

NOT FOR CONSTRUCTION

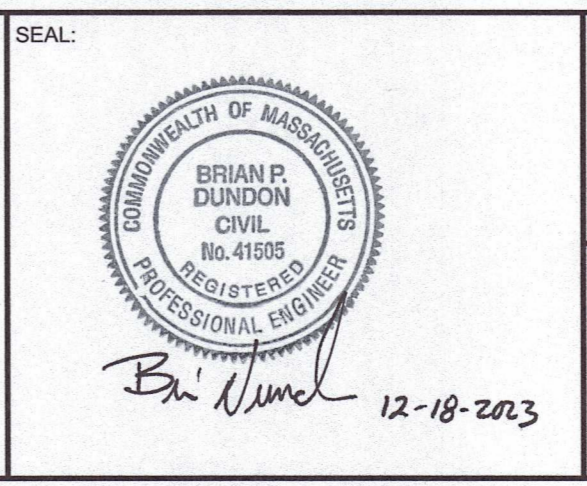
Drawing name: G:\M\Fairfield\Fairfield Residential\21 Grove Street\Main\22016\_C-5 Site Details - 1.dwg  
Dec 18, 2023 - 11:38am



NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:  
**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAINTREE, MA 02184



PREPARED BY:  
**RJO'CONNELL & ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALL AVENUE, SUITE 201 STONEHAM, MA 02180  
PHONE: 781.279.0160 RJOCONNELL.COM

PROJECT NAME:  
**GROVE STREET RESIDENCES**  
FRANKLIN, MA

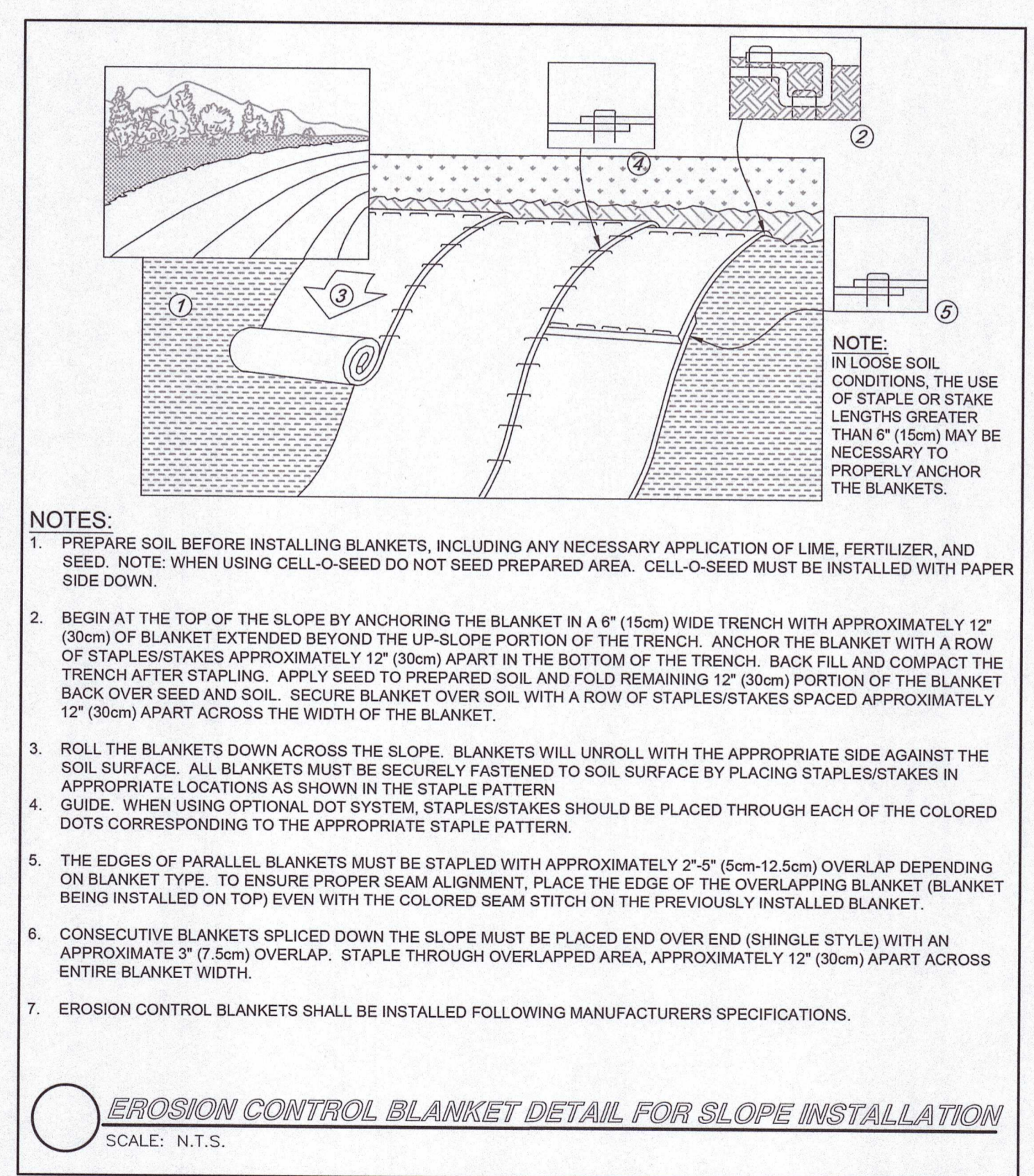
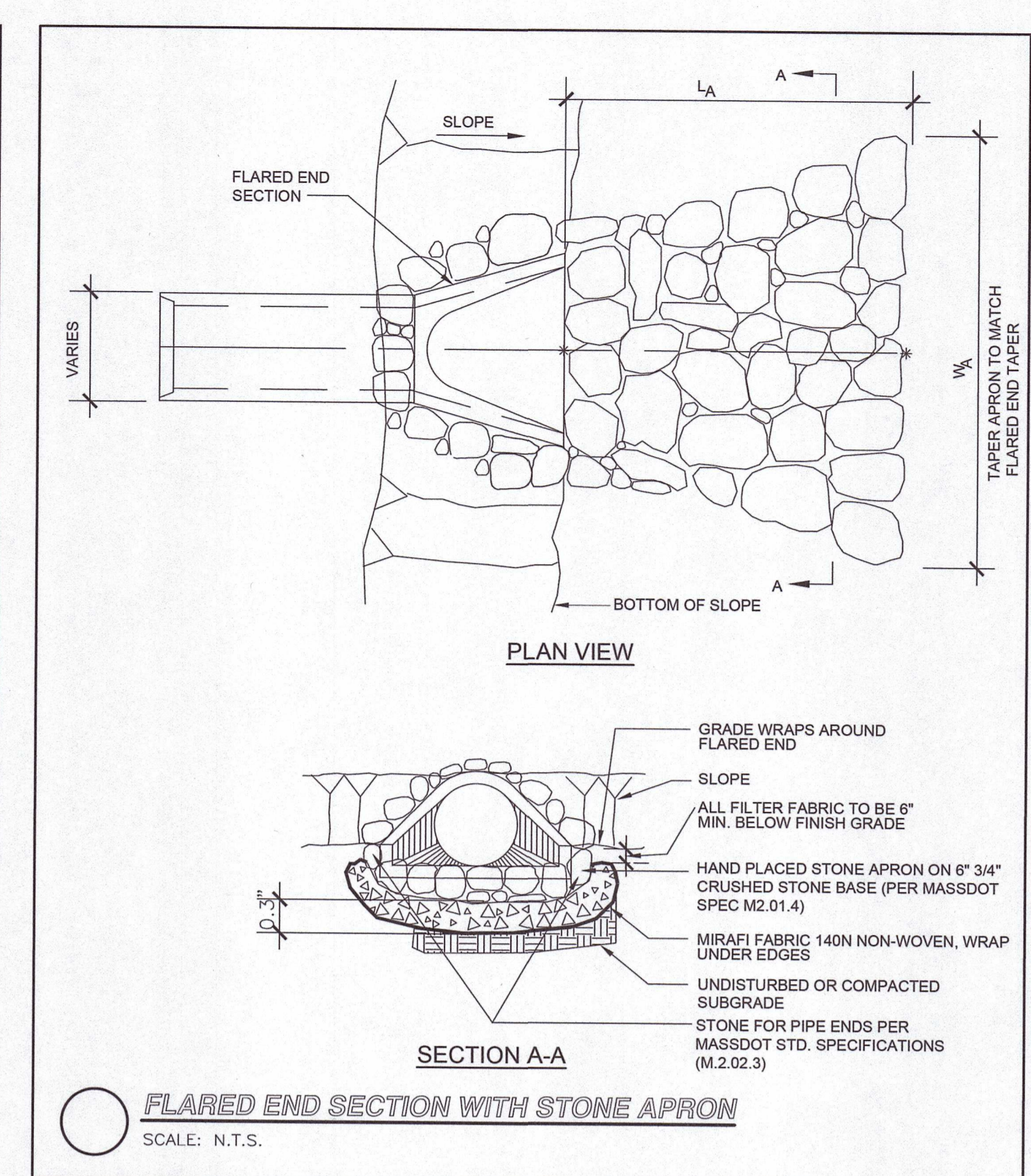
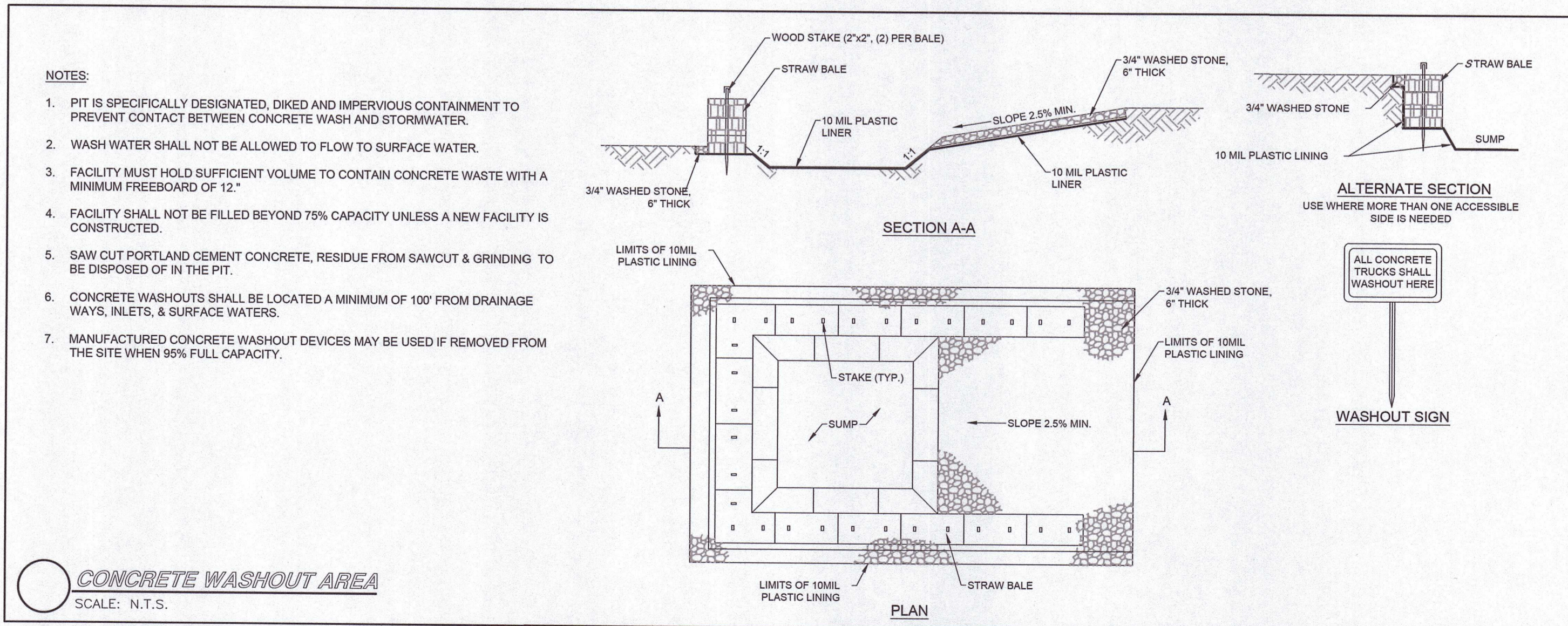
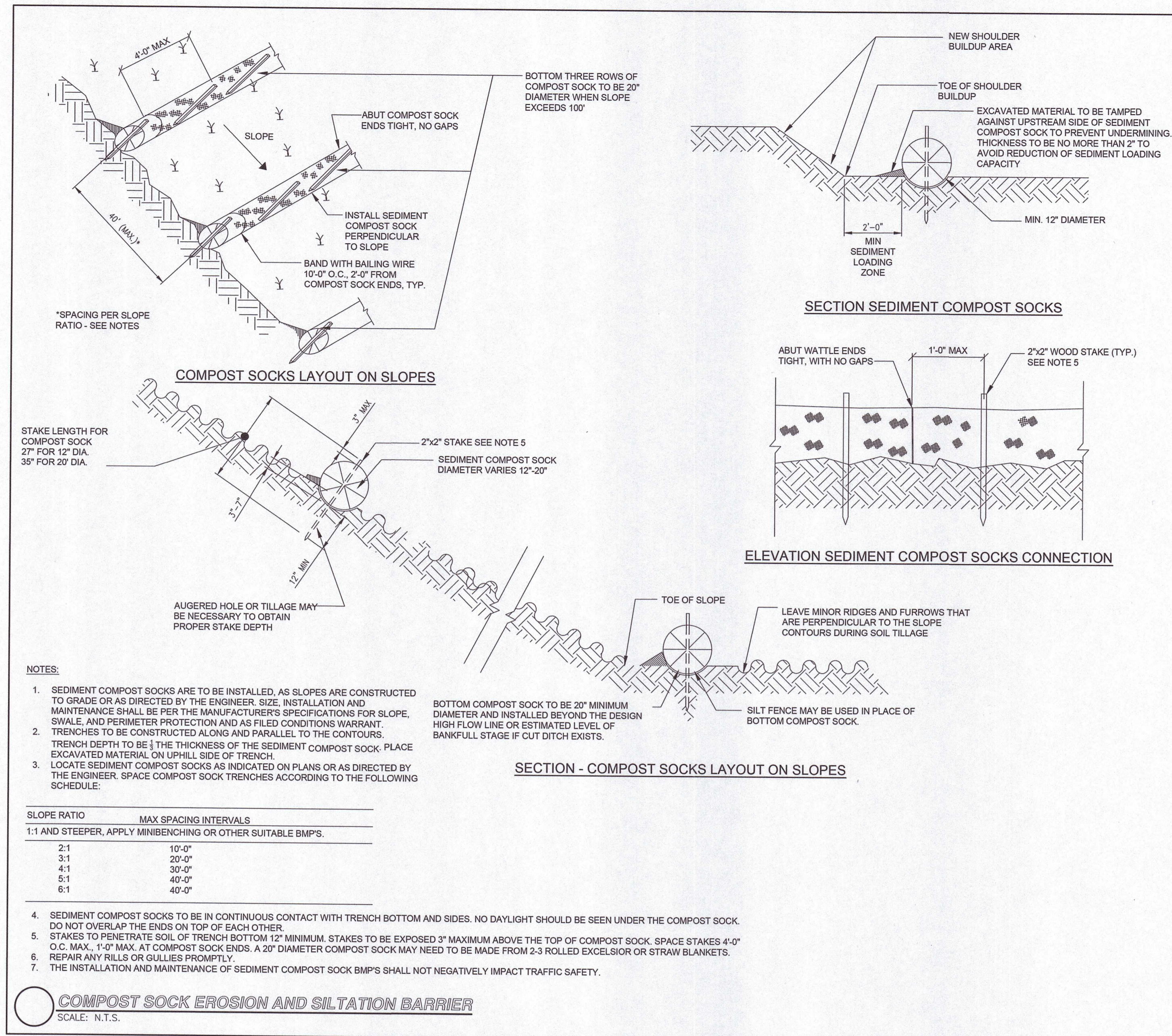
DRAWING NAME:  
**SITE DETAILS - I**

DRAWING NUMBER:  
**C-5**

DATE: 10/30/2023 PROJECT NO.: 22016

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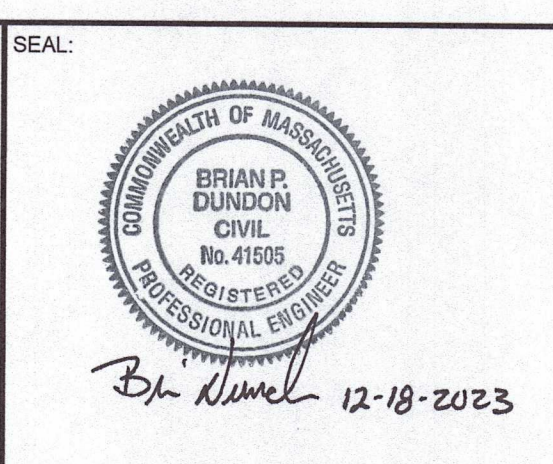
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DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

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**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAintree, MA 02184



PREPARED BY:  
**RJO'CONNELL & ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02186  
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:  
**GROVE STREET RESIDENCES**  
FRANKLIN, MA

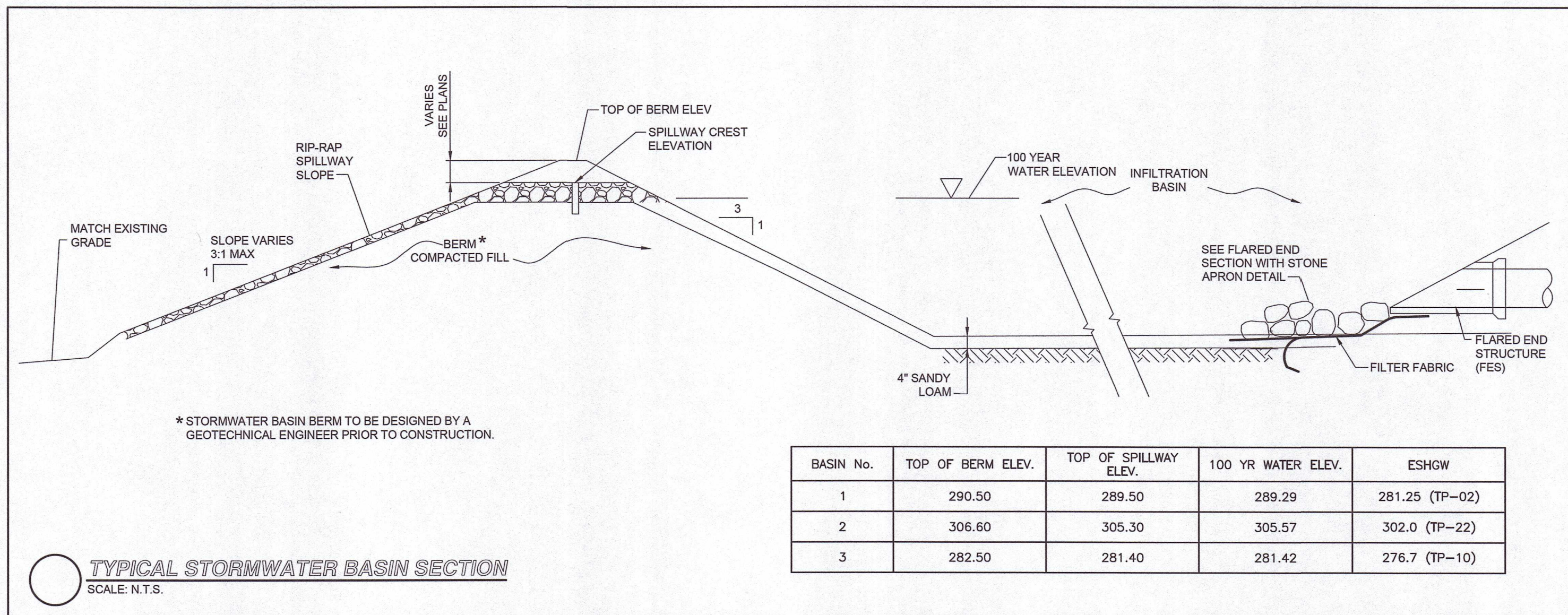
DRAWING NAME:  
**SITE DETAILS - II**

DRAWING NUMBER:  
**C-6**

DATE: 10/30/2023 PROJECT NO.: 22016

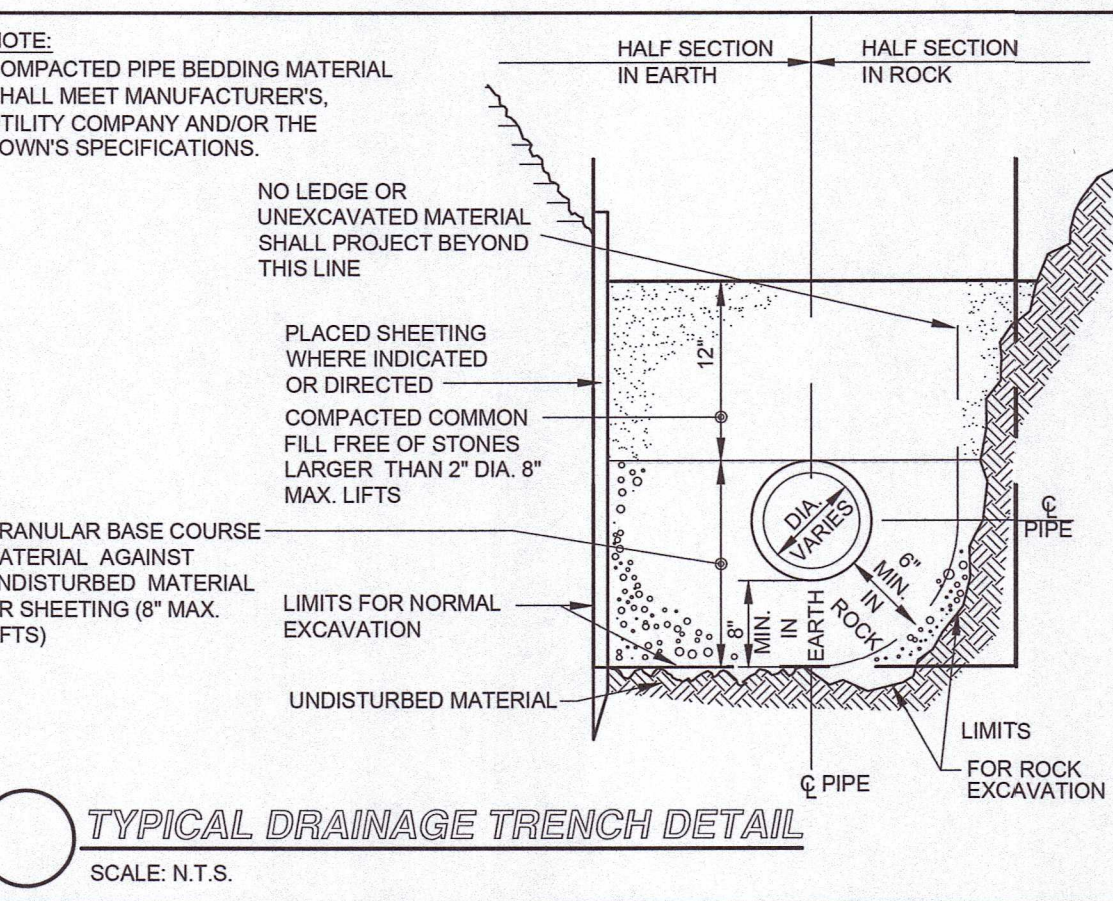
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Dec 18, 2023 - 11:41am  
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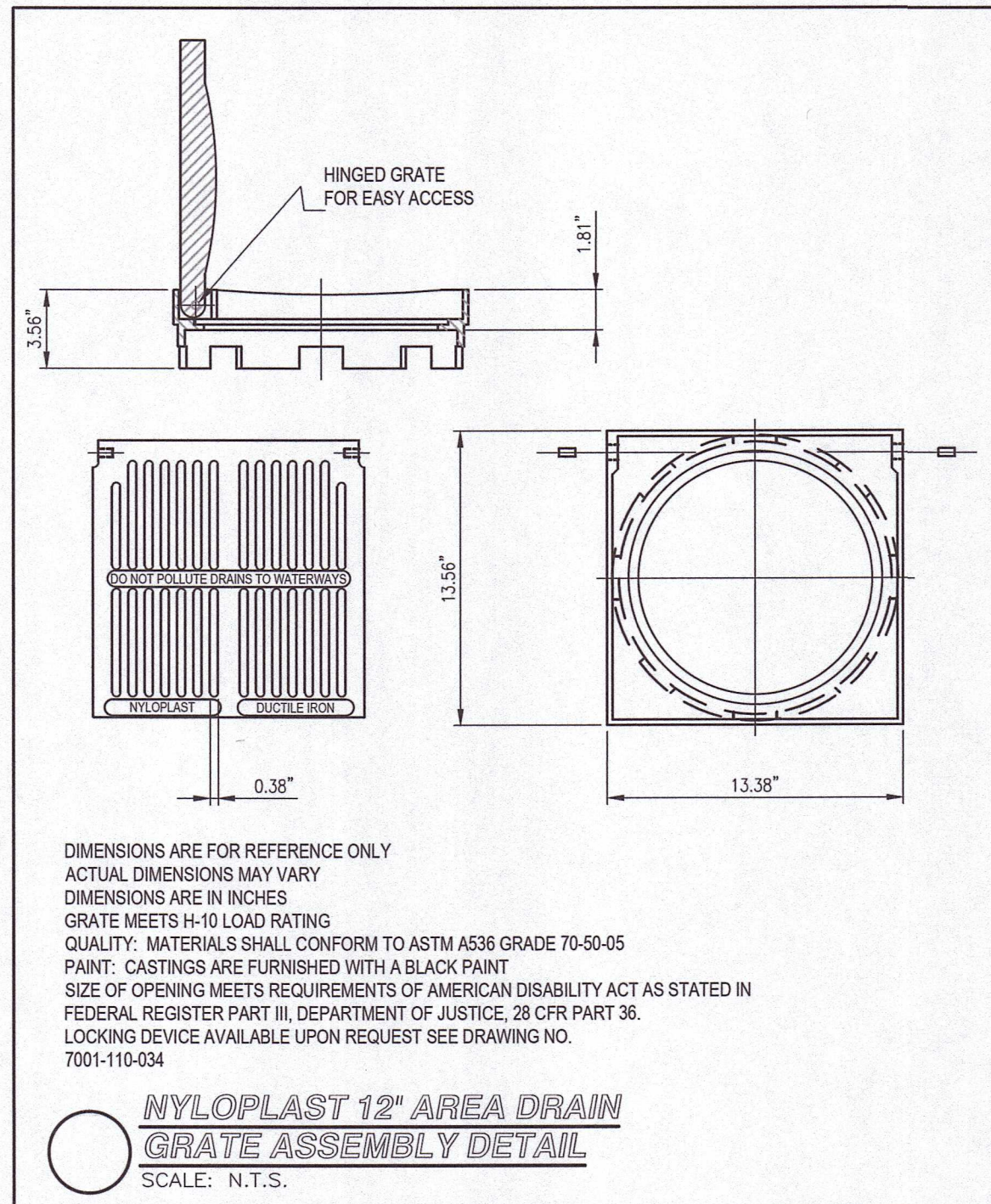


BASIN No.	TOP OF BERM ELEV.	TOP OF SPILLWAY ELEV.	100 YR WATER ELEV.	ESHWG
1	290.50	289.50	289.29	281.25 (TP-02)
2	306.60	305.30	305.57	302.0 (TP-22)
3	282.50	281.40	281.42	276.7 (TP-10)

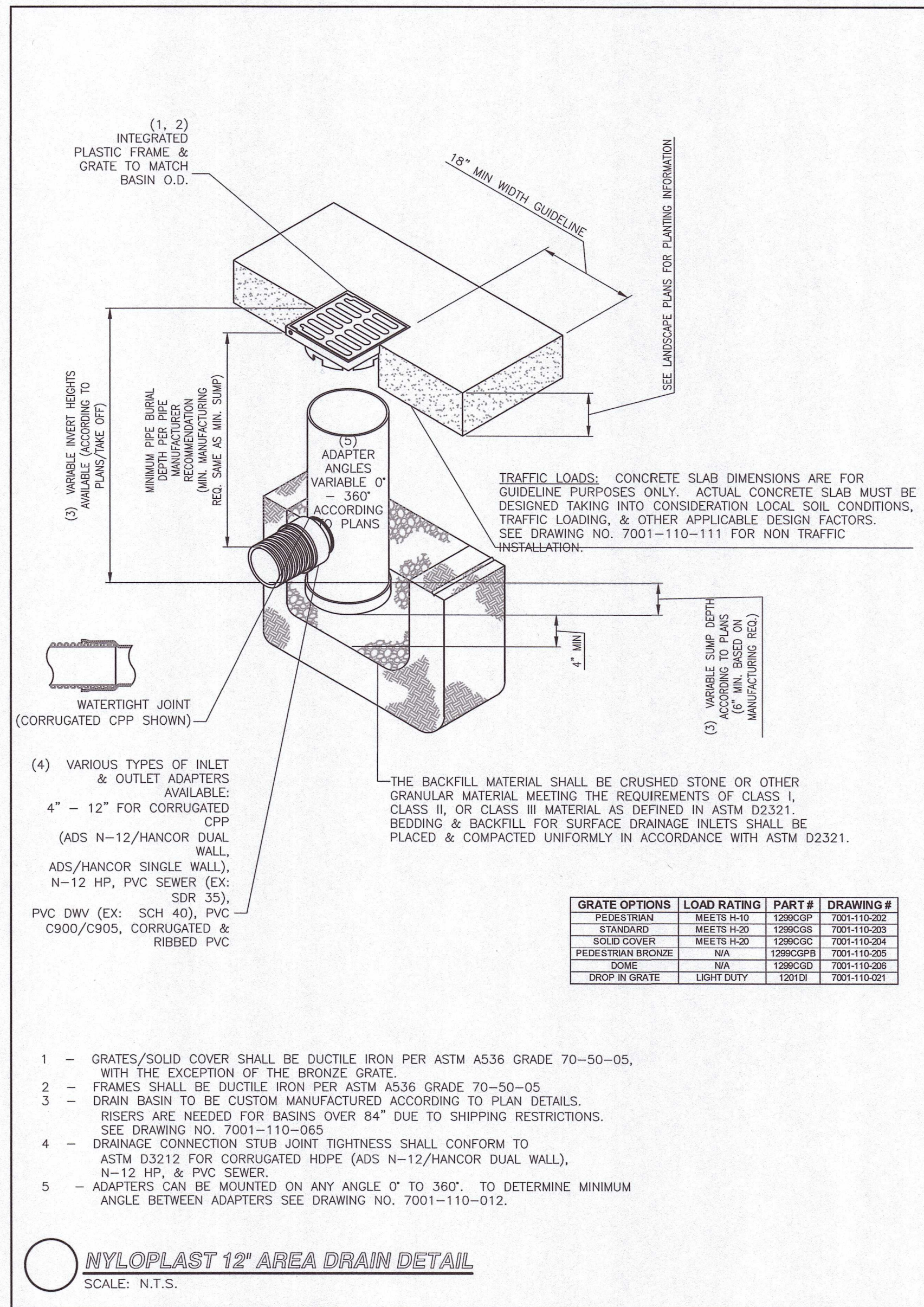
**TYPICAL STORMWATER BASIN SECTION**  
SCALE: N.T.S.



**TYPICAL DRAINAGE TRENCH DETAIL**  
SCALE: N.T.S.



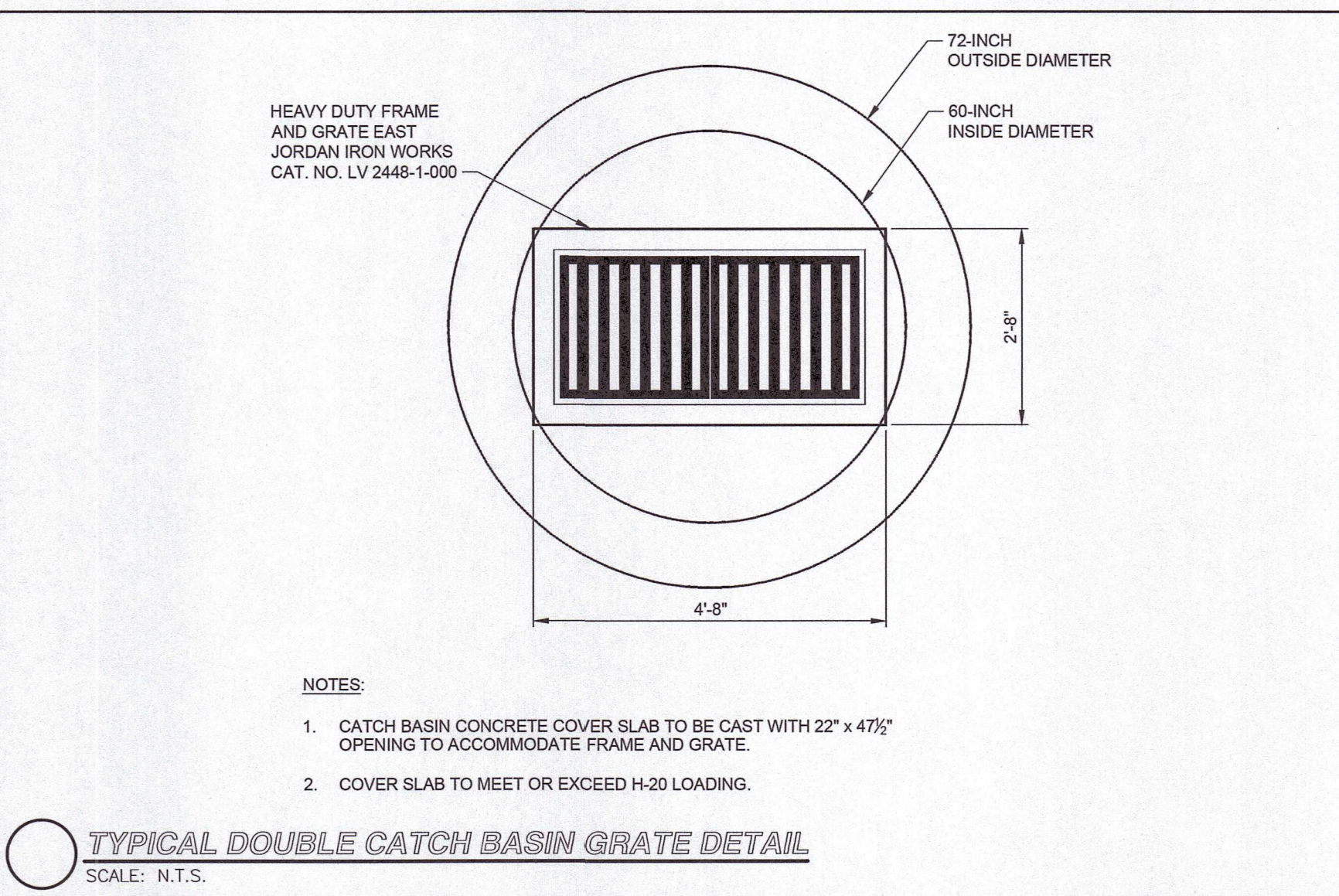
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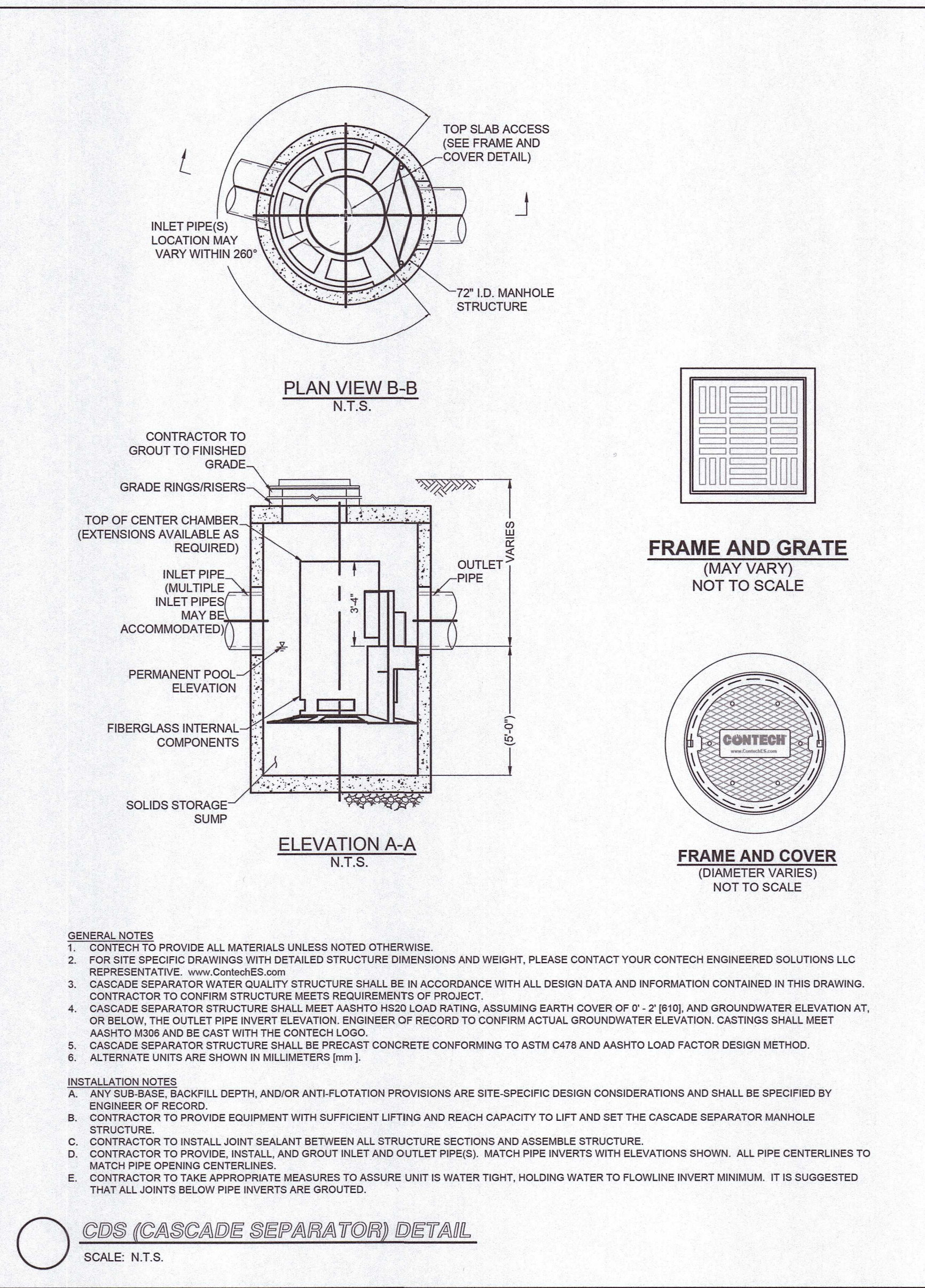
**NYLOPLAST 12\"/>**

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTAL	MEETS H-20	1290CGP	7001-110-262
STANDARD	MEETS H-20	1290CS	7001-110-263
SOLID COVER	MEETS H-20	1290CSC	7001-110-264
PEDESTAL BRONZE	N/A	1290CGPB	7001-110-265
IGONE	N/A	1290CSD	7001-110-266
DROP IN GRATE	LIGHT DUTY	1201D	7001-110-021

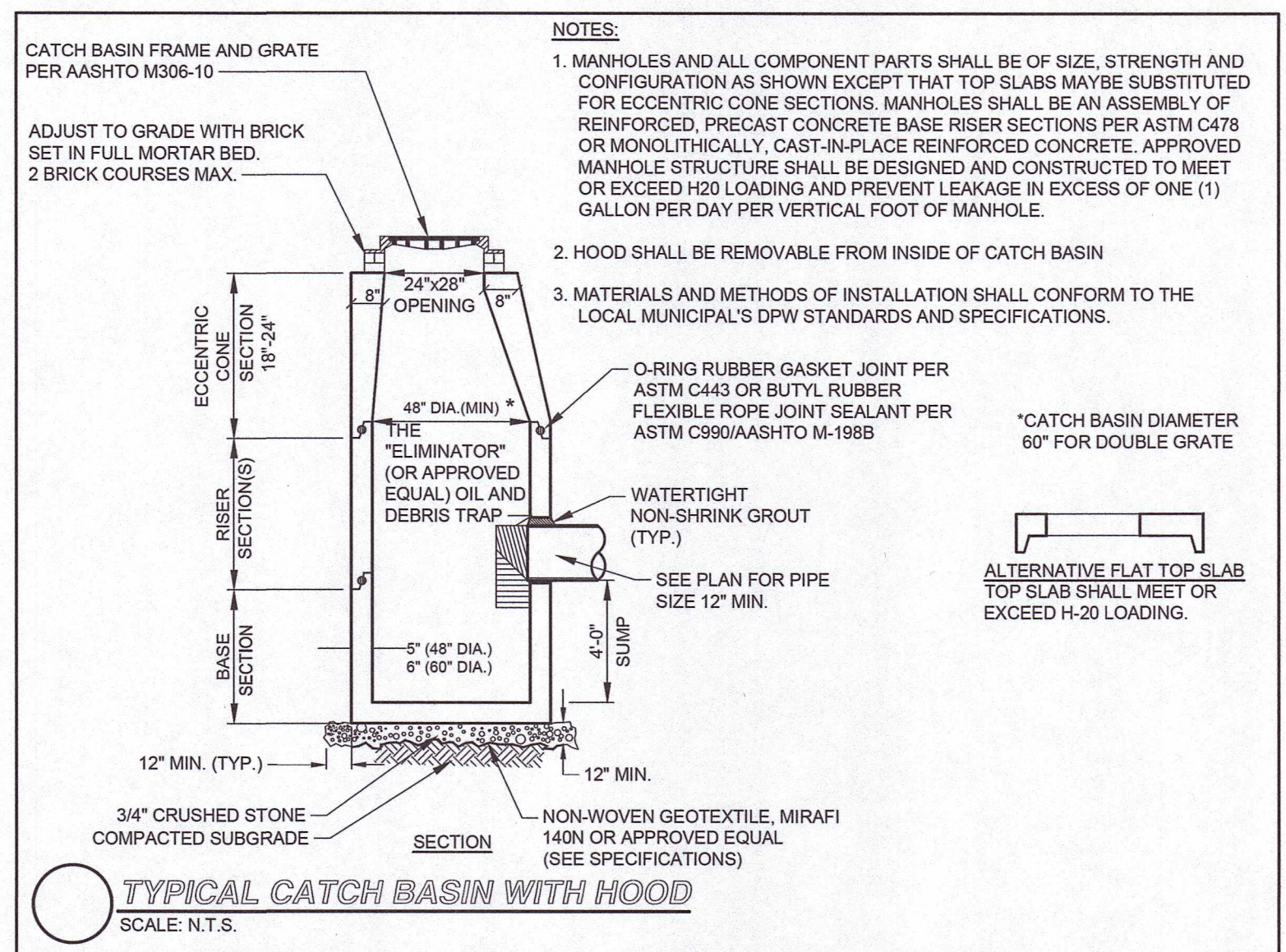
- GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
- FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
- DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84\"/>



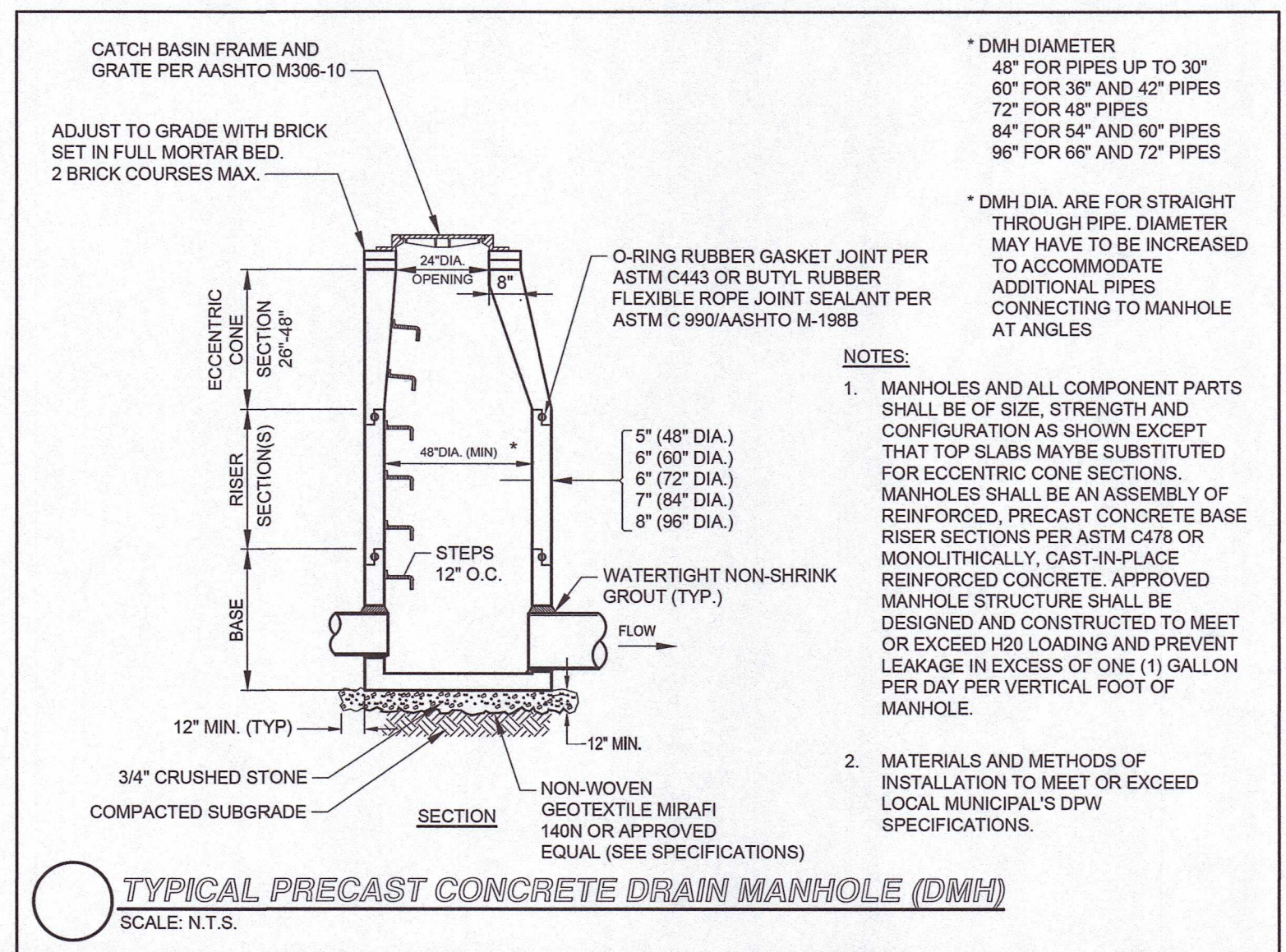
**TYPICAL DOUBLE CATCH BASIN GRATE DETAIL**  
SCALE: N.T.S.



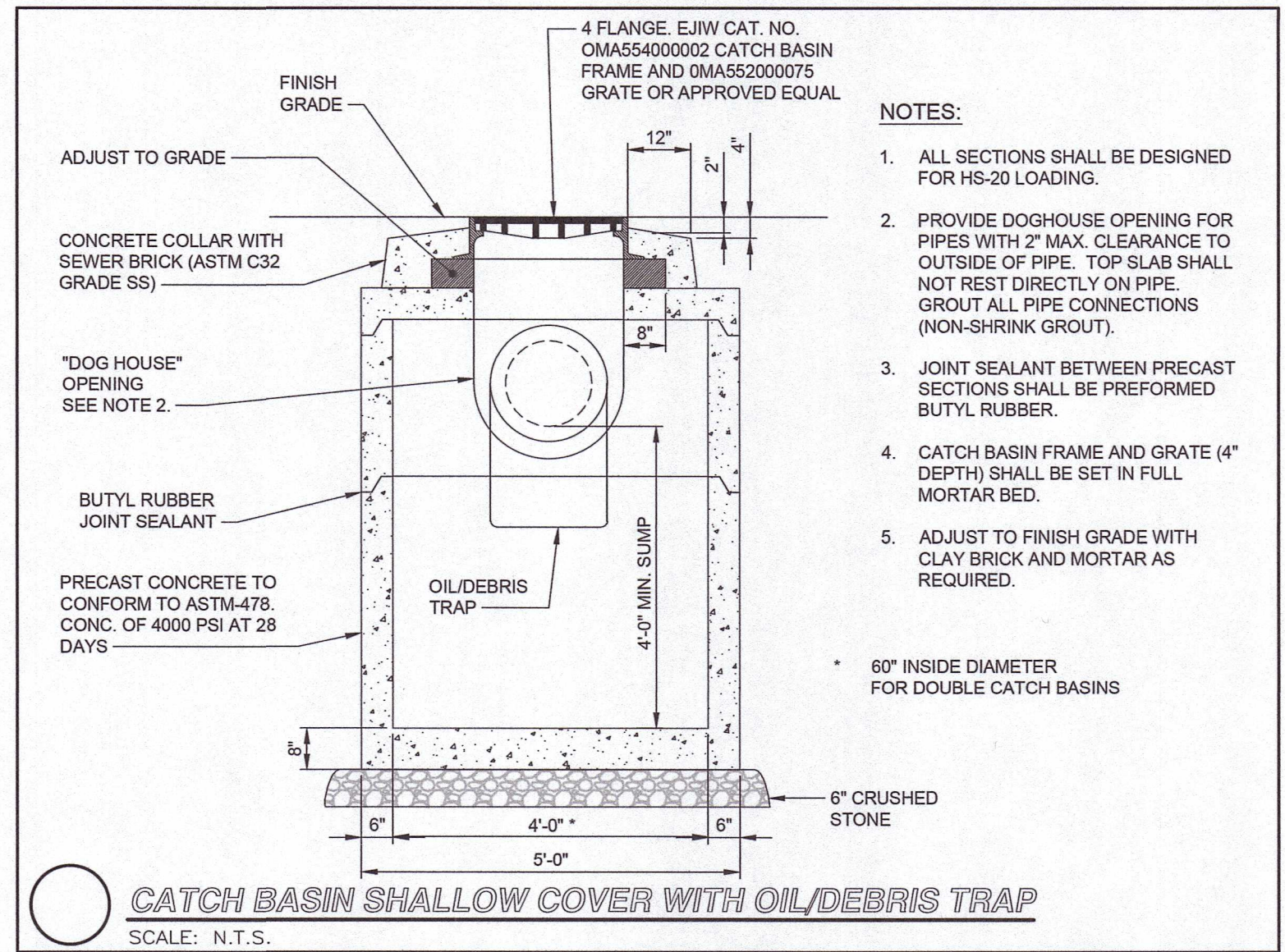
**CDS (CASCADE SEPARATOR) DETAIL**  
SCALE: N.T.S.



**TYPICAL CATCH BASIN WITH HOOD**  
SCALE: N.T.S.



**TYPICAL PRECAST CONCRETE DRAIN MANHOLE (DMH)**  
SCALE: N.T.S.



**CATCH BASIN SHALLOW COVER WITH OIL/DEBRIS TRAP**  
SCALE: N.T.S.

NOT FOR CONSTRUCTION

Drawing name: C:\MA\Franklin\Fairfield Residential\121 Groves Street\Main\2016\_C-7 Site Details - III.dwg  
Dec 18, 2023 - 11:46am

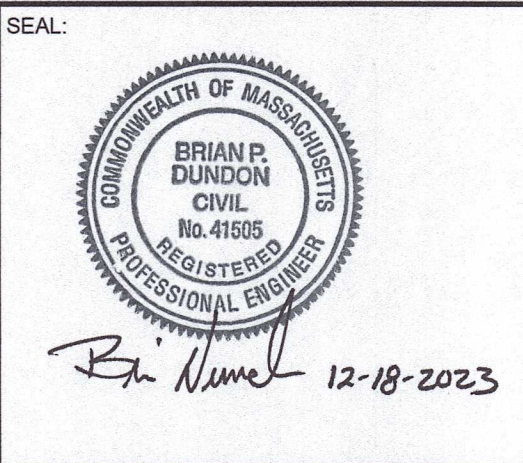


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DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:  
**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAintree, MA 02184



PREPARED BY:  
**RJO'CONNELL & ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALE AVENUE, SUITE 201 STONHAM, MA 02180  
PHONE: 781-279-0160 RJOCONNELL.COM

PROJECT NAME:  
**GROVE STREET RESIDENCES**  
FRANKLIN, MA

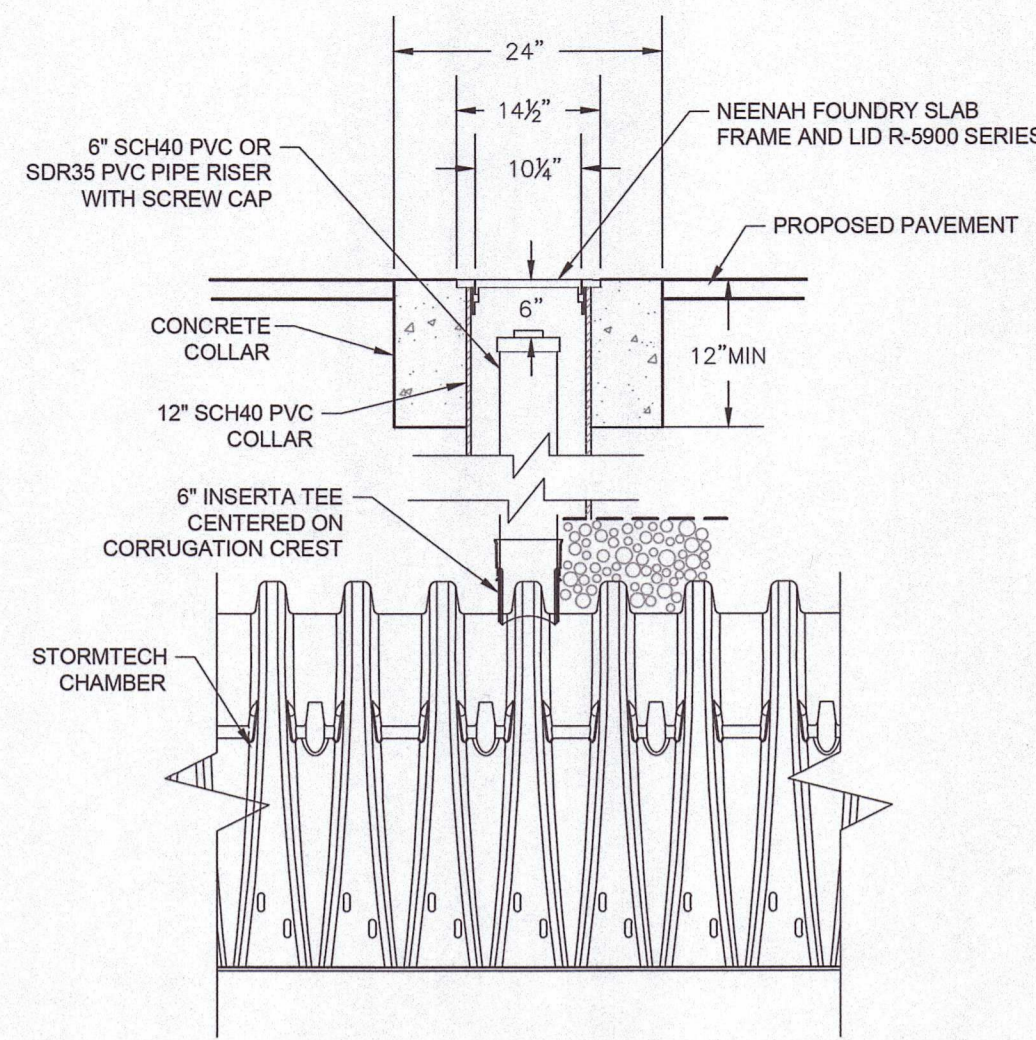
DRAWING NAME:  
**SITE DETAILS - III**

DRAWING NUMBER:  
**C-7**

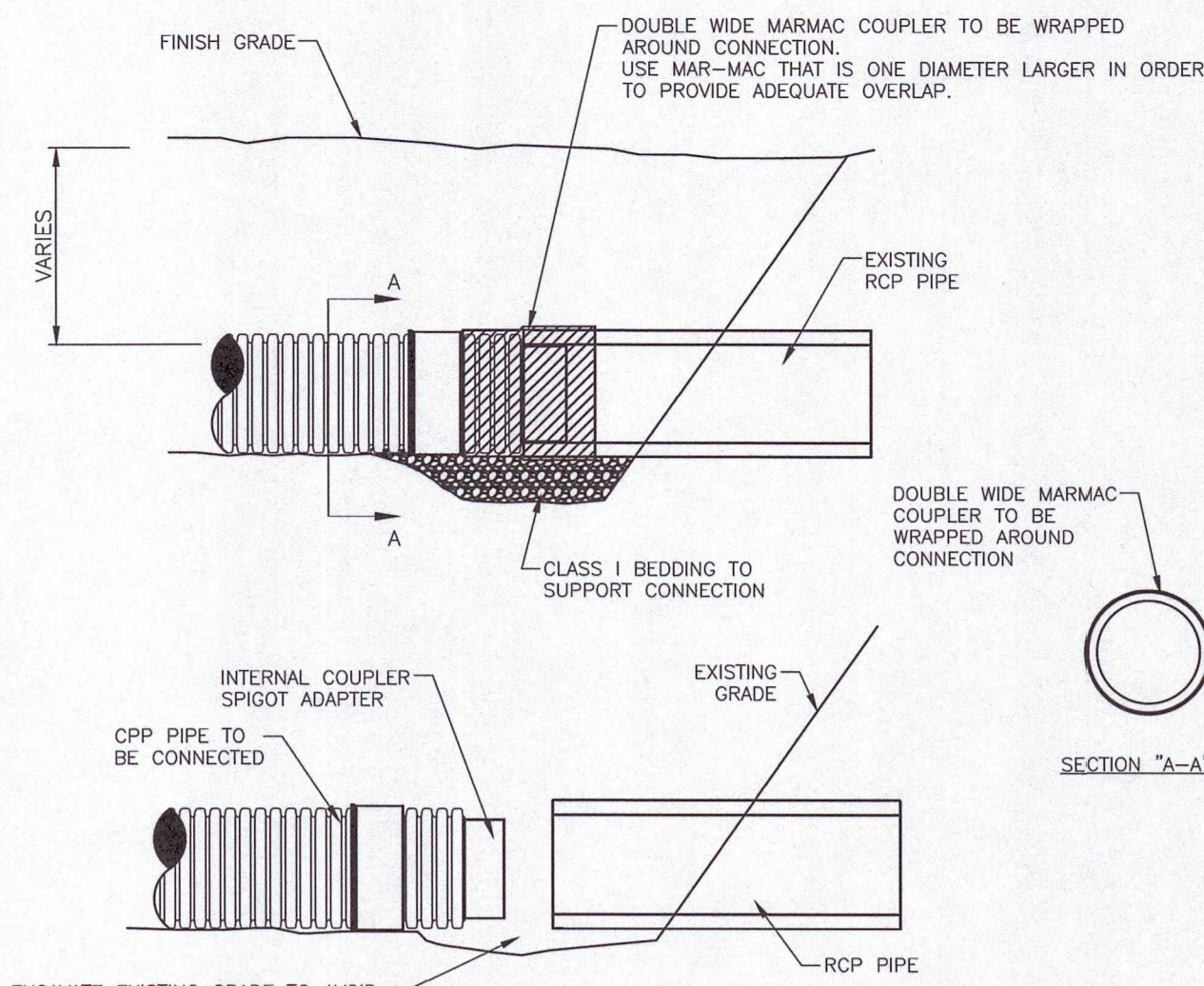
DATE: 10/30/2023 PROJECT NO.: 22016

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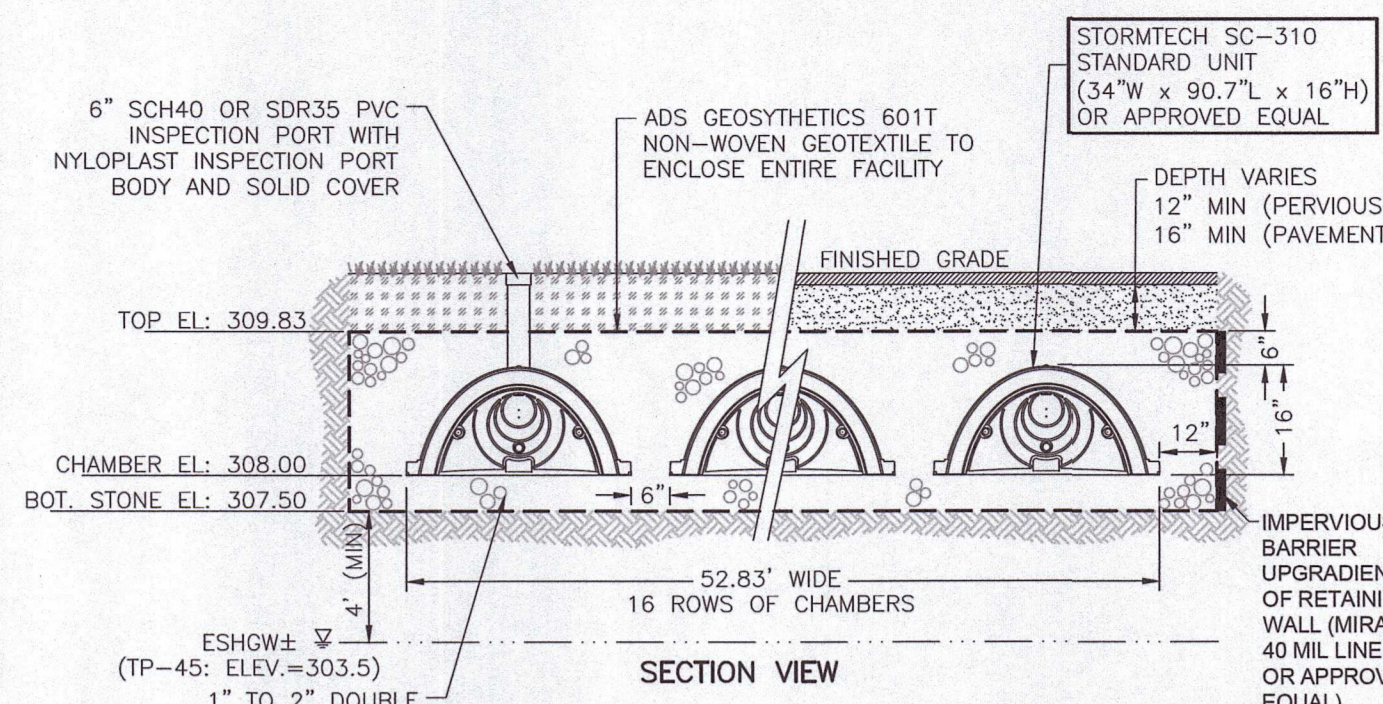




**OBSERVATION PORT**  
SCALE: N.T.S.



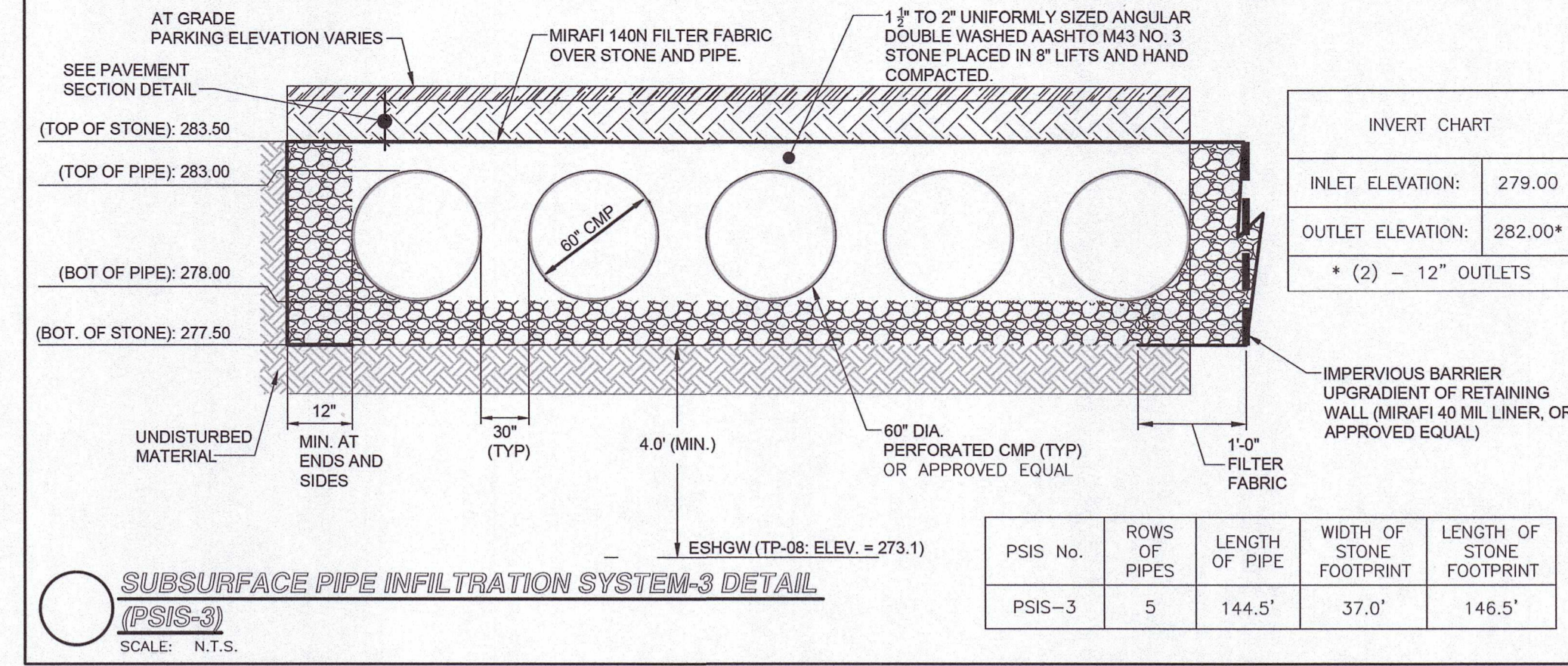
**CPP TO RCP CONNECTION (MARMAC) DETAIL**  
SCALE: N.T.S.



**SUBSURFACE INFILTRATION SYSTEM-2 (PSIS-2)**  
SCALE: N.T.S.

**INVERT CHART**  
INLET ELEVATION: 309.00  
OUTLET ELEVATION: 308.83\*  
\* (8) - 6" OUTLETS

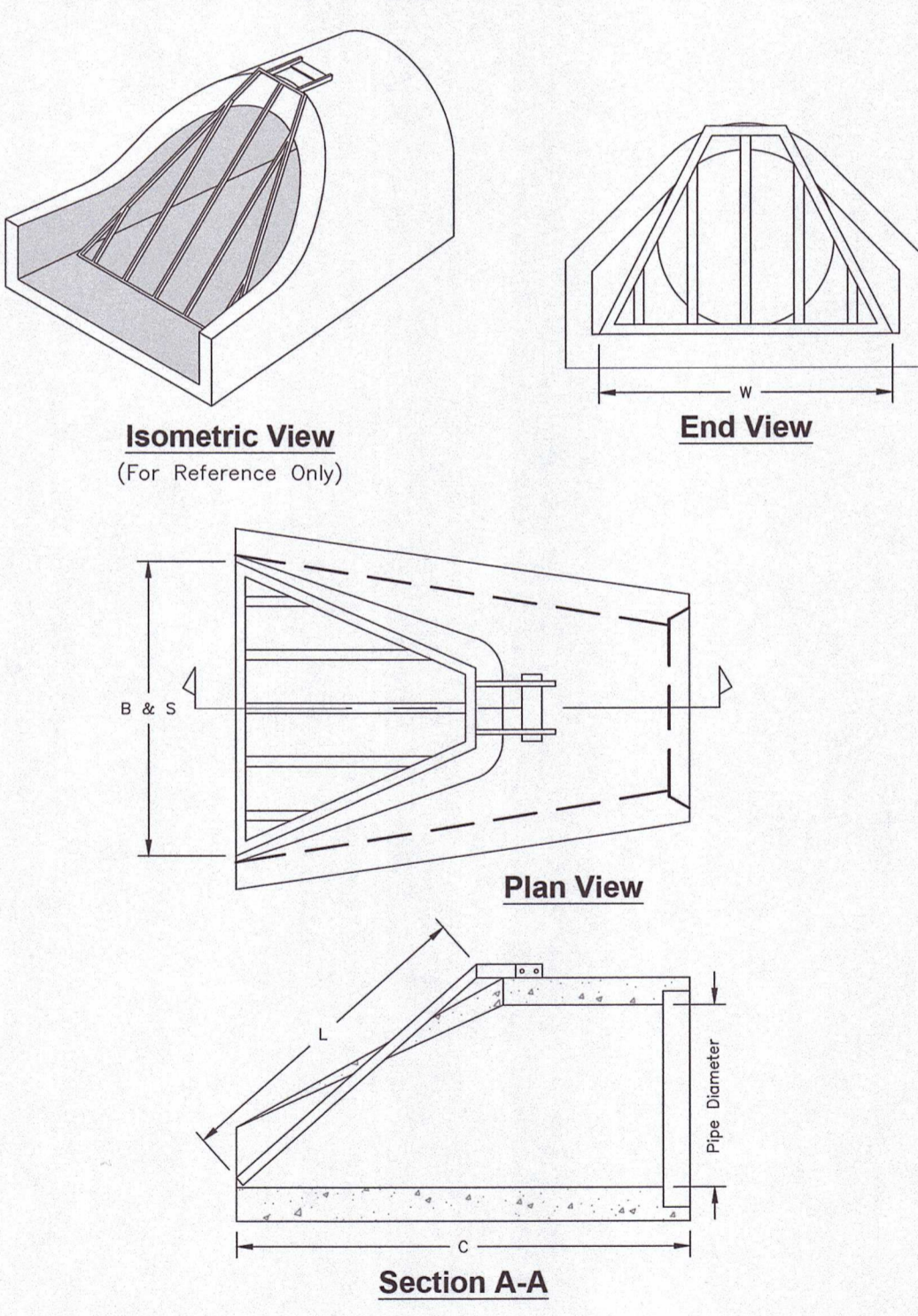
**NOTES:**  
1. INSTALLED CHAMBER LENGTH IS 36.80'.  
2. PROVIDE MINIMUM 4 FEET SEPARATION BETWEEN BOTTOM OF THE 6 INCH DOUBLE WASHED STONE LAYER AND SEASONAL HIGH GROUNDWATER TABLE.  
3. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.  
4. SYSTEM COMPRISED OF 16 ROWS OF 5 CHAMBERS WITH A TOTAL OF 80 CHAMBERS.  
5. CRUSHED STONE SYSTEM FOOTPRINT: 54.83' WIDE x 38.80' LONG.



**SUBSURFACE PIPE INFILTRATION SYSTEM-3 DETAIL (PSIS-3)**  
SCALE: N.T.S.

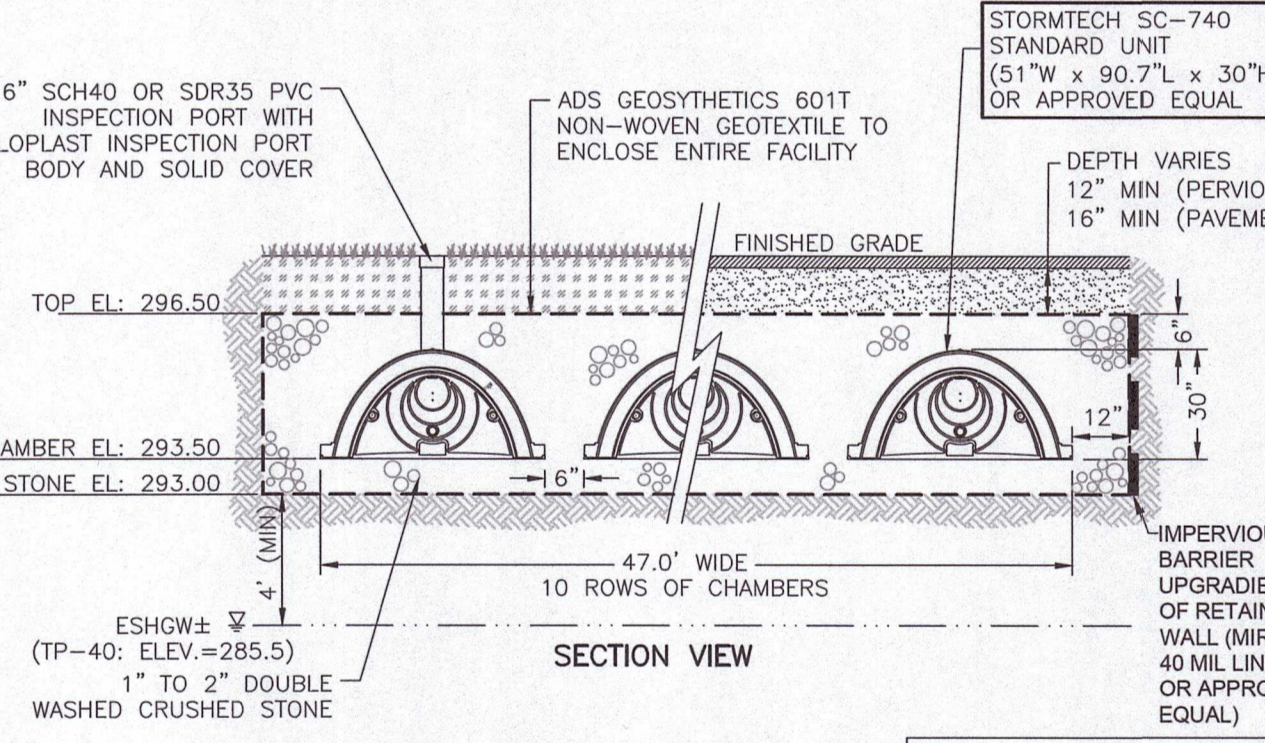
**INVERT CHART**  
INLET ELEVATION: 279.00  
OUTLET ELEVATION: 282.00\*  
\* (2) - 12" OUTLETS

**PSIS-3**  
ROWS OF PIPES: 5  
LENGTH OF PIPE: 144.5'  
WIDTH OF STONE FOOTPRINT: 37.0'  
LENGTH OF STONE FOOTPRINT: 146.5'



Pipe Diameter	Grate Width W (in.)	Grate Length L (in.)	Total # of Bars B	Bar Spacing S (in.)
18"	33.00"	34.00"	3	8.0"
24"	40.00"	47.50"	5	8.0"
30"	55.00"	63.00"	5	9.0"
36"	58.00"	71.25"	6	8.0"

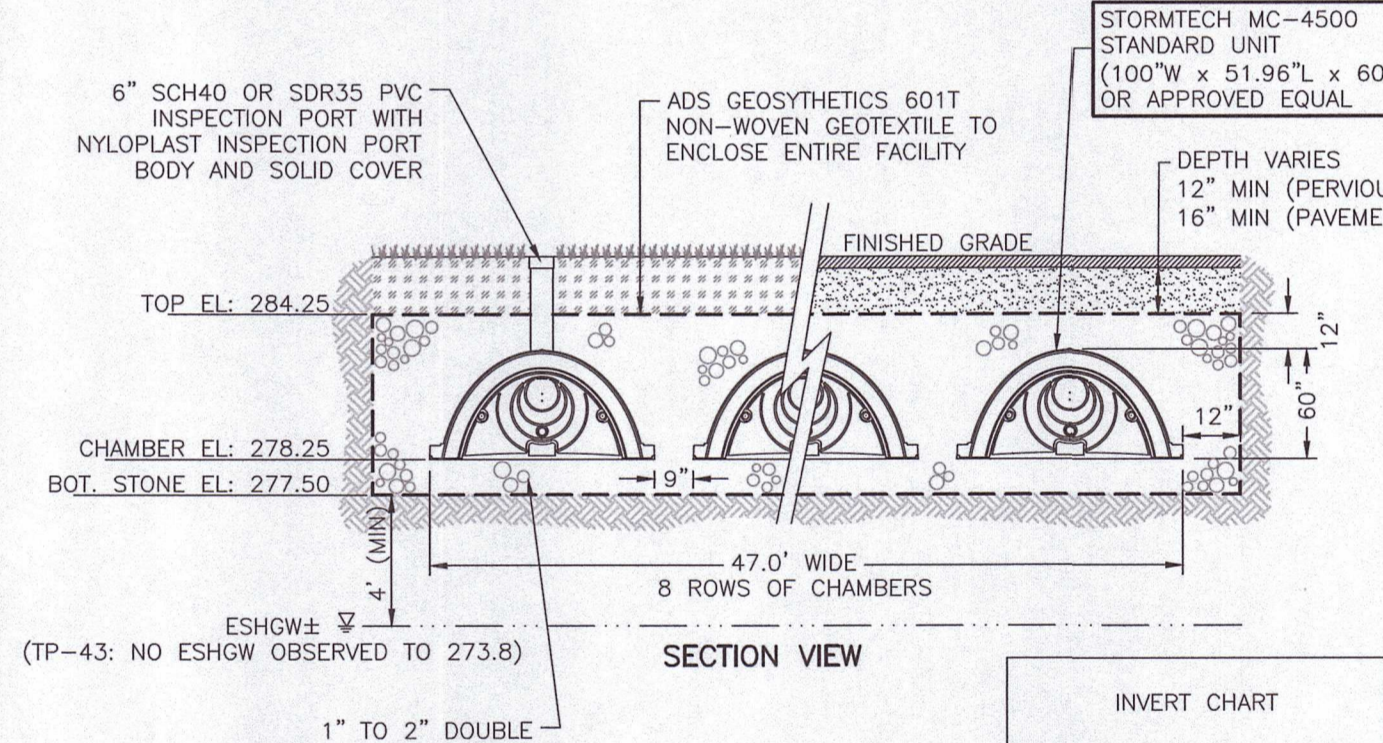
**FLARED END GRATE DETAIL**  
SCALE: N.T.S.



**SUBSURFACE INFILTRATION SYSTEM-1 (PSIS-1)**  
SCALE: N.T.S.

**INVERT CHART**  
INLET ELEVATION: 294.00  
OUTLET ELEVATION: 295.00\*  
\* (1) - 12" OUTLET

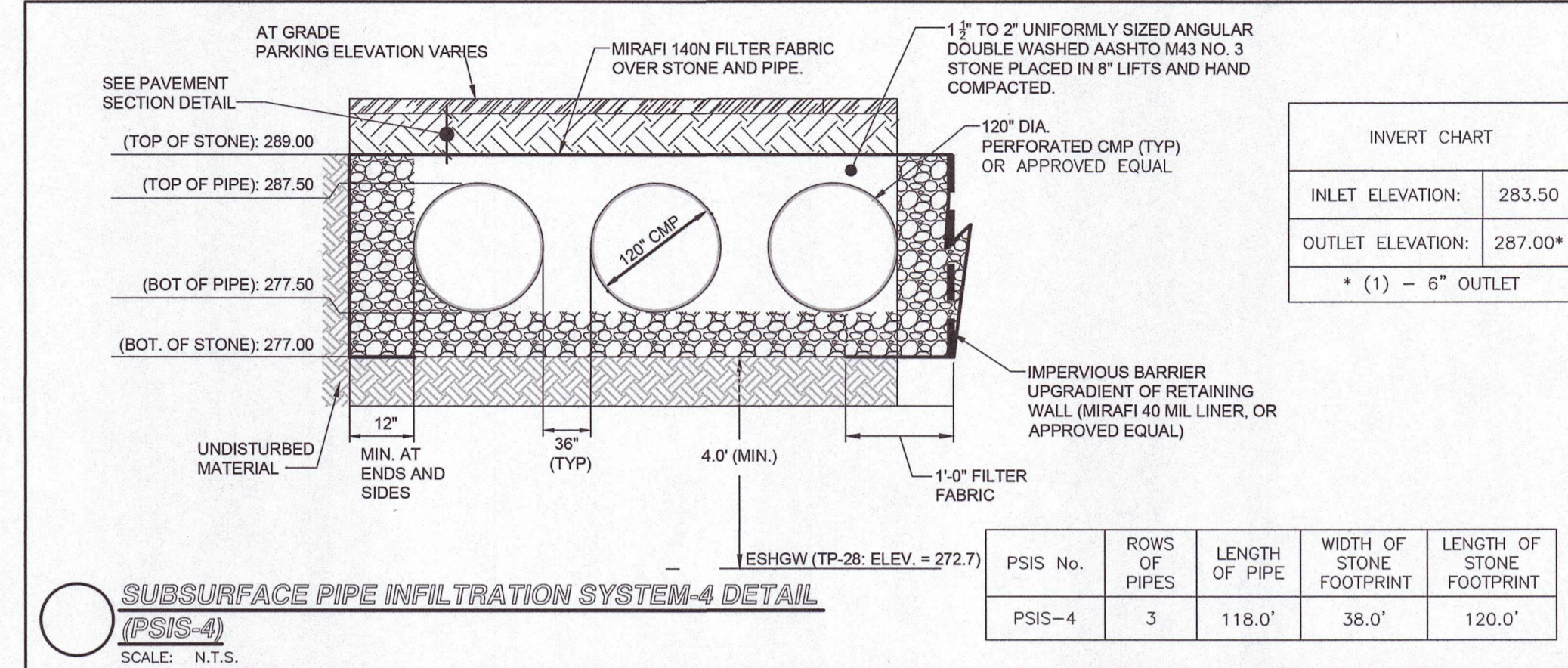
**NOTES:**  
1. INSTALLED CHAMBER LENGTH IS 22.98'.  
2. PROVIDE MINIMUM 4 FEET SEPARATION BETWEEN BOTTOM OF THE 6 INCH DOUBLE WASHED STONE LAYER AND SEASONAL HIGH GROUNDWATER TABLE.  
3. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.  
4. SYSTEM COMPRISED OF 10 ROWS OF 3 CHAMBERS WITH A TOTAL OF 30 CHAMBERS.  
5. CRUSHED STONE SYSTEM FOOTPRINT: 49.00' WIDE x 24.98' LONG.



**SUBSURFACE INFILTRATION SYSTEM-6 (PSIS-6)**  
SCALE: N.T.S.

**INVERT CHART**  
INLET ELEVATION: 279.25  
OUTLET ELEVATION: 284.00\*  
\* (1) - 12" OUTLET

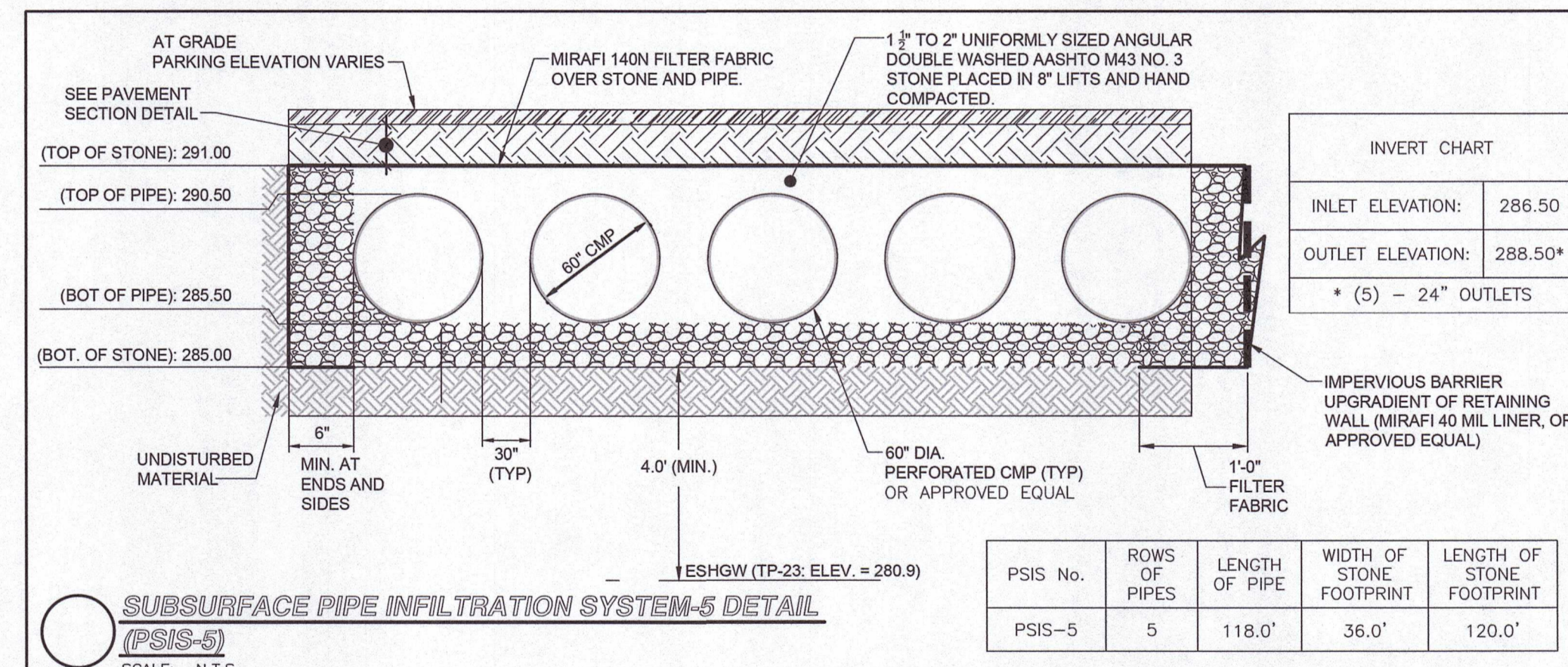
**NOTES:**  
1. INSTALLED CHAMBER LENGTH IS 22.98'.  
2. PROVIDE MINIMUM 4 FEET SEPARATION BETWEEN BOTTOM OF THE 6 INCH DOUBLE WASHED STONE LAYER AND SEASONAL HIGH GROUNDWATER TABLE.  
3. REMOVE ALL TOPSOIL AND SUBSOIL IN AREA OF PROPOSED INFILTRATION FACILITY AND REPLACE WITH SAND CONFORMING TO 310 CMR 15.255(3), MASSACHUSETTS STATE ENVIRONMENTAL CODE, TITLE 5 AS NECESSARY IN FILL CONDITIONS.  
4. SYSTEM COMPRISED OF 8 ROWS OF 5 CHAMBERS WITH A TOTAL OF 40 CHAMBERS.  
5. CRUSHED STONE SYSTEM FOOTPRINT: 73.92' WIDE x 27.59' LONG.



**SUBSURFACE PIPE INFILTRATION SYSTEM-4 DETAIL (PSIS-4)**  
SCALE: N.T.S.

**INVERT CHART**  
INLET ELEVATION: 283.50  
OUTLET ELEVATION: 287.00\*  
\* (1) - 6" OUTLET

**PSIS-4**  
ROWS OF PIPES: 3  
LENGTH OF PIPE: 118.0'  
WIDTH OF STONE FOOTPRINT: 38.0'  
LENGTH OF STONE FOOTPRINT: 120.0'



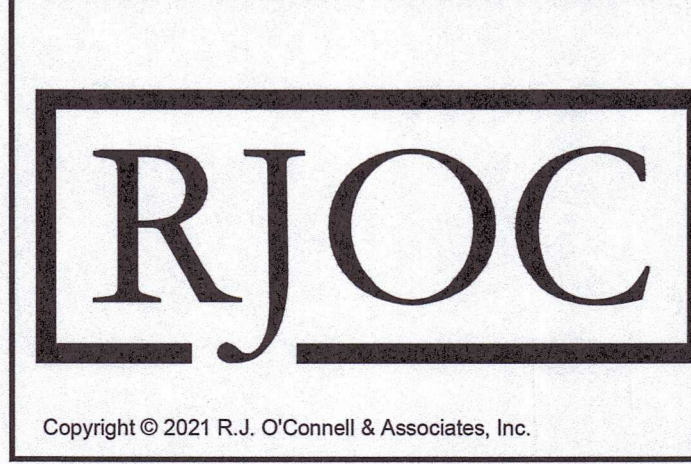
**SUBSURFACE PIPE INFILTRATION SYSTEM-5 DETAIL (PSIS-5)**  
SCALE: N.T.S.

**INVERT CHART**  
INLET ELEVATION: 286.50  
OUTLET ELEVATION: 288.50\*  
\* (5) - 24" OUTLETS

**PSIS-5**  
ROWS OF PIPES: 5  
LENGTH OF PIPE: 118.0'  
WIDTH OF STONE FOOTPRINT: 36.0'  
LENGTH OF STONE FOOTPRINT: 120.0'

NOT FOR CONSTRUCTION

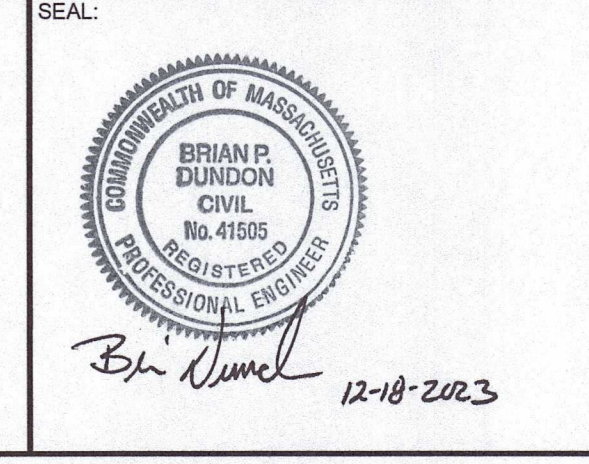
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Dec-16, 2023 - 12:39pm



NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:  
**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAintree, MA 02184



PREPARED BY:  
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CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180  
PHONE: 781.279.0180 RJOCONNELL.COM

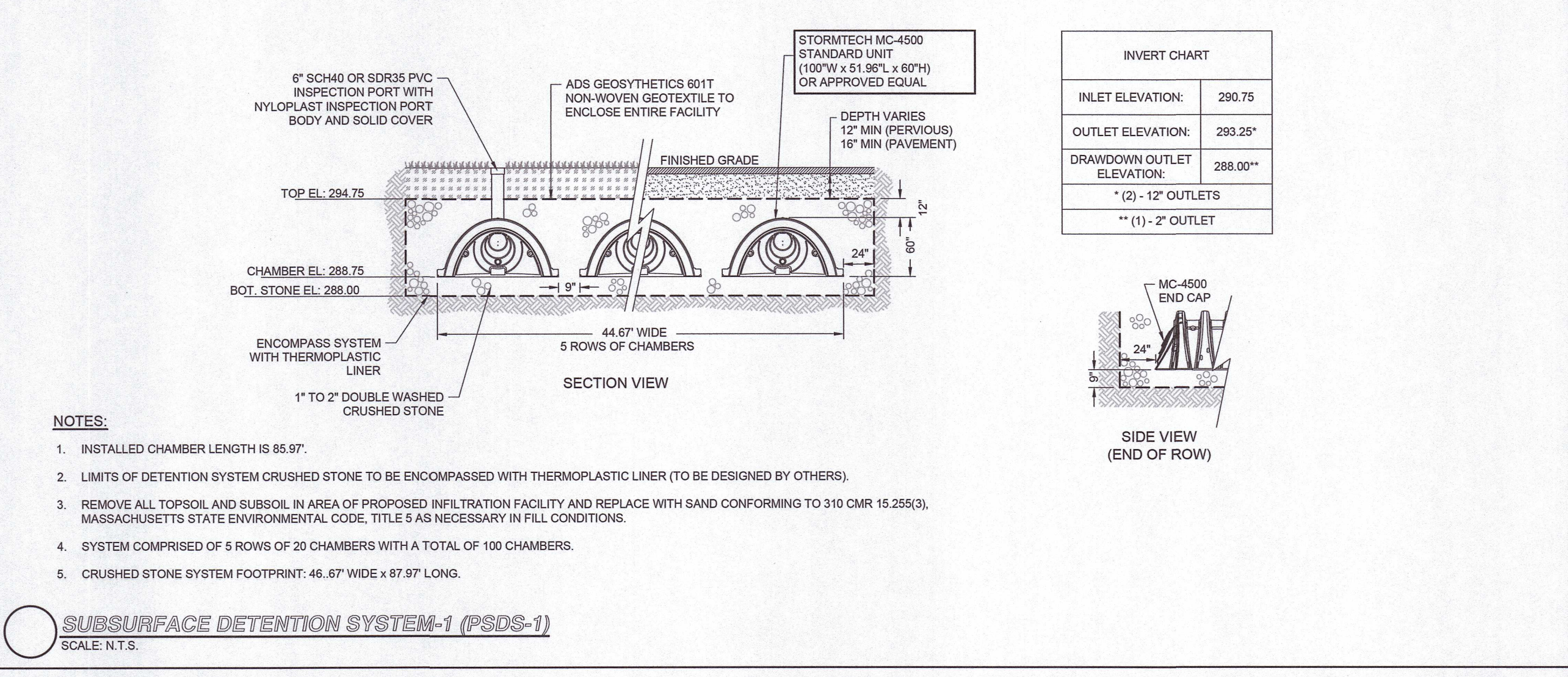
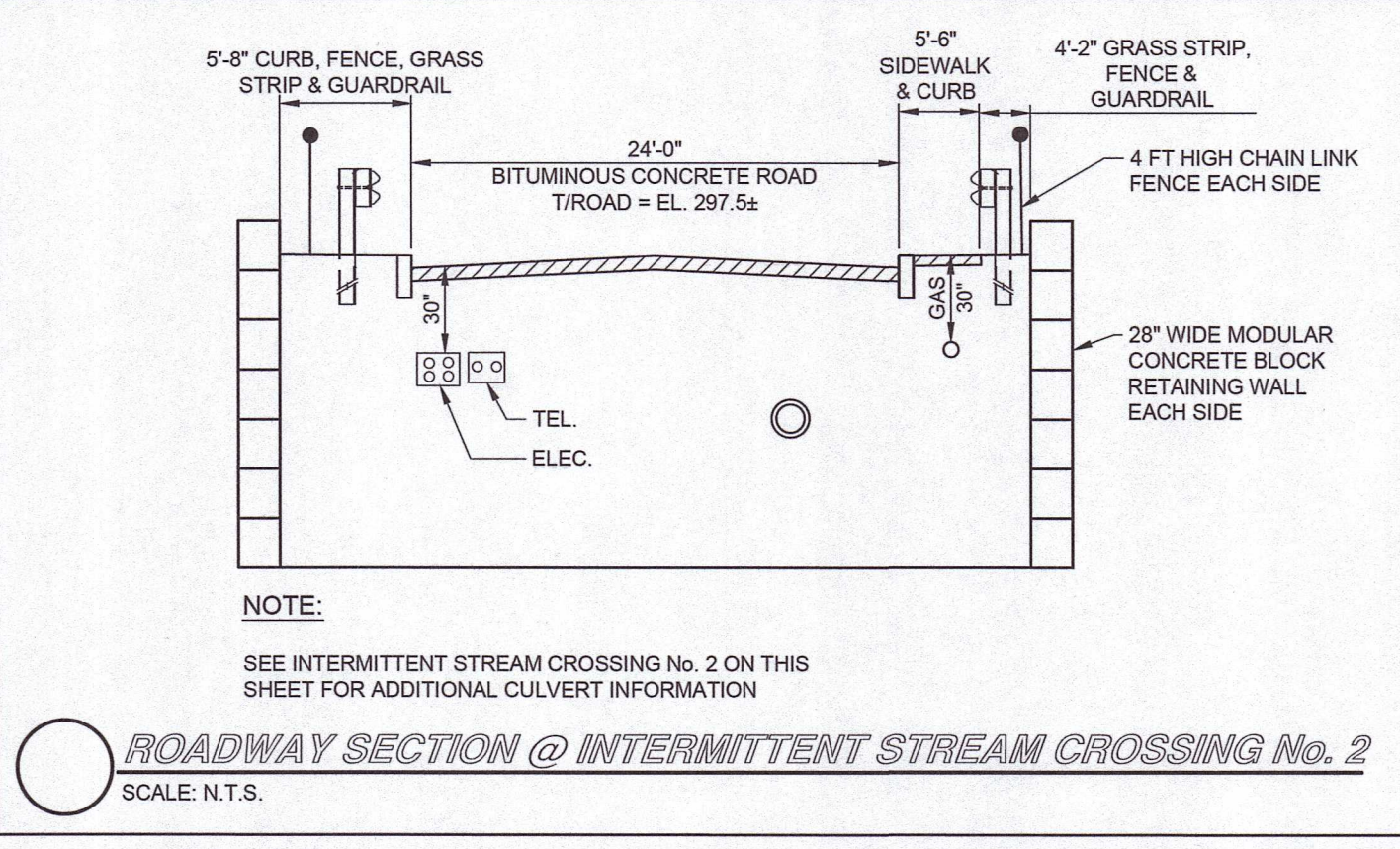
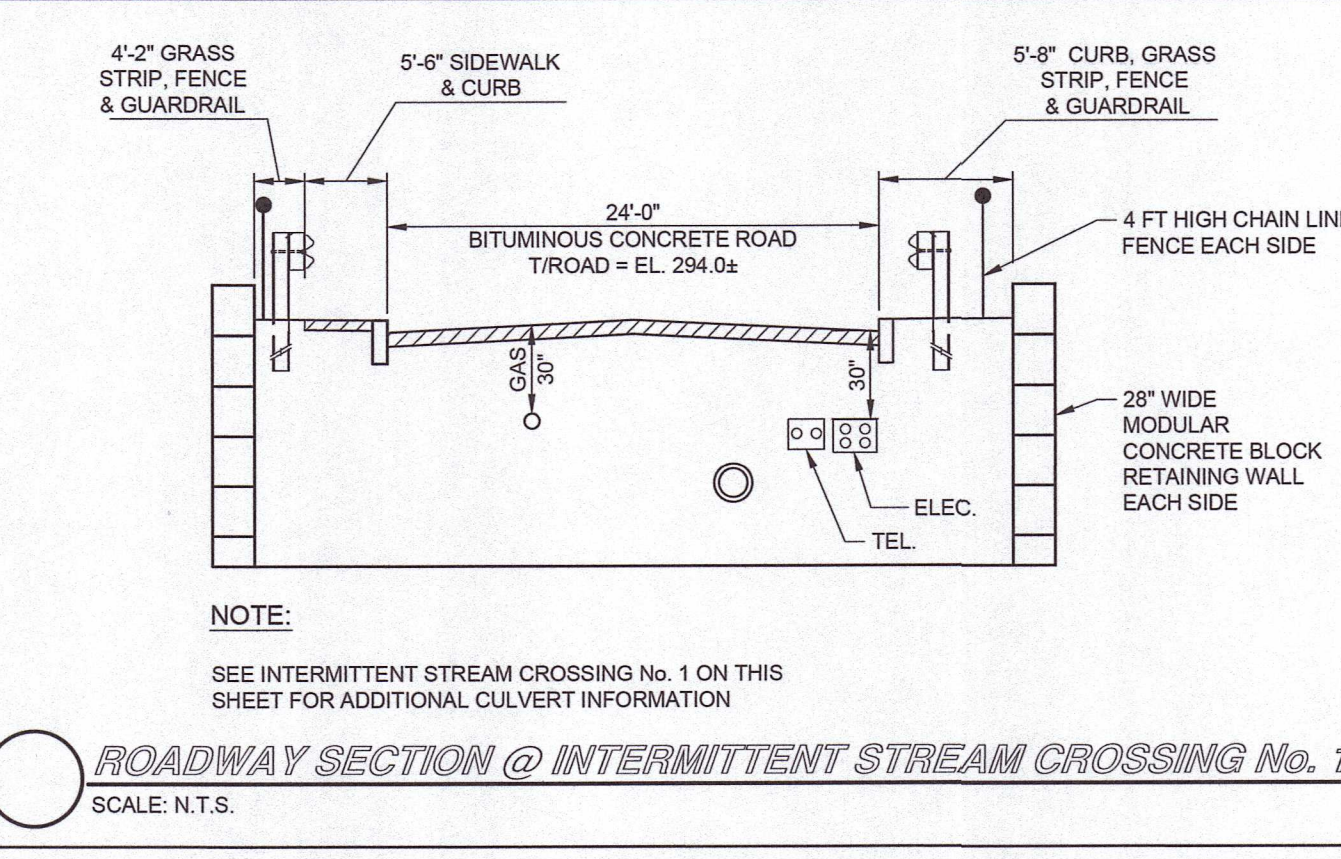
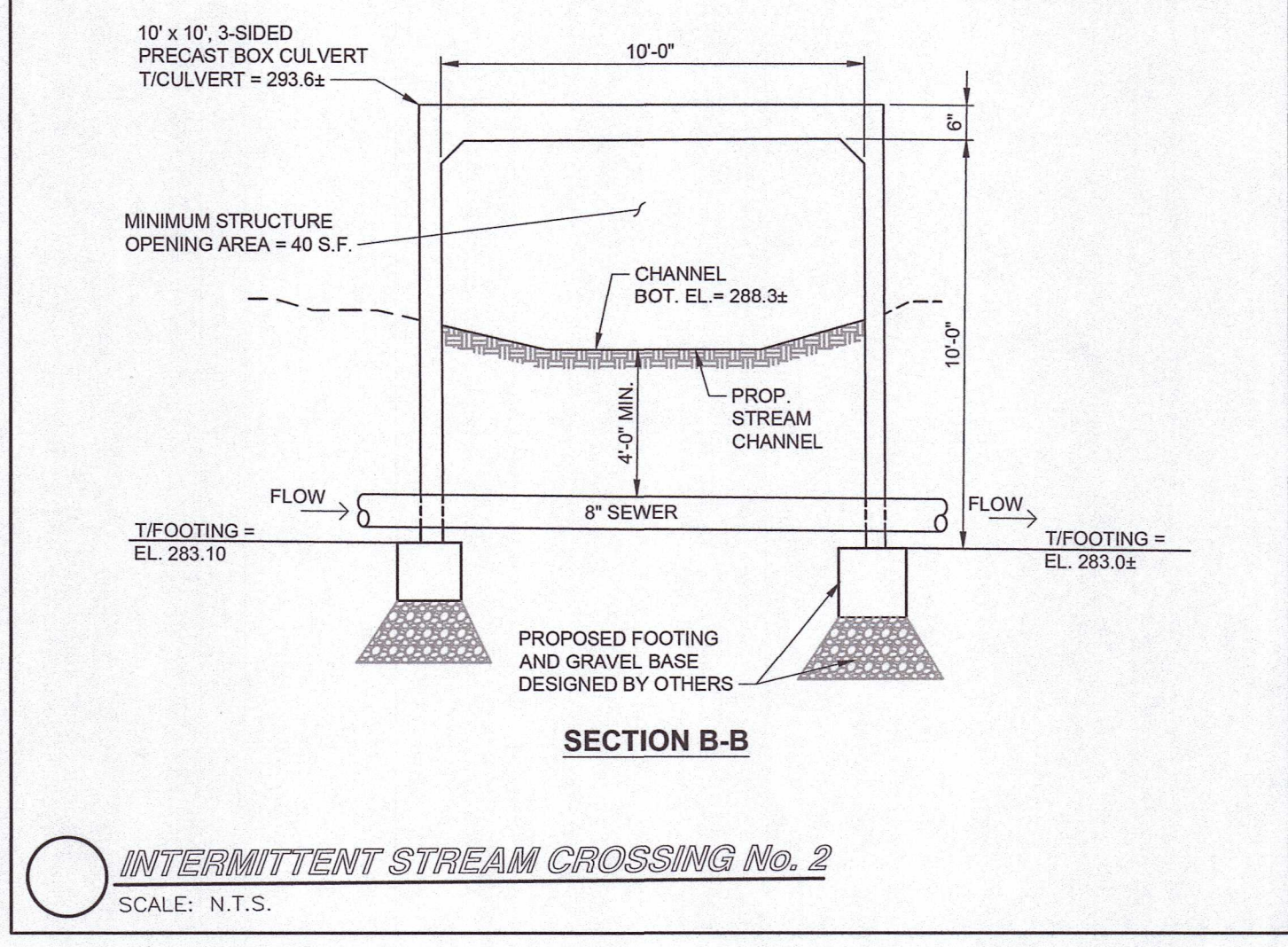
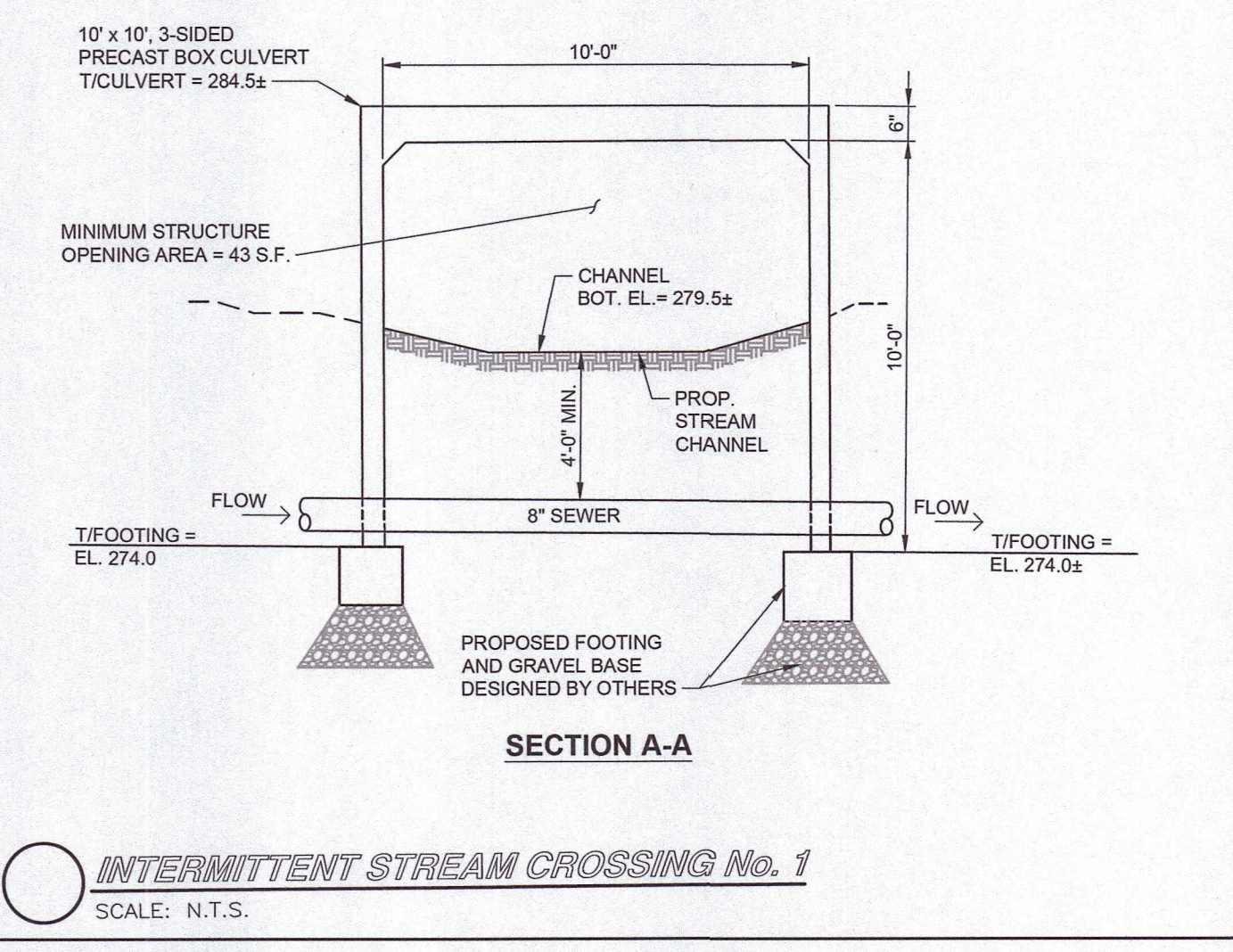
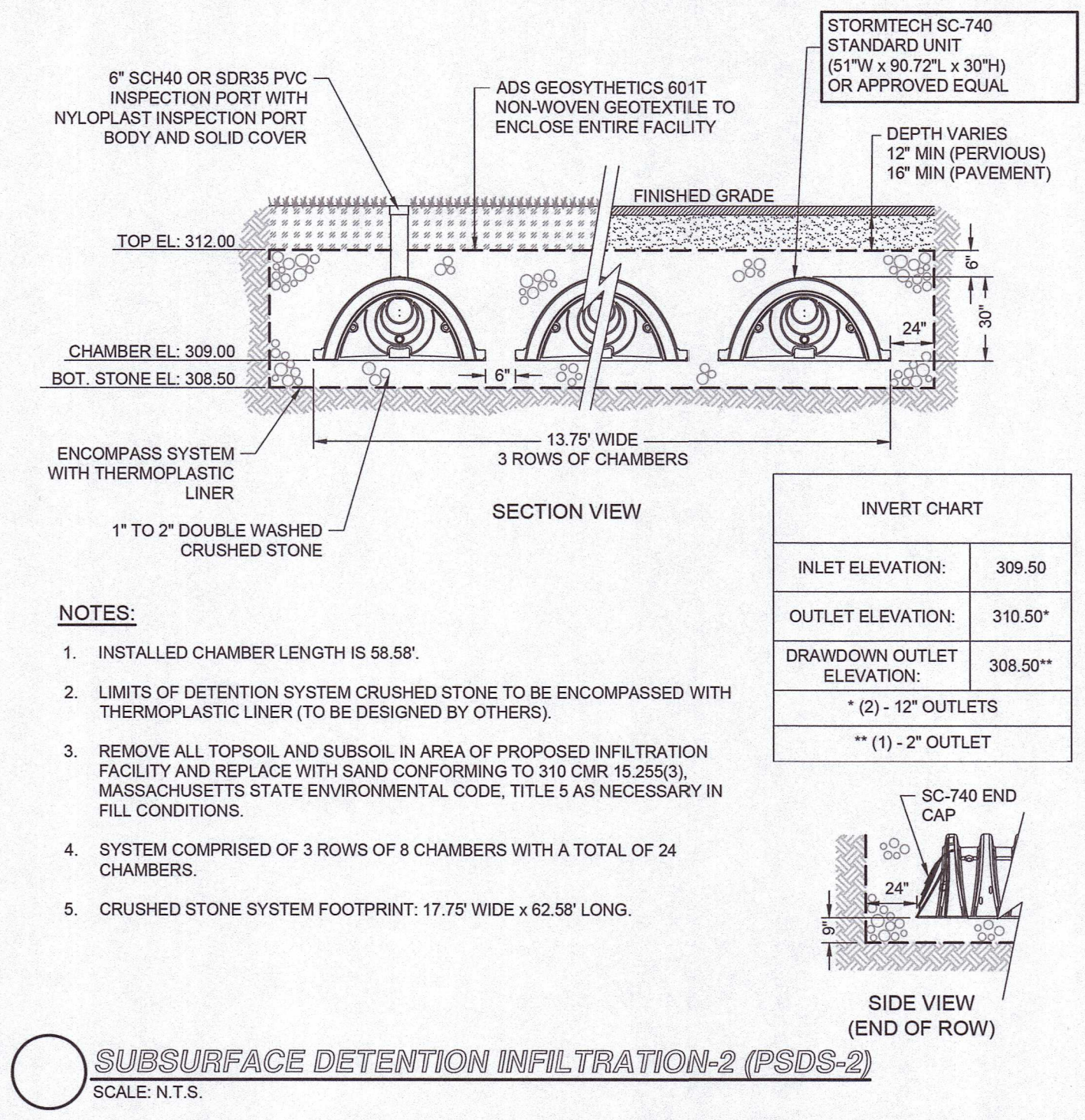
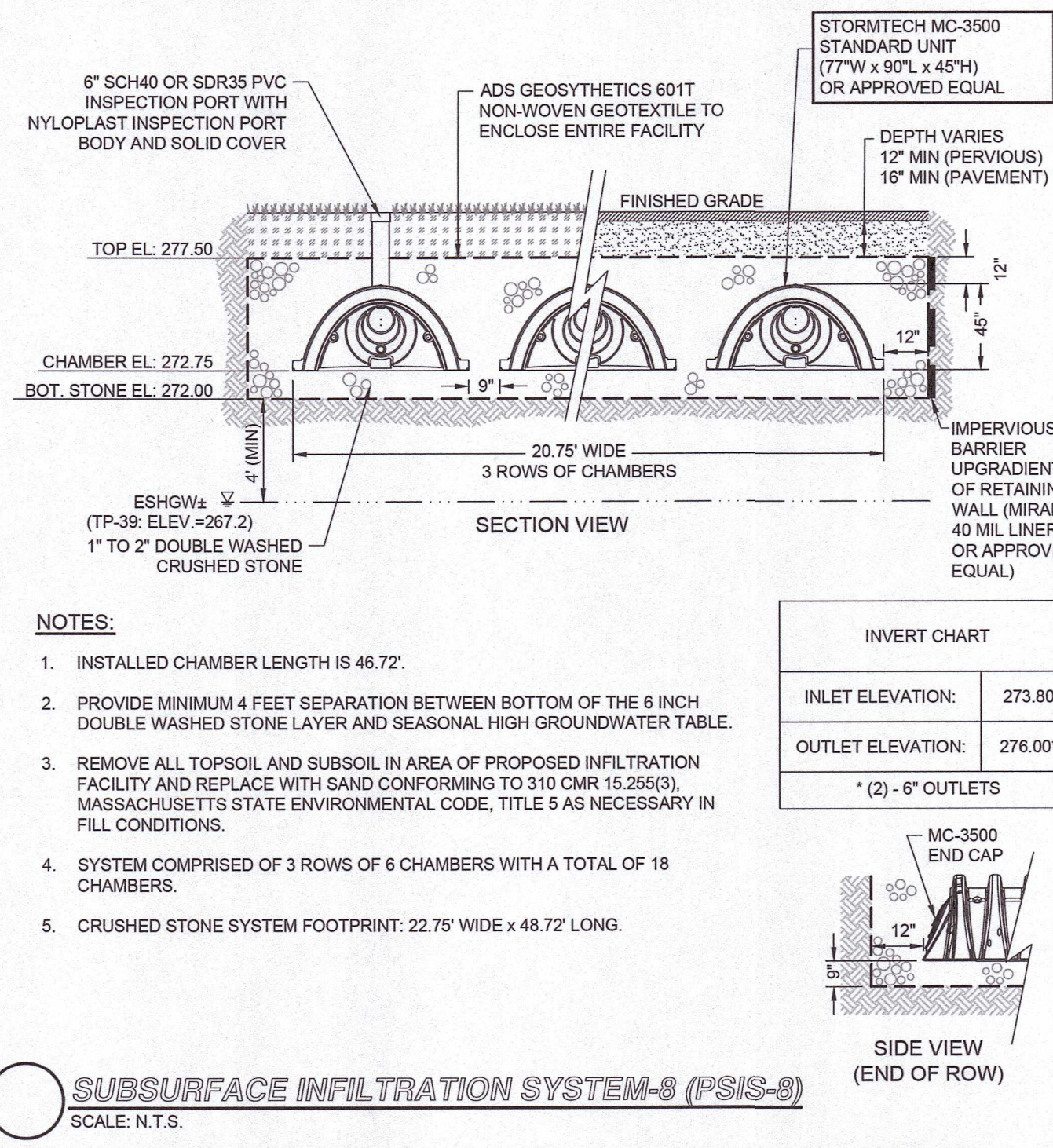
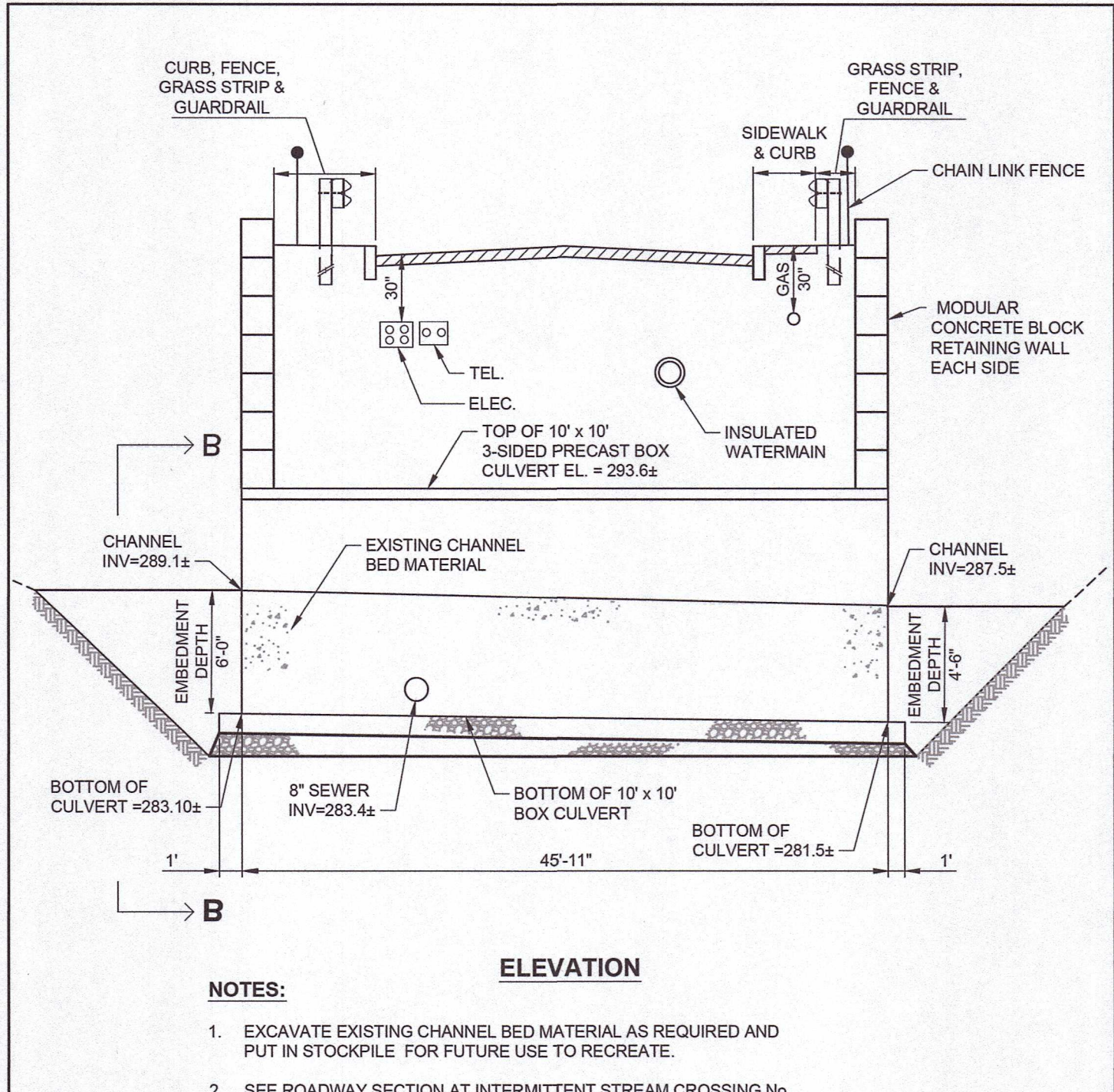
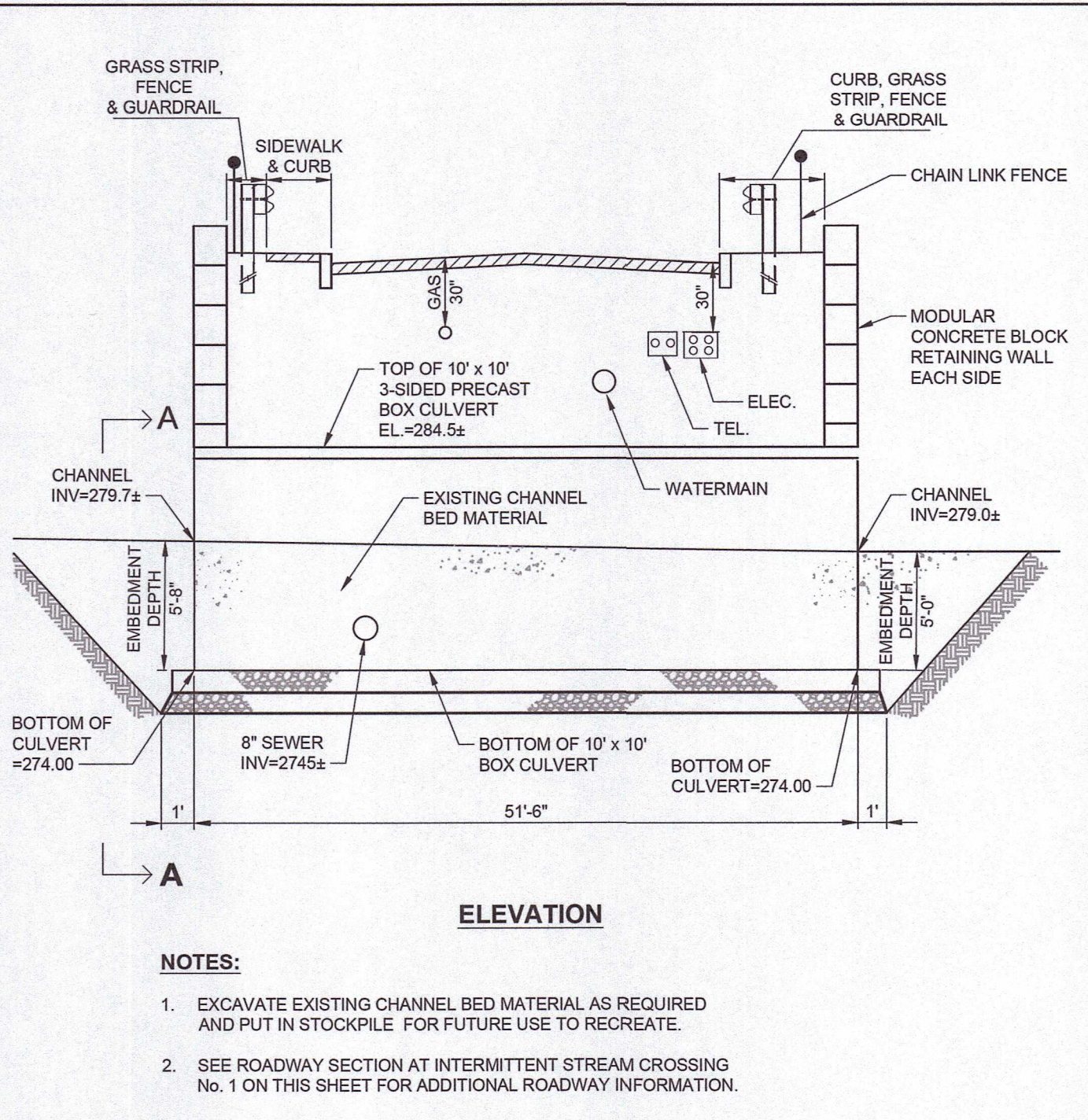
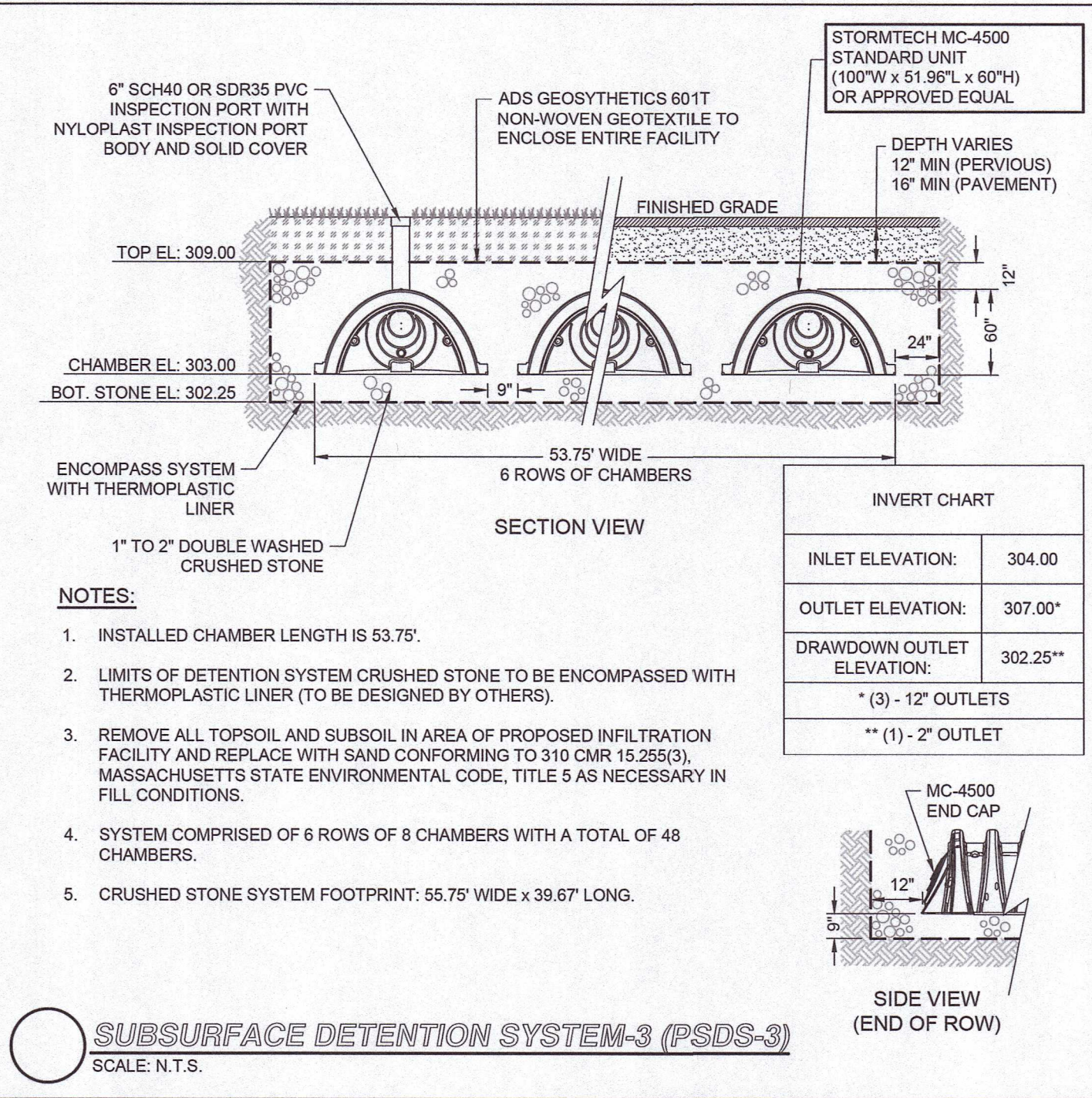
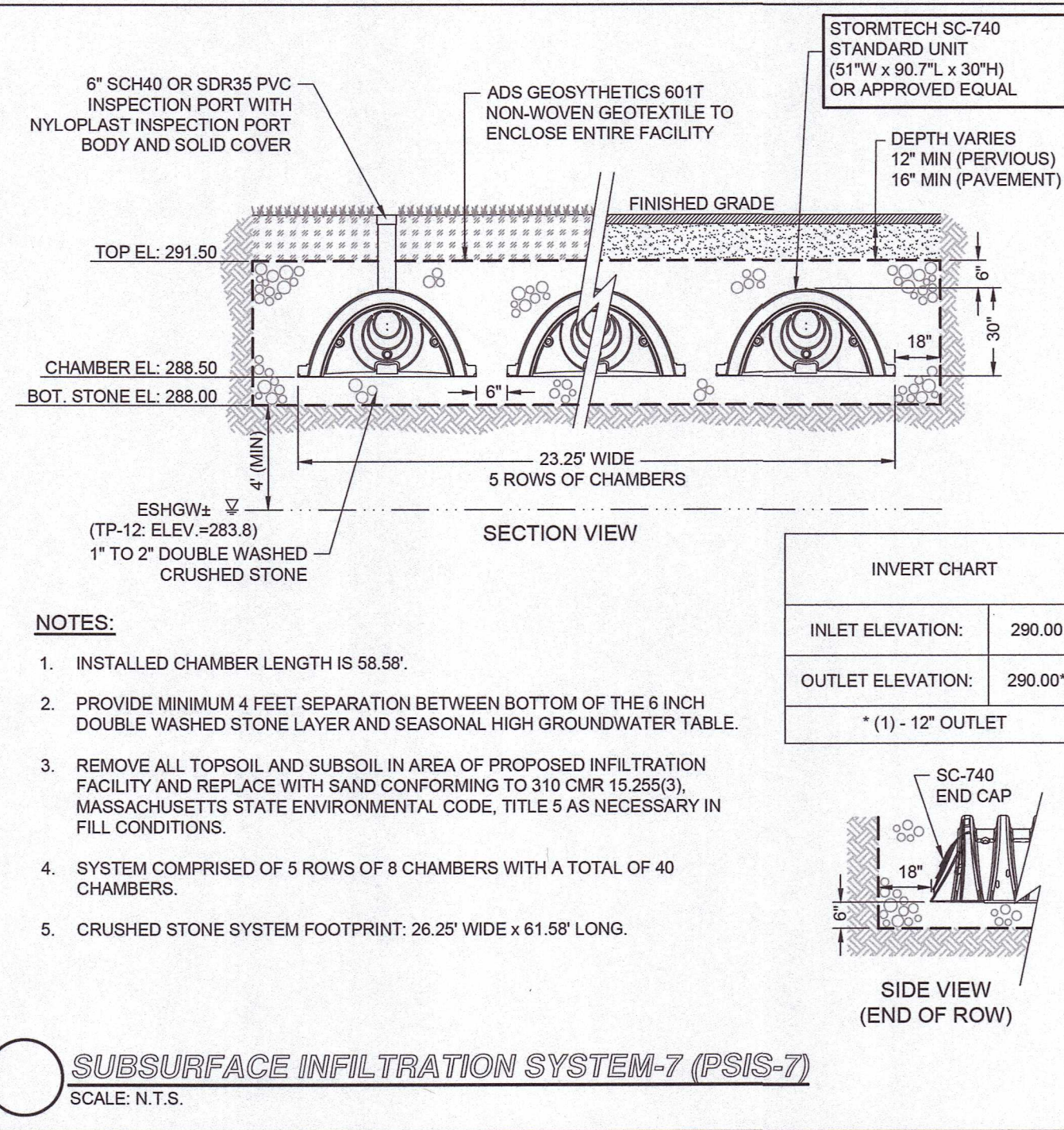
PROJECT NAME:  
**GROVE STREET RESIDENCES**  
FRANKLIN, MA

DRAWING NAME:  
**SITE DETAILS - IV**

DRAWING NUMBER:  
**C-8**

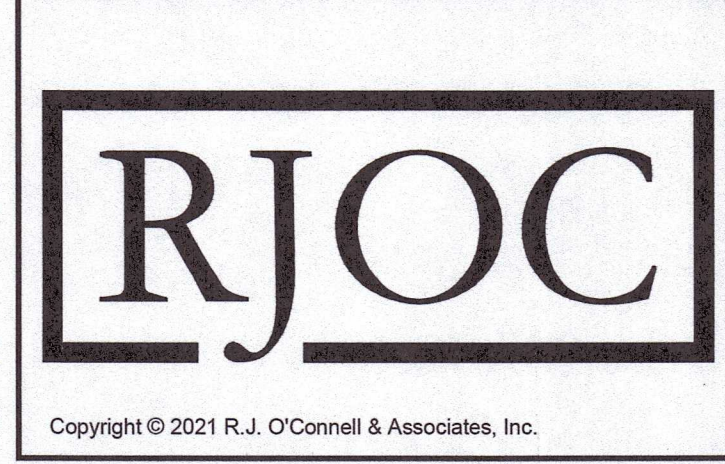
DATE: 10/30/2023  
PROJECT NO.: 22016





**NOT FOR CONSTRUCTION**

Drawing name: G:\Main\Franklin\Fairfield Residential\121 Grove Street\Main\2016\_C-9 Site Details - V.dwg  
Dec 19, 2023 - 7:17am

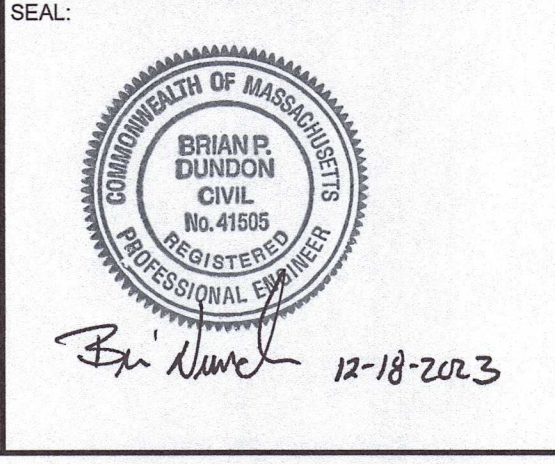


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DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:

**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAINTREE, MA 02184



PREPARED BY:

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CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALE AVENUE, SUITE 201 STONEMAM, MA 02180  
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:

**GROVE STREET RESIDENCES**  
FRANKLIN, MA

DRAWING NAME:

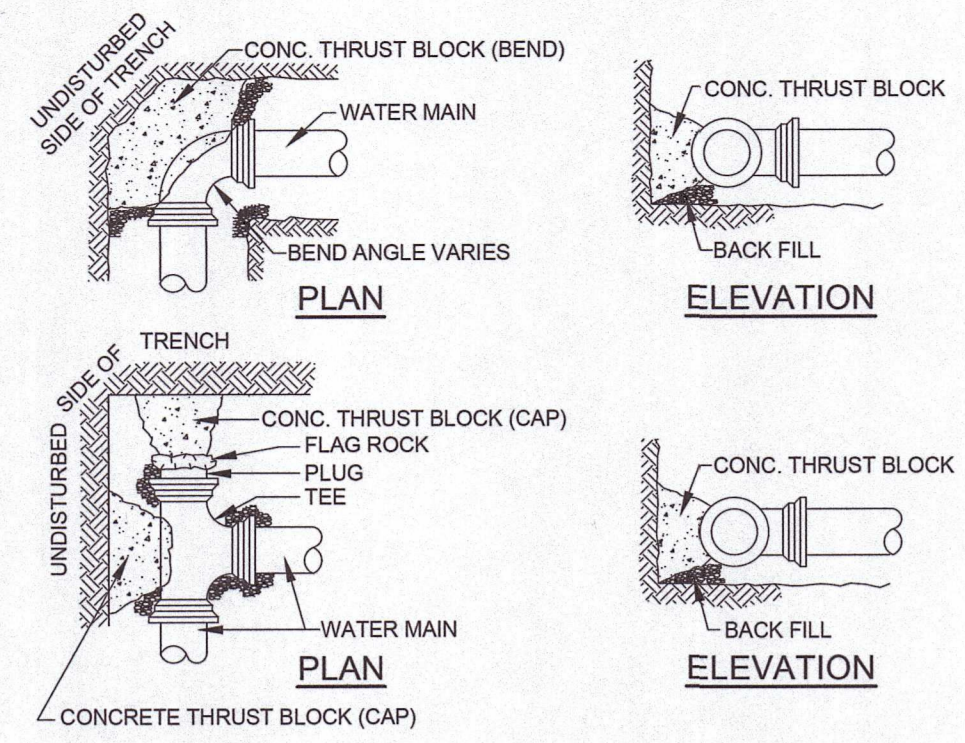
**SITE DETAILS - V**

DRAWING NUMBER:

**C-9**

DATE: 10/30/2023 PROJECT NO.: 22016



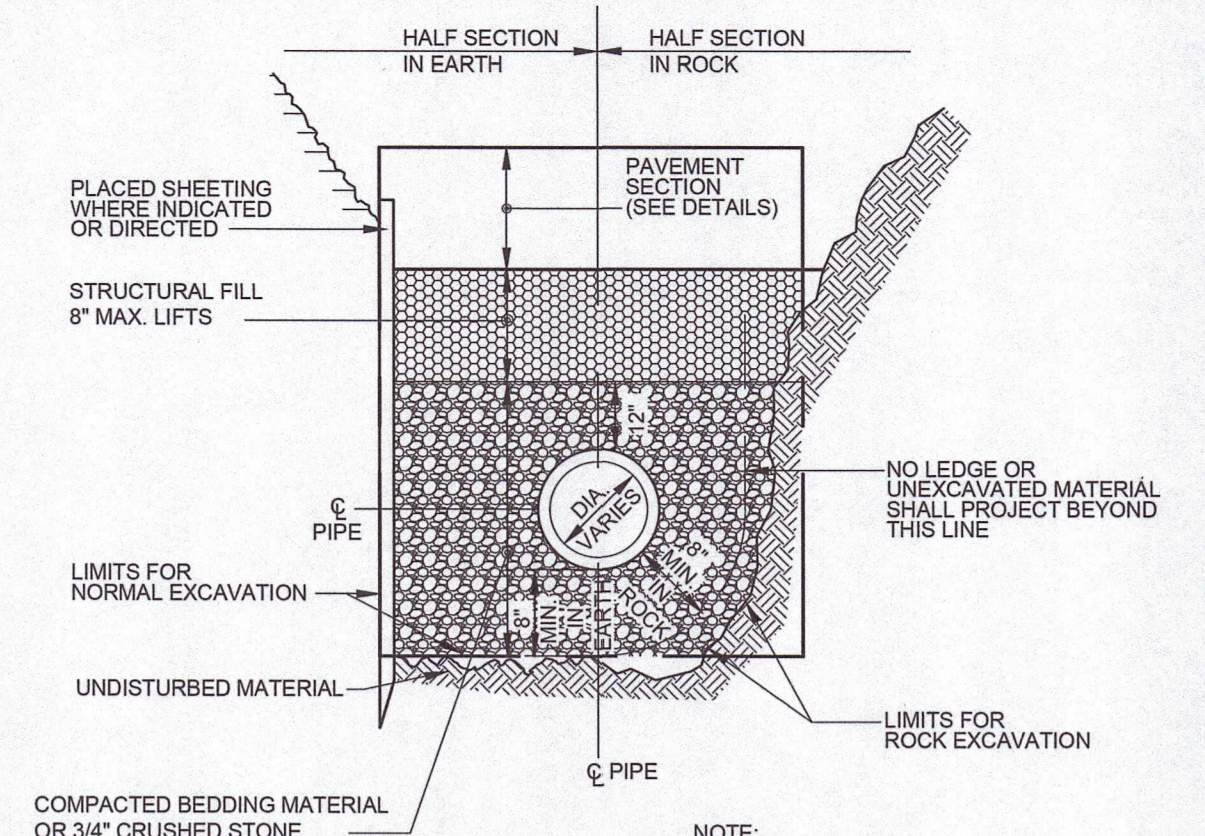


MINIMUM THRUST BLOCKING BEARING AREAS IN SQUARE FEET

PIPE DIA.	TEES/CAP/HYD.	90° BEND	45° BEND	22.5° BEND	11.25° BEND
4"	2	2	2	2	1
6"	4	4	3	3	1
8"	6	8	5	2	1
10"	9	13	7	3	2
12"	13	18	10	4	3
14"	18	25	14	6	4
16"	23	32	18	8	6

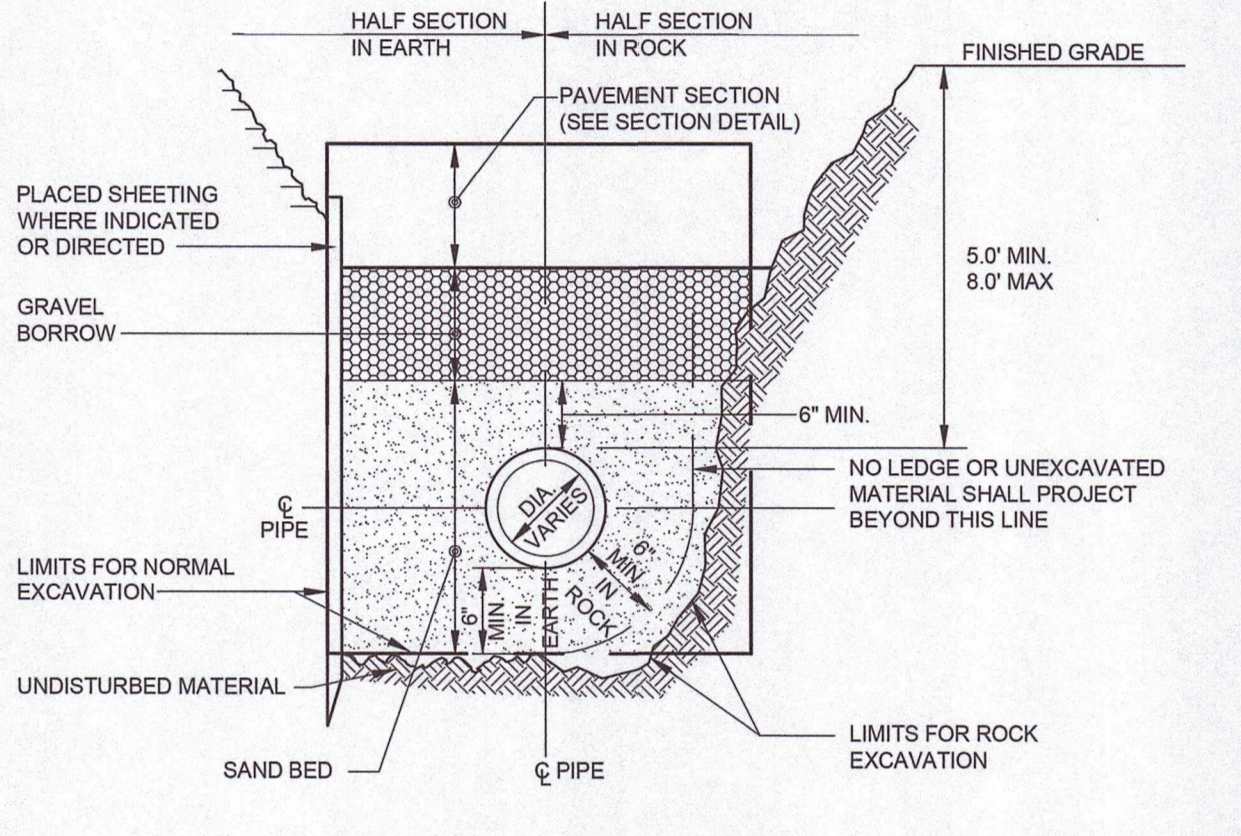
- NOTES:
- ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED W/ THRUST BLOCKS EXCEPT WHERE NOTED.
  - ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
  - SIZE OF CONCRETE THRUST BLOCKS AS NOTED BELOW.
  - MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 4,000 P.S.I.
  - MINIMUM BEARING AREA BASED ON 2000 LBS/ SF ALLOWABLE SOIL BEARING PRESSURE WITH A 1.5 SAFETY FACTOR.
  - A MINIMUM OF 1/3 CUBIC YARD OF CONCRETE MUST BE USED FOR THRUST BLOCKS
  - MATERIALS, METHOD INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S WATER/SEWER DEPARTMENT'S SPECIFICATIONS.

**TYPICAL THRUST BLOCK DETAIL**  
SCALE: N.T.S.



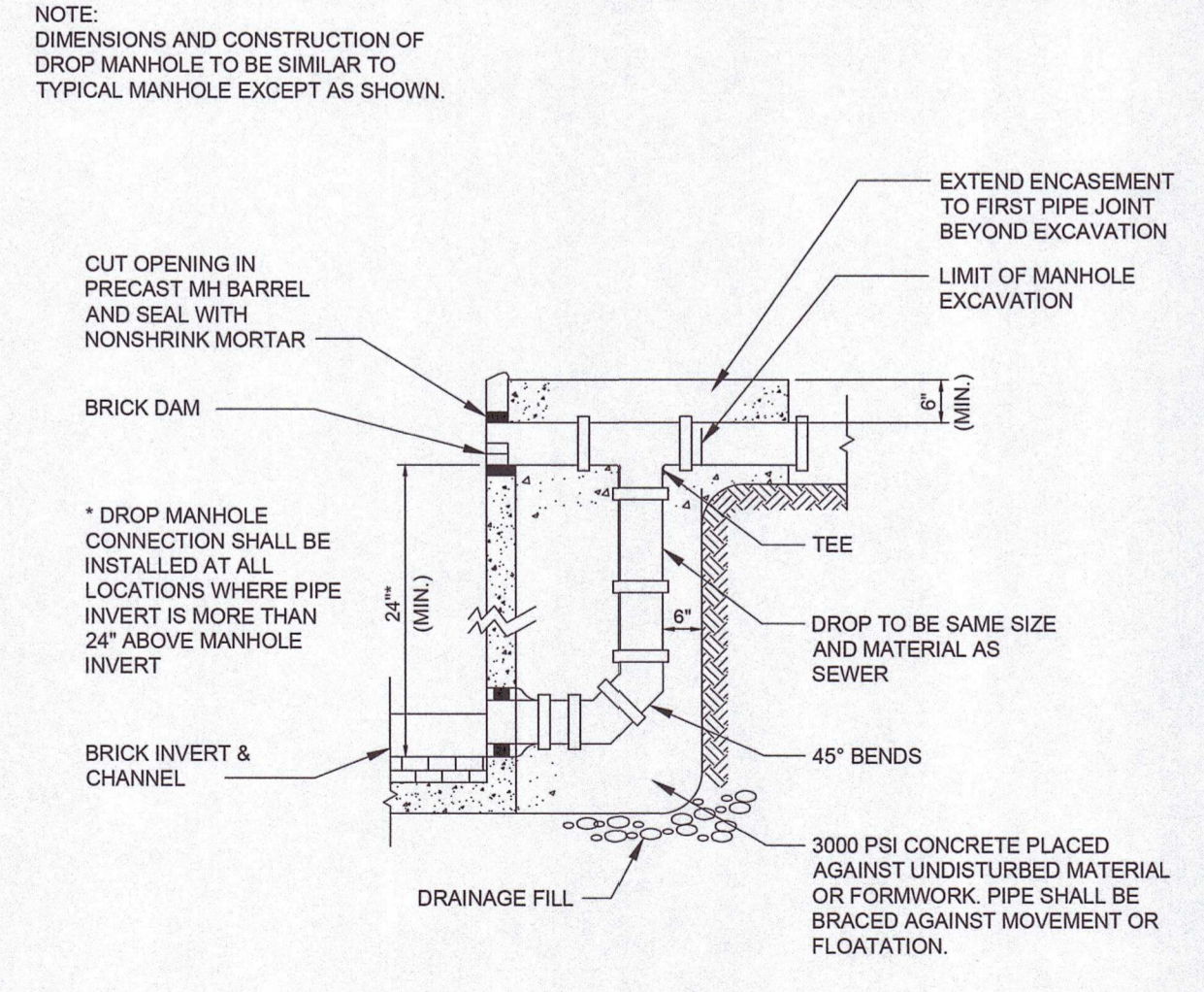
- NOTE:
- METHODS OF INSTALLATION MUST MEET OR EXCEED THE TOWN OF FRANKLIN'S SEWER DEPARTMENT AND PIPE MANUFACTURERS SPECIFICATIONS.
  - ALL BUILDING SEWERS AND SEWER LINES SHALL HAVE A METALLIC TRACE TAPE IN THE TRENCH ONE FOOT BELOW FINISHED GRADE.

**TYPICAL SEWER TRENCH DETAIL**  
SCALE: N.T.S.

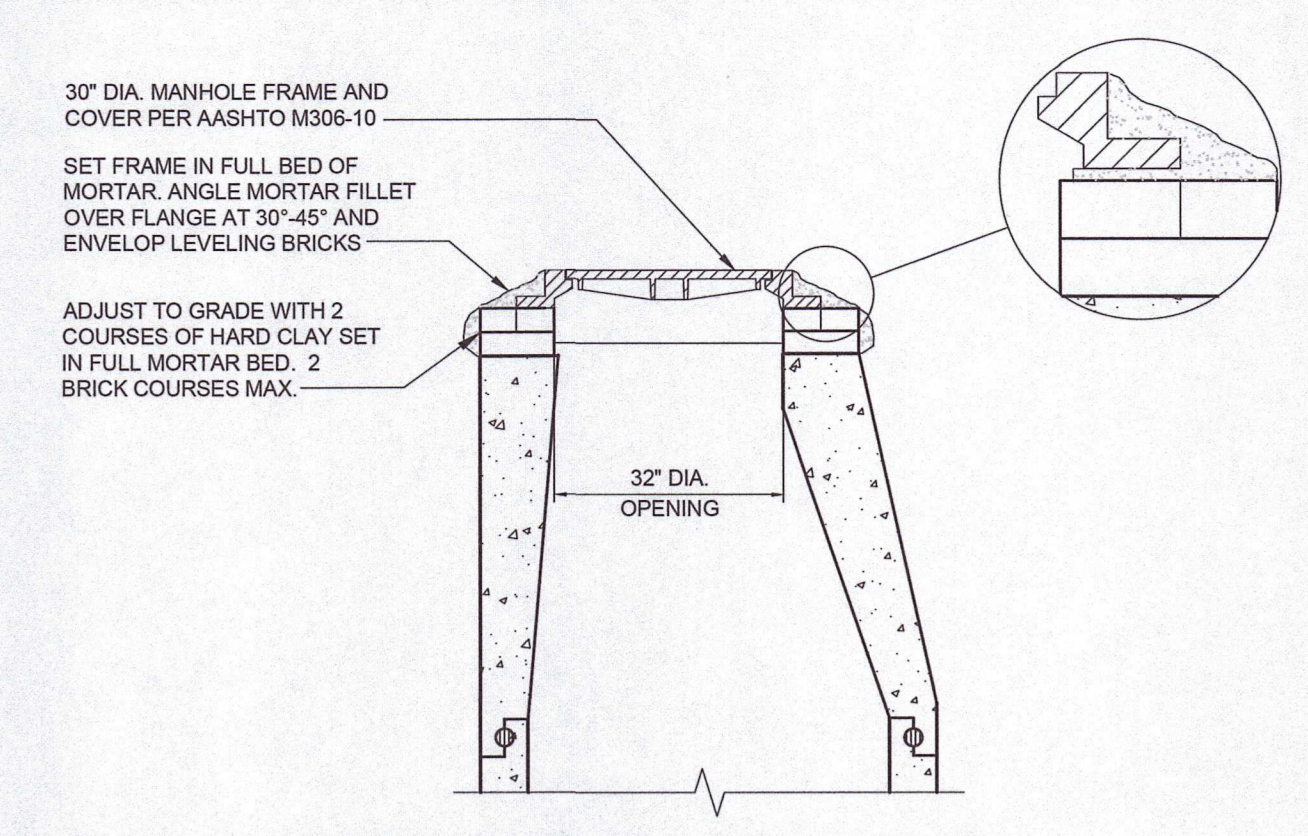


- NOTE:
- WHERE MORE STRINGENT, CONTRACTOR SHALL COMPLY WITH LOCAL REQUIREMENTS.

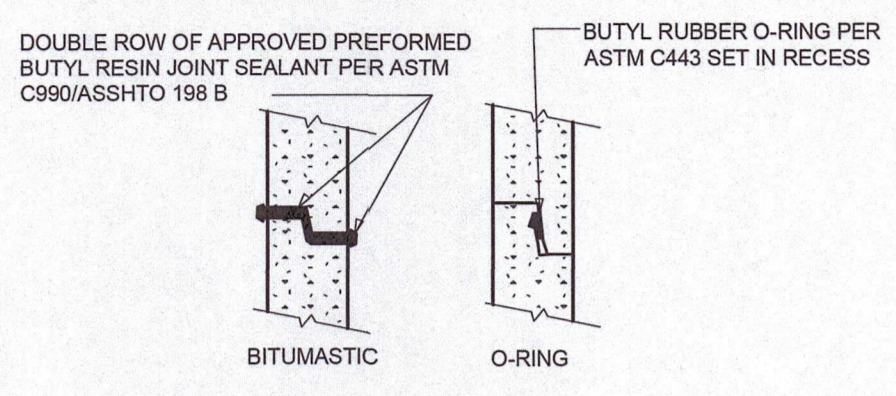
**TYPICAL WATER TRENCH DETAIL**  
SCALE: N.T.S.



**TYPICAL EXTERIOR DROP SEWER MANHOLE CONNECTION DETAIL**  
SCALE: N.T.S.

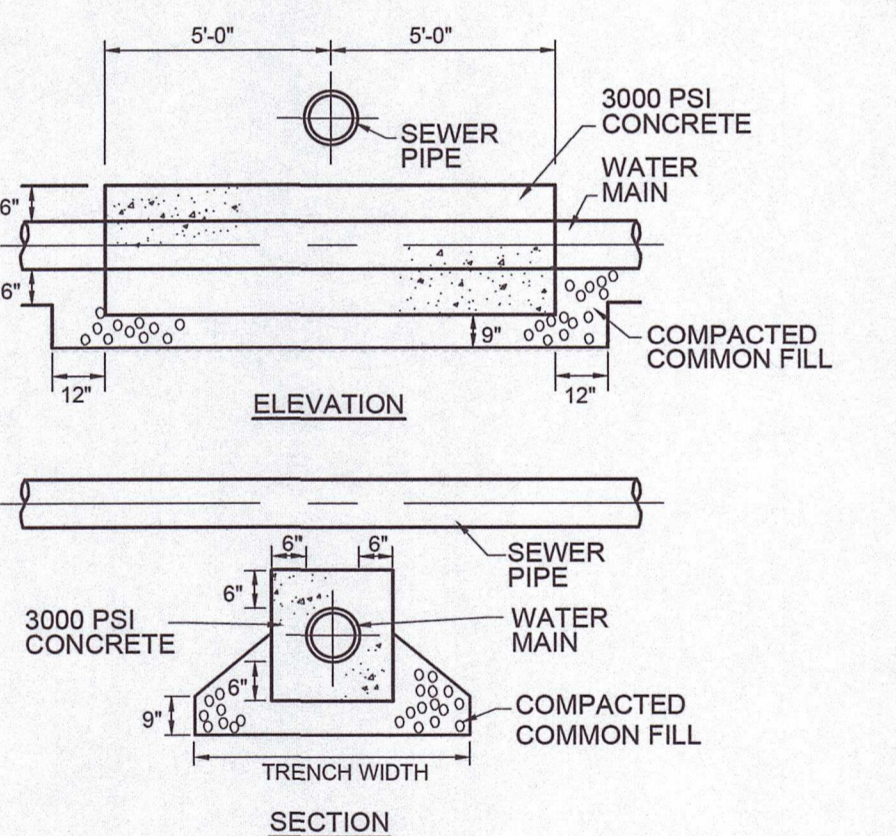


**PRECAST CONCRETE SEWER MANHOLE (SMH) CASTING DETAIL**  
SCALE: N.T.S.

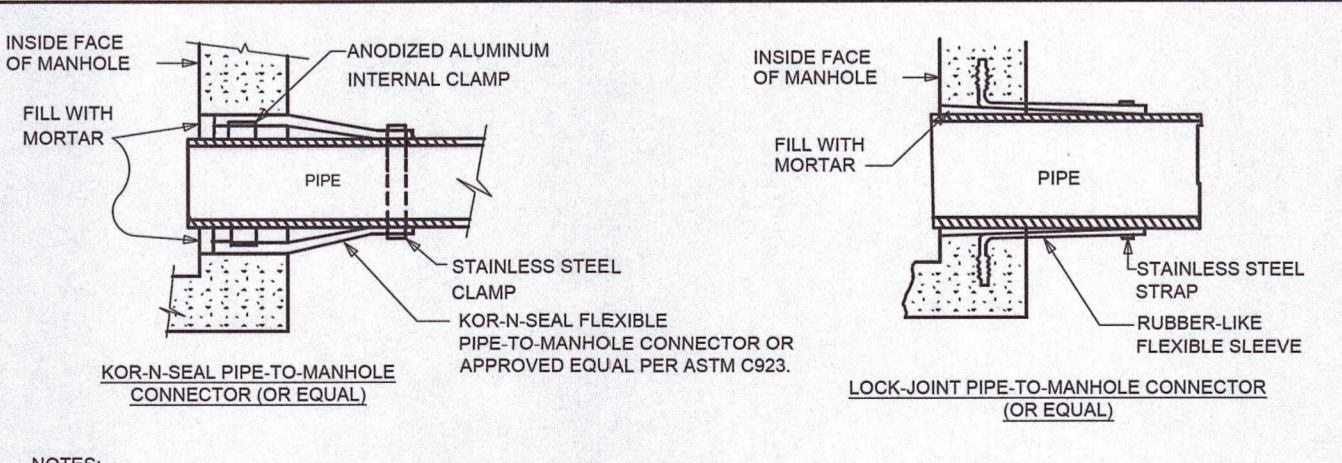


- NOTES:
- HORIZONTAL JOINTS BETWEEN PRECAST CONCRETE MANHOLE SECTIONS SHALL BE OF A TYPE APPROVED BY THE ENGINEER. JOINTS SHALL BE MADE WATERTIGHT WITH A BUTYL RUBBER O-RING PER ASTM C443 OR A DOUBLE ROW OF BUTYL RESIN JOINT SEALANT IN ROPE FORM CONFORMING TO AASHTO 198 B/ASTM C990.
  - ALL GASKETS AND SEALANTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS
  - FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
  - MATERIALS AND METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S SPECIFICATIONS.

**DETAIL 'A' SEWER MANHOLE JOINTING METHODS**  
SCALE: N.T.S.

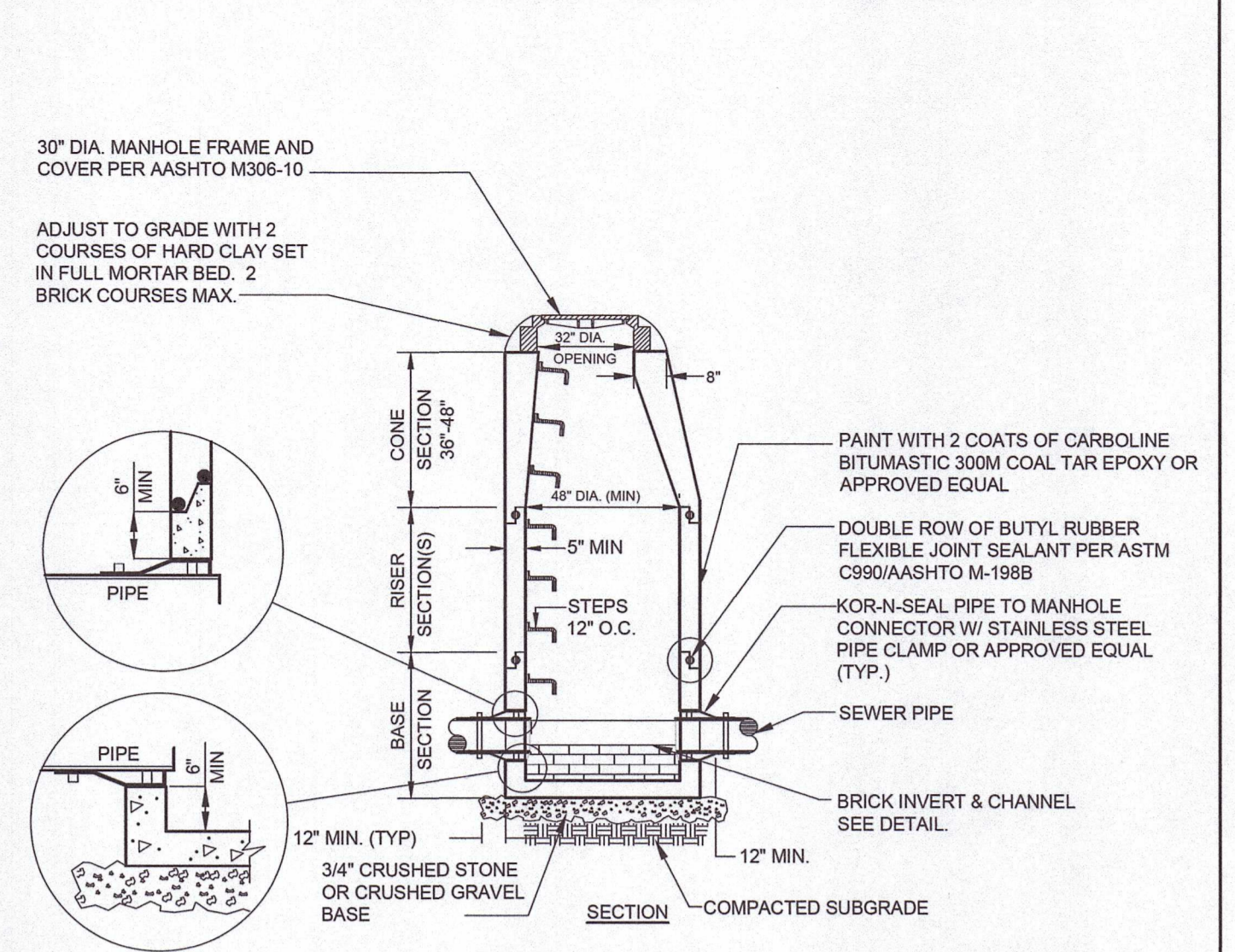


**CONCRETE ENCASEMENT DETAIL**  
SCALE: N.T.S.



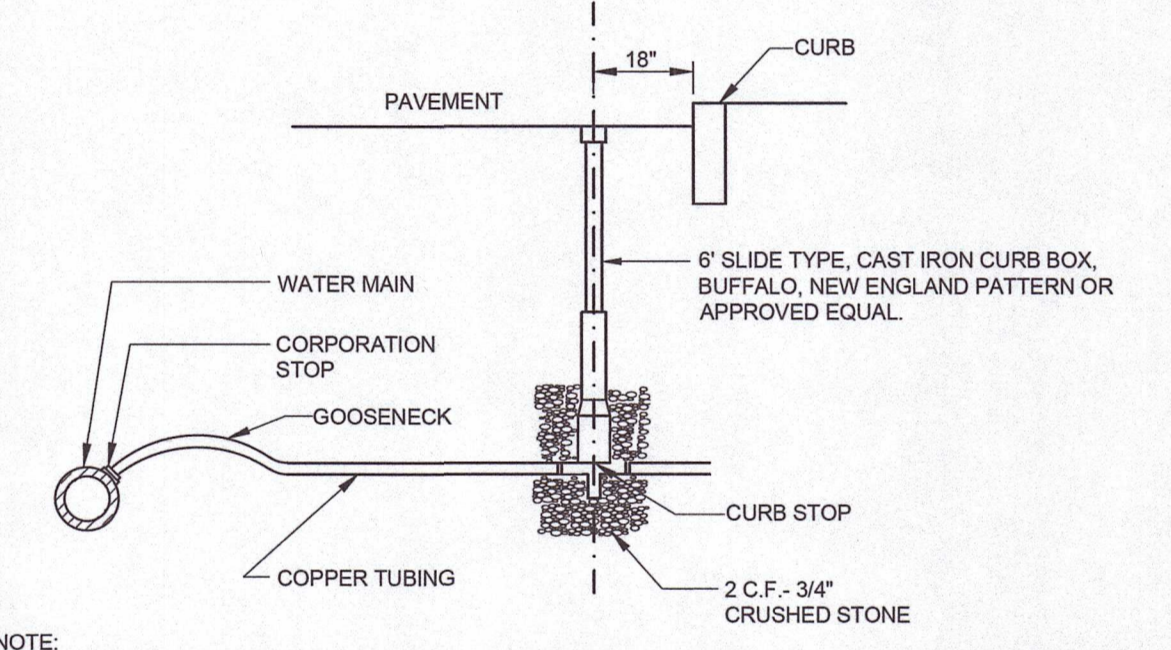
- NOTES:
- PIPE TO MANHOLE CONNECTIONS SHALL BE ONLY AS APPROVED BY THE ENGINEER AND SHALL BE WATERTIGHT.
  - MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO TOWN OF FRANKLIN'S SPECIFICATIONS.

**PIPE CONNECTIONS TO SEWER MANHOLE DETAIL**  
SCALE: N.T.S.



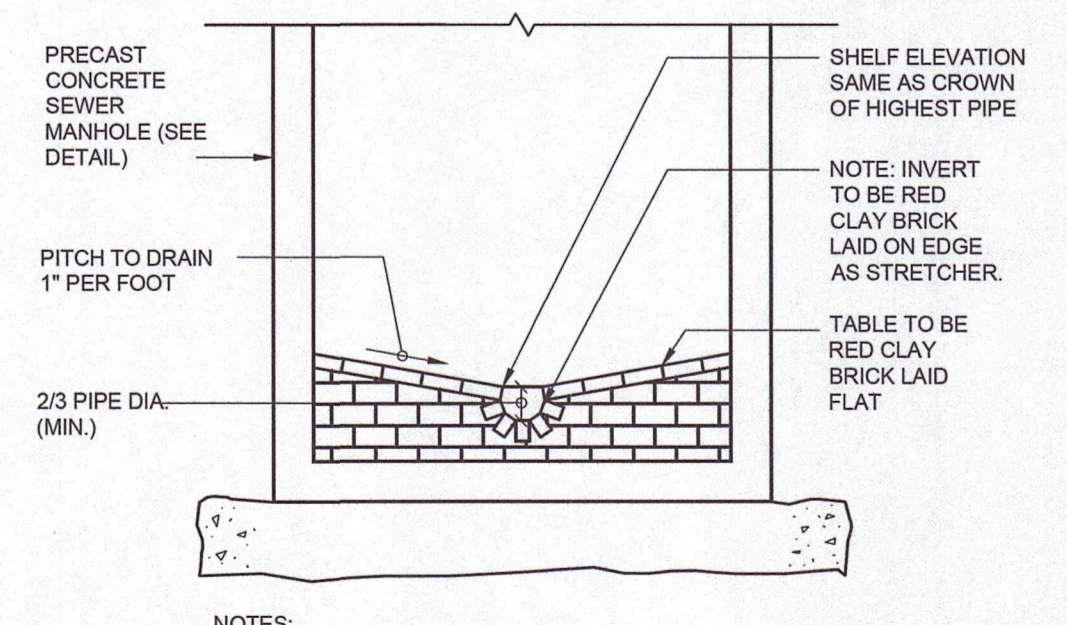
- NOTES:
- MANHOLES AND ALL COMPONENT PARTS SHALL BE OF SIZE, STRENGTH AND CONFIGURATION AS SHOWN EXCEPT THAT TOP SLABS MAYBE SUBSTITUTED FOR ECCENTRIC CONE SECTIONS. MANHOLES SHALL BE AN ASSEMBLY OF REINFORCED, PRECAST CONCRETE BASE RISER SECTIONS PER ASTM C478 OR MONOLITHICALLY, CAST-IN-PLACE REINFORCED CONCRETE. APPROVED MANHOLE STRUCTURE SHALL BE DESIGNED AND CONSTRUCTED TO MEET OR EXCEED H-20 LOADING AND PREVENT LEAKAGE IN EXCESS OF ONE (1) GALLON PER DAY PER VERTICAL FOOT OF MANHOLE.
  - MANHOLE STEPS TO BE STEEL REINFORCED, CO-POLYMER, POLY-PROPYLENE PLASTIC CONFORMING TO ASTM D4101. STEEL REINFORCING SHALL BE A DEFORMED 1/2" ROD, GRADE 60, ASTM A615. ALIGN STEPS WITH MANHOLE OPENING.

**PRECAST CONC. SEWER MANHOLE (SMH) WITH BRICK INVERT**  
SCALE: N.T.S.



- NOTE:
- INSTALLATION AND MATERIALS TO BE IN ACCORDANCE WITH TOWN OF FRANKLIN'S SPECIFICATIONS.
  - WATER SERVICES LARGER THAN 1" ARE TO BE RESTRAINED TO MAIN W/ APPROVED SADDLE.

**TYPICAL WATER SERVICE CONNECTION DETAIL**  
SCALE: N.T.S.



- NOTES:
- MATERIALS, METHOD OF INSTALLATION SHALL CONFORM TO THE TOWN OF FRANKLIN'S SPECIFICATIONS

**TYPICAL BRICK INVERT SECTION FOR SEWER AND DRAIN MANHOLE**  
SCALE: N.T.S.

**NOT FOR CONSTRUCTION**

Drawing name: C:\M\A\Fairfield\Fairfield Residential\121 Grove Street\Main\22016\_C-10\_Site\_Details - V.dwg  
Dec 16, 2023 - 12:40pm

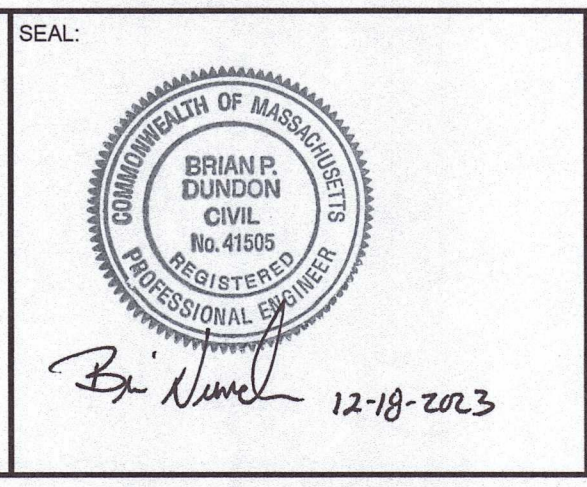


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NO.	REVISION	DATE	NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023			

DESIGNED BY: MAC  
DRAWN BY: MCR  
REVIEWED BY: BJM  
SCALE: N.T.S.

PREPARED FOR:  
**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAINTREE, MA 02184



PREPARED BY:  
**RJO'CONNELL & ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02186  
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:  
**GROVE STREET RESIDENCES**  
FRANKLIN, MA

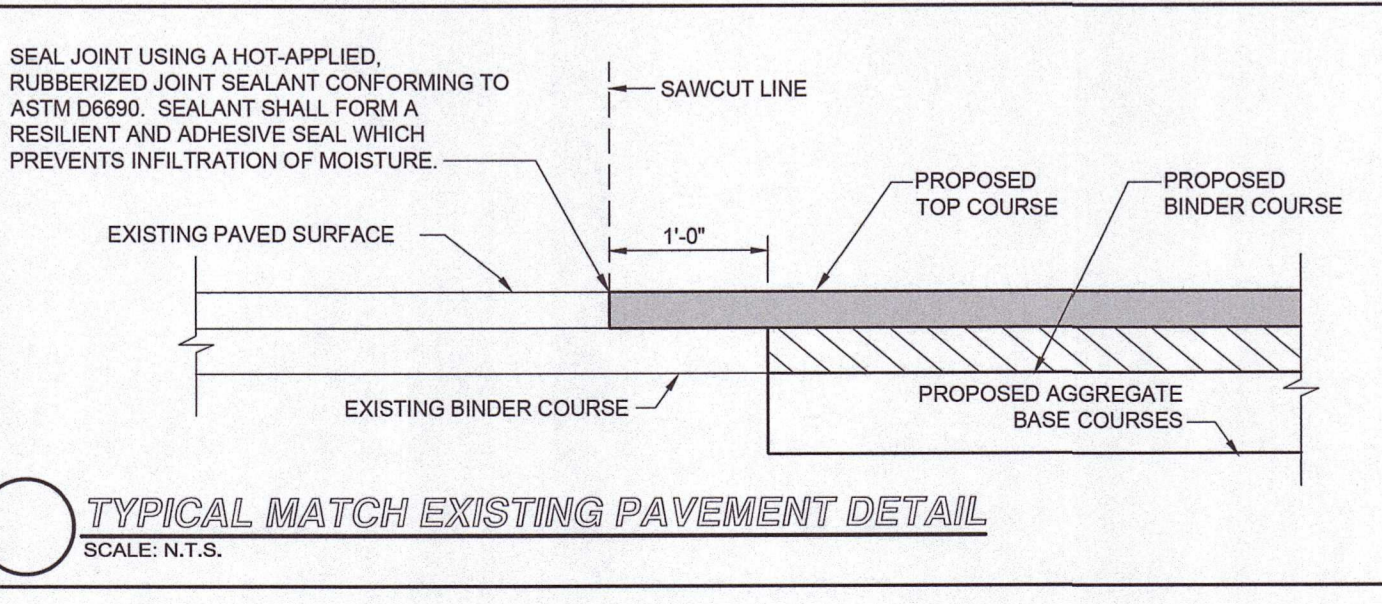
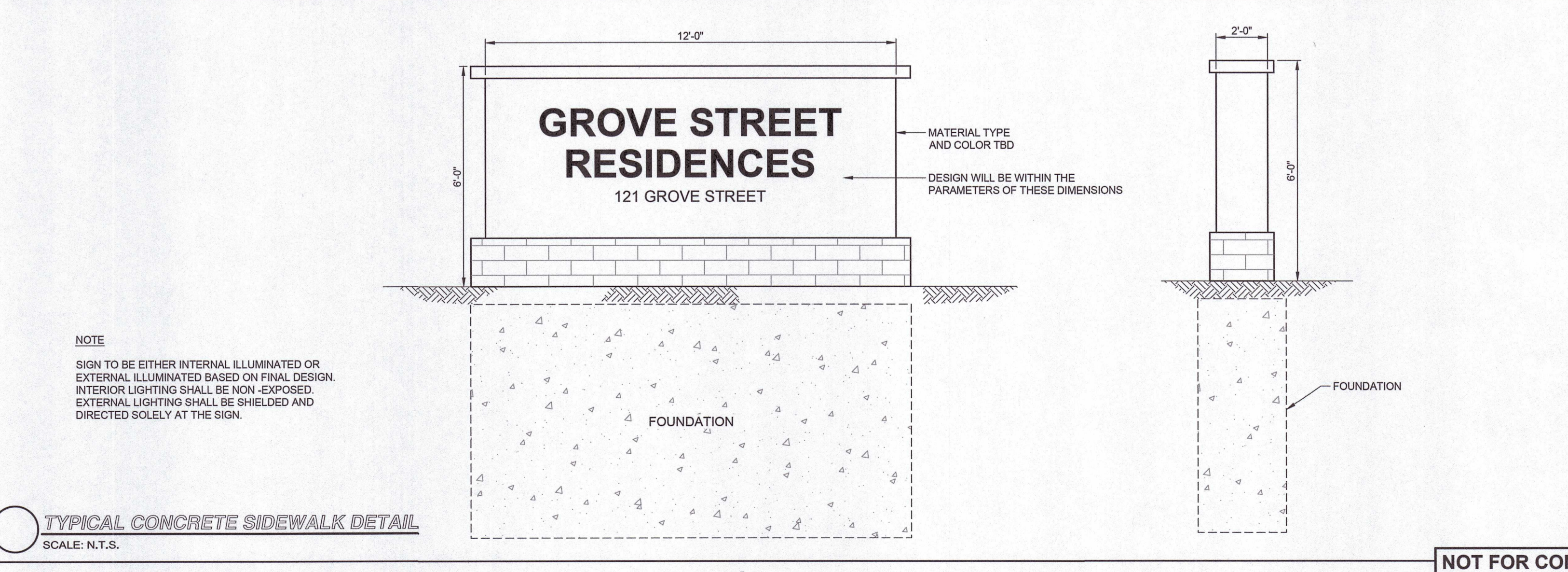
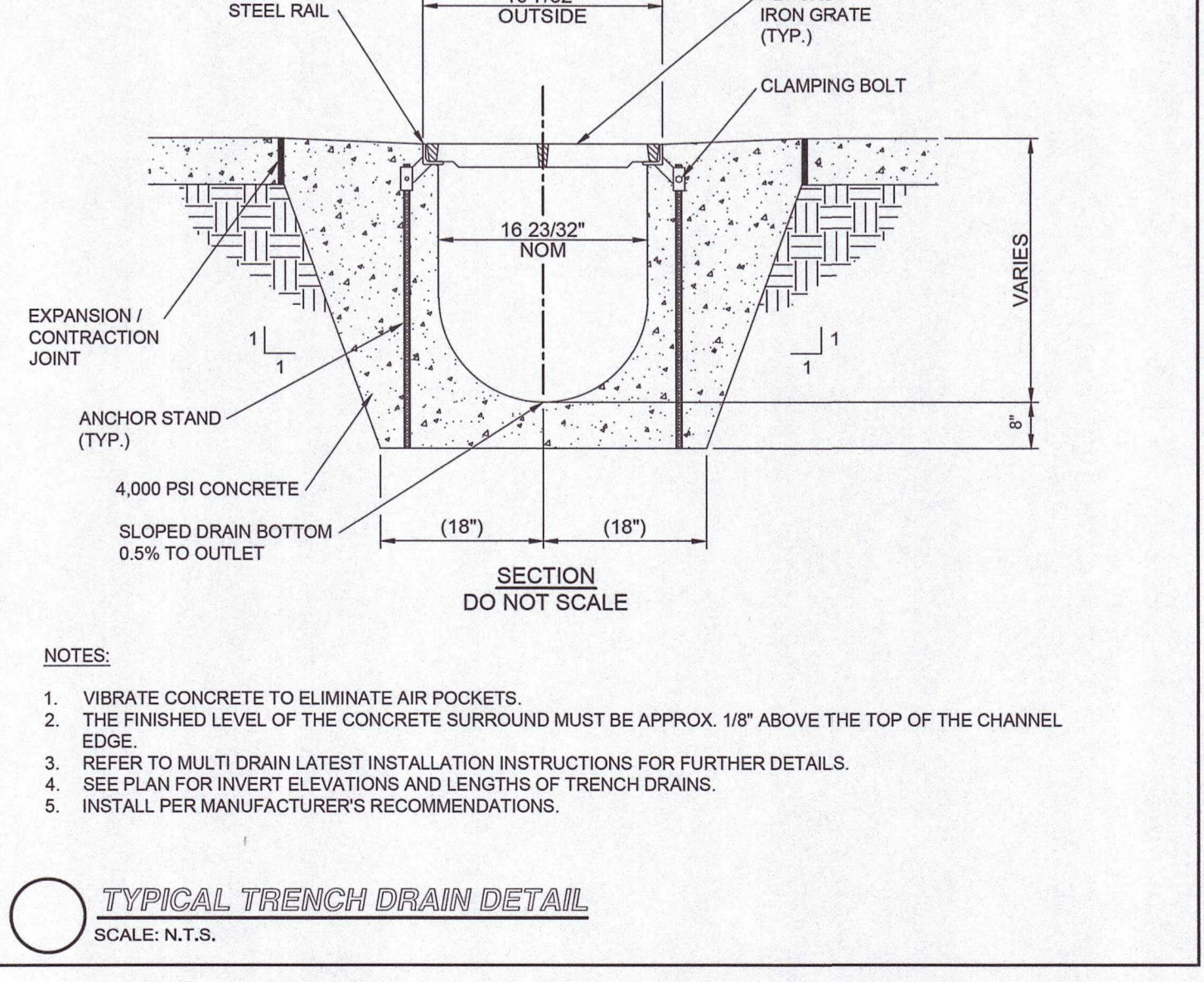
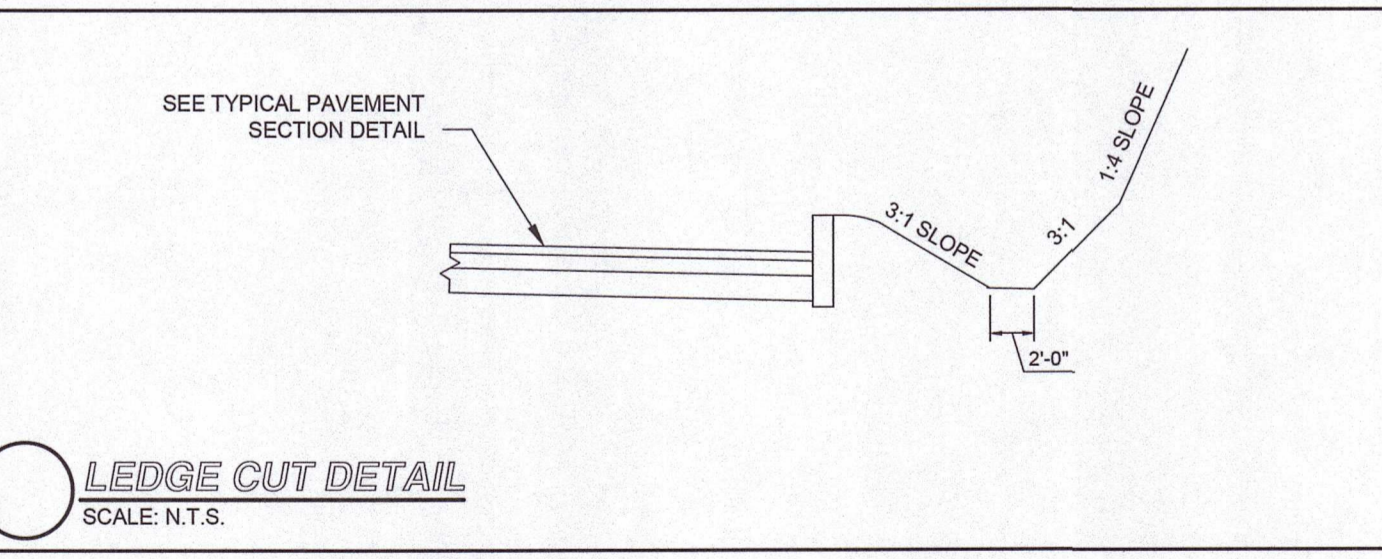
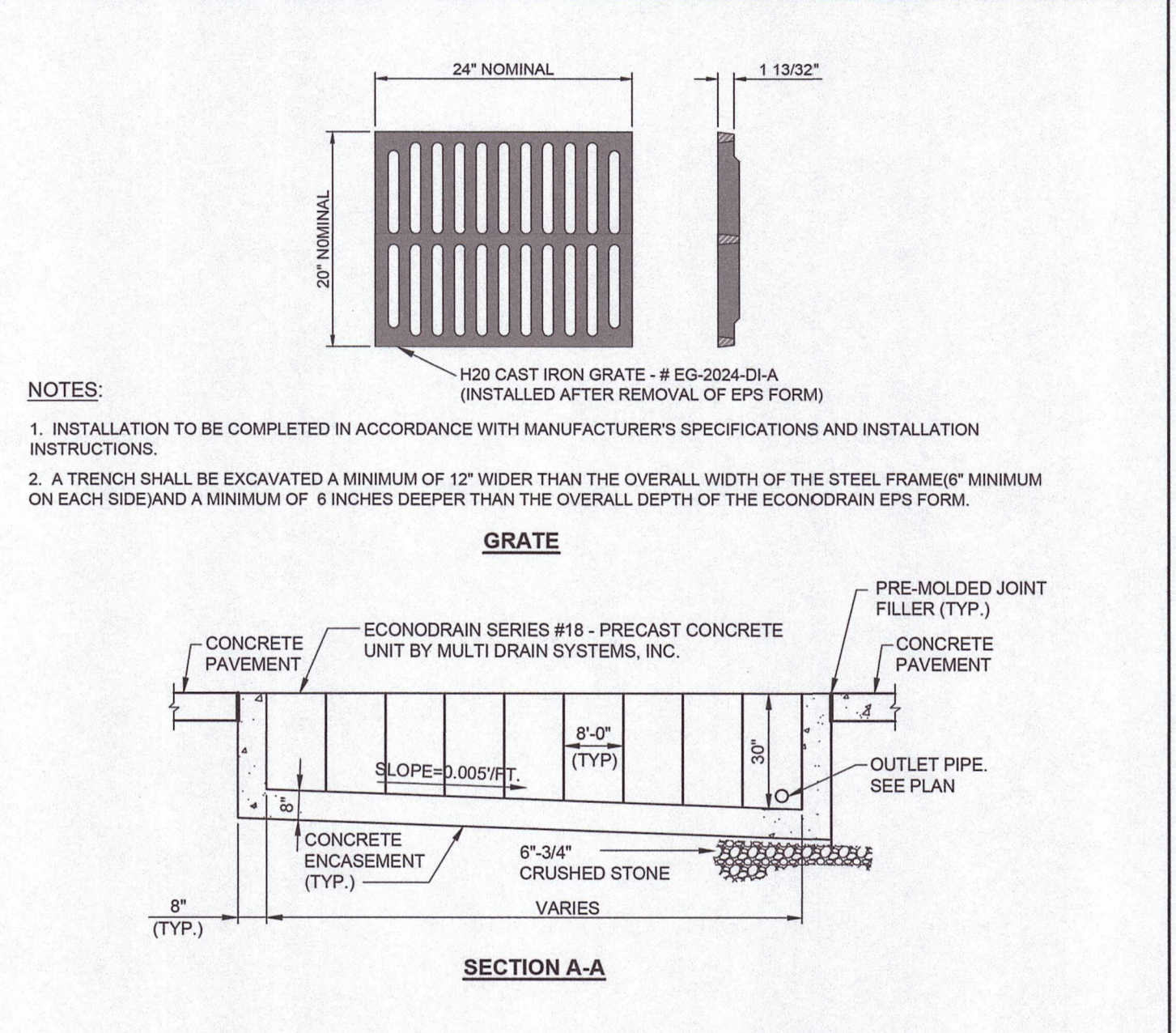
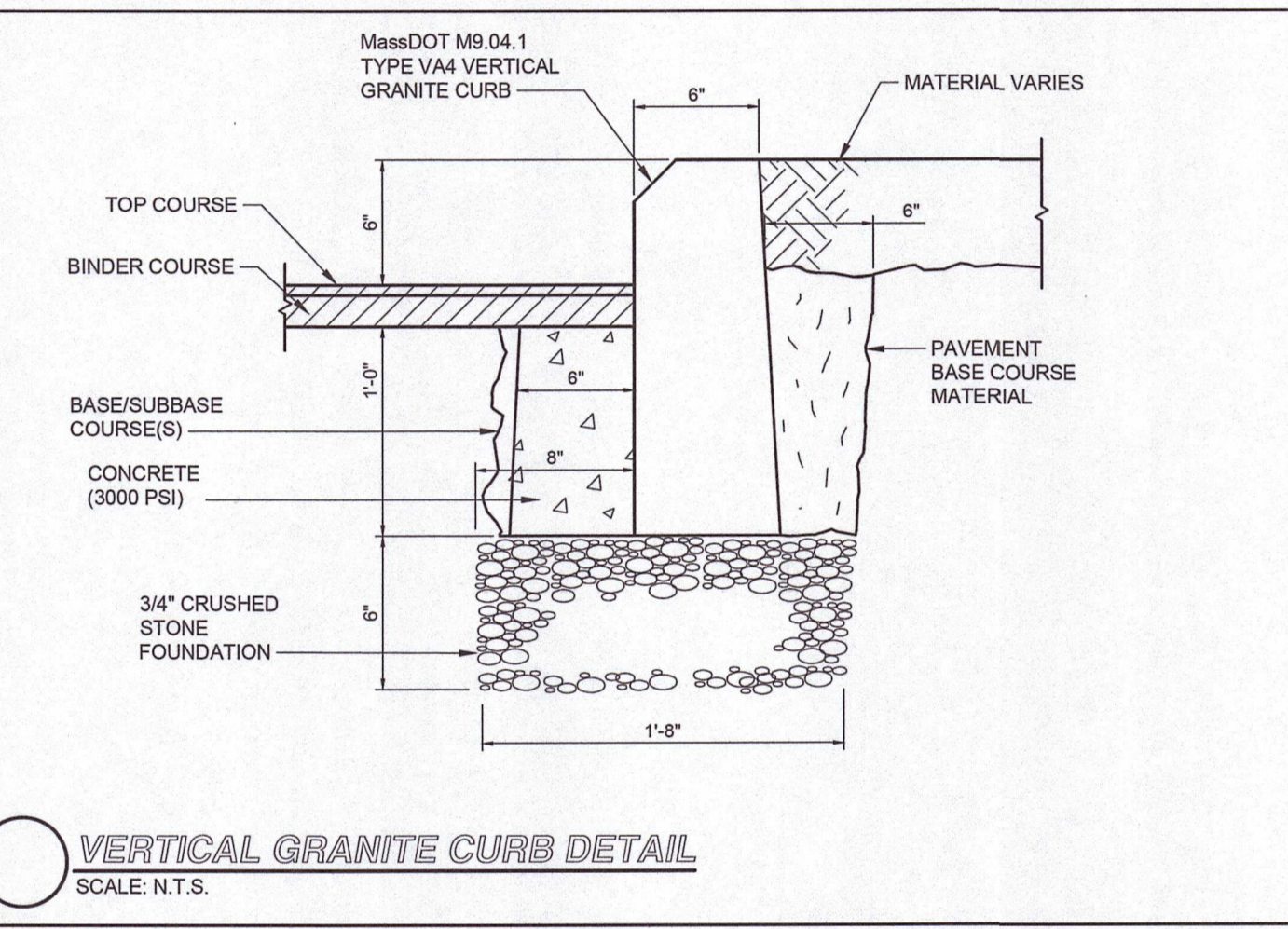
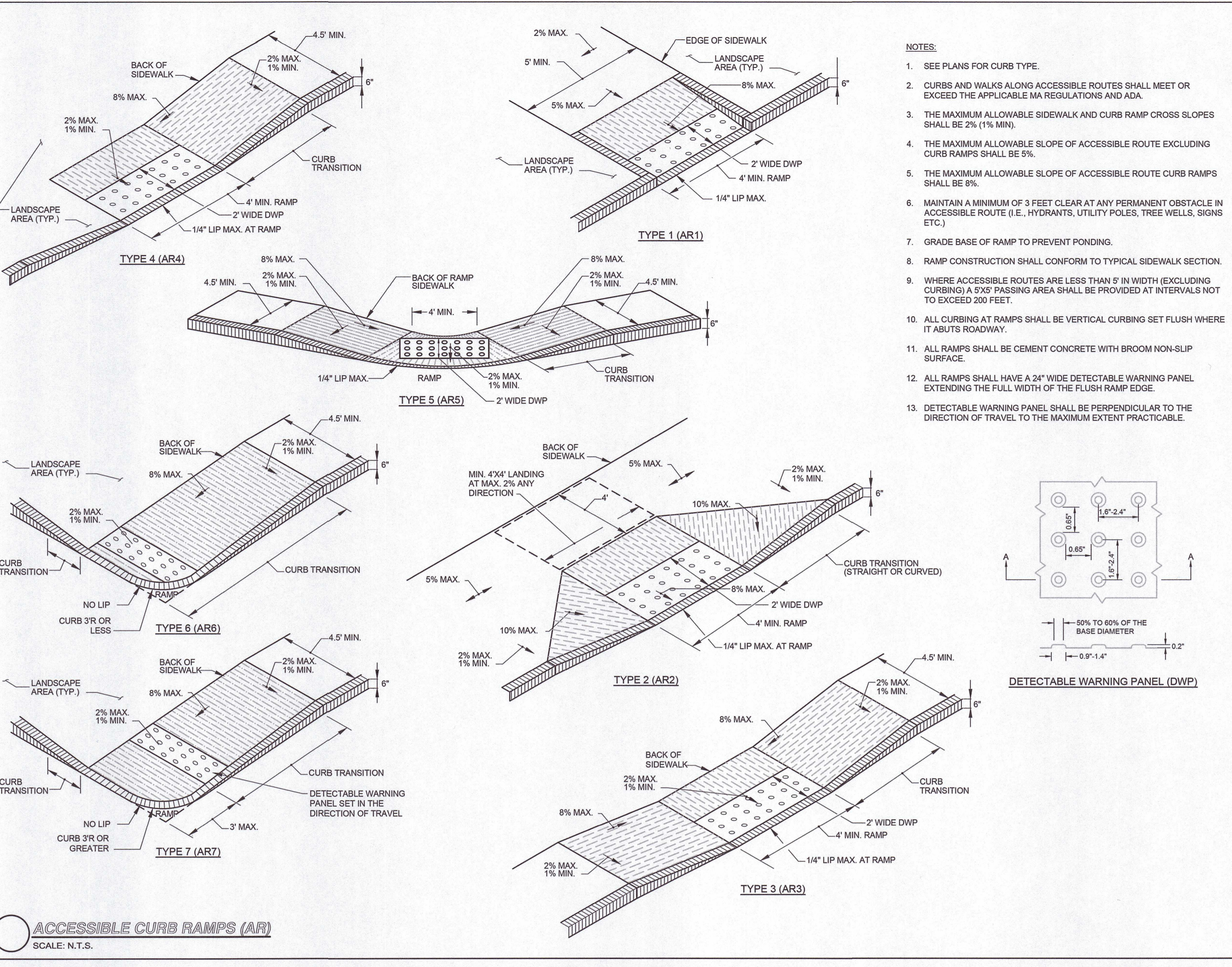
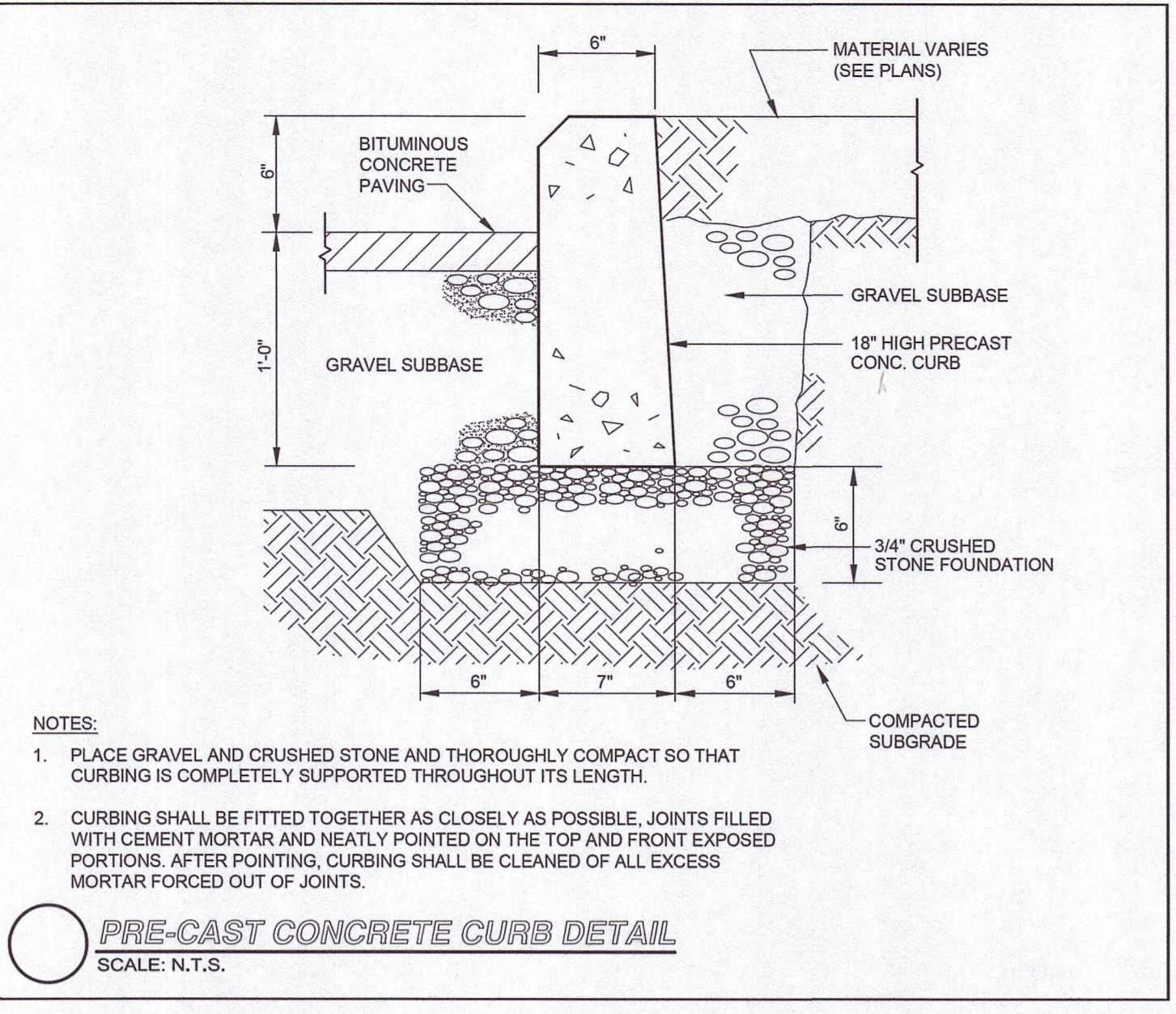
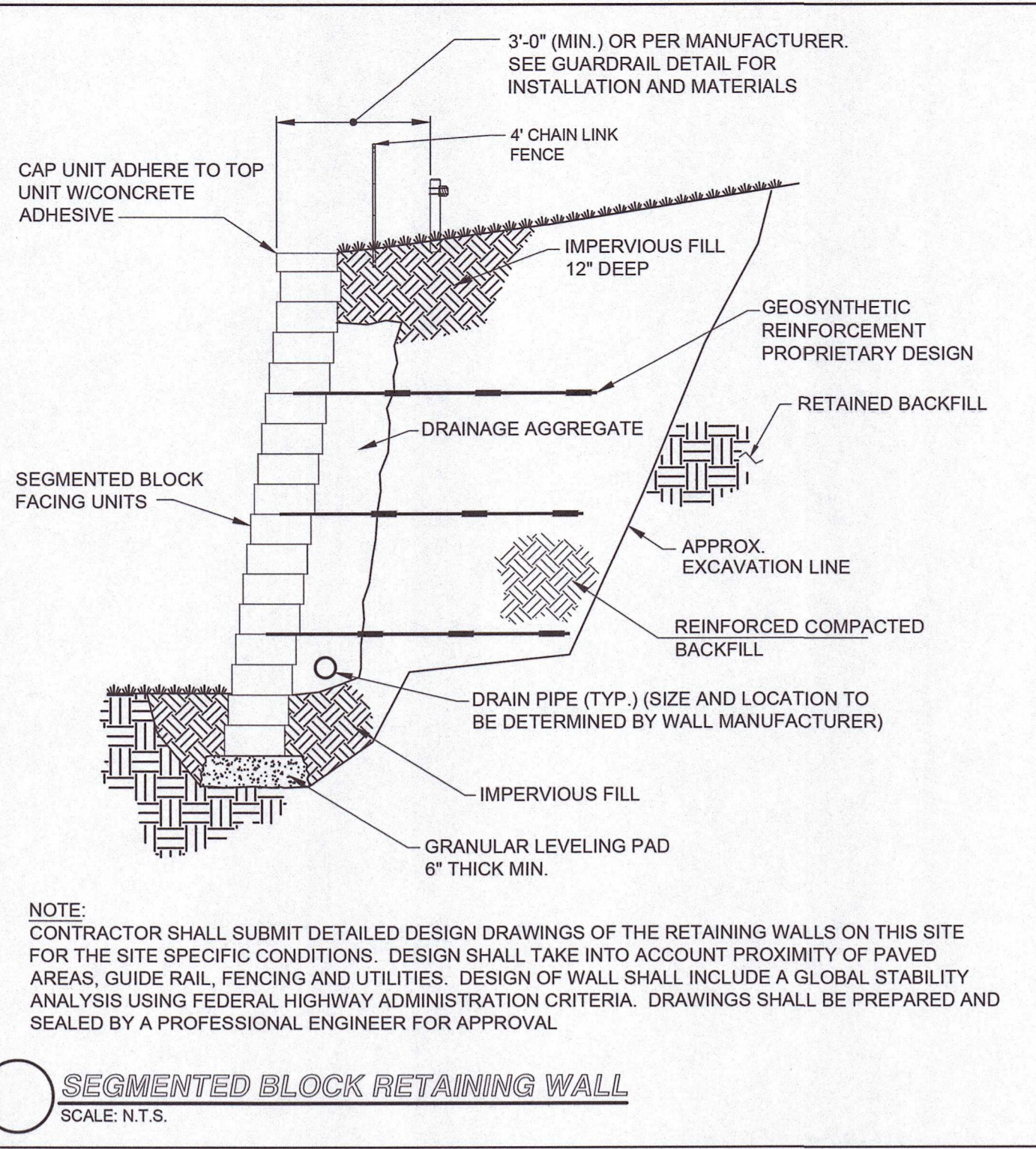
DRAWING NAME:  
**SITE DETAILS - VI**

DRAWING NUMBER:  
**C-10**

DATE: 10/30/2023 PROJECT NO.: 22016

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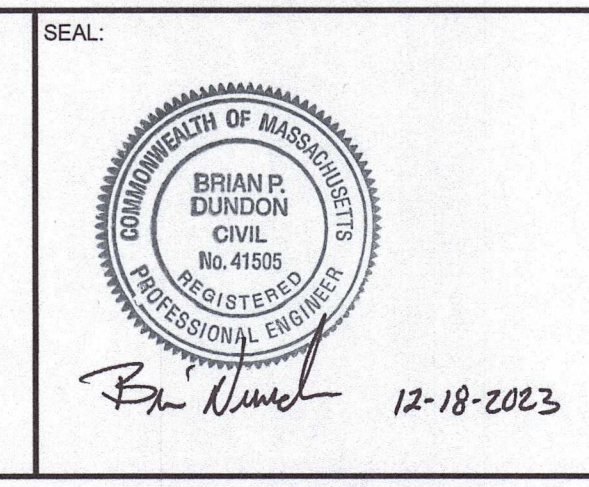


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NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:  
**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAintree, MA 02184



PREPARED BY:  
**RJO'CONNELL & ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180  
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:  
**GROVE STREET RESIDENCES**  
FRANKLIN, MA

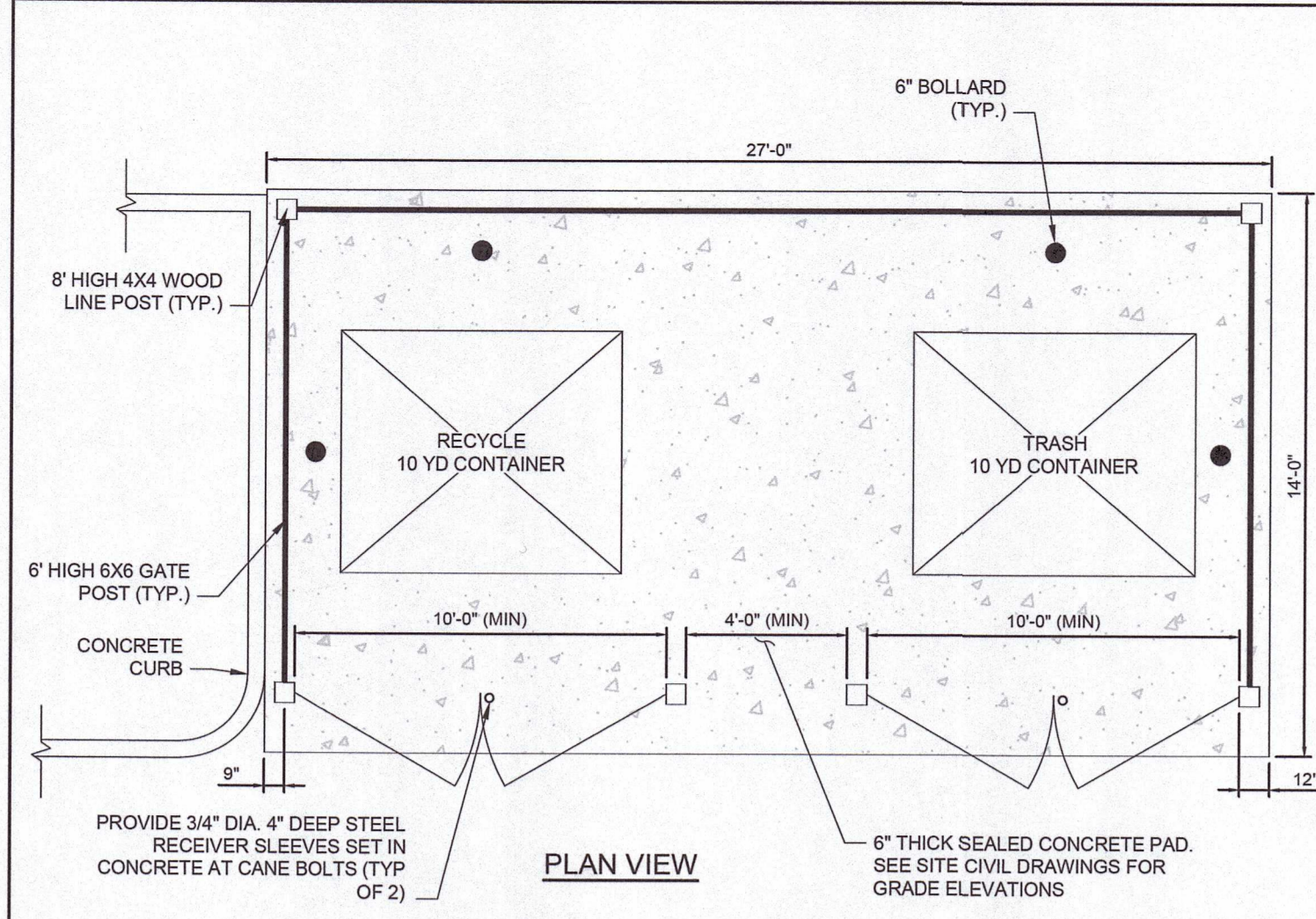
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DRAWING NUMBER:  
**C-11**

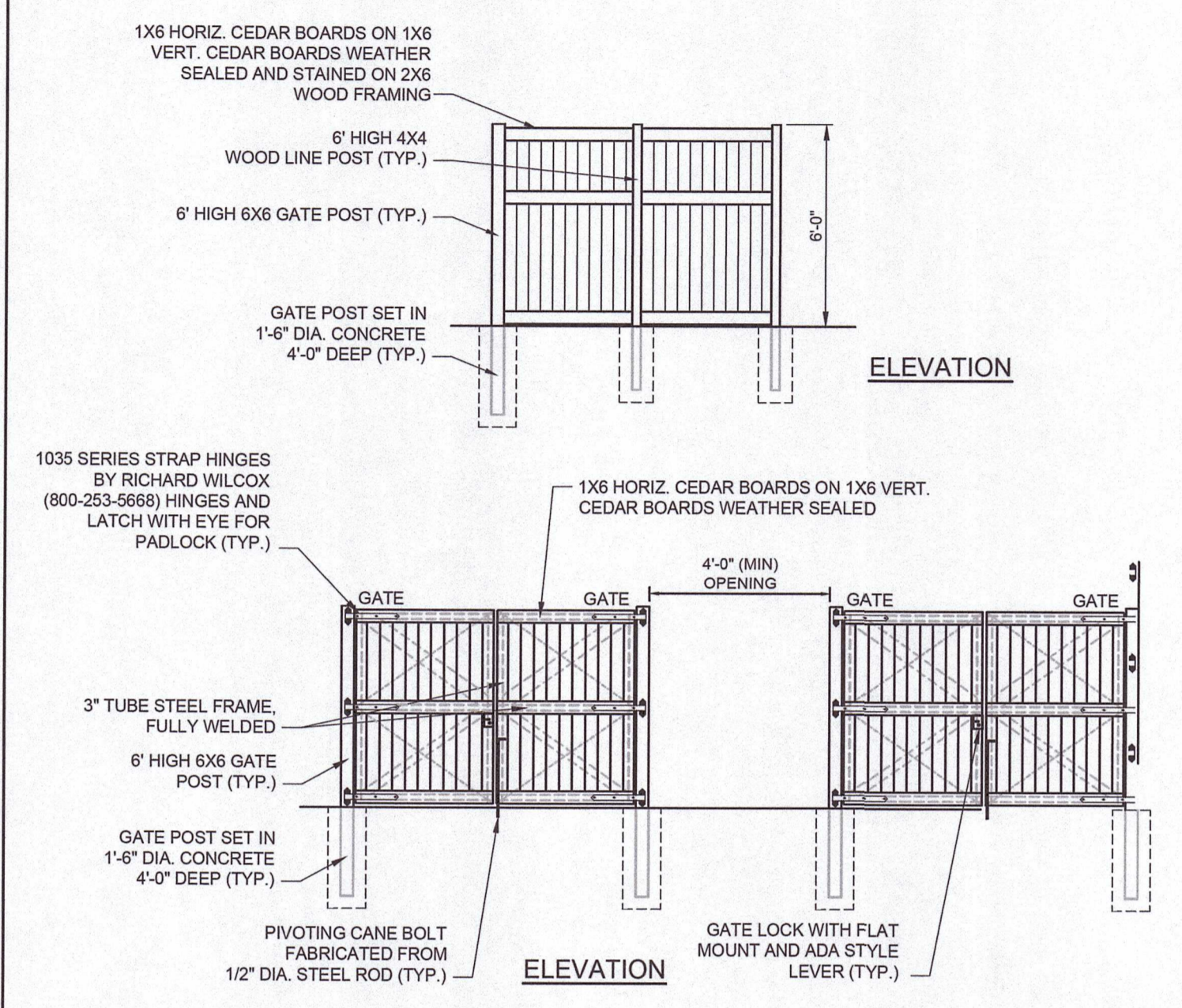
DATE: 10/30/2023 PROJECT NO.: 22016

**NOT FOR CONSTRUCTION**



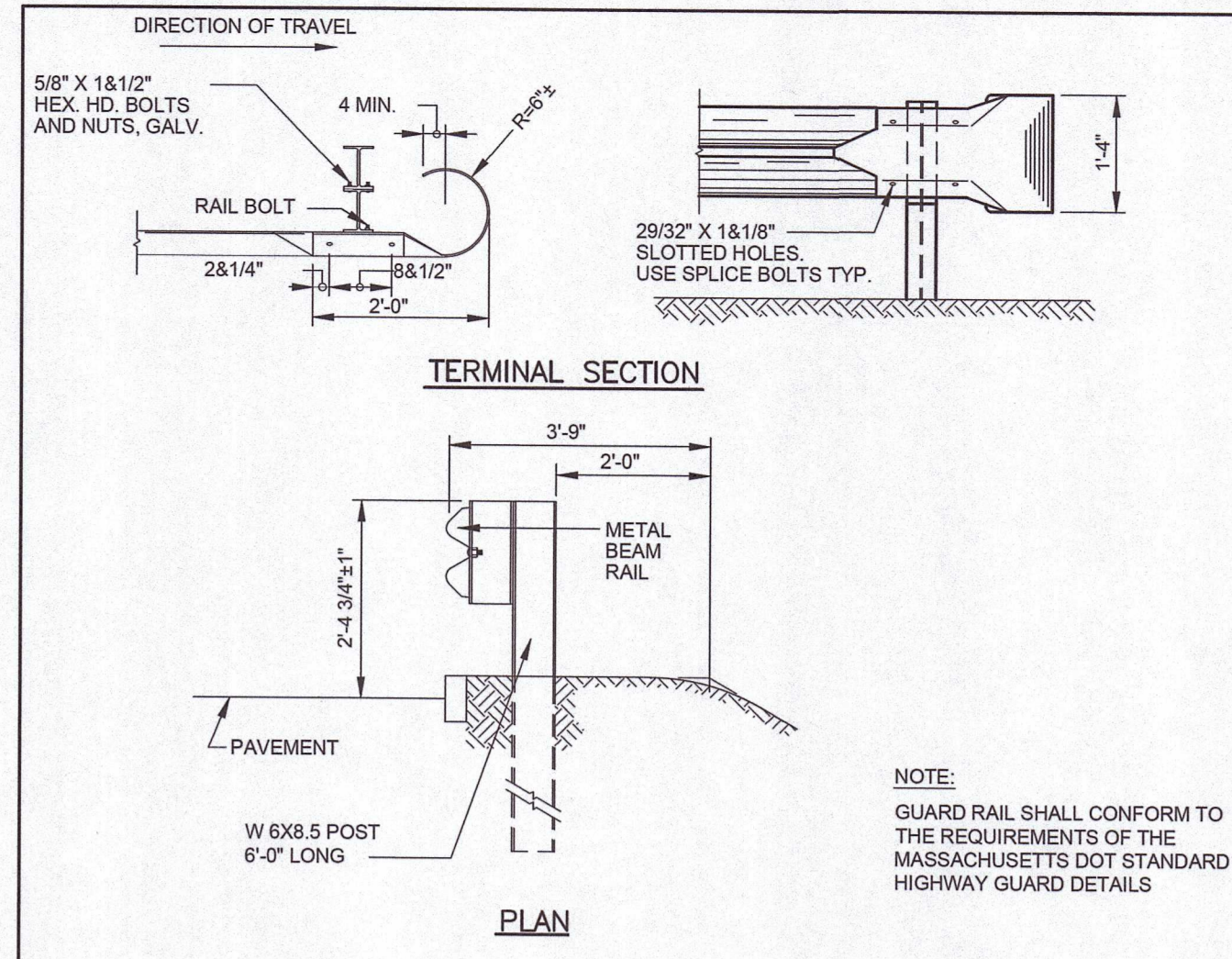


**PLAN VIEW**



**ELEVATION**

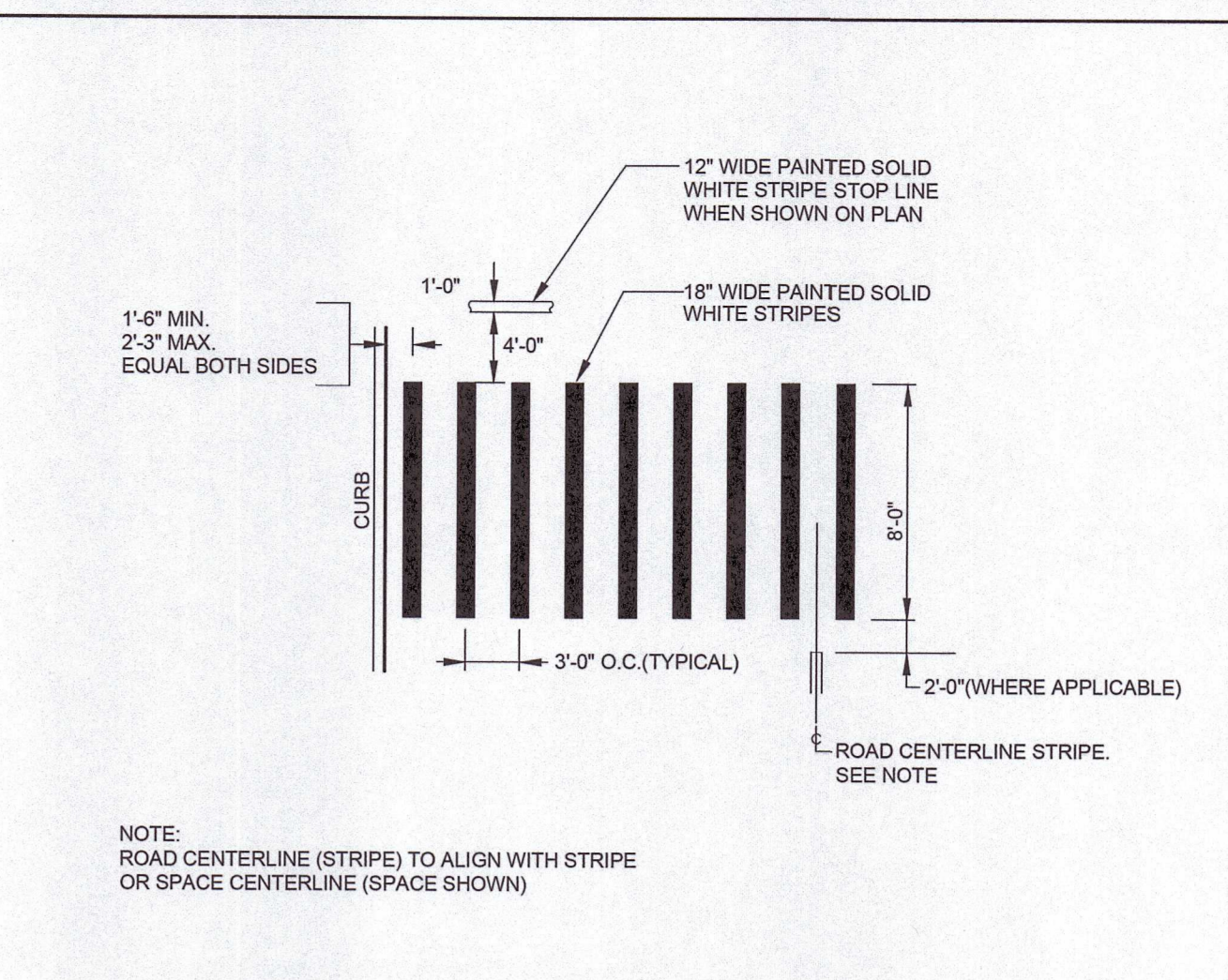
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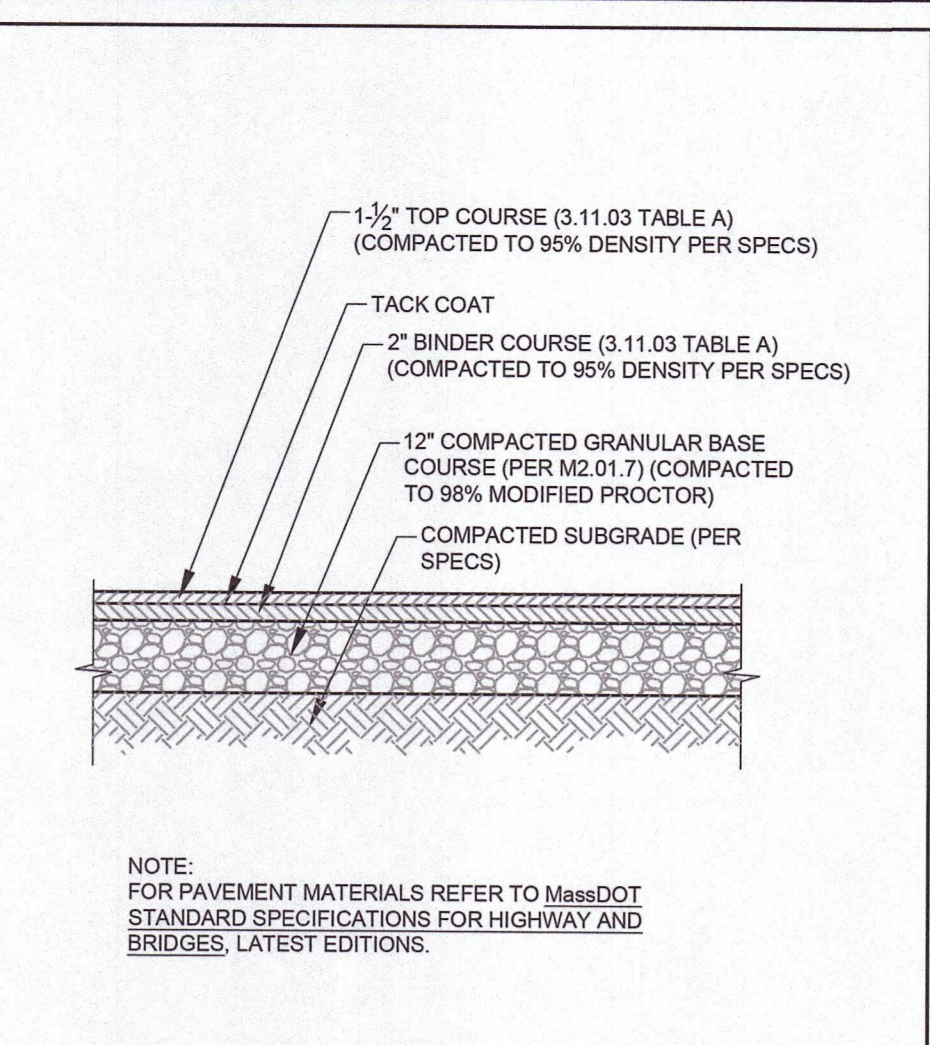
**TERMINAL SECTION**

**PLAN**

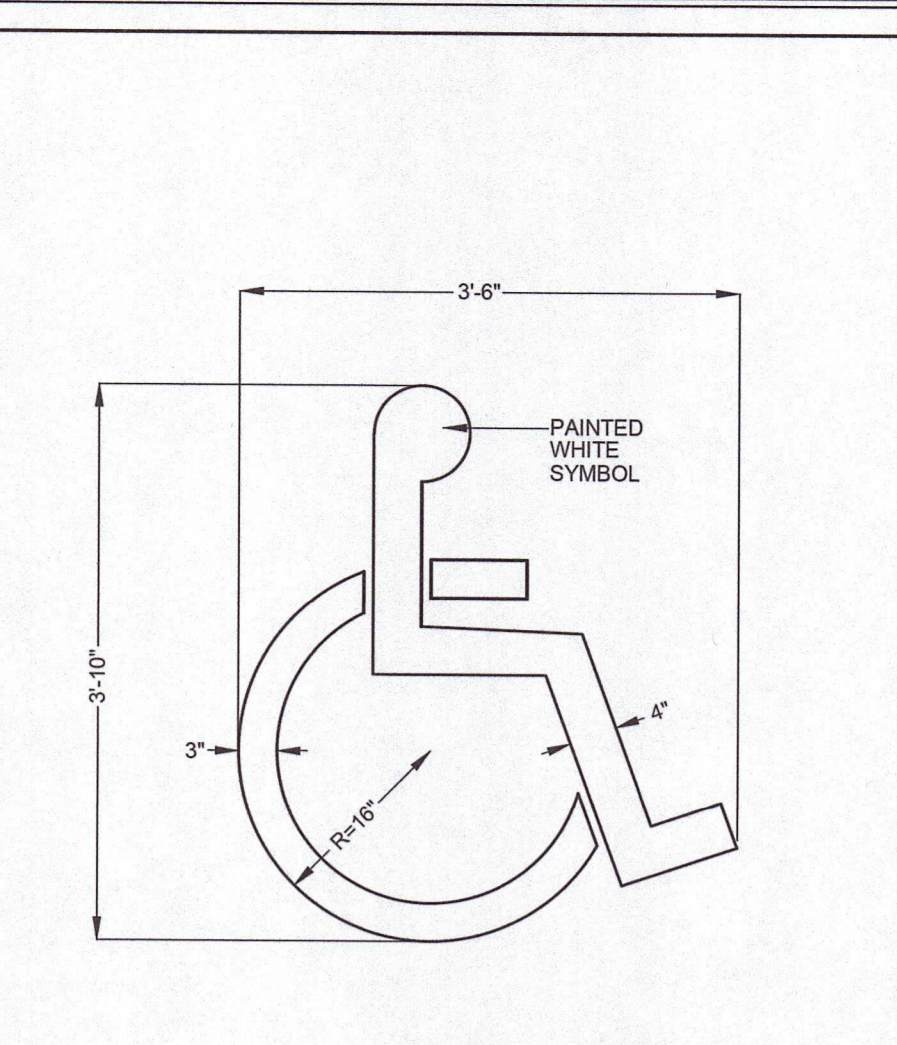
**TYPICAL W-BEAM GUARDRAIL/TERMINAL SECTION DETAIL**  
SCALE: N.T.S.



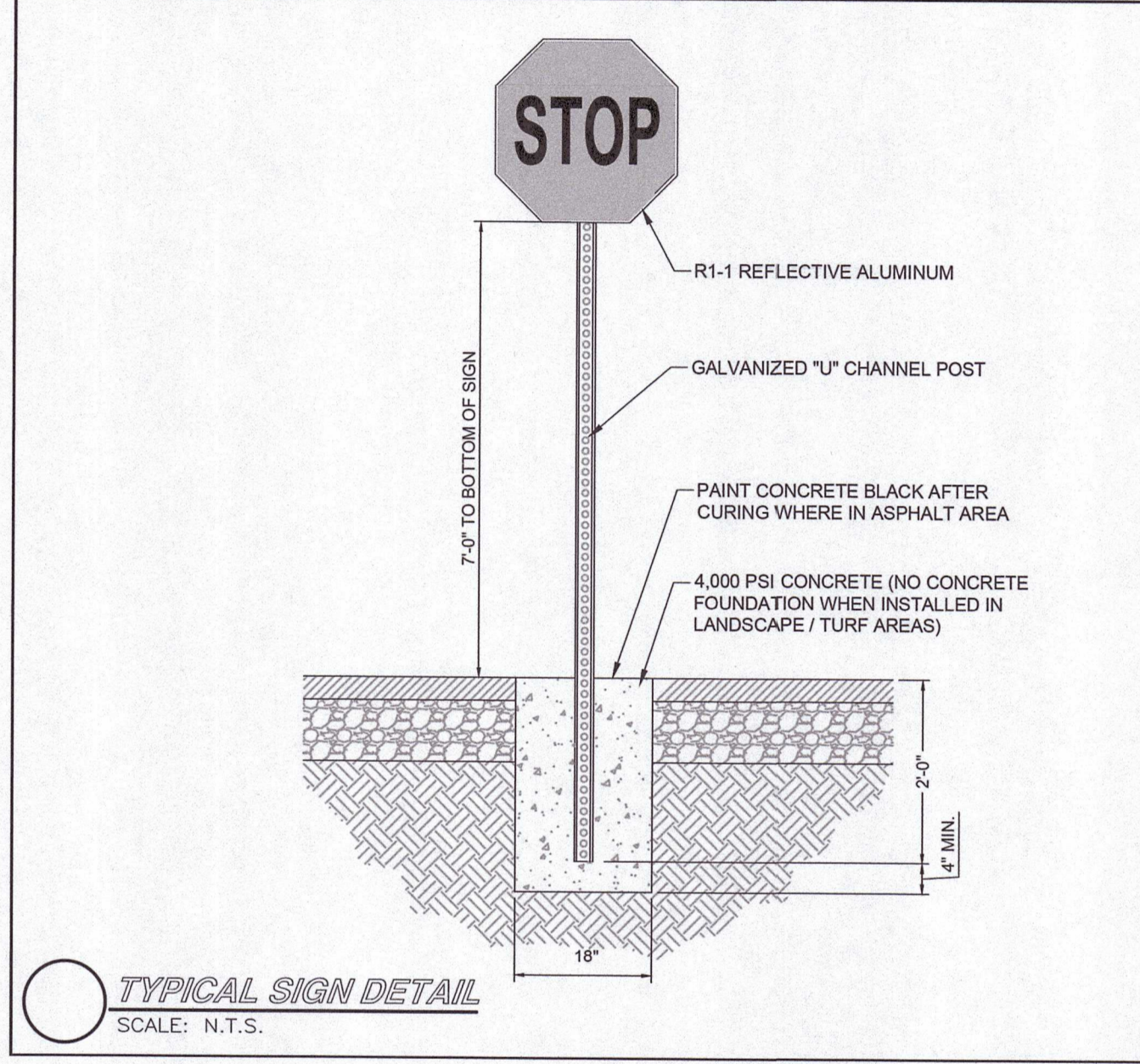
**TYPICAL 18" WIDE 90° PAINTED CROSSWALK DETAIL**  
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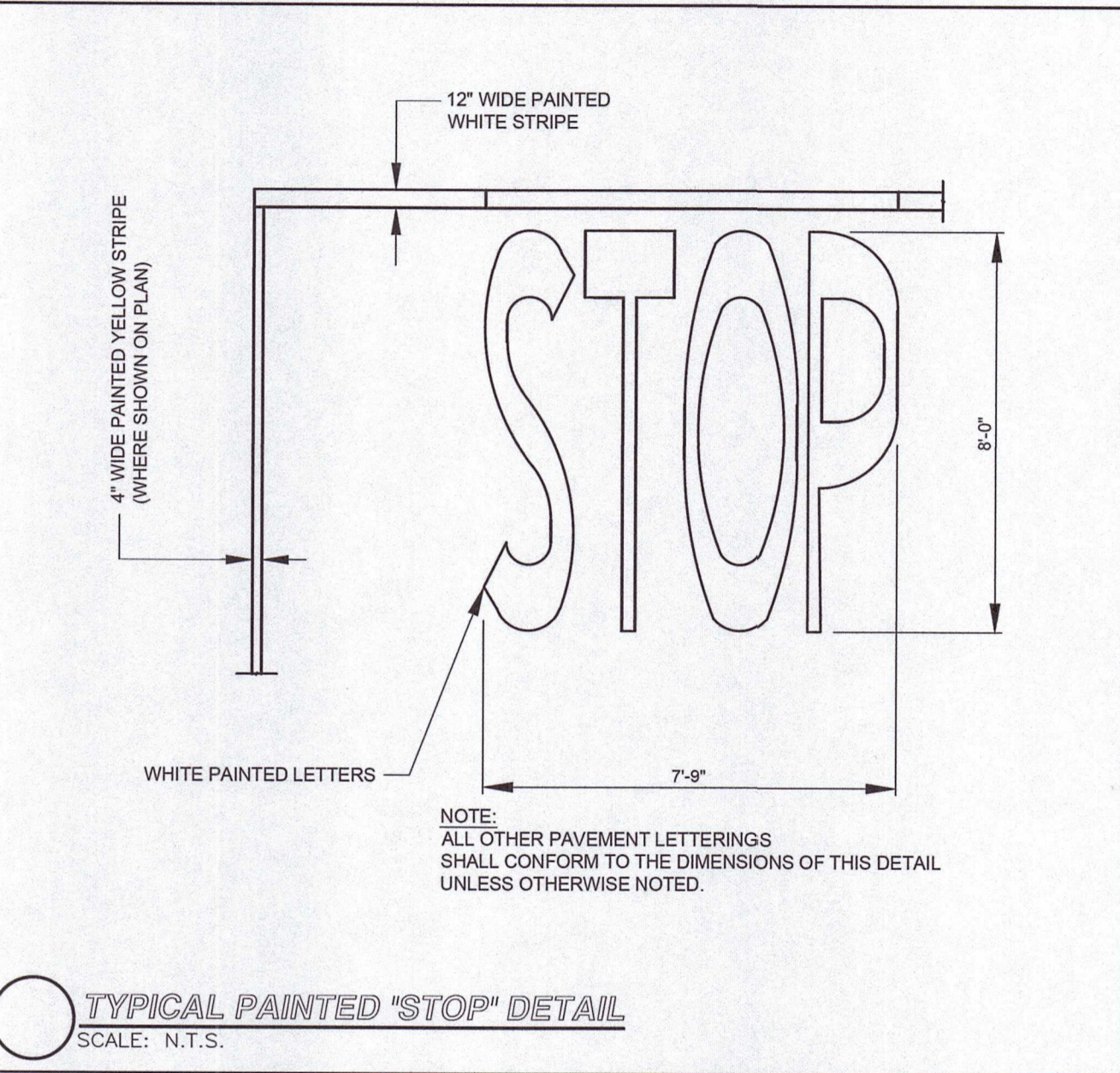
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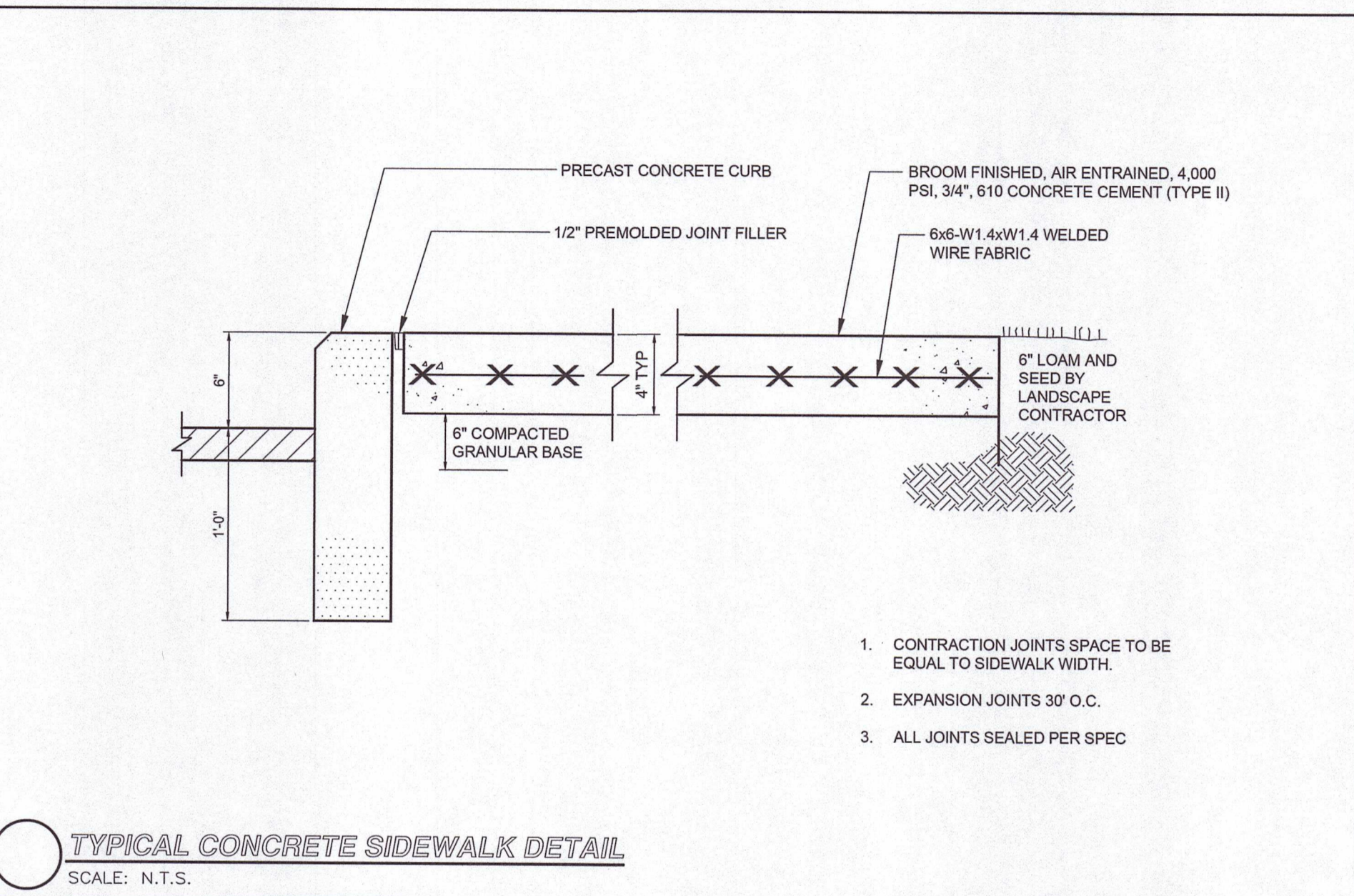
**TYPICAL PAINTED HANDICAP SYMBOL DETAIL**  
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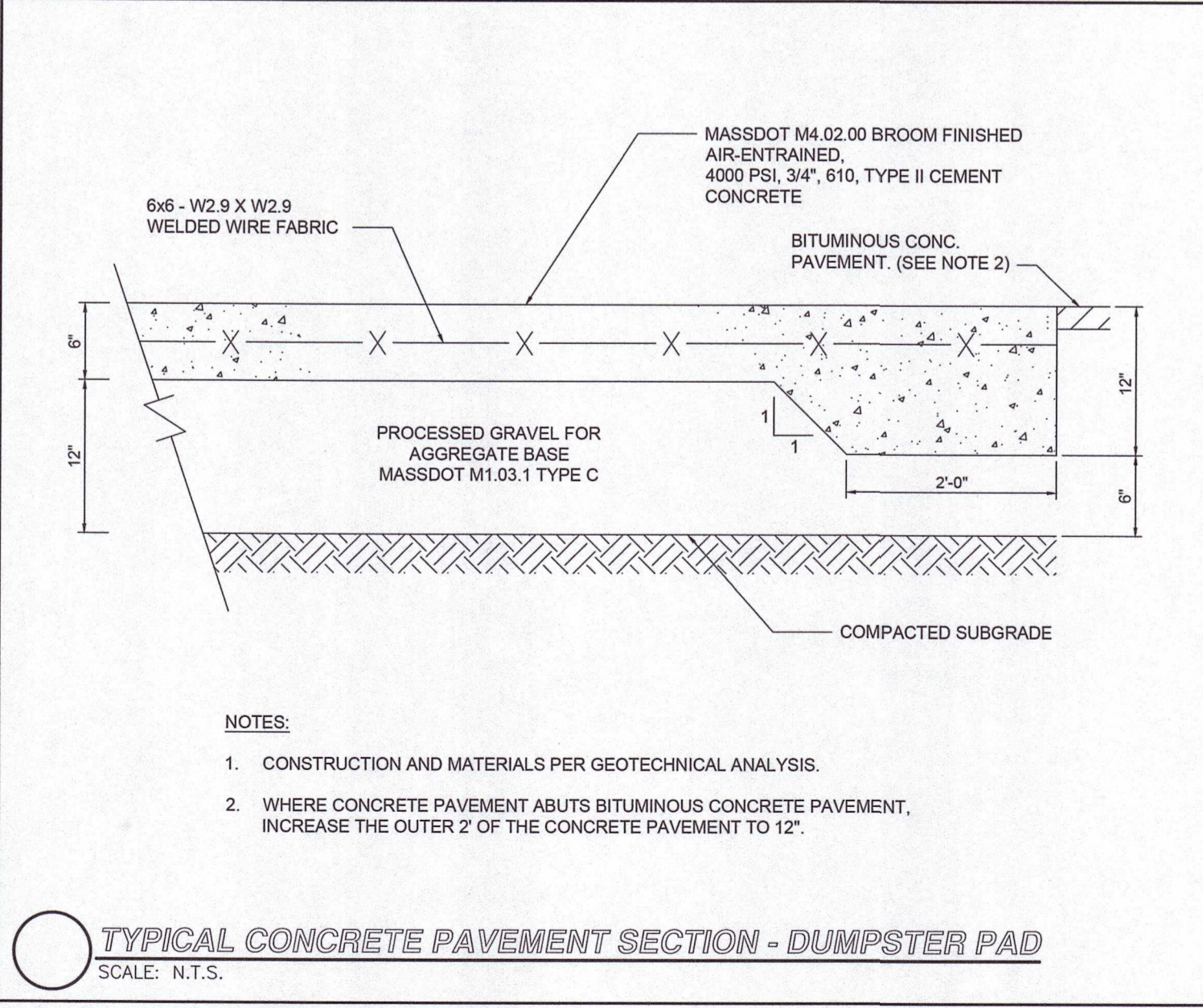
**TYPICAL SIGN DETAIL**  
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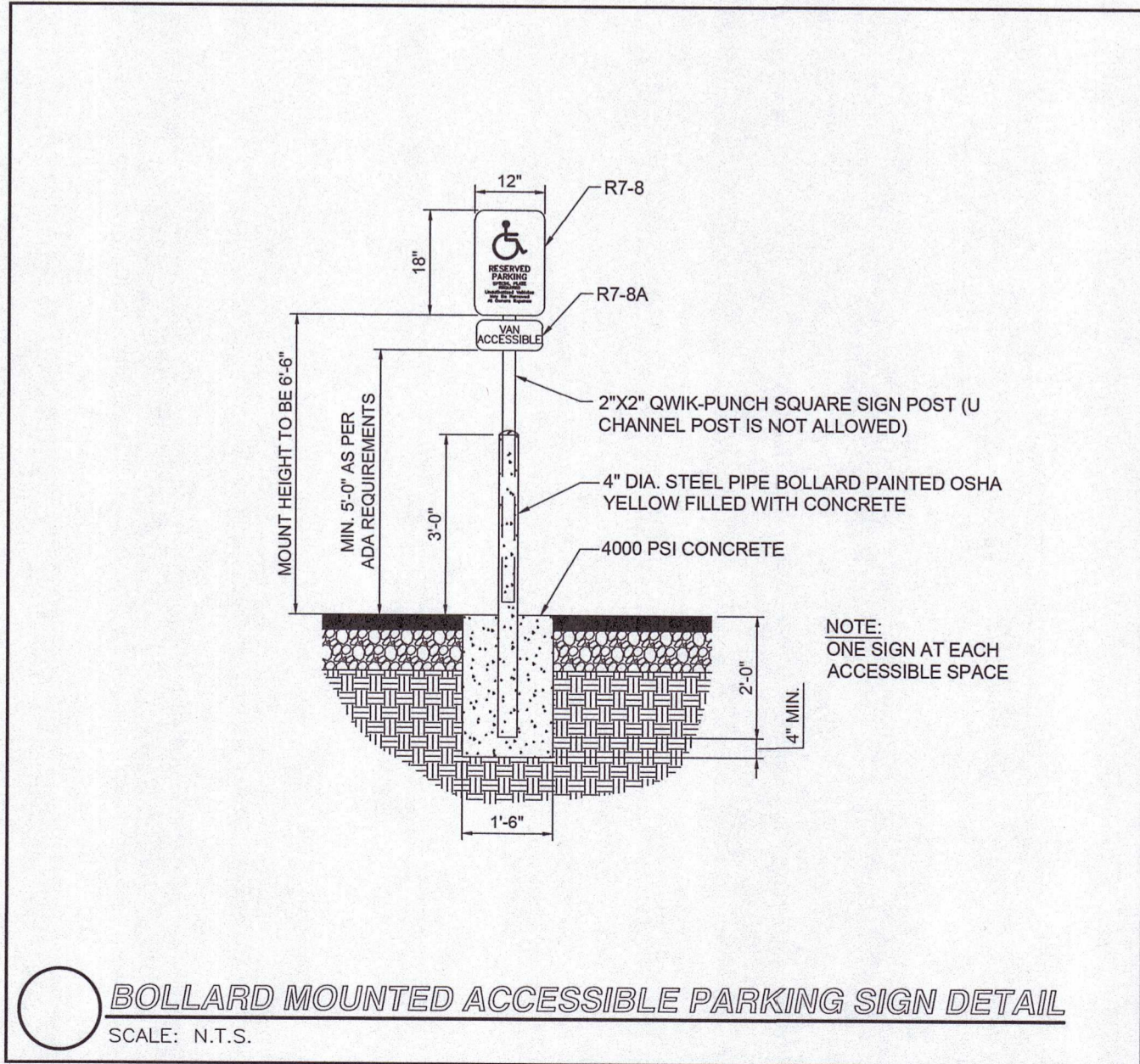
**TYPICAL PAINTED "STOP" DETAIL**  
SCALE: N.T.S.



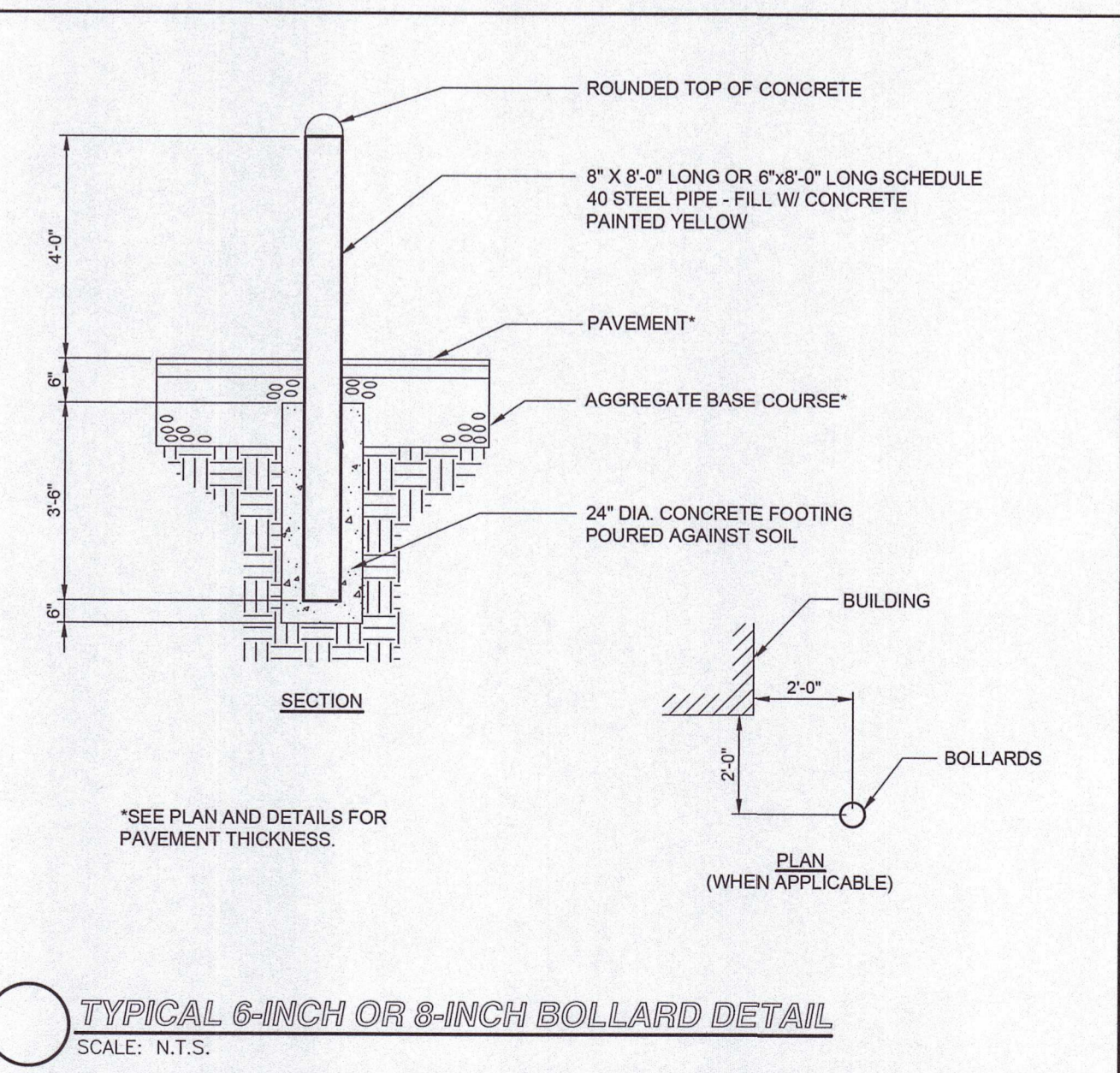
**TYPICAL CONCRETE SIDEWALK DETAIL**  
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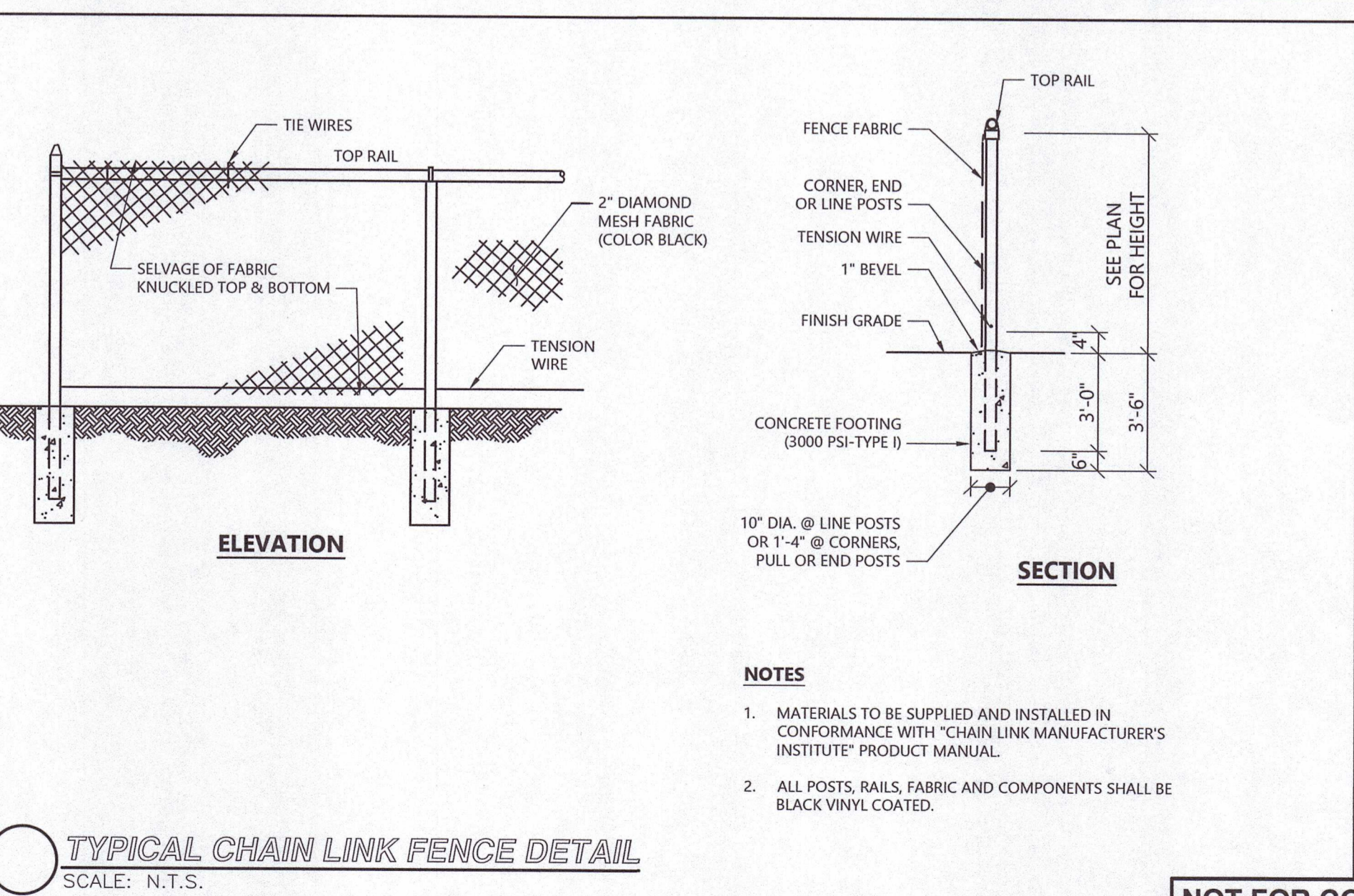
**TYPICAL CONCRETE PAVEMENT SECTION - DUMPSTER PAD**  
SCALE: N.T.S.



**BOLLARD MOUNTED ACCESSIBLE PARKING SIGN DETAIL**  
SCALE: N.T.S.

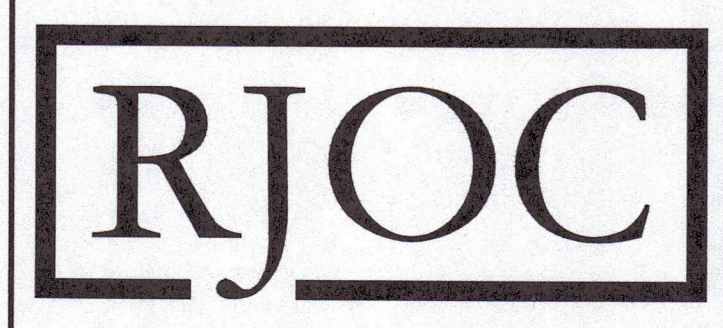


**TYPICAL 6-INCH OR 8-INCH BOLLARD DETAIL**  
SCALE: N.T.S.



**TYPICAL CHAIN LINK FENCE DETAIL**  
SCALE: N.T.S.

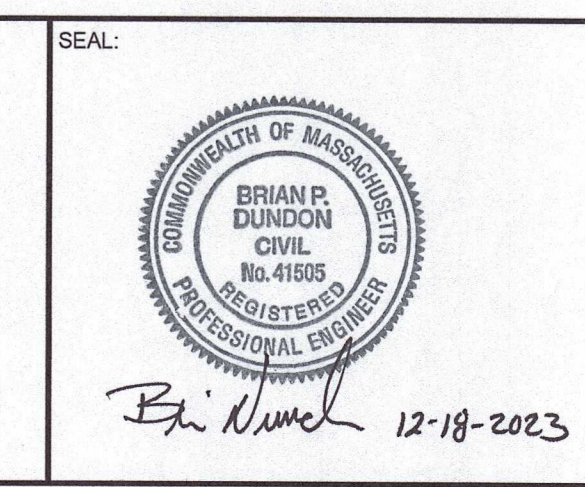
**NOT FOR CONSTRUCTION**



NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	BJM
SCALE:	N.T.S.

PREPARED FOR:  
**FAIRFIELD GROVE STREET LLC**  
30 BRAINTREE HILL OFFICE PARK  
SUITE 105  
BRAintree, MA 02184



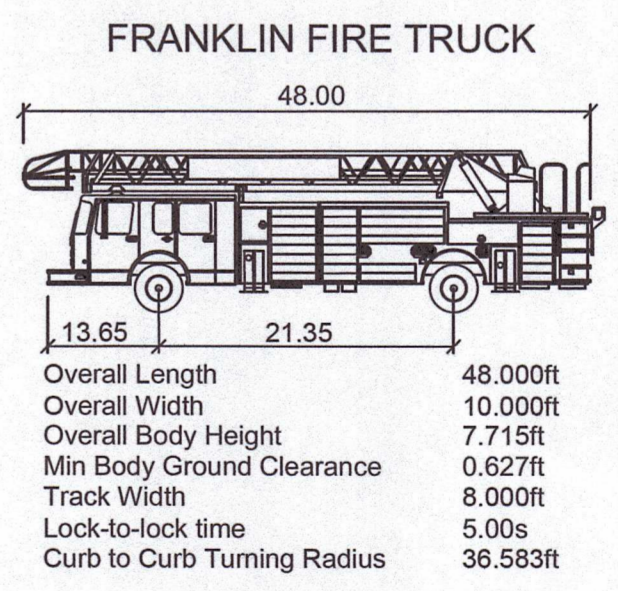
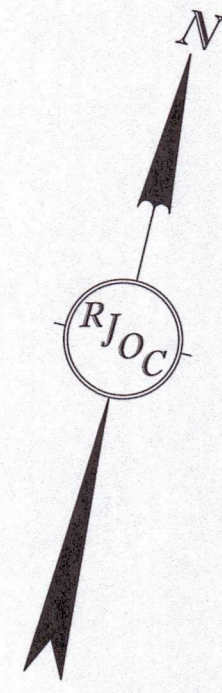
PREPARED BY:  
**RJO'CONNELL & ASSOCIATES, INC.**  
CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180  
PHONE: 781.279.0180 RJOCONNELL.COM

PROJECT NAME:  
**GROVE STREET RESIDENCES**  
FRANKLIN, MA

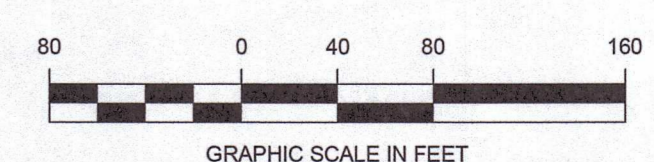
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DRAWING NUMBER:	<b>C-12</b>
DATE:	10/30/2023
PROJECT NO.:	22016

Drawing name: G:\MA\Franklin\Fairfield Residential\121 Grove Street\Main\22016\_C-12 Site Details - VIII.dwg Dec 16, 2023 - 12:43pm





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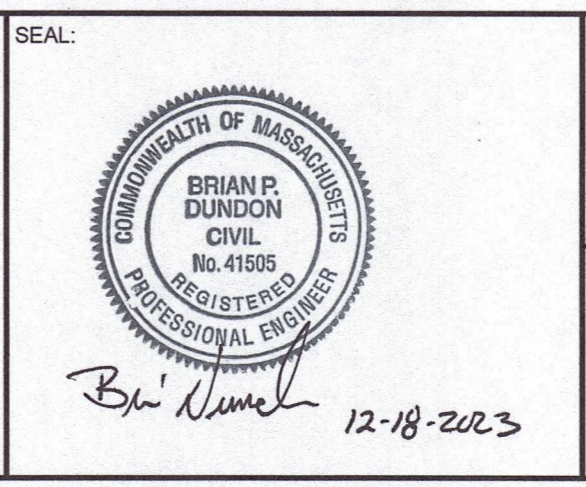
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Dec 18, 2023 - 10:05am



NO.	REVISION	DATE
1.	REVISED PER ONSITE SOIL TESTING RESULTS/NOI SUBMISSION	12/18/2023

DESIGNED BY:	MAC
DRAWN BY:	MCR
REVIEWED BY:	MAC
SCALE:	1" = 80'

PREPARED FOR:  
**FAIRFIELD GROVE STREET LLC**  
 30 BRAINTREE HILL OFFICE PARK  
 SUITE 105  
 BRAINTREE, MA 02184



PREPARED BY:  
**RJO'CONNELL & ASSOCIATES, INC.**  
 CIVIL ENGINEERS, SURVEYORS & LAND PLANNERS  
 80 MONTVALE AVENUE, SUITE 201 STONEHAM, MA 02180  
 PHONE: 781-276-0180 RJOCONNELL.COM

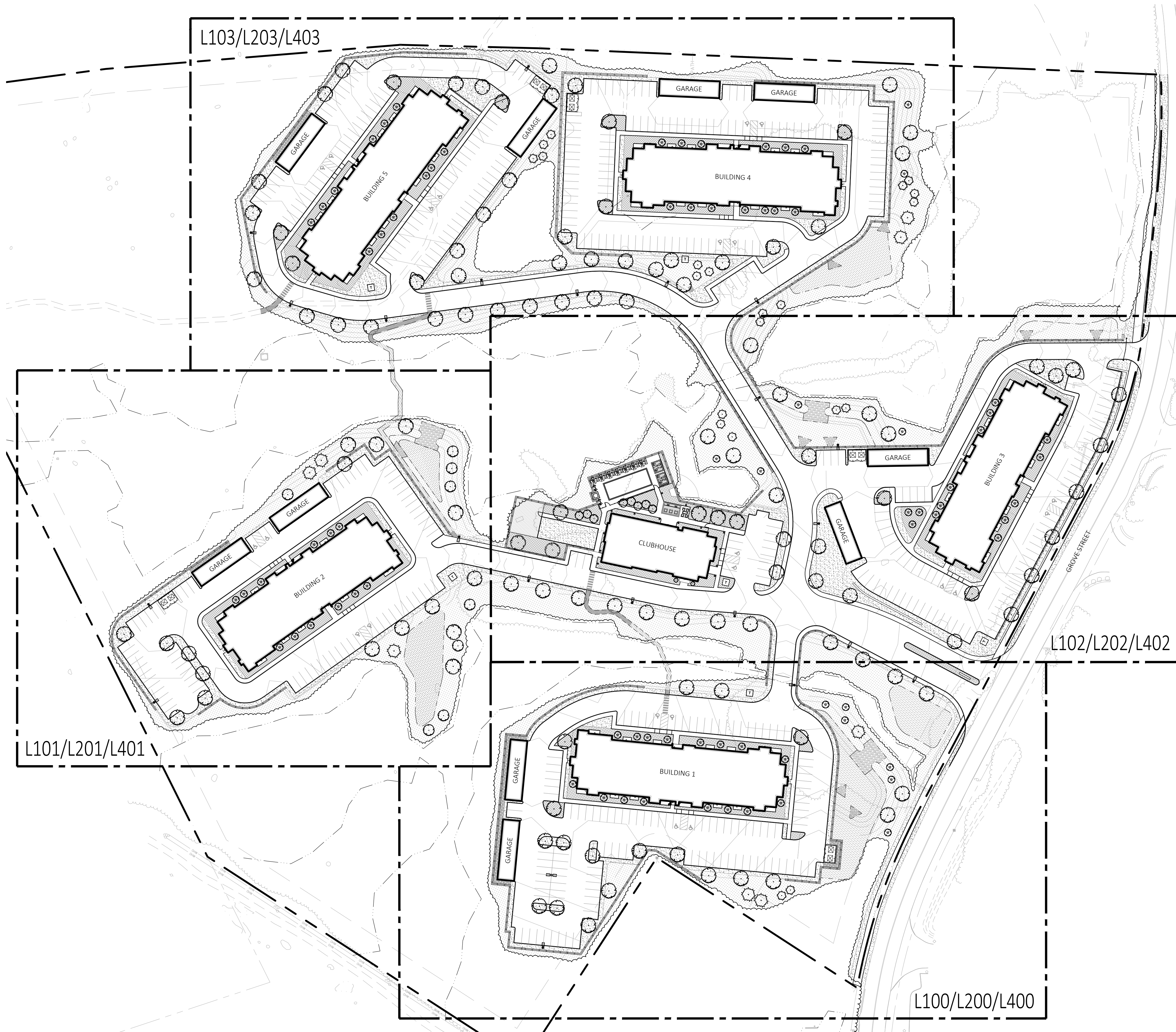
PROJECT NAME:  
**GROVE STREET RESIDENCES**  
 FRANKLIN, MA

DRAWING NAME:  
**FIRE TRUCK TURNING PLAN**

DRAWING NUMBER:  
**FT-1**

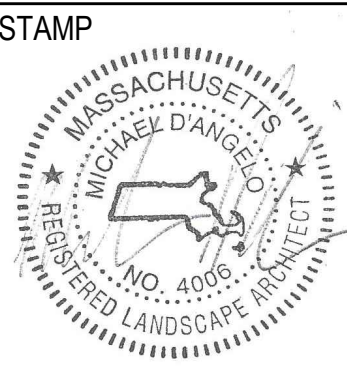
DATE: 10/30/2023 PROJECT NO.: 22016





**LANDSCAPE SHEET LIST**

- L000 - LANDSCAPE KEY PLAN
- L100 - LANDSCAPE PLANTING PLAN
- L101 - LANDSCAPE PLANTING PLAN
- L102 - LANDSCAPE PLANTING PLAN
- L103 - LANDSCAPE PLANTING PLAN
- L200 - LANDSCAPE LIGHTING PLAN
- L201 - LANDSCAPE LIGHTING PLAN
- L202 - LANDSCAPE LIGHTING PLAN
- L203 - LANDSCAPE LIGHTING PLAN
- L300 - LANDSCAPE DETAILS
- L400 - LANDSCAPE PHOTOMETRIC PLAN
- L401 - LANDSCAPE PHOTOMETRIC PLAN
- L402 - LANDSCAPE PHOTOMETRIC PLAN
- L403 - LANDSCAPE PHOTOMETRIC PLAN



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER AND TESTING CONSULTING SUBMITTAL

NOT FOR CONSTRUCTION

LANDSCAPE KEY PLAN

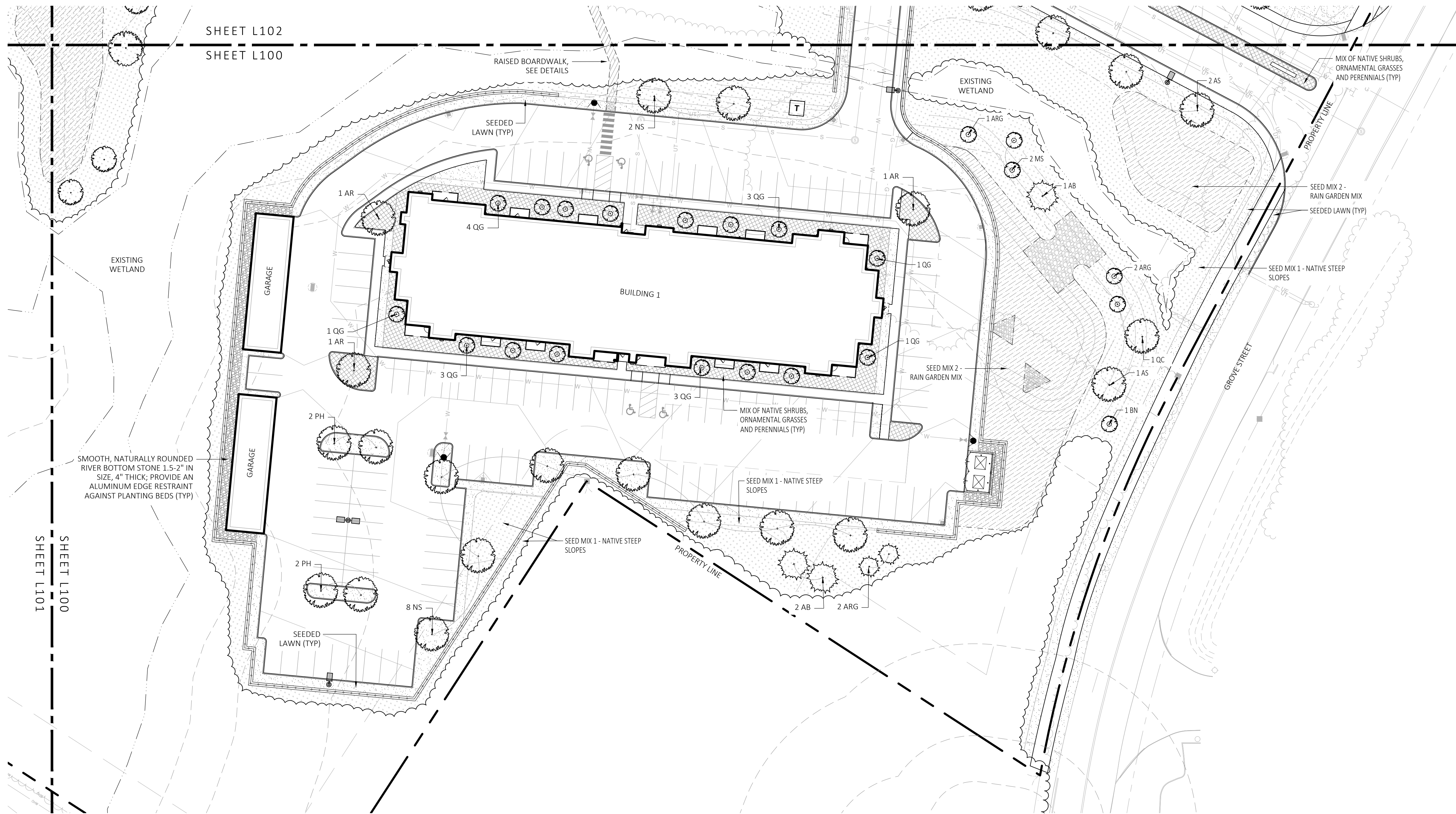
DRAWN: NC, AA  
CHECKED: NC  
SCALE: AS NOTED  
DATE: 12/18/23

**L000**

**1** LANDSCAPE KEY PLAN  
SCALE: 1" = 60'-0"







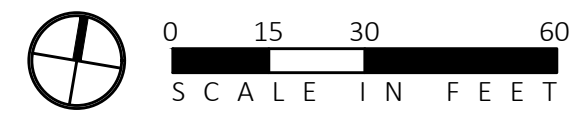
**1 LANDSCAPE PLANTING PLAN**  
SCALE: 1" = 30'-0"

**PLANTING NOTES:**

- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
- ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
- THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
- TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
- LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
- MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
- LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
- SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6" MIN.
- PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS OR EQUAL, SIZE FOR CALIPER

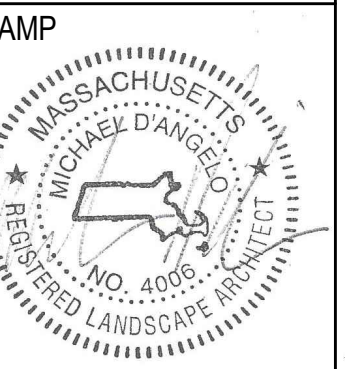
**GENERAL IRRIGATION NOTES:**

- THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
- IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO COMPLETE IRRIGATION PROGRAM.
- IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
- TREES SHOULD BE ON A SEPARATE ZONE.
- ALL TREES, SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, AND GROUND COVER SHALL BE DRIP IRRIGATED. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTER AND PLANTERS AT THE BUILDING.
- ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER SPRAY ONTO THE PAVEMENT.
- INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
- THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
- THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
- WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
- MEP CONTRACTOR TO PROVIDE BACK FLOW PREVENTION.
- THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS THAT MAY CAUSE STAINING OF CONCRETE AND PAVING SURFACES.
- INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.



SEE SHEET L300 FOR PLANTING SCHEDULE

**GROVE STREET RESIDENCES  
FRANKLIN, MA**



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/21/23	REV 2
4	12/18/23	REV PER OWNER AND TESTING RESULTS FROM SUBMITTALS

NOT FOR CONSTRUCTION  
**LANDSCAPE PLANTING PLAN**

DRAWN: NC, AA	<b>L100</b>
CHECKED: NC	
SCALE: AS NOTED	
DATE: 12/18/23	
SHEET 2 OF 14	

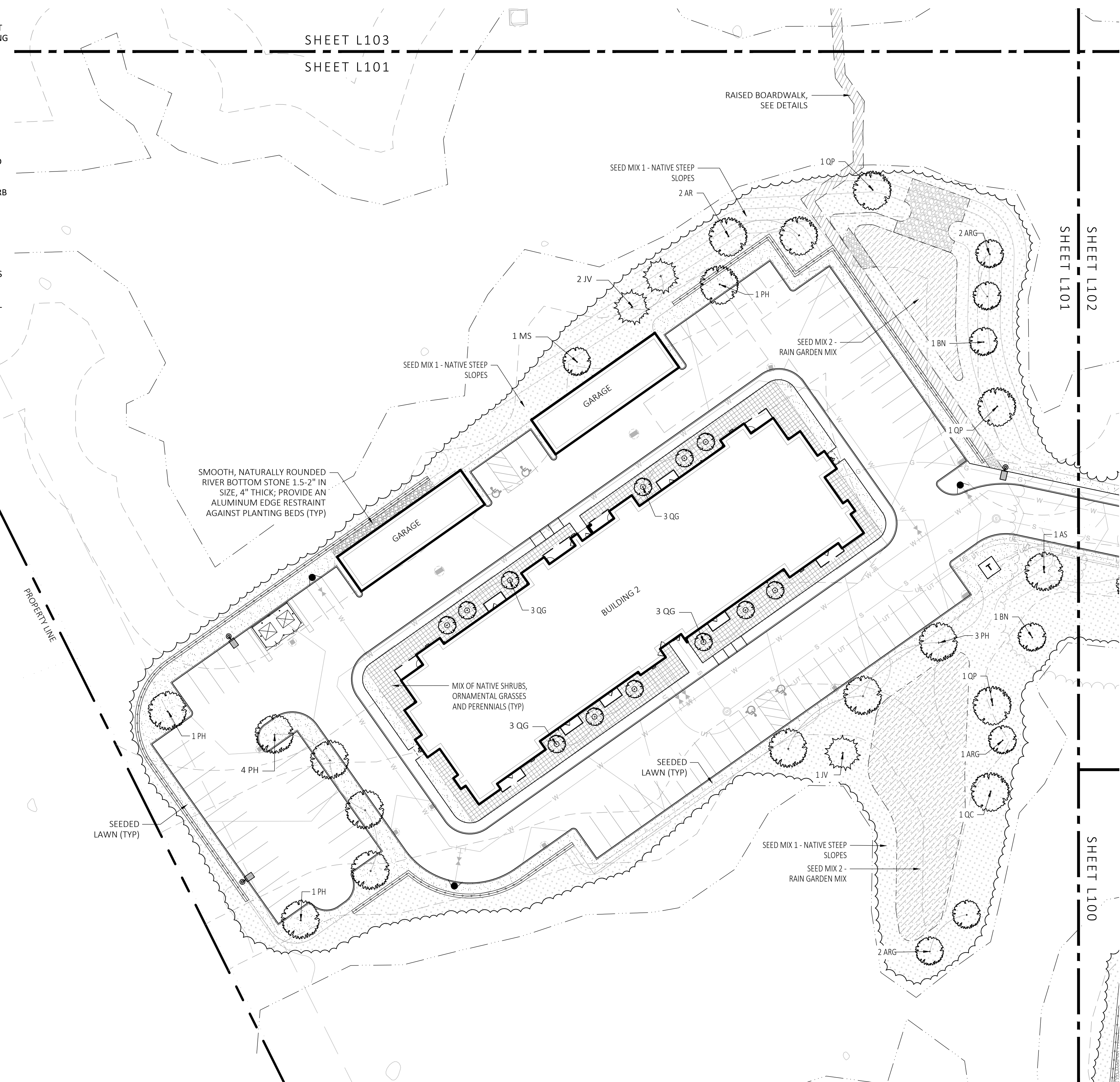


PLANTING NOTES:

1. DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
2. PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
3. ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
4. THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
5. TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
6. LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE PH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
7. MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
8. LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
9. SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6" MIN.
10. PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATIPUS EARTH ANCHORS OR EQUAL, SIZE FOR CALIPER

GENERAL IRRIGATION NOTES:

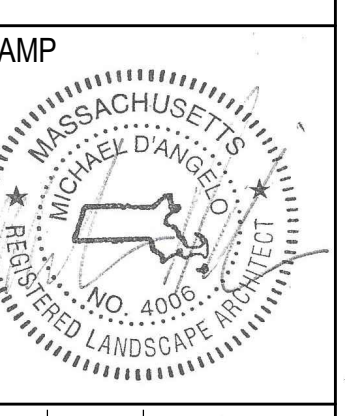
1. THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPLANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
2. IRRIGATION TO BE COORDINATED WITH GENERAL CONTRACTOR TO LOCATE THE NECESSARY PVC SLEEVING TO COMPLETE IRRIGATION PROGRAM.
3. IRRIGATION CONTRACTOR SHALL VERIFY PSI/GPM REQUIREMENTS AT THE SITE BEFORE STARTING CONSTRUCTION.
4. TREES SHOULD BE ON A SEPARATE ZONE.
5. ALL TREES, SHRUBS, PERENNIALS, ORNAMENTAL GRASSES, AND GROUND COVER SHALL BE DRIP IRRIGATED. CONTRACTOR SHALL BE AWARE THAT THE IRRIGATION SYSTEM SHALL BE ROUTED TO THE PYLON SIGN PLANTER AND PLANTERS AT THE BUILDING.
6. ALL LAWN AREAS SHALL BE SPRAY HEAD IRRIGATED. THE HEADS SHALL BE LOCATED FOR HEAD TO HEAD COVERAGE WITH ABSOLUTELY NO OVER SPRAY ONTO THE PAVEMENT.
7. INSTALL DRIP TUBING, .6GPH, 12" CENTERS, STAKED EVERY TURN OR EVERY 4'
8. THE CONTRACTOR SHALL BE EXTREMELY CAREFUL DURING THE INSTALLATION PROCESS NOT TO DISTURB NEW OR EXISTING PLANT MATERIALS. THE CONTRACTOR IS TO COORDINATE HIS WORK WITH OTHER SUB-CONTRACTORS.
9. THE IRRIGATION CONTRACTOR SHALL CONFORM TO ANY LOCAL CODES OR ORDINANCES THAT MAY BE REQUIRED TO COMPLETE THE WORK.
10. WATER SUPPLY AND CONTROLLER: COORDINATE CONNECTION TO WATER SUPPLY WITH GENERAL CONTRACTOR. COORDINATE CONTROLLER LOCATION WITH GENERAL CONTRACTOR.
11. MEP CONTRACTOR TO PROVIDE BACK FLOW PREVENTION.
12. THE IRRIGATION CONTRACTOR SHALL TEST WATER SOURCE FOR WATER QUALITY INCLUDING MINERALS THAT MAY CAUSE STAINING OF CONCRETE AND PAVING SURFACES.
13. INSTALLER SHALL INSTALL MOISTURE SENSORS. CONTRACTOR SHALL INSTALL PER MANUFACTURER'S SPECIFICATIONS AND SHALL BE RESPONSIBLE TO PROGRAM RELATED HYDROZONES TO RESPECTIVE SOIL MOISTURE SENSORS. PROVIDE ONE FOR EACH IRRIGATION ZONE WITH AUTOMATIC SHUT-OFF ONCE MOISTURE REQUIREMENTS ARE MET.



1 LANDSCAPE PLANTING PLAN  
SCALE: 1" = 30'-0"



SEE SHEET L300 FOR PLANTING SCHEDULE



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER SOIL TESTING RESULTS AND SUBMITTALS

NOT FOR CONSTRUCTION

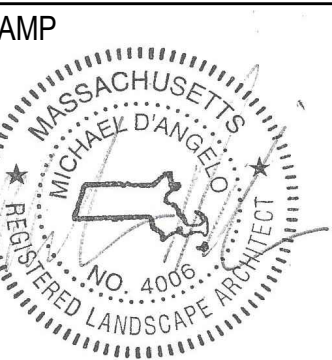
LANDSCAPE PLANTING PLAN

DRAWN:  
NC, AA  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
12/18/23

**L101**



GROVE STREET RESIDENCES  
FRANKLIN, MA

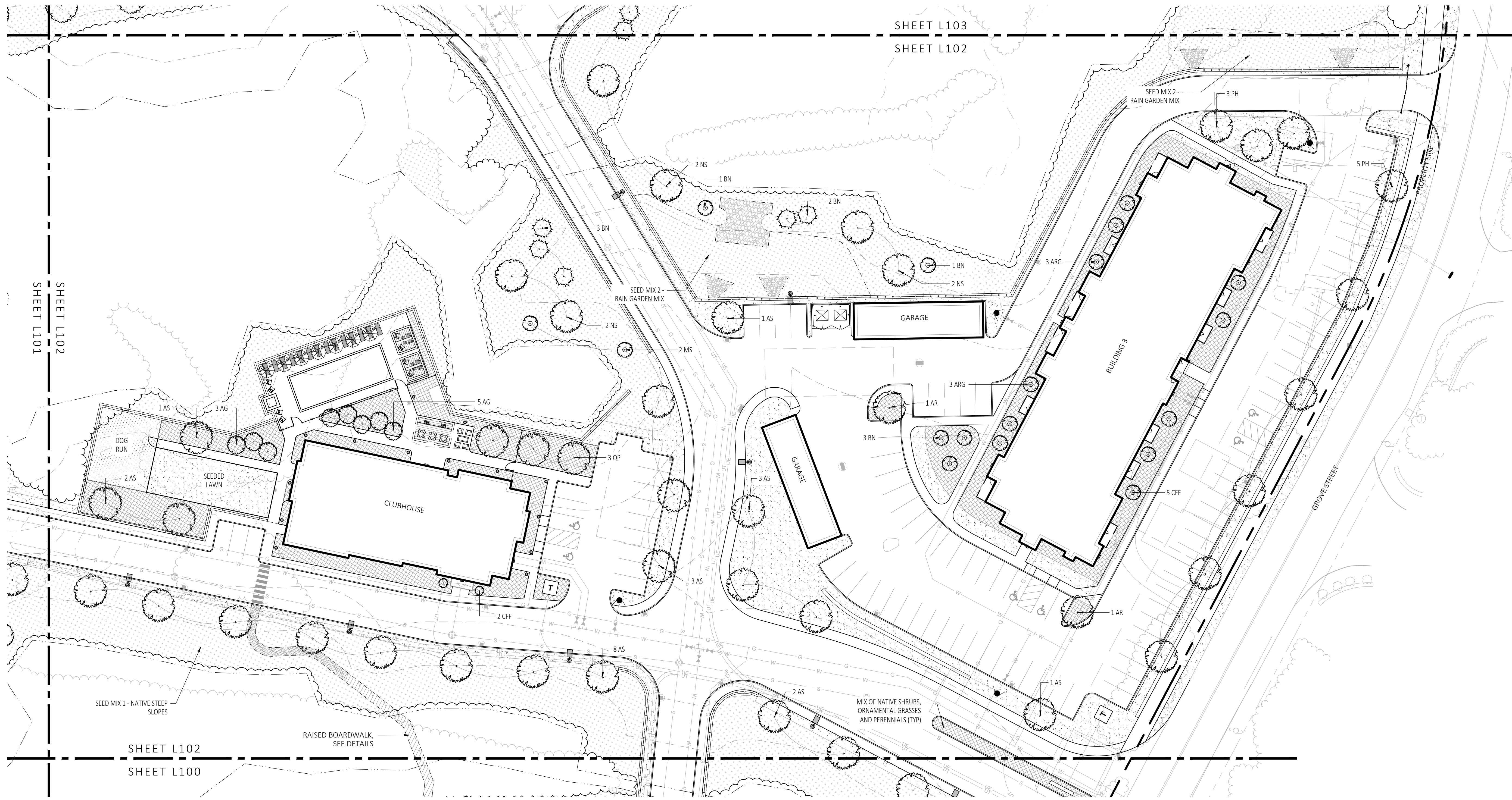


REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER SOD TESTING RESULTS AND SUBMITTALS

NOT FOR  
CONSTRUCTION

LANDSCAPE  
PLANTING  
PLAN

DRAWN:	NC, AA
CHECKED:	NC
SCALE:	L102
AS NOTED:	
DATE:	12/18/23



**1** LANDSCAPE PLANTING PLAN  
SCALE: 1" = 30'-0"

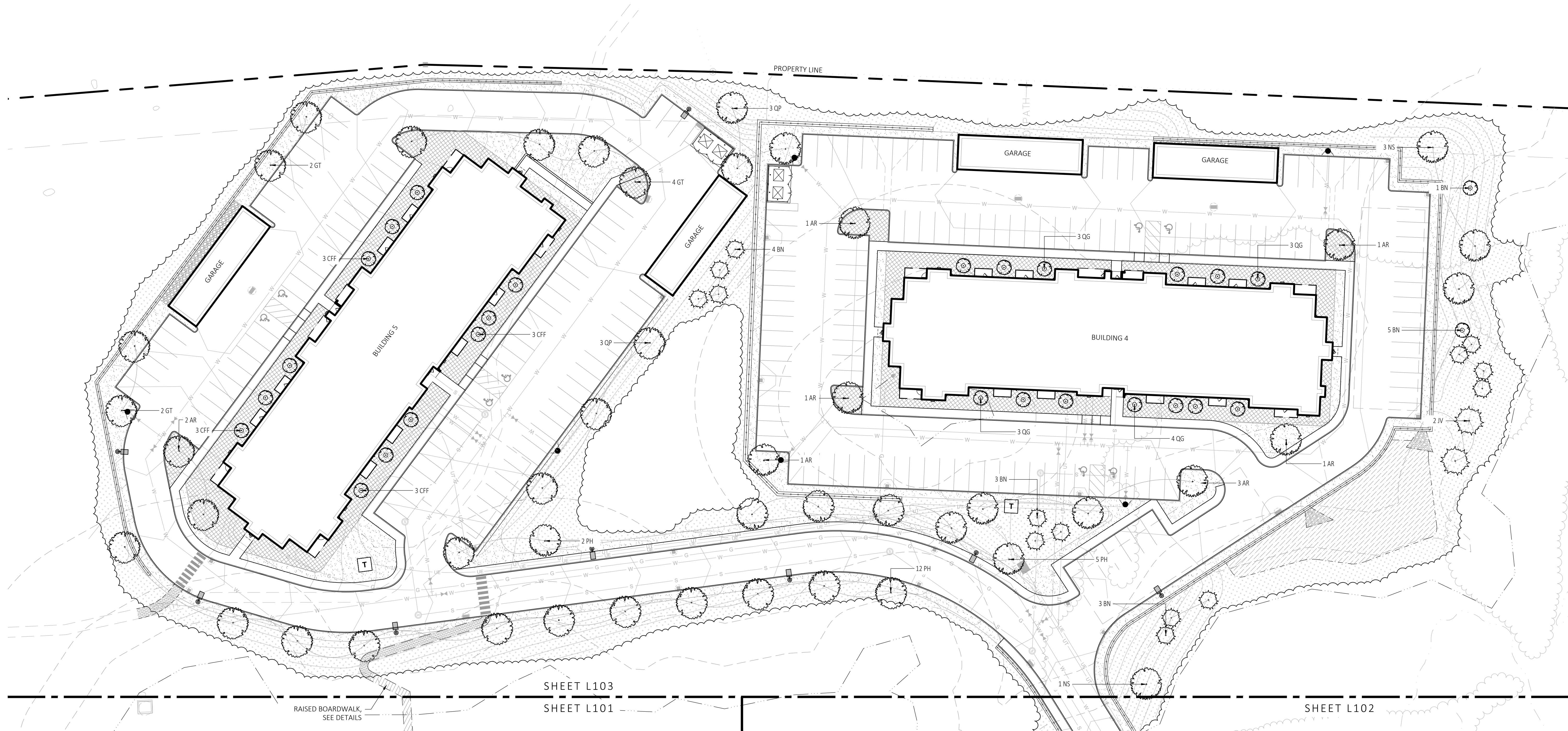


SEE SHEET L300 FOR  
PLANTING SCHEDULE

- PLANTING NOTES:**
- DURING CONSTRUCTION, PROTECT ALL EXISTING SITE FEATURES, STRUCTURES AND UTILITIES.
  - PLANTS SHALL BE TRUE TO SPECIES AND VARIETY SPECIFIED AND NURSERY GROWN IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT. SUBSTITUTIONS WILL BE PERMITTED ONLY IF APPROVED BY THE LANDSCAPE ARCHITECT.
  - ALL EXPOSED BURLAP, WIRE BASKETS AND OTHER MATERIALS ATTACHED TO PLANTS SHALL BE REMOVED PRIOR TO PLANTING. CARE SHALL BE TAKEN NOT TO DISTURB THE ROOT BALL OF PLANTS.
  - THOROUGHLY WATER ALL PLANTS IMMEDIATELY AFTER PLANTING.
  - TRANSPLANTING SHALL BE DONE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK.
  - LOAM USED IN PLANT BEDS SHALL BE UNIFORM IN COMPOSITION, FREE FROM SUBSOIL, STONES LARGER THAN 1", NOXIOUS SEEDS AND SUITABLE FOR THE SUPPORT OF VEGETATIVE GROWTH. THE pH VALUE SHALL BE BETWEEN 5.5 AND 6.5.
  - MULCH IN TREE AND SHRUB BEDS SHALL BE NATURAL, NATIVE HEMLOCK MULCH FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS. SUBMIT SAMPLES FOR APPROVAL.
  - LOCATIONS FOR PLANTS AND/OR OUTLINE OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
  - SOIL DEPTHS: a.) SHRUBS AND PERENNIAL BEDS: 18" MIN.; b.) GROUND COVER: 6" MIN.; c.) TREES: SEE DETAIL; d.) SOD/SEED: 6" MIN.
  - PROVIDE A SUBSURFACE ROOTBALL ANCHOR BY PLATYPUS EARTH ANCHORS OR EQUAL, SIZE FOR CALIPER

- GENERAL IRRIGATION NOTES:**
- THE DESIGN/BUILD IRRIGATION SUB-CONTRACTOR SHALL PROVIDE A COMPLETE SYSTEM FOR THE IRRIGATION AREAS SHOWN ON THE PLAN, WHICH INCLUDES NEW AND EXISTING TRANSPANTED PLANT MATERIALS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FINAL LAYOUT OF IRRIGATION SHOWING LOCATIONS AND SIZES OF MAIN LINES AND LATERAL LINES, ZONES, RAIN AND SOIL SENSORS, AND CUT SHEETS FOR CONTROLLER SYSTEM AND COMPONENTS. INCLUDE ANY NECESSARY SLEEVING ON A DIAGRAM.
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**1 LANDSCAPE PLANTING PLAN**  
SCALE: 1" = 30'-0"



**PLANTING NOTES:**

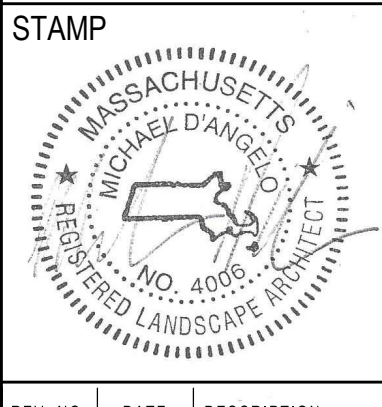
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SEE SHEET L300 FOR PLANTING SCHEDULE

**GROVE STREET RESIDENCES  
FRANKLIN, MA**

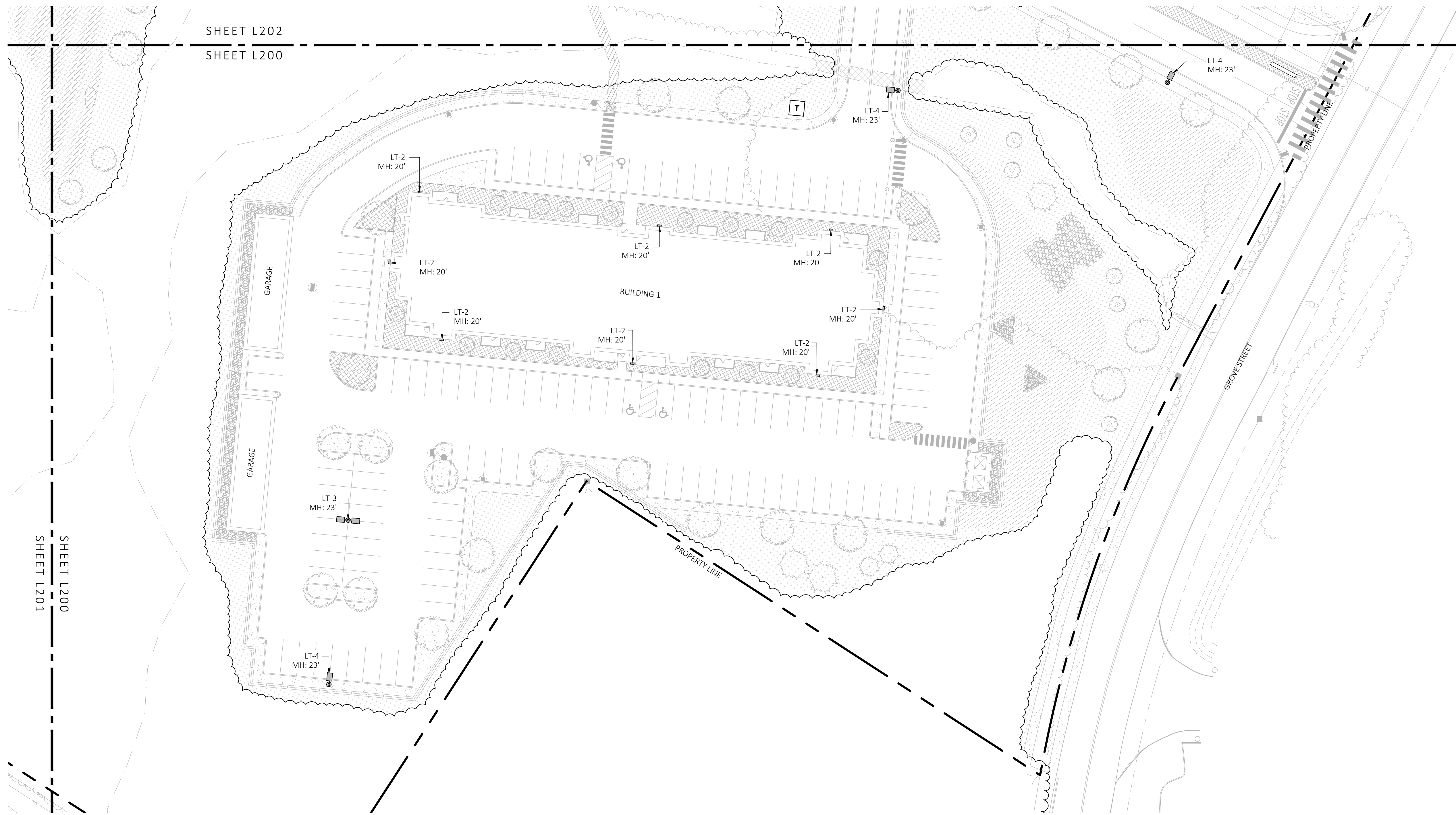


REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/21/23	REV 2
4	12/18/23	REV PER OWNER BIDDING REQUIREMENTS

NOT FOR CONSTRUCTION  
**LANDSCAPE PLANTING PLAN**

DRAWN: NC, AA	<b>L103</b>
CHECKED: NC	
SCALE: AS NOTED	
DATE: 12/18/23	



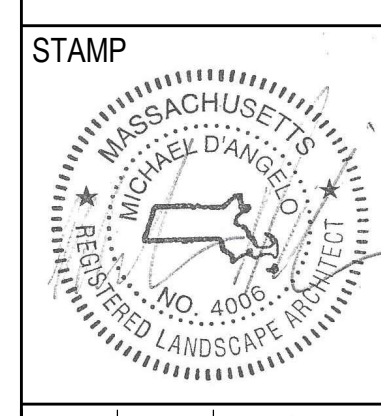


**1** LANDSCAPE LIGHTING PLAN  
SCALE: 1" = 30'-0"

LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
○	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
▬	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	
⊕	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
⊙	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT

GROVE STREET RESIDENCES  
FRANKLIN, MA



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER CLIENT FOR TESTING PROTECTIVE SUBMITTALS

NOT FOR CONSTRUCTION

LANDSCAPE LIGHTING PLAN

DRAWN:  
NC, AA  
CHECKED:  
NC  
SCALE: **L200**  
AS NOTED  
DATE:  
12/18/23

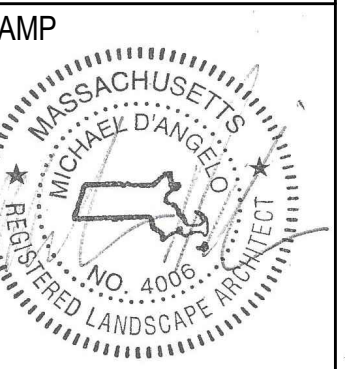


LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
●	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	
□	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
⊙	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT



**1** LANDSCAPE LIGHTING PLAN  
SCALE: 1" = 30'-0"



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER AND TESTING CONSULTING SUBMITTAL

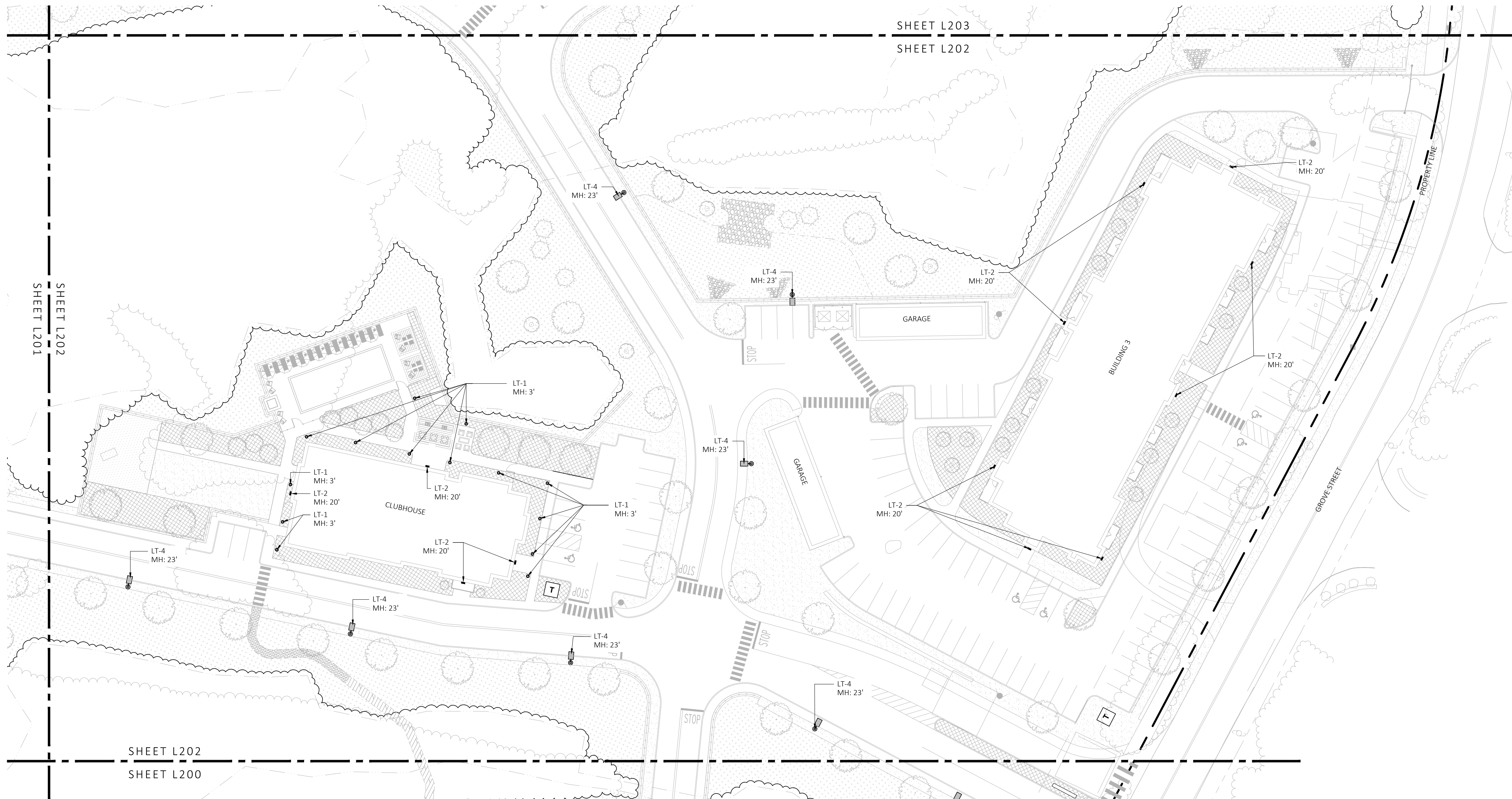
NOT FOR CONSTRUCTION

LANDSCAPE LIGHTING PLAN

DRAWN:  
NC, AA  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
12/18/23

**L201**



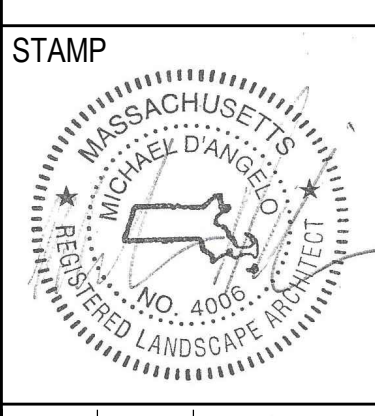


**1 LANDSCAPE LIGHTING PLAN**  
SCALE: 1" = 30'-0"

LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
●	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
■	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	
☐	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
⊙	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT

**GROVE STREET RESIDENCES  
FRANKLIN, MA**



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER CLIENT FOR TESTING PRODUCTIONS SUBMISSION

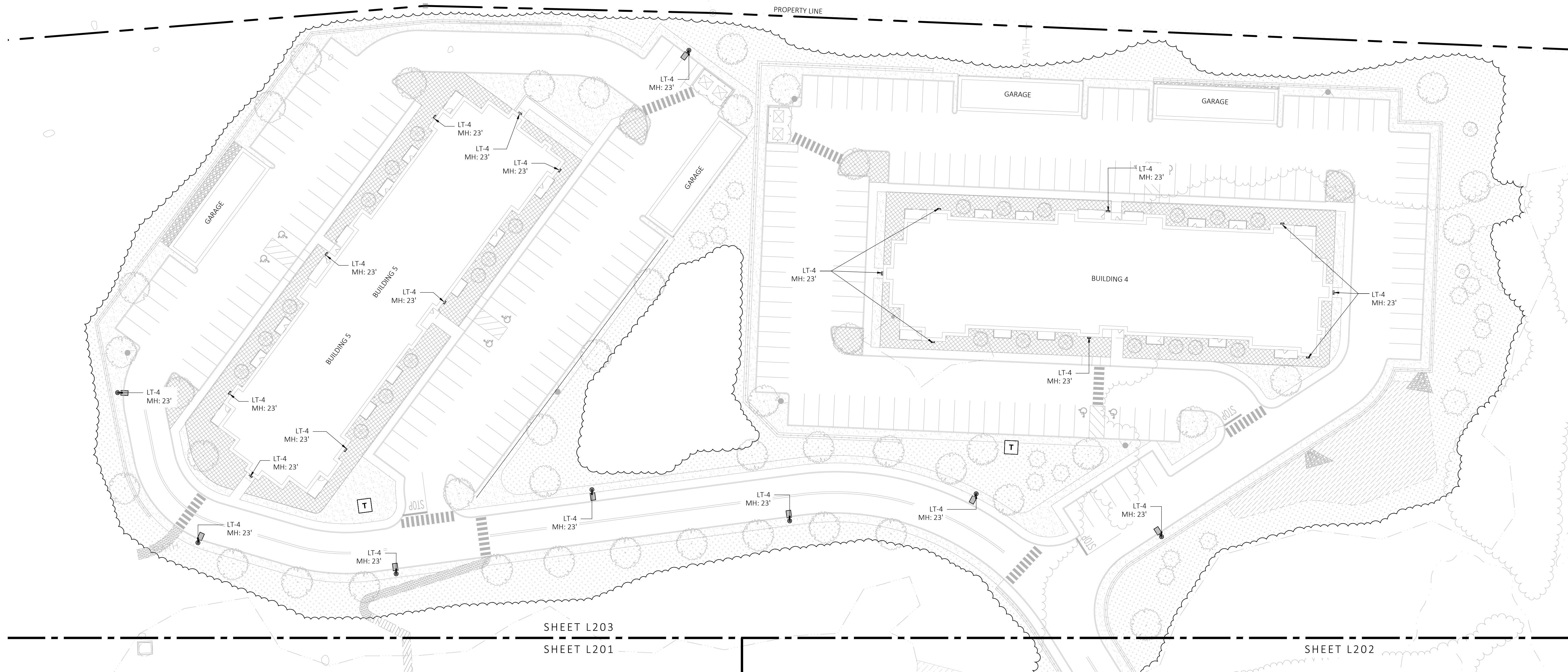
NOT FOR  
CONSTRUCTION

**LANDSCAPE  
LIGHTING  
PLAN**

DRAWN:  
NC, AA  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
12/18/23

**L202**





**1 LANDSCAPE LIGHTING PLAN**  
SCALE: 1" = 30'-0"

SHEET L203  
SHEET L201

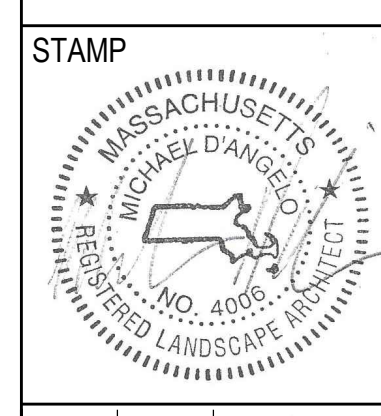
SHEET L202



LIGHT SCHEDULE					
SYMBOL	LABEL	DESCRIPTION	MOUNT	OPTIONS	REP
●	LT-1	BOLLARD LIGHT	CONCRETE FOOTING	COLOR: BLK	
▬	LT-2	BLDG LIGHT	BUILDING MOUNTED	COLOR: BLK	ILLUMINATE 617-947-8996 STEVE PRUDHOMME
⊕	LT-3	2-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	
⊙	LT-4	1-SIDED POLE LIGHT	POLE WITH CONCRETE FOOTING; KEEP 24" ABOVE GRADE IN ASPHALT KEEP 3" ABOVE GRADE IN PLANTING	COLOR: BLK	

NOTE: MH = MOUNTING HEIGHT

**GROVE STREET RESIDENCES  
FRANKLIN, MA**



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER FOR TESTING AND FINISH SUBMITTALS

NOT FOR CONSTRUCTION

**LANDSCAPE LIGHTING PLAN**

DRAWN: NC, AA  
CHECKED: NC  
SCALE: **L203**  
AS NOTED  
DATE: 12/18/23





**Ernst Conservation Seeds**  
8884 Mercor Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

*Spring*

Date: August 28, 2018

**Native Steep Slope Mix w/Grain Oats - ERNMX-181-1**

Botanical Name	Common Name	Price/lb
40.00 % <i>Avena sativa</i> , Variety Not Stated	Oats, Variety Not Stated	0.22
20.40 % <i>Sorghastrum nutans</i> , NY Ecotype	Indiangrass, NY Ecotype	13.90
8.10 % <i>Andropogon gerardii</i> , Niagara	Big Bluestem, Niagara	13.90
7.50 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
5.20 % <i>Elymus canadensis</i>	Canada Wildrye	12.87
4.50 % <i>Schizachyrium scoparium</i> , Fort Indiantown Gap-PA Ecotype	Little Bluestem, Fort Indiantown Gap-PA Ecotype	12.00
3.70 % <i>Trichloris flavus</i> , Fort Indiantown Gap-PA Ecotype	Purpletop, Fort Indiantown Gap-PA Ecotype	18.78
3.00 % <i>Agrilus perennis</i> , Albany Pine Bush-NY Ecotype	Autumn Bentgrass, Albany Pine Bush-NY Ecotype	14.00
2.30 % <i>Panicum virgatum</i> , Shawnee	Switchgrass, Shawnee	7.51
1.10 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
1.00 % <i>Echinacea purpurea</i>	Purple Coneflower	36.00
0.80 % <i>Gaillardia aristata</i>	Perennial Gaillardia (Blackerflower)	32.00
0.80 % <i>Rudbeckia hirta</i>	Black-eyed Susan	20.00
0.70 % <i>Heliopsis helianthoides</i> , PA Ecotype	Orange Sunflower, PA Ecotype	42.00
0.40 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype	300.00
0.20 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype	150.00
0.20 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.10 % <i>Penstemon digitalis</i>	Tall White Beardtongue	160.00

**100.00 %** **Mix Price/lb Bulk: \$10.45**

**Seeding Rate:** 75 lb per acre  
Erosion Control & Revegetation

Use this formula with grain oats as a cover crop in the spring and summer (until September 1st). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.  
All prices are FOB Meadville, PA.  
Please check our web site at [www.ernstseed.com](http://www.ernstseed.com)  
for current pricing when placing orders.

**7 SEED MIX 1 - NATIVE STEEP SLOPES (SPRING)**  
SCALE: N.T.S.



**Ernst Conservation Seeds**  
8884 Mercor Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

*Fall*

Date: August 28, 2018

**Native Steep Slope Mix w/Grain Rye - ERNMX-181-2**

Botanical Name	Common Name	Price/lb
40.00 % <i>Secale cereale</i> , Variety Not Stated	Grain Rye, Variety Not Stated	0.21
20.40 % <i>Sorghastrum nutans</i> , PA Ecotype	Indiangrass, PA Ecotype	10.60
8.10 % <i>Andropogon gerardii</i> , Niagara	Big Bluestem, Niagara	13.06
7.50 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
5.20 % <i>Elymus canadensis</i>	Canada Wildrye	12.87
4.50 % <i>Schizachyrium scoparium</i> , 'Camper'	Little Bluestem, 'Camper'	12.99
3.70 % <i>Trichloris flavus</i>	Purpletop	18.56
3.00 % <i>Agrilus perennis</i> , Albany Pine Bush-NY Ecotype	Autumn Bentgrass, Albany Pine Bush-NY Ecotype	14.00
2.30 % <i>Panicum virgatum</i> , Shawnee	Switchgrass, Shawnee	7.51
1.10 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
1.00 % <i>Echinacea purpurea</i>	Purple Coneflower	36.00
0.80 % <i>Gaillardia aristata</i>	Perennial Gaillardia (Blackerflower)	32.00
0.80 % <i>Rudbeckia hirta</i>	Black-eyed Susan	20.00
0.70 % <i>Heliopsis helianthoides</i> , PA Ecotype	Orange Sunflower, PA Ecotype	42.00
0.40 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype	300.00
0.30 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.20 % <i>Asclepias syriaca</i> , PA Ecotype	Common Milkweed, PA Ecotype	150.00

**100.00 %** **Mix Price/lb Bulk: \$9.88**

**Seeding Rate:** 75 lb per acre  
Erosion Control & Revegetation

Use this formula with grain rye as a cover crop (from August 1st-February 15th). Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.  
All prices are FOB Meadville, PA.  
Please check our web site at [www.ernstseed.com](http://www.ernstseed.com)  
for current pricing when placing orders.

**6 SEED MIX 1 - NATIVE STEEP SLOPES (FALL)**  
SCALE: N.T.S.



**Ernst Conservation Seeds**  
8884 Mercor Pike  
Meadville, PA 16335  
(800) 873-3321 Fax (814) 336-5191  
www.ernstseed.com

Date: August 28, 2018

**Rain Garden Mix - ERNMX-180**

Botanical Name	Common Name	Price/lb
31.50 % <i>Schizachyrium scoparium</i> , Albany Pine Bush-NY Ecotype	Little Bluestem, Albany Pine Bush-NY Ecotype	12.02
20.00 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype	7.72
10.00 % <i>Carex suparivata</i> , PA Ecotype	Fox Sedge, PA Ecotype	24.00
10.00 % <i>Panicum rigidulum</i> , Coastal Plain NC Ecotype	Redtop Panicgrass, Coastal Plain NC Ecotype	48.00
5.00 % <i>Coreopsis lanceolata</i>	Purple Coneflower	36.00
3.00 % <i>Echinochloa crusgalli</i>	Lanceleaf Conehead	24.00
3.00 % <i>Rudbeckia hirta</i>	Black-eyed Susan	20.00
2.00 % <i>Carex scoparia</i> , PA Ecotype	Blunt Brown Sedge, PA Ecotype	72.00
2.00 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype	10.00
2.00 % <i>Eupatorium coelestinum</i> , VA Ecotype	Heathflower, VA Ecotype	120.00
2.00 % <i>Heliopsis helianthoides</i> , PA Ecotype	Orange Sunflower, PA Ecotype	42.00
2.00 % <i>Penstemon digitalis</i> , PA Ecotype	Tall White Beardtongue, PA Ecotype	160.00
1.00 % <i>Asclepias incarnata</i> , PA Ecotype	Swamp Milkweed, PA Ecotype	160.00
1.00 % <i>Juncus effusus</i>	Soft Rush	60.00
1.00 % <i>Juncus tenuis</i> , PA Ecotype	Path Rush, PA Ecotype	66.00
1.00 % <i>Liatris spicata</i>	Marsh (Dense) Blazing Star (Spiked Gayfeather)	210.00
0.80 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype	300.00
0.70 % <i>Aster laevis</i> , NY Ecotype	Smooth Blue Aster, NY Ecotype	320.00
0.50 % <i>Rudbeckia hirta</i> , var. <i>rigida</i> , Northern VA Ecotype	Orange Coneflowers, Northern VA Ecotype	300.00
0.50 % <i>Senna hebecarpa</i> , VA & WV Ecotype	Wild Senna, VA & WV Ecotype	24.00
0.40 % <i>Alopecurus pratensis</i> , Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ecotype	160.00
0.30 % <i>Physanthemum tenellum</i>	Barrowed Mountainweed	140.00
0.30 % <i>Solidago juncea</i> , PA Ecotype	Early Goldenrod, PA Ecotype	280.00

**100.00 %** **Mix Price/lb Bulk: \$37.29**

**Seeding Rate:** 20 lb per acre with a cover crop of grain rye at 30 lb per acre  
Uplands & Meadows

The native perennial forbs and grasses provide food and cover for rain garden biodiversity. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will not.

Price quotes guaranteed for 30 days.  
All prices are FOB Meadville, PA.  
Please check our web site at [www.ernstseed.com](http://www.ernstseed.com)  
for current pricing when placing orders.

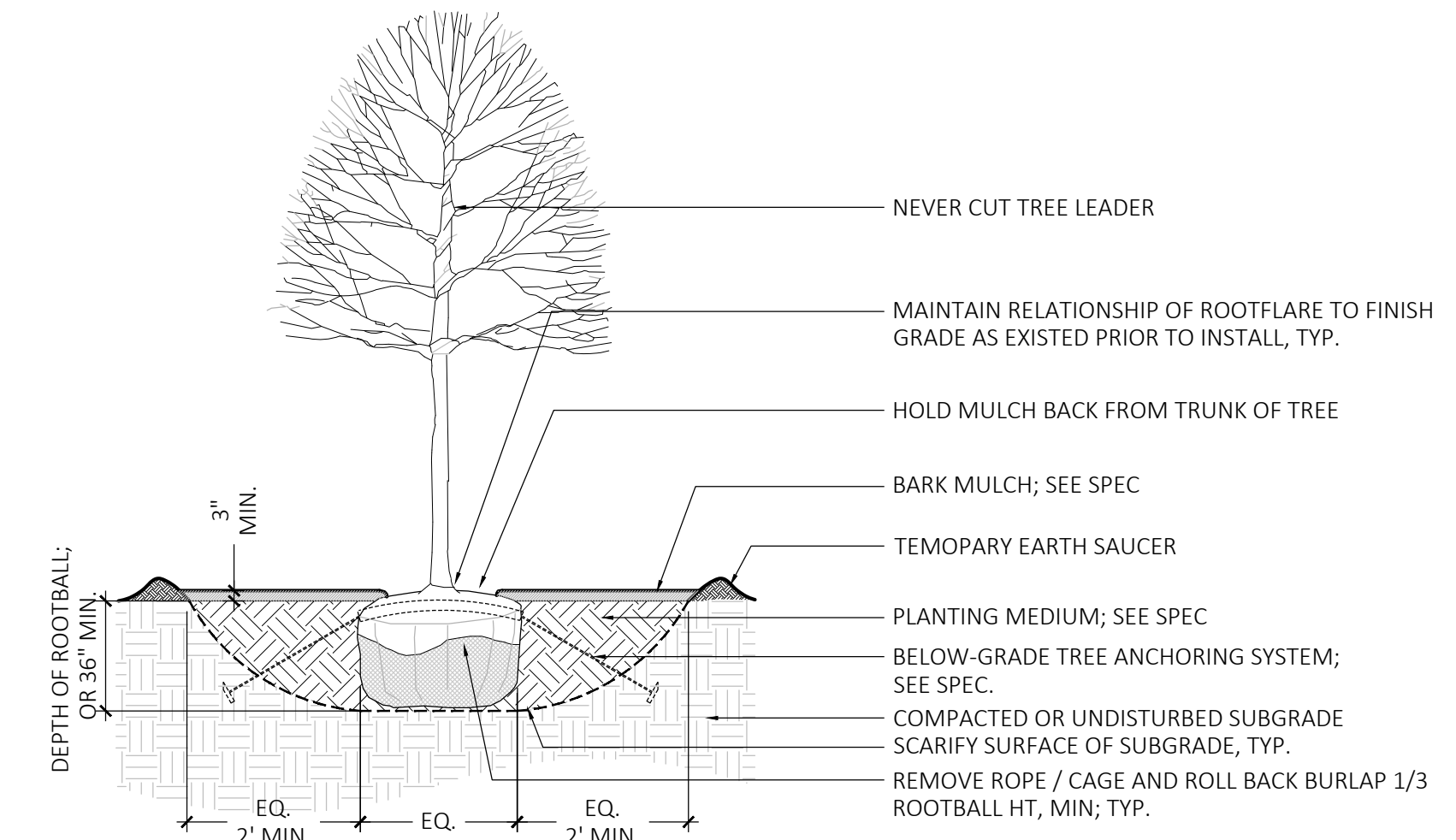
**5 SEED MIX 2 - RAIN GARDEN MIX**  
SCALE: N.T.S.

SYM	LATIN NAME	COMMON NAME	SIZE	NOTES	GRAPHIC
<b>SHADE TREES</b>					
AR	ACER RUBRUM 'RED SUNSET'	RED SUNSET MAPLE	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
ARG	ACER RUBRUM 'JFS-KW78'	ARMSTRONG GOLD MAPLE	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
AS	ACER SACCHARUM	SUGAR MAPLE	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
CF	CARPINUS 'FRANS FONTAINE'	FRANS FONTAINE HORNBEAM	3"-3.5" CAL	B&B; BRANCH TO GROUND	
GT	GLEDITSIA TRIACANTHOS	HONEY LOCUST	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
QC	QUERCUS COCCINEA	SCARLET OAK	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
QG	QUERCUS PALUSTRIS 'GREEN PILLAR'	GREEN PILLAR PIN OAK	3"-3.5" CAL	B&B; BRANCH TO GROUND	
QP	QUERCUS PALUSTRIS	PIN OAK	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
NS	NYSSA SYLVATICA	BLACK TUPELO	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
PH	PLATANUS OCCIDENTALIS	SYCAMORE	3"-3.5" CAL	B&B, 6' CLEAR BRANCHING	
<b>ORNAMENTAL TREES</b>					
AG	AMELANCHIER 'AUTUMN BRILLIANCE'	SERVICEBERRY	7' TALL	B&B, MULTI-STEM	
BN	BETULA NIGRA 'HERITAGE'	RIVER BIRCH	10' TALL	B&B, MULTI-STEM	
CF	CORNUS FLORIDA	FLOWERING DOGWOOD	6' TALL	B&B, SPECIMEN	
MS	MAGNOLIA STELLATA	STAR MAGNOLIA	6' TALL	B&B, SPECIMEN	
<b>EVERGREEN TREES</b>					
JV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	8'-9' TALL	B&B	
AB	ABIES BALSAMEA	BALSAM FIR	8'-9' TALL	B&B	
PS	PINUS STROBUS	EASTERN WHITE PINE	8'-9' TALL	B&B	
<b>SEED MIX</b>					
	ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-181-1 & 181-2) SEED MIX 1-NATIVE STEEP SLOPE MIX	75 LB/ACRE	APPLY COVER CROP- FALL: GRAIN RYE, SPRING: OAT; SEE SPEC SHEET	
	ERNST SEEDS 800-873-3321	ERNST MIX (ERNMX-180) SEED MIX 2 - RAIN GARDEN MIX	20 LB/ACRE	APPLY COVER CROP OF GRAIN RYE; SEE SPEC SHEET	

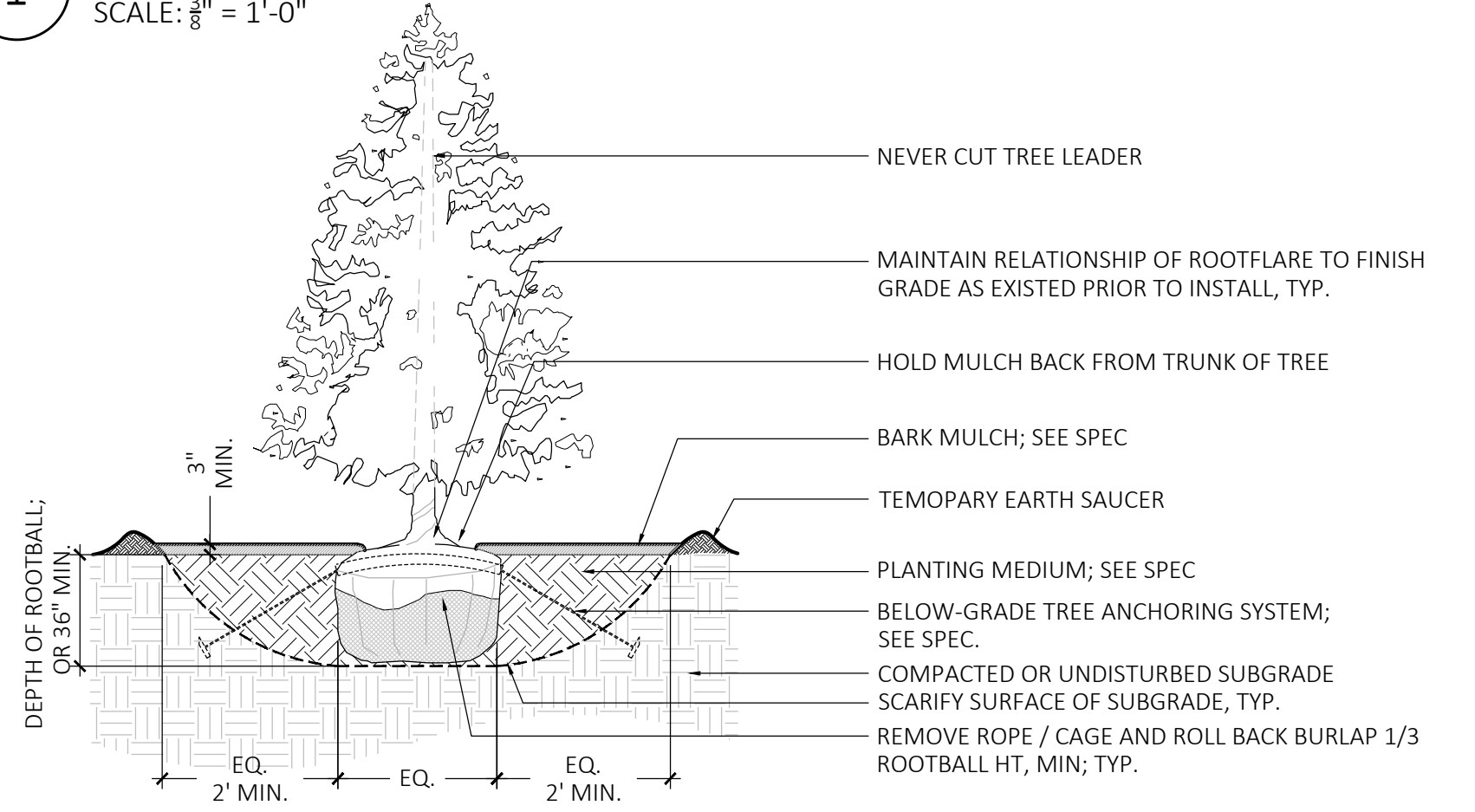
NOTE:  
1. TREE LOCATIONS AND QUANTITIES AS SHOWN, MEET THE 1 TREE PER 10 PARKING SPACES RATIO REQUIREMENT FOR LOTS OVER 20 SPACES, AS OUTLINED IN THE FRANKLIN ZONING BYLAWS  
2. ALL PROPOSED PLANTINGS ARE SELECTED FROM FRANKLIN'S BEST DEVELOPMENT PRACTICES GUIDEBOOK (§185-31.C.(K))

SYM	LATIN NAME	COMMON NAME	SIZE	NOTES	GRAPHIC
<b>SHRUB PALETTE</b>					
FG	FOTHERGILLA GARDENII	DWARF FOTHERGILLA	3 GALLON	48" O.C. B&B	
HQ	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	3 GALLON	48" O.C. B&B	
IG	ILEX GLABRA	INKBERRY	3 GALLON	48" O.C. B&B	
IV	ILEX VERTICILLATA	WINTERBERRY	3 GALLON	48" O.C. B&B	
RG	RHUS AROMATICA 'GRO LOW'	GRO LOW SUMAC	3 GALLON	48" O.C. B&B	
TM	TAXUS X MEDIA 'HICKSII'	HICKS YEW	3 GALLON	48" O.C. B&B	
<b>PERENNIALS &amp; ORNAMENTAL GRASSES</b>					
AC	ASTILBE CHINENSIS PURPURKERZE	ASTILBE	1 GAL	24" O.C. CONTAINER	
EP	ECHINACEA PURPUREA	PURPLE CONEFLOWER	1 GAL	18" O.C. CONTAINER	
PA	PENNISSETUM ALOPECUROIDES	FOUNTAIN GRASS	1 GAL	24" O.C. CONTAINER	
PL	PEROVSKIA A. 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	1 GAL	18" O.C. CONTAINER	
PV	PANICUM VIRGATUM 'SHENANDOAH'	SWITCH GRASS	1 GAL	30" O.C. CONTAINER	
RF	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACK EYE SUSAN	1 GAL	18" O.C. CONTAINER	
SS	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	1 GAL	30" O.C. CONTAINER	

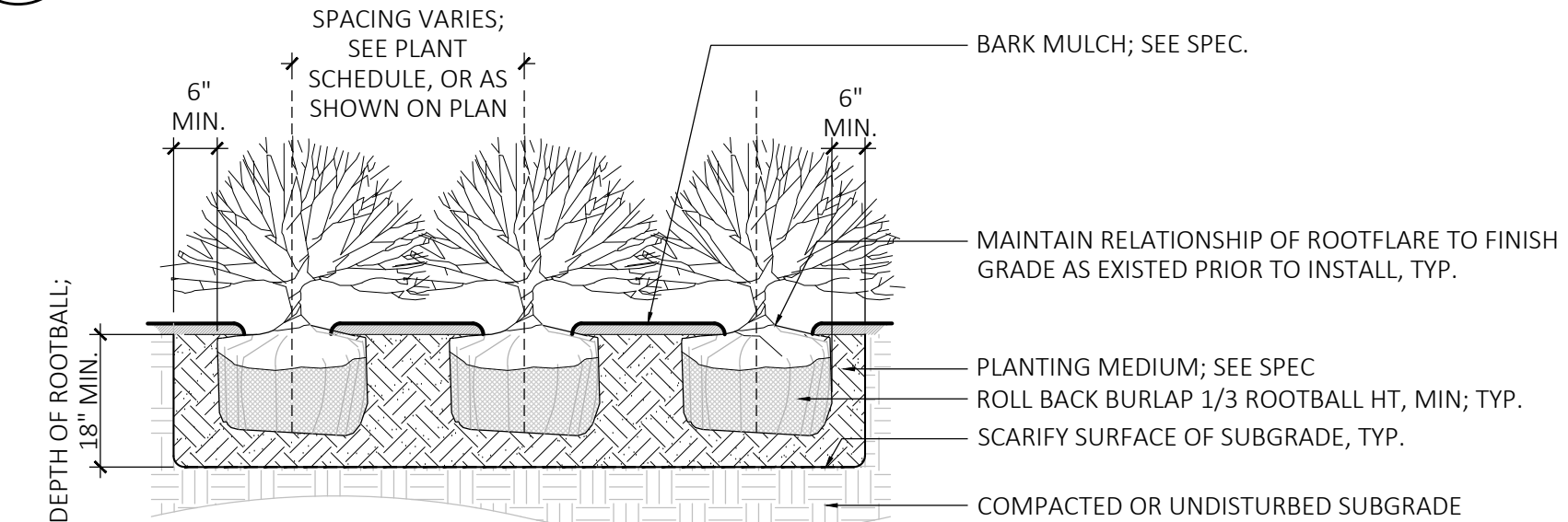
**8 PLANT SCHEDULE**  
SCALE: N.T.S.



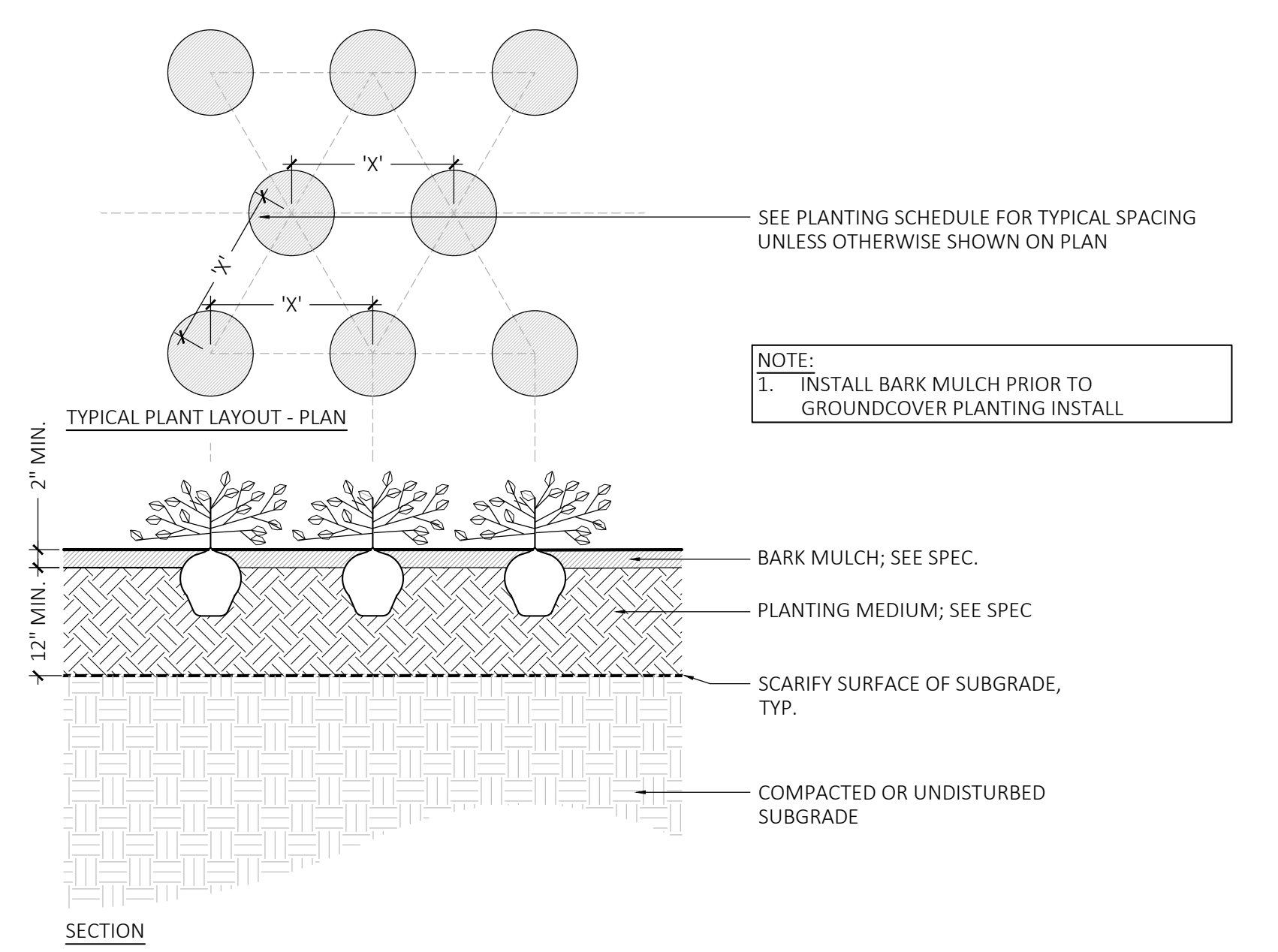
**1 DECIDUOUS TREE PLANTING**  
SCALE: 3/8" = 1'-0"



**2 EVERGREEN TREE PLANTING**  
SCALE: 3/8" = 1'-0"



**3 SHRUB PLANTING**  
SCALE: 3/8" = 1'-0"

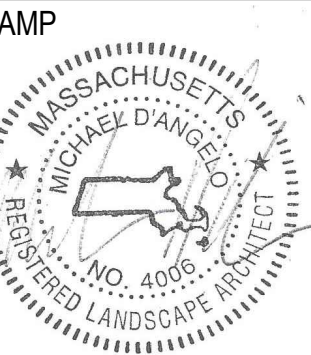


**4 GROUNDCOVER PLANTING**  
SCALE: 3/4" = 1'-0"

**MDLA**  
MICHAEL D'ANGELO landscape architecture

MICHAEL D'ANGELO  
LANDSCAPE ARCHITECTURE LLC  
840 SUMMER STREET  
SUITE 201A  
BOSTON, MA 02117  
T. 203.592.4788  
www.m-d-a.com

**GROVE STREET RESIDENCES  
FRANKLIN, MA**



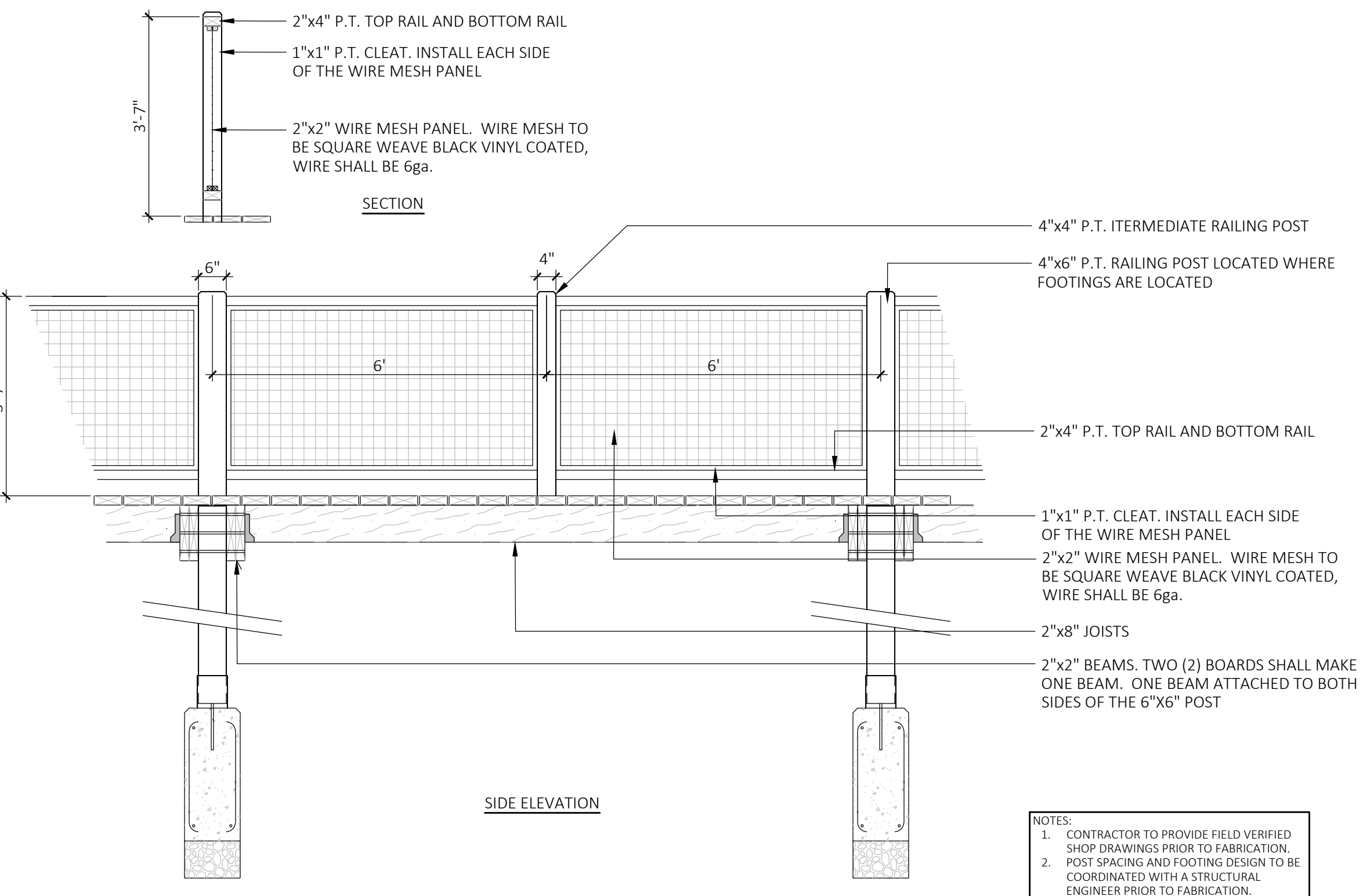
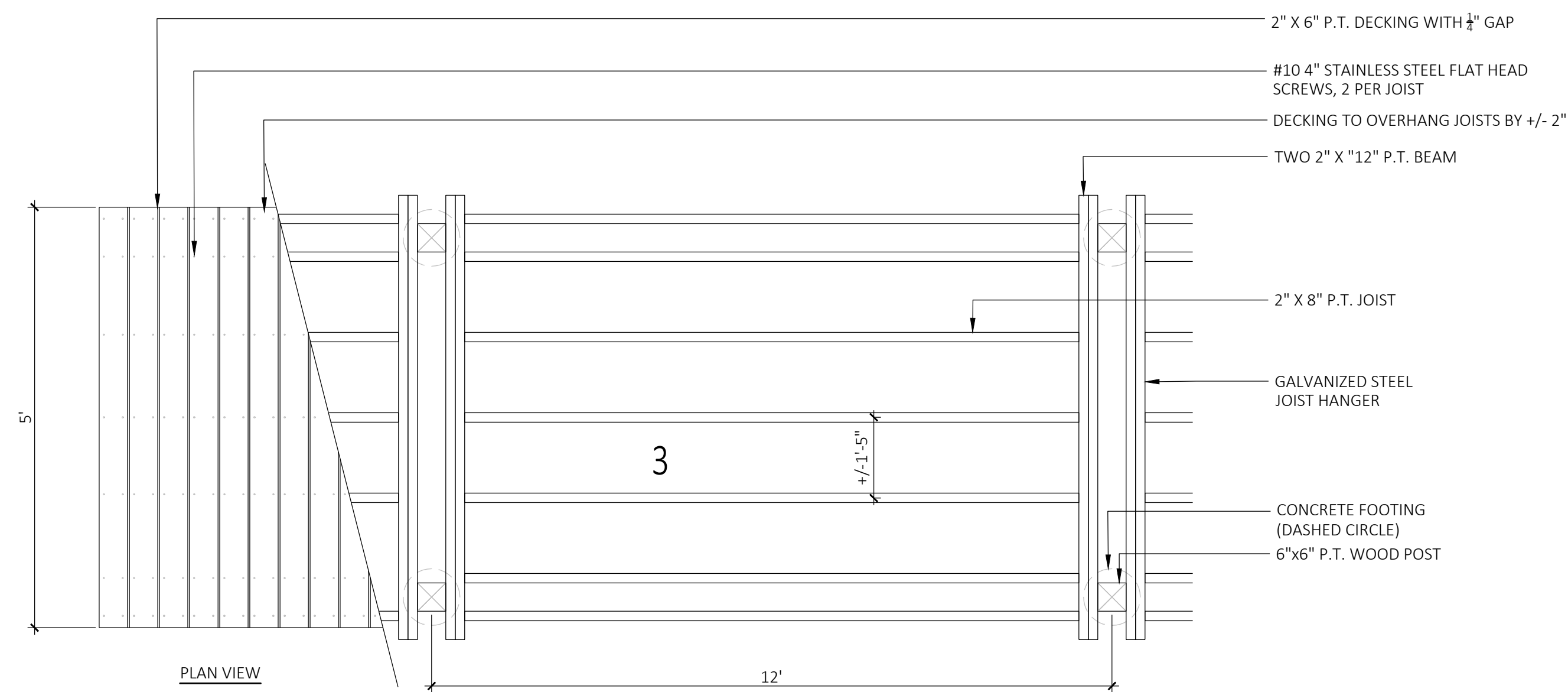
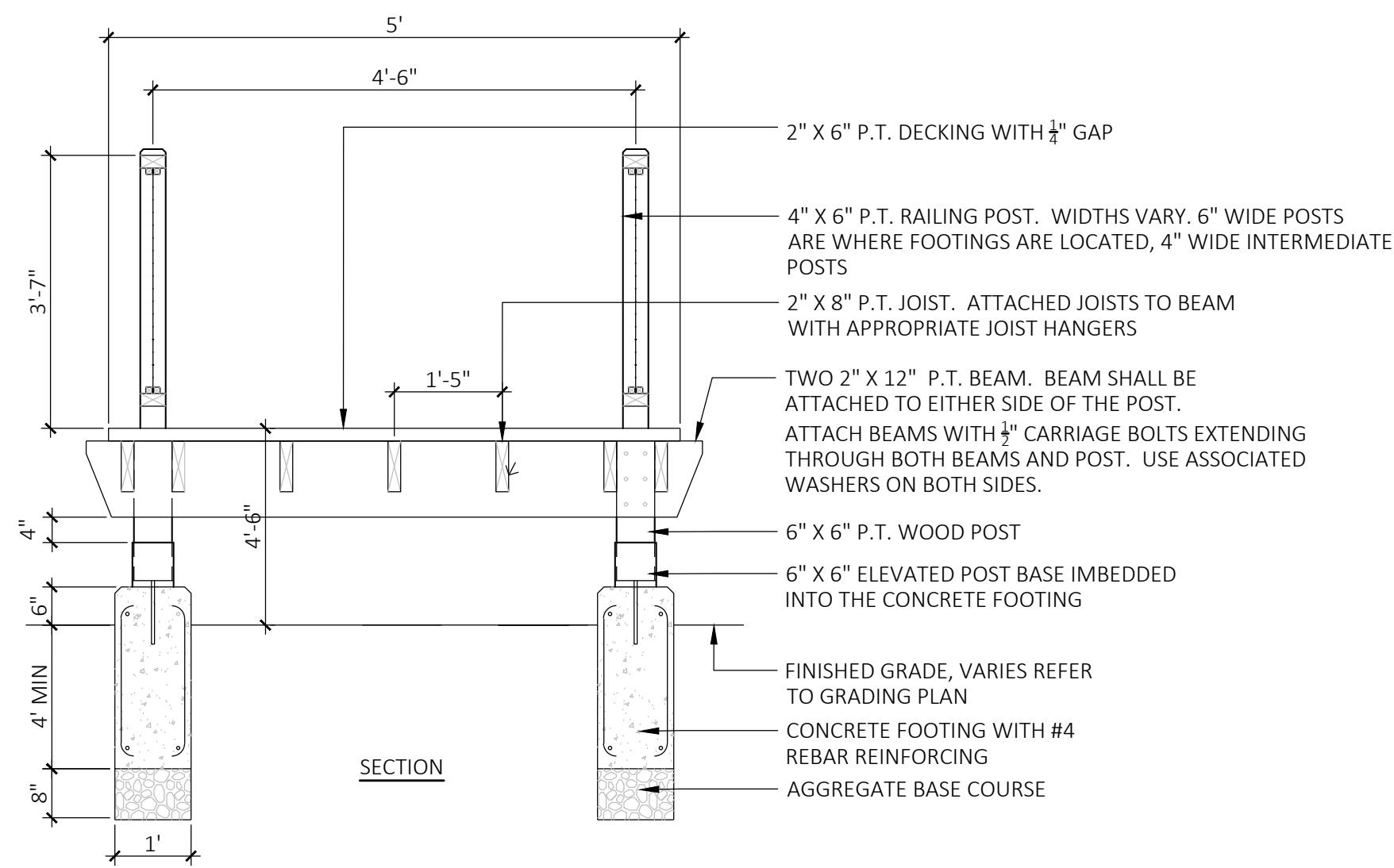
REV. NO.	DATE	DESCRIPTION
1	5/11/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER DATE DDL TESTING PROCEEDING SUBMITTAL

**NOT FOR  
CONSTRUCTION**

**LANDSCAPE  
DETAILS**

DRAWN:  
NC, AA  
CHECKED:  
NC  
SCALE: **L300**  
AS NOTED  
DATE:  
12/18/23





NOTES:  
 1. CONTRACTOR TO PROVIDE FIELD VERIFIED SHOP DRAWINGS PRIOR TO FABRICATION.  
 2. POST SPACING AND FOOTING DESIGN TO BE COORDINATED WITH A STRUCTURAL ENGINEER PRIOR TO FABRICATION.

3 RAISED BOARDWALK  
 SCALE: 1/2" = 1'-0"

Shielded bollard - asymmetric wide beam BEGA

**Application**  
 The fully shielded design of this bollard provides visual comfort while illuminating ground surfaces. Provided with mounting system that allows the luminaire to be adjusted independent of anchor bolt orientation.

**Materials**  
 Luminaire housing constructed of die-cast marine grade, copper free (0.3% copper content) A360.0 aluminum alloy  
 Clear safety glass  
 Reflector made of pure anodized aluminum  
 Silicone applied robotically to casting, plasma treated for increased adhesion  
 NRTL listed to North American Standards, suitable for wet locations  
 Protection class IP65  
 Weight: 12.8 lbs

**Electrical**  
 Operating voltage: 120-277V AC  
 Minimum start temperature: -30°C  
 LED module wattage: 11.0 W  
 System wattage: 15.0 W  
 Controllability: 0-10V, TRIAC, and ELV dimmable  
 Color rendering index: Ra > 90  
 Luminaire lumens: 1475 lumens (4000K)  
 LED service life (L70): 50,000 hours

**LED color temperature**  
 4000K - Product number + **K4**  
 3500K - Product number + **K35**  
 3000K - Product number + **K3**  
 2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Type:  
 BEGA Product:  
 Project:  
 Modified:

**Finish**  
 All BEGA standard finishes are matte, textured powder coat with minimum 3 mil thickness. BEGA Unidraw® finish, a fluoropolymer technology, provides superior fade protection in Black, Bronze, and Silver. BEGA standard White, as well as optionally available RAL and custom colors, are a polyester powder.

Available colors: Black (BLK), White (WHT), RAL, Bronze (BRZ), Silver (SLV), CLS:

Available options  
**70805** Direct burial anchorage



LED	A	B	Archetype
84220	11.5 W	0%	37%

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com  
 Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega.us.com © copyright BEGA 2021

1 LT-1 BOLLARD LIGHT  
 SCALE: N.T.S.

**BEACON**  
 VIPER Area/Site  
 VIPER LUMINAIRE

**FEATURES**

- Low profile LED area/site luminaire with a variety of IES distributions for lighting applications such as auto dealerships, retail, commercial, and campus parking lots
- Featuring two different optical technologies, Strike and Micro Strike Optics, which provide the best distribution patterns for retrofit or new construction
- Rated for high vibration applications including bridges and overpasses. All sizes are rated for 1.5G
- Control options including photo control, occupancy sensing, NK Lighting Controls™, LightGRID™ and 7-pin wireless controls
- New customizable lumen output feature allows for the wattage and lumen output to be customized in the factory to meet whatever specification requirements may entail
- Field interchangeable mounting provides additional flexibility after the fixture has shipped

**CONTROL TECHNOLOGY**  
 NK LIGHTGRID™

**SERVICE PROGRAMS**  
 STÖCK QS10

**SPECIFICATIONS**

**CONSTRUCTION**

- Die-cast housing with hidden vertical heat fins are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with 3000-hour powder-coat paint finish
- Exterior hardware is corrosion resistant

**OPTICS**

- Micro Strike Optics (60, 320, 480, or 720 LED count) maintains uniformity in applications and come standard with micro power LEDs which evenly illuminate the entire luminous surface area to provide a low glare appearance. Catalog logic found on page 3
- Strike Optics (56, 72, 108, or 162 LED count) provide high IES distributions and maximum pole spacing in new applications with high powered LEDs. Strike optics are held in place with a polycarbonate bezel to mimic the appearance of the Micro Strike Optics so both solutions can be combined on the same application. Catalog logic found on page 3
- Both optics maximize target zone illumination with minimal spill at the roadway, reducing light trespass issues. Additional backlight control bezels and housing side shields can be added for further reduction of illumination behind the pole
- One-piece silicone gasket ensures a weatherproof seal
- Zero up-light or 0 degrees of tilt
- Field rotatable optics

**INSTALLATION**

- Mounting systems for each arm can be found on page 11
- Optional universal mounting block for ease of installation during retrofit applications. Available as an add-on option (AS24) or accessory for square and round poles
- All mounting hardware included
- Knuckle arm litter option available for 2-3/8" OD search
- For products with EPA less than 1 mounted to a pole greater than 20ft, a vibration damper is recommended

DATE: LOCATION:  
 TYPE: PROJECT:  
 CATALOG #:

**MICROSTRIKE | STRIKE**

**CONTRASTS (CONTINUED)**

- 0-10V Dimming Drivers are standard and dimming levels are extended over the range of the luminaire unless control options require connection to the dimming loads. Must specify if wiring leads are to be greater than the 1/2" standard
- NK Lighting Controls™ available with in-fixture wireless control module, features dimming and occupancy sensor
- LightGRID™ available with in-fixture wireless control module, features dimming and occupancy sensor. Also available in 7-pin configuration

**WARRANTY**

- 5 year warranty

**CERTIFICATIONS**

- DLC (DesignLights Consortium) Qualified, with some Premium Qualified configurations. Not all product options listed in this document are DLC qualified. Refer to <http://www.designlights.org> for the most up-to-date list.
- Listed to UL1598 and CSA C22.2 250.0-24 for wet locations and AEC ambient temperatures
- 1.5 G rated for ANSI C36.31 high vibration applications
- Feature is IP65 rated
- Meets IEC recommendations using 3K CCT configuration at 0 degrees of tilt
- This product meets federal procurement law requirements under the Buy American Act (BAR 52.226-6) and Trade Agreements Act (BAR 52.225-11). See Buy American Act Solutions Site to <http://www.buyamericansolutions.com/resources/american-solutions/>

**Current®** [currentlighting.com/beacon](http://currentlighting.com/beacon) Page 1 of 14  
 © 2023 H.I. Solutions, Inc. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values unless noted and secondary dimensions.

2 LT-2, LT-3, LT-4 POLE/WALL MOUNTED LIGHT  
 SCALE: N.T.S.

**MDLA**  
 MICHAEL D'ANGELO landscape architecture

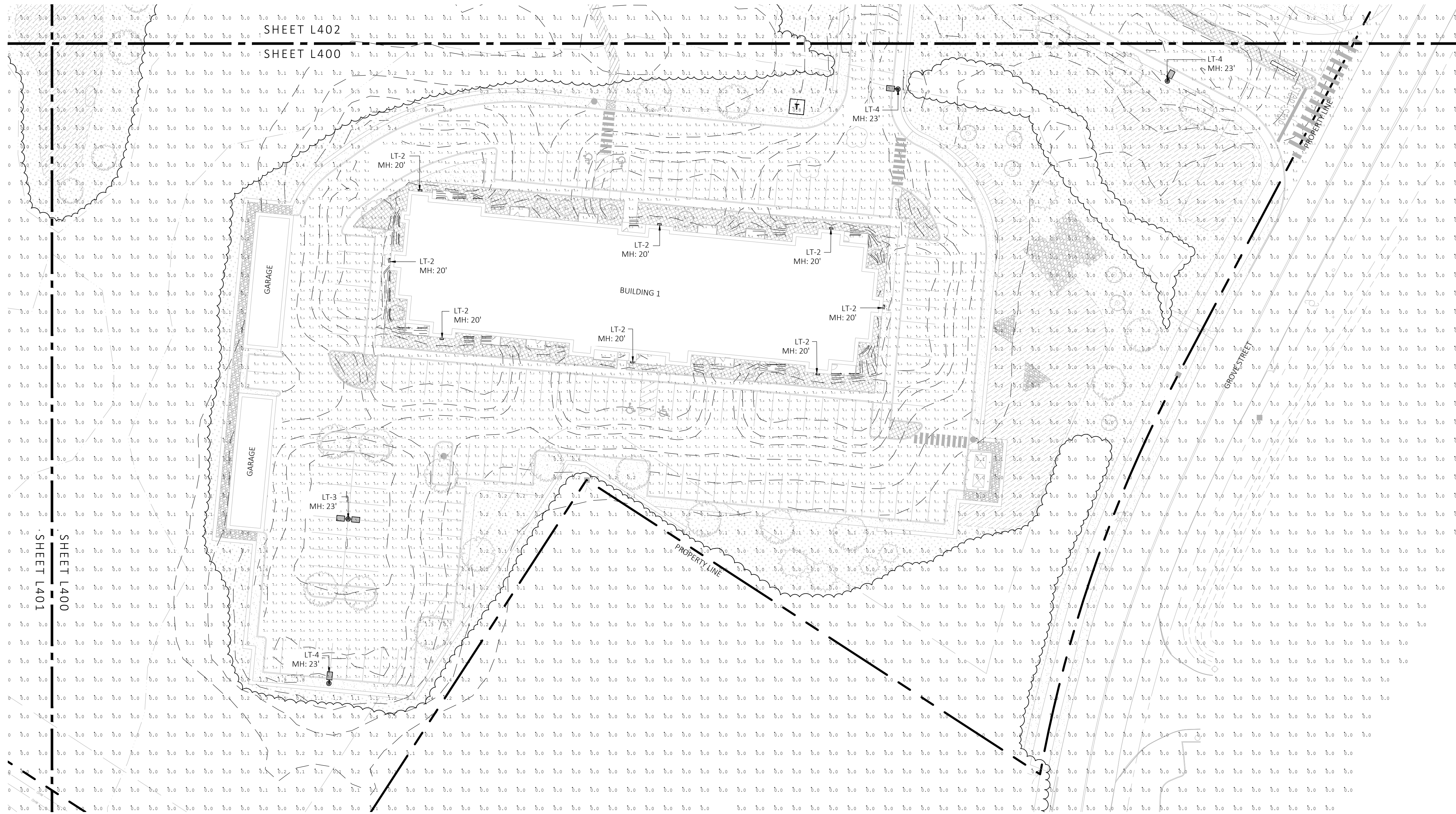
MICHAEL D'ANGELO LANDSCAPE ARCHITECTURE LLC  
 840 SUMMER STREET  
 SUITE 203A  
 BOSTON, MA 02127  
 T. 203.592.4788  
 www.m-d-a.com

**GROVE STREET RESIDENCES  
 FRANKLIN, MA**

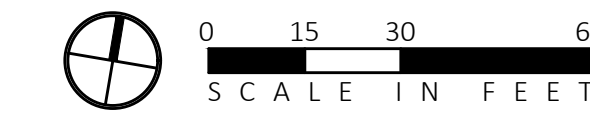
STAMP  
  
 NOT FOR CONSTRUCTION  
 LANDSCAPE LIGHTING CUTSHEETS

DRAWN: NC, AA  
 CHECKED: NC  
 SCALE: L301  
 AS NOTED  
 DATE: 12/18/23  
 SHEET 11 OF 14  
 plot date: 12/19/2023





**1** LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 30'-0"

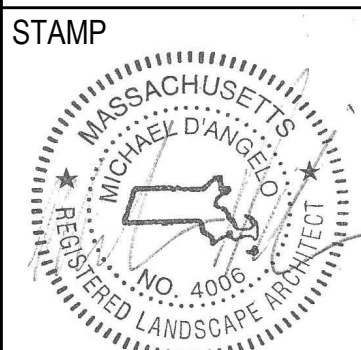


Luminaire Schedule					
Symbol	Qty	Label	Arrangement	LLF	Lum. Lumens
	11	LT-1	Single	0.900	1430
	44	LT-2	Single	1.000	15440
	1	LT-3	Back-Back	0.900	15440
	21	LT-4	Single	0.900	15440

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	Illuminance	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	Illuminance	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	Illuminance	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	Illuminance	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	Illuminance	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	Illuminance	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.16	32.6	0.0	N.A.	N.A.

NOTE: MH = MOUNTING HEIGHT

**GROVE STREET RESIDENCES  
FRANKLIN, MA**



REV. NO.	DATE	DESCRIPTION
1	5/12/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER CLIENTS RFI TESTING PROPOSED SUBMITTAL

NOT FOR CONSTRUCTION

**LANDSCAPE PHOTOMETRIC PLAN**

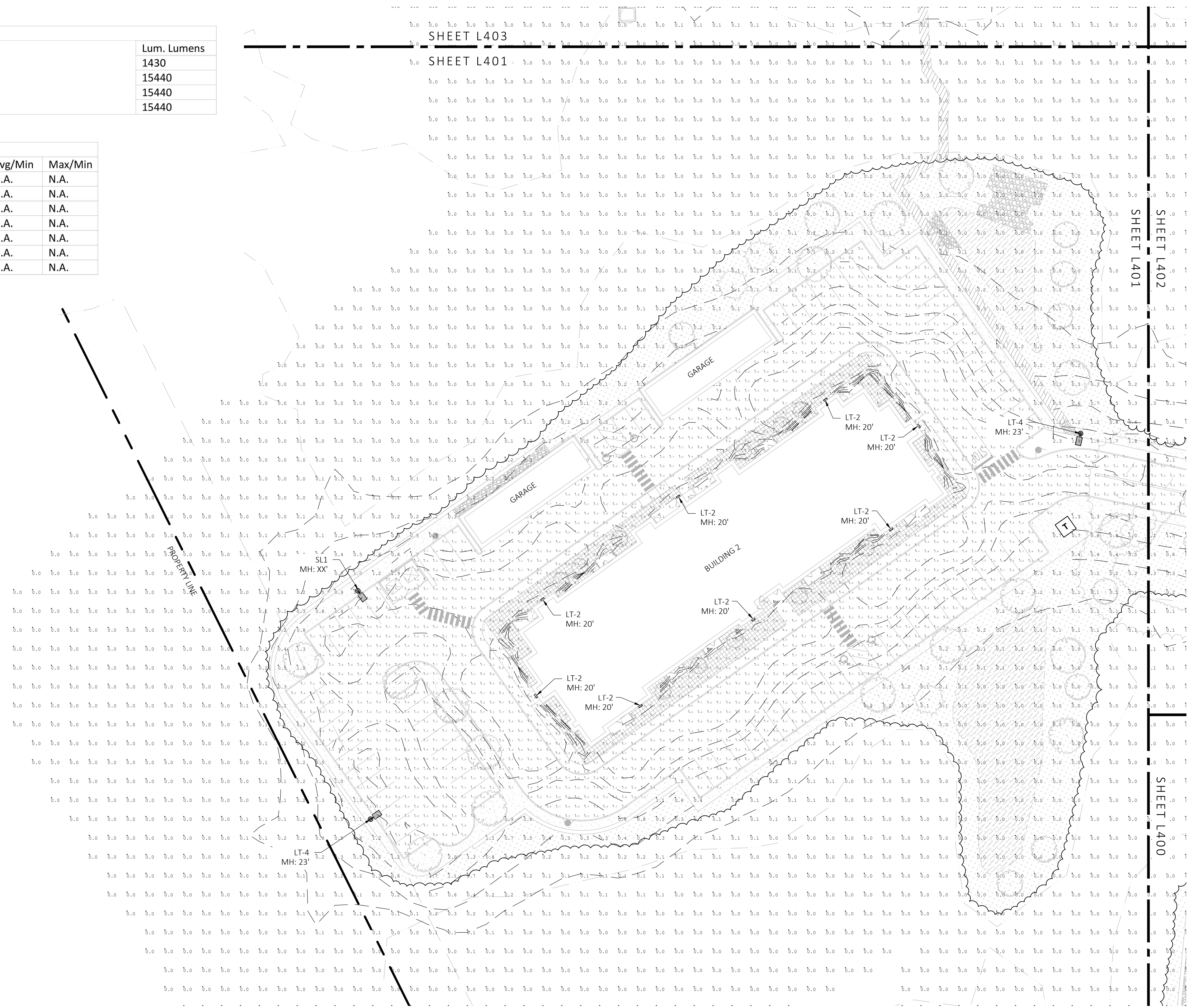
DRAWN: NC, AA  
CHECKED: NC  
SCALE: **L400**  
DATE: 12/18/23



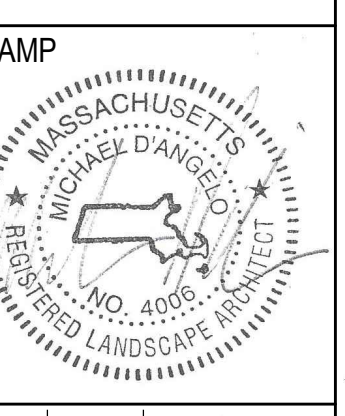
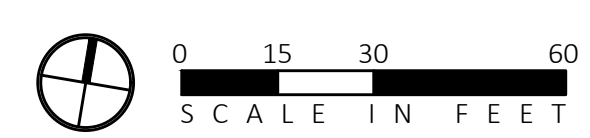
Symbol	Qty	Label	Arrangement	LLF	Lum. Lumens
	11	LT-1	Single	0.900	1430
	44	LT-2	Single	1.000	15440
	1	LT-3	Back-Back	0.900	15440
	21	LT-4	Single	0.900	15440

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	Illuminance	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	Illuminance	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	Illuminance	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	Illuminance	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	Illuminance	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	Illuminance	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.16	32.6	0.0	N.A.	N.A.

NOTE: MH = MOUNTING HEIGHT



1 LANDSCAPE PHOTOMETRIC PLAN  
SCALE: 1" = 30'-0"



REV. NO.	DATE	DESCRIPTION
1	5/1/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER AND TESTING CONSULTANT SUBMISSION

NOT FOR CONSTRUCTION  
LANDSCAPE PHOTOMETRIC PLAN

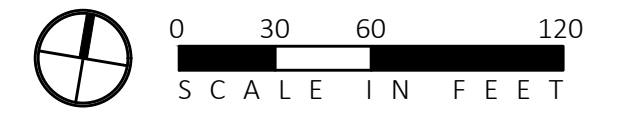
DRAWN:  
NC, AA  
CHECKED:  
NC  
SCALE:  
AS NOTED  
DATE:  
12/18/23

L401





**1 LANDSCAPE PHOTOMETRIC PLAN**  
SCALE: 1" = 30'-0"

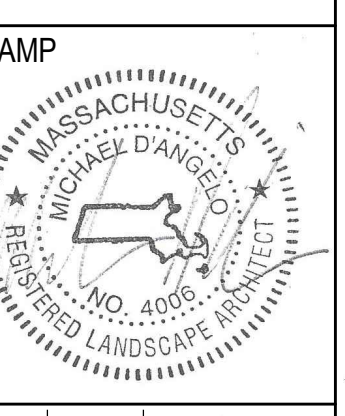


Symbol	Qty	Label	Arrangement	LLF	Lum. Lumens
	11	LT-1	Single	0.900	1430
	44	LT-2	Single	1.000	15440
	1	LT-3	Back-Back	0.900	15440
	21	LT-4	Single	0.900	15440

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	Illuminance	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	Illuminance	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	Illuminance	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	Illuminance	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	Illuminance	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	Illuminance	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.16	32.6	0.0	N.A.	N.A.

NOTE: MH = MOUNTING HEIGHT

**GROVE STREET RESIDENCES  
FRANKLIN, MA**



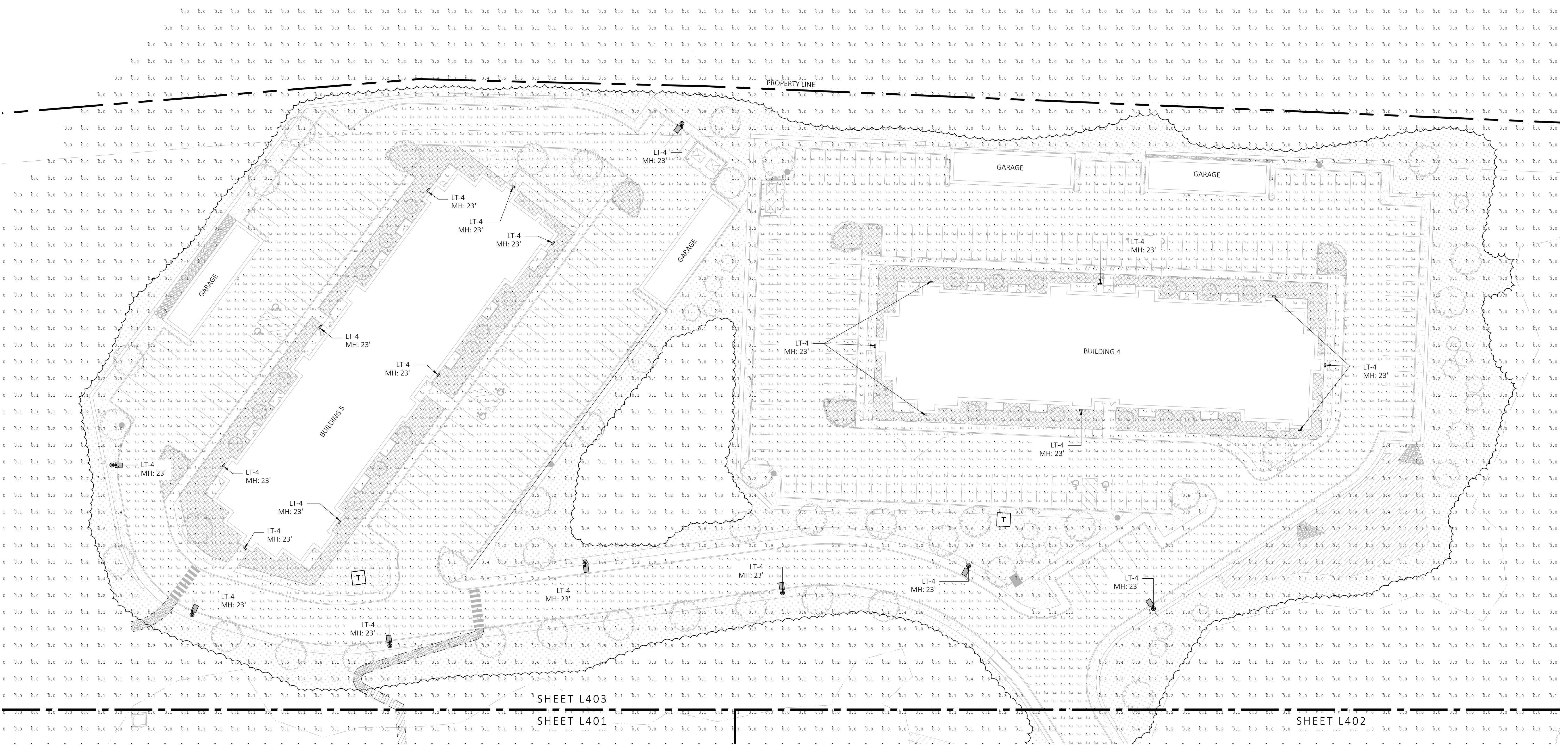
REV. NO.	DATE	DESCRIPTION
1	5/11/23	VE
2	9/23/23	REV 1
3	10/21/23	REV 2
4	12/18/23	REV PER CLIENT FOR FINISH PRODUCT SUBMITTAL

NOT FOR CONSTRUCTION

**LANDSCAPE PHOTOMETRIC PLAN**

DRAWN:	<b>L402</b>
NC: AA	
CHECKED:	
NC	
SCALE:	
AS NOTED	
DATE:	
12/18/23	





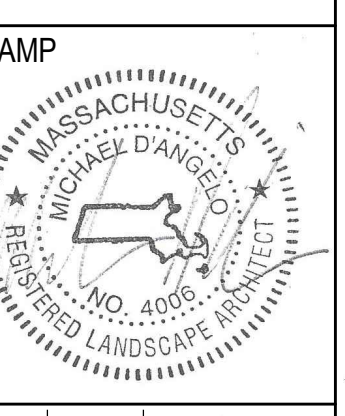
**1 LANDSCAPE PHOTOMETRIC PLAN**  
SCALE: 1" = 30'-0"



Luminaire Schedule					
Symbol	Qty	Label	Arrangement	LLF	Lum. Lumens
	11	LT-1	Single	0.900	1430
	44	LT-2	Single	1.000	15440
	1	LT-3	Back-Back	0.900	15440
	21	LT-4	Single	0.900	15440

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LNADSCAPE AREA 1	Illuminance	Fc	2.99	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 2	Illuminance	Fc	2.47	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 3	Illuminance	Fc	2.74	5.4	0.0	N.A.	N.A.
LNADSCAPE AREA 4	Illuminance	Fc	2.61	4.9	0.0	N.A.	N.A.
LNADSCAPE AREA 5	Illuminance	Fc	3.15	6.9	0.0	N.A.	N.A.
PARKING AND ROADWAYS	Illuminance	Fc	1.82	9.5	0.0	N.A.	N.A.
SPILL LIGHT	Illuminance	Fc	0.16	32.6	0.0	N.A.	N.A.

NOTE: MH = MOUNTING HEIGHT



REV. NO.	DATE	DESCRIPTION
1	5/12/23	VE
2	9/23/23	REV 1
3	10/31/23	REV 2
4	12/18/23	REV PER OWNER AND DESIGNER COMMENTS

NOT FOR CONSTRUCTION

LANDSCAPE PHOTOMETRIC PLAN

DRAWN: NC, AA	<b>L403</b>
CHECKED: NC	
SCALE: AS NOTED	
DATE: 12/18/23	