTACTS

REFERENCES
◆ BOUNDARY & TOPOGRAPHIC SURVEY: CONTROL POINT ASSOCIATES, INC. 302 BOSTON ROAD SOUTHBOROUGH, MA 01772 DATE: 07/17/2024 SURVEY JOB #: 03-240178-00 ELEVATIONS: NAVD 1988
◆ ARCHITECTURAL PLAN: NORRIS 323 N LA SALLE STREET SUITE 500 CHICAGO, IL 60654 DATE: 08/28/2024

THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS.
HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR
DERIVED FROM THESE DOCUMENTS, BY OTHERS.



PREPARED BY

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BOHLER //
TM
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES

TRADE SHOWS AND CONVENTIONS
OF CIVIL ENGINEERING AND LAND SURVEYING EQUIPMENT
AND SERVICES ARE HELD FOR CONSTRUCTION PURPOSES
BY THE BOHLER GROUP.

REVISIONS			
REV	DATE	COMMENT	DRAWN BY CHECKED BY



ALWAYS CALL 811

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EXISTING CONDITIONS/DEMOLITION PLAN	C-201
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FIRETRUCK TURN EXHIBIT	EX-01
ALTA SURVEY (BY OTHERS)	1 OF 1

PERMIT SET	
THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.	
PROJECT No.:	MAA240187-00-0A
DRAWN BY:	SSB
CHECKED BY:	AWP
DATE:	08/28/2024
CAD I.D.:	P-CIVL-CNDS
PROJECT:	

SITE DEVELOPMENT PLANS

FOR	
	PROPOSED
EARLY EDUCATION FACILITY	

MAP: B7, LOT: 5
0 BLUE HILL AVENUE
NORFOLK COUNTY
MILTON, MA

BOHLER //

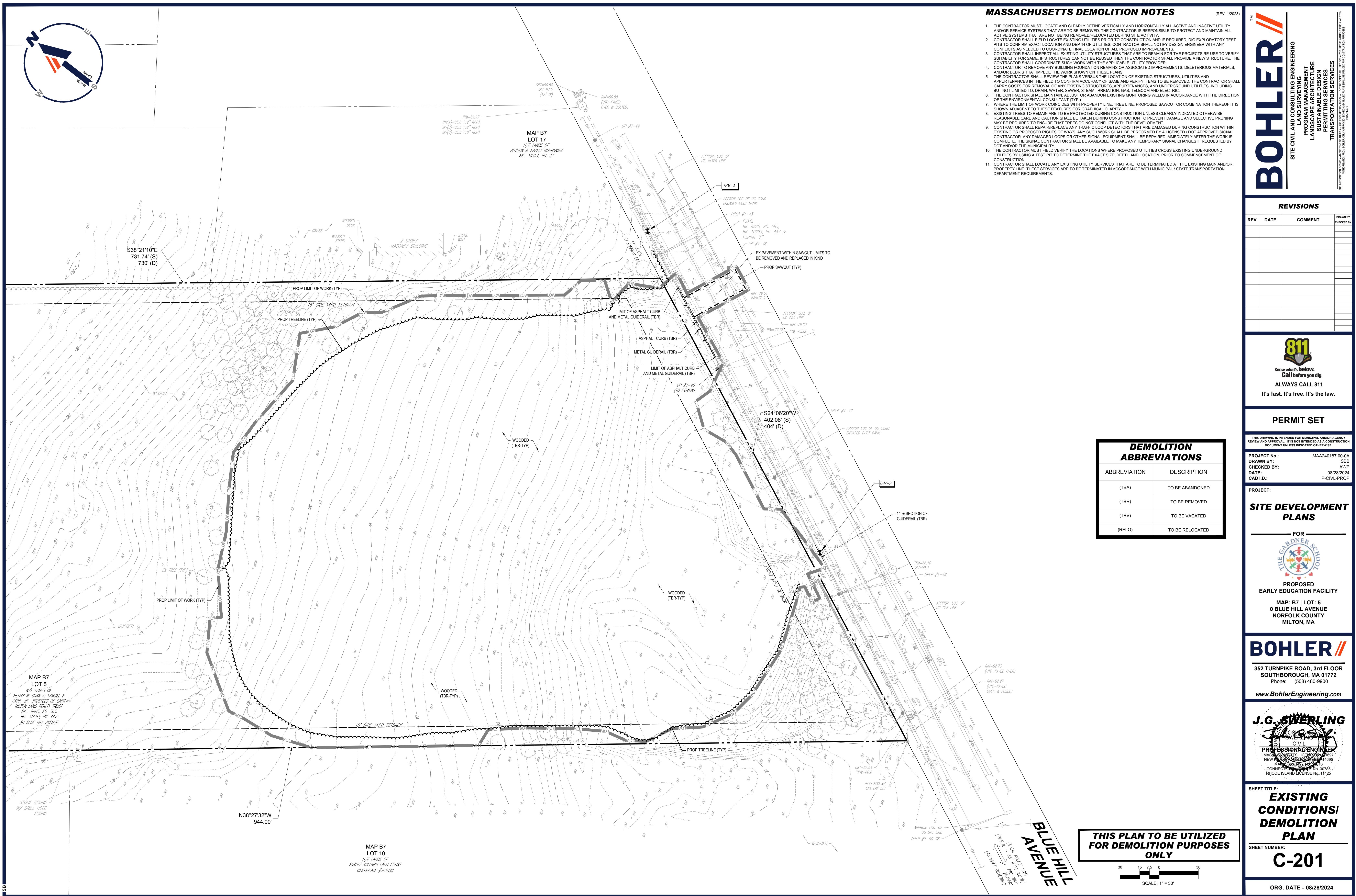
352 TURNPIKE ROAD, 3rd FLOOR
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

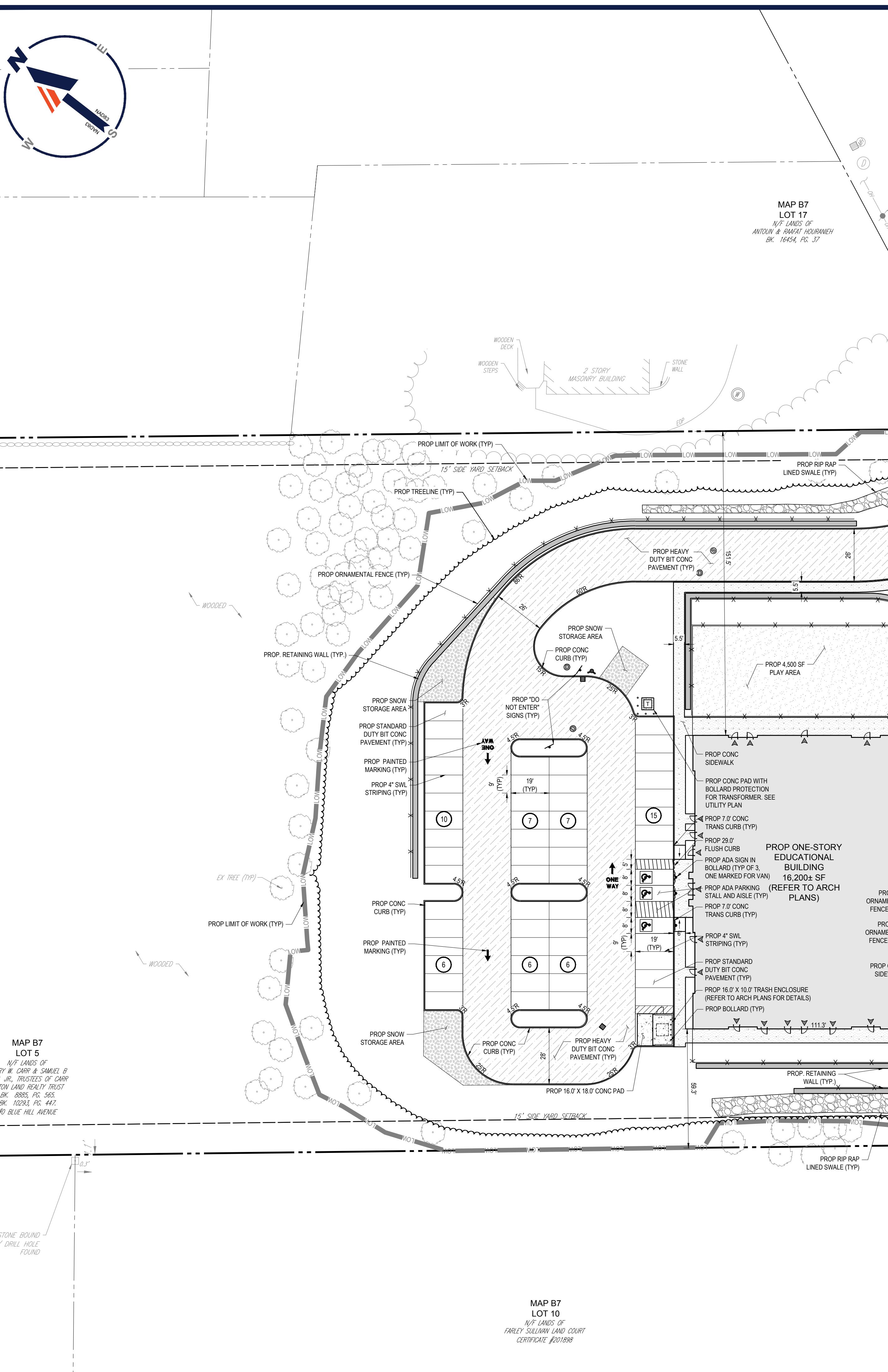
www.BohlerEngineering.com



COVER SHEET	
SHEET NUMBER:	C-101

ORG. DATE - 08/28/2024





ZONING TABLE				
ZONE: RA - RESIDENTIAL A USE: EARLY EDUCATION FACILITY MAP: B7 LOT: 5				
APPLICANT/ OWNER INFORMATION				
APPLICANT:	VIKING DEVELOPMENT, LLC 302 INNOVATION DRIVE, SUITE 310 FRANKLIN, TN 37067			
PROPERTY OWNER:	HENRY W. CARR & SAMUEL B CARR, JR., TRUSTEES OF CARR MILTON LAND REALTY TRUST BK 8885, PG 565 BK 10293, PG 447 #0 BLUE HILL AVENUE			
BULK REQUIREMENTS				
ITEM	CODE	PERMITTED	EXISTING	PROPOSED
AREA	§ 275-10.1	40,000 SF	299,513 SF	NO CHANGE
FRONTAGE	§ 275-10.1	150.0'	402.1'	NO CHANGE
SETBACKS				
YARD	§ 275-10.2	50.0'	N/A	101.4' ±
RD	§ 275-10.3	35.0'	N/A	59.3' ±
ARD	§ 275-10.4	50.0'	N/A	596.1' ±
G REQUIREMENTS				
PERMITTED HEIGHT	§ 275-9.1	35.0' / 2.5 STORIES	N/A	22.0'
BUILDING COVERAGE	§ 275-10.5	15.0%	N/A	5.3%
EN SPACE	§ 275-10.6	47,400 SF ± (1)	N/A	263,300 SF ±
				KEY = VARIANCE REQUIRED
PARKING REQUIREMENTS				
ITEM	CODE	PERMITTED	EXISTING	PROPOSED
ALL SIZE	§ 275-11.8	8.5' X 19.0'	N/A	9.0' X 19.0'
LE WIDTH	§ 275-11.8	20.0' 2 WAY, 12.0' 1 WAY	N/A	24.0'
MBER OF STALLS	§ 000-000	23	N/A	57
RKING SETBACK	§ 275-11.7	30.0'	N/A	53.1' ±
EDUCATION FACILITY: ED FOR USE = 3 SPACES FOR EVERY 2 INSTRUCTIONAL ROOMS = 15 ROOMS / 2 = 7.5 ROOMS X 3 = 23 SPACES				
				KEY = VARIANCE REQUIRED



MASSACHUSETTS SITE NOTES

1 WHEN APPLICABLE, OWNER/ OPERATOR MUST FILE THE NOI FOR NPDES PERMITS AT APPROPRIATE AND/OR REQUIRED TIME

FRAMES BASED UPON THE DESIRED START OF CONSTRUCTION. LAND DISTURBING ACTIVITIES MUST NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED FROM GOVERNING AUTHORITIES (INCLUDING STORMWATER POLLUTION PREVENTION PLAN). THE CONTRACTOR MUST STRICTLY ADHERE TO THE APPROVED SWPPP PLAN DURING CONSTRUCTION OPERATIONS (IF PROVIDED).

- 2. ALL CONCRETE MUST BE AIR ENTRAINED AND INCLUDE THE MINIMUM COMPRESSIVE STRENGTH OF JURISDICTIONAL STANDARD PSI AT 28 DAYS (OR 4,000 PSI) UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT. IF THERE ARE ANY DISCREPANCIES BETWEEN THE PLANS, DETAILS AND GEOTECHNICAL REPORT THEN THE GEOTECHNICAL REPORT SHALL GOVERN.
- 3. THE CONTRACTOR MUST FILE SITE SIGNAGE APPLICATION OR PERMIT UNDER SEPARATE APPLICATION UNLESS DONE SO AS PART OF JURISDICTIONAL PERMITTING PROCEDURES.
- 4. THE CONTRACTOR MUST REPAIR OR REPLACE, AT THE CONTRACTOR'S SOLE COST AND EXPENSE, ALL SIDEWALKS, CURBS, PAVEMENT MARKINGS, AND PAVEMENT DAMAGED BY CONSTRUCTION ACTIVITIES WHETHER SPECIFIED ON THIS PLAN OR NOT.
- 5. WORK WITHIN THE RIGHT-OF-WAY MUST BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE REQUIREMENTS AND STANDARDS OF THE DEPARTMENT OF PUBLIC WORKS, ENGINEERING DEPARTMENT, HIGHWAY DIVISION, AND/OR STATE DOT HIGHWAY DEPARTMENT.
- 6. WHERE RETAINING WALLS ARE IDENTIFIED ON THE PLANS, TOP AND BOTTOM OF WALL WIDTHS DO NOT REPRESENT THE ACTUAL WIDTH OF THE PROPOSED WALL, RATHER THEY ARE AN ASSUMPTION BASED ON WALL TYPE AND WALL HEIGHT. WALL FOOTINGS AND /OR FOUNDATIONS ARE NOT IDENTIFIED HEREIN AND ARE TO BE SET/DETERMINED BY THE CONTRACTOR OR WALL DESIGNER, AND MUST BE SET BASED UPON FINAL STRUCTURAL DESIGN SHOP DRAWINGS PREPARED BY THE APPROPRIATE PROFESSIONAL LICENSED IN THE STATE WHERE THE CONSTRUCTION OCCURS. THE CONTRACTOR MUST ENSURE THAT AN APPROPRIATELY LICENSED PROFESSIONAL DESIGNS ALL WALLS SHOWN HEREON AND PRIOR TO CONSTRUCTION. REFER TO GRADING NOTES REGARDING RETAINING WALL DESIGN.
- 7. CONTRACTOR IS CAUTIONED OF EXISTING UTILITY SERVICES TO REMAIN IN PROXIMITY TO PROPOSED BOLLARDS AND SIGNS. CONTRACTOR SHALL PROVIDE FIELD MODIFICATION LOCATIONS OF BOLLARDS AND BOLLARDS WITH SIGNAGE AS NEEDED TO AVOID CONFLICTS WITH EXISTING UTILITY SERVICES TO REMAIN.

MASSACHUSETTS ACCESSIBILITY DESIGN

GUIDELINES

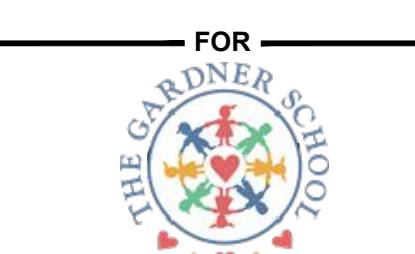
1. IN ADDITION TO THE ACCESSIBILITY DESIGN GUIDELINES ON SHEET C-102, THE CONTRACTOR MUST ALSO ENSURE THAT ALL ACCESSIBLE COMPONENTS AND ACCESSIBLE ROUTES ARE CONSTRUCTED IN STRICT ACCORDANCE WITH THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD REGULATIONS 521 CMR. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES BETWEEN THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE AND STATE

PERMIT SET

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

PROJECT No.: MAA240187.00-0A
DRAWN BY: SBB

SITE DEVELOPMENT PLANS



**PROPOSED
EARLY EDUCATION FACILITY**

BOHLER //

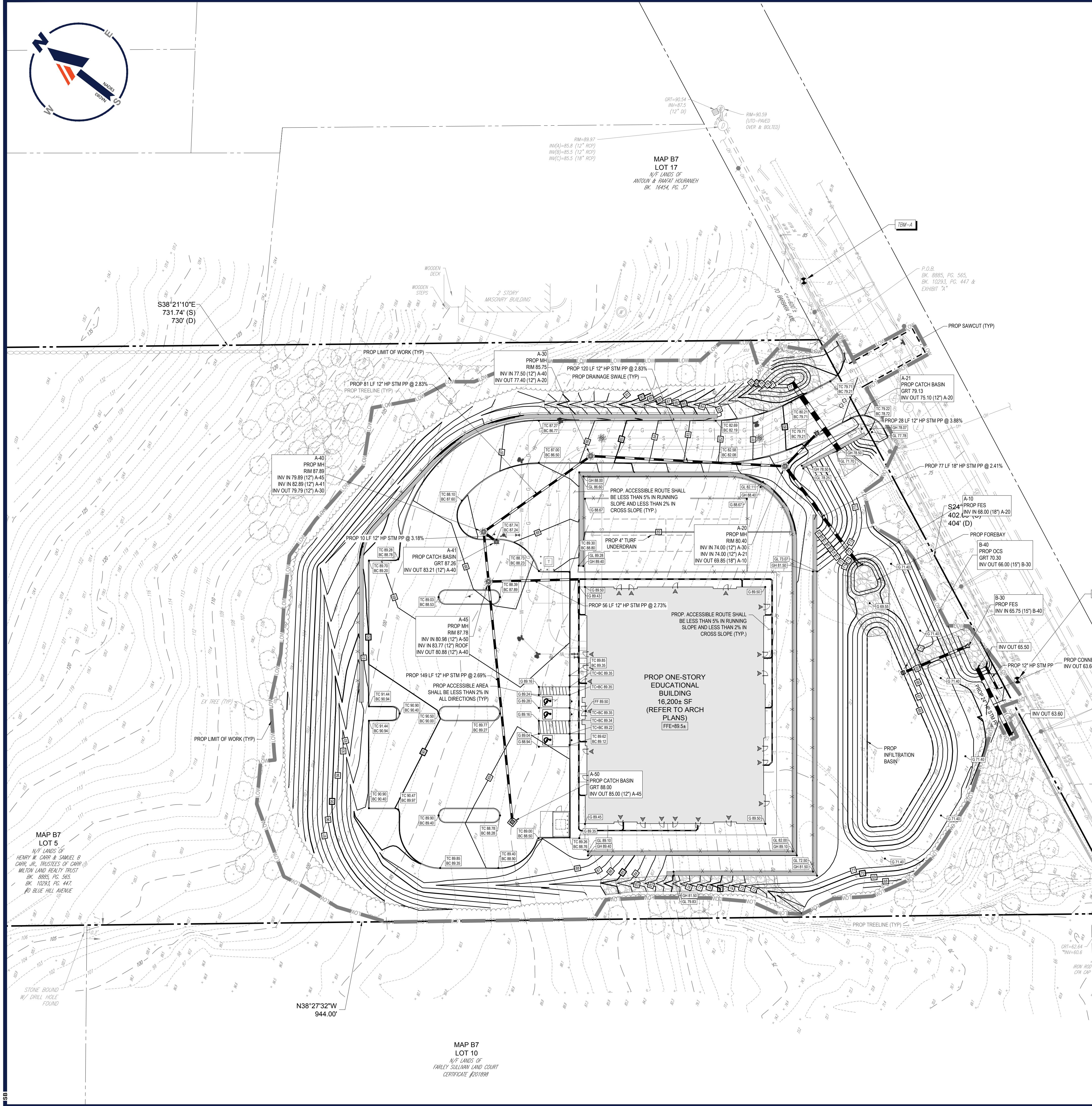
**352 TURNPIKE ROAD, 3rd FLOOR
SOUTHBOROUGH, MA 01772**
Phone: (508) 480-9900

A circular stamp with a jagged starburst border. Inside the circle, the text "J.G. SWERLING" is written in large, bold, sans-serif letters. Below it, "PROFESSIONAL ENGINEER" is written in a smaller, all-caps sans-serif font. In the center of the circle, "MASSACHUSETTS" is written in a small, all-caps sans-serif font. At the bottom of the circle, "CIVIL" is written in a small, all-caps sans-serif font. A signature "J. G. SWERLING" is written across the center of the circle. The stamp is set against a dark background.

SITE PLAN

HEET NUMBER:

2020 STATE SURVEY



MASSACHUSETTS GRADING NOTES

The logo for Bohler Engineering features a large, bold, dark blue sans-serif font spelling out "BOHLER" vertically. A thick orange double-slash graphic is positioned to the right of the text. To the left of the text, there are several lines of text in a smaller, dark blue font, which are mostly cut off by the edge of the image. To the right of the main text, a vertical list of services is presented in a dark blue font, each preceded by a small orange diamond icon. The services listed are: SITE CIVIL AND CONSULTING ENGINEERING, LAND SURVEYING, PROGRAM MANAGEMENT, LANDSCAPE ARCHITECTURE, SUSTAINABLE DESIGN, PERMITTING SERVICES, and TRANSPORTATION SERVICES. A thin vertical line runs along the right edge of the text area, and a small "TM" symbol is located at the top left of the logo area.

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN

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SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISION

DATE	COMMENT	DRA CHEC

The logo for the Call 811 service, featuring the number 811 in large, bold, yellow letters with a black outline. Below the number is a stylized shovel icon, and the entire logo is set against a dark blue background.

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

ALWAYS CALL 811

fast. It's free. It's the law.

MASSACHUSETTS ACCESSIBILITY DESIGN

GUIDELINES

5/2024)

1. IN ADDITION TO THE ACCESSIBILITY DESIGN GUIDELINES ON SHEET C-102, THE CONTRACTOR MUST ALSO ENSURE THAT ALL ACCESSIBLE COMPONENTS AND ACCESSIBLE ROUTES ARE CONSTRUCTED IN STRICT ACCORDANCE WITH THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD REGULATIONS 521 CMR. THE CONTRACTOR MUST IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, IN WRITING, OF ANY DISCREPANCIES BETWEEN THE "AMERICANS WITH DISABILITIES ACT" (ADA) CODE AND STATE BUILDING CODE AS IT RELATES TO ANY ACCESSIBLE IMPROVEMENTS BEING CONSTRUCTED PRIOR TO COMMENCING THE WORK.

MASSACHUSETTS DRAINAGE NOTES

MIJCT

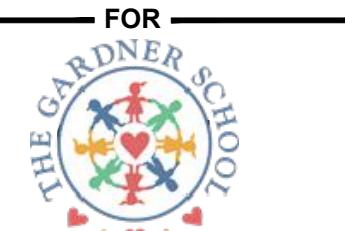
1. WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL UTILITY SERVICES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY, UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR MUST CAP ENDS OF INSTALLED UTILITIES AS APPROPRIATE, MARK UTILITY ENDS WITH MAGNETIC TRACER TAPE, MARK TERMINUS LOCATIONS WITH A 2X4 STAKE, AND MUST NOTE THE LOCATION OF ALL UTILITY STUBS ON A CLEAN COPY OF THE PLAN. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
2. STORM AND SANITARY PIPE LENGTHS INDICATED ARE NOMINAL AND ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS INDICATED ON THE PLANS OTHERWISE.
3. UNLESS CLEARLY INDICATED OTHERWISE, ALL STORM PIPE MUST BE REINFORCED CONCRETE PIPE (RCP) CLASS III WITH SILT/SOIL TIGHT JOINTS. WHEN HIGH-DENSITY POLYETHYLENE PIPE (HDPE) IS CALLED FOR ON THE PLANS, IT MUST CONFORM TO AASHTO M252 FOR PIPES 4" TO 10" AND TO AASHTO M294 FOR PIPES 12" TO 60" AND TYPE S (SMOOTH INTERIOR WITH ANGULAR CORRUGATIONS) WITH GASKET FOR SILT/SOIL TIGHT JOINT. PIPE FOR ROOF DRAIN CONNECTION MUST BE SDR 26 PVC OR SCHEDULE 40 UNLESS INDICATED OTHERWISE. HDPE PIPE JOINT GASKETS MUST BE PROVIDED AND CONFORM TO ASTM F477. DRAIN PIPE INSTALLED WITH OVER TEN (10) FEET OVER COVER AND/OR IN HIGH GROUNDWATER CONDITIONS SHALL BE SANITITE HP POLYPROPYLENE PIPE (PP), OR APPROVED EQUIVALENT.

PERMIT SET

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JECT No.: MAA240187.00
WN BY: S
CKED BY: A
E: 08/28/2018
I.D.: P-CIVL-GF

ITE DEVELOPMENT PLANS



EARLY EDUCATION FACILITY
MAP: B7 | LOT: 5
0 BLUE HILL AVENUE
NORFOLK COUNTY
MILTON, MA

BOHLER

GRADING AND RAINAGE PLAN

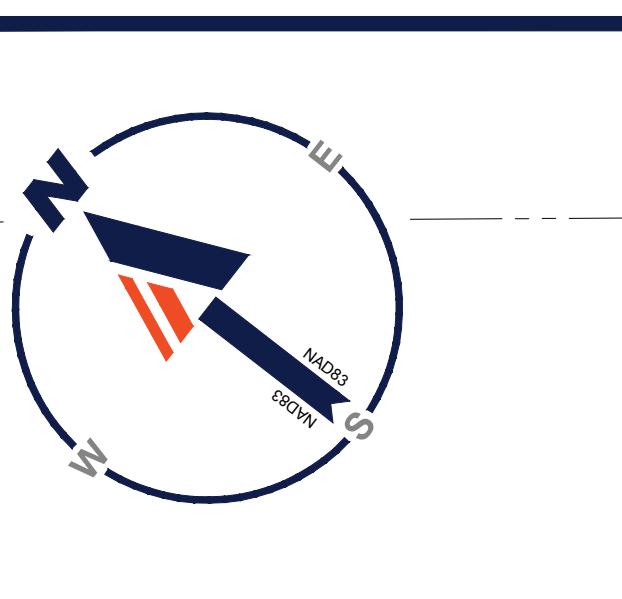
SET NUMBER:
C-401

ORG. DATE - 08/28/2024

**THIS PLAN TO BE UTILIZED
FOR GRADING, DRAINAGE AND
UTILITIES PURPOSES ONLY**

15 7.5 0 30
SCALE: 1" = 30'

COALE: 1 - 50



MASSACHUSETTS UTILITY NOTES

7/2024)

BOHLER

LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

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1. THE CONTRACTOR'S PRICE FOR WATER AND SEWER SERVICE INSTALLATIONS MUST INCLUDE ALL FEES, COSTS, AND APPURTENANCES REQUIRED BY THE UTILITY PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK) TO PROVIDE FULL AND COMPLETE WORKING SERVICE, INCLUDING (BUT NOT LIMITED TO) NECESSARY FEES, TESTING, DISINFECTING, INSPECTIONS, ROAD OPENING & BACKFILL REQUIREMENTS, TRAFFIC CONTROL AND SURETY BONDS AS DEFINED BY THE PROVIDER (AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK).
2. ALL WORK ASSOCIATED WITH UTILITY POLES, OVERHEAD WIRES AND ANY/ALL APPURTENANCES SHALL BE COORDINATED BY THE GC WITH THE LOCAL UTILITY COMPANIES PRIOR TO THE ORDERING OF ANY MATERIALS. THIS MAY INCLUDE BUT IS NOT LIMITED TO THE REMOVAL, INSTALLATION, RELOCATION OR PROTECTION OF ANY BRACING, GUY WIRES, OVERHEAD WIRES, ETC. AS MAY BE REQUIRED TO ACCOMMODATE THE PROJECT.
3. SEWERS CONVEYING SANITARY FLOW, OR INDUSTRIAL FLOW MUST BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE PIPES MUST, AT A MINIMUM, BE IN SEPARATE TRENCHES WITH THE AT LEAST 18 INCHES OF VERTICAL SEPARATION FROM THE BOTTOM OF THE WATER MAIN TO THE TOP OF THE SEWER LINE. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER MUST BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER LINE AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SANITARY SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SANITARY SEWER MUST BE PROVIDED. ALL CROSSINGS SHALL BE IN ACCORDANCE WITH JURISDICTIONAL PERMITTING/UTILITY AUTHORITIES REGULATIONS.
4. WHEN THESE PLANS INVOLVE MULTIPLE BUILDINGS, SOME OF WHICH MAY BE BUILT AT A LATER DATE, THE CONTRACTOR MUST EXTEND ALL UTILITY SERVICES, INCLUDING BUT NOT LIMITED TO STORM, SANITARY, UTILITIES, AND IRRIGATION LINES, TO A POINT AT LEAST FIVE (5) FEET BEYOND THE PAVED AREAS FOR WHICH THE CONTRACTOR IS RESPONSIBLE. THE CONTRACTOR MUST CAP ENDS OF INSTALLED UTILITIES AS APPROPRIATE, MARK UTILITY ENDS WITH MAGNETIC TRACER TAPE, MARK TERMINUS LOCATIONS WITH A 2X4 STAKE, AND MUST NOTE THE LOCATION OF ALL UTILITY STUBS ON A CLEAN COPY OF THE PLAN. THIS RECORD DOCUMENT MUST BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK, ALL OF WHICH IS AT THE CONTRACTOR'S SOLE COST.
5. UNLESS INDICATED OTHERWISE, ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC., MUST BE INSTALLED UNDERGROUND. ALL NEW UTILITY SERVICES MUST BE INSTALLED IN ACCORDANCE WITH THE UTILITY SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
6. SANITARY PIPE MUST BE POLYVINYL CHLORIDE (PVC) SDR 35 EXCEPT WHERE CLEARLY INDICATED OTHERWISE. SANITARY LATERAL(S) MUST BE PVC SDR 26 UNLESS CLEARLY INDICATED OTHERWISE.
7. UNLESS CLEARLY INDICATED OTHERWISE ALL SANITARY PIPE MUST BE:
 - 7.1. FOR PIPES LESS THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 35 PER ASTM D3034.
 - 7.2. FOR PIPES GREATER THAN 12 FEET DEEP: POLYVINYL CHLORIDE (PVC) SDR 26 PER ASTM D3034.
 - 7.3. UNLESS LOCAL OR STATE BUILDING / PLUMBING CODE CLEARLY SPECIFIES DIFFERENTLY, SANITARY LATERALS MUST BE PVC SDR 26.
- 7.4. FOR ALL UTILITY PIPING (INCLUDING DRAIN) WITHIN 10 FT OF A BUILDING, PIPE MATERIAL SHALL COMPLY WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES. CONTRACTOR SHALL REFER TO PLUMBING ENGINEERING PLANS AND VERIFY PIPE MATERIAL WITH LOCAL OFFICIAL PRIOR TO ORDERING OF MATERIALS.
- 7.5. CONTRACTOR SHALL VERIFY THE CONNECTION OF EXTERIOR PIPING TO ANY FIXTURES (SUCH AS AN EXTERIOR GREASE INTERCEPTOR) OR OTHER DRAINAGE SYSTEMS WITH LOCAL OFFICIALS FOR COMPLIANCE WITH APPLICABLE LOCAL OR STATE BUILDING AND PLUMBING CODES PRIOR TO ORDERING OF MATERIALS.
8. WATER MAIN PIPING MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL WATER COMPANY. IN THE ABSENCE OF SUCH REQUIREMENTS, WATER MAIN PIPING MUST BE CEMENT-LINED DUCTILE IRON (DIP) MINIMUM CLASS 52 THICKNESS. ALL PIPE AND APPURTENANCES MUST COMPLY WITH THE APPLICABLE AWWA STANDARDS IN EFFECT AT THE TIME OF APPLICATION.
9. GAS METERS MUST BE PROTECTED AS REQUIRED BY THE JURISDICTIONAL GAS PROVIDER.
10. TRANSFORMERS AND SWITCH GEARS: GC SHALL PROVIDE ALL APPURTENANCES IN ACCORDANCE WITH UTILITY COMPANY SPECIFICATIONS AND CARRY SAME IN BASE BID. APPURTENANCES SHALL INCLUDE, BUT NOT BE LIMITED TO, THE CONCRETE PAD, SECONDARY SPILL CONTAINMENT AREAS (IF REQUIRED), BOLLARD / VEHICULAR PROTECTION, AND OTHER ITEMS AS MAY BE REQUIRED BY THE UTILITY PROVIDER FOR INSTALLATION OF THE TRANSFORMER AND SWITCH GEAR (IF REQUIRED). GC SHALL COORDINATE ALL ASPECTS OF INSTALLATION WITH UTILITY PROVIDER PRIOR TO ORDERING OF MATERIALS AND NOTIFY DESIGN ENGINEER OF ANY CONFLICTS IN WRITING.



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JECT No.: MAA240187.00-0A
WN BY: SBB
CKED BY: AWP
E: 08/28/2024
I.D.: P-CIVL-PROP

WHITE DEVELOPMENT PLANS



EARLY EDUCATION FACILITY
MAP: B7 | LOT: 5

0 BLUE HILL AVENUE
NORFOLK COUNTY
MILTON, MA

BOHLER //

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

RISE/ISLAND LICENSE NO. 11420

UTILITY PLAN

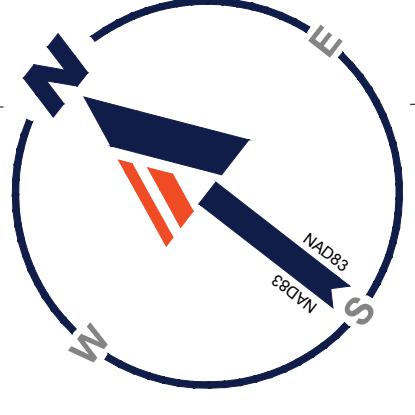
SET NUMBER: _____

2020 DATE: 09/09/2020

THIS PLAN TO BE UTILIZED FOR UTILITIES PURPOSES ONLY

A horizontal scale with numerical labels 30, 15, 7.5, 0, and 30. A thick black bar is positioned at the center of the scale, spanning from the 15 mark to the 30 mark.

SCALE: 1" = 30'



MAP B7
LOT 17
N/F LANDS OF
ANTOUN & RAAFAT HOURANI
RK 16454 PG 32

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

A horizontal scale bar with tick marks at 15, 7.5, 0, and 30. The segments between the tick marks are black, and the segments before and after the tick marks are white. Below the scale bar, the text "SCALE: 1\" data-bbox="111 111 350 171" data-label="Text"> $"$ = 30' is centered.

CONTROL PLATE

UNIT NUMBER: **C-801**

ORG. DATE - 08/28/2024

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The logo for 811 features the number '811' in large, bold, yellow letters. Below the '11' is a grey shovel icon, and the base of the letters is supported by stylized green and brown ground.

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TE DEVELOPMENT PLANS

BOHLER

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

T TITLE:

SOIL EROSION AND SEDIMENT CONTROL PLA

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—
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ITEM NUMBER.

1. *Journal of the American Statistical Association*

ORG. DATE - 08/28/2024

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MASSACHUSETTS EROSION AND SEDIMENT CONTROL NOTES

- ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
- THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM OF 14 DAYS. THE CONTRACTOR SHALL PERMANENTLY STABILIZE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS. AT A MINIMUM, THE AREA SHALL BE PROVIDED WITH A STABILIZED CONSTRUCTION ENTRANCE/EXIT, EROSION CONTROL, AND SEDIMENT PREVENTION PLAN (SWPPP). THE AREA SHALL BE PERMANENTLY STABILIZED WITHIN 14 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 OR PRIOR TO ANY STORM EVENT (THIS WOULD INCLUDE WETLANDS).
- 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 TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 8%.
- INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF. SEE SILTATION BARRIER DETAILS FOR PROPER INSTALLATION. SILTATION BARRIER WILL REMAIN IN PLACE PER 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 OR WHEN NO LONGER SERVABLE DUE TO SEDIMENT ACCUMULATION OR DECOMPOSITION. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN 6 INCHES OR MORE OF SEDIMENT ACCUMULATES ON THE SLOPES. SEDIMENT CONTROL BARRIERS SHALL BE MAINTAINED AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED. FOR SEDIMENT CONTROL DEVICES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE DEVICES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.
- NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1) UNLESS OTHERWISE INDICATED ON THE PLANS. SLOPE PROTECTION FOR SLOPES GREATER THAN 2:1 SHALL BE DESIGNED BY A GEOTECHNICAL ENGINEER.
- IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST, USE TEMPORARY MULCH (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- 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 PROBLEMS.
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STANDARDS.

10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND PREPARED FOR FINAL SEEDING AS FOLLOWS:

- SIX INCHES, OR DEPTH SPECIFIED ON THE LANDSCAPE PLAN, OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SITE TEST. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIOUS SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 LB PER ACRE OR 18.4 LB PER 1,000 SF USING 10-20-20 OR EQUIVALENT. ADD 100 POUNDS OF LIMESTONE (EQUIVALENT TO 50% CALCIUM MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER 10,000 SF. ADD 100 POUNDS OF FERTILIZER (18.4 LB PER 1,000 SF).
- FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEED TO A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEED TO A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUE GRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYEGRASS. SEEDING RATE IS 1.03 LBS PER 1,000 SF LAWN. QUALITY SOD MAY BE SUBSTITUTED FOR SEED WHERE SLOPES DO NOT EXCEED 2:1. SOD ON SLOPES STEEPER THAN 3:1 SHOULD BE PEGGED.
- STRAW MULCH AT THE RATE OF 70-90 LBS PER 1,000 SF. A HYDRO-APPLICATION OF WOOD OR PAPER FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER WILL BE USED ON STRAW MULCH FOR WIND CONTROL.

11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% STABILIZED. FOR EROSION CONTROL MEASURES THAT ARE WITHIN AREAS SUBJECT TO CONSERVATION COMMISSION JURISDICTION, THE MEASURES SHALL REMAIN IN PLACE AND BE REMOVED IN ACCORDANCE WITH THE ORDER OF CONDITIONS.

12. WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, COMPOST TUBES, SILT FENCE OR A COMBINATION THEREOF.

13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.

14. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

LOCATION	MULCH	MULCH RATE (1000 SF)
PROTECTED AREA	STRAW	100 POUNDS
WINDY AREA	SHREDDED OR CHOPPED CORNSTALKS STRAW (ANCHORED)*	185-275 POUNDS 100 POUNDS
MODERATE TO HIGH VELOCITY AREAS OR STEEP SLOPES GREATER THAN 3:1	JUTE MESH OR EXCLOSIR MAT	AS REQUIRED
GREATER THAN 3:1	(REFER TO GEOTECHNICAL REPORT FOR FINAL DESIGN REQUIREMENT)	

* A HYDRO-APPLICATION OF WOOD OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING. A SUITABLE NON-TOXIC BINDER SHALL BE USED TO ADDITIONAL WIND CONTROL.

* MULCH ANCHORING: ANCHOR MULCH WITH PEG AND TWINE (1 SQ. YD/BLOCK); MULCH NETTING (AS PER MANUFACTURER); WOOD CELLULOSE FIBER (750 LBS/ACRE); CHEMICAL TACK (AS PER MANUFACTURER'S SPECIFICATIONS); USE OF A SERRATED STRAIGHT DISC WETTING FOR SMALL AREAS AND ROAD DITCHES MAY BE PERMITTED.

15. PROPOSED LOCATIONS OF SURFACE STORMWATER MANAGEMENT BASINS CAN BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION. SEDIMENT TRAPS SHALL BE SIZED AND CONSTRUCTED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.

a) TEMPORARY SEDIMENT TRAPS SHALL BE SIZED PER THE CURRENT EDITION OF THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS" AND PROVIDE A MINIMUM OF 1.80 CF OF ACERF OF TRIBUTARY AREA WITH A MAXIMUM TRIBUTARY AREA OF 5 ACRES, MAINTAIN A 2:1 LENGTH TO WIDTH RATIO, AND NOT EXCEED 5 FT IN HEIGHT. UPON SITE STABILIZATION, ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE TEMPORARY SEDIMENT TRAP EXCAVATED TO 1 FOOT BELOW THE TRAP. THE AREA SHALL THEN BE SCARIFIED TO PREVENT COMPACTION AND PROMOTE INFILTRATION, AND GRADED AND STABILIZED IN ACCORDANCE WITH THE GRADING AND LANDSCAPE PLANS.

16. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS THAT MAY OCCUR WITH ADJACENT PROPERTIES AND TO PROVIDE MAXIMUM PROTECTION AGAINST EROSION RUNOFF.

17. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.

18. THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN AND PAY FOR THE COSTS ASSOCIATED WITH ANY AND ALL NECESSARY DISCHARGE PERMITS ASSOCIATED WITH SAME.

19. THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER. THE CONTRACTOR MUST IMMEDIATELY PLACE CONSTRUCTION WASTE IN ON-SITE STORAGE CONTAINERS UNTIL THAT CONSTRUCTION WASTE IS READY FOR OFF-SITE DISPOSAL. THE CONTRACTOR MUST MAINTAIN SPILL PREVENTION AND RESPONSE EQUIPMENT AND MAKE SAME CONTINUOUSLY AVAILABLE ON-SITE FOR USE BY THE CONTRACTOR'S EMPLOYEES WHO MUST BE PROPERLY TRAINED IN THE APPLICATION OF SPILL PREVENTION AND RESPONSE PROCEDURES.

20. EROSION CONTROL NOTES DURING WINTER CONSTRUCTION

21. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.

22. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND IN CONFORMANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN SUCH THAT ADEQUATE PROVISIONS ARE MADE TO CONTROL STORMWATER RUNOFF.

23. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.

24. AN AREA SHALL BE CONSIDERED TO HAVE BEEN TEMPORARILY STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB. PER 1,000 SQUARE FEET (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ADEQUATELY ANCHORED BY AN APPROVED ANCHORING TECHNIQUE.

25. FOR AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR A PERIOD EXCEEDING 14 DAYS BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH, LOAM AND SEED WILL NOT BE REAPPLIED UNTIL THE AREA IS STABILIZED AND THE AREA IS NO LONGER EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.

26. MULCHING REQUIREMENTS:

a) BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.

b) MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGEWAYS WITH A SLOPE GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%.

c) MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15%. AFTER OCTOBER 1ST THE SAME APPLIES FOR ALL SLOPES GREATER THAN 8%.

27. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN.

28. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

29. NO EROSION CONTROL MEASURES SHALL BE REMOVED DURING THE WINTER CONSTRUCTION PERIOD.

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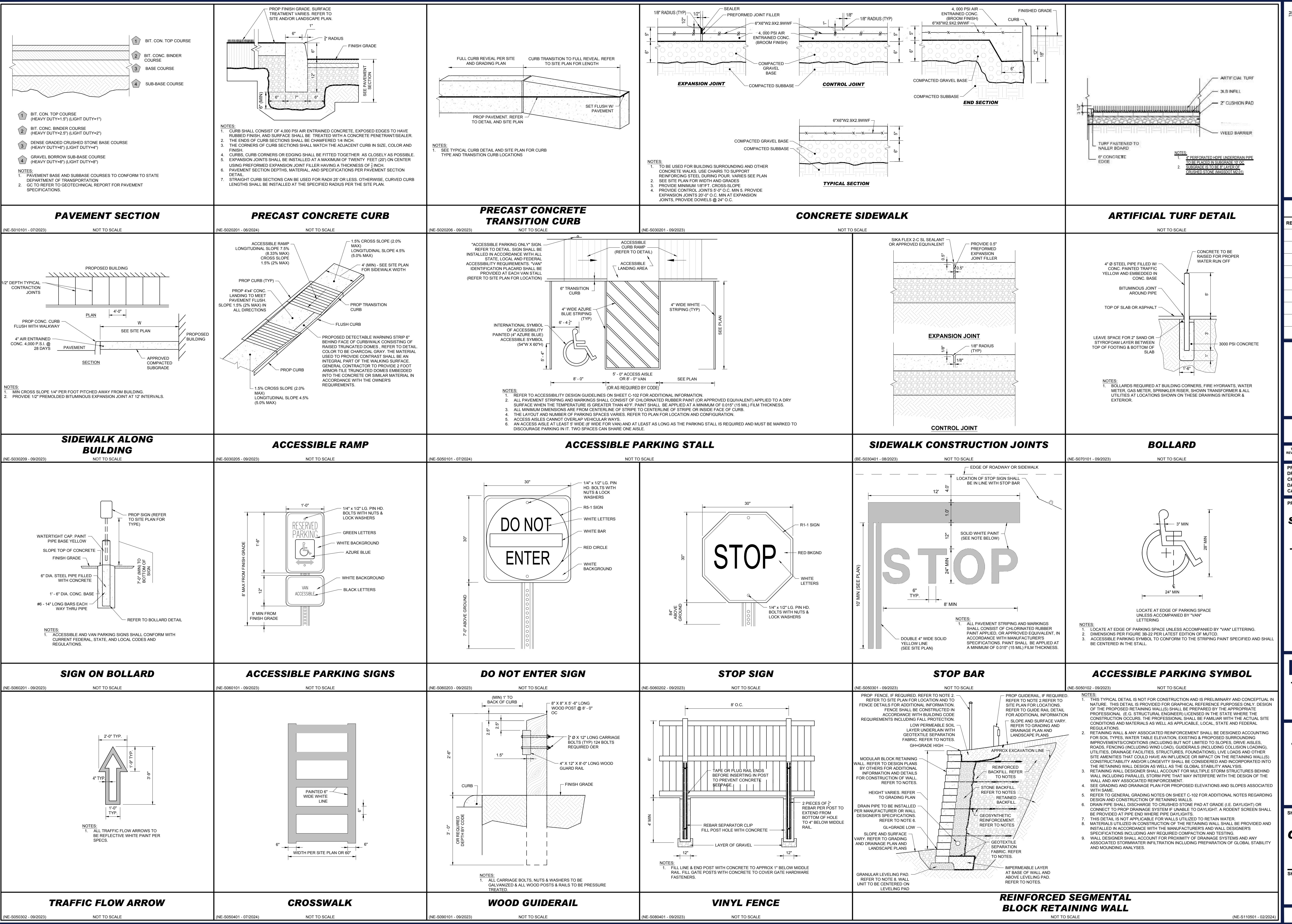
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PROJECT No.:	MAA240187-00-0A	
DRAWN BY:	SSB	
CHECKED BY:	AWP	
DATE:	08/28/2024	
CAD ID.:	P-CIVL-CNDS	
PROJECT:		
SITE DEVELOPMENT PLANS		
FOR		
 PROPOSED EARLY EDUCATION FACILITY		
MAP: B7 LOT: 5		
0 BLUE HILL AVENUE		
NORFOLK COUNTY		
MILTON, MA		

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SHEET TITLE:	
CONSTRUCTION DETAILS	
SHEET NUMBER:	
C-902	
ORG. DATE - 08/28/2024	

PRECAST CONCRETE STORM DRAIN MANHOLE
 (NE-U010101 - 05/2024) NOT TO SCALE

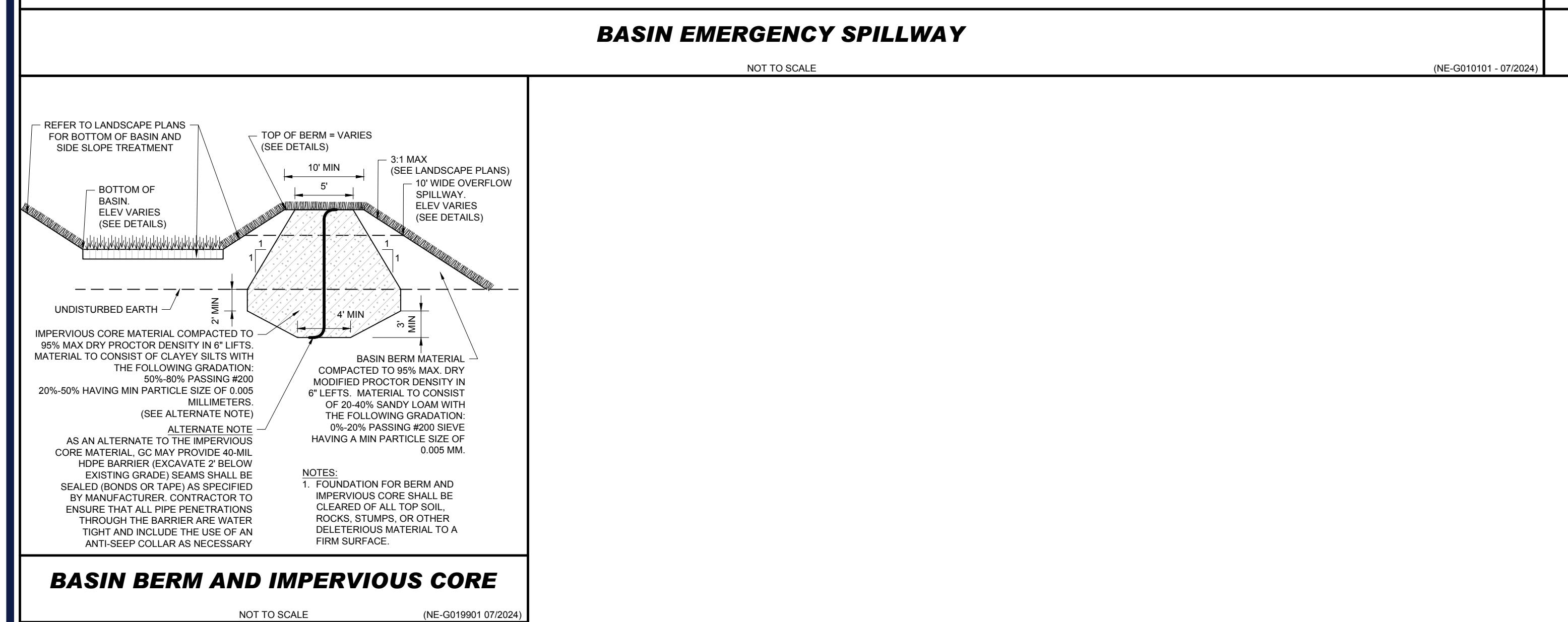
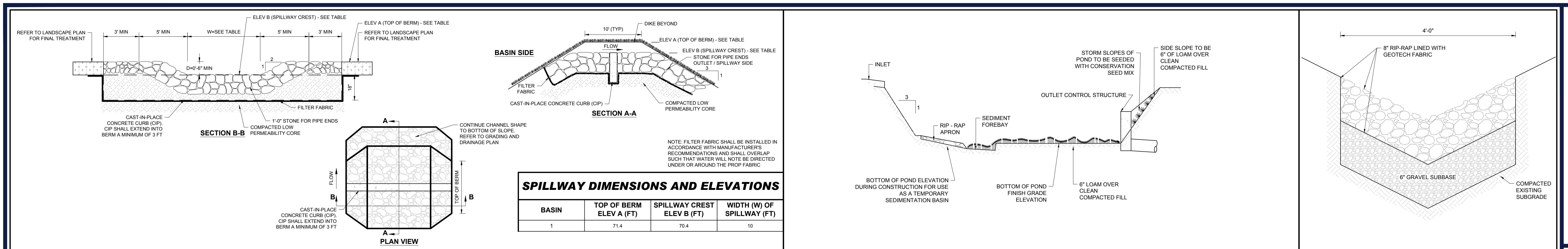
NOTES:
 1. ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.
 2. CONTRACTOR SHALL SIZE MANHOLE AS NECESSARY TO ACCOMMODATE THE PIPE SIZING AND DRAINKAGE PLANS.
 3. CONCRETE SHALL BE 4,000 PSI AFTER 28 DAYS.
 4. PRECAST STEEL CONCRETE CONFORM TO ASTM A185 SPEC. 0.12 SQ. IN./LINEAL FT. AND 0.12 SQ. IN. (BOTW) BASE BOTTOM.
 5. MANHOLE DESIGN SPECS CONFORM TO ASTM C478 SPEC FOR "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS".

HDPE STORM PIPE TRENCH
 (NE-U019812 - 09/2023) NOT TO SCALE

NOTES:
 1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321. "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER USES".
 2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 3. FOUNDATION WHERE THE TRENCH IS NOT AVAILABLE, THE CONTRACTOR SHALL PROVIDE A DOWNGRADING OF THE TRENCH BOTTOM BY 12" AND A DOWNGRADING OF THE TRENCH BOTTOM BY 6" (100mm) FOR 4"-24" (100mm-600mm) DIA. (50mm) FOR 30"-60".
 4. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PICK ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF MATERIAL SPECIFICATIONS TO THE ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 5. FINISH BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PICK ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF MATERIAL SPECIFICATIONS TO THE ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.

POLYETHYLENE FLARED END SECTION
 (NE-U010401 - 09/2023) NOT TO SCALE

NOTES:
 1. ALL STRUCTURES SHALL BE SUITABLE FOR H-20 LOADING AND SHALL MEET THE REQUIREMENTS OF ASTM C478.
 2. PRECAST REINFORCED CONCRETE RISER SECT. AS REQUIRED.
 3. BUTYL RUBBER SEALANT (TYP.)
 4. PRECAST REINFORCED CONCRETE CONE.
 5. BUTYL RUBBER SEALANT (TYP.)
 6. PRECAST REINFORCED CONCRETE RISER SECT. AS REQUIRED.
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 8. PRECAST REINFORCED CONCRETE CONE.
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 10. PRECAST REINFORCED CONCRETE RISER SECT. AS REQUIRED.
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 12. PRECAST REINFORCED CONCRETE CONE.
 13. BUTYL RUBBER SEALANT (TYP.)
 14. PRECAST REINFORCED CONCRETE RISER SECT. AS REQUIRED.
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REVISIONS		
REV	DATE	COMMENT
		DRAWN BY: CHECKED BY:



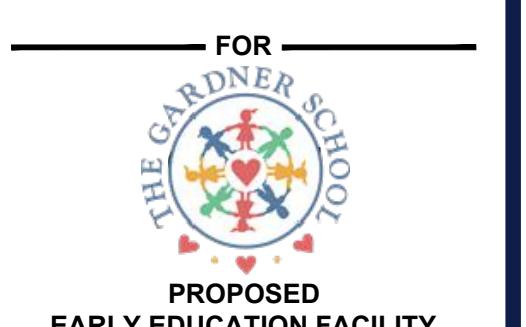
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THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: MAA240187.00-0A
DRAWN BY: SBB
CHECKED BY: AWP
DATE: 08/28/2024
CAD ID.: P-CIVL-CNDS

PROJECT:

SITE DEVELOPMENT PLANS



BOHLER //

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

www.BohlerEngineering.com



SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER:
C-903

ORG. DATE - 08/28/2024



MAP B7
LOT 17
N/F LANDS OF
ANTOUN & RAAFAT HOURANIEH
PK 1615A PC 37

This detailed architectural landscape plan illustrates the site layout and construction requirements for a one-story educational building. The plan includes contour lines, property lines, and various planting and paving details. Key features include:

- Proposed Native Steep Slope Seed Mix:** Over 6" new top soil (TYP) on steep slopes.
- Proposed Hydroseed Lawn:** Over 6" new top soil (TYP) on flatter areas.
- Proposed One-story Educational Building:** 16,200± SF, located on the right side of the site.
- Proposed Landscaping:** Includes evergreen buffer plantings, shrubs, and trees.
- Proposed Paving:** Includes crushed stone, concrete, and permeable pavers.
- Proposed Soil Mixes:** Includes 4" depth of crushed stone over water permeable weed barrier fabric (TYP).
- Proposed Work Areas:** Includes areas for seed mix application and work.
- Proposed Slope Protection:** Includes toe and face protection (TOE, JS, TN, PGL, PPG, TG) and mulch application (3" bark mulch around trees).
- Proposed Site Features:** Includes a one-way walkway, drainage points (RR, RCN), and various plant labels (PAH, TH, PFG, JHB, NFD, IGB, RXPB, TOE, JS, TN, PGL, PPG, TG).

Annotations provide specific instructions for construction and maintenance, such as "ONE WAY" arrows and "PROVIDE 4' DIA 3" LAYER OF BARK MULCH AROUND EACH TREE IN EVERGREEN BUFFER PLANTING (TYP)".

11 of 11

MAP B7
LOT 10
N/F LANDS OF
FARLEY SULLIVAN LAND COUP
CERTIFICATE #201898

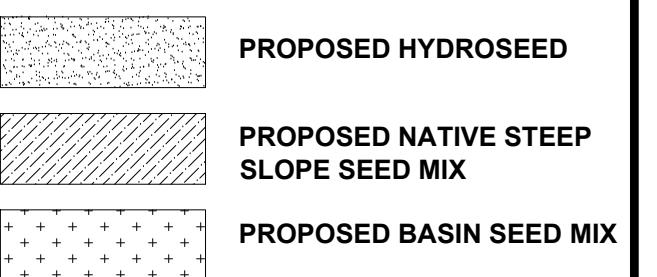
TOWN OF MILTON LANDSCAPE REQUIREMENTS

SECTION	REQUIREMENTS	CALCULATIONS/PROPOSED
<u>275-11.8</u>	<p>G. SCREENING IN RESIDENTIAL DISTRICTS</p> <p>EACH PARKING AREA FOR MORE THAN 5 VEHICLES IN A RESIDENCE AA, A, B OR C DISTRICT SHALL BE SCREENED FROM THE STREET AND ANY LOT OF AN ADJOINING OWNER WITH SHRUBS AND TREES OF A SIZE AND NUMBER SUFFICIENT TO PROVIDE EFFECTIVE SCREENING WITHIN THREE YEARS FROM THE DATE ON WHICH SUCH SHRUBS AND TREES ARE ESTABLISHED. THE USE OF VEGETATED BERMS MAY BE USED TO PROVIDE SCREENING.</p>	PROVIDED

PLANT SCHEDULE

CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONT A
EVERGREEN TREES					
JS	51	JUNIPERUS CHINENSIS 'SPARTAN'	SPARTAN JUNIPER	6-8'	B&B
PGL	10	PICEA GLAUCA	WHITE SPRUCE	6-8'	B&B
PIAB	7	PICEA ABIES	NORWAY SPRUCE	6-8'	B&B
PPG	13	PICEA PUNGENS 'GLAUCA'	COLORADO BLUE SPRUCE	6-8'	B&B
TG	18	THUJA STANDISHII X PLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	6-8'	
TN	31	THUJA OCCIDENTALIS 'NIGRA'	DARK AMERICAN ARBORVITAE	6-8'	B&B
TOE	19	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	6-8'	B&B
SHRUBS					
CSF	13	CORNUS STOLONIFERA 'FARROW'	ARCTIC FIRE RED TWIG DOGWOOD	24-36"	CONT A
HME	9	HYDRANGEA MACROPHYLLA 'ENDLESS SUMMER'	ENDLESS SUMMER HYDRANGEA	24-30"	CONT A
IG	13	ILEX GLABRA	INKBERRY HOLLY	30-36"	CONT A
IGB	12	ILEX GLABRA 'SMNIGAB17'	GEM BOX INKBERRY HOLLY	18-24"	CONT A
PFG	11	POTENTILLA FRUTICOSA 'GOLDFINGER'	GOLDFINGER BUSH CINQUEFOIL	18-24"	CONT A
RCN	40	RHODODENDRON CATAWBIENSE 'NOVA ZEMBLA'	NOVA ZEMBLA CATAWBA RHODODENDRON	24-30"	CONT A
RR	56	RHAMNUS FRANGULA 'RON WILLIAMS'	FINE LINE® ALDER BUCKTHORN	---	
RXPB	6	RHODODENDRON X 'PATTY BEE'	PATTY BEE RHODODENDRON	18-24"	CONT A
TH	5	TAXUS X MEDIA 'HICKSII'	HICKS YEW	30-36"	CONT A
GRASSES					
PAH	6	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	1 GAL.	CONT A
GROUNDCOVER					
JHB	18	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR CREEPING JUNIPER	15-18" SPRD	CONT A

SEED MIX KEY



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

ALWAYS CALL 811

fast. It's free. It's the law.

PERMIT SET

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

DEVELOPMENT PLANS



EDUCATION FACILITY
MAP: B7 | LOT: 5
0 BLUE HILL AVENUE
NORFOLK COUNTY
MILTON, MA

OHLER

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

BohlerEngineering.com

ITEM NO. 28848

LANDSCAPE PLAN

L-101

ORG. DATE - 08/28/2024

**THIS PLAN TO BE UTILIZED
FOR LIGHTING PURPOSES
ONLY**

SCALING (0 to 30)

ORG. DATE - 08/28/2024

MASSACHUSETTS LANDSCAPE SPECIFICATION

1. SCOPE OF WORK
a) THE LANDSCAPE CONTRACTOR SHALL BE REQUIRED TO PERFORM ALL CLEARING, FINISHED GRADING, SOIL PREPARATION, PERMANENT SEEDING OR SODDING, PLANTING AND MULCHING INCLUDING ALL LABOR, MATERIALS, TOOLS AND EQUIPMENT NECESSARY FOR THE COMPLETION OF THIS PROJECT, UNLESS OTHERWISE CONTRACTED BY THE GENERAL CONTRACTOR.

2. MATERIALS
a) GENERAL - ALL HARDSCAPE MATERIALS SHALL MEET OR EXCEED SPECIFICATIONS AS OUTLINED IN THE STATE DEPARTMENT OF TRANSPORTATION'S SPECIFICATIONS.

b) TOPSOIL - NATURAL, FRIABLE, LOAMY SILT SOIL HAVING AN ORGANIC CONTENT NOT LESS THAN 5%, A PH RANGE BETWEEN 4.5-7.0. IT SHALL BE FREE OF DEBRIS, ROCKS LARGER THAN ONE INCH (1"), WOOD, ROOTS, VEGETABLE MATTER AND CLAY CLODS.

c) LAWN
i) ALL DISTURBED AREAS ARE TO BE TREATED WITH A MINIMUM 6" THICK LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CLIENT, AND SEDED OR SODDED IN ACCORDANCE WITH THE PERMANENT STABILIZATION METHODS INDICATED ON THE LANDSCAPE PLAN.

ii) LAWN MIXTURE SHALL BE FRESH, CLEAN NEW CROP SEED.

iii) SOD SHALL BE FULLY ROOTED, WEED AND DISEASE FREE WITH A UNIFORM THICKNESS. SOD INSTALLED ON SLOPES GREATER THAN 4:1, SHALL BE PEGGED TO HOLD SOD IN PLACE.

iv) MULCH - ALL PLANTING BEDS SHALL BE MULCHED WITH A 3" THICK LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH, UNLESS OTHERWISE STATED ON THE LANDSCAPE PLAN AND/OR LANDSCAPE PLAN NOTES / DETAILS.

d) FERTILIZER
i) FERTILIZER SHALL BE DELIVERED TO THE SITE MIXED AS SPECIFIED IN THE ORIGINAL UNOPENED STANDARD BAGS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. FERTILIZER SHALL BE STORED IN A WEATHERPROOF PLACE SO THAT IT CAN BE KEPT DRY PRIOR TO USE.

ii) FOR THE PURPOSE OF BIDDING, ASSUME THAT FERTILIZER SHALL BE 10% NITROGEN, 6% PHOSPHORUS AND 4% POTASSIUM BY WEIGHT. A FERTILIZER SHOULD NOT BE SELECTED WITHOUT A SOIL TEST PERFORMED BY A CERTIFIED SOIL LABORATORY.

e) PLANT MATERIALS
i) ALL PLANTS SHALL IN ALL CASES CONFORM TO THE REQUIREMENTS OF THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1), LATEST EDITION, AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (FORMERLY THE AMERICAN ASSOCIATION OF NURSERYMEN).

ii) IN ALL CASES, BOTANICAL NAMES SHALL TAKE PRECEDENCE OVER COMMON NAMES FOR ANY AND ALL PLANT MATERIAL.

iii) PLANTS SHALL BE LEGIBLY TAGGED WITH THE PROPER NAME AND SIZE. TAGS ARE TO REMAIN ON AT LEAST ONE PLANT OF EACH SPECIES FOR VERIFICATION PURPOSES DURING THE FINAL INSPECTION.

iv) TREES WITH ABRASION OF THE BARK, SUN SCALDS, DISFIGURATION OR FRESH CUTS OF LIMBS OVER 1/4", WHICH HAVE NOT BEEN COMPLETELY CALLUSED, SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES.

v) ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE OF DISEASE, INSECTS, PESTS, EGGS OR LARVAE.

vi) CALIPER MEASUREMENTS OF NURSERY GROWN TREES SHALL BE TAKEN AT A POINT ON THE TRUNK SIX INCHES (6") ABOVE THE GROUND FOR TREES UP TO AND INCLUDING A FOUR INCH (4") CALIPER. IF THE CALIPER IS SIX INCHES (6") ABOVE THE GROUND EXCEEDS FOUR INCHES (4") IN CALIPER, THE CALIPER SHOULD BE MEASURED AT A POINT 12" ABOVE THE NATURAL GRADE.

vii) SHRUBS SHALL BE MEASURED TO THE AVERAGE HEIGHT OR SPREAD OF THE SHRUB, AND NOT TO THE LONGEST BRANCH.

viii) TREES AND SHRUBS SHALL BE HANDLED WITH CARE BY THE ROOT BALL.

3. GENERAL WORK PROCEDURES
a) CONTRACTOR TO UTILIZE WORKMANLIKE INDUSTRY STANDARDS IN PERFORMING ALL LANDSCAPE CONSTRUCTION. THE SITE IS TO BE LEFT IN A CLEAN STATE AT THE END OF EACH WORKDAY. ALL DEBRIS, MATERIALS AND TOOLS SHALL BE PROPERLY STORED, STOCKPILED OR DISPOSED OF.

b) WASTE MATERIALS AND DEBRIS SHALL BE COMPLETELY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. DEBRIS SHALL NOT BE BURIED, INCLUDING ORGANIC MATERIALS, BUT SHALL BE REMOVED COMPLETELY FROM THE SITE.

4. SITE PREPARATIONS
a) BEFORE AND DURING PRELIMINARY GRADING AND FINISHED GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY SHOVEL. ALL EXPOSED SOIL SHALL BE TILLED OR ROLLED IN ACCORDANCE WITH GENERAL WORK PROCEDURES OUTLINE IN SECTION 1.

b) ALL EXISTING TREES TO REMAIN SHALL BE PRUNED TO REMOVE ANY DAMAGED BRANCHES. THE ENTIRE LIMB OF ANY DAMAGED BRANCH SHALL BE CUT OFF AT THE BRANCH COLLAR. CONTRACTOR SHALL ENSURE THAT CUTS ARE SMOOTH AND STRAIGHT. ANY EXPOSED ROOTS SHALL BE CUT BACK WITH CLEAN, SHARP TOOLS AND TOPSOIL SHALL BE PLACED AROUND THE REMAINDER OF THE ROOTS. EXISTING TREES SHALL BE MONITORED ON A REGULAR BASIS FOR ADDITIONAL ROOT BRANCH DAMAGE AS A RESULT OF CONSTRUCTION. ROOTS SHALL NOT BE LEFT EXPOSED FOR MORE THAN ONE (1) DAY. CONTRACTOR SHALL WATER EXISTING TREES AS NEEDED TO PREVENT SHOCK OR DECLINE.

c) CONTRACTOR SHALL ARRANGE TO HAVE A UTILITY STAKE-OUT TO LOCATE ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF ANY LANDSCAPE MATERIAL. UTILITY COMPANIES SHALL BE CONTACTED THREE (3) DAYS PRIOR TO THE BEGINNING OF ANY WORK.

5. TREE PROTECTION
a) CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING TREES TO REMAIN. A TREE PROTECTION ZONE SHALL BE ESTABLISHED AT THE DRIP LINE OR AT THE LIMIT OF CONSTRUCTION DISTURBANCE, WHICHEVER IS GREATER. LOCAL STANDARDS THAT MAY REQUIRE A MORE STRICT TREE PROTECTION ZONE SHALL BE HONORED.

b) A FORTY-EIGHT INCH (48") HIGH WOOD SNOW FENCE OR ORANGE COLORED HIGH-DENSITY "VISI-FENCE", OR APPROVED EQUAL, MOUNTED ON STEEL POSTS SHALL BE PLACED ALONG THE BOUNDARY OF THE TREE PROTECTION ZONE. POSTS SHALL BE PLACED AT A MAXIMUM OF TWENTY FEET APART. SEE PLANTING SPECIFICATIONS FOR FENCE DETAIL.

c) WHEN THE TREE PROTECTION FENCE HAS BEEN INSTALLED, IT SHALL BE INSPECTED BY THE APPROVING AGENCY. PRIOR TO DEMOLITION, GRADING, TREE CLEARING OR ANY OTHER CONSTRUCTION, THE FENCING ALONG THE TREE PROTECTION ZONE SHALL BE REGULARLY INSPECTED BY THE LANDSCAPE CONTRACTOR AND MAINTAINED UNTIL ALL CONSTRUCTION ACTIVITY HAS BEEN COMPLETED.

d) AT NO TIME SHALL MACHINERY, DEBRIS, FALLEN TREES OR OTHER MATERIALS BE PLACED, STOCKPILED OR LEFT STANDING IN THE TREE PROTECTION ZONE.

6. SOIL MODIFICATIONS
a) CONTRACTOR SHALL ATTAIN A SOIL TEST FOR ALL AREAS OF THE SITE PRIOR TO CONDUCTING ANY PLANTING. SOIL TESTS SHALL BE PERFORMED BY A CERTIFIED SOIL LABORATORY.

b) LANDSCAPE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETERIMENTAL TO THE LANDSCAPE CONTRACTOR DEPENDING ON SITE CONDITIONS.

c) THE FOLLOWING AMENDMENTS AND QUANTITIES ARE APPROXIMATE AND ARE FOR BIDDING PURPOSES ONLY. COMPOSITION OF AMENDMENTS SHOULD BE REVISED DEPENDING ON THE OUTCOME OF A TOPSOIL ANALYSIS PERFORMED BY A CERTIFIED SOIL LABORATORY.

d) TO INCREASE A SANDY SOIL'S ABILITY TO RETAIN WATER AND MOISTURE, THOROUGHLY TILL ORGANIC MATTER INTO THE TOP 6-8" USE COMPOSTED BARK, COMPOSTED LEAF MULCH OR PEAT MOSS. ALL PRODUCTS SHOULD BE COMPOSTED TO A DARK COLOR AND BE FREE PIECES WITH IDENTIFIABLE LEAF OR WOOD STRUCTURE. ADD MATERIAL WITH A PH HIGHER THAN 7.5.

e) TO INCREASE DRAINAGE, MODIFY HEAVY CLAY OR SILT (MORE THAN 40% CLAY OR SILT) BY ADDING COMPOSTED PINE BARK (UP TO 30% BY VOLUME) AND/OR AGRICULTURAL GYPSUM. COARSE SAND MAY BE USED IF ENOUGH IS ADDED TO BRING THE SAND CONTENT TO MORE THAN 60% OF THE TOTAL MIX. SUBSURFACE DRAINAGE LINES MAY NEED TO BE ADDED TO INCREASE DRAINAGE.

f) MODIFY EXTREMELY SANDY SOILS (MORE THAN 85%) BY ADDING ORGANIC MATTER AND/OR DRY, SHREDDED CLAY LOAM UP TO 30% OF THE TOTAL MIX.

7. FINISHED GRADING
a) UNLESS OTHERWISE CONTRACTED, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE FINISHED GRADE. THE ESTABLISHMENT OF FINISHED GRADING WITHIN THE DISTURBANCE AREA OF THE SITE.

b) LANDSCAPE CONTRACTOR SHALL VERIFY THAT TOPSOIL FOR INSTALLATION OF TOPSOIL HAS BEEN ESTABLISHED. THE SUBGRADE OF THE SITE MUST MEET THE FINISHED GRADE LESS THE REQUIRED TOPSOIL THICKNESS (1").

c) ALL LAWN AND PLANTING AREAS SHALL BE GRDED TO A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE AS DEPICTED WITHIN THIS SET OF CONSTRUCTION PLANS, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER OR LANDSCAPE ARCHITECT.

d) ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER IN AND AROUND THE PLANTING BEDS. STANDING WATER SHALL NOT BE PERMITTED IN PLANTING BEDS.

8. TOPSOIL
a) CONTRACTOR SHALL PROVIDE A 6" THICK MINIMUM LAYER OF TOPSOIL, OR AS DIRECTED BY THE LOCAL ORDINANCE OR CONTRACTOR, IN ALL PLANTING AREAS. TOPSOIL SHALL BE SPREAD OVER A PREPARED SURFACE IN A UNIFORM LAYER TO ACHIEVE THE DESIRED PLANTING THICKNESS.

b) ON-SITE TOPSOIL MAY BE USED TO SUPPLEMENT THE TOTAL AMOUNT REQUIRED. TOPSOIL FROM THE SITE MAY BE REJECTED IF IT HAS NOT BEEN PROPERLY REMOVED, STORED AND PROTECTED PRIOR TO CONSTRUCTION.

c) CONTRACTOR SHALL FURNISH TO THE APPROVING AGENCY AN ANALYSIS OF BOTH IMPORTED AND ON-SITE TOPSOIL TO BE UTILIZED IN ALL PLANTING AREAS. THE PH AND NUTRIENT LEVELS MAY NEED TO BE ADJUSTED THROUGH SOIL MODIFICATIONS AS REQUIRED TO ACHIEVE THE REQUIRED LEVELS SPECIFIED IN THE MATERIALS SECTION ABOVE.

d) ALL LAWN AREAS ARE TO BE CULTIVATED TO A DEPTH OF SIX INCHES (6"). ALL DEBRIS EXPOSED FROM EXCAVATION AND CULTIVATION SHALL BE REMOVED AND DISPOSED OF ACCORDING TO THE GENERAL WORK PROCEDURES SECTION ABOVE. THE FOLLOWING SHALL BE TILLED INTO THE SOIL (QUANTITIES ARE IN TWO DIRECTIONS (QUANTITIES BASED ON A 1,000 SQUARE FOOT AREA - FOR BID PURPOSES ONLY (SEE SPECIFICATION 6.A.))

i) 20 POUNDS "GRO-POWER" OR APPROVED SOIL CONDITIONER/FERTILIZER

ii) 20 POUNDS NITRO-FORM (COURSE) 38-0-30 BLUE CHIP OR APPROVED NITROGEN FERTILIZER

e) THE SPREADING OF TOPSOIL SHALL NOT BE CONDUCTED UNDER MUDDY OR FROZEN CONDITIONS.

9. PLANTING
a) INSOFAIR THAT IT IS FEASIBLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THAT THIS IS NOT POSSIBLE, LANDSCAPE CONTRACTOR SHALL PROTECT UNINSTALLED PLANT MATERIAL. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. PLANTS THAT WILL NOT BE PLANTED FOR A PERIOD OF TIME GREATER THAN THREE DAYS SHALL BE HEALED IN WITH TOPSOIL OR MULCH TO HELP PRESERVE ROOT MOISTURE.

b) PLANTS SHALL BE PLANTED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN MUDDY OR FROZEN CONDITION.

c) ANY INJURED ROOTS OR BRANCHES SHALL BE PRUNED TO MAKE CLEAN-CUT ENDS PRIOR TO PLANTING UTILIZING CLEAN, SHARP TOOLS ONLY INJURED OR DISEASED BRANCHING SHALL BE REMOVED.

d) ALL PLANTING CONTAINERS, BASKETS AND NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED FROM ROOT BALLS DURING PLANTING. NATURAL FIBER BURLAP MUST BE CUT FROM AROUND THE TRUNK OF THE TREE AND FOLDED DOWN AGAINST THE ROOT BALL PRIOR TO BACKFILLING.

e) PLANTING SHALL NOT BE CONDUCTED IN THE PLANTING LOCATIONS AS PER THE PLANS AND SECURE THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS DIRECTED.

f) PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, THE PROPOSED LANDSCAPE, AS SHOWN ON THE APPROVED LANDSCAPE PLAN, MUST BE INSTALLED, INSPECTED AND APPROVED BY THE APPROVING AGENCY. THE APPROVING AGENCY SHALL TAKE INTO ACCOUNT SEASONAL CONSIDERATIONS IN THIS REGARD AS FOLLOWS. THE PLANTING OF TREES, SHRUBS, VINES OR GROUND COVER SHALL OCCUR ONLY DURING THE FOLLOWING PLANTING

SEASONS:

i) PLANTS: MARCH 15 TO DECEMBER 15

ii) LAWN: MARCH 15 TO JUNE 15 OR SEPT. 1 TO DECEMBER 1

iii) PLANTINGS REQUIRED FOR A CERTIFICATE OF OCCUPANCY SHALL BE PROVIDED DURING THE NEXT APPROPRIATE SEASON AT THE MUNICIPALITY'S DISCRETION. CONTRACTOR SHOULD CONTACT APPROVING AGENCY FOR POTENTIAL SUBSTITUTIONS.

4. FURTHERMORE, THE FOLLOWING TREE VARIETIES ARE UNUSUALLY SUSCEPTIBLE TO WINTER DAMAGE. WITH TRANSPLANT SHOCK AND THE SEASONAL LACK OF NITROGEN AVAILABILITY, THE RISK OF PLANT DEATH IS GREATLY INCREASED. IT IS NOT RECOMMENDED THAT THESE SPECIES BE PLANTED DURING THE FALL PLANTING SEASON:

ACER RUBRUM PLATANUS X ACERIFOLIA
BETULA VARIETIES POPULUS VARIETIES
CARPINUS VARIETIES PRUNUS VARIETIES
CRATAEGUS VARIETIES PYRUS VARIETIES
KOELREUTERIA QUERCUS VARIETIES
LIQUIDAMBAR STYRACIFLUA TILA TOMENTOSA
LIRIODENDRON TULIPIFERA ZELKOVA VARIETIES

5. PLANTING PITS SHALL BE DUG WITH LEVEL BOTTOMS, WITH THE WIDTH TWICE THE DIAMETER OF ROOT BALL. THE ROOT BALL SHALL BE PLANTED IN UNDISTURBED GRADE. EACH PLANT PIT SHALL BE BACKFILLED IN LAYERS WITH THE FOLLOWING PREPARED SOILS MIXED THOROUGHLY:

i) 1 PART PEAT MOSS
ii) 1 PART COMPOSTED COW MANURE BY VOLUME
iii) 3 PARTS TOPSOIL BY VOLUME
iv) 21 GRAMS 'AGIFORM' PLANTING TABLETS (OR APPROVED EQUAL) AS FOLLOWS:
a) 2 TABLETS PER 1 GALLON PLANT
b) 3 TABLETS PER 5 GALLON PLANT
c) 4 TABLETS PER 15 GALLON PLANT
d) LARGER PLANTS: 2 TABLETS PER 1/2 CALIPER OF TRUNK

6. FILL PREPARED SOIL AROUND BALL OF PLANT HALF-WAY AND INSERT PLANT TABLETS. COMPLETE BACKFILL AND WATER THOROUGHLY.

7. ALL PLANTS SHALL BE PLANTED SO THAT THE POINT AT WHICH THE ROOT FLARE BEGINS IS SPANNED OVER THE LEVEL IN THE CENTER OF THE PIT. NO SOIL IS TO BE PLACED DIRECTLY ON TOP OF THE ROOT BALL.

8. ALL PROPOSED TREES DIRECTLY ADJACENT TO WALKWAYS OR DRIVEWAYS SHALL BE PRUNED AND MAINTAINED TO A MINIMUM BRANCHING HEIGHT OF 7' FROM GRADE.

9. GROUND COVER AREAS SHALL RECEIVE A 1/2" LAYER OF HUMUS RAKED INTO THE TOP 1" OF PREPARED SOIL PRIOR TO PLANTING. ALL GROUND COVER AREAS SHALL BE WEEDED AND TREATED WITH A PRE-EMERGENT CHEMICAL AS PER MANUFACTURER'S RECOMMENDATION.

10. NO PLANT, EXCEPT GROUND COVERS, GRASSES OR VINES, SHALL BE PLANTED LESS THAN TWO FEET (2') FROM EXISTING PLANTS.

11. ALL PLANTING AREAS AND PLANTING PITS SHALL BE MULCHED AS SPECIFIED HEREIN TO FILL THE ENTIRE BED AREA OR SUBGRADE. NO MULCH IS TO TOUCH THE TRUNK OF THE TREE OR SHRUB.

12. ALL PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON INSTALLATION IN ACCORDANCE WITH THE WATERING SPECIFICATIONS AS LISTED HEREIN.

13. TRANSPLANTING (WHEN REQUIRED)

a) ALL TRANSPLANTS SHALL BE DUG WITH INTACT ROOT BALLS CAPABLE OF SUSTAINING THE PLANT.

b) IF PLANTS ARE TO BE STOCKPILED BEFORE REPLANTING, THEY SHALL BE HEALED IN WITH MULCH OR SOIL, ADEQUATELY WATERED AND PROTECTED FROM EXTREME HEAT, SUN AND WIND.

c) PLANTS SHALL NOT BE DUG FOR REPLANTING BETWEEN APRIL 10 AND JUNE 30.

d) UPON REPLANTING, BACKFILL SOIL SHALL BE AMENDED WITH FERTILIZER AND ROOT GROWTH HORMONE.

e) TRANSPLANTS SHALL BE GUARANTEED FOR THE LENGTH OF THE GUARANTEE PERIOD SPECIFIED HEREIN.

f) TRANSPLANTS DIE, SHRUBS AND TREES LESS THAN SIX INCHES (6") DBH SHALL BE REPLACED IN KIND. TREES GREATER THAN SIX INCHES (6") DBH MAY BE REQUIRED TO BE REPLACED IN ACCORDANCE WITH THE MUNICIPALITY'S TREE REPLACEMENT GUIDELINES.

14. GROWING COVERS SHALL BE PLANTED SO THAT THE TOP 1/2" OF THE ROOT BALL IS SET ON THE PREPARED SOIL.

15. PLANTING AREAS SHALL BE WATERED IMMEDIATELY UPON PLANTING. WATER SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.

16. NEW PLANTINGS OR LAWN AREAS SHALL BE ADEQUATELY IRRIGATED BEGINNING IMMEDIATELY AFTER PLANTING. WATER SHALL BE APPLIED TO EACH TREE AND SHRUB IN SUCH MANNER AS NOT TO DISTURB BACKFILL AND TO THE EXTENT THAT ALL MATERIALS IN THE PLANTING HOLE ARE THOROUGHLY SATURATED. WATERING SHALL CONTINUE AT LEAST UNTIL PLANTS ARE ESTABLISHED.

17. SITE OWNER SHALL PROVIDE WATER IF AVAILABLE ON SITE AT TIME OF PLANTING. IF WATER IS NOT AVAILABLE ON SITE, CONTRACTOR SHALL SUPPLY ALL NECESSARY WATER. THE USE OF WATERING BAGS IS RECOMMENDED FOR ALL NEWLY PLANTED TREES.

18. IF AN IRRIGATION SYSTEM HAS BEEN INSTALLED ON THE SITE, IT SHALL BE USED TO WATER PROPOSED PLANT MATERIAL, BUT ANY FAILURE OF THE SYSTEM DOES NOT ELIMINATE THE CONTRACTOR'S RESPONSIBILITY OF MAINTAINING THE DESIRED MOISTURE LEVEL FOR VIGOROUS, HEALTHY GROWTH.

19. GUARANTEE
a) THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF 1 YEAR FROM APPROVAL OF LANDSCAPE INSTALLATION BY THE APPROVING AGENCY. CONTRACTOR SHALL SUPPLY THE OWNER WITH A MAINTENANCE BOND FOR TEN PERCENT (10%) OF THE VALUE OF THE LANDSCAPE INSTALLATION WHICH WILL BE RELEASED AT THE CONCLUSION OF THE GUARANTEE PERIOD AND WHEN A FINAL INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

b) ANY DEAD OR DYING PLANT MATERIAL SHALL BE REPLACED FOR THE LENGTH OF THE GUARANTEE PERIOD. REPLACEMENT OF PLANTS SHALL BE CONDUCTED AT THE FIRST SUCCEEDING PLANTING SEASON. ANY DEBRIS SHALL BE DISPOSED OF OFF-SITE, WITHOUT EXCEPTION.

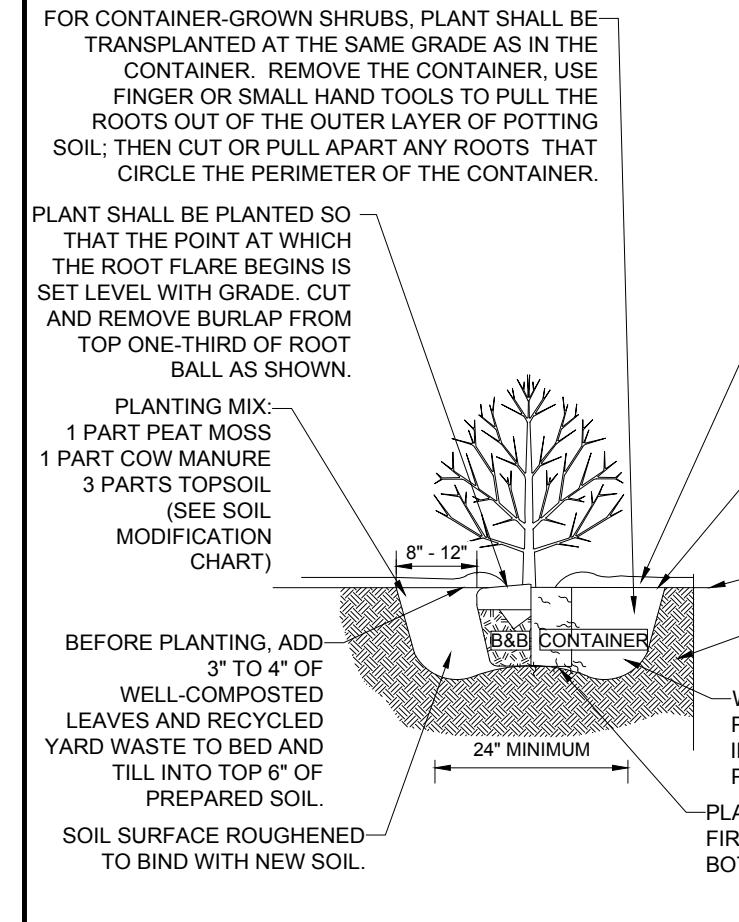
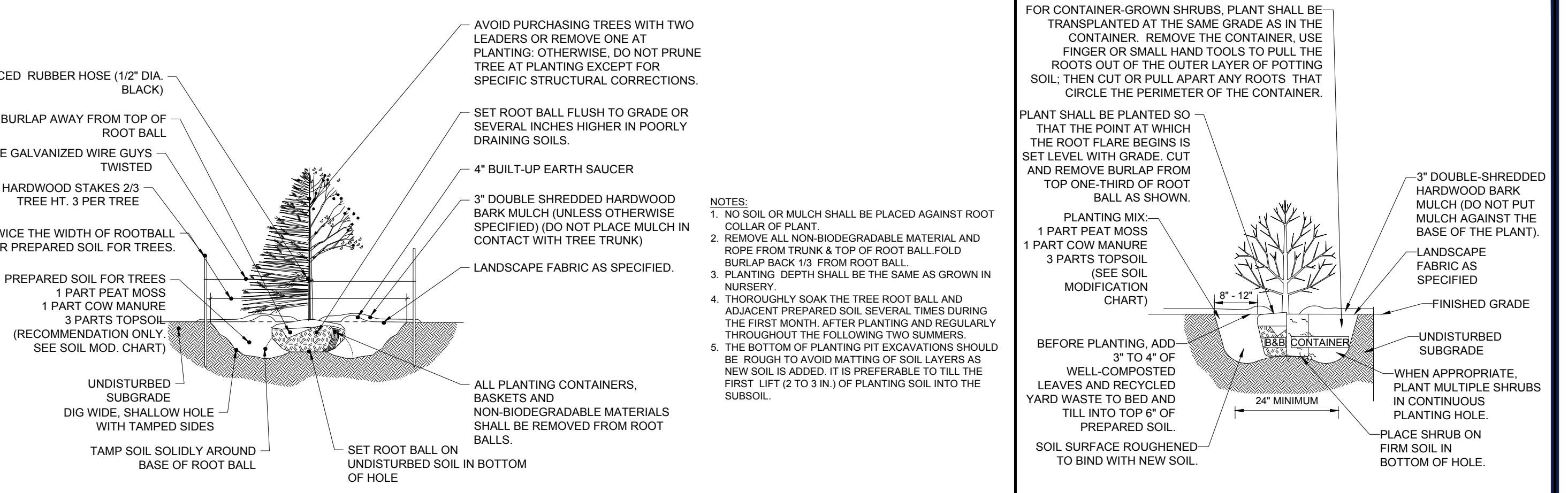
c) TREES AND SHRUBS SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION AND THROUGHOUT THE 90 DAY MAINTENANCE PERIOD AS SPECIFIED HEREIN. CULTIVATION, WEEDING, WATERING, AND PREVENTATIVE TREATMENTS SHALL BE PERFORMED AS NECESSARY TO KEEP PLANT MATERIAL IN GOOD CONDITION AND FREE OF INSECTS AND DISEASE.

d) LAWNS SHALL BE MAINTAINED THROUGH WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING REGARDING AND REPLANTING AS REQUIRED TO ESTABLISH A SMOOTH, ACCEPTABLE LAWN, FREE OF ERODED OR BARE AREAS.

20. CLEANUP
a) UPON THE COMPLETION OF ALL LANDSCAPE INSTALLATION AND BEFORE THE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL UNUSED MATERIALS, EQUIPMENT AND DEBRIS FROM THE SITE. ALL PAVED AREAS ARE TO BE CLEANED.

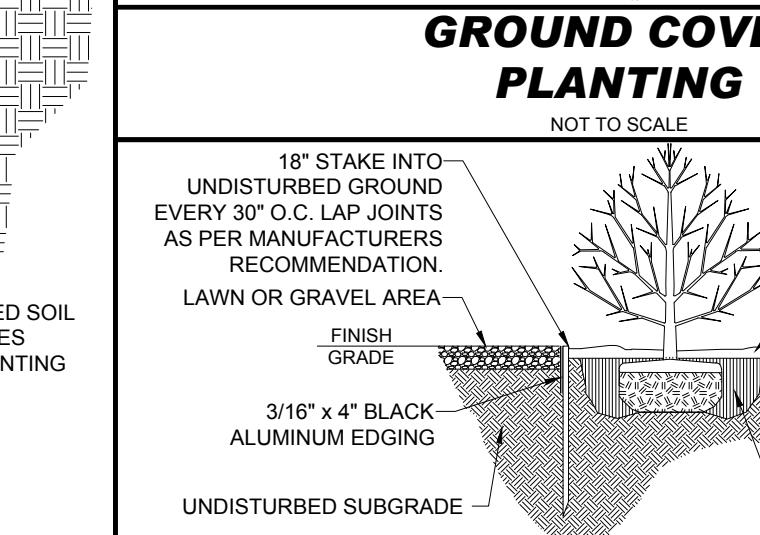
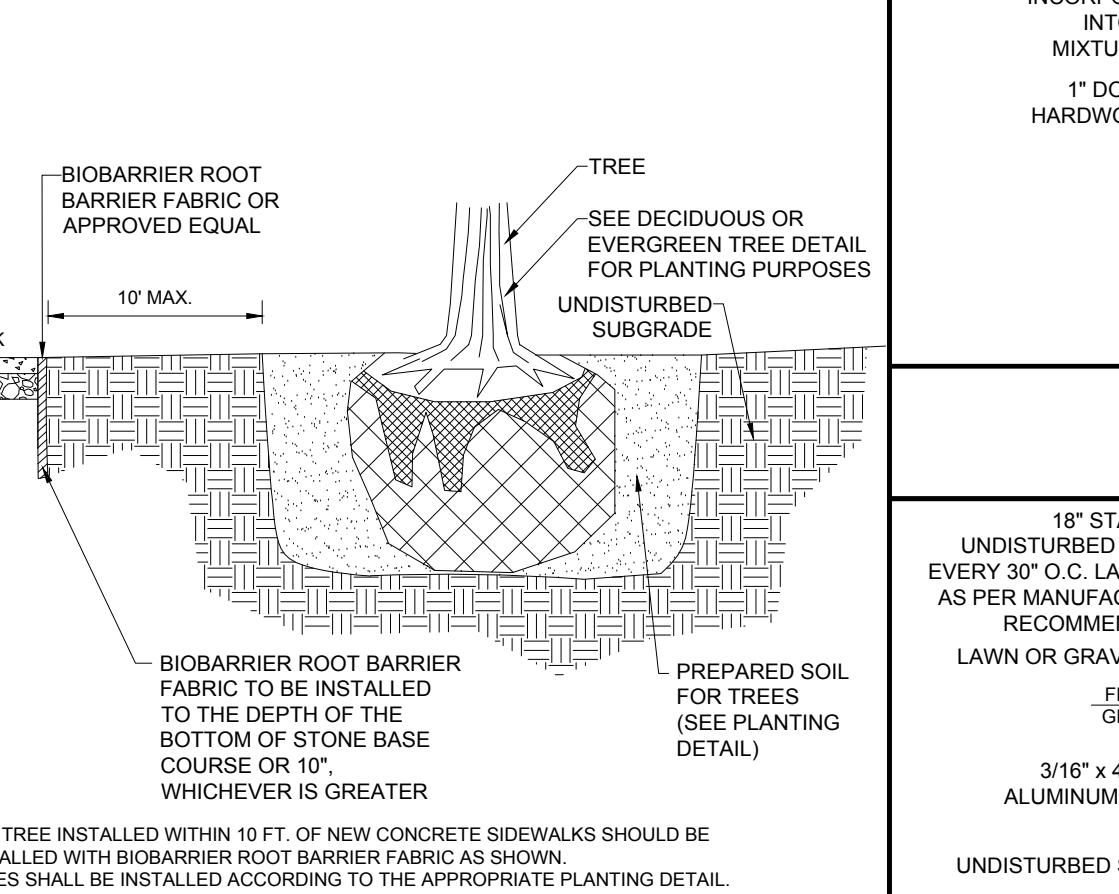
b) THE SITE SHALL BE CLEANED AND LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER OR AUTHORIZED REPRESENTATIVE.

21. GUARANTEE PERIOD
a) A 90 DAY MAINTENANCE PERIOD SHALL COMMENCE AT THE END OF ALL LANDSCAPE INSTALLATION OPERATIONS. THE 90 DAY MAINTENANCE PERIOD ENDS TO THE OWNER/OPERATOR THAT THE NEWLY INSTALLED LANDSCAPING HAS BEEN MAINTAINED AS SPECIFIED ON THE APPROVED LANDSCAPE PLAN. ONCE THE INITIAL 90 DAY MAINTENANCE PERIOD HAS EXPIRED, THE OWNER/OPERATOR MAY REQUEST THAT BIDDERS SUBMIT AN ALTERNATE MAINTENANCE BID FOR A MONTHLY MAINTENANCE CONTRACT. THE ALTERNATE MAINTENANCE CONTRACT WILL ENCOMPASS ANY WORK THAT IS CONSIDERED APPROPRIATE TO ENSURE THAT PLANT AND LAWN AREAS ARE HEALTHY AND MANICURED TO THE APPROVAL OF THE OWNER/OPERATOR.



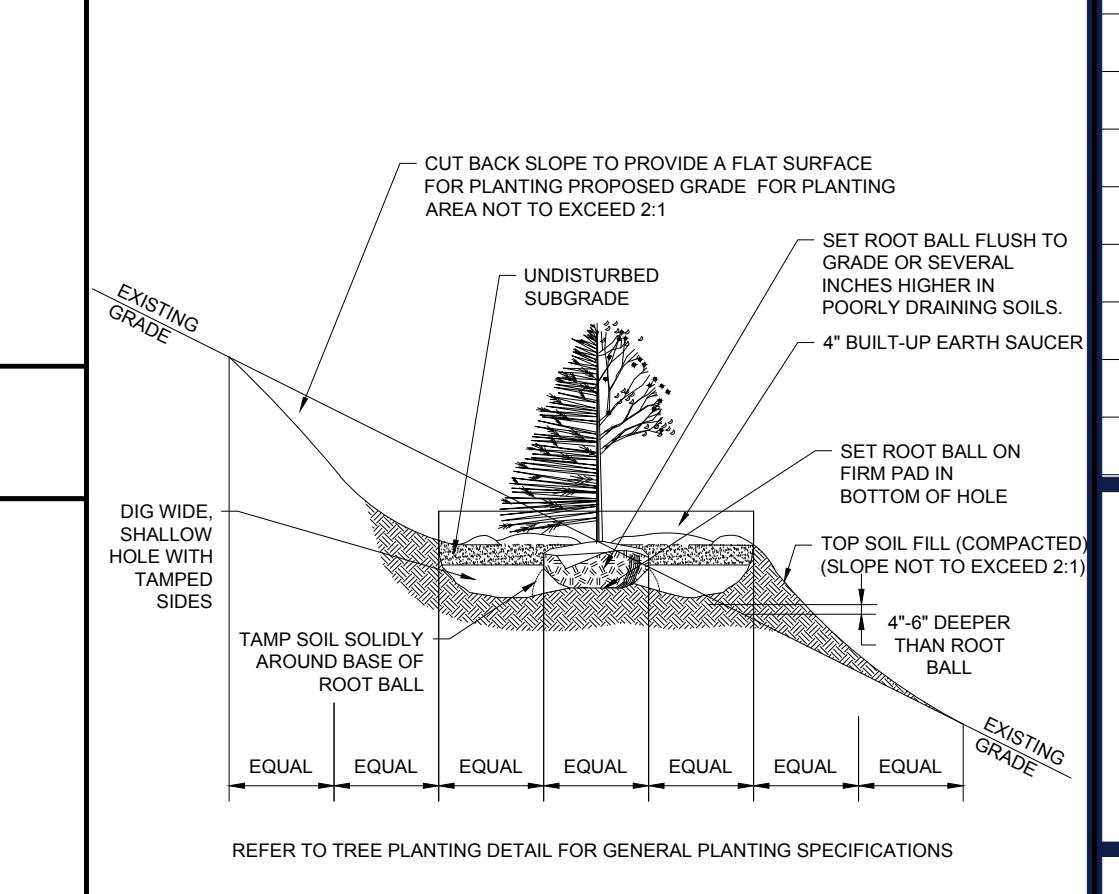
TREE PLANTING

NOT TO SCALE

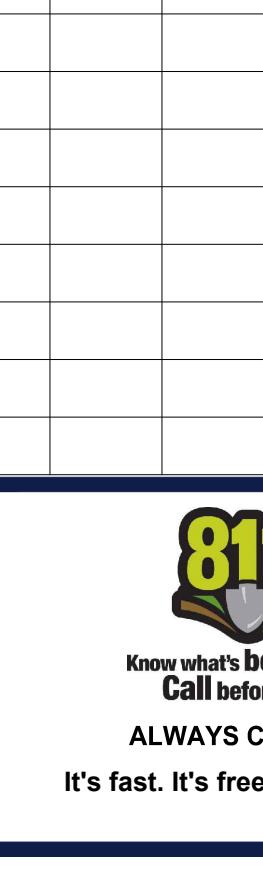


SHRUB PLANTING

NOT TO SCALE



REVISIONS



PERMIT SET

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

PROJECT No.: MAA240187-00-0A
DRAWN BY: SSB
CHECKED BY: AWP
DATE: 08/28/2024
CAD ID: P-CIVL-LSCP

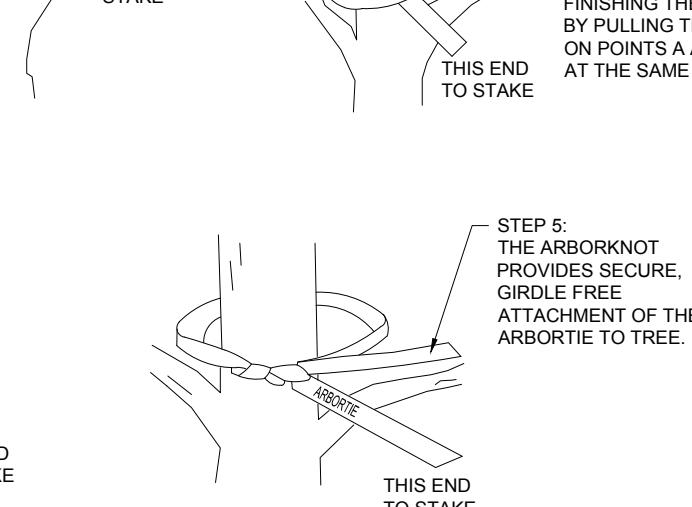
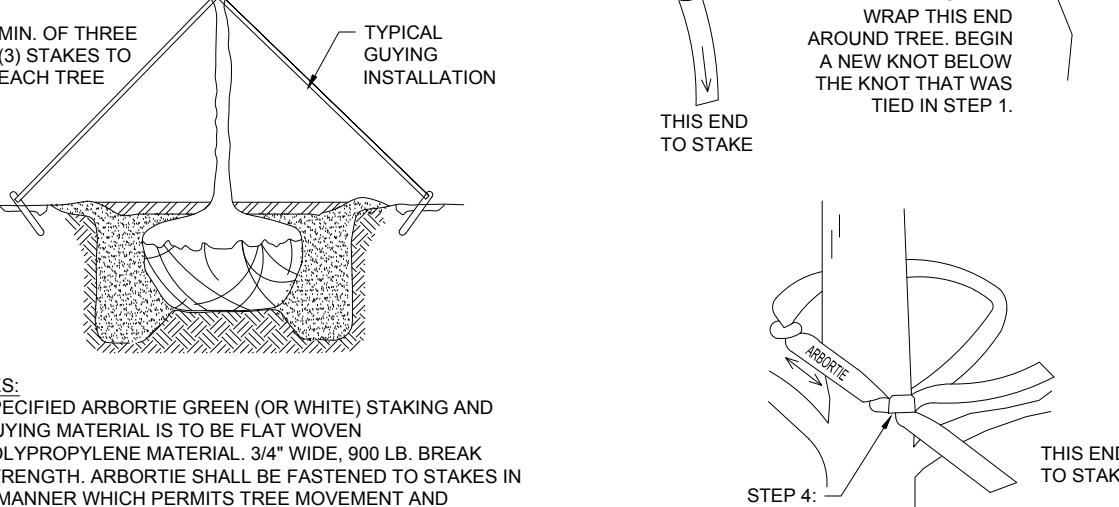
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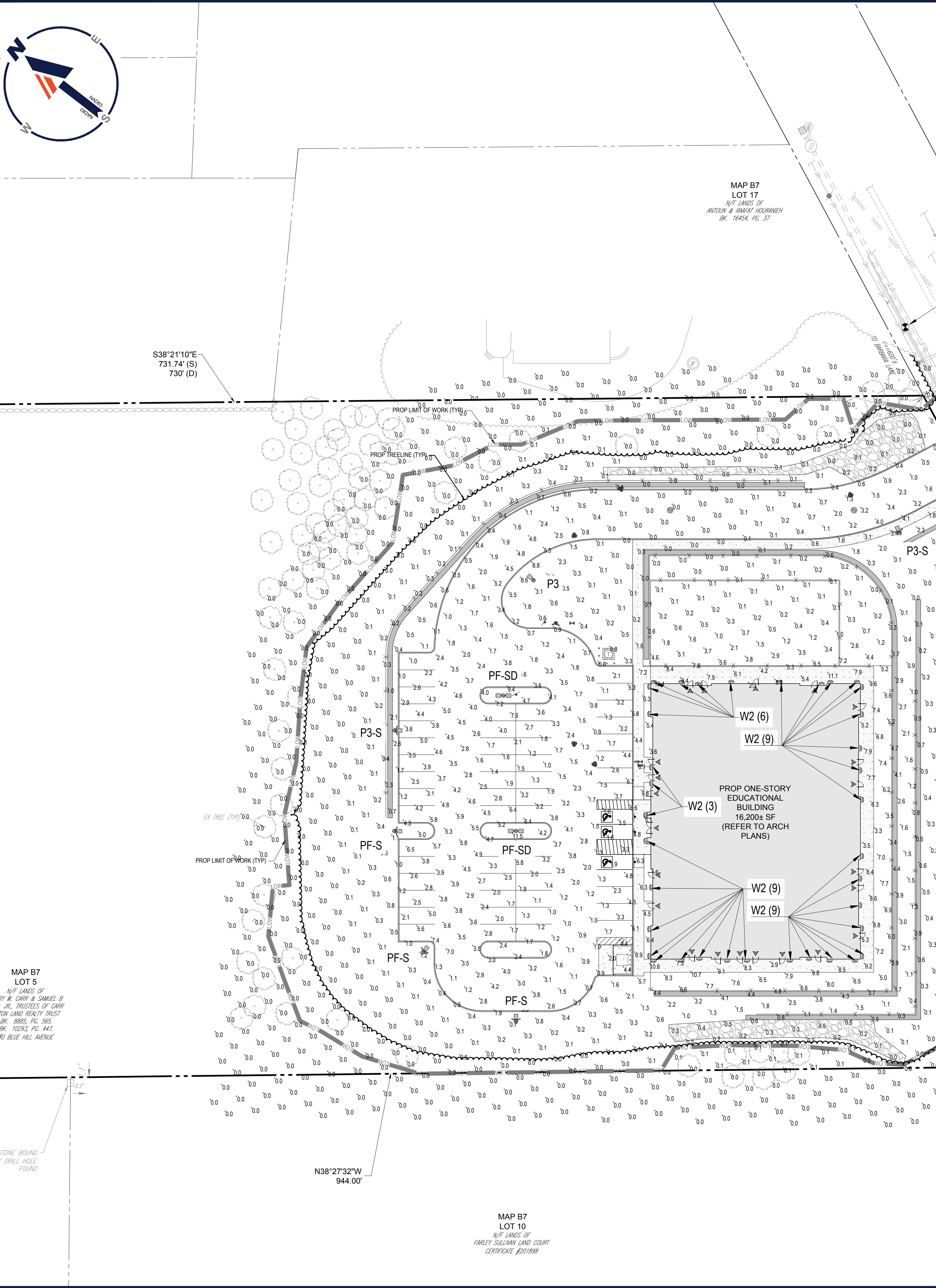
SITE DEVELOPMENT PLANS

FOR



PROPOSED
EARLY EDUCATION FACILITY
MAP: B7 | LOT: 5
0 BLUE HILL AVENUE
NORFOLK COUNTY
MILTON, MA





TOWN OF MILTON LIGHTING REQUIREMENTS

REQUIREMENTS	CALCULATIONS/PROPOSED
<p>OFF-SITE LIGHT OVERSPILL FROM ANY LIGHTING OF PARKING AREAS SHALL BE CONTROLLED THROUGH THE SELECTION OF LIGHTING, ITS POSITIONING AND ITS HEIGHT SO AS NOT UNNECESSARILY TO ADD TO ILLUMINATION LEVELS IN AN ADJACENT LOT NOT IN COMMON OWNERSHIP. LIGHT STANDARDS SHALL NOT EXCEED 8 FEET IN HEIGHT. OFF-SITE LIGHT OVERSPILL FROM LIGHTING OF PARKING AREAS SHALL NOT ADD MORE THAN ONE-TENTH-FOOT CANDLE POWER TO THE TOTAL ILLUMINATION LEVELS ON ANY ADJACENT LOT NOT IN COMMON OWNERSHIP. OFF-SITE LIGHT OVERSPILL ONTO ANY ADJACENT RESIDENTIAL PROPERTY SHALL NOT EXCEED ONE-TENTH-FOOT CANDLE POWER. OFF-SITE LIGHT OVERSPILL FROM THE LIGHTING OF VEHICLES ENTERING, TRAVERSING, OR EXITING A PARKING AREA SHALL BE CONTROLLED, INsofar AS REASONABLY POSSIBLE, THROUGH THE POSITIONING OF PARKING AREAS AND DRIVEWAYS ON SITE, BY GRADING (THE USE OF VEGETATED BERMS) AND/OR BY PLANTING. WOODEN FENCES (OR EQUIVALENT) MAY BE USED UNDER CIRCUMSTANCES WHERE THE USE OF CONTROLLING OFF-SITE LIGHT OVERSPILL ARE NOT PRACTICAL.</p>	<p>PROVIDED</p>

LUMINAIRE SCHEDULE

Label	Qty	Mounting Height	Arrangement	Lum. Lumens	LLF	Description
P3	1	18'-0" AFG	SINGLE	11451	0.900	LSI, GREENBRIAR OUTDOOR LED AREA LUMINAIRE, TYPE 3, ZERO UP-LIGHT, (XGBM-3-LED-LW-NW-x-x-x)
P3-S	2	18'-0" AFG	SINGLE	7513	0.900	LSI, GREENBRIAR OUTDOOR LED AREA LUMINAIRE, TYPE 3 WITH HOUSE SIDE SHIELD, ZERO UP-LIGHT (XGBM-3-LED-LW-NW-x-x-x) (XGBM-HSS)
PF-S	3	18'-0" AFG	SINGLE	9365	0.900	LSI, GREENBRIAR OUTDOOR LED AREA LUMINAIRE, TYPE PF FORWARD THROW, WITH HOUSE SIDE SHIELD, ZERO UP-LIGHT (XGBM-FT-LED-LW-NW-x-x-x) (XGBM-HSS)
PF-SD	2	18'-0" AFG	BACK-BACK	9365	0.900	LSI, GREENBRIAR OUTDOOR LED AREA LUMINAIRE, TYPE PF FORWARD THROW, WITH HOUSE SIDE SHIELD, ZERO UP-LIGHT (XGBM-FT-LED-LW-NW-x-x-x) (XGBM-HSS)
W2	36	*8'-0" AFF	SINGLE	2876	0.900	COOPER LIGHTING, INVUE, ECM/EMM EPIC MEDIUM LED WALL SCONCE, ZERO UP-LIGHT (ECM-E01-LED-x-T4-x-SN-x)

CALCULATION SUMMARY

Label	CalcType	Units	Avg	Max	Min	Avg/Min.	Max/Min
PARKING COURT	ILLUMINANCE	FC	3.04	9.4	0.7	4.34	13.43

MASSACHUSETTS LIGHTING NOTES

1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS. THE GENERAL NOTES ARE REFERENCED HEREIN, AND THE CONTRACTOR MUST REFER TO THEM AND FULLY COMPLY WITH THESE NOTES, IN THEIR ENTIRETY. THE CONTRACTOR MUST BE FAMILIAR WITH AND ACKNOWLEDGE FAMILIARITY WITH ALL OF THE GENERAL NOTES AND ALL OF THE PLANS' SPECIFIC NOTES.
2. THIS LIGHTING PLAN DEPICTS PROPOSED SUSTAINED ILLUMINATION LEVELS CALCULATED USING DATA PROVIDED BY THE NOTED MANUFACTURER(S). ACTUAL SUSTAINED SITE ILLUMINATION LEVELS AND PERFORMANCE OF LUMINAIRES MAY VARY DUE TO VARIATIONS IN WEATHER, ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, THE SERVICE LIFE OF EQUIPMENT AND LUMINAIRES AND OTHER RELATED VARIABLE FIELD CONDITIONS.
3. THE LIGHT LOSS FACTORS (LLF) DEPICTED IN THE LUMINAIRE SCHEDULE ON THIS PLAN ARE BASED ON DATA PROVIDED BY THE MANUFACTURER FOLLOWING IES LM-80-08 TESTING. THE LIGHT LEVELS DEPICTED ON THIS PLAN WERE CALCULATED BASED ON THE LLF LISTED IN THE LUMINAIRE SCHEDULE.
4. THE LIGHTING VALUES AND CALCULATION POINTS DEPICTED ON THIS PLAN ARE ALL ANALYZED ON A HORIZONTAL GEOMETRIC PLANE AT ELEVATION ZERO (GROUND LEVEL) UNLESS OTHERWISE NOTED. THE VALUES DEPICTED ON THIS PLAN ARE IN FOOTCANDLES (FC).
5. THE LUMINAIRES, LAMPS AND LENSES MUST BE REGULARLY INSPECTED/MAINTAINED TO ENSURE THAT THEY FUNCTION PROPERLY. THIS WORK SHOULD INCLUDE, BUT IS NOT LIMITED TO, VISUAL OBSERVATION, CLEANING OF LENSES, AND RE-LAMPING (IF NECESSARY) ACCORDING TO MANUFACTURER RECOMMENDATIONS. FAILURE TO FOLLOW THE ABOVE STEPS COULD RESULT IN IMPROPER LIGHT DISTRIBUTION AND FAILURE TO COMPLY WITH THE APPROVED DESIGN. UPON COMPLETION AND OWNER'S ACCEPTANCE OF THE WORK, THE ABOVE RESPONSIBILITIES BECOMES SOLELY THE OWNER'S.
6. WHERE APPLICABLE, THE EXISTING CONDITION LIGHT LEVELS ILLUSTRATED ARE REPRESENTATIVE OF AN APPROXIMATION UTILIZING LABORATORY DATA FOR SIMILAR FIXTURES, UNLESS ACTUAL FIELD MEASUREMENTS ARE TAKEN WITH A LIGHT METER AND ARE, CONSEQUENTLY, APPROXIMATIONS ONLY. DUE TO FACTORS SUCH AS FIXTURE MAINTENANCE, EQUIPMENT TOLERANCES, WEATHER CONDITIONS, ETC, ACTUAL LIGHT LEVELS MAY DIFFER. EXISTING LIGHT LEVELS DEPICTED ON THIS PLAN SHOULD BE CONSIDERED APPROXIMATE.
7. THIS LIGHTING PLAN IS INTENDED TO SHOW THE LOCATIONS AND TYPE OF LUMINAIRES, ONLY. POWER SYSTEM, CONDUITS, WIRING, VOLTAGES AND OTHER ELECTRICAL COMPONENTS ARE THE RESPONSIBILITY OF THE ARCHITECT, MEP AND/OR LIGHTING CONTRACTOR, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS. LIGHT POLE BASES ARE THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER, AS INDICATED IN THE CONSTRUCTION CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR INSTALLING LIGHTING FIXTURES AND APPURTENANCES IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND ELECTRICAL CODES AND ALL OTHER APPLICABLE RULES, REGULATIONS, LAWS AND STATUTES.
8. CONTRACTOR MUST BRING TO DESIGNER'S ATTENTION, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ANY LIGHT LOCATIONS THAT CONFLICT WITH DRAINAGE, UTILITIES, OR OTHER STRUCTURES.
9. IT IS THE LIGHTING CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE PROJECT ARCHITECT OR OWNER REGARDING ANY AND ALL POWER SOURCE(S), AND TIMING DEVICES NECESSARY TO MEET THE DESIGN INTENT. THESE ITEMS MUST BE INSTALLED AS REQUIRED BY STATE AND LOCAL REGULATIONS.
10. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT SHIELDING AND OR ROTATED OPTICS ARE INSTALLED AS INDICATED ON THE PLAN IN ORDER TO ACHIEVE THE LIGHTING LEVELS THE REVIEWING AGENCY APPROVED.
11. THE LIGHTING CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CONTRACTOR REQUIREMENTS INDICATED IN THE SITE PLAN, INCLUDING BUT NOT LIMITED TO, GENERAL NOTES, GRADING AND UTILITY NOTES, SITE SAFETY, AND ALL GOVERNMENTAL RULES, LAWS, ORDINANCES, REGULATIONS AND THE LIKE.
12. THE CONTRACTOR MUST VERIFY THAT INSTALLATION OF LIGHTING FIXTURES COMPLIES WITH THE REQUIREMENTS FOR SEPARATION FROM OVERHEAD ELECTRICAL WIRES PER STATE REGULATIONS.
13. WHEN A BANK ATM IS INCLUDED IN THE PLAN, THE LIGHTING DESIGN REPRESENTS BOHLER'S UNDERSTANDING AND INTERPRETATION OF THE REGULATORY LIGHTING LEVELS INTENDED BY PUBLISHED STANDARDS.
14. UPON OWNER'S ACCEPTANCE OF THE COMPLETED PROJECT, THE OWNER SHALL BE RESPONSIBLE FOR ALL MAINTENANCE, SERVICING, REPAIR AND INSPECTION OF THE LIGHTING SYSTEM AND ALL OF ITS COMPONENTS AND RELATED SYSTEMS, TO ENSURE ADEQUATE LIGHTING LEVELS ARE PRESENT AND FUNCTIONING AT ALL TIMES.

BOHLE

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE



**Know what's below.
Call before you dig.
ALWAYS CALL 811**

is fast. It's free. It's the law.

PERMIT S

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

JECT No.: MAA240187.00-0A
WN BY: SBB
CKED BY: AWP
E: 08/28/2024
D I.D.: P-CIVL-LGHT

ITE DEVELOPMENT PLANS



MAP: B7 | LOT: 5
0 BLUE HILL AVENUE
NORFOLK COUNTY

MILTON, MA

BOHLER //

LIGHTING PLAN

SET NUMBER:
1.201

ORG. DATE - 08/28/2024

**THIS PLAN TO BE UTILIZED
FOR LIGHTING PURPOSES
ONLY**

SCALE: 1" = 30'

Catalog #: _____ Project: _____ Type: _____
Prepared By: _____ Date: _____

Greenbriar (XGBM)
Outdoor Area Light



OVERVIEW

Lumen Package (lm)	12,000 - 30,000
Wattage Range (W)	136 - 301
Efficacy Range (LPW)	71 - 123
Weight lbs (kg)	49.5 (22.5)

QUICK LINKS

- Ordering Guide
- Performance
- Photometrics
- Dimensions

FEATURES & SPECIFICATIONS

Construction

- Square, die-formed aluminum housing.
- Fully enclosed weather-tight housing contains factory prewired drivers and field connections.
- Gasketed, tethered top-access cover provides easy of installation and access.
- Four captive stainless-steel fasteners secure the top access cover to the housing.
- Luminaire is proudly made in the U.S.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.

Optical System

- Select high-brightness LEDs in Cool White (5000K) or Neutral White (4000K) color temperature, 70 CRI.
- Types 3, 5, 5FT and FTA available - field rotatable reflectors.
- Clear tempered optical angle flat glass lens selected to align the housing creates an on/off and field rotated optics unit (includes pressure stabilizing breather).
- Optic unit can be easily field rotated in 90° increments. Directional arrow on optics allows alignment without the unit being energized.
- Zero uplight.

Electrical

- LSI drivers feature integral sensor which reduces drive current when ambient temperature exceeds fixture temperature.
- Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.412-2002, Location Category C. Available with universal voltage power supply 120-277VAC (UE - 50/60Hz input), and 544-600VDC.
- Available in Low Watt (LW), Super Saver (SS) and High Output (HO) drive currents (Drive currents are factory programmed).
- Components are fully encased in potting material for moisture resistance.
- Driver complies with FCC 47 CFR part 15 RFI/EMI standard.
- Operating temperature: -40°C to +50°C (-40°F to +122°F).
- 0-10V dimming (10% - 100%) Optional.

Controls

- Optional integral passive infrared motion sensor.
- Bi-level switching responds to external line voltage signal from separate 120-277V controller or sensor (by others), with low light level decreased to 30% maximum drive current.

Warranty

LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsicorp.com/resources/terms-conditions-warranty/> for more information.

Listings

- Listed to UL 1598 and UL 8750.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet locations.
- IP67 rated optical chamber.
- SG rated for ANSI C136.31 high vibration applications.
- DesignLighting Consortium® (DLC) Premium qualifying product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- US Patent D574994 & 7,828,456 and MX patent 29631

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- Clear tempered optical angle flat glass lens selected to align the housing creates an on/off and field rotated optics unit (includes pressure stabilizing breather).
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- Zero uplight.

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LSI Industries Inc. All Rights Reserved. Specifications and dimensions subject to industry standard tolerances. Specifications subject to change without notice.

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SPEC.2036.B.0524

DESCRIPTION

The EPIC Collection delivers custom luminaire flexibility with high quality, yet availability expectations of standard specification grade product. The EPIC Collection can be dressed to suit any application. Recognizing environmental and legislative trends, the EPIC Collection delivers world class LED optical and performance solutions to the decorative luminaire marketplace.

InVue

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

TOP: Cast aluminum top housing attaches to cabinet body with four mounting hub with four stainless steel fasteners. One-piece silicone gasket between mounting hub and top casting seals the mounting hub to cabinet body. (See the mounting accessories section for a full selection of mounting arms and mounting arms are compatible with the Epic luminaire). **MIDSECTION:** Continuous silicone gaskets seal lens to top casting assembly. The mid section features cast aluminum construction and stainless steel assembly. **SHADES:** Heavy gauge pressure die cast aluminum shades offer superior surface finish and consistency in form. **DOORFRAME:** Die-cast aluminum frame to doorframe seal to underside of shade with a thick wall continuous silicone gasket. Mounting hub ships attached to mounting arm.

Electrical

LED drivers mount to die-cast aluminum base housing for optimal heat sinking, operation efficiency, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V coil, and 400V coil. Drivers offer greater than 0.9 power factor, less than 20% harmonic distortion, and 100% operating life from -40°C to 40°C ambient environments. All fixtures are shipped standard with 10KV/10KA common-mode surge protection. LightBARs feature and IP66 enclosure rating and minimum greater than 90% lumen maintenance at 50,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

Warranty

Five-year warranty.

Options

Choice of twelve patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precision designed to match the optics, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application.

Finish

Housing is finished in high-coverage super 15°C polyester powder coat paint. 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of fixture. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom colors are available. Consult the Outdoor Architectural Colors brochure for a complete selection. Options to meet Buy American Act requirements





ECM/EMM
EPIC MEDIUM LED

1 - 4 LightBARs
Solid State LED

DECORATIVE AREA LUMINAIRE

DIMENSIONS

ECM Classical	EMM Modern
Maximum Height 20" [508mm]	Maximum Height 17" [432mm]
Maximum Width 24-1/16" [611mm]	Maximum Width 26-5/16" [667mm]

See configurations for more detailed information.

CERTIFICATION DATA

UL/UL Listed
DesignLighting Consortium® Qualified*
IP66 LightBar
LM79 / LM80 Compliant
2G Vibration Tested
IEC 68-2-27

ENERGY DATA

Electron LED Driver
347V Power
-20% Total Harmonic Distortion
120-277V 50/60Hz, 347V/60Hz,
400V/60Hz
-40°C Minimum Temperature Rating
40°C Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.) 0.94

SHIPPING DATA

Approximate Net Weight:
46 lbs (20.9 kg)

TD60029EN
December 8, 2021 2:28 PM

COOPER
Lighting Solutions
*www.designlights.org

BOHLER //
TM

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PLANNING
SUSTAINABLE DESIGN
PERMITTING SERVICES

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