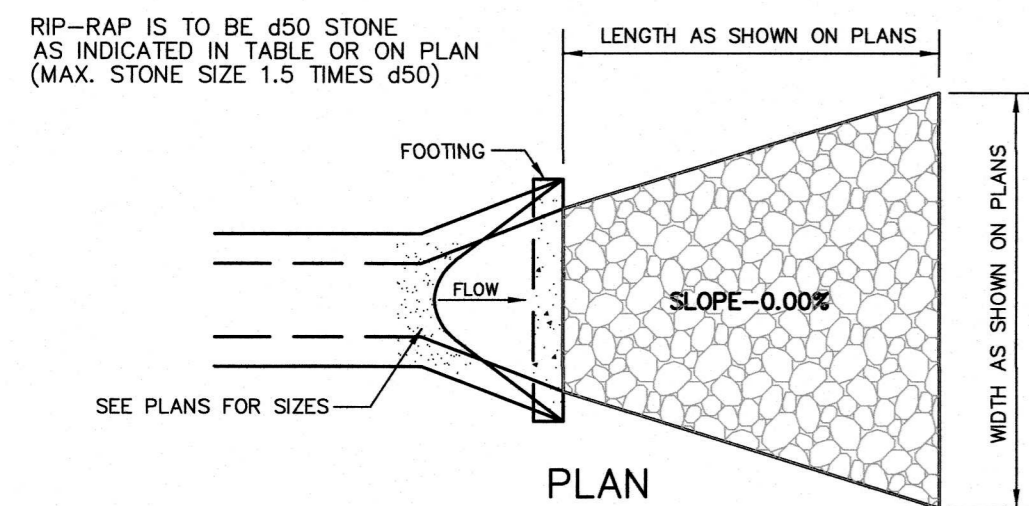
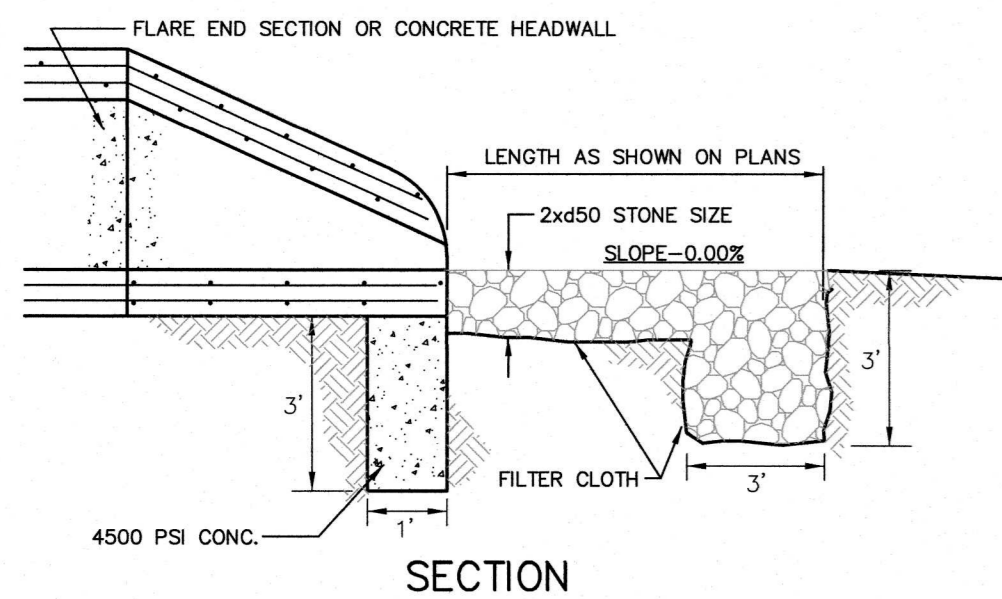


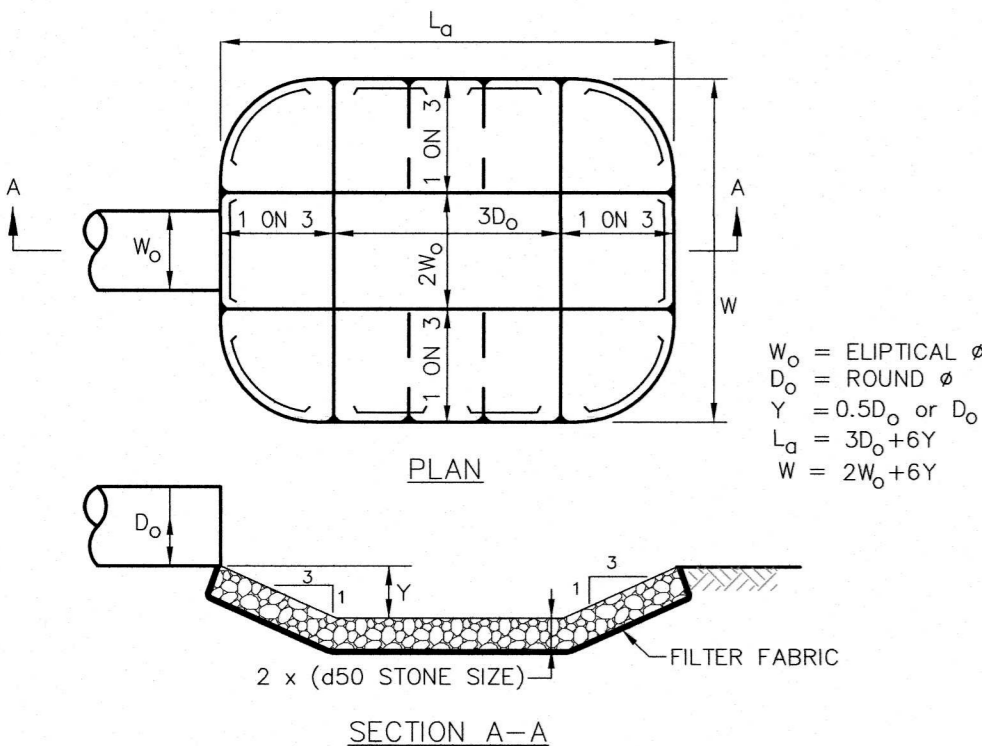
DIMENSIONS (INCHES)												
L.D.	12	15	18	21	24	27	30	36	42	48	54	60
A	2	2 1/2	2 1/2	3	3 1/2	3 1/2	4	4 1/2	5	5 1/2	6	6
U	72	72	72	72	72	72	72	96	96	96	96	96
C	28	34.5	41	47.5	54	60.5	67	80	87	94	101	108

- NOTES:**
- MINOR VARIATIONS TO THE ABOVE DIMENSIONS ARE ACCEPTABLE WITH THE EXCEPTION OF THE INSIDE DIAMETER DIMENSION.
  - A 1 INCH THICK MORTAR BED AND A 6 INCH DEEP LAYER OF COARSE AGGREGATE ARE REQUIRED WHEN A PRECAST CONCRETE CUTOFF WALL IS USED.
  - NO SEPARATE PAYMENT WILL BE MADE FOR THE CONCRETE CUTOFF WALL. THE COST OF THE CONCRETE CUTOFF WALL SHALL BE INCLUDED IN THE COST OF THE END SECTION.
  - THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL BE EQUAL TO THE MAXIMUM WIDTH OF THE END SECTION AS INDICATED ON THE DETAIL BY DIMENSION "C". HOWEVER, IF THE ACTUAL MAXIMUM WIDTH EXCEEDS THE CHART VALUE OF "C", THE WIDTH OF THE CONCRETE CUTOFF WALL SHALL EQUAL THE ACTUAL MAXIMUM WIDTH OF THE END SECTION.

**FLARED END SECTION**  
N.T.S.

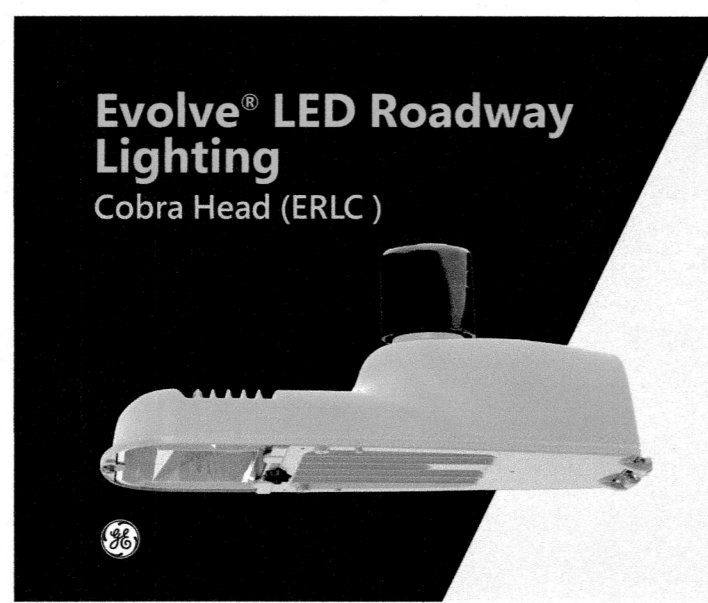


**RIP-RAP OUTFALL DETAIL**  
(WITH CONCRETE FOOTING)  
N.T.S.



**NOTE:**  
d50 INDICATES MEDIAN STONE SIZE AS DESIGNATED ON PLAN.  
50% BY WEIGHT OF MIXTURE TO CONTAIN STONES OF SIZE < d50.  
MAXIMUM STONE SIZE 1.5 TIMES d50.

**PREFORMED SCOUR HOLE**  
N.T.S.



**Evolve® LED Roadway Lighting**  
Cobra Head (ERLC)

Project Name \_\_\_\_\_  
Date \_\_\_\_\_ Type \_\_\_\_\_  
Notes \_\_\_\_\_

The **Evolve®** LED Roadway ERLC Luminaire is optimized utilizing advanced LED reflective optical system for local, collector and major roadways. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life.

CONSTRUCTION	
<b>Housing:</b>	Aluminum die cast enclosure casting integral heat sink for maximum heat transfer
<b>Lens:</b>	Impact resistant tempered glass Corrosion resistant powder paint, ≥ 2.0 mil thickness
<b>Paint:</b>	(RAL & custom colors available) Standard = Black, Dark Bronze, Gray, White Optional = Coastal Finish
<b>Weight:</b>	8.5 lbs (5.6 kgs)

OPTICAL SYSTEM	
<b>Lumens:</b>	2,000 - 7,000
<b>Distribution:</b>	Type II Narrow, I/III, III, V
<b>Efficacy:</b>	110-143 LPW
<b>CCT:</b>	2700K, 3000K, 4000K & 5000K
<b>CRI:</b>	≥ 70

ELECTRICAL	
<b>Input Voltage:</b>	120-277V (no 347-480V)
<b>Input Frequency:</b>	50/60Hz
<b>Power Factor:</b>	≥ 90% at rated watts
<b>Total Harmonic Distortion:</b>	≤ 20% at rated watts

SURGE PROTECTION*	
Standard	Optional
<input type="checkbox"/> 10kV/SKA	<input type="checkbox"/> Secondary 10kV/SKA (R Option) or Secondary 20kV/10kA (T Option)

\*Per ANSI C136.2-2018

LUMEN MAINTENANCE	
Projected Lx per IES TM-21-11 at 25°C	
Lumen Codes	LXX(10K) @ Hours
Distributions	25,000 HR 50,000 HR 60,000 HR
02, 03, 04, 05	A5, B5, C5 L97 L93 L92
06	A5, B5, C5 L96 L91 L89
07	A5, B5, C5 L95 L89 L87

RATINGS		
Lumen Codes	Distributions	LXX(10K) @ Hours
02, 03, 04, 05	V4	L96 L93 L93
06	V4	L94 L90 L88

Note: Projected Lx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

CONTROLS	
<b>Operating Temperature:</b>	-40°C to 50°C
<b>Vibration:</b>	3G per ANSI C136.31-2018
<b>LM-79:</b>	Testing in accordance with IES Standards

WARRANTY	
<input type="checkbox"/> 5 Year (Standard)	<input type="checkbox"/> 10 Year (Optional)

**GE current**  
a Daintree company



**Evolve® LED Roadway Lighting**  
Cobra Head (ERLC)

Spec Tables

LUMEN OUTPUT	DIST.	LUMENS			WATTAGE		BUG RATINGS		
		4000K/5000K	3000K	2700K	120-277V	4000K/5000K	3000K	2700K	
02	A5	2000	1940	1760	15	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	B5	2000	1940	1760	15	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	C5	2000	1940	1760	15	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	V4	1990	1950	1890	15	B1-U0-G0	B1-U0-G0	B1-U0-G0	
03	A5	3000	2910	2640	22	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	B5	3000	2910	2640	22	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	C5	3000	2910	2640	22	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	V4	3100	3030	2950	23	B1-U0-G0	B1-U0-G0	B1-U0-G0	
04	A5	4000	3880	3520	28	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	B5	4000	3880	3520	28	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	C5	4000	3880	3520	28	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	V4	4030	3940	3840	32	B2-U0-G0	B2-U0-G0	B2-U0-G0	
05	A5	5000	4850	4400	36	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	B5	5000	4850	4400	36	B1-U0-G1	B1-U0-G1	B1-U0-G1	
	C5	5000	4850	4400	36	B1-U0-G2	B1-U0-G2	B1-U0-G1	
	V4	5200	5090	4950	43	B2-U0-G1	B2-U0-G1	B2-U0-G1	
06	A5	6000	5820	5280	46	B2-U0-G2	B1-U0-G1	B1-U0-G1	
	B5	6000	5820	5280	46	B1-U0-G2	B1-U0-G2	B1-U0-G2	
	C5	6000	5820	5280	46	B1-U0-G2	B1-U0-G2	B1-U0-G2	
	V4	6350	6220	6050	55	B2-U0-G1	B2-U0-G1	B2-U0-G1	
07	A5	7000	6790	6160	56	B2-U0-G2	B2-U0-G2	B2-U0-G2	
	B5	7000	6790	6160	56	B1-U0-G2	B1-U0-G2	B1-U0-G2	
C5	7000	6790	6160	56	B1-U0-G2	B1-U0-G2	B1-U0-G2		

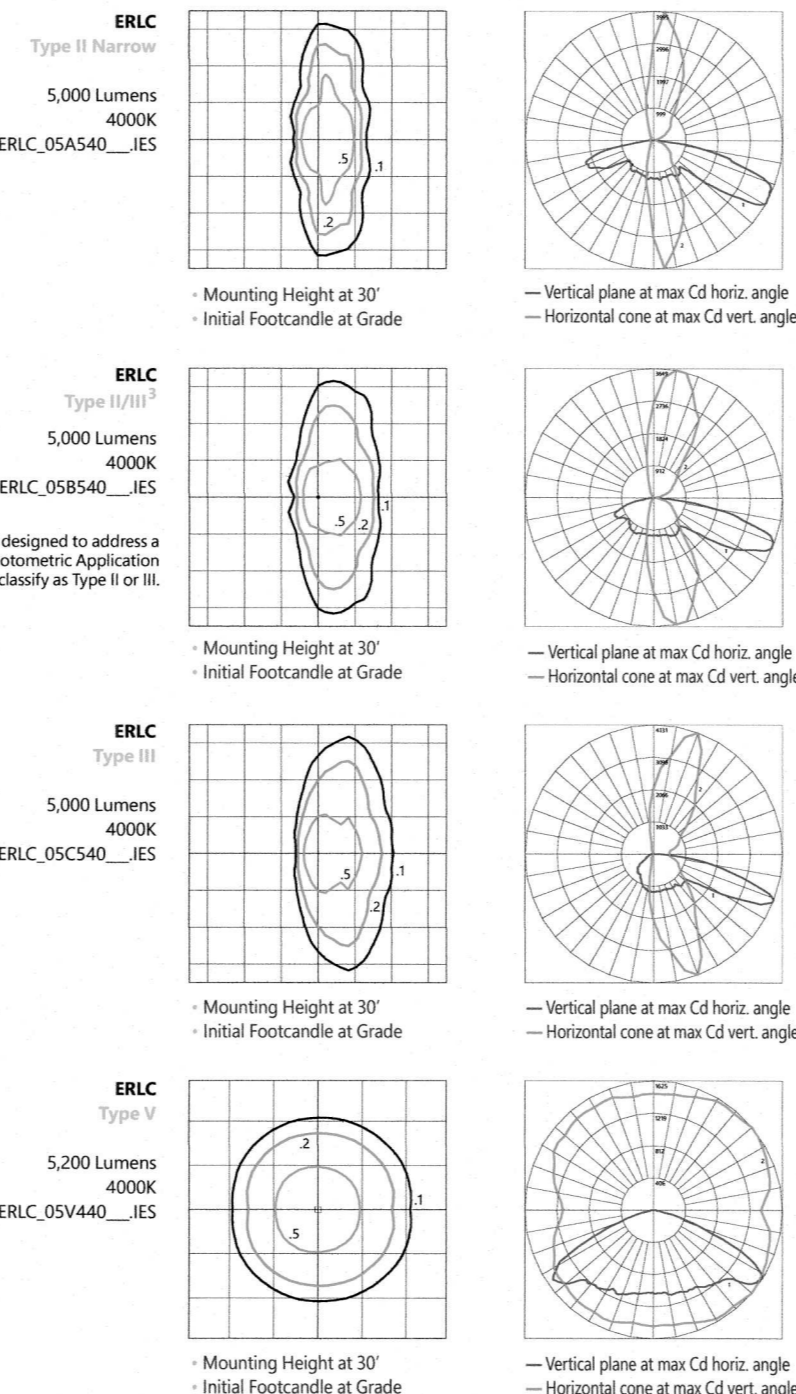
For additional information on ERLC IES files, please click one of the following links:

[Non-Shielded](#) [Shielded](#)

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**Evolve® LED Roadway Lighting**  
Cobra Head (ERLC)

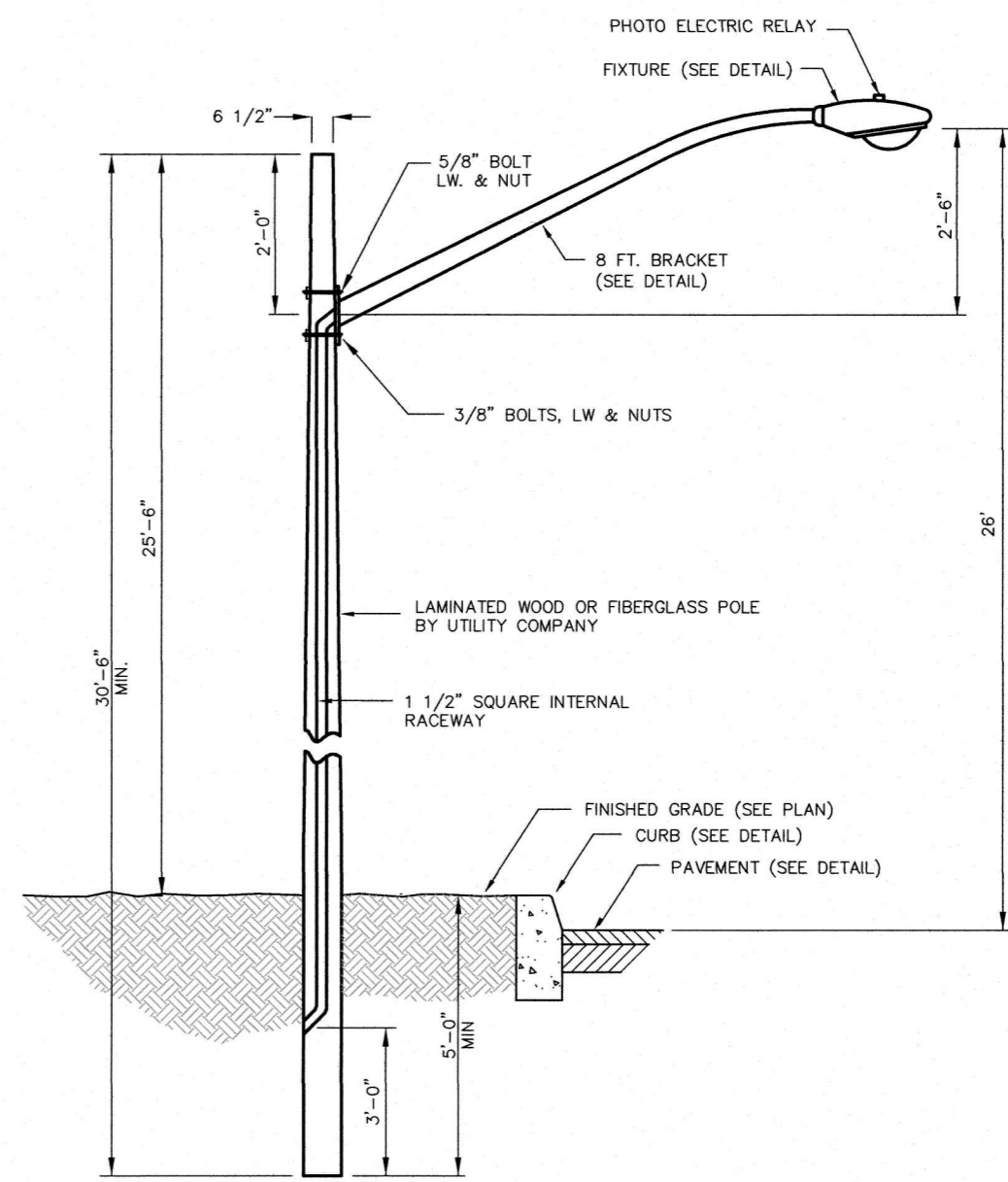
Photometric Plots



**GE current**  
a Daintree company

**Evolve® LED Roadway Lighting**  
Cobra Head (ERLC)

Mounting & Accessories



(SUBJECT TO UTILITY COMPANY REQUIREMENTS)  
**26' UTILITY POLE LIGHT DETAIL**  
N.T.S.

**GE current**  
a Daintree company

**Evolve® LED Roadway Lighting**  
Cobra Head (ERLC)

Catalog Logic

PROD. ID	VOLTAGE	LUMENS	DISTRIBUTION	CCT	CONTROLS PER ANSI C136.41	COLOR	OPTIONS
<b>E = Evolve</b>	0 = 120-277V	02 <sup>1</sup>	A5 = II Narrow	27 = 2700K <sup>2</sup>	A = 7-Pin Receptacle	BLCK = Black	B = Tether
<b>R = Roadway</b>	8 = 120-240	03	B5 = Type II/III <sup>3</sup>	30 = 3000K <sup>4</sup>	D = 7-Pin Receptacle with Shorting Cap	DKBZ = Dark Bronze	C1 = Captive Door
<b>L = Local</b>	04	C5 = Type III	40 = 4000K	E = 7 Pin Receptacle with Long Life non-Dimming PE Control	GRAY = Gray	F = Fusing	
<b>C = Compact</b>	1 = 120	05	V4 = Type V	50 = 5000K	Note: 0-10V control standard unless DALI Option "U" requested	WHITE = White	G = Internal Bubble Level
	2 = 208	06					L = Tool-Less Entry
	3 = 240	07					M1 = MagnaPak <sup>5</sup>
	4 = 277						N = Secondary 10kV/SKA SPD
							T = Secondary 20kV/10kA SPD
							U = DALI Programmable <sup>6</sup>
							V1 = Field Adjustable Module <sup>7</sup>
							Y = Coastal Finish <sup>8</sup>
							XXX = Special Options

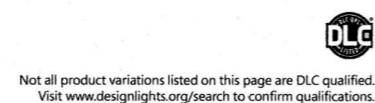
**SUGGESTED HID REPLACEMENT**

Approximately 2,000 - 7,000 lumens to replace 50-100W HPS  
Cobra-head  
Note: actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

Previous	Optical Pattern	Latest	New Optical Pattern
<b>A3</b>	Type II Narrow	A5	Type II Narrow
<b>B3</b>	Type II Wide	B5	Type II/III
<b>C3</b>	Type III	C5	Type III
<b>N/A</b>	Type V	V4	Type V

The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is by doing a lighting layout.

**GE current**  
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**ST1 LIGHT FIXTURE DETAILS**  
N.T.S.

**CONSTRUCTION DETAIL NOTES**

- ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- ALL CONSTRUCTION DETAILS SHALL BE SUPERSEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.
- STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.
- SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
- DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER.
- RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.).
- ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE NOTED.

**REVISIONS**

NO.	DESCRIPTION	DATE
1)	LOT 55.02 ADDITION	06/10/22

THIS DRAWING IS FOR PERMIT PURPOSES ONLY  
NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED

CHKD BY: \_\_\_\_\_ DATE: \_\_\_\_\_



THE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



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Highland Park, NJ 08904

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**OSCAR & ELLA WILF**  
CAMPUS FOR SENIOR  
LIVING-SINGLE-FAMILY  
& SOLAR FIELD  
DEVELOPMENT

TOWNSHIP OF FRANKLIN  
SOMERSET COUNTY  
NEW JERSEY

**BLOCK 386.07,**  
**LOTS 54.05 & 55.03**  
**TAX MAP SHEET 62**  
**34.46 ACRES**

**CONSTRUCTION DETAILS**  
(4)

DRAWN BY: \_\_\_\_\_ JT  
DESIGNED BY: \_\_\_\_\_ JT  
APPROVED BY: \_\_\_\_\_ WAL

THIS WORK PREPARED UNDER M.A. IMMEDIATE SUPERVISION

**WILLIAM A. LANE**  
PROFESSIONAL ENGINEER  
N.J.P.E. #0262

PROJECT NUMBER	2021.048	DE-4
DATE OF ISSUE	MARCH 25, 2022	
REVISION	JUNE 10, 2022	24

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

Date: March 02, 2022

**Native Steep Slope Mix w/Annual Ryegrass - ERNMX-181**

Botanical Name	Common Name
31.10 % <i>Sorghastrum nutans</i> , New England 2 Ecotype	Indiangrass, New England 2 Ecotype
20.00 % <i>Lolium multiflorum</i>	Annual Ryegrass
14.00 % <i>Andropogon gerardi</i> , 'Niagara'	Big Bluestem, 'Niagara'
10.00 % <i>Elymus virginicus</i> , Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype
7.00 % <i>Elymus canadensis</i>	Canada Wildrye
4.00 % <i>Agrostis perennans</i> , Albany Pine Bush-NY Ecotype	Autumn Bentgrass, Albany Pine Bush-NY Ecotype
4.00 % <i>Panicum virgatum</i> , 'Carthage', NC Ecotype	Switchgrass, 'Carthage', NC Ecotype
3.00 % <i>Panicum clandestinum</i> , Tioga	Deertongue, Tioga
1.50 % <i>Echinacea purpurea</i>	Purple Coneflower
1.30 % <i>Chamaecrista fasciculata</i> , PA Ecotype	Partridge Pea, PA Ecotype
1.20 % <i>Heliopsis helianthoides</i> , PA Ecotype	Oxeye Sunflower, PA Ecotype
1.00 % <i>Cynopsis lanceolata</i>	Lanceleaf Coreopsis
1.00 % <i>Rudbeckia hirta</i>	Blackeyed Susan
0.30 % <i>Monarda fistulosa</i> , Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ecotype
0.20 % <i>Asclepias syriaca</i>	Common Milkweed
0.20 % <i>Solidago rugosa</i> , PA Ecotype	Wrinkleleaf Goldenrod, PA Ecotype
0.10 % <i>Aster lateriflorus</i>	Calico Aster
0.10 % <i>Aster pilosus</i> , PA Ecotype	Heath Aster, PA Ecotype

**100.00 %**  
Seeding Rate: 60 lb per acre, or 1.5 lb per 1,000 sq ft  
Erosion Control & Revegetation

The native grass and forb species tolerate poor soils typically found on steep slopes in the eastern United States. 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.

**NATIVE STEEP SLOPE SEED MIX**  
N.T.S.

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

Date: March 23, 2022

**Riparian Buffer Mix - ERNMX-178**

Botanical Name	Common Name
20.00 % <i>Elymus virginicus</i> , Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype
20.00 % <i>Panicum clandestinum</i> , Tioga	Deertongue, Tioga
18.00 % <i>Andropogon gerardi</i> , 'Niagara'	Big Bluestem, 'Niagara'
18.00 % <i>Sorghastrum nutans</i> , PA Ecotype	Indiangrass, PA Ecotype
10.00 % <i>Panicum virgatum</i> , 'Shelter'	Switchgrass, 'Shelter'
3.00 % <i>Rudbeckia hirta</i>	Blackeyed Susan
3.00 % <i>Verbena hastata</i> , PA Ecotype	Blue Vervain, PA Ecotype
2.50 % <i>Asclepias incarnata</i> , PA Ecotype	Swamp Milkweed, PA Ecotype
2.00 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype
1.50 % <i>Zizia aurea</i> , PA Ecotype	Golden Alexanders, PA Ecotype
0.80 % <i>Solidago rugosa</i> , PA Ecotype	Wrinkleleaf Goldenrod, PA Ecotype
0.50 % <i>Monarda fistulosa</i> , Fort Indiantown Gap-PA Ecotype	Wild Bergamot, Fort Indiantown Gap-PA Ecotype
0.30 % <i>Eupatorium perfoliatum</i> , PA Ecotype	Bonset, PA Ecotype
0.30 % <i>Helenium autumnale</i> , Northern VA Ecotype	Common Sneezeweed, Northern VA Ecotype
0.10 % <i>Aster umbellatus</i> , PA Ecotype	Flat Topped White Aster, PA Ecotype

**100.00 %**  
Seeding Rate: 20 lb per acre with a cover crop at 30 lb per acre (dry sites - grain oats, Jan 1-Aug 1; or, grain rye, Aug 1-Jan 1; moist sites - grain rye year-round)

Riparian Sites

A diverse mix of upland and wetland grasses and forbs with extensive wildlife and pollinator value. Provides food and cover for many of our songbirds, pheasants, deer and turkey. 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.

**RIPARIAN BUFFER SEED MIX**  
N.T.S.

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

Date: March 20, 2022

**Ernst Native/Naturalized Solar Farm Seed Mix - ERNMX-186-1**

Botanical Name	Common Name
34.00 % <i>Festuca rubra</i>	Creeping Red Fescue
33.00 % <i>Festuca ovina</i> , Variety Not Stated	Sheep Fescue, Variety Not Stated
15.00 % <i>Festuca ovina</i> var. <i>durivulva</i> , Gladstator	Hard Fescue, Gladstator
5.00 % <i>Festuca ovina</i> var. <i>glauca</i> , Azure	Blue Fescue, Azure
5.00 % <i>Poa pratensis</i> , 'Selway'	Kentucky Bluegrass, 'Selway'
5.00 % <i>Poa pratensis</i> , Appalachian	Kentucky Bluegrass, Appalachian
3.00 % <i>Agrostis perennans</i> , Albany Pine Bush-NY Ecotype	Autumn Bentgrass, Albany Pine Bush-NY Ecotype

**100.00 %**  
Seeding Rate: 6 lb per 1,000 sq ft  
Lawn & Turfgrass Sites; Solar Sites

Provide a 2' clearance between the ground and the solar panels. 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.

**NATIVE SOLAR FARM SEED MIX**  
N.T.S.

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

Date: August 04, 2022

**FACW Wetland Meadow Mix - ERNMX-122**

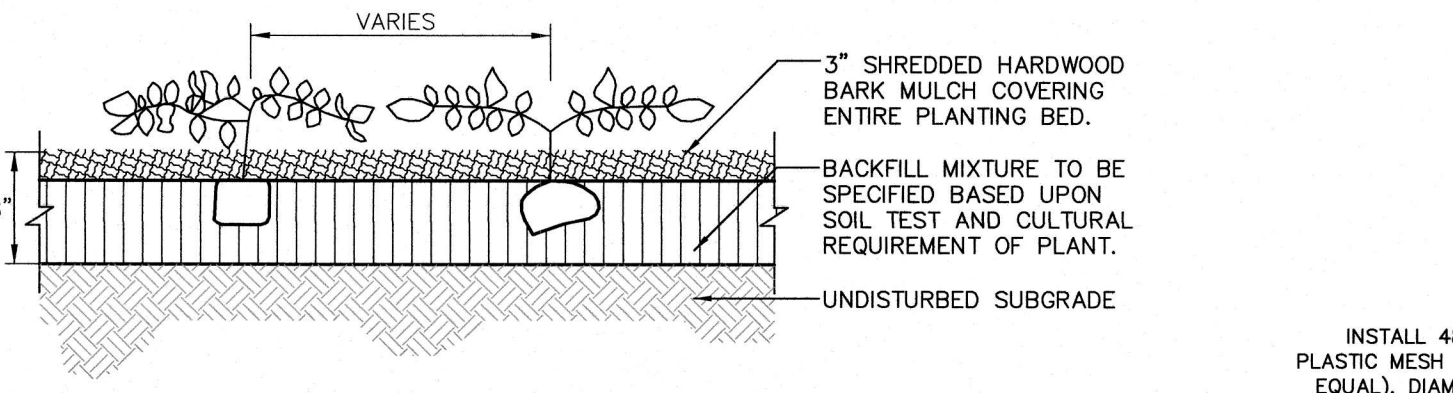
Botanical Name	Common Name
21.00 % <i>Carex vulpinoidea</i> , PA Ecotype	Fox Sedge, PA Ecotype
20.00 % <i>Elymus virginicus</i> , PA Ecotype	Virginia Wildrye, PA Ecotype
16.00 % <i>Carex lurida</i> , PA Ecotype	Lurid Sedge, PA Ecotype
12.00 % <i>Carex lupulina</i> , PA Ecotype	Hop Sedge, PA Ecotype
12.00 % <i>Carex scoparia</i> , PA Ecotype	Blunt Broom Sedge, PA Ecotype
3.00 % <i>Verberna hastata</i> , PA Ecotype	Blue Vervain, PA Ecotype
2.40 % <i>Asclepias incarnata</i> , PA Ecotype	Swamp Milkweed, PA Ecotype
2.00 % <i>Juncus effusus</i>	Soft Rush
2.00 % <i>Zizia aurea</i> , PA Ecotype	Golden Alexanders, PA Ecotype
1.60 % <i>Aster novae-angliae</i> , PA Ecotype	New England Aster, PA Ecotype
1.30 % <i>Carex stipitata</i> , PA Ecotype	Awl Sedge, PA Ecotype
1.00 % <i>Bidens cernua</i> , PA Ecotype	Nodding Bur Marigold, PA Ecotype
1.00 % <i>Juncus tenuis</i> , PA Ecotype	Path Rush, PA Ecotype
0.80 % <i>Solidago rugosa</i> , PA Ecotype	Wrinkleleaf Goldenrod, PA Ecotype
0.60 % <i>Verbena urticifolia</i> , PA Ecotype	White Vervain, PA Ecotype
0.50 % <i>Carex crinita</i> , PA Ecotype	Fringed Sedge, PA Ecotype
0.50 % <i>Eupatorium perfoliatum</i> , PA Ecotype	Bonset, PA Ecotype
0.50 % <i>Helenium autumnale</i> , PA Ecotype	Common Sneezeweed, PA Ecotype
0.50 % <i>Mimulus riparius</i> , PA Ecotype	Square Stemmed Monkeyflower, PA Ecotype
0.30 % <i>Loelia spicata</i> , PA Ecotype	Great Blue Loebelia, PA Ecotype
0.30 % <i>Scirpus cespitosus</i> , PA Ecotype	Woolgrass, PA Ecotype
0.20 % <i>Alisma subcordatum</i> , PA Ecotype	Mud Plantain, PA Ecotype
0.20 % <i>Aster puricatus</i> , PA Ecotype	Purplestem Aster, PA Ecotype
0.20 % <i>Aster umbellatus</i> , PA Ecotype	Flat Topped White Aster, PA Ecotype
0.10 % <i>Pentstemon sedoides</i> , PA Ecotype	Ditch Stonecrop, PA Ecotype

**100.00 %**  
Seeding Rate: 20 lb per acre, or 1/2 lb per 1,000 sq ft with a cover crop. For a cover crop use one of the following: grain rye (1 Sep to 30 Apr; 30 lbs/acre), Japanese millet (1 May to 31 Aug; 10 lbs/acre), or barnyard grass (1 May to 31 Aug; 10 lbs/acre).

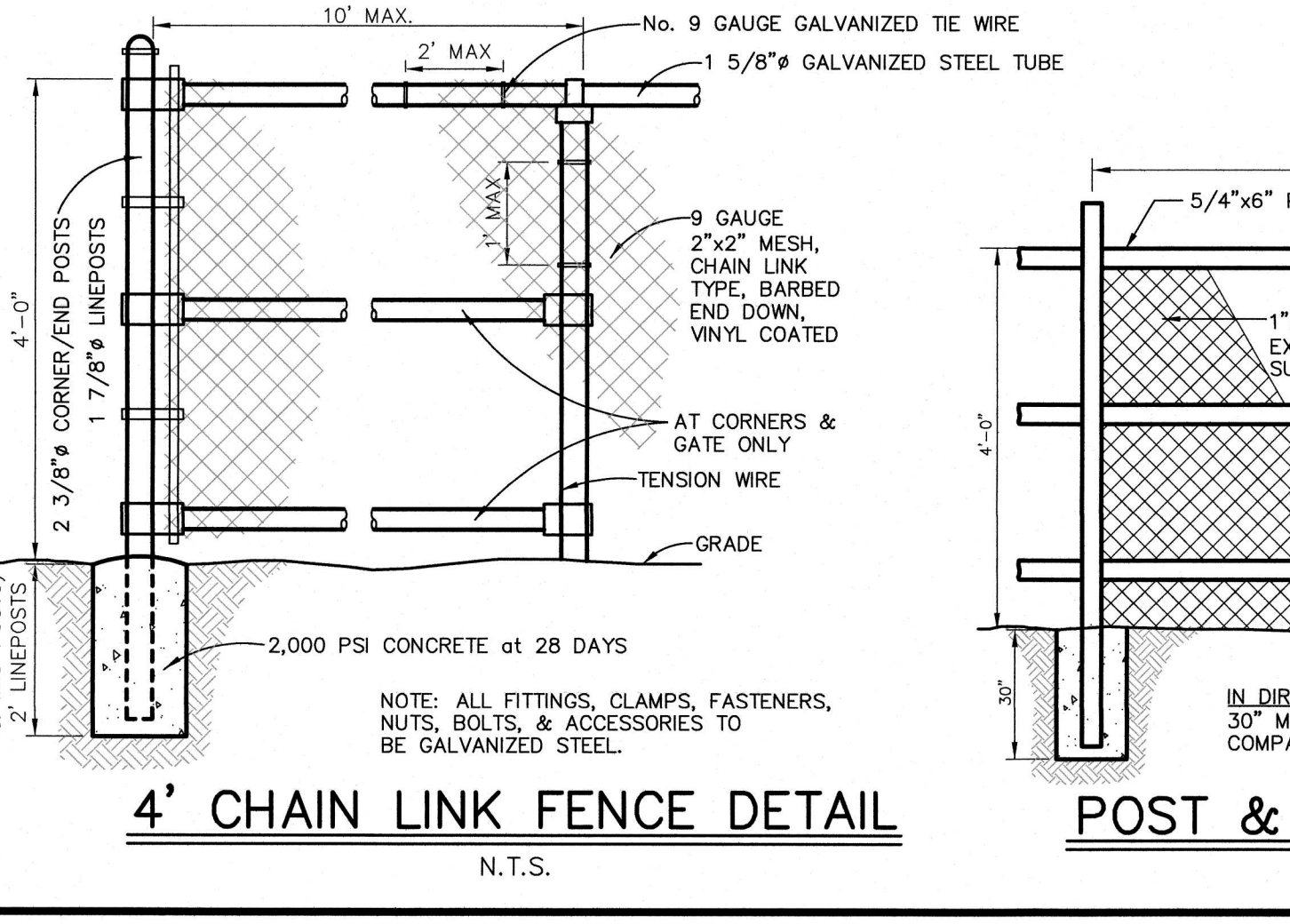
Wet Meadows & Wetlands

The diverse species provide pollinator habitat and erosion control in wet meadows. Excellent for facultative wetland mitigation sites. 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.

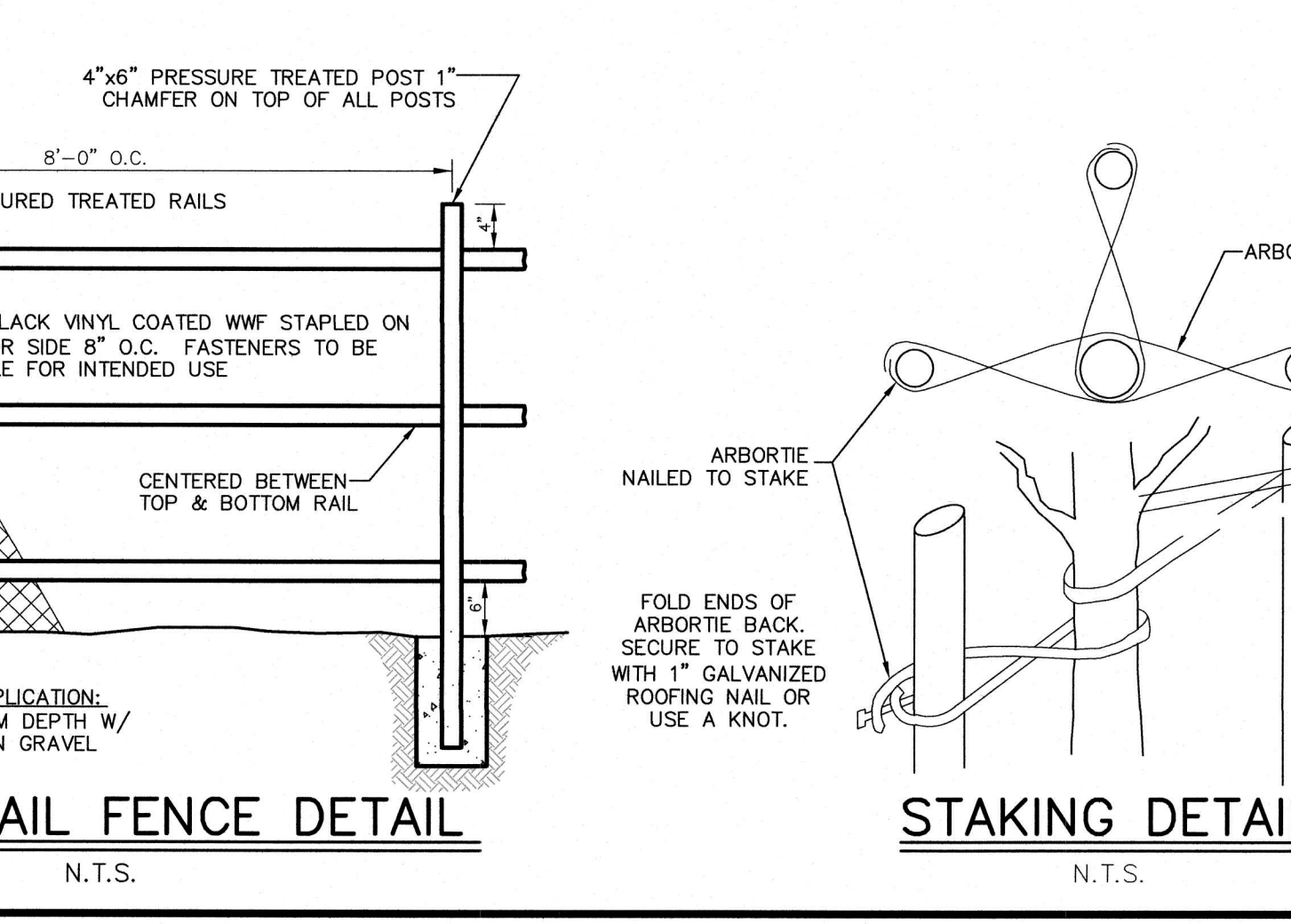
**FACW WETLAND MEADOW SEED MIX**  
N.T.S.



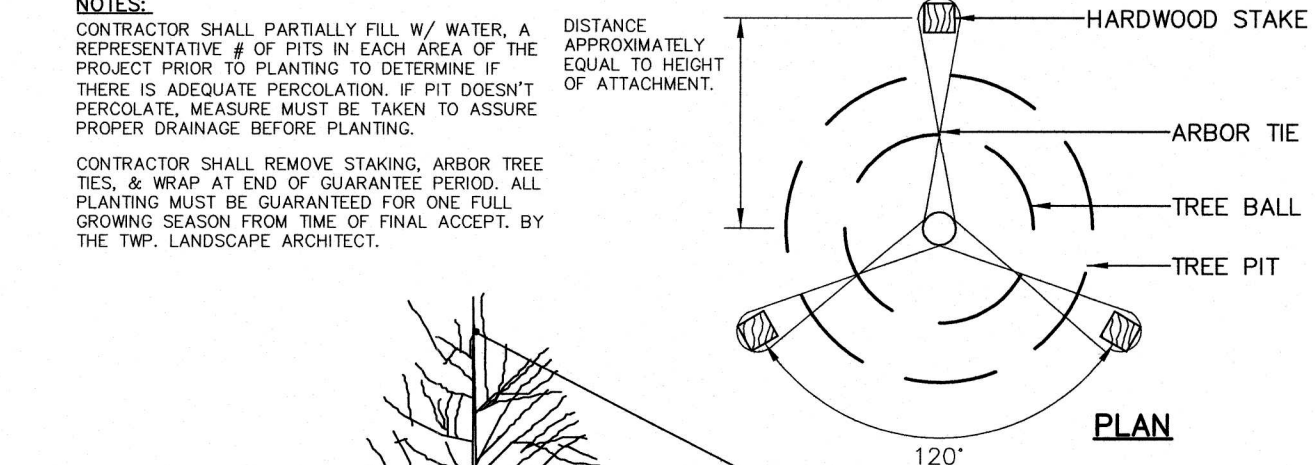
**GROUNDCOVER PLANTING DETAIL**  
N.T.S.



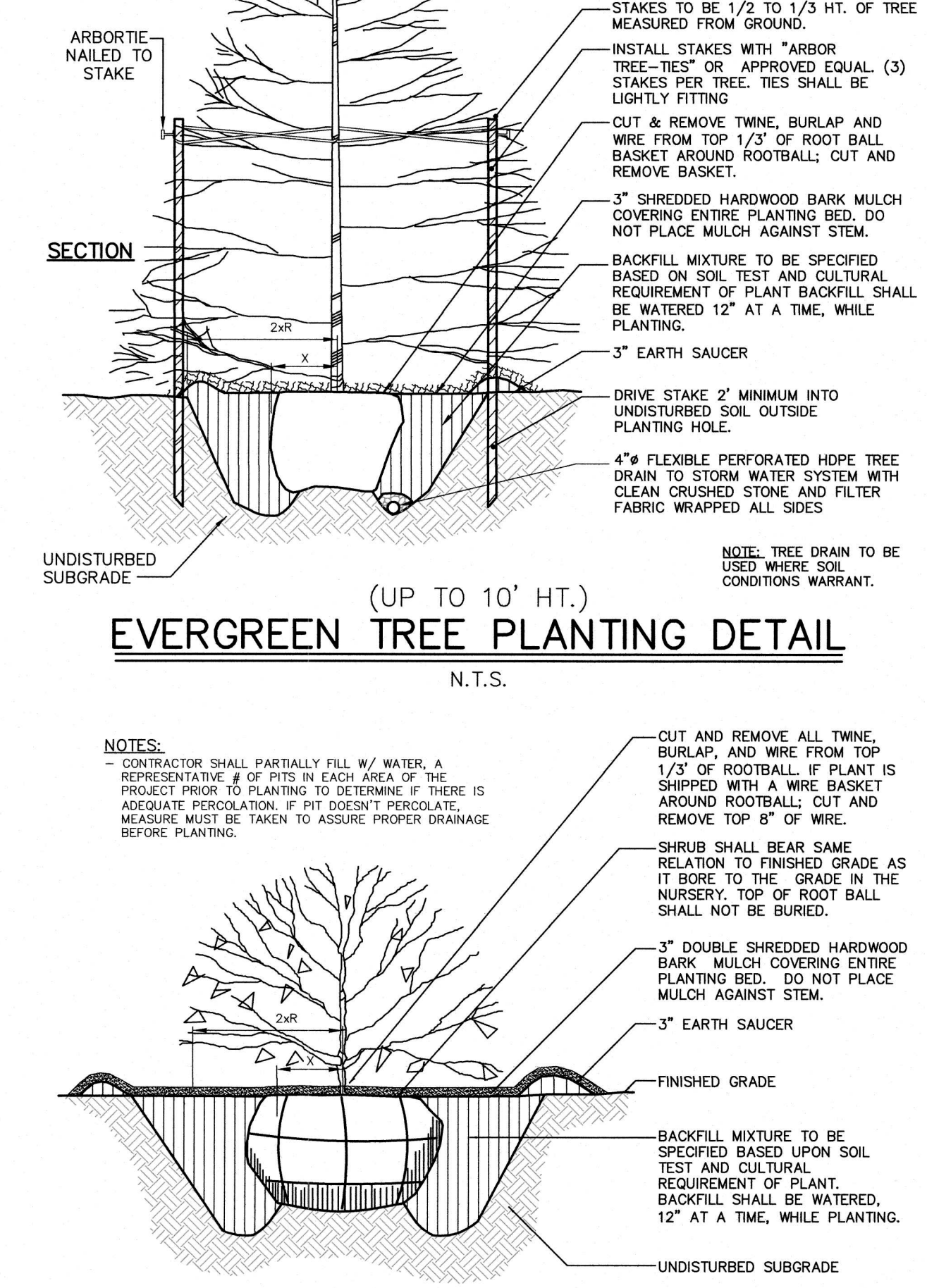
**4' CHAIN LINK FENCE DETAIL**  
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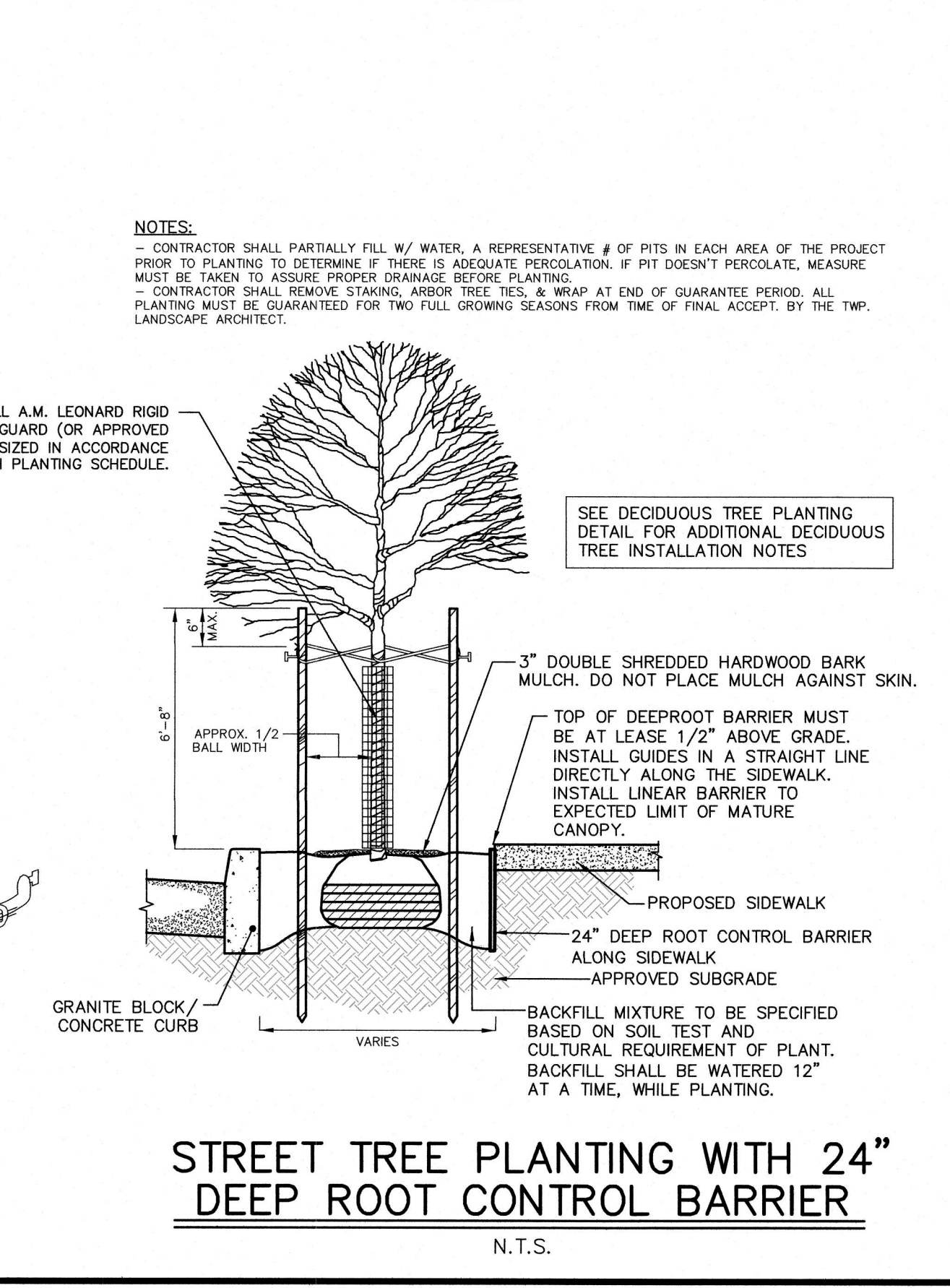
**POST & RAIL FENCE DETAIL**  
N.T.S.



**EVERGREEN TREE PLANTING DETAIL**  
N.T.S.



**SHRUB PLANTING DETAIL**  
N.T.S.



**STREET TREE PLANTING WITH 24\"/>**

**PLANTING NOTES**

THE FOLLOWING RECOMMENDED PLANTING PERIODS SHOULD BE ADHERED TO WHENEVER POSSIBLE:

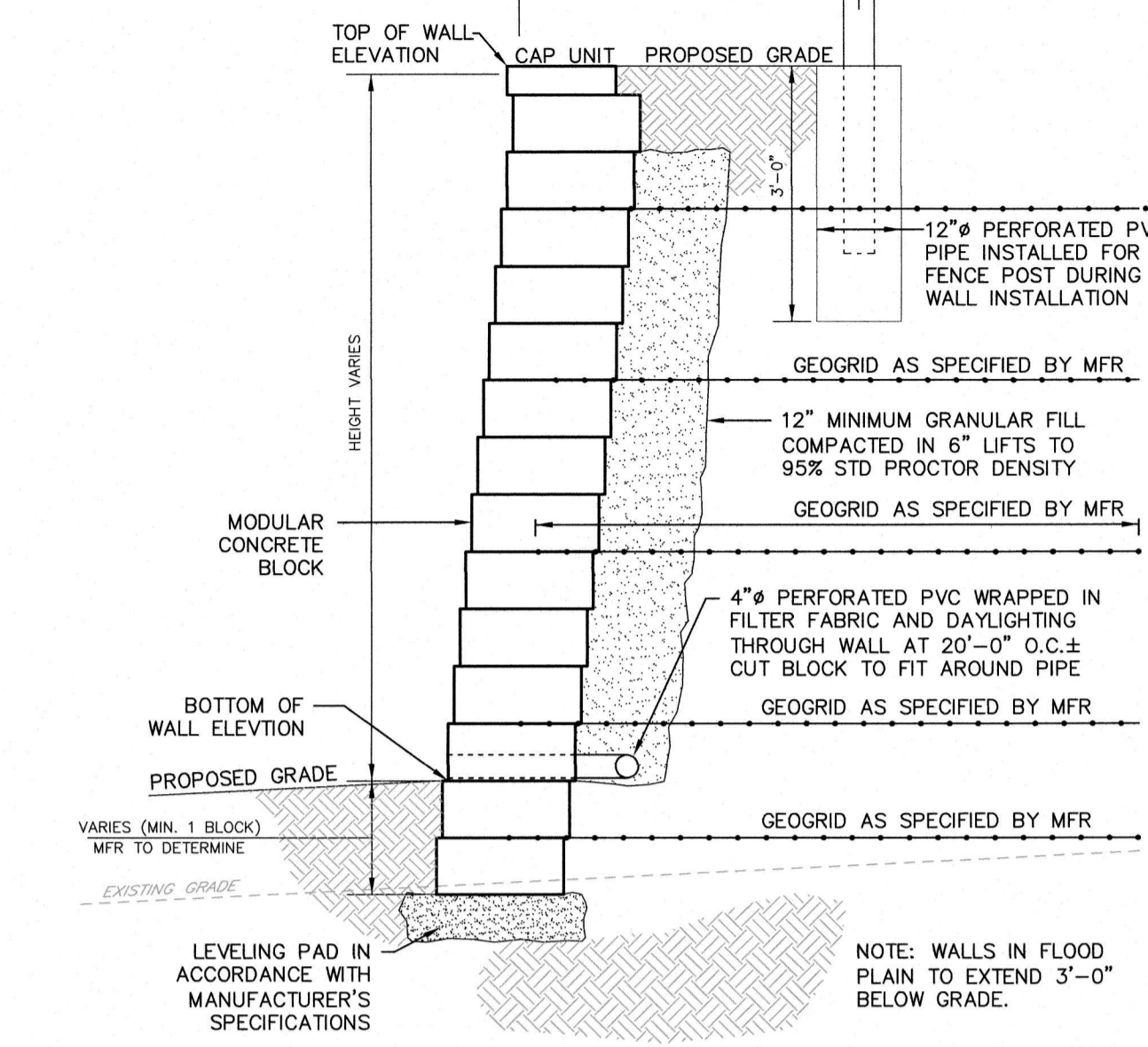
- BROADLEAF AND CONIFEROUS EVERGREEN TREES, SHRUBS, VINES AND GROUND COVERS SHALL BE PLANTED BETWEEN OCTOBER 15th AND SEPTEMBER 15th AND BETWEEN APRIL 15th AND MAY 15th. DECIDUOUS TREES, SHRUBS, VINES, GROUND COVERS AND PERENNIALS SHALL BE PLANTED BETWEEN OCTOBER 15th AND NOVEMBER 15th AND BETWEEN MARCH 15th AND MAY 15th. THESE PLANTING SEASONS MAY BE EXTENDED OR SHORTENED ACCORDING TO PREVAILING WEATHER CONDITIONS, SOIL CONDITIONS, AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE.
- THE PLANTING OPERATION INCLUDES ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, SHIPPING, INCIDENTALS AND CLEAN-UP BY THE CONTRACTOR FOR THE INSTALLATION OF THE ENTIRE LANDSCAPE PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
- THE CONTRACTOR WILL EXAMINE ALL FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINAGE SYSTEMS AND IRRIGATION SYSTEMS AND ADJUST PROPOSED PLANTINGS ACCORDINGLY. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER DEPTH OF TOPSOIL IN ALL AREAS AND THE PROVISION OF POSITIVE DRAINAGE. THE CONTRACTOR SHALL NOTIFY THE CLIENT, ENGINEER, AND/OR LANDSCAPE ARCHITECT OF ANY DETRIMENTAL DRAINAGE HAZARD, INCLUDING BUT NOT LIMITED TO INSUFFICIENT TOPSOIL, ETC. PRIOR TO THE INSTALLATION OF ANY MATERIALS, INCLUDING LAWN AREAS.
- THE CONTRACTOR WILL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. STATE CONDITION AND SUBMIT A PROPOSAL FOR CORRECTION IF FEASIBLE.
- PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES; QUALITY AND SIZE OF PLANTS, SPREAD OR ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE MOST RECENT ANSI 760 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.
- PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.
- GUARANTEE OF PLANT GROWTH: ALL PLANTS AND TREES SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE (1) YEAR FOR TREES AND SHRUBS FROM THE DATE OF FINAL ACCEPTANCE OR AS REQUIRED BY TOWNSHIP. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THE ABOVE STATED.
- INsofar AS IT IS PRACTICAL, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
- IF PLANT AVAILABILITY IS RESTRICTED, SUBSTITUTIONS MAY BE MADE WITHIN PLANT TYPE TO MAINTAIN SIMILAR GROWTH AND ORNAMENTAL QUALITIES UPON NOTIFICATION AND APPROVAL BY THE LANDSCAPE ARCHITECT.
- PLANT LOCATIONS SHOWN ARE DIAGRAMMATIC. ALL PLANTS SHOWN SEMI-MATURE SIZE ON PLANS. THE STAKING LAYOUT OF ALL PLANTINGS WILL BE INSPECTED BY THE LANDSCAPE ARCHITECT PRIOR INSTALLATION AS REQUESTED BY OWNER.
- AREAS DISTURBED BY LANDSCAPE OPERATIONS SHALL BE GRADED TO MATCH EXISTING. TOPSOIL AND SEED OR SOD AS REQUIRED.
- NO PLANT, EXCEPT GROUND COVERS AND FOUNDATIONS PLANTS SHALL BE PLANTED LESS THAN TWO (2) FEET FROM EXISTING STRUCTURES AND SIDEWALKS.
- ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACKFILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL FREE OF DRY SOD, STIFF CLAY, LITTER, STONES IN EXCESS OF 1", ETC., SHALL BE USED FOR PLANTING.
- SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT THE CENTER OF THE PIT.
- IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES, THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. MAIN LEADER TO TREES MUST NOT BE CUT BACK. LONG SIDE BRANCHES, HOWEVER, MUST BE SHORTENED. TREES WITH THE CENTRAL LEADER PRUNED WILL BE REJECTED.
- EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
- ALL TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING. ALL TREES SIX (6) INCHES AND OVER IN CALIPER SHALL BE TIED, WHILE SMALLER TREES SHALL BE STAKED. ARBOR TREE TIES AND STAKES SHALL BE INSTALLED AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ARBOR TREE TIES ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.
- THE TRUNKS OF ALL TREES SHALL BE WRAPPED AS SOON AS POSSIBLE AFTER PLANTING ACCORDING TO STANDARD PROCEDURES AND IF REQUIRED BY TOWNSHIP.
- MULCH FOR PLANTING BEDS SHALL BE DOUBLE SHREDDED HARDWOOD BARK MULCH UNLESS OTHERWISE SPECIFIED ON THE PLANS AND SHALL HAVE NO LEAVES, YOUNG GREEN GROWTH, BRANCHES, TWIGS GREATER IN DIAMETER OF 1/2" WEEDS, SHAVINGS OR FOREIGN MATERIAL SUCH AS STONES, ETC. SHALL BE MIXED WITH THE MULCH. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS WITH A COMPACTED DEPTH OF 3". NO MULCH SHALL BE PLACED AGAINST PLANT STEMS.
- WATER APPLIED TO SEEDED OR SODDED AREAS, PLANTS OR PLANTED AREAS SHALL BE FREE FROM IMPURITIES INJURIOUS TO VEGETATION AND APPLIED AT A RATE OF FIVE GALLONS OF WATER PER SQUARE YARD OF PLANT PIT.
- FALL PLANTING HAZARDS: IT IS VERY RISKY TO TRANSPANT THE FOLLOWING LIST OF TREES BARE ROOT OR B&B IN THE FALL:
 

PLATANUS ACERIFOLIA	BETULA VARIETIES
PRUNUS-ALL STONE FRUITS	PYRUS-ALL PEARS
CARPINUS VARIETIES	QUERCUS-ALL OAKS
CORNUS FLORIDA & VARS	SALIX-WEEDING VARS
CRATAEGUS VARIETIES	STYRAX JAPONICA
HALESIA	TILIA TOMENTOSA
KOELREUTERIA	ZELKOVA VARIETIES
LIQUIDAMBAR STYRACIFLUA	LIRIODENDRON TULIPIFERA
- THE CONTRACTOR ASSUMES RESPONSIBILITY FOR PLANT SURVIVAL OF THESE MATERIALS IF MOVED DURING THE FALL SEASON.
- TREES TO REMAIN ON-SITE TO BE SELECTIVELY THINNED AND PRUNED REMOVING ALL DEAD AND DISEASED LIMBS WHILE PROTECTED BY FENCING DURING CONSTRUCTION (SEE DETAIL). FENCE TO BE MAINTAINED DURING CONSTRUCTION BY CONTRACTOR.
- THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.
- ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED MORE THAN 7'-0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN ANY SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30' ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN ANY SIGHT TRIANGLE SHALL BE PRUNED AS MENTIONED ABOVE.
- SEE DETAIL DRAWINGS FOR TYPICAL PLANTING DETAILS.

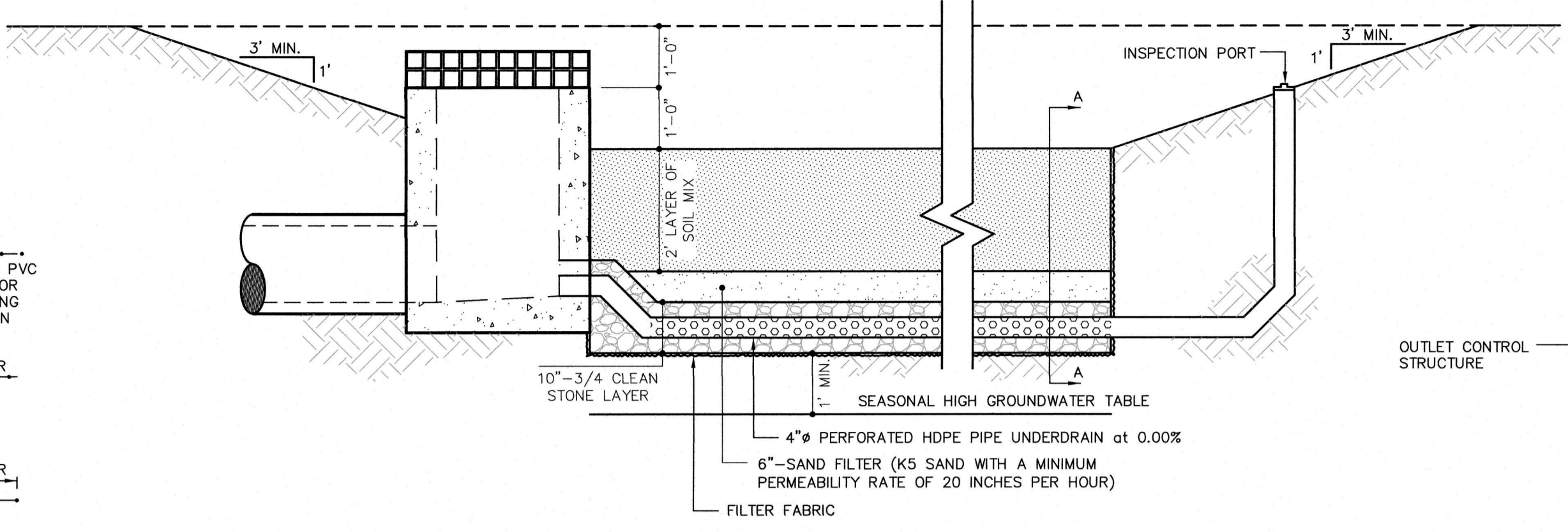
**NOTES:**

- CONTRACTOR SHALL PARTIALLY FILL W/ WATER, A REPRESENTATIVE # OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURE MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.
- CONTRACTOR SHALL REMOVE STAKING, ARBOR TREE TIES, & WRAP AT END OF GUARANTEE PERIOD. ALL PLANTING MUST BE GUARANTEED FOR TWO FULL GROWING SEASONS FROM TIME OF FINAL ACCEPT. BY THE TWP. LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL PARTIALLY FILL W/ WATER, A REPRESENTATIVE # OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURE MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.
- ON SLOPES, PLACE SINGLE STAKE DOWNHILL.
- STAKES TO BE 1/2 TO 1/3 HT. OF TREE MEASURED FROM GROUND.
- INSTALL STAKES WITH "ARBOR TREE-TIES" OR APPROVED EQUAL (3) STAKES PER TREE. TIES SHALL BE LIGHTLY FITTING.
- CUT & REMOVE TWINE, BURLAP AND WIRE FROM TOP 1/3 OF ROOT BALL BASKET AROUND ROOTBALL; CUT AND REMOVE BASKET.
- 3" SHREDDED HARDWOOD BARK MULCH COVERING ENTIRE PLANTING BED. DO NOT PLACE MULCH AGAINST STEM.
- BACKFILL MIXTURE TO BE SPECIFIED BASED ON SOIL TEST AND CULTURAL REQUIREMENT OF PLANT. BACKFILL SHALL BE WATERED 12" AT A TIME, WHILE PLANTING.
- 3" EARTH SAUCER
- DRIVE STAKE 2" MINIMUM INTO UNDISTURBED SOIL OUTSIDE PLANTING HOLE.
- 4"x6" FLEXIBLE PERFORATED HOPE TREE DRAIN TO STORM WATER SYSTEM WITH CLEAN SIDING STONE AND FILTER FABRIC WRAPPED ALL SIDES.
- NOTE: TREE DRAIN TO BE USED WHERE SOIL CONDITIONS WARRANT.
- ARBOR TIE NAILED TO STAKE
- CENTER LEADER SHALL NOT BE CUT OR DAMAGED.
- TREE BALL
- TREE PIT
- HARDWOOD STAKE
- ARBOR TIE
- PLAN
- 120"
- NOTE: TREE DRAIN TO BE USED WHERE SOIL CONDITIONS WARRANT.
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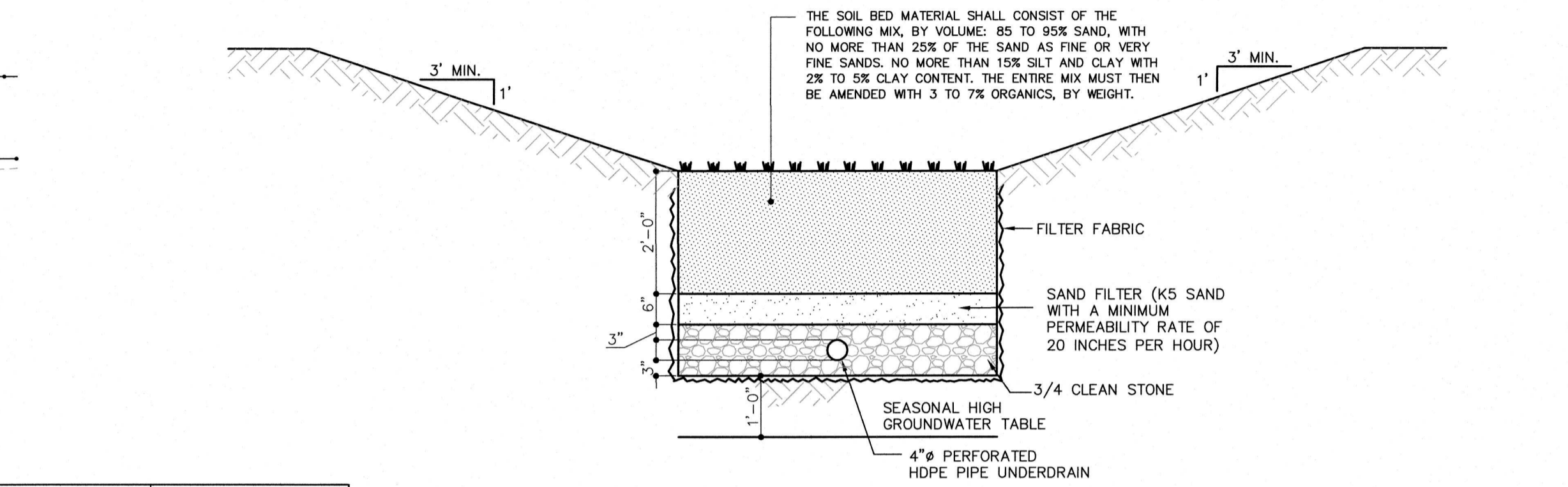
CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING WALL MANUFACTURER DESIGN AND SUPPLY SIGNED AND SEALED STRUCTURAL CALCULATIONS AND DETAILS TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL.



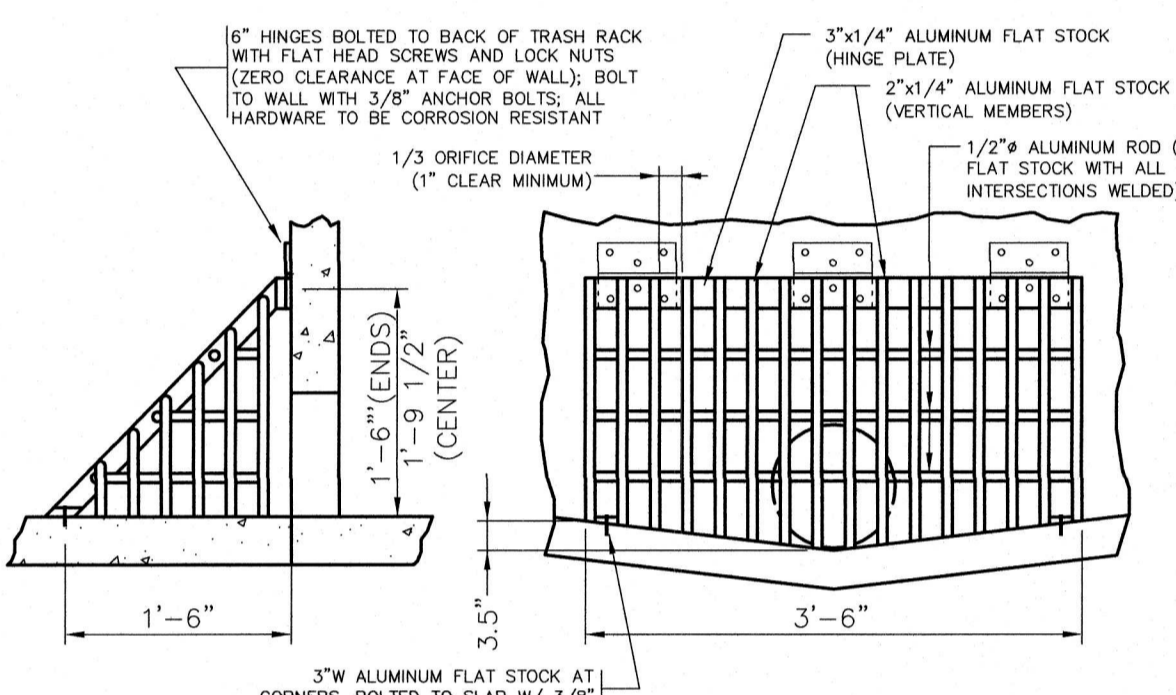
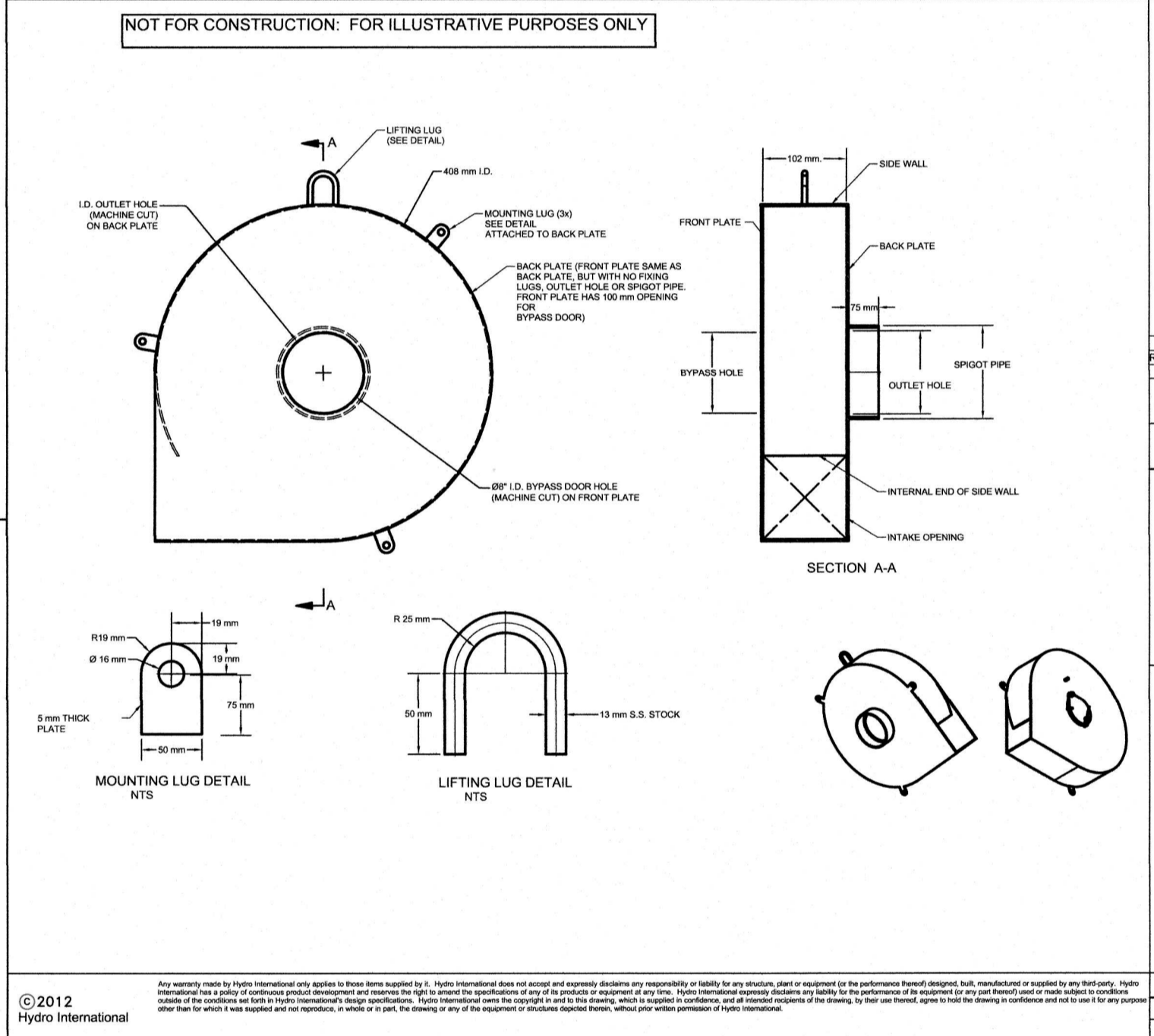
**MODULAR CONCRETE BLOCK RETAINING WALL**  
N.T.S.



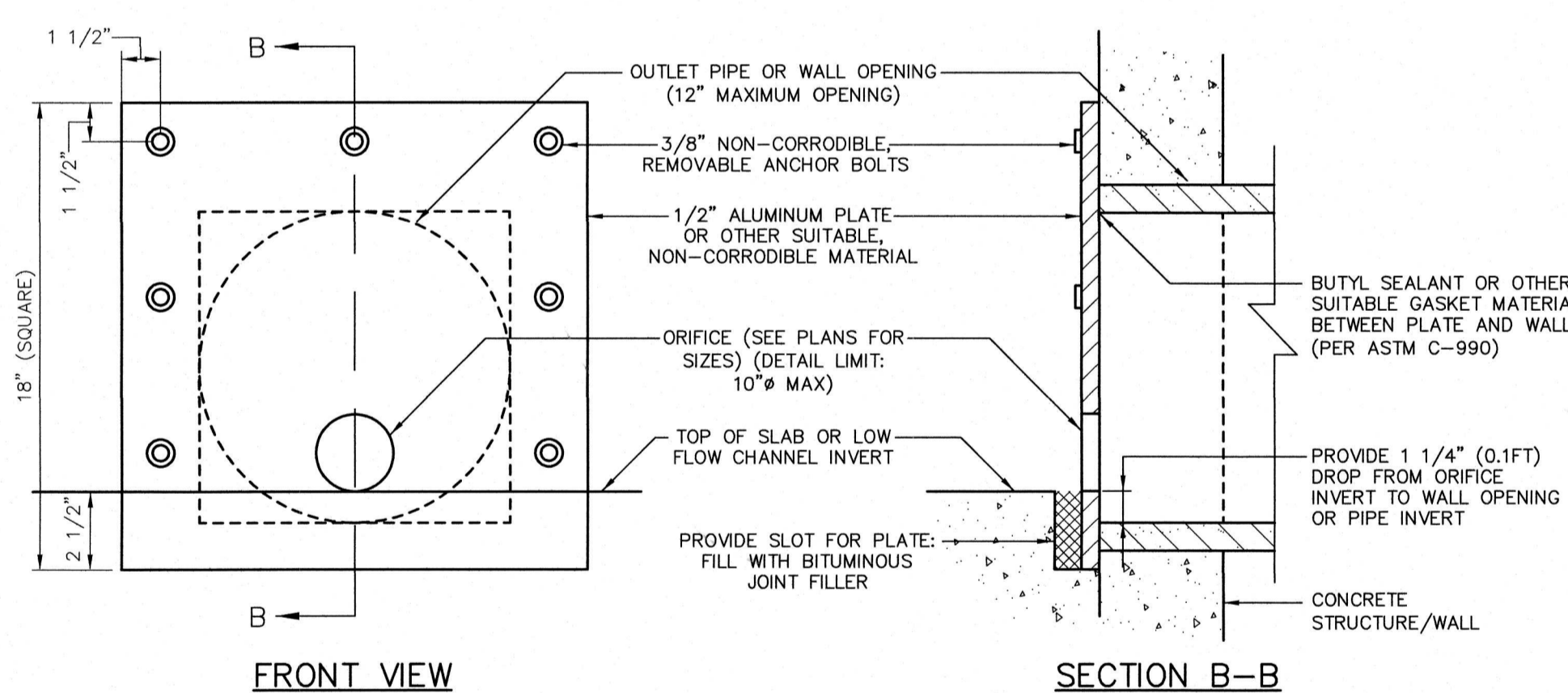
**TYPICAL BIO-RETENTION BASIN WITH UNDERDRAIN FOOTPRINT DETAIL**  
N.T.S.



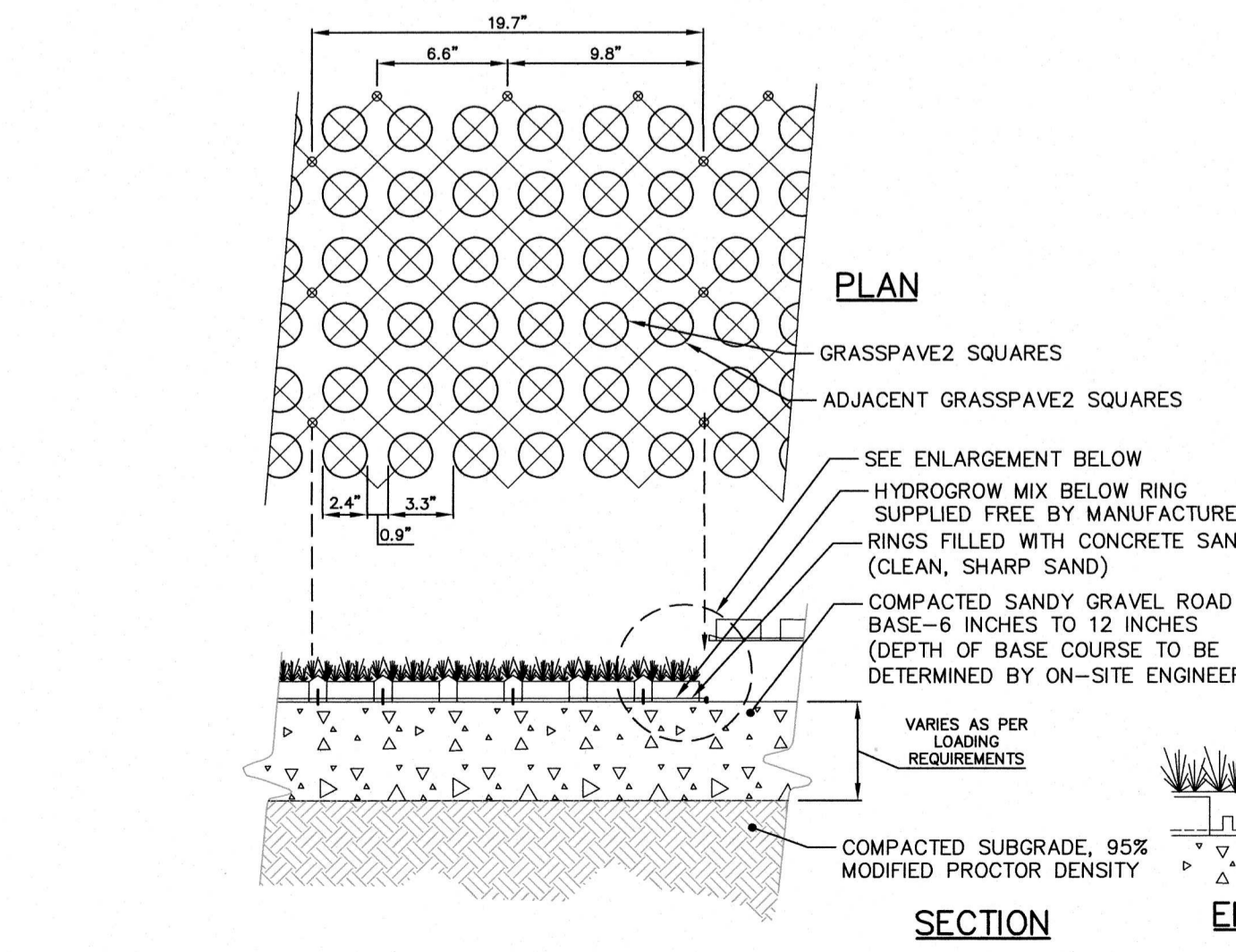
**TYPICAL BIO-RETENTION BASIN WITH UNDERDRAIN DETAIL**  
N.T.S.



**TRASH RACK FOR ORIFICE**  
N.T.S.

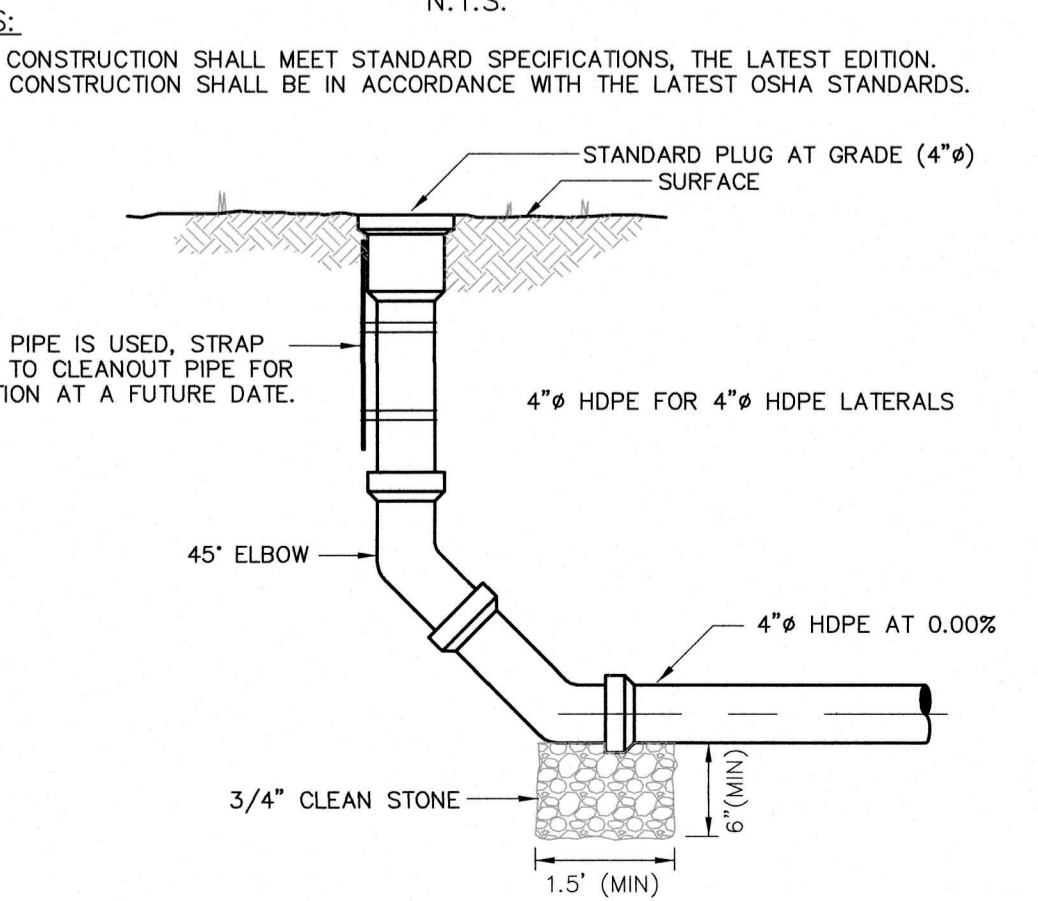


**ORIFICE PLATE DETAIL**  
N.T.S.

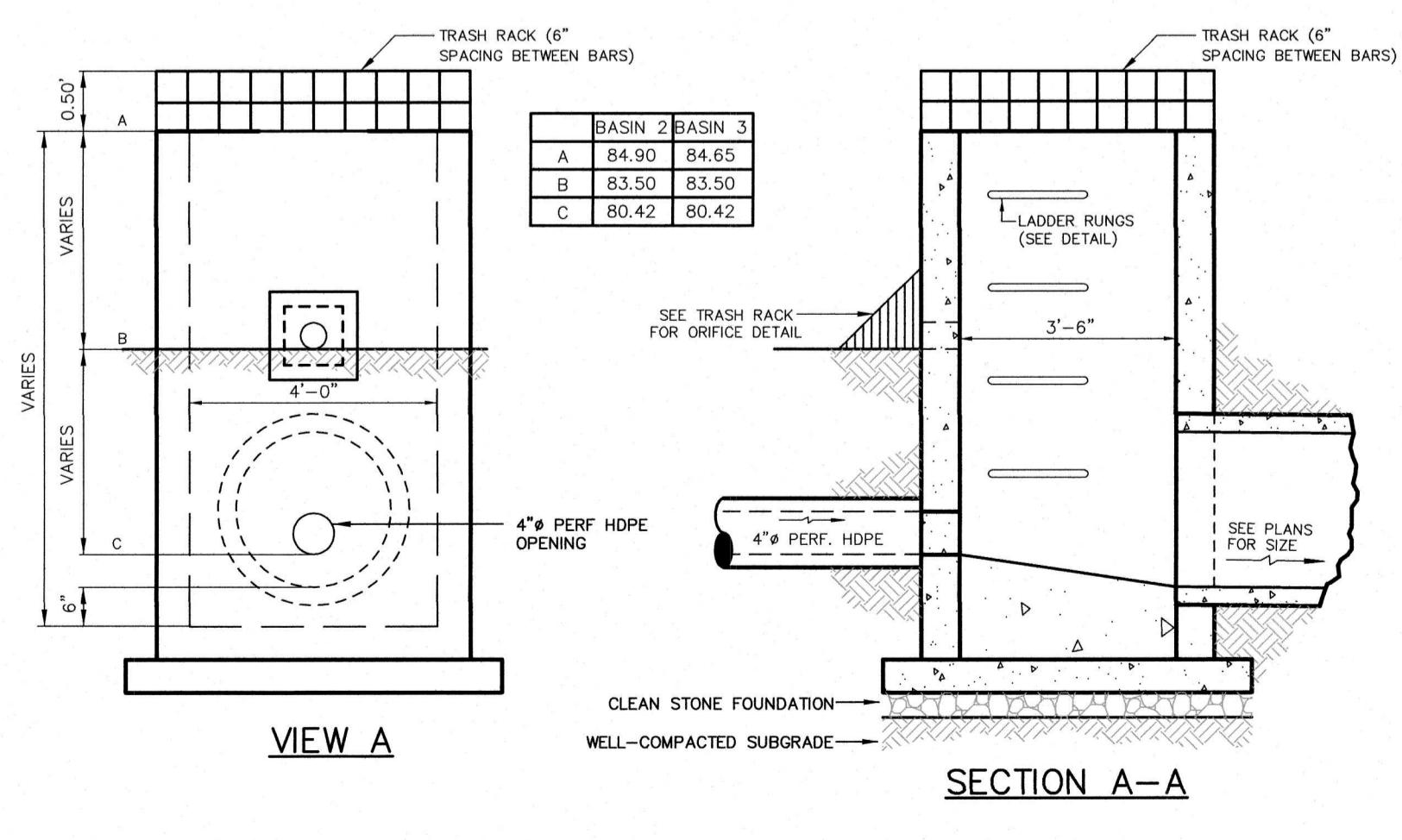


**REINFORCED GRASS PAVER**  
N.T.S.

**SPECIFICATIONS**  
UNIT SIZE - 20" X 20" X 1"  
AVAILABLE IN 9 STANDARD ROLL SIZES  
UNIT WEIGHT - 18 OUNCES OR 4.5 POUNDS  
STRENGTH - 5720 PSI  
COLOR - BLACK (STANDARD) RESIN - HDPE (WITH SOME POST-CONSUMER RECYCLED CONTENT)  
SEE ENLARGEMENT BELOW  
HYDROGROW MIX BELOW RING SUPPLIED FREE BY MANUFACTURER  
RINGS FILLED WITH CONCRETE SAND (CLEAN, SHARP SAND)  
COMPACTED SANDY GRAVEL ROAD BASE - 6 INCHES TO 12 INCHES (DEPTH OF BASE COURSE TO BE DETERMINED BY ON-SITE ENGINEER)  
VARIES AS PER LOADING REQUIREMENTS  
TOP OF GRASS ROOT MASS 1/4" ABOVE TOP OF RING  
GRASSPAVE2 ATTACH WITH SNAP-FIT FASTENERS  
ROOT MASS TO FILL GRASSPAVE2  
COMPACTED SANDY GRAVEL BASE COURSE  
NOTE: GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER



**CLEANOUT (BIORETENTION BASIN)**  
N.T.S.



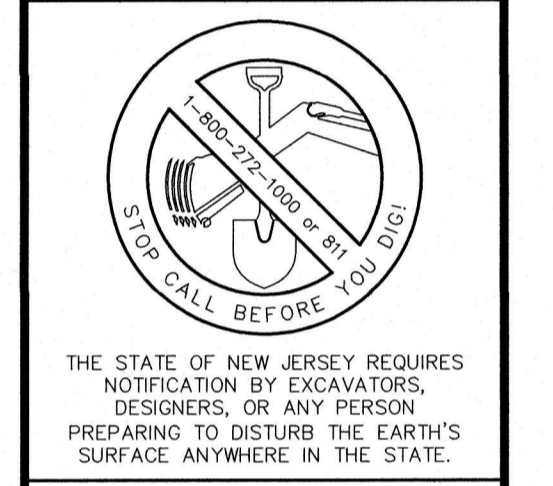
**OUTLET CONTROL STRUCTURE DETAIL**  
N.T.S.

**CONSTRUCTION DETAIL NOTES**

1. ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL CONSTRUCTION DETAILS SHALL BE SUPERCEDED BY APPLICABLE MUNICIPAL COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.
3. STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.
4. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
5. DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER.
6. RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.).
7. ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE NOTED.

REVISIONS	
2) DRCC REVS	10/07/22

THIS DRAWING IS FOR PERMIT PURPOSES ONLY. NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED.



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Certificate of Authorization: 24CA27951900

**OSCAR & ELLA WILF CAMPUS FOR SENIOR LIVING - SINGLE-FAMILY & SOLAR FIELD DEVELOPMENT**

**TOWNSHIP OF FRANKLIN SOMERSET COUNTY NEW JERSEY**

**BLOCK 386.07, LOTS 54.05 & 55.03 TAX MAP SHEET 62 34.46 ACRES**

**CONSTRUCTION DETAILS (6)**

DESIGNED BY	PJ
APPROVED BY	WAL
THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION...	
WILLIAM A. LANE PROFESSIONAL ENGINEER N.J.P.E.# 40262	
PROJECT NUMBER	2021.048 DE-6
DATE OF ISSUE	AUGUST 5, 2022
REVISION	OCTOBER 7, 2022 26