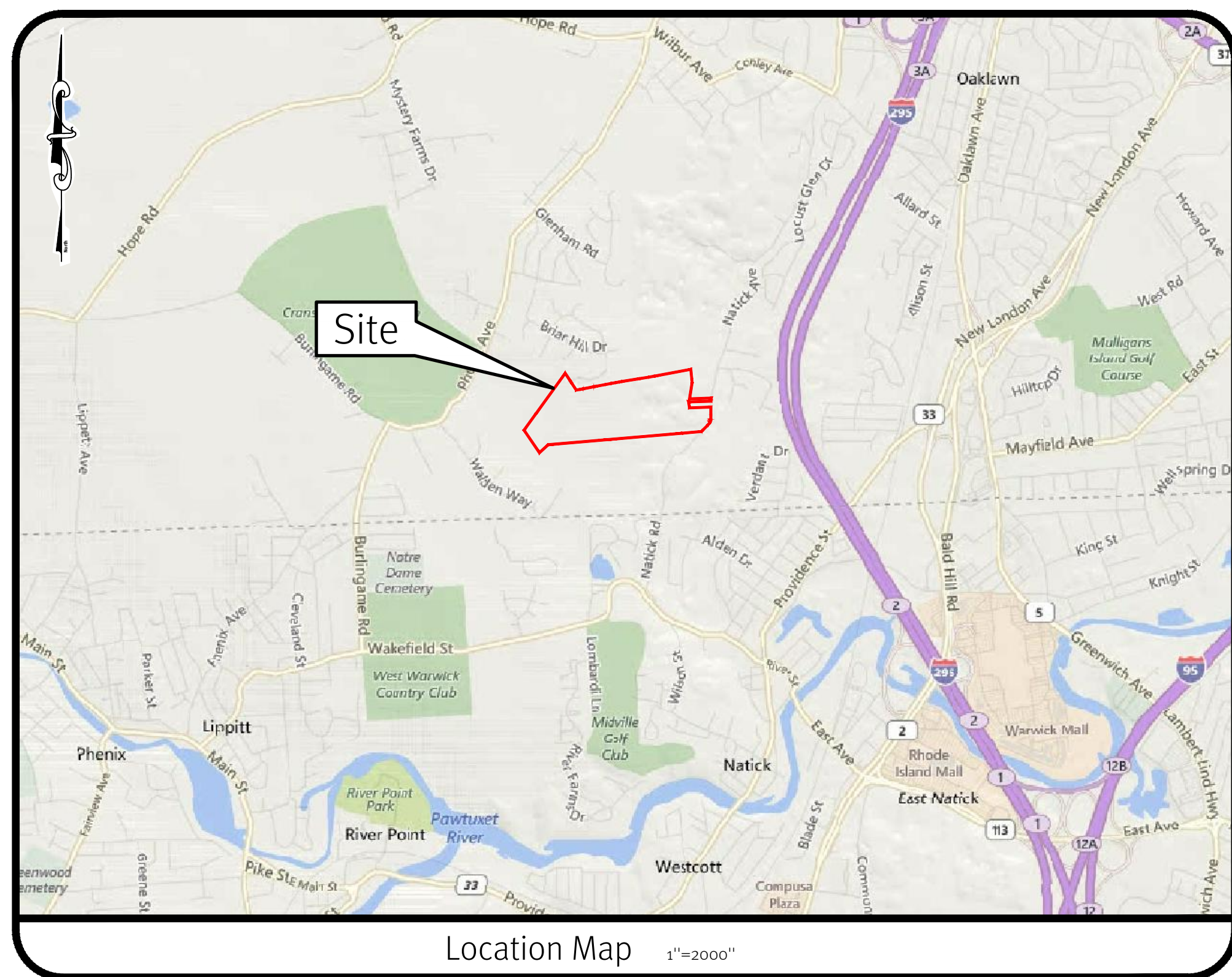


Development Plan Review & Preliminary Plan Submission

Natick Avenue Solar

Located on Natick Avenue
Cranston, Rhode Island

Assessor's Plat 22-3 Lots 108 & 119



Sheet List Table

- 1 Cover Sheet
- 2 Half Mile Radius Aerial & USGS Map
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Landscape Plans-

- Prepared by John C. Carter & Co., Inc.
- (1 of 6) Buffer Plan
 - (2 of 6) Cross Sections 1, 2, & 3
 - (3 of 6) Cross Sections 4, 5, & 6
 - (4 of 6) Cross Sections 7, 8, & 9
 - (5 of 6) Cross Sections 10, 11, & 12
 - (6 of 6) Cross Sections 13 & 14

SESC / O&M

The Soil Erosion and Sediment Control Plan (SESC) and Operations and Maintenance Plan (O&M) are required documents with this plan set and must be maintained by the contractor and owner onsite.

Cover Sheet
Natick Avenue Solar
Assessor's Plat 22-3 Lots 108 & 119
Cranston, Rhode Island
Client
Natick Solar, LLC
349 Centerville Road, Warwick, Rhode Island 02886
tel 781-371-2001

SHEET **1** OF 13

KEVIN DEMERS

REGISTERED PROFESSIONAL ENGINEER CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES WITHOUT THE SIGNATURE OF THE REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING PROJECT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY INFORMATION PROVIDED BY ANY OTHER PARTY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACCURACY OF ANY INFORMATION PROVIDED BY ANY OTHER PARTY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF ANY INFORMATION PROVIDED BY ANY OTHER PARTY. SEE UTILITY MAPS ON SHEET 3.

NO.	DATE	DESCRIPTION	DESIGN BY	SEK
6	05/07/2025	Site & Prelim. Sub. Response to Comments	WJP	
5	05/07/2025	Master Plan Revision	KAR	
4	05/07/2025	Master Plan Revision	KAR	
3	12/18/2024	Site & Prelim. Sub. Response to Comments	WJP	
2	12/18/2024	Site & Prelim. Sub. Response to Comments	WJP	
1	12/18/2024	Site & Prelim. Sub. Response to Comments	WJP	
0	12/18/2024	Site & Prelim. Sub. Response to Comments	WJP	

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SHEET **1** OF 13

Diprete Engineering

Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-664-6006 www.diprete-eng.com
Boston • Providence • Newport

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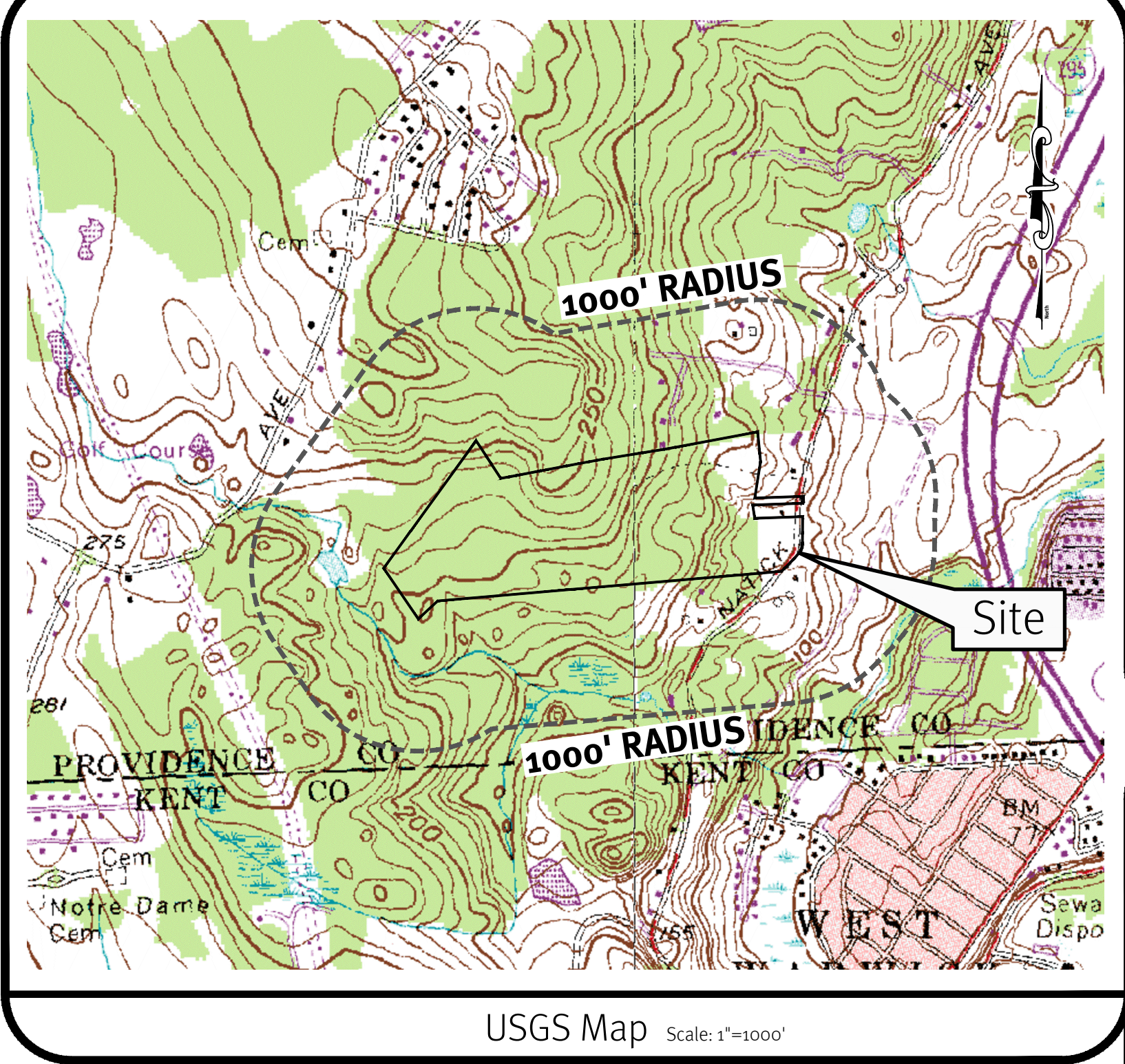
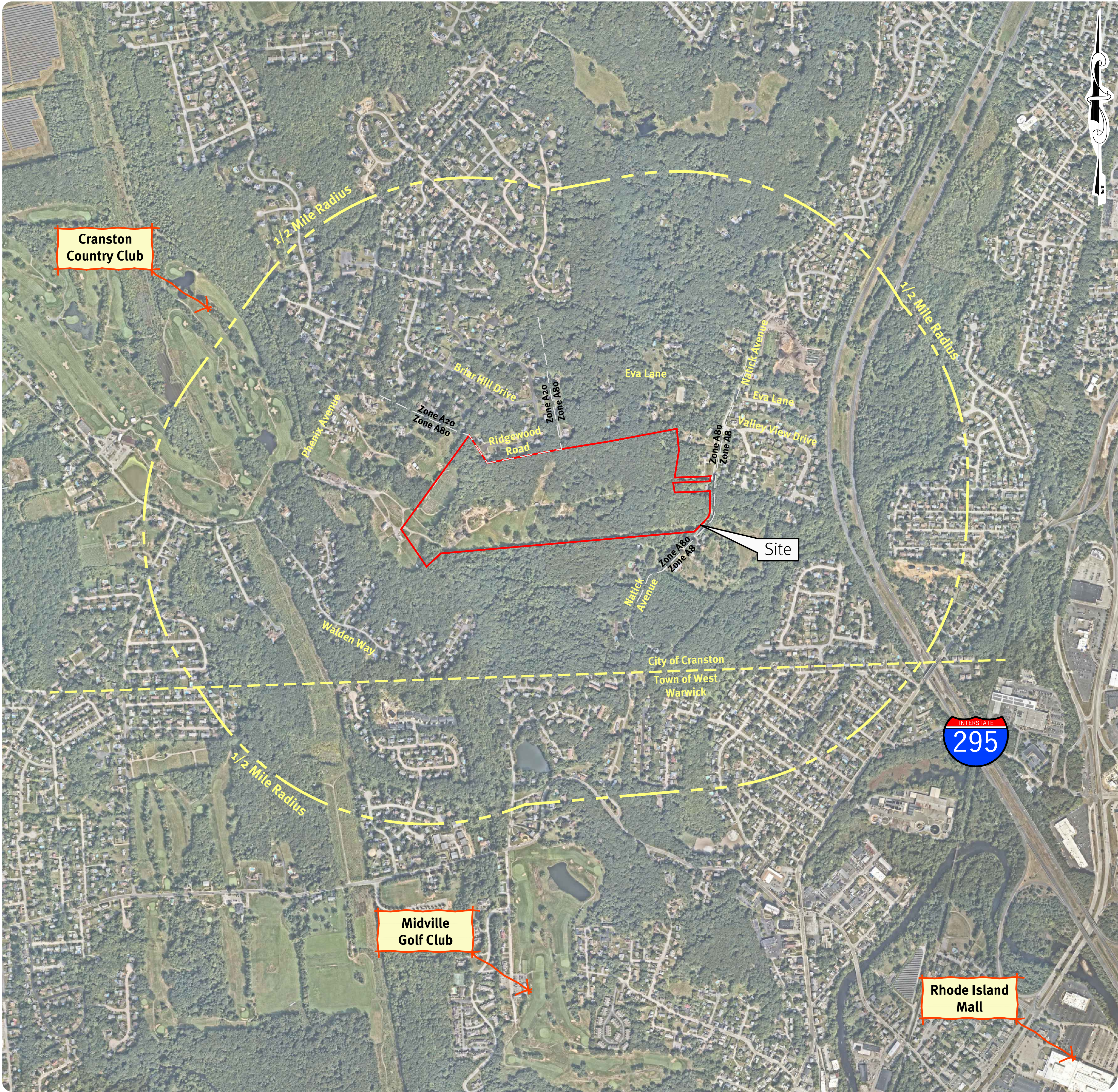



Photo Obtained from RIGIS.



**DiPrete Engineering**
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Boston • Providence • Newport

KEVIN DEMERS

REGISTERED PROFESSIONAL ENGINEER
CIVIL

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS ACCOMPANIED BY THE PROFESSIONAL ENGINEER'S SEAL AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

NO.	DATE	DESCRIPTION	BY
6	06/17/2025	Site & Prelim. Plan Revision: 10 Comments	MAP
5	06/17/2025	Assessor's Plat 22-3 Lots 103 & 119	KAR
4	05/11/2025	Master Plan Revision: 10 Comments	KAR
3	03/19/2025	Final Site Plan Revision	USM
2	03/19/2025	Final Master Plan Revision	USM
1	12/18/2025	City Planning Comments	SLM
0	12/12/2025	Preliminary Submission	SLM
101	DATE	DESCRIPTION	BY
		Design By: SEK	

Half Mile Radius Aerial & USGS Map

Natick Avenue Solar
Assessor's Plat 22-3 Lots 103 & 119
Cranston, Rhode Island

Client
Natick Solar, LLC
349 Centerville Road, Warwick, Rhode Island 02886
tel 781-371-2001

DE Job No: 2437-015 Copyright 2025 by DiPrete Engineering Associates, Inc.

SHEET **2** OF 13

z:\deman\projects\2437-015 natick avenue solar\autocad drawings\2437-015-over.dwg Plotter: 6/17/2025

General Notes:

1.

THE SITE IS LOCATED ON THE CITY OF CRANSTON ASSESSOR'S PLAT 22-3 LOTS 108 AND 119.

2.

THE SITE IS APPROXIMATELY 64.03 ACRES AND IS ZONED A-80.

3.

THE OWNER OF AP 22-3 LOTS 108 AND 119 IS:

RONALD ROSSI

1935 PHOENIX AVE

CRANSTON, RI 02920

4.

THIS SITE IS LOCATED IN FEMA FLOOD ZONES X UNSHADED. REFERENCE FEMA FLOOD INSURANCE RATE MAP 44007C0407G & 44007C0246H, MAPS REVISED OCTOBER 2, 2015. (FLOOD PLAIN DESCRIPTIONS SHOWN BELOW)

ZONE X (UNSHADED) - THIS SITE IS LOCATED IN FEMA FLOOD ZONE X. ZONE X ARE AREAS WHERE THERE IS MINIMAL FLOODING.

5.

THE BOUNDARY LINE AS SHOWN ON THIS PLAN DEPICTS THE RESULTS OF A CLASS I BOUNDARY RETRACEMENT SURVEY AS PERFORMED BY DIPRETE ENGINEERING ASSOCIATES, INC.. THIS PLAN IS NOT TO BE CONSTRUED AS A CLASS I BOUNDARY RETRACEMENT SURVEY PLAN AND IS NOT SUITABLE FOR RECORDING AS A CLASS I STANDARD SURVEY PLAN. PLEASE REFER TO THE BOUNDARY SURVEY AT THE END OF THIS PLANSET.

6.

THE SITE IS NOT WITHIN A:

GROUNDWATER PROTECTION AREA (RIDEM)

NATURAL HERITAGE AREA (RIDEM)

GROUNDWATER PROTECTION OVERLAY DISTRICT (TOWN)

7.

THE FOLLOWING DOCUMENTS ARE CONSIDERED PART OF THE PROJECT PLANS AND THE CONTRACTOR/OWNER MUST MAINTAIN THESE DOCUMENTS AS PART OF A FULL PLAN SET:

•

SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC). THE SESC CONTAINS THE FOLLOWING:

◦

EROSION CONTROL MEASURES

◦

SHORT TERM MAINTENANCE

◦

ESTABLISHMENT OF VEGETATIVE COVER

◦

CONSTRUCTION POLLUTION PREVENTION

◦

SEQUENCE OF CONSTRUCTION

•

OPERATION AND MAINTENANCE PLAN (O&M). THE O&M CONTAINS:

◦

LONG TERM MAINTENANCE

◦

LONG TERM POLLUTION PREVENTION

8.

THE SITE DOES NOT REQUIRE ANY WATER OR SEWER SERVICE.

9.

ALL PROPOSED CRUSHED STONE ACCESS PATHS ARE TO BE 20' WIDE.

10.

NO LIGHTING IS PROPOSED ON-SITE.

11.

TEST PITS AND SOIL EVALUATIONS WERE COMPLETED BY DIPRETE ENGINEERING ON FEBRUARY 21, 2019.

12.

WETLANDS ON THIS SITE WERE FLAGGED BY NATURAL RESOURCE SERVICES, INC.. (NRS). REFER TO THE NRS REPORT DATED JULY 11, 2018.

13.

THIS PLAN SET REFERENCES RIDOT STANDARD DETAILS (DESIGNATED AS RIDOT STD X.X.X). RIDOT STANDARD DETAILS ARE AVAILABLE FROM RIDOT AND ONLINE AT: [HTTP://WWW.DOT.RI.GOV/BUSINESS/CONTRACTORSANDCONSULTANTS.PHP](http://www.dot.ri.gov/business/contractorsandconsultants.php).
- Soil Information:
- (REFERENCE: USDA NATURAL RESOURCES CONSERVATION SERVICE)
- | SOIL NAME | DESCRIPTION |
|-----------|-------------|
|-----------|-------------|
- | | |
|-----|--|
| CAD | CANTON-CHARLTON-ROCK OUTCROP COMPLEX, IS TO 35 PERCENT SLOPES |
| CEC | CANTON AND CHARLTON FINE SANDY LOAMS, VERY ROCKY, 3 TO 15 PERCENT SLOPES |
| CHB | CANTON AND CHARLTON VERY STONY FINE SANDY LOAMS, 3 TO 8 PERCENT SLOPES |
| RF | RIDGEBURY, WHITMAN, AND LEICESTER EXTREMELY STONY FINE SANDY LOAMS |
| WCB | WAPPING VERY STONY SILT LOAM, 0 TO 8 PERCENT SLOPES |
- Soil Erosion and Sedimentation Control Notes:
1.

ALL EROSION CONTROL, TEMPORARY SWALES, TEMPORARY SEDIMENT TRAPS, ETC. MUST BE INSTALLED PER THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST EDITION) AND THE SOIL EROSION AND SEDIMENT CONTROL PLAN (SESC).

2.

TEMPORARY SWALES MUST BE USED TO CONTROL RUNOFF DURING CONSTRUCTION OF THE PROPOSED ROADWAY. TEMPORARY SWALES MUST BE VEGETATED AFTER CONSTRUCTION. EROSION CONTROL MATS MUST BE INSTALLED IF NECESSARY TO PREVENT EROSION AND SUPPORT VEGETATION. AFTER CONSTRUCTION IS COMPLETE AND TRIBUTARY AREAS TO THE SWALES HAVE BEEN STABILIZED, THE TEMPORARY SWALES MUST BE CLEARED AND FINAL CONSTRUCTION, INCLUDING INSTALLATION OF THE GRASS SWALE MUST BE PER THE DESIGN PLANS.

3.

ONCE THE SEDIMENT TRAPS ARE NO LONGER REQUIRED AND ALL TRIBUTARY AREAS HAVE BEEN STABILIZED, THE SEDIMENT TRAPS MUST BE CLEANED AND BROUGHT TO FINAL DESIGN GRADES.

4.

SEE SECTION 2.2 OF THE SESC FOR SEQUENCE OF CONSTRUCTION ACTIVITY, AND PROJECT PHASING.

5.

CONTRACTOR MAY MODIFY SEQUENCE OF CONSTRUCTION WITH APPROVAL FROM DESIGN ENGINEER.

6.

AS NOTED IN THE OPERATION & MAINTENANCE PLAN, IF SOIL EROSION IS OBSERVED BELOW THE DRIP EDGE OF THE SOLAR PANELS, TURF REINFORCEMENT MUST BE INSTALLED PER ENGINEER-APPROVED MANUFACTURER SPECIFICATIONS, ALONG AND DOWNGRADIENT OF ALL DRIP EDGES WHERE EROSION IS OBSERVED.
- General Notes - Gas Pipeline Easement
1.

PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST MARK OUT AND COORDINATE WITH THE TENNESSEE GAS COMPANY (TGC) PRIOR TO CUTTING ANY TREES ALONG THE SOUTHERN PROPERTY LINE.

2.

PRIOR TO CLEARING ALONG THE SOUTHERN PROPERTY LINE, CONTRACTOR MUST ERECT A LINE OF ORANGE SNOW FENCE ALL ALONG THE NORTHERN LIMIT OF THE TGC PIPELINE EASEMENT.

3.

PRIOR TO CONSTRUCTION, CONTRACTOR MUST EMPLOY APPROPRIATE CONSTRUCTION PROTECTION MATS FOR EQUIPMENT TRAVELING OVER THE TGC PIPELINE EASEMENT. CONTRACTOR MUST COORDINATE WITH TGC PRIOR TO INSTALLING CONSTRUCTION PROTECTION MATS.

4.

WHILE CLEARING ALONG THE SOUTHERN PROPERTY LINE, CONTRACTOR MUST ENSURE THAT FELLEED TREES DO NOT FALL WITHIN THE TGC PIPELINE EASEMENT.

5.

CONTRACTOR MUST ERECT THE PERMANENT FENCE ALONG THE SOUTHERN PROPERTY LINE AS SOON AS POSSIBLE.

6.

ANY BLASTING WITHIN 300 FEET OF THE TGC PIPELINE EASEMENT MUST BE APPROVED BY TGC. MAXIMUM ALLOWABLE PEAK PARTICLE VELOCITY IS 4.0 INCHES/SEC.
- Grading and Utility Notes:
1.

THE CONTRACTOR IS RESPONSIBLE FOR ALL SOIL EROSION AND SEDIMENT CONTROL ON-SITE. THE CONTRACTOR IS TO NOTIFY THE DESIGN ENGINEER, THE DIRECTOR OF PUBLIC WORKS, THE TOWN ENGINEER, AND RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

2.

THE CONTRACTOR MUST OBTAIN ALL FEDERAL, STATE AND MUNICIPAL APPROVALS PRIOR TO THE START OF CONSTRUCTION.

3.

CONSTRUCTION TO COMMENCE SPRING 2026 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.

4.

ALL WORK PERFORMED HEREIN IS TO BE GOVERNED BY CURRENT EDITIONS OF THE RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AND CITY OF CRANSTON STANDARD SPECIFICATIONS AND DETAILS.

5.

THE CONTRACTOR MUST COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS MUST BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.

6.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE STRUCTURES TO ENSURE SURFACE WATER AND/OR GROUNDWATER ARE DIRECTED AWAY FROM THE STRUCTURE.

7.

PRIOR TO START OF CONSTRUCTION, CONTRACTOR MUST VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES. CONTRACTOR MUST NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

8.

ALL PROPOSED UTILITIES SERVING THE SITE AND BUILDINGS TO BE COORDINATED WITH APPLICANT, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.

9.

ALL TRAFFIC CONTROL MUST CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION INCLUDING ALL REVISIONS.

10.

ALL RETAINING WALLS AND STEEP SLOPES ARE SHOWN SCHEMATICALLY ONLY AND DIPRETE ENGINEERING IS NOT PROVIDING THE DESIGN OF THESE ITEMS. THE ACTUAL WALLS AND SLOPES ARE TO BE DESIGNED AND BUILT UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS MUST BE SUBMITTED PRIOR TO CONSTRUCTION. FINAL STRUCTURAL DESIGN MUST INCORPORATE THE INTENT OF THE GRADING SHOWN ON THESE PLANS AND ALL WORK MUST BE WITHIN THE LIMIT OF DISTURBANCE SHOWN ON THE PLANS.

11.

ALL CUT AND FILL AREAS MUST BE CONSTRUCTED UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER, WITH TESTING AND CERTIFICATION PROVIDED TO THE OWNER AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING IS NOT PROVIDING THE FILL SPECIFICATIONS, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.

12.

ALL COMPONENTS OF THE DRAINAGE MUST BE ASBUILT PRIOR TO COVERING. ENGINEER MUST BE NOTIFIED PRIOR TO COVERING SURVEY ASBUILT LOCATIONS. ENGINEER WILL NOT ACCEPT FIELD MEASUREMENTS FROM THE SITE CONTRACTOR.

13.

NO STOCKPIILING OF MATERIAL TO BE LOCATED IN THE RIGHT OF WAY AND NO OPEN TRENCHES ARE TO BE LEFT OVERNIGHT.

14.

ALL TOPSOIL IN DISTURBED AREAS MUST BE STOCKPILED ON SITE FOR FUTURE USE. NO TOPSOIL SHALL LEAVE THE SITE.

15.

ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, MUST BE DISPOSED OFF SITE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. STUMPS MUST BE GROUND ON SITE OR REMOVED.

16.

NO STUMP DUMPS ARE PROPOSED ON SITE.

17.

ALL EXISTING UTILITIES SHOWN ARE FROM VISIBLE INFORMATION, DRAWINGS FROM OTHERS, OR INFORMATION PROVIDED TO DIPRETE ENGINEERING AND ARE SUBJECT TO CHANGE. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM AFOREMENTIONED PLANS OF RECORD AND ARE APPROXIMATE ONLY. PRIOR TO CONSTRUCTION, THE PROPER UTILITY ENGINEERING DEPARTMENTS MUST BE CONTACTED AND THE ACTUAL LOCATION OF SUBSURFACE STRUCTURES MUST BE DETERMINED IN THE FIELD BY THE CONTRACTOR. CALL THE DIG SAFE CENTER TOLL FREE AT 1-888-344-7233 IN MA, ME, NH, RI, & VT PRIOR TO EXCAVATION. NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO EXCAVATION. ANY DAMAGE TO UTILITIES WHICH ARE SHOWN ON THE PLANS OR DETAILED BY DIG SAFE MUST BE THE SITE CONTRACTORS RESPONSIBILITIES.

18.

IF CONCRETE TRUCKS ARE WASHED OUT ON-SITE, ALL WASHOUT MUST BE COMPLETED IN THE DESIGNATED CONCRETE WASHOUT AREA.

19.

ALL DRAINAGE PIPE INSTALLED WITHIN THE SEASONAL HIGH GROUNDWATER TABLE MUST BE WATER TIGHT.
- Lidar Note:
- CONTOUR DATA SHOWN ON THIS PLAN CONFORMS TO A T-4 TOPOGRAPHICAL SURVEY STANDARD AS ADOPTED BY THE RHODE ISLAND BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS; SAID DATA IS BASED ON ELEVATION INFORMATION THAT WAS COLLECTED WITH AIRBORNE LIDAR TECHNOLOGY FOR THE ENTIRE AREA OF RHODE ISLAND BETWEEN APRIL 22 AND MAY 6, 2011 AS PART OF THE NORTHEAST LIDAR PROJECT. THIS DATA'S POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED BY DIPRETE ENGINEERING AND IS SUBJECT TO CHANGES AN AUTHORITYTATIVE FIELD SURVEY MAY DISCLOSE.
- GRADING, DRAINAGE, AND UTILITY NOTES:
1.

CONSTRUCTION TO COMMENCE SPRING 2026 OR UPON RECEIPT OF ALL NECESSARY APPROVALS.

2.

THE CONTRACTOR MUST COORDINATE WITH ALL OF THE APPROPRIATE UTILITY COMPANIES FOR AGREEMENTS TO SERVICE THE PROPOSED BUILDING. THIS MUST BE DONE PRIOR TO CONSTRUCTION. NO REPRESENTATIONS ARE MADE BY DIPRETE ENGINEERING THAT UTILITY SERVICE IS AVAILABLE.

3.

THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING FINISH GRADING AND DRAINAGE AROUND THE BUILDING TO ENSURE SURFACE WATER AND/OR GROUNDWATER IS DIRECTED AWAY FROM THE STRUCTURE.

4.

PRIOR TO START OF CONSTRUCTION, CONTRACTOR MUST VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES. CONTRACTOR MUST NOTIFY THE CEOR OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

5.

ALL PROPOSED UNDERGROUND UTILITIES SERVING THE SITE AND BUILDINGS MUST BE COORDINATED WITH OWNER, ARCHITECT, AND ENGINEER PRIOR TO INSTALLATION.

6.

ALL RETAINING WALLS AND STEEP SLOPES ARE SUBJECT TO FINAL STRUCTURAL DESIGN. DIPRETE ENGINEERING IS NOT PROVIDING THE STRUCTURAL DESIGN OF THESE ITEMS. ALL WALLS AND STEEP SLOPES MUST BE DESIGNED AND BUILT UNDER THE DIRECTION OF A RHODE ISLAND LICENSED PROFESSIONAL ENGINEER SUITABLY QUALIFIED IN GEOTECHNICAL ENGINEERING AND CERTIFIED TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT. SHOP DRAWINGS MUST BE SUBMITTED PRIOR TO CONSTRUCTION. FINAL STRUCTURAL DESIGN MUST INCORPORATE THE INTENT OF THE GRADING SHOWN ON THESE PLANS AND ALL WORK MUST BE WITHIN THE LIMIT OF DISTURBANCE SHOWN ON THE PLANS.

7.

ALL CUT AND FILL WORK MUST BE DONE UNDER THE DIRECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER, WITH TESTING AND CERTIFICATION PROVIDED TO THE OWNER AT THE COMPLETION OF THE PROJECT. DIPRETE ENGINEERING IS NOT PROVIDING THE FILL SPECIFICATION, GEOTECHNICAL ENGINEERING, STRUCTURAL ENGINEERING SERVICES, OR SUPERVISION AS PART OF THESE DRAWINGS.

8.

MATERIAL STOCKPILES MUST NOT BE LOCATED IN THE RIGHT-OF-WAY, AND TRENCHES MUST NOT BE LEFT OPEN OVERNIGHT.

9.

ALL LOAM IN DISTURBED AREAS MUST BE STOCKPILED FOR FUTURE USE. ALL STOCKPILED LOAM MUST BE REUSED ONSITE.

10.

TOPSOIL PRESERVATION

10.1.

TO THE EXTENT PRACTICABLE, THE AREAS OF A PARCEL TO BE DISTURBED SHALL BE MINIMIZED.

10.2.

DISTURBED AREAS SHALL BE STABILIZED IN A TIMELY MANNER BY SEEDING OR PLANTING LANDSCAPING MATERIALS.

10.3.

TOPSOIL MOVED DURING SITE WORK SHALL BE STOCKPILED IN DESIGNATED AREAS THAT ARE STABILIZED TO PREVENT EROSION AND REUSED IN ACCORDANCE WITH THE LANDSCAPE PLAN.

11.

ALL EXCESS SOIL, TREES, ROCKS, BOULDERS, AND OTHER REFUSE, MUST BE DISCARDED OFF SITE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. STUMPS MUST BE GROUND ON SITE OR REMOVED.

12.

ALL DRAINAGE OUTFALLS ARE DESIGNED TO BE INSTALLED AT EXISTING GROUND ELEVATION. CONTRACTOR MUST IMMEDIATELY NOTIFY THE CEOR OF ANY DISCREPANCIES WHERE EXISTING GROUND IS HIGHER THAN OUTFALL DESIGN ELEVATION. ANY RESOLUTION OF DISCREPANCIES BY THE CONTRACTOR, UNLESS AUTHORIZED IN WRITING IN ADVANCE BY THE OWNER AND THE CEOR, IS DONE AT THE CONTRACTOR'S RISK.

13.

CONTRACTOR MUST PROVIDE SAW CUTTING AND FULL DEPTH PAVEMENT RESTORATION IN AREAS WHERE PAVEMENT AND/OR SIDEWALK IS REMOVED FOR UTILITY INSTALLATION.

14.

CONTRACTOR MUST HOLD/ SUPPORT/ RESTORE ALL EXISTING UTILITY COMPONENTS INCLUDING (BUT NOT LIMITED TO) POLES, MAST ARMS AND ABOVEGROUND OBJECTS AS NECESSARY DURING THE PROPOSED WORKS AND ELECTRICAL INSTALLATION. CONTRACTOR MUST COORDINATE SAID WORKS WITH ALL ASSOCIATED UTILITY OWNERS ACCORDINGLY. ANY EXISTING ITEMS DAMAGED OR REMOVED AS INCIDENTAL DURING UTILITY CONNECTION/ ELECTRICAL INSTALLATION INCLUDING (BUT NOT LIMITED TO) CURB IN THE ROW MUST BE REPLACED IN KIND FOLLOWING COMPLETION OF WORKS.

DRAINAGE

ALL DRAINAGE PIPING MUST BE HIGH-DENSITY POLYETHYLENE (HDPE), OR EQUAL, WITH WATERTIGHT JOINTS WHERE INSTALLED WITHIN THE SEASONAL HIGH GROUNDWATER TABLE, UNLESS NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS. ALL DRAINAGE STRUCTURES MUST BE WATERTIGHT. ALL STORMWATER PIPE WITHIN THE STATE'S RIGHT-OF-WAY MUST BE REINFORCED CONCRETE PIPE (RCP).

DRAINAGE STRUCTURES MUST BE AS FOLLOWS (UNLESS OTHERWISE NOTED ON PLANS):

•

CATCH BASINS NOT ALONG CURBING: RIDOT STD 4.4.0, 4' DIAMETER

•

CATCH BASINS MUST HAVE 3 FT SUMP WITHOUT SEEP HOLES

•

SINGLE FRAME CATCH BASIN GRATES: RIDOT STD 6.3.2

•

DROP INLETS: RIDOT STD 4.5.0, 4.5.1 OR 4.5.2

•

APRON STONE, WHERE REQUIRED: RIDOT STD 7.1.7 OR 7.1.8

•

HEADWALLS: RIDOT STD 2.1.0 IF NEEDED

•

FOR ALL OTHER DRAINAGE STRUCTURES: IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE APPROPRIATE STRUCTURE TOP REQUIRED (E.G. CONE TOP, FLAT TOP ETC) TO MEET THE DESIGN PARAMETERS AS SHOWN ON THESE PLANS, INCLUDING (BUT NOT LIMITED TO) THE RELATIONSHIP BETWEEN FINISH SURFACE ELEVATION/ DEPTH TO PIPE INVERTS AND MEETING MANUFACTURER/ AHJ REQUIREMENTS & SPECIFICATIONS.

ELECTRIC

PROPOSED ELECTRIC UTILITIES ARE SHOWN SCHEMATICALLY AND ARE PROPOSED TO BE UNDERGROUND. OWNER AND CONTRACTOR MUST COORDINATE FINAL DESIGN WITH APPROPRIATE UTILITY COMPANIES. ALL WORK MUST BE IN ACCORDANCE WITH EACH UTILITY COMPANY'S STANDARDS AND DETAILS AS WELL AS LOCAL AND FEDERAL REGULATIONS. THIS INCLUDES BUT IS NOT LIMITED TO POLES, TRANSFORMERS, FULL BOXES, CONCRETE PADS, CONCRETE ENCASEMENTS AND CONDUITS. CONNECTION POINTS FOR ELECTRIC AND TELECOM UTILITIES, AT THE EXISTING INFRASTRUCTURE, ARE CURRENTLY SHOWN AS UNDERGROUND UTILITIES. THESE UTILITIES MAY BE UNDERGROUND OR OVERHEAD AND MUST BE COORDINATED WITH RI ENERGY PRIOR TO CONSTRUCTION.

SITE LIGHTING

NO NEW SITE LIGHTING FACILITIES ARE PROPOSED.

ABBREVIATIONS LEGEND

ADA	AMERICANS WITH DISABILITY ACT
AHJ	AUTHORITY HAVING JURISDICTION
AP	ASSESSOR'S PLAT
ARCH	ARCHITECT
BC	BOTTOM OF CURB
BT	BOTTOM OF TESTHOLE
BIT	BITUMINOUS (BERM)
BIO	BIORETENTION
BS	BASEMENT SLAB ELEVATION
BW	FINISHED GRADE AT BOTTOM OF WALL
CB	CATCH BASIN
(C)	CALCULATED
CL	CENTERLINE
(CA)	CHORD ANGLE
CEOR	CIVIL ENGINEER OF RECORD. DIPRETE ENGINEERING UNLESS DESIGNATED OTHERWISE BY OWNER
CLDIP	CONCRETE LINED DUCTILE IRON PIPE
CO	CLEAN OUT
CONC	CONCRETE
(D)	DEED
DCB	DOUBLE CATCH BASIN
DI	DROP INLET
DMH	DRAINAGE MANHOLE
DP	DETENTION POND
ELEV	ELEVATION
ESP	EDGE OF PAVEMENT
EOP	EROSION AND SEDIMENT CONTROL
EX	EXISTING
FES	FLARED END SECTION
FFE	FINISH FLOOR ELEVATION
GS	GARAGE SLAB ELEVATION
GW	GROUND WATER TABLE
HW	HEADWALL
HC	HIGH CAPACITY CATCH BASIN GRATE
HDPE	HIGH DENSITY POLYETHYLENE
ID	INLINE DRAIN
INV	INVERT
IP	INFILTRATION POND
LARCH	LANDSCAPE ARCHITECT
LF	LINEAR FEET
LOD	LIMIT OF DISTURBANCE
LP	LIGHT POLE
(M)	MEASURED
MEP	MECHANICAL/ELECTICAL/ PLUMBING ENGINEER

N/F	NOW OR FORMERLY
OHW	OVERHEAD WIRE
PE	POLYETHYLENE
PL	PROPERTY LINE
PR	PROPOSED
PVC	POLYVINYL CHLORIDE
R	RADIUS
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RHB	RHODE ISLAND
RL	HIGHWAY BOUND
RL	ROOF LEADER
ROW	RIGHT-OF-WAY
S	SLOPE
SD	SUBDRAIN
SED	SEDIMENT FOREBAY
SF	SQUARE FOOT
SFL	STATE FREEWAY LINE
SFM	SEWER FORCE MAIN
SG	SLAB ON GRADE ELEVATION
SHL	STATE HIGHWAY LINE
SMH	SEWER MANHOLE
SNDF	SAND FILTER
SS	SIDE SLOPE
STA	STATION
TC	TOP OF CURB
TD	TRENCH DRAIN
TF	TOP OF FOUNDATION
TRANS	TRANSITION
TW	TOP OF WALL (FINISHED GRADE AT TOP OF WALL)
TYP	TYPICAL
UDS	UNDERGROUND
UIS	UNDERGROUND INFILTRATION SYSTEM
UP	UTILITY POLE
WQ	WALKOUT ELEVATION
WQ	WATER QUALITY

Existing Legend

NOT ALL ITEMS SHOWN WILL APPEAR ON PLANS

	PROPERTY LINE		NAIL FOUND/SET
	ASSESSORS LINE		DRILL HOLE FOUND/SET
	BUILDING		BOUND FOUND/SET
	BRUSHLINE		SIGN
	TREELINE		BOLLARD
	GUARDRAIL		SOIL EVALUATION
	FENCE		CATCH BASIN
	RETAINING WALL		DOUBLE CATCH BASIN
	STONE WALL		DRAINAGE MANHOLE
	PATH		FLARED END SECTION
	MINOR CONTOUR LINE		GULLY POLE
	MAJOR CONTOUR LINE		ELECTRIC MANHOLE
	WATER LINE		UTILITY/POWER POLE
	SEWER LINE		LIGHTPOST
	SEWER FORCE MAIN		SEWER/SEPTIC MANHOLE
	GAS LINE		SEWER VALVE
	ELECTRIC LINE		CLEANOUT
	OVERHEAD WIRES		HYDRANT
	SOILS LINES		IRRIGATION VALVE
	50' PERIMETER WETLAND		WATER VALVE
	100' RIVERBANK WETLAND		WELL
	200' RIVERBANK WETLAND		MONITORING WELL
	FEMA BOUNDARY		UNKNOWN MANHOLE
	STREAM		GAS VALVE
	WETLAND LINE & FLAG		BENCH MARK
	AREA SUBJECT TO STORM FLOWAGE LINE & FLAG		STREAM FLOW DIRECTION
	STATE HIGHWAY LINE		
	STATE FREEWAY LINE		

Proposed Legend

NOT ALL ITEMS SHOWN WILL

	PROPERTY LINE		DRAINAGE LINE
	BUILDING SETBACKS		PERFORATED SUBDRAIN
	CHAINLINK FENCE		SWALE
	RETAINING WALL		SEWER FORCE MAIN
	MINOR CONTOUR LINE		GAS LINE
	MAJOR CONTOUR LINE		WATER LINE
	BMP STONE BASIN/TRENCH BOTTOM MINOR CONTOUR LINE		HYDRANT ASSEMBLY
	BMP STONE BASIN/TRENCH BOTTOM MAJOR CONTOUR LINE		WATER SHUT OFF
	SPOT ELEVATION		WATER VALVE
	EDGE OF PAVEMENT		THRUST BLOCK
	BITUMINOUS BERM (RIDOT STD 7.5.1)		SEWER LINE
	CONCRETE CURB (RIDOT STD 7.1.0)		OVERHEAD WIRE
	BUILDING FOOTPRINT		ELECTRIC, TELEPHONE, CABLE LINE
	BUILDING OVERHANG		LIMIT OF DISTURBANCE/ LIMIT OF CLEARING
	ASPHALT PAVEMENT		SEDIMENTATION BARRIER, SILT FENCE (RIDOT STD 9.2.0), COMPOST SOCK OR APPROVED EQUAL
	HEAVY DUTY ASPHALT PAVEMENT		UNDERGROUND SUBSURFACE FLOWAGE LINE 3:1 (2:1 OR 1:1 SLOPES)
	HEAVY DUTY CONCRETE		POND ACCESS
	CONCRETE		RIPRAP
	ASPHALT SIDEWALK		SAND FILTER
	SAWCUT LINE		BIO RETENTION
	SIGN (RIDOT STD 24.6.2 AS APPLICABLE)		CATCH BASIN
	SINGLE LIGHT		DOUBLE CATCH BASIN
	DOUBLE LIGHT		MANHOLE
	OVERHANGING LIGHT		FLARED END SECTION
	ACCESSIBLE PARKING SPACE SYMBOLS		HEADWALL
	BUILDING INGRESS/EGRESS		SOLAR ARRAY (TYP)
	ELECTRIC UTILITY POLE		ZONING LINE

UTILITY NOTE:

ALL UNDERGROUND UTILITIES SHOWN ON THESE PLANS WERE PROVIDED BY OTHERS AND ARE APPROXIMATE ONLY. LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE EXCAVATION, BLASTING, UTILITY INSTALLATION, BACKFILLING, GRADING, PAVEMENT RESTORATION, AND ALL OTHER SITE WORK. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THESE DOCUMENTS. CONTACT DIG SAFE A MINIMUM OF 72 WORKING HOURS PRIOR TO ANY CONSTRUCTION AT 801 DIG SAFE IS RESPONSIBLE FOR CONTACTING MEMBER UTILITY COMPANIES. DIG SAFE MEMBER UTILITY COMPANIES ARE RESPONSIBLE TO MARK ONLY THE FACILITIES THAT THEY OWN OR MAINTAIN. NON DIG SAFE MEMBER COMPANIES ARE NOT NOTIFIED BY DIG SAFE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE AND NOTIFY IF ANY PRIVATELY OWNED OR NON DIG SAFE MEMBER UTILITIES ARE IN THE AREA.

PER THE CODE OF FEDERAL REGULATIONS - TITLE 29, PART 1926 IT IS THE SITE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ACCURATE UNDERGROUND UTILITY LINE LOCATIONS FROM THE UTILITY COMPANIES. UTILITY OWNERS AND, OR VIA UNDERGROUND UTILITY LOCATION EQUIPMENT AS NEEDED TO ESTABLISH ACCURATE LOCATIONS PRIOR TO ANY EXCAVATION. THE USE OF PROFESSIONAL UTILITY LOCATING COMPANIES PRIOR TO ANY EXCAVATION IS RECOMMENDED.

DIPRETE ENGINEERING IS NOT A PROFESSIONAL UTILITY LOCATION COMPANY, AND IS NOT RESPONSIBLE FOR UNDERGROUND UTILITIES, DEPICTED OR NOT, EITHER IN SERVICE OR ABANDONED. ANY SIZES, LOCATIONS, EXISTENCE, OR LACK OF EXISTENCE OF UTILITIES SHOWN ON THESE PLANS SHOULD BE CONSIDERED APPROXIMATE UNTIL VERIFIED BY A PROFESSIONAL UTILITY LOCATION COMPANY. DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED.

PERMIT NOTE:

THE PURPOSE OF THIS PLAN SET IS TO OBTAIN A PERMIT FROM THE REGULATORY AGENCY IT WAS SUBMITTED TO. THIS PLAN SET CONTAINS THE REQUIRED INFORMATION NECESSARY FOR APPROVAL BY THE SPECIFIC AGENCY IT WAS SUBMITTED TO AND MAY NOT HAVE INFORMATION NECESSARY FOR OTHER REGULATORY AGENCIES. THIS PLAN SET MUST NOT BE CONSTRUED AS A FULL CONSTRUCTION OR BID SET. ADDITIONAL DETAIL IS REQUIRED FOR CONSTRUCTION AND BID DOCUMENTS, SUCH AS (BUT NOT LIMITED TO) FINE GRADING, GRADING BETWEEN THE CONTOUR INTERVAL, ADDITIONAL SURVEY MAPPING, BUILDING SHAPE/ LOCATION, ADA UTILITY CONNECTIONS, UTILITY CROSSINGS, SURFACE AND GROUND WATER MITIGATION, SOIL STABILITY AND CONSISTENCY, SPECIFIC END USER NEEDS, CONSTRUCTABILITY ISSUES, ETC. ANY USER OF THESE PLANS SHOULD UNDERSTAND THIS LIMITATION.

General Notes & Legend

Natick Avenue Solar

Assessor's Plat 22-3 Lots 108 & 119

Client

Natick Solar, LLC

349 Centerville Road, Warwick, Rhode Island 02886

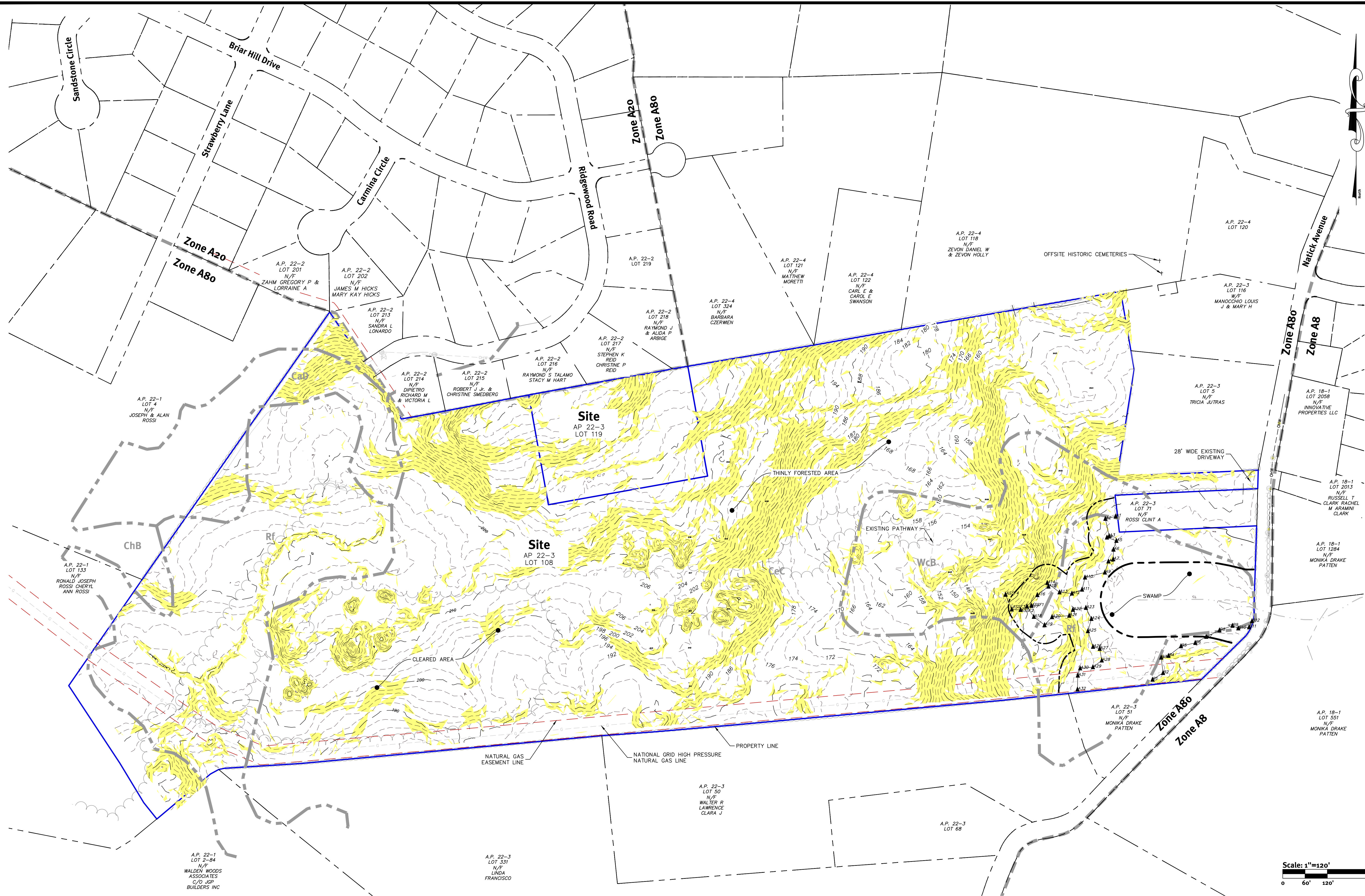
tel 781-371-2001

DE Job No: 2437-015 Copyright 2025 by DiPrete Engineering Associates, Inc.

DiPrete Engineering

Two Stafford Court Cranston, RI 02920

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Existing Conditions Note:

SEE SHEET 13 FOR CLASS I BOUNDARY SURVEY.

STEEP SLOPES TABLE		
	SLOPE	COLOR
1	>15.00%	

Existing Conditions Plan

Natick Avenue Solar

Assessors: Plat 22-3 Lots 108 & 119

Cranston, Rhode Island

Client

Natick Solar, LLC

349 Centerville Road, Warwick, Rhode Island 02886

tel 781-371-2001

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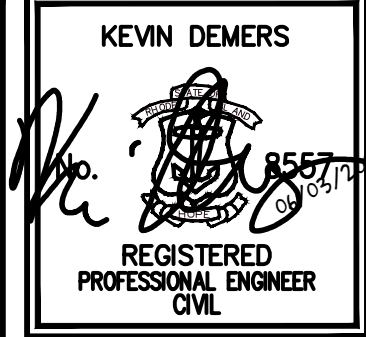
THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES WITHOUT THE SIGNATURE AND SEAL OF A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ASSUMES NO RESPONSIBILITY FOR THE ACTIONS OF ANY OTHER PARTY.

THE CANTONING OF RESPONSIBILITY FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF THE PROJECT IS THE RESPONSIBILITY OF THE DESIGNER.

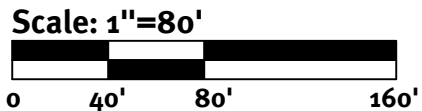
EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. ONLY A DIPRETE ENGINEERING ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITIES SHOWN ON THIS PLAN. SEE UTILITY MAP ON SHEET 3.

No.	Date	Description	By:	Design By: SEK
5	12/02/2025	DPS & Preliminary Plan Submission	WCB	
4	10/17/2024	Master Plan Re-submission	WCB	
3	12/18/2024	Final Plan Submission	WCB	
2	12/18/2024	Final Plan Submission	WCB	
1	12/18/2024	Final Plan Submission	WCB	
0	12/18/2024	Preliminary Submission	WCB	

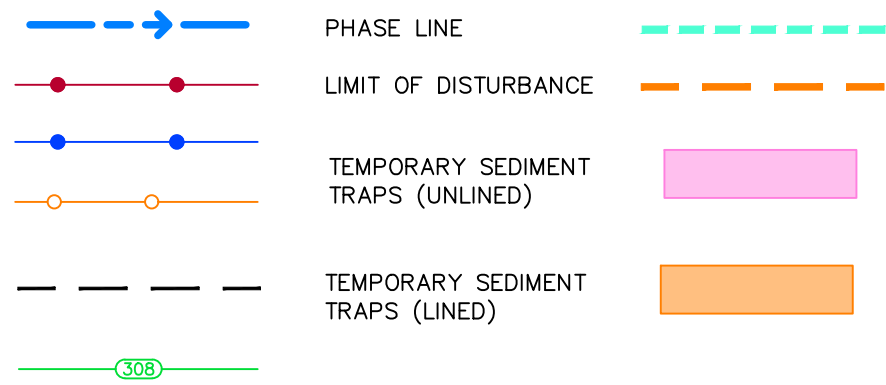


Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-641-6006 www.diprete-eng.com

Boston • Providence • Newport



DIVERSION CHANNEL/BERM
SILT FENCE (SEE SHEET 12)
STRAW WATTLE (SEE SHEET 12)
COMPOST FILTER SOCK (8" DIAMETER)
APPROXIMATE SESC TRAP
DISTURBANCE AREA LINE
(5 ACRE MAX)
FINAL CONTOUR



1. INTERNAL SEDIMENT CONTROL SHOWN IS THE MINIMUM AMOUNT REQUIRED. CONTRACTOR MUST MONITOR THE SITE AND IF AREAS OF EROSION ARE OBSERVED FOLLOWING STORM EVENTS (PRECIPITATION OF 0.25" OR GREATER), CONTRACTOR MUST SUPPLEMENT WITH ADDITIONAL EROSION CONTROL MEASURES AS SHOWN AND SPECIFIED IN SECTION SIX OF THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK.
2. CLASS R-3 RIPRAP TO BE INSTALLED WHERE EXISTING SURFACE FORMS A NATURAL SWALE.

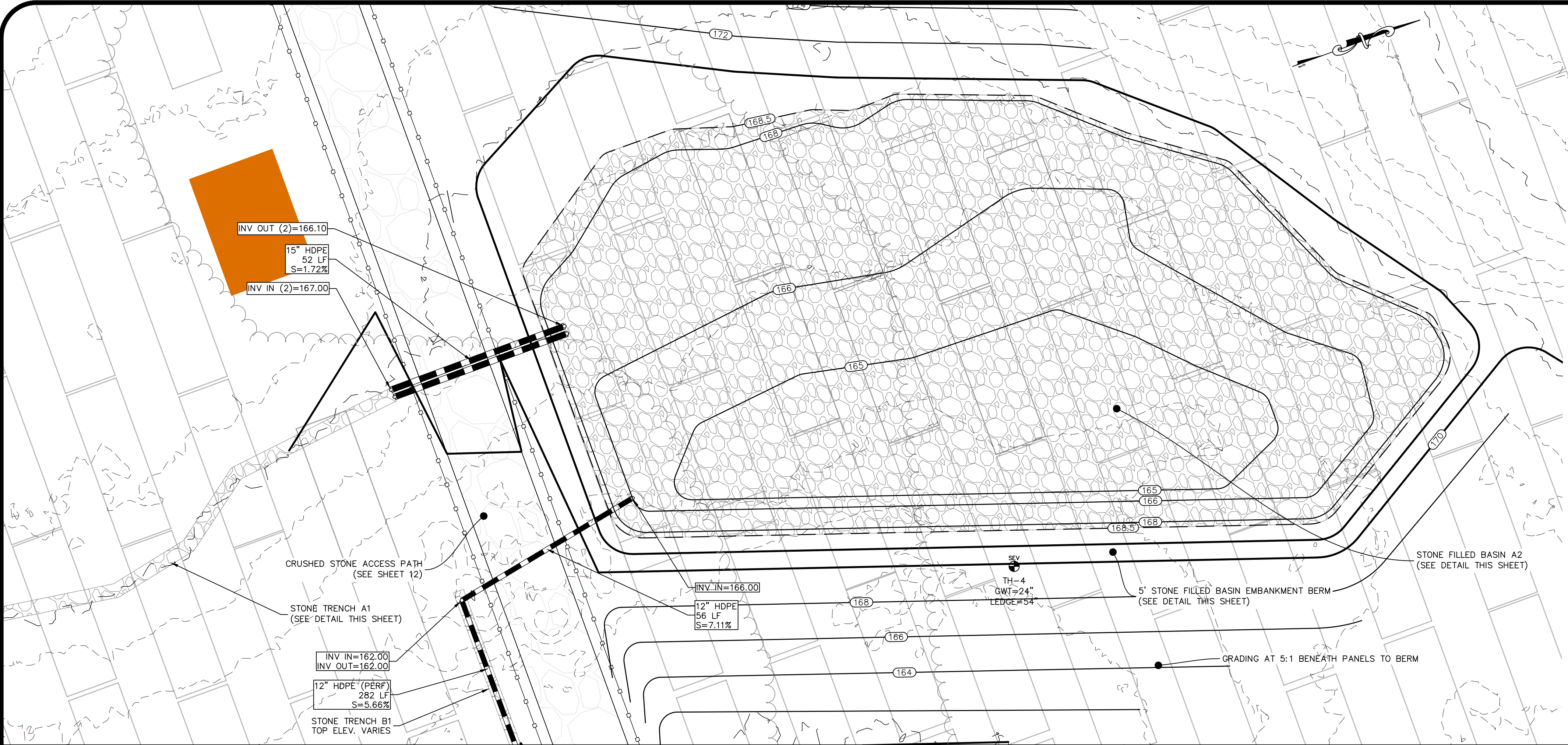
1. TREE CLEARING WILL COMMENCE LEAVING ALL STUMPS IN PLACE.
2. THE ENTIRETY OF ALL PHASE 1 AND 2 EROSION CONTROL MUST BE INSTALLED (SEE PLANS).
3. STUMPING MUST BE PERFORMED WITHIN THE APPROXIMATE DISTURBANCE AREAS LINES (SEE PLANS) AND DIVERSION CHANNELS (ALONG WITH PERMANENT SWALES) AND TRAPS MUST BE INSTALLED BEFORE MOVING TO THE NEXT STUMPING AREA.
4. ONCE TRAPS ARE IN PLACE COMPOST FILTER SOCKS MUST BE INSTALLED AS SHOWN ON THIS SHEET.
5. CONTRACTOR TO THEN BEGIN FINAL SITE GRADING.
6. ONCE GRADING IS COMPLETED, AREA MUST BE SEEDDED WITHIN 72 HOURS.
7. ONCE GRASS HAS BEEN ESTABLISHED, TEMPORARY MEASURES CAN BE TAKEN OFFLINE.
8. ONCE TEMPORARY MEASURES ARE REMOVED THE CONTRACTOR MUST SCARIFY THE BOTTOM OF THE LINED TRAPS UNDER THE SUPERVISION OF THE ENGINEER OF RECORD TO ENSURE INFILTRATION CAN OCCUR IN BMP AREAS REQUIRING SUCH.
9. PERMANENT DRAINAGE FEATURES CAN THEN BE BROUGHT ONLINE



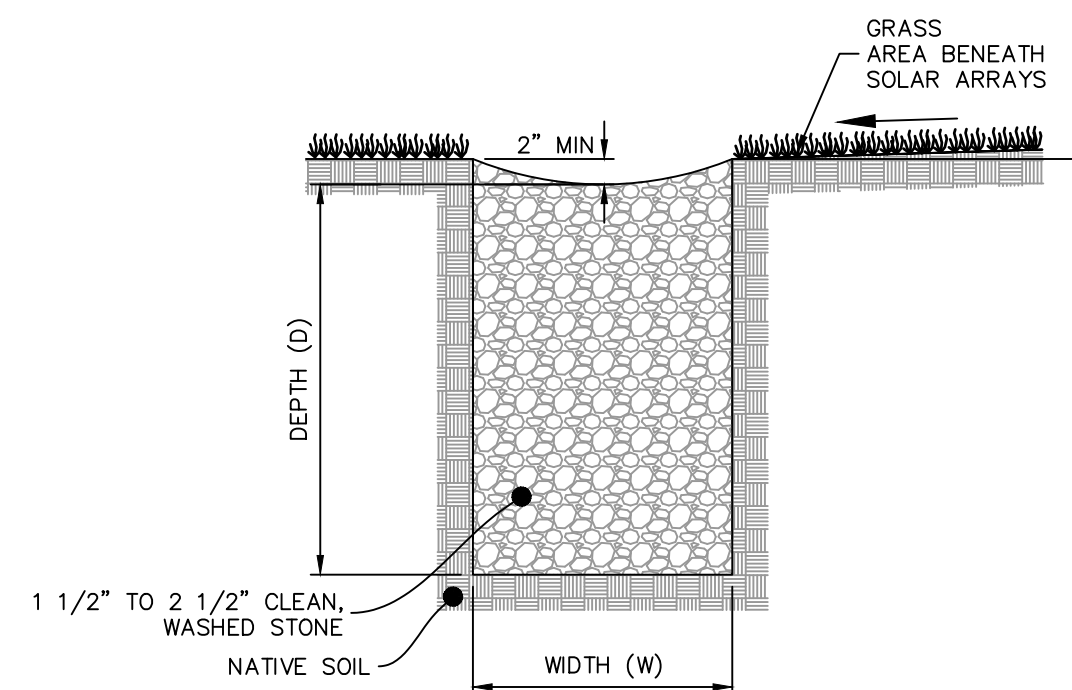
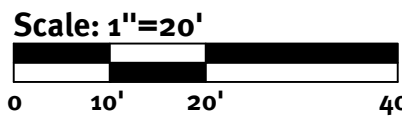
1. COMPOST FILTER SOCKS MUST BE USED TO CONSTRUCT THE FILTER BERMS ON SITE.
2. COMPOST FILTER SOCKS MUST BE USED ON SIGNIFICANT FLOW PATHS AND PLACED PARALLEL TO THE SLOPE OF THE FLOOD BASIN IN THE COMPOST FILTER SOCK REQUIREMENTS IN THE RI SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (2016).

SLOPE % 2 (OR LESS)	MAXIMUM 8" DIAMETER SOCK SPACING
5	300 FEET
10	200 FEET
15	100 FEET
20	70 FEET
25	50 FEET
30	40 FEET
35	30 FEET
40	30 FEET
45	20 FEET
50	20 FEET



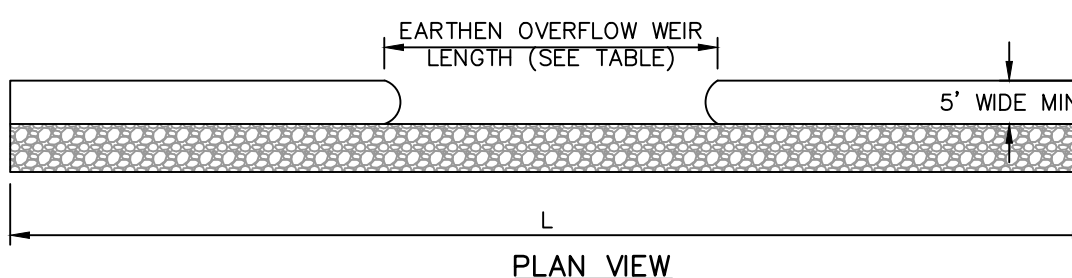


Stone Trench A1 & Stone Filled Basin A2



- NOTES:
1. TRENCHES TO BE INSTALLED PARALLEL TO GRADE.
 2. TRENCHES ARE DESIGNED TO FACILITATE INFILTRATION AND SHEET FLOW OF STORMWATER. CONTRACTOR MUST TAKE CARE TO ENSURE THE TRENCHES ARE INSTALLED PARALLEL TO THE CONTOURS, WITH NO LOW POINTS.
 3. TRENCHES TO BE INSTALLED AFTER ESTABLISHMENT OF VEGETATION OTHERWISE TRENCHES MUST BE PROTECTED FROM RECEIVING ANY RUNOFF UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.

NOT TO SCALE
Stone Trench



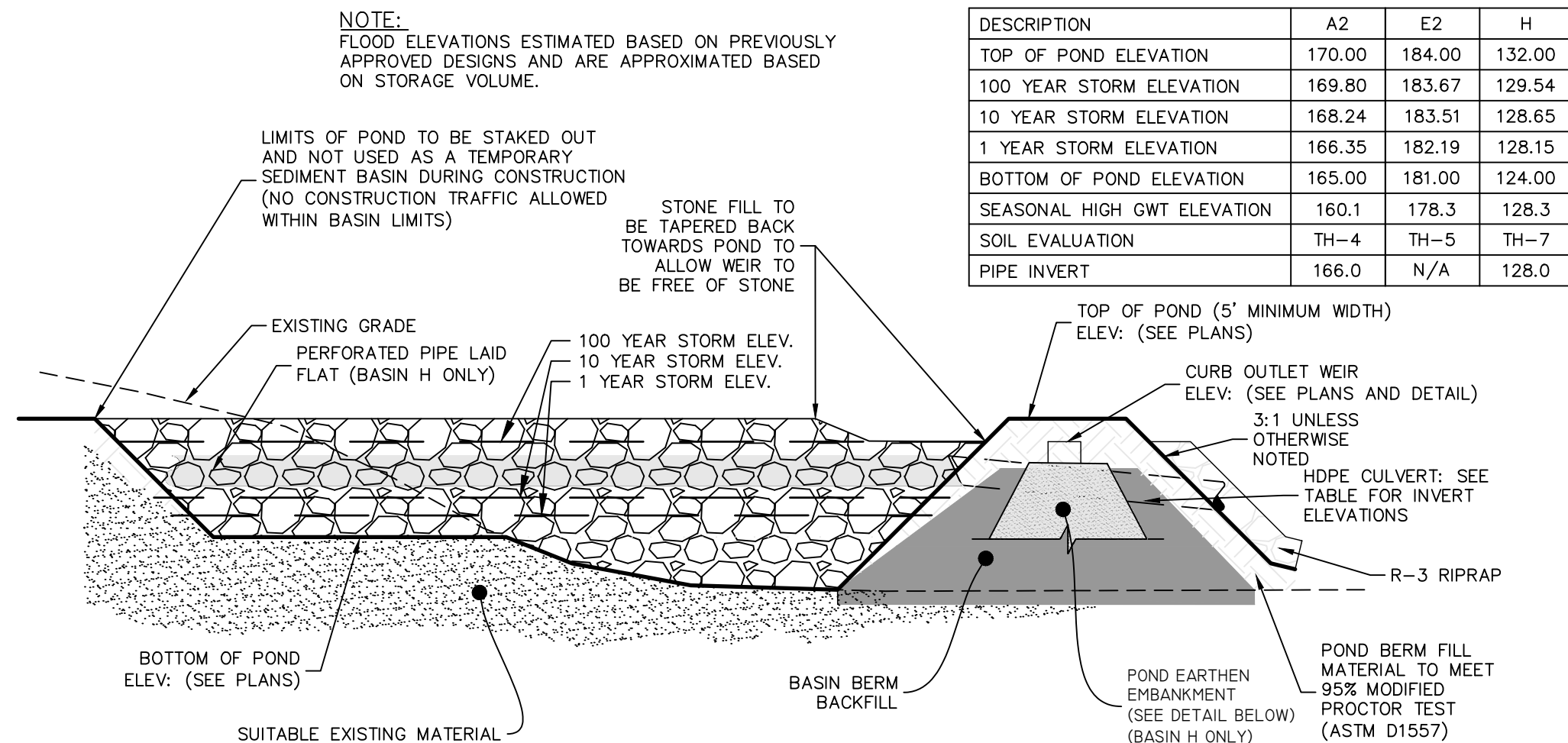
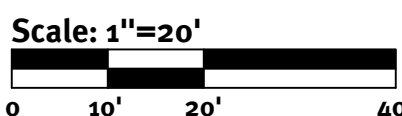
LOCATION	TRENCH DEPTH (D)	TRENCH WIDTH (W)	TRENCH LENGTH (L)
TRENCH A1	36"	48"	238'
TRENCH E1	12"	36"	72.5'

- NOTE:
1. ALL STONE TRENCHES ARE TO INCLUDE AN EARTHEN OVERFLOW WEIR.

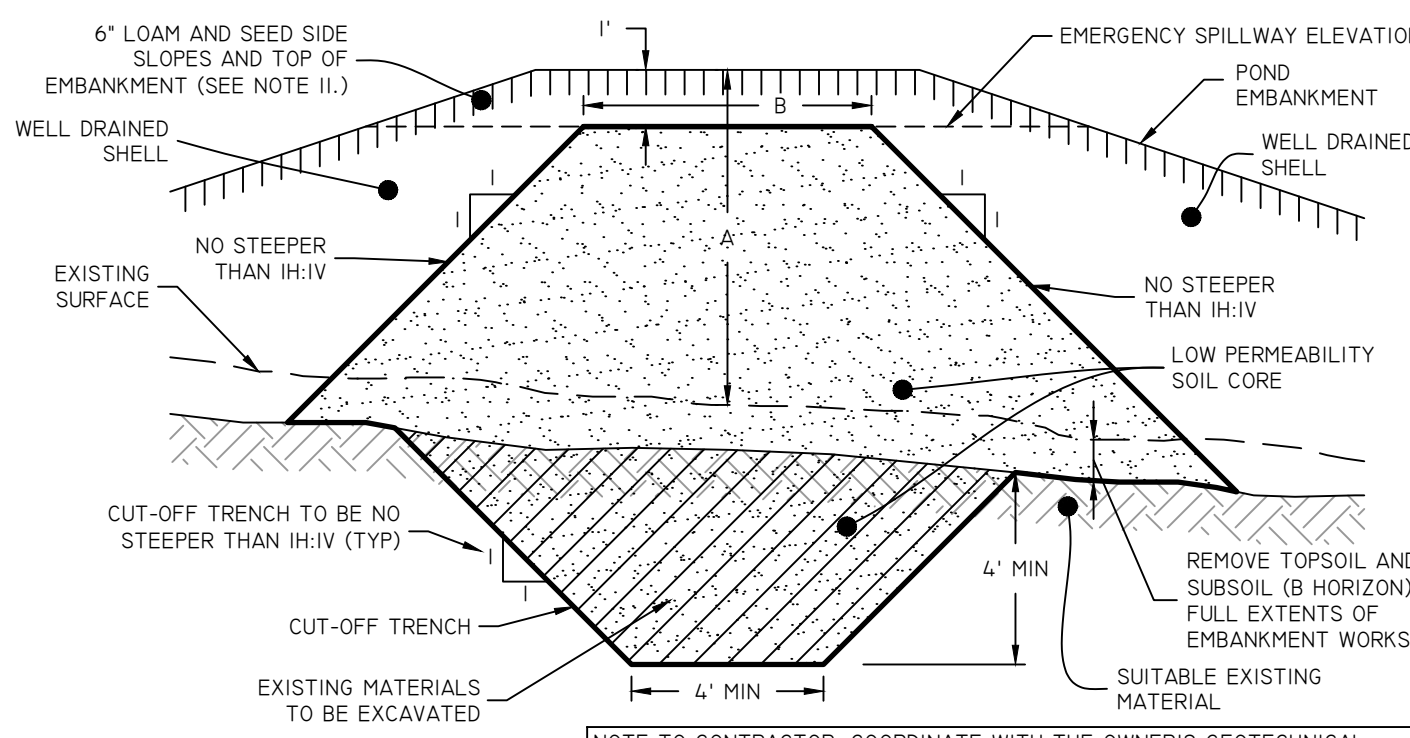
Stone Trench Detail
NOT TO SCALE



Stone Trench E1 & Stone Filled Basin E2



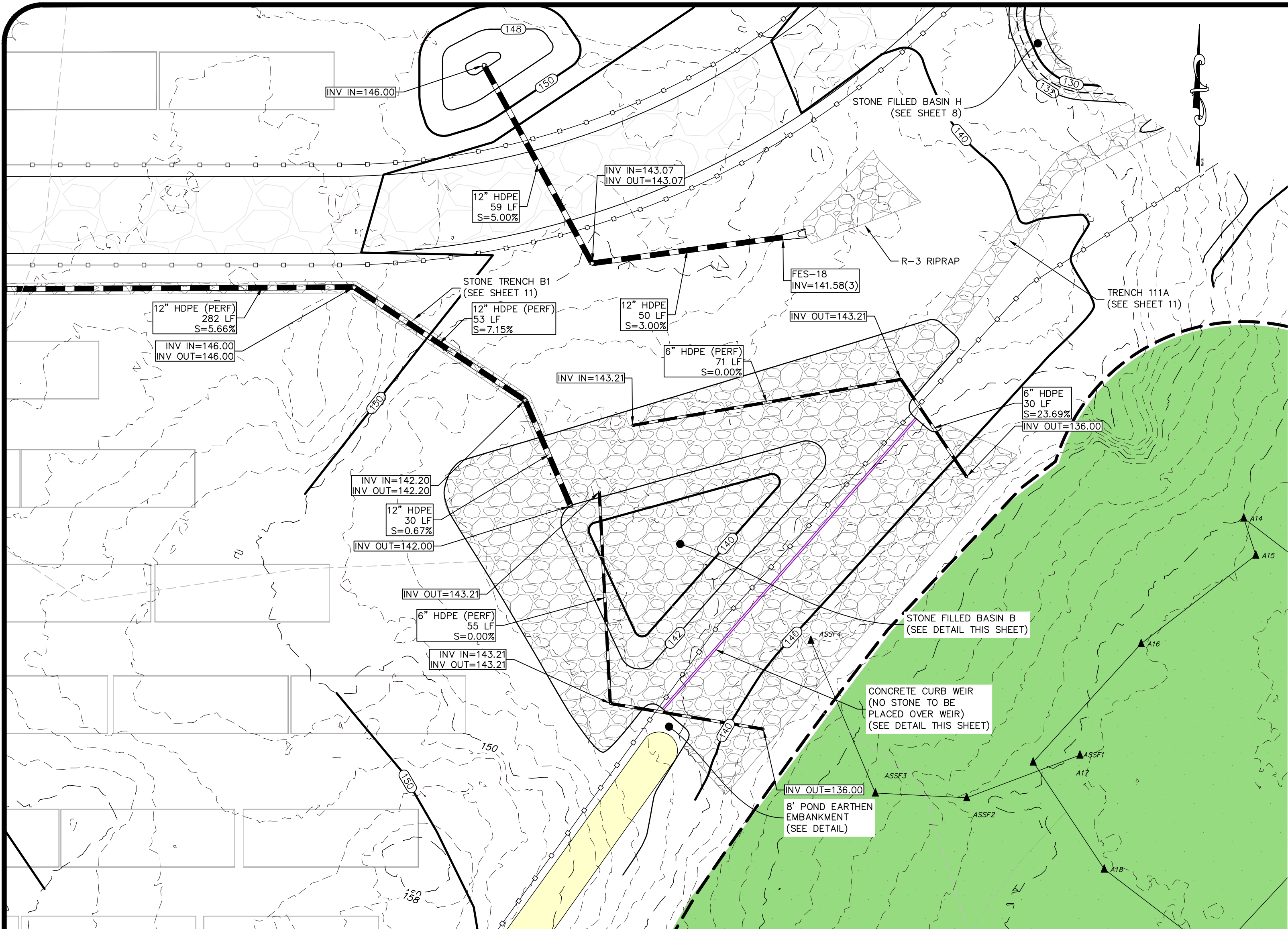
Stone Filled Basin A2, E2, and H



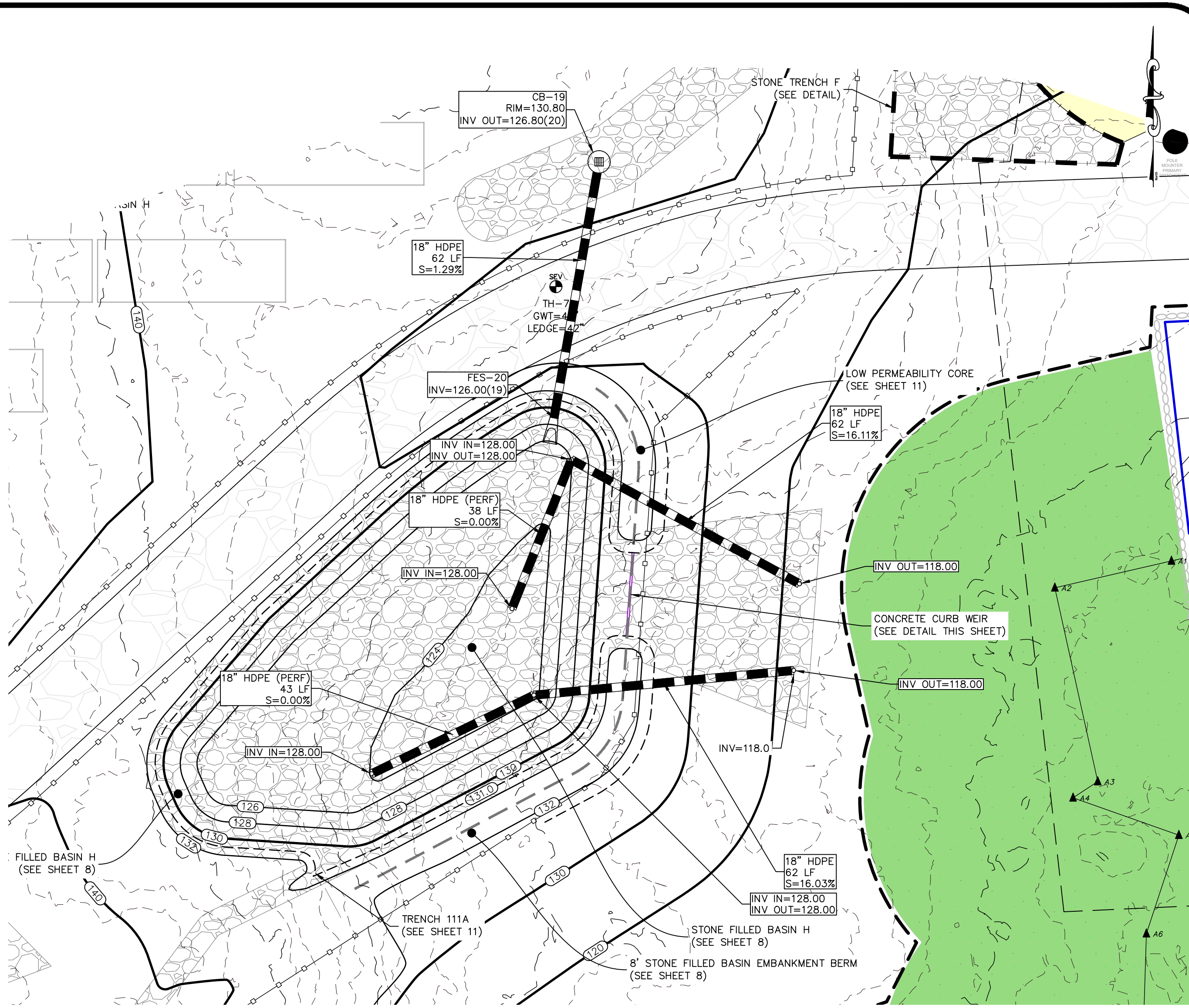
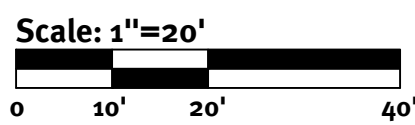
POND EARTHEN EMBANKMENT: LOW PERMEABILITY CORE
NOT TO SCALE

- NOTES:
1. LOW PERMEABILITY SOIL CORE TO BE PROVIDED FOR ALL POND EMBANKMENTS UNLESS AN ALTERNATIVE METHOD IS SPECIFICALLY NOTED ON THE PLANS.
 2. LOW PERMEABILITY SOIL CORE TO BE CONSTRUCTED OF A MATERIAL WITH A MINIMUM OF 30% PASSING THE #200 SIEVE AND A MAXIMUM PERMEABILITY OF 0.00005 CM/S.
 3. WELL DRAINED SHELL TO BE GRAVEL BORROW WITH LESS THAN 10% PASSING THE #200 SIEVE AND MEET THE GRADATION AS SHOWN ON THIS DETAIL.
 4. ALL MATERIAL MUST BE FREE FROM DELETERIOUS/ ORGANIC MATTER, INCLUDING (BUT NOT LIMITED TO) ROOTS, SOIL, RUBBLE, SNOW, ICE, RUBBISH ETC.
 5. MINIMUM DEPTH OF CUT-OFF TRENCH SHALL BE 4' MEASURED FROM THE LOWEST ELEVATION OF THE UNDISTURBED EXISTING SURFACE INTERFACE. SEE DETAIL.
 6. THE MINIMUM BOTTOM WIDTH OF THE CUT-OFF TRENCH SHALL BE 4', AND WIDE ENOUGH TO PERMIT OPERATION OF COMPACTION EQUIPMENT.
 7. SIDE SLOPES OF THE CUT-OFF TRENCH SHALL BE NO STEEPER THAN 1H:1V.
 8. IF BEDROCK IS ENCOUNTERED BELOW THE POND EMBANKMENT THE CUT OFF TRENCH MAY BE MODIFIED AT THE DIRECTION OF A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER.
 9. THE LOW PERMEABILITY CORE AT A MINIMUM SHALL EXTEND UP BOTH ABUTMENTS TO THE EMERGENCY SPILLWAY ELEVATION.
 10. COMPACTION REQUIREMENTS FOR THE SHELL AND LOW PERMEABILITY CORE TO BE 95% OF THE MODIFIED PROCTOR PER ASTM D1557. ALL FILL TO BE PLACED IN LIFTS NOT EXCEEDING 12".
 11. SIDE SLOPE OF POND EMBANKMENT TO BE NO STEEPER THAN THE SLOPES SHOWN ON THE POND-SPECIFIC DESIGN PLANS WITHOUT WRITTEN DIRECTION FROM THE DESIGN ENGINEER. IF ANY POND SIDE SLOPE IS STEEPER THAN 3H:1V, SLOPE PROTECTION MUST BE UTILIZED ON POND EMBANKMENT, WHICH MAY INCLUDE (BUT NOT BE LIMITED TO) RIPRAP AND/ OR EROSION CONTROL MATS.
 12. THE LOW PERMEABILITY CORE MUST BE KEPT FREE FROM STANDING WATER DURING THE BACKFILL OPERATION.
 13. ALL EMBANKMENT INSTALLATIONS TO BE SUPERVISED BY A SUITABLY QUALIFIED GEOTECHNICAL ENGINEER. SEE NOTE TO CONTRACTOR.
 14. ANY PROPOSED DEVIATIONS FROM THIS DETAIL MUST BE DESIGNED BY A SUITABLY QUALIFIED PROFESSIONAL ENGINEER AND SUBMITTED TO THE SITE ENGINEER (AND AHJ WHERE REQUIRED) FOR REVIEW PRIOR TO CONSTRUCTION.

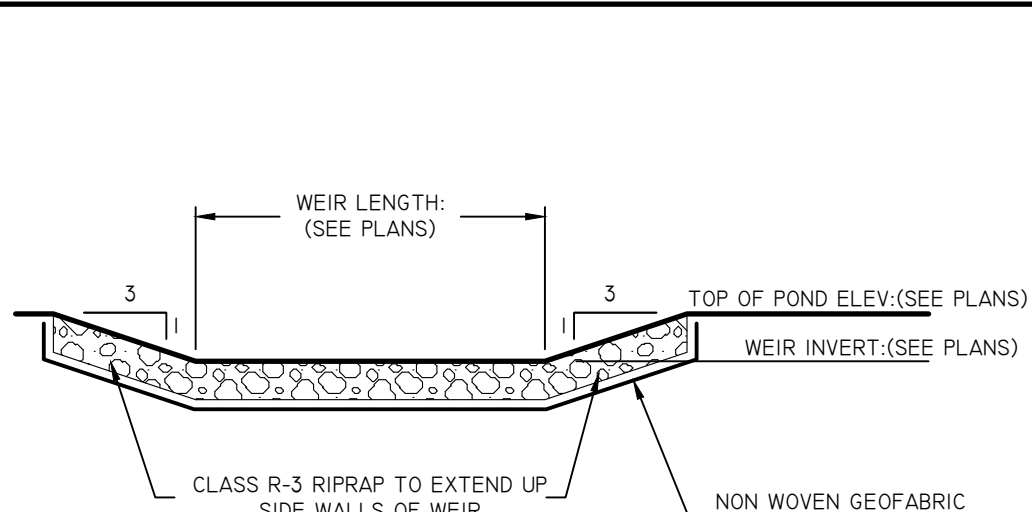
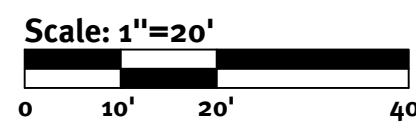
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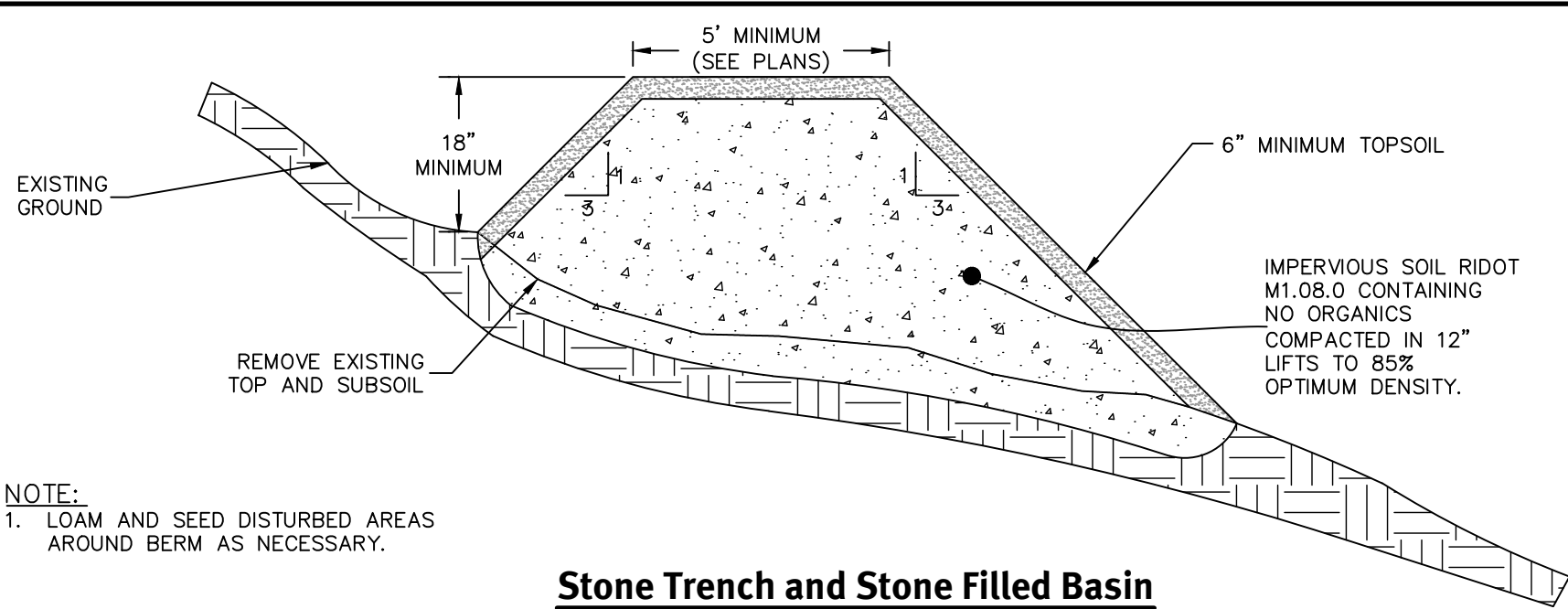
Stone Filled Basin B



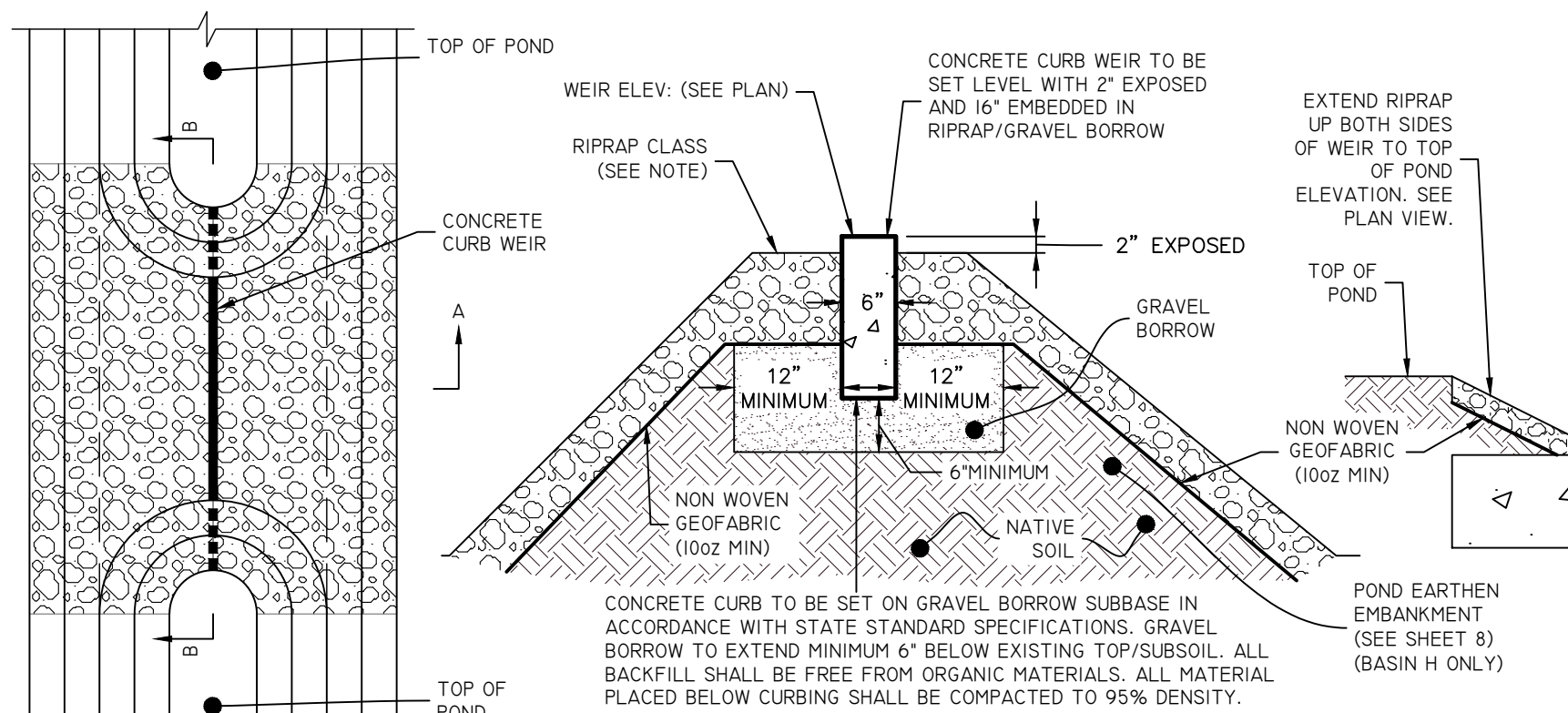
Stone Filled Basin H



OVERFLOW WEIR
NOT TO SCALE



Stone Trench and Stone Filled Basin
Embankment Berm
NOT TO SCALE

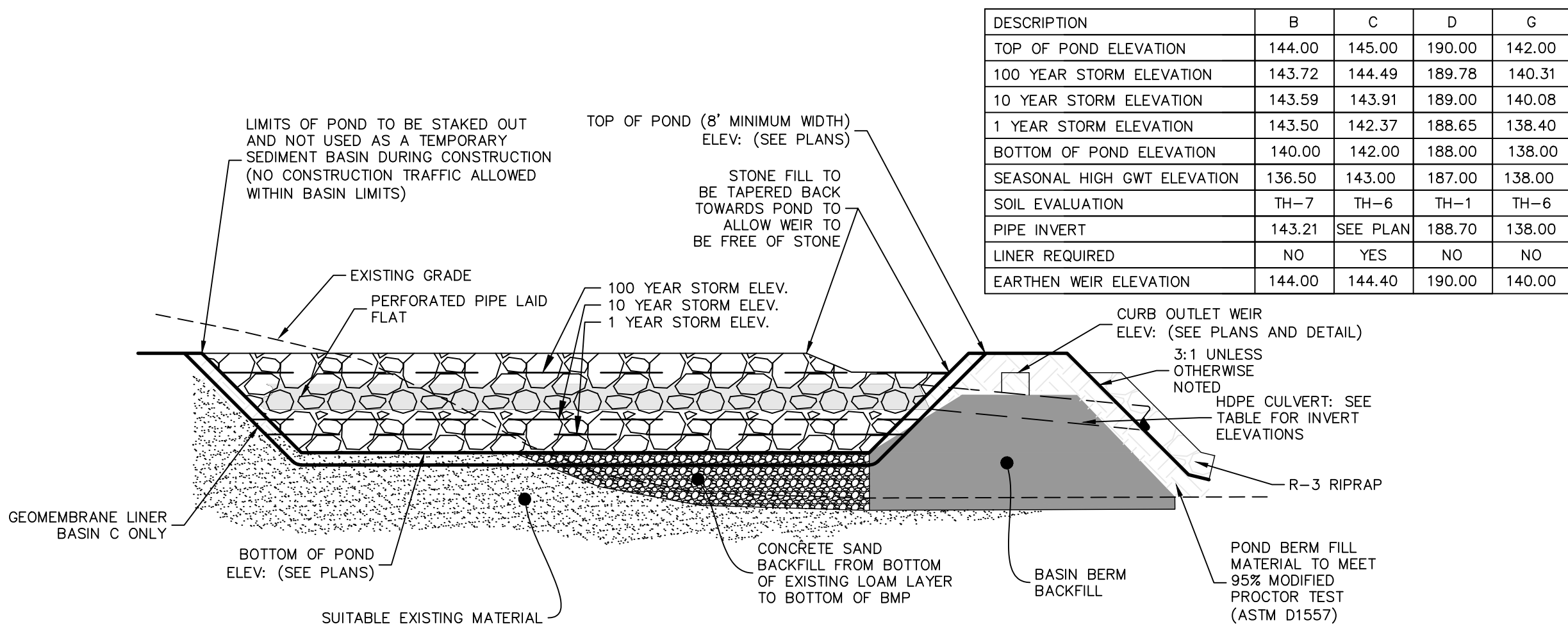


SECTION A-A
NOT TO SCALE

CURB OUTLET WEIR
NOT TO SCALE

LOCATION	TOP ELEV.	WEIR INVERT	WEIR DEPTH	WEIR LENGTH	RIPRAP CLASS
BASIN B	144.00	143.50	0.50	100.0'	R-3
BASIN C	145.00	144.17	0.83'	17.0'	R-3
BASIN D	190.00	189.75	0.25'	30.0'	R-3
BASIN H	132.00	131.00	1.00	20.0'	R-3

NOTE:
ALL CONCRETE CURB WEIRS MUST BE MONOLITHIC CONCRETE CURB. WEIRS CANNOT BE MULTIPLE PRECAST CURBS JOINED IN SEQUENCE.
ALL RIPRAP FOR CURB OUTLET WEIRS TO BE CLASS R-3 UNLESS NOTED OTHERWISE.



Stone Filled Basin B with fill
NOT TO SCALE

DESCRIPTION	B	C	D	G
TOP OF POND ELEVATION	144.00	145.00	190.00	142.00
100 YEAR STORM ELEVATION	143.72	144.49	189.78	140.31
10 YEAR STORM ELEVATION	143.59	143.91	189.00	140.08
1 YEAR STORM ELEVATION	143.50	142.37	188.65	138.40
BOTTOM OF POND ELEVATION	140.00	142.00	188.00	138.00
SEASONAL HIGH GWT ELEVATION	136.50	143.00	187.00	138.00
SOIL EVALUATION	TH-7	TH-6	TH-1	TH-6
PIPE INVERT	143.21	SEE PLAN	188.70	138.00
LINER REQUIRED	NO	YES	NO	NO
EARTHEN WEIR ELEVATION	144.00	144.40	190.00	140.00

BMP Details - B & H

Natick Avenue Solar

Assessor's Plat 22-3 Lots 108 & 119

Client
Natick Solar, LLC

349 Centerville Road, Warwick, Rhode Island 02886
Tel 781-371-2001

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NO.	DATE	DESCRIPTION	BY	DESIGN BY
1	12/18/2024	Final Design	SK	SK
2	12/18/2024	Final Design	SK	SK
3	12/18/2024	Final Design	SK	SK
4	12/18/2024	Final Design	SK	SK
5	12/18/2024	Final Design	SK	SK
6	12/18/2024	Final Design	SK	SK

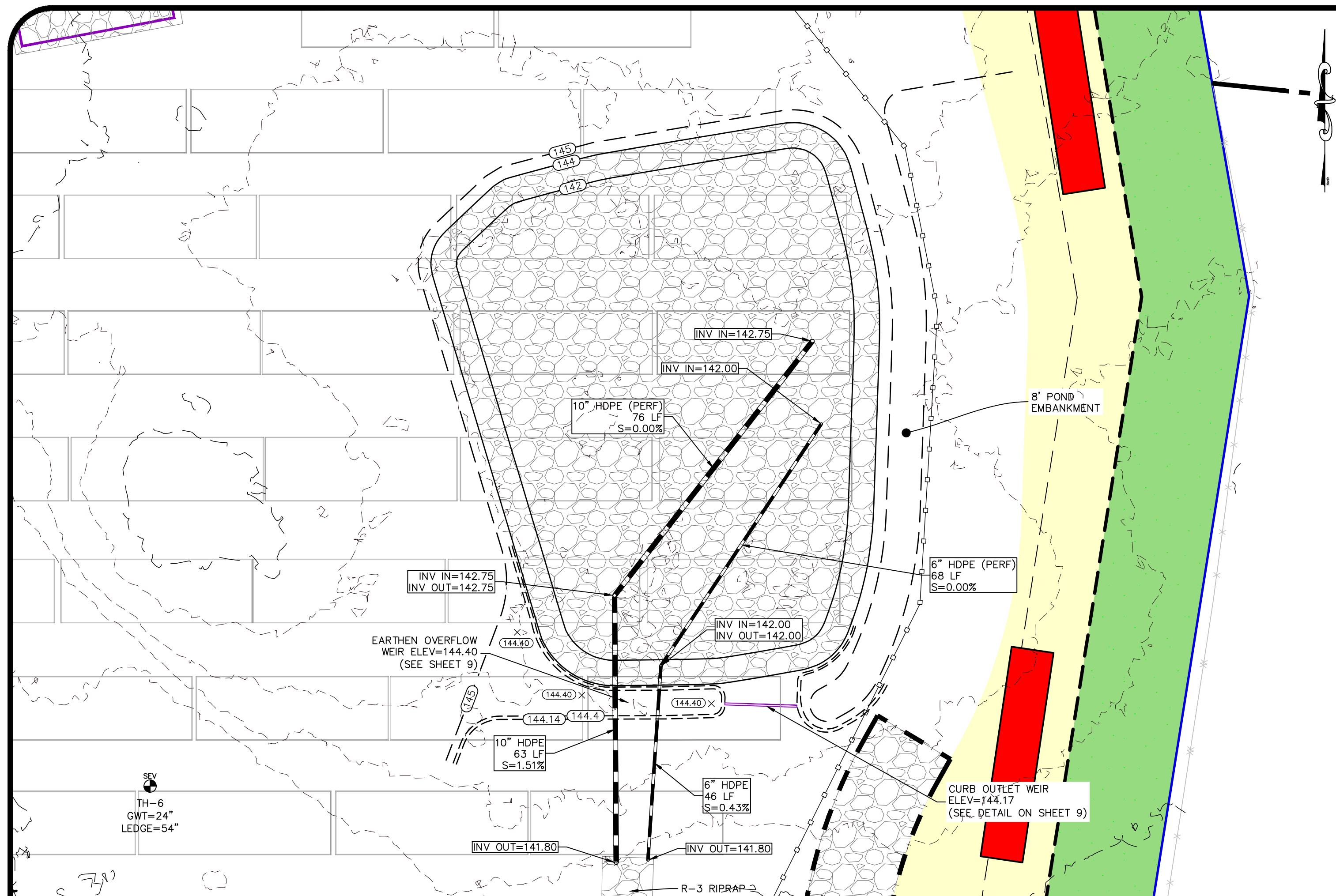
THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES UNLESS IT IS ACCOMPANIED BY A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

KEVIN DEMERS
REGISTERED PROFESSIONAL ENGINEER
CIVIL

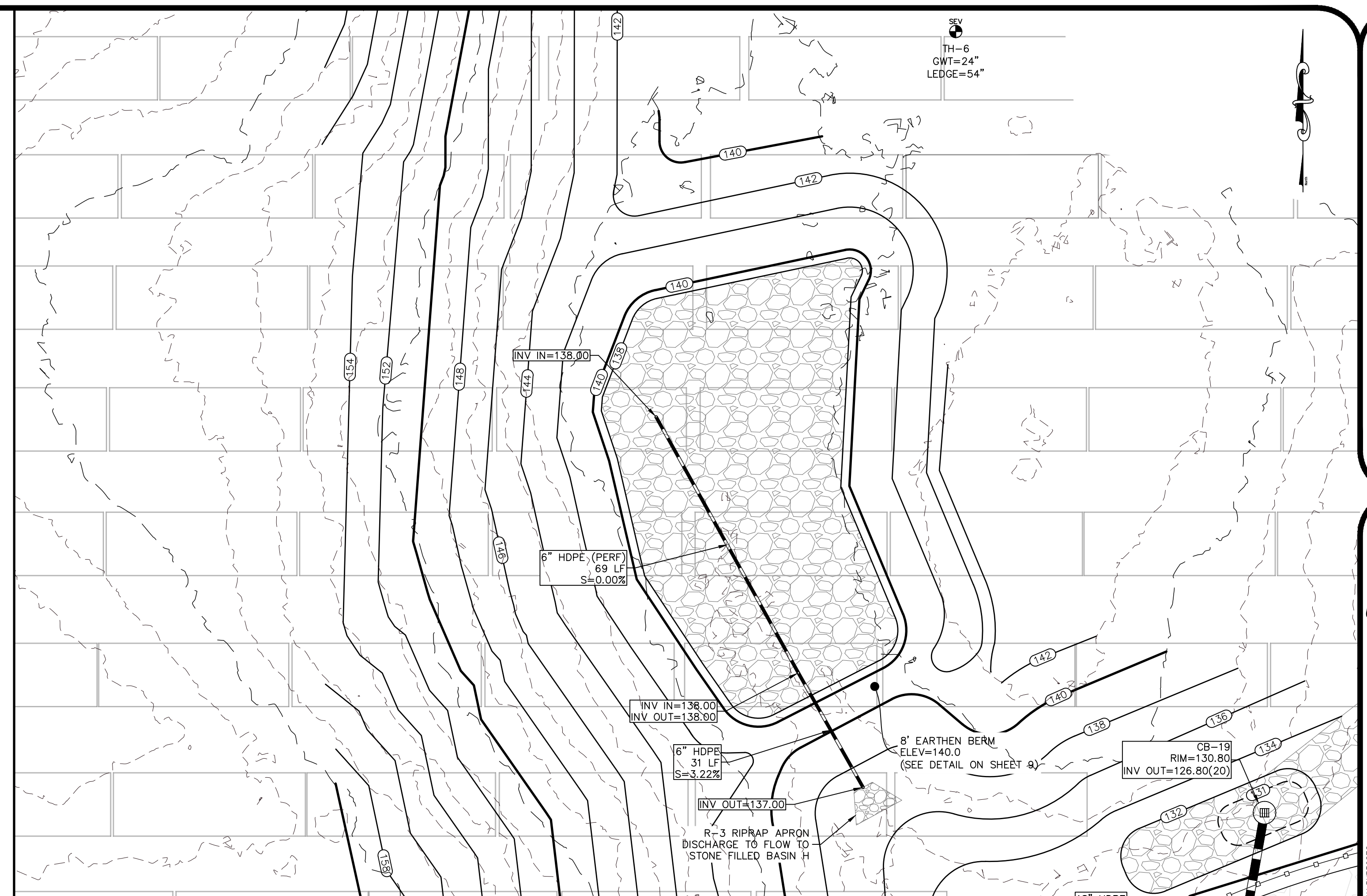
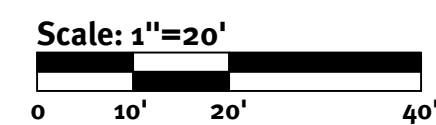
DiPrete Engineering

Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-641-6006 www.diprete-eng.com

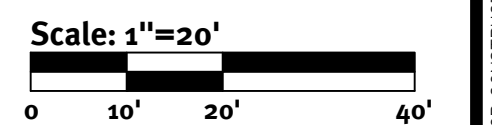
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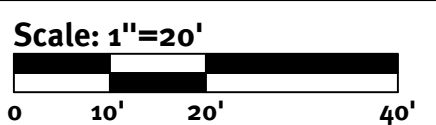
Stone Filled Basin C (LINED)



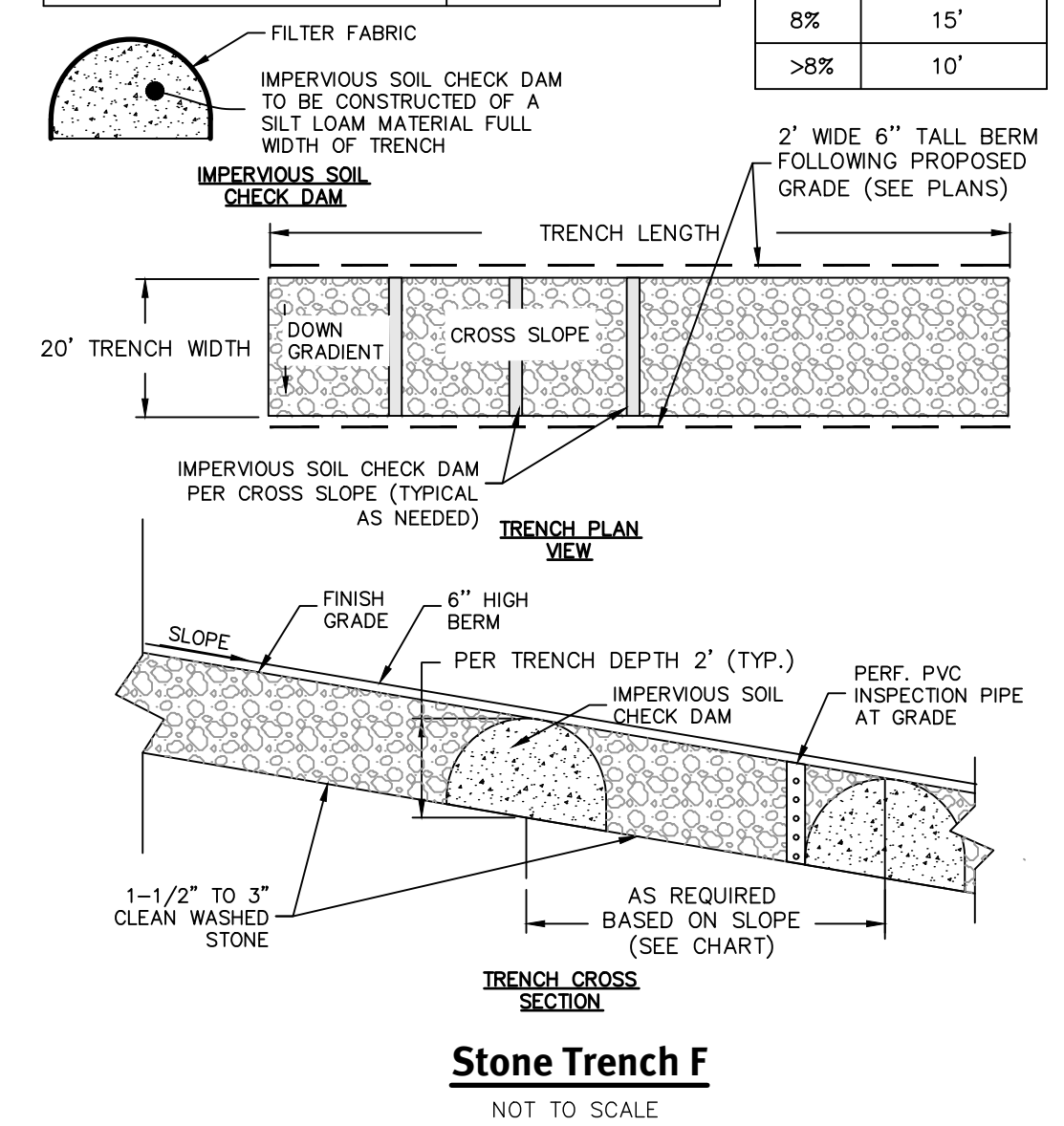
Stone Filled Basin G



Stone Trench F



DESCRIPTION	F	DAM LOCATION CHART	
TOP OF POND ELEVATION	PR GRADE	CROSS SLOPE	DISTANCE BETWEEN DAMS
100 YEAR STORM ELEVATION	115.87	1%	100'
10 YEAR STORM ELEVATION	115.56	2%	50'
1 YEAR STORM ELEVATION	115.50	3%	33.3'
BOTTOM OF POND ELEVATION	PR GRADE -2'	4%	25'
SEASONAL HIGH GWT ELEVATION	42"± BELOW EX. GRADE	5%	20'
SOIL EVALUATION	TH-7	8%	15'
LINER REQUIRED	NO	>8%	10'



BMP Details - C, G & F

Natick Avenue Solar
Assessor's Plat 22-3 Lots 108 & 119

Client
Natick Solar, LLC
340 Centerville Road, Warwick, Rhode Island

tel 781-371-2001

No.	Date	Description	Design By: SEK	Design By: SEK
6	06/17/2025	DPR & Prelim. Plan Response to Comments		RMP
5	06/02/2025	Final Primary Plan Submission		WRC
4	05/20/2025	Master Plan Submission		WRC
3	11/08/2024	Final Plan Submission		ILS
2	2/17/2024	RIDEM Permit Modification		SRM
1	12/18/2020	City Planning Comments		SRM
	12/02/2020	Primary Submission		SRM
No.		Description		By:


THIS PLAN SET MAY BE USED FOR CONSTRUCTION PURPOSES. IT IS NOT TO BE USED FOR PERMITS. THIS PLAN SET MUST BE SIGNED BY A REGISTERED PROFESSIONAL ENGINEER OF CONSTRUCTION ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE ENGINEERING TITLE BLOCK STAMPED BY REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ENGINEERING DOES NOT WARRANT PLANS BY ANY OTHER PARTY.

THE CONTRACTOR IS RESPONSIBLE FOR ALL OF THE MEANS, METHODS, SAFETY PRECAUTIONS AND REQUIREMENTS, AND COSTS NECESSARY FOR THE IMPLEMENTATION OF THIS PLAN AND DESIGN.

EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES AND DAMAGES INCURRED DUE TO LOCATIONS OF EXISTING UTILITIES. SEE UTILITY NOTE ON SHEET 3.

KEVIN DEMERS

No.  8557

REGISTERED
PROFESSIONAL ENGINEER
CIVIL

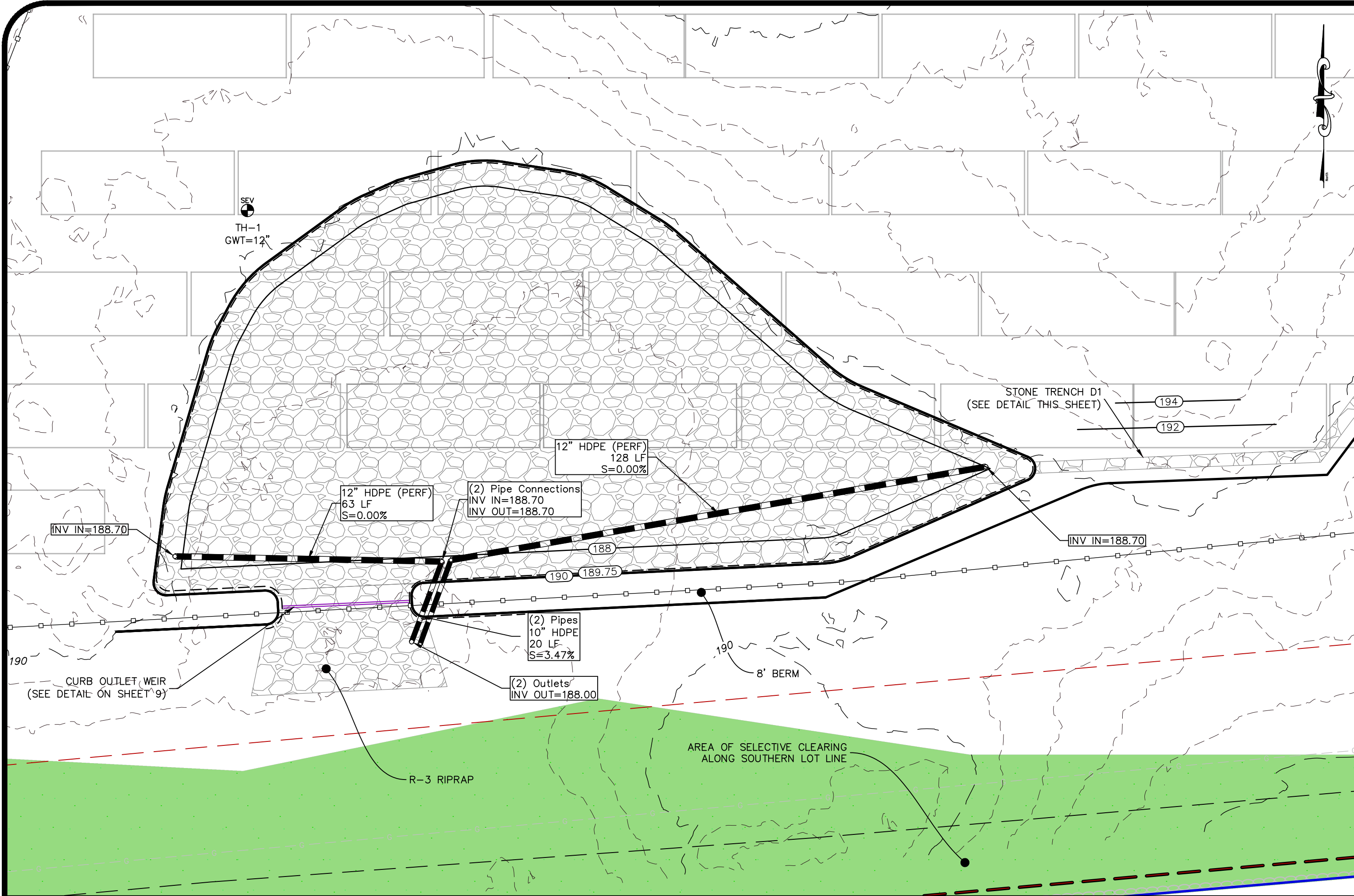
04/17/24

DiPrete Engineering

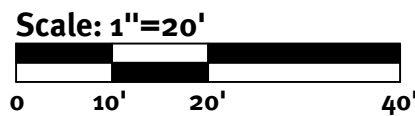
Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-464-6006 www.diprete-eng.com

Boston • Providence • Newport

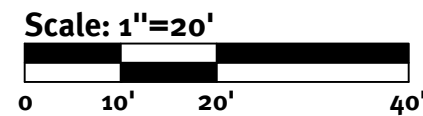
z:\deman\projects\2437-015 natick avenue solar\autocad drawings\2437-015-plan.dwg Plotted: 6/17/2025



Stone Filled Basin D



Trench and Level Spreader Detail

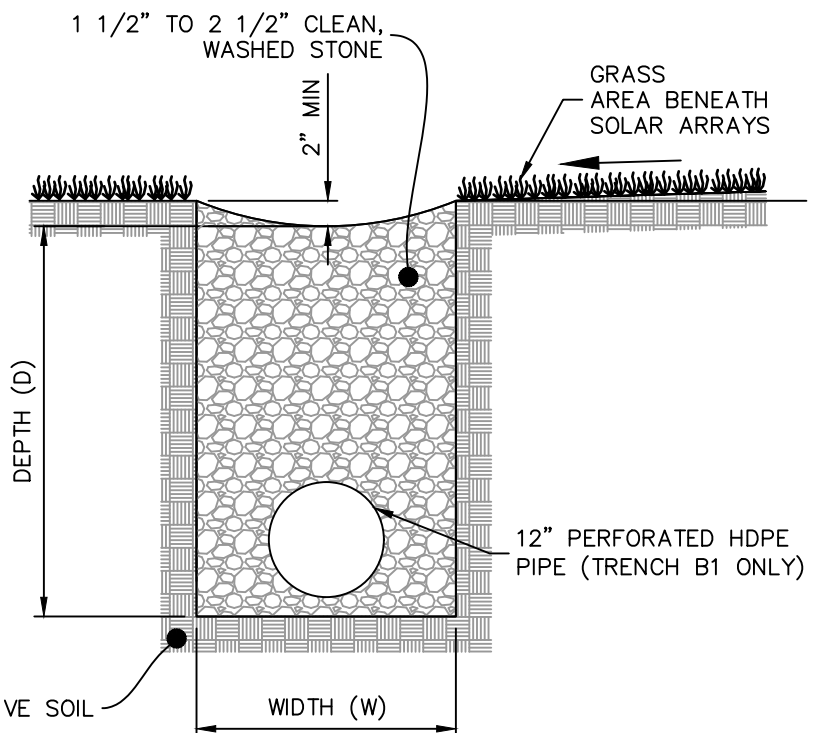


- NOTES:
1. TRENCHES TO BE INSTALLED PARALLEL TO GRADE.
 2. TRENCHES ARE DESIGNED TO FACILITATE INFILTRATION AND SHEET FLOW OF STORMWATER. CONTRACTOR MUST TAKE CARE TO ENSURE THE TRENCHES ARE INSTALLED PARALLEL TO THE CONTOURS, WITH NO LOW POINTS.
 3. TRENCHES TO BE INSTALLED AFTER ESTABLISHMENT OF VEGETATION OTHERWISE TRENCHES MUST BE PROTECTED FROM RECEIVING ANY RUNOFF UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.

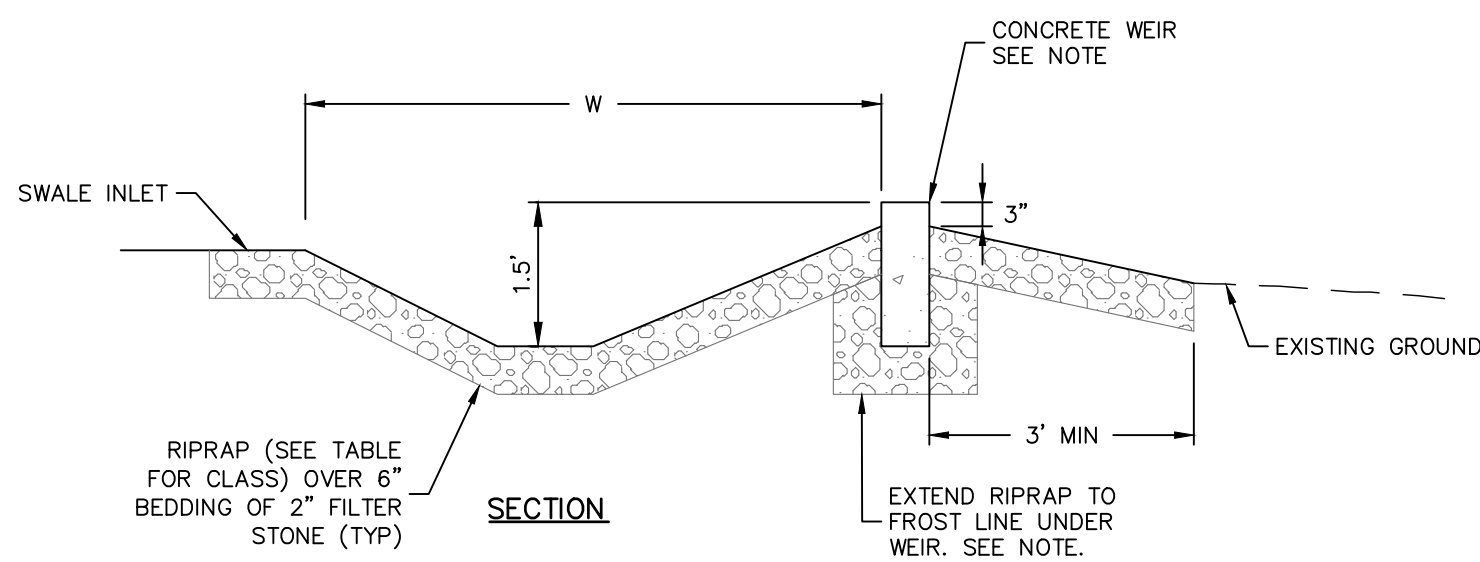
STONE TRENCH	B1	D1	102	111A	111B	112	113	114
WIDTH (W)	3'	3'	6'	6'	15'	6'	6'	6'
LONGITUDINAL SLOPE	5.8%	0.0%	9.9%	13.2%	5.6%	11.8%	9.4%	2.6%
DEPTH (D)	2.0'	2.0'	2.0'	2.0'	2.0'	2.0'	2.0'	2.0'
LENGTH	358'	114'	533'	91'	161'	150'	54'	111'

STONE CONVEYANCE TRENCH

NOT TO SCALE



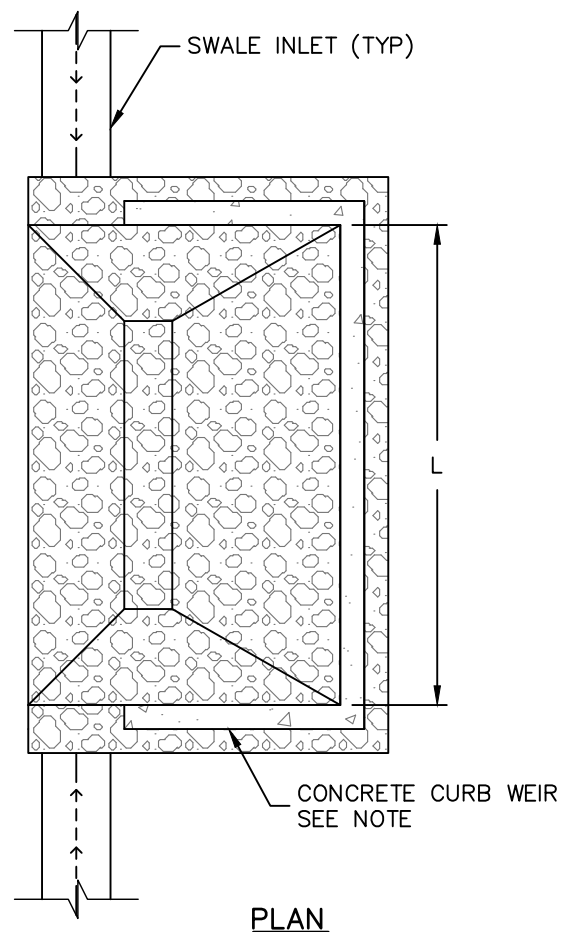
LOCATION	INVERT	WIDTH (W)	LENGTH (L)	CONCRETE CURB WEIR ELEV	RIPRAP CLASS
WESTERN	159.0	23'	40'	160.5	R-3
EASTERN	148.8	23'	40'	150.3	R-3



- NOTE:
- LEVEL SPREADER CONCRETE WEIR MAY BE:
 - MONOLITHIC, CAST IN PLACE CONCRETE WITH INVERT BELOW THE FROST LINE (MINIMAL MAINTENANCE).
 - SERIES OF PRECAST CONCRETE CURB SECTIONS, NO END CHAMFERS, (FREQUENT MAINTENANCE TO KEEP WEIR LEVEL) - MUST INCLUDE GRAVEL BASE DOWN TO FROST DEPTH
 - TIMBER NOT PERMITTED

Level Spreader

NOT TO SCALE



BMP Details - D & Trenches

Natick Avenue Solar

Assessor's Plat 22-3 Lots 108 & 119

Cranston, Rhode Island

Client

Natick Solar, LLC

349 Centerville Road, Warwick, Rhode Island 02886

tel 781-371-2001

DE Job No: 2437-015 Copyright 2025 by DiPrete Engineering Associates, Inc.

NO.	DATE	DESCRIPTION	DESIGN BY	SEK
6	06/17/2025	Final Design	Design By: SEK	
5	06/17/2025	Final Design	Design By: SEK	
4	06/17/2025	Final Design	Design By: SEK	
3	06/17/2025	Final Design	Design By: SEK	
2	06/17/2025	Final Design	Design By: SEK	
1	06/17/2025	Final Design	Design By: SEK	

THIS PLAN SET MUST NOT BE USED FOR CONSTRUCTION PURPOSES WITHOUT THE WRITTEN APPROVAL OF DIPRETE ENGINEERING. A REGISTERED PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING.

DIPRETE ENGINEERING ONLY WARRANTS PLANS ON A DIPRETE PROFESSIONAL ENGINEER OF DIPRETE ENGINEERING. DIPRETE ASSUMES NO LIABILITY FOR ANY DAMAGE TO ANY PROPERTY, PERSONS OR THINGS, INCLUDING BUT NOT LIMITED TO, THE CONSTRUCTION OF THE PROJECT, ARISING FROM THE DESIGN, CONSTRUCTION, OR MAINTENANCE OF THE PROJECT, OR FROM THE IMPLEMENTATION OF THIS PLAN AND DESIGN. EXISTING UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE. ONLY A DIPRETE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF ANY UTILITIES SHOWN ON THIS PLAN. SEE "UTILITY NOTE" ON SHEET 3.

KEVIN DEMERS
REGISTERED PROFESSIONAL ENGINEER
CIVIL

DiPrete Engineering

Two Stafford Court Cranston, RI 02920
tel 401-943-1000 fax 401-641-6006 www.diprete-eng.com

Boston • Providence • Newport

Note 1: REFERENCE: National Stone Association manual; "Quarried Stone for Erosion and Sediment Control," dated 1978.



*NOTE: WHERE ROAD BASE IS AT OR ABOVE EXISTING GRADE, ORGANICS MUST BE REMOVED PRIOR TO INSTALLATION OF ROAD BASE.

CONSTRUCTION NOTE:

- A. CONSTRUCTION OPERATIONS MUST BE CARRIED OUT IN SUCH A MANNER TO MINIMIZE POTENTIAL EROSION AND WATER QUALITY DEGRADATION.
- B. FIXED EROSION CONTROLS AND SITE STABILIZATION MUST BE CONDUCTED IN ACCORDANCE WITH APPROVED BMP'S OR PURSUANT TO PROJECT SPECIFIC PERMITS.
- C. TREES, STUMPS, ROOTS, BRUSH AND WEEDS MUST BE REMOVED FROM THE WORK AREA IF DETERMINED NECESSARY TO SAFELY CONSTRUCT ROADWAY.
- D. ON WEAK BEARING SOIL SUCH AS LOOSE ALLUVIAL, OR WETLAND SOILS, SURFACE TREATMENTS SHOULD BE UNDERLAIN WITH WOVEN GEOTEXTILES.
- E. AT MINIMUM, ROADSIDE DITCHES MUST BE IF BELOW ROAD SURFACE.
- F. DISCHARGE POINTS FOR DITCHES MUST NOT BE NEAR WETLANDS OR STREAMS, AND OR BE LOCATED AT THE DIRECTION OF THE DESIGN ENGINEER.
- G. CONTRACTOR TO INSTALL GRAVEL REINFORCEMENT GRID AS NECESSARY TO PREVENT EROSION AND/OR VEHICULAR DAMAGE TO THE ACCESS PATH.
- H. ACCESS PATH NOTES ARE AS FOLLOWS:

ROADWAY AT ENTRANCE UP TO HAMMERHEAD TO BE 20' WIDTH MINIMUM.

INTERNAL ACCESS PATHS TO BE GRASS AND 16' WIDE, OR AS APPROVED BY FIRE DEPARTMENT.

CRUSHED STONE ACCESS PATH DETAIL

NOT TO SCALE



Concrete Washout Area

(NOT TO SCALE)

GENERAL NOTES:

1. THE TEMPORARY SEDIMENT TRAP MUST MEET ALL REQUIREMENTS FOR TEMPORARY SEDIMENT TRAPS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK (LATEST REVISION) SECTION SIX: SEDIMENT CONTROL MEASURES
2. THE TEMPORARY SEDIMENT TRAP MUST HAVE AN INITIAL STORAGE VOLUME OF 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA.
3. ALL CUT AND FILL SLOPES MUST BE 2:1 OR FLATTER EXCEPT FOR THE EXCAVATED WET STORAGE AREA WHERE SLOPES MUST NOT EXCEED 1.5:1.
4. THE OUTLET MUST BE LOCATED AT THE MOST DISTANT HYDRAULIC POINT FROM THE INLET.
5. THE OUTLET MUST CONSIST OF A PEROUSOUS Stone DIKE WITH A CORE OF MODIFIED RIPRAP AND FACED ON THE UPSTREAM SIDE WITH STONE.
6. TEMPORARY SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED GROUND.
7. MAXIMUM HEIGHT OF A TEMPORARY SEDIMENT TRAP EMBANKMENT IS LIMITED TO 5 FEET.
8. SIDE SLOPES OF THE EMBANKMENT MUST BE 2:1 OR FLATTER.
9. MODIFIED RIPRAP: MUST MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.10.03.2.
10. FILTER STONE: MUST MEET THE REQUIREMENTS OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SUBSECTION M.01.03 TABLE I, COLUMN V FILTER STONE.

INSPECTION, MAINTENANCE, AND REMOVAL REQUIREMENTS:

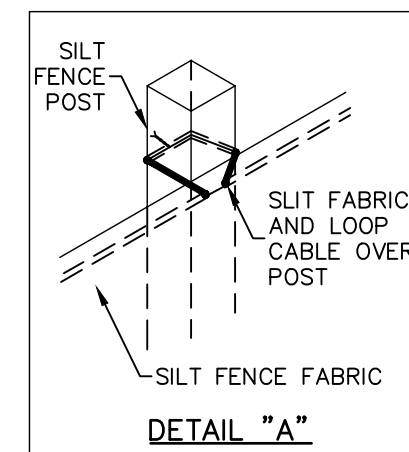
1. INSTALL "SEDIMENT STORAGE" STAKE WITH A MARKER AT ONE HALF OF THE WET STORAGE VOLUME.
2. INSPECT THE TEMPORARY SEDIMENT TRAP AT LEAST ONCE A WEEK AND WITHIN 24 HOURS OF THE END OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCH OR GREATER.
3. CHECK THE OUTLET TO ENSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
4. CHECK FOR SEDIMENT ACCUMULATION AND FILTRATION PERFORMANCE.
5. WHEN SEDIMENTS HAVE ACCUMULATED TO ONE HALF THE MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATER THE TRAP AS NEEDED, REMOVE SEDIMENTS AND RESTORE THE TRAP TO ITS ORIGINAL DIMENSIONS.
6. DISPOSE OF THE SEDIMENT REMOVED FROM THE BASIN IN A SUITABLE AREA.
7. THE TEMPORARY SEDIMENT TRAP MAY BE REMOVED AFTER THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.

INSTALLATION NOTES:

1. CLEAR, GRUB AND STRIP ANY VEGETATION AND ROOT MAT FROM ANY PROPOSED EMBANKMENT AND OUTLET AREA.
2. REMOVE STONES AND ROCKS WHOSE DIAMETER IS GREATER THAN THREE (3) INCHES AND OTHER DEBRIS.
3. EXCAVATE WET STORAGE AND CONSTRUCT THE EMBANKMENT AND/OR OUTLET AS NEEDED TO ATTAIN THE NECESSARY STORAGE REQUIREMENTS.
4. USE ONLY FILL MATERIAL FOR THE EMBANKMENT THAT IS FREE FROM EXCESSIVE ORGANICS, DEBRIS, LARGE ROCKS (OVER SIX (6) INCHES) OR OTHER UNSUITABLE MATERIALS. COMPACT THE EMBANKMENT IN THREE- INCH LAYERS BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
5. STABILIZE THE EARTHEN EMBANKMENT USING ANY OF THE FOLLOWING MEASURES: SEEDING FOR TEMPORARY VEGETATION COVER, SEEDING FOR PERMANENT VEGETATIVE COVER, OR SLOPE PROTECTION, IMMEDIATELY AFTER INSTALLATION.

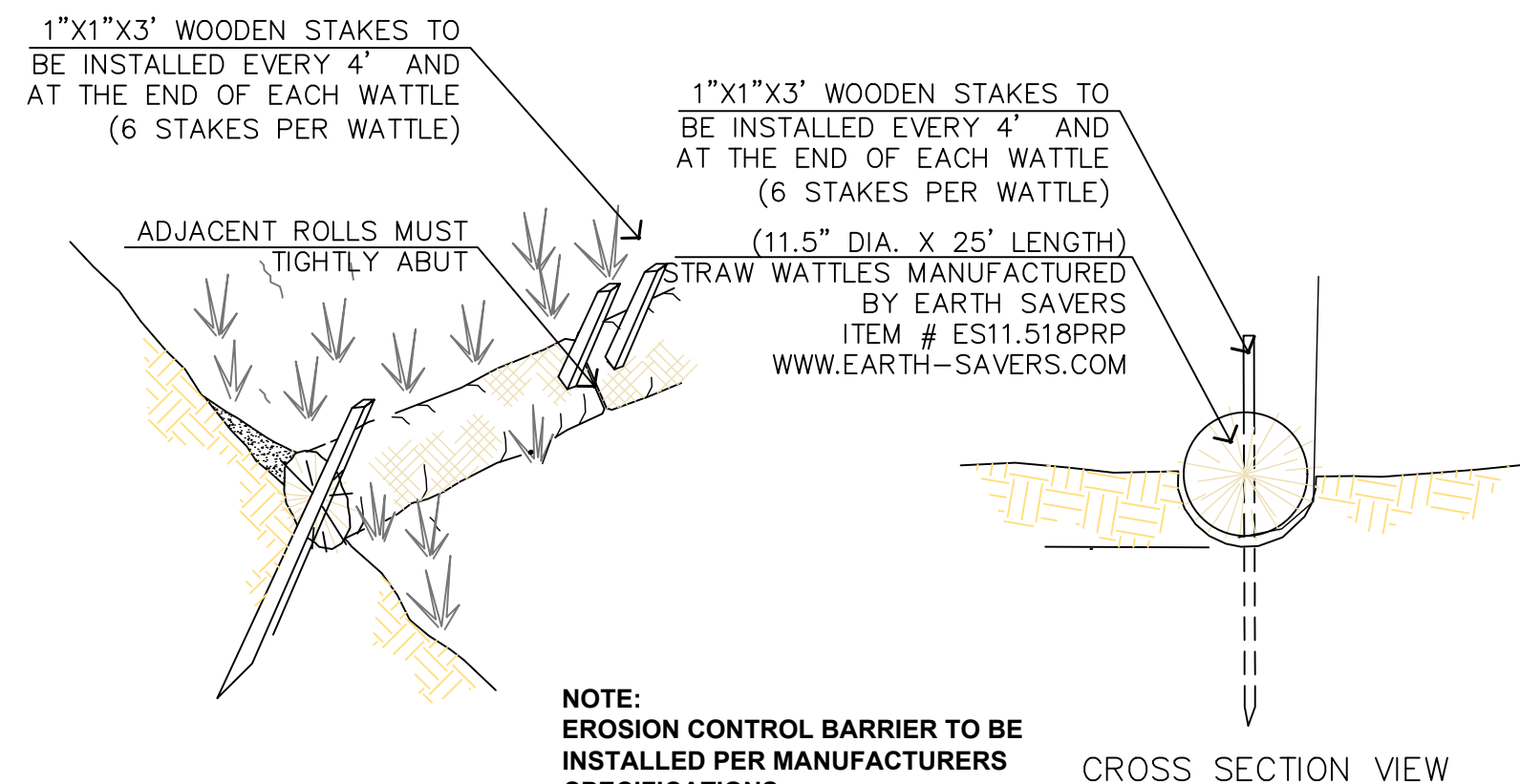
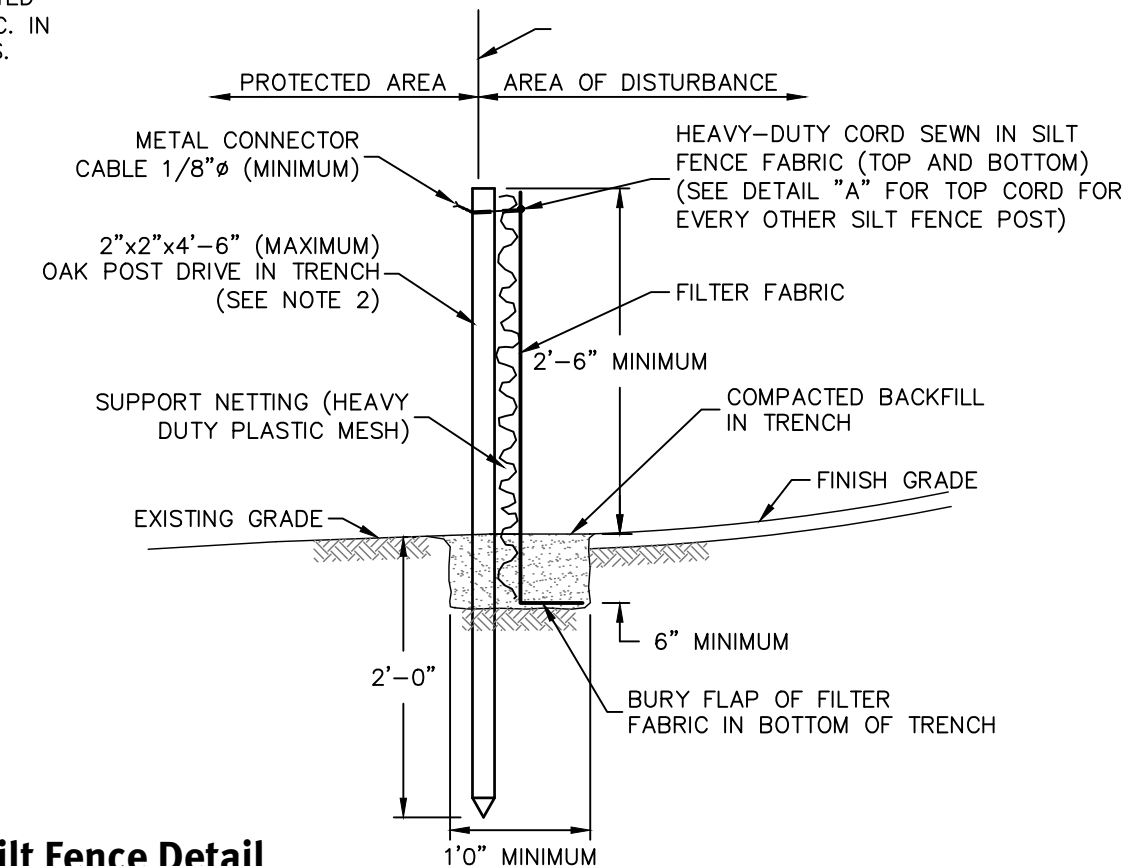
NOTES:

1. 2"x2"x4'-6" (MAXIMUM) OAK POSTS FOR SILT FENCE MUST BE LOCATED 8'-0" (MAXIMUM) O.C. IN WETLAND AREAS AND 4'-0" (MAXIMUM) O.C. IN WETLAND RAVINE, GULLY OR DROP-OFF AREAS AS SHOWN ON PLANS.
2. 1"x1"x4'-6" (MINIMUM) POSTS PERMITTED FOR PRE-FABRICATED SILT FENCE.
3. SILT FENCE MUST BE INSTALLED BEFORE ANY GRUBBING OR EARTH EXCAVATION TAKES PLACE.



Silt Fence Detail

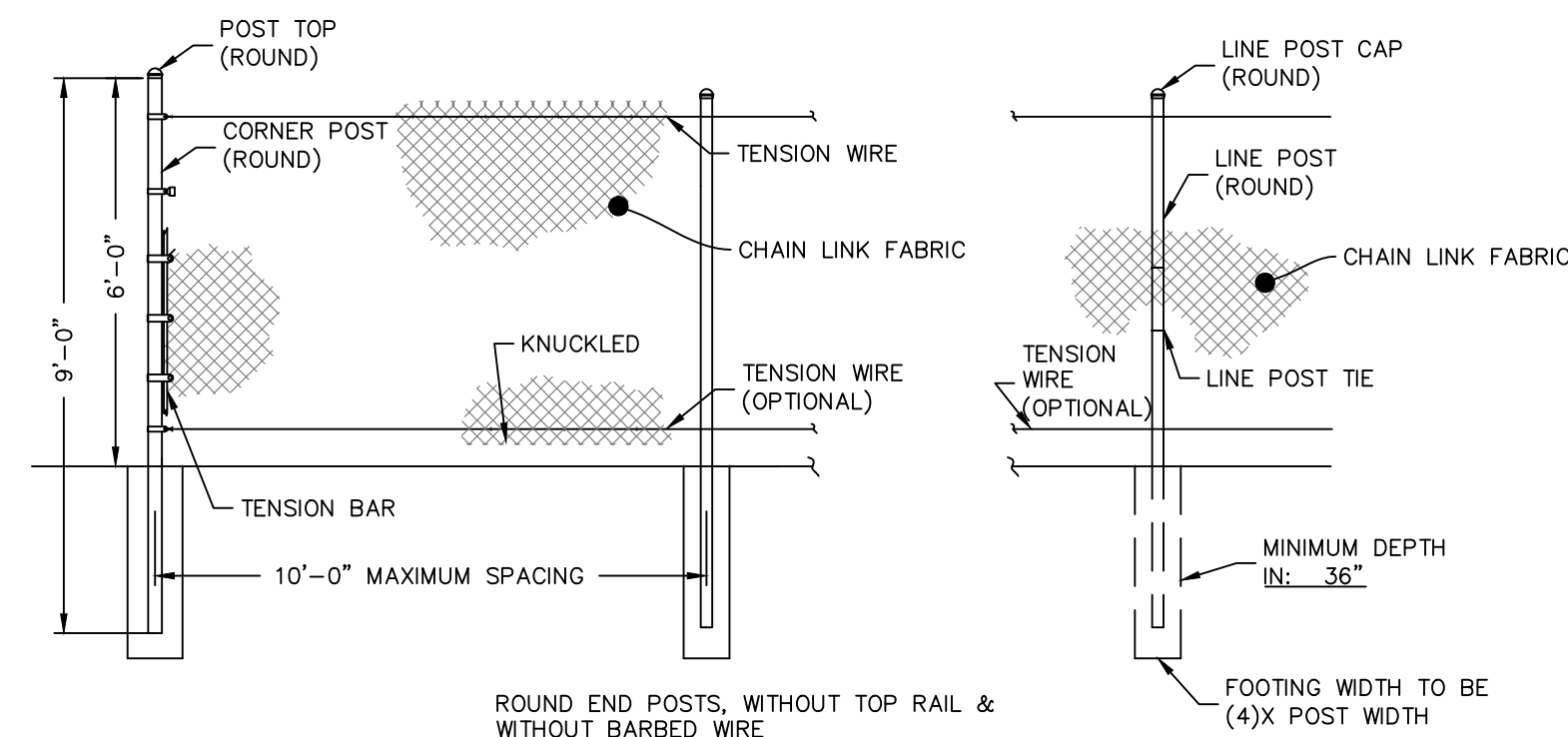
NOT TO SCALE



**NOTE:
EROSION CONTROL BARRIER TO BE
INSTALLED PER MANUFACTURERS
SPECIFICATIONS**

Straw Wattle Sediment Barrier

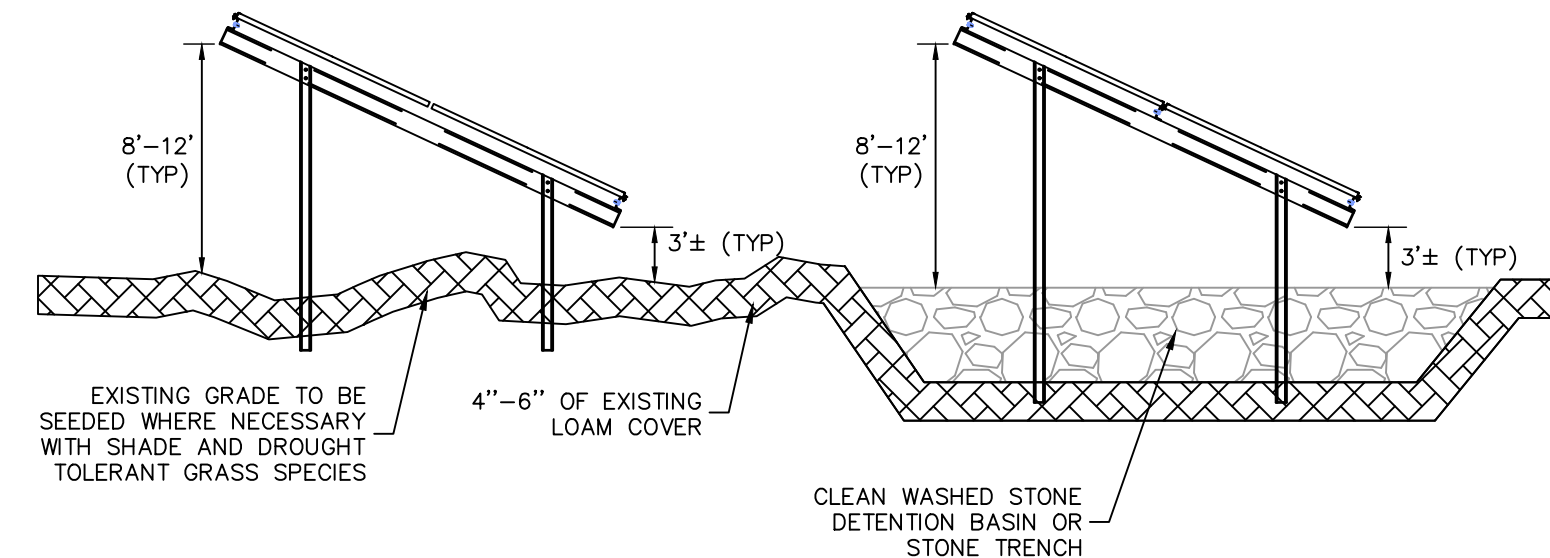
NOT TO SCALE



NOTE: ENTIRE FENCE LINE TO HAVE 6-INCH GAP BETWEEN GROUND AND BOTTOM OF FENCE, FOR SMALL ANIMAL PASSAGE.

TYPICAL CHAINLINK PERIMETER FENCE

NOT TO SCALE



NOTE:
1. TOPSOIL ON SITE MUST BE PRESERVED. TOPSOIL MUST NOT BE EXPORTED FROM THE SITE.

Onsite Grading Material and PV Array

Distance Scheme - Tilt, Angle and Shading Detail

NOT TO SCALE

General Notes

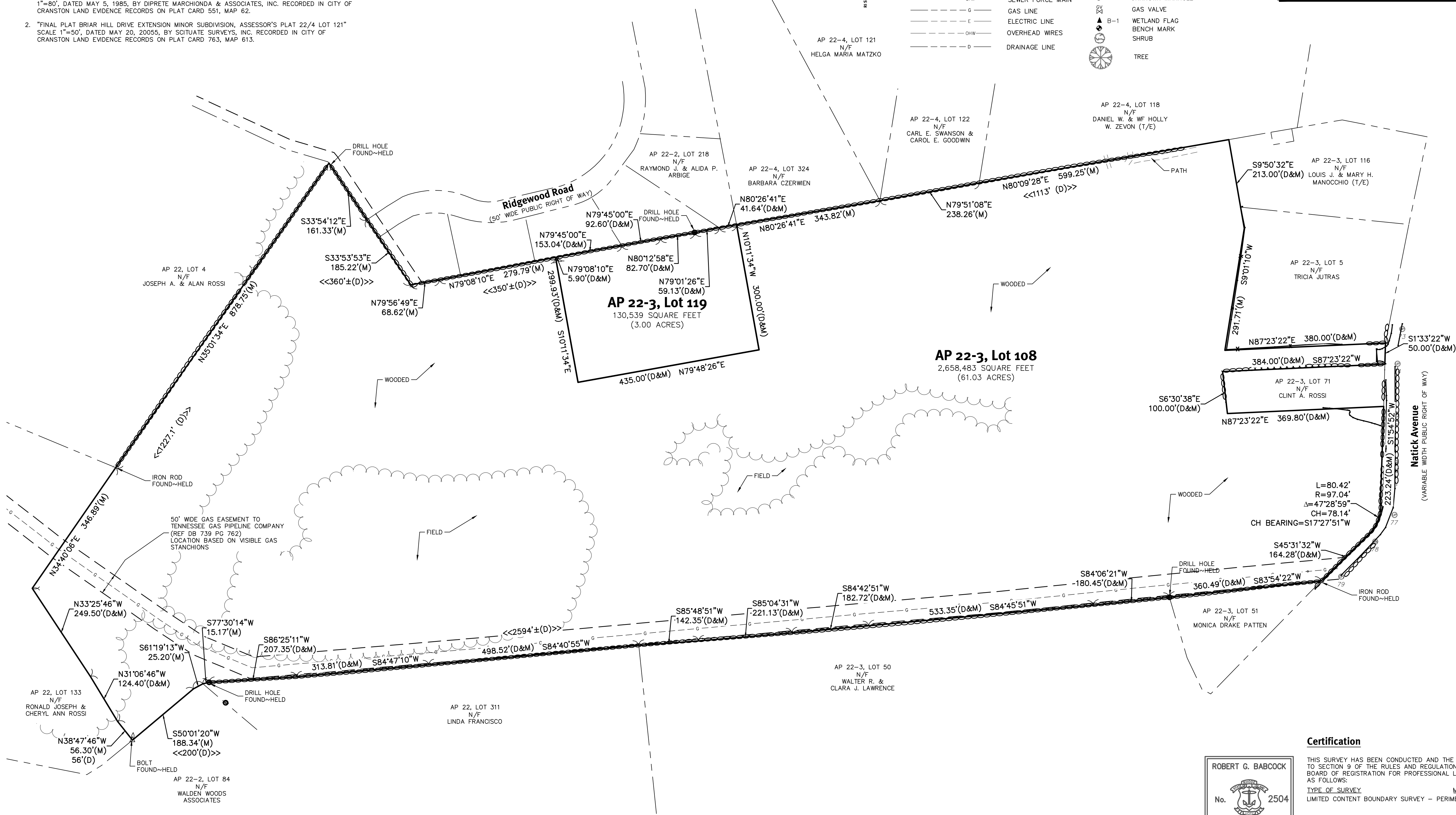
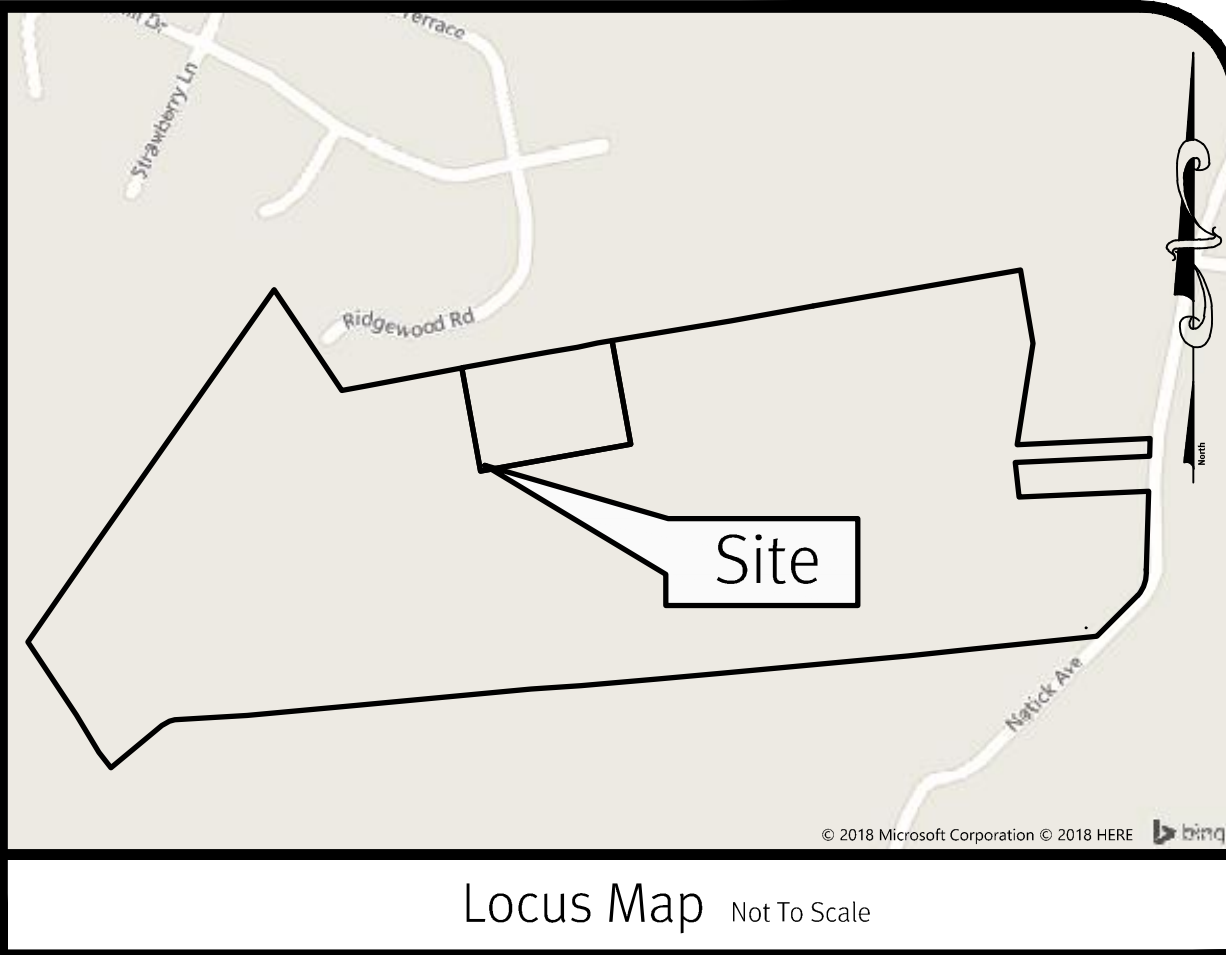
- THE PARCEL IS FOUND ON ASSESSOR'S PLAT 22, LOT 108 & 119 IN THE CITY OF CRANSTON, PROVIDENCE COUNTY, RHODE ISLAND.
- THE OWNER PER DEED BOOK 853, PAGE 793 IS RONALD ROSSI.
- BASED ON GRAPHICAL PLOTTING ONLY, THE PARCEL IS LOCATED IN X PER FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 4400704070, DATED MARCH 2, 2009 & MAP 440030126H, DATED OCTOBER 2, 2015. THIS DESIGNATION MAY CHANGE BASED UPON REVIEW BY A FLOOD ZONE SPECIALIST OR BY THE RESULTS OF A COMPREHENSIVE FLOOD STUDY.
- THE PARCEL IS ZONED A80 BASED ON VISION GOVERNMENT SOLUTIONS CRANSTON. ANY OVERLAY DISTRICTS, SPECIAL PERMITS OR VARIANCES SPECIFIC TO THIS SITE ARE NOT TAKEN INTO CONSIDERATION. PLEASE CONTACT THE ZONING DEPARTMENT FOR ANY ADDITIONAL INFORMATION OR FOR A CERTIFICATE OF ZONING.
- THERE WERE NO CEMETERIES, GRAVE SITES AND OR BURIAL GROUNDS OBSERVED WITHIN THE LIMITS OF THE SURVEY.
- FIELD SURVEY PERFORMED BY DIPRETE ENGINEERING ON OCTOBER 4, 2018. THIS PLAN REFLECTS ON THE GROUND CONDITIONS AS OF THAT DATE.
- THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. DIPRETE ENGINEERING IS NOT RESPONSIBLE FOR ANY UNKNOWN OR UNRECORDED EASEMENTS, DEEDS OR CLAIMS THAT A TITLE REPORT WOULD DISCLOSE.

Plan References:

- "SUBDIVISION PLAN OF BRIAR HILL PHASE III, SITUATED IN CRANSTON, RHODE ISLAND" SCALE 1"=80', DATED MAY 5, 1985, BY DIPRETE MARCHIONDA & ASSOCIATES, INC. RECORDED IN CITY OF CRANSTON LAND EVIDENCE RECORDS ON PLAT CARD 551, MAP 62.
- "FINAL PLAT BRIAR HILL DRIVE EXTENSION MINOR SUBDIVISION, ASSESSOR'S PLAT 22/4 LOT 121" SCALE 1"=50', DATED MAY 20, 2005, BY SCITUATE SURVEYS, INC. RECORDED IN CITY OF CRANSTON LAND EVIDENCE RECORDS ON PLAT CARD 763, MAP 613.

Legend

BUILDING		NOT ALL ITEMS SHOWN WILL APPEAR ON THE SURVEY	
AP	ASSESSOR'S PLAT	▲/△	NAIL FOUND/SET
N/F	NOW OR FORMERLY	●/◎	DRILL HOLE FOUND/SET
(D)	DEED	◎/◎	IRON ROD/PIPE FOUND/SET
(M)	MEASURED	■/□	BOUND FOUND/SET
(CA)	CHORD ANGLE	●	SIGN
HC	HANDICAPPED	●	BOLLARD
	PROPERTY LINE	◎ CB	SOIL EVALUATION
	ASSESSOR'S LINE	◎ DCB	CATCH BASIN
	TREELINE	◎ DMH	DOUBLE CATCH BASIN
	GUARDRAIL	⋈ FES	DRAINAGE MANHOLE
	FENCE	⋈	FLARED END SECTION
	RETAINING WALL	◎ EMH	GUY POLE
	STONE WALL	◎ UP	ELECTRIC MANHOLE/HANDHOLE
- 2 -	MINOR CONTOUR LINE	☆	UTILITY/POWER POLE
- 10 -	MAJOR CONTOUR LINE	◎ SMH	SEWER/SEPTIC MANHOLE
- W -	WATER LINE	●	SEWER VALVE
- S -	SEWER LINE	●	CLEANOUT
- SFM -	SEWER FORCE MAIN	●	HYDRANT
- G -	GAS LINE	●	IRRIGATION VALVE
- E -	ELECTRIC LINE	●	WATER VALVE
- CHW -	OVERHEAD WIRES	●	WELL
- D -	DRAINAGE LINE	●	MONITORING WELL
		●	UNKNOWN MANHOLE
		●	GAS VALVE
		▲ B-1	WETLAND FLAG
		●	BENCH MARK
		●	SHRUB
		●	TREE



Certification

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

TYPE OF SURVEY: PERIMETER MEASUREMENT SPECIFICATION
LIMITED CONTENT BOUNDARY SURVEY - PERIMETER CLASS I

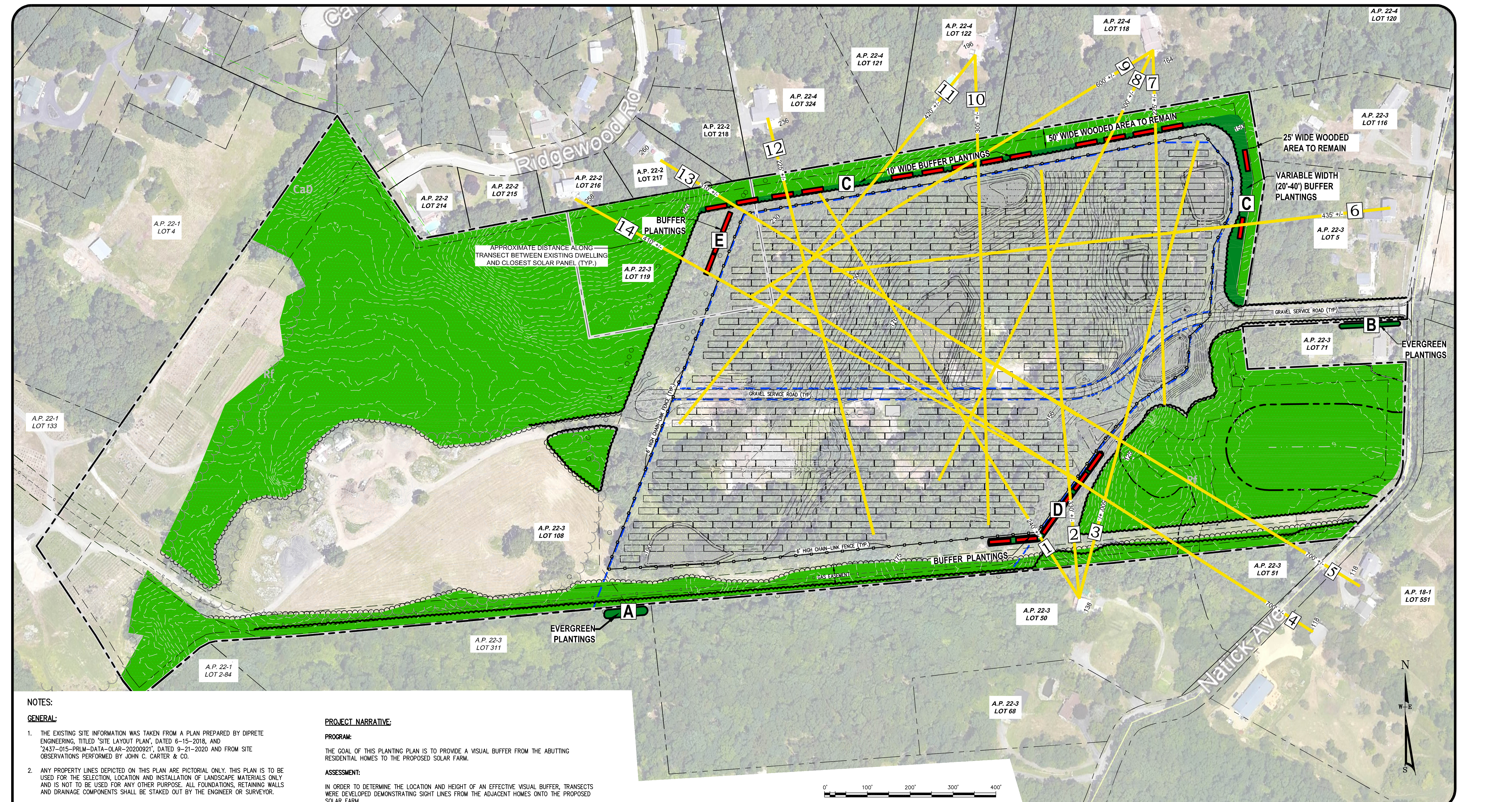
THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:
PERIMETER RETRACEMENT PERFORMED BY DIPRETE ENGINEERING FOR THE PURPOSE OF SITE ENGINEERING AND PERMITTING.



2/7/2019
ROBERT G. BABCOCK, RIPLS #2504, COA #LS.000A160

Boundary Survey
Natick Avenue Solar

Assessor's Plat 22-3 Lots 108 & 119
Cranston, Rhode Island
Client
Natick Solar, LLC
349 Centerville Road, Warwick, Rhode Island 02886
tel / fax 781-271-2001



NOTES:

GENERAL:

1. THE EXISTING SITE INFORMATION WAS TAKEN FROM A PLAN PREPARED BY DIPRETE ENGINEERING, TITLED "SITE LAYOUT PLAN", DATED 6-15-2018, AND "2437-015-PRM-DATA-OLAR-20200921", DATED 9-21-2020 AND FROM SITE OBSERVATIONS PERFORMED BY JOHN C. CARTER & CO.
2. ANY PROPERTY LINES DEPICTED ON THIS PLAN ARE PICTORIAL ONLY. THIS PLAN IS TO BE USED FOR THE SELECTION, LOCATION AND INSTALLATION OF LANDSCAPE MATERIALS ONLY AND IS NOT TO BE USED FOR ANY OTHER PURPOSE. ALL FOUNDATIONS, RETAINING WALLS AND DRAINAGE COMPONENTS SHALL BE STAKED OUT BY THE ENGINEER OR SURVEYOR.
3. WRITTEN DIMENSIONS AND SPECIFICATIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. THE LOCATION OF UTILITIES IF SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE ANY EXCAVATION. DIG-SAFE SHALL BE CONTACTED AT LEAST 72 HOURS BEFORE EXCAVATION. DIG-SAFE CAN BE REACHED AT 1-888-344-7233.

NOTE: PLANT AREAS "A" AND "B" ARE NOT PART OF THE NATICK AVENUE SOLAR PROJECT UNDER REVIEW BY THE CITY OF CRANSTON. THESE PLANTING AREAS HAVE BEEN INCLUDED FOR ILLUSTRATIVE PURPOSES ONLY AND WILL BE DETERMINED BY PRIVATE AGREEMENTS WITH THE RESPECTIVE PROPERTY OWNERS.

PROJECT NARRATIVE:

PROGRAM:

THE GOAL OF THIS PLANTING PLAN IS TO PROVIDE A VISUAL BUFFER FROM THE ABUTTING RESIDENTIAL HOMES TO THE PROPOSED SOLAR FARM.

ASSESSMENT:

IN ORDER TO DETERMINE THE LOCATION AND HEIGHT OF AN EFFECTIVE VISUAL BUFFER, TRANSECTS WERE DEVELOPED DEMONSTRATING SIGHT LINES FROM THE ADJACENT HOMES ONTO THE PROPOSED SOLAR FARM.

A SIGHT LINE WAS DRAWN FROM AN EYE LEVEL AT EACH RESIDENTIAL PROPERTY TO THE LOCATION OF THE HIGHEST AND LOWEST VISIBLE SOLAR PANEL ALLOWING THE HEIGHT AND LOCATION OF THE BUFFER TO BE DETERMINED.

PROCESS:

AS A RESULT OF ONSITE ANALYSIS AND INVENTORY OF THE EXISTING VEGETATION, IT WAS DETERMINED THAT IN ADDITION TO THE NO CUT BUFFER ADJACENT TO THE NORTHERLY AND EASTERLY PROPERTY LINES, AN ADDITIONAL CLEARED AREA WILL BE PLANTED WITH A MIXTURE OF DECIDUOUS AND EVERGREEN TREES AND SHRUBS.

CONCLUSION:

A COMBINATION OF EXISTING VEGETATION (WHICH IS PROPOSED TO REMAIN) AND SUPPLEMENTAL PLANTINGS (AS DEMONSTRATED ON THE CROSS SECTIONS AND DETAILS) WILL PROVIDE A SIGNIFICANT VISUAL BUFFER BETWEEN THE ADJACENT HOMES AND THE SOLAR FARM.

LEGEND

- PROPERTY LINE
- CONTOURS EXISTING
- CONTOURS PROPOSED
- CHAIN-LINK FENCE PROPOSED
- SOLAR PANELS PROPOSED
- PROPOSED TREE LINE
- TRANSECT
- CLEARED AREA WITH 50'x10' PLANTING PATTERN
- SUPPLEMENTAL BUFFER PLANTINGS

NO.	DATE	DESCRIPTION	BY
07-04	1-25	UPDATED PER LAYOUT REVISIONS	LWW
06-01	03-22	CHANGED AREA "A" TO "D"	LWW
05-01	14-21	PLANTING AREAS "D" & "E"	LWW
04-11	30-20	PLANTING AREAS "D" & "E" GRADING	LWW
03-10	22-20	PLANTING PATTERNS ADDED	LWW
02-07	22-20	BUFFER & TRANSECTS ADDED	LWW
01-10	22-20	GRADING	LWW

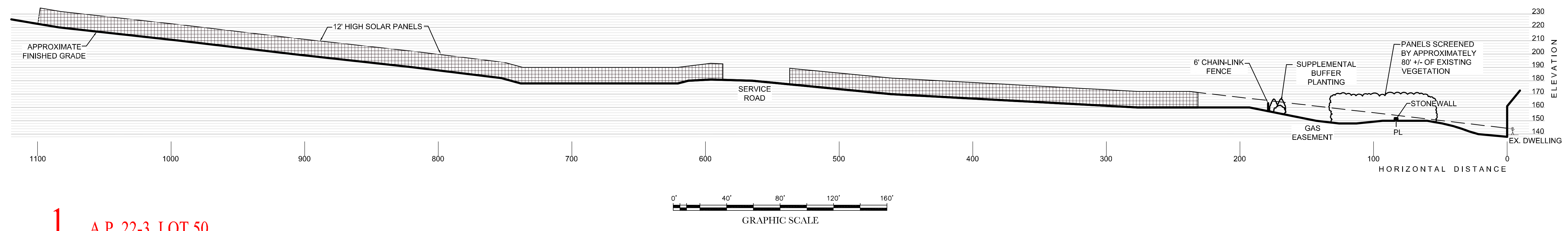
PREPARED BY
JOHN C. CARTER & COMPANY, INC.
LANDSCAPE ARCHITECTURE
960 Boston Neck Road
Narragansett, RI 02882
(401)783-3500 Fax: (401) 792-1327

PREPARED FOR
REVITY ENERGY, LLC.
117 Metro Center Blvd.
Warwick, RI

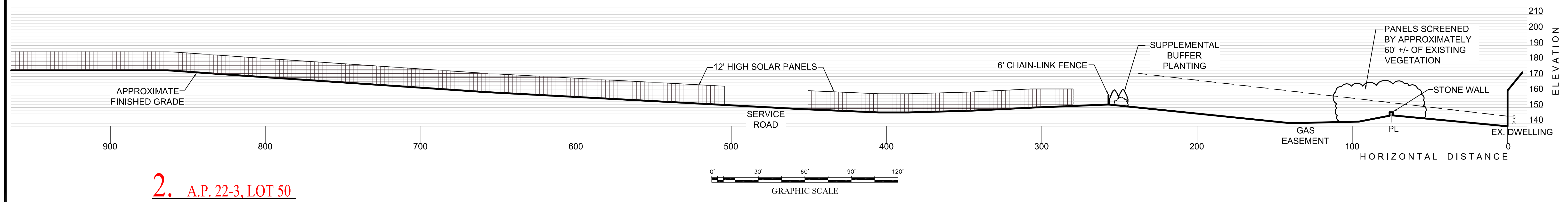
BUFFER PLAN
NATICK AVENUE SOLAR
ASSESSOR'S PLAT 22-3 LOTS 108 & 119
CRANSTON, RHODE ISLAND

MAY 8, 2020
DWN. BY: L.M.W.

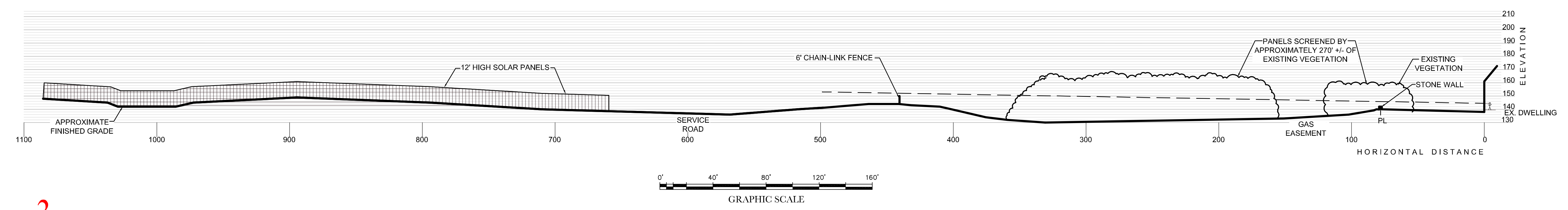
SHEET 1 OF 6



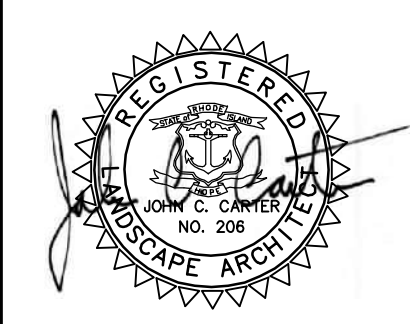
1. A.P. 22-3, LOT 50



2. A.P. 22-3, LOT 50



3. A.P. 22-3, LOT 50



NO.	DATE	DESCRIPTION	BY
05	04-1-25	UPDATED PER LAYOUT REVISIONS	LMW
02	01-30-20	TRANSECTS UPDATED	LMW
03	10-22-20	TRANSECTS UPDATED	LMW
02	10-07-20	TRANSECTS UPDATED	LMW
01	12-22-20	GRADING	LMW

CROSS SECTIONS 1

NATICK AVENUE SOLAR

ASSESSOR'S PLAT 22-3 LOTS 108 & 119
CRANSTON, RHODE ISLAND

PREPARED BY

JOHN C. CARTER & COMPANY, INC.

LANDSCAPE ARCHITECTURE

960 Boston Neck Road
Narragansett, RI 02882
(401)783-3500 Fax: (401) 792-1327

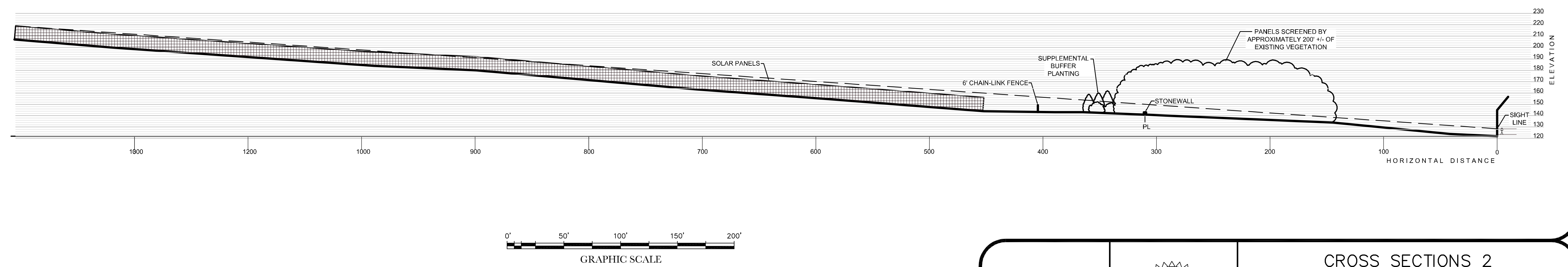
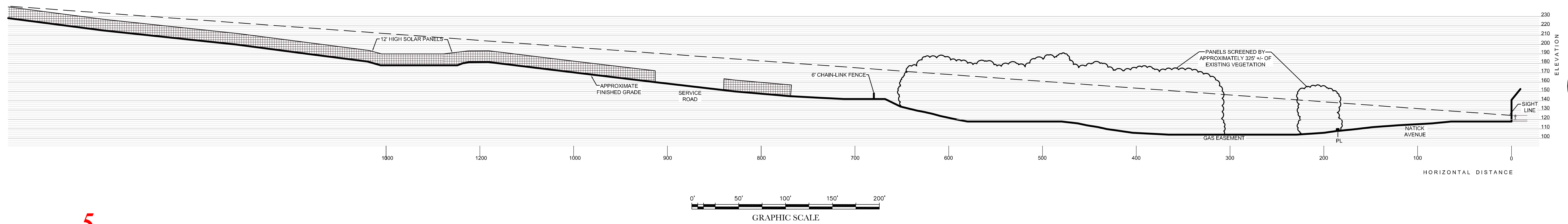
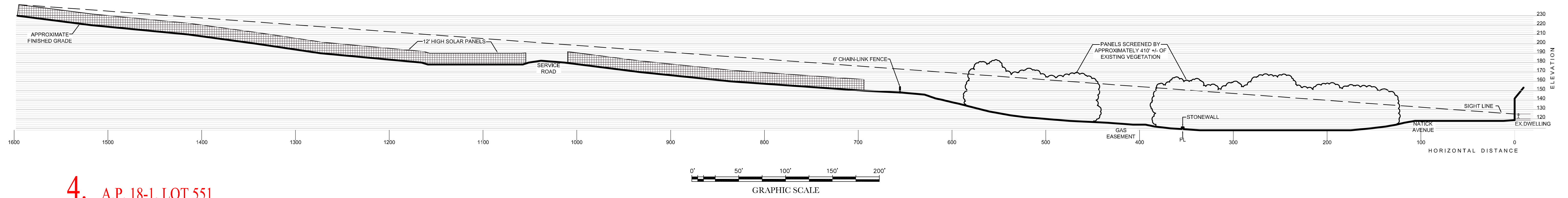
PREPARED FOR

REVITY ENERGY, LLC.

117 Metro Center Blvd.
Warwick, RI

MAY 8, 2020
DWN. BY: L.M.W.

SHEET 2 OF 6



CROSS SECTIONS 2

NATICK AVENUE SOLAR

ASSESSOR'S PLAT 22-3 LOTS 108 & 119
CRANSTON, RHODE ISLAND

PREPARED BY
JOHN C. CARTER & COMPANY, INC.
LANDSCAPE ARCHITECTURE
960 Boston Neck Road
Narragansett, RI 02882
(401) 783-3500 Fax: (401) 792-1327

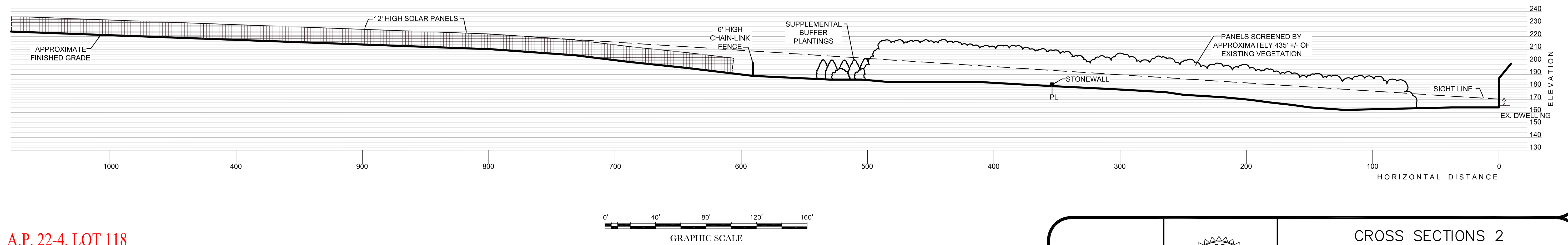
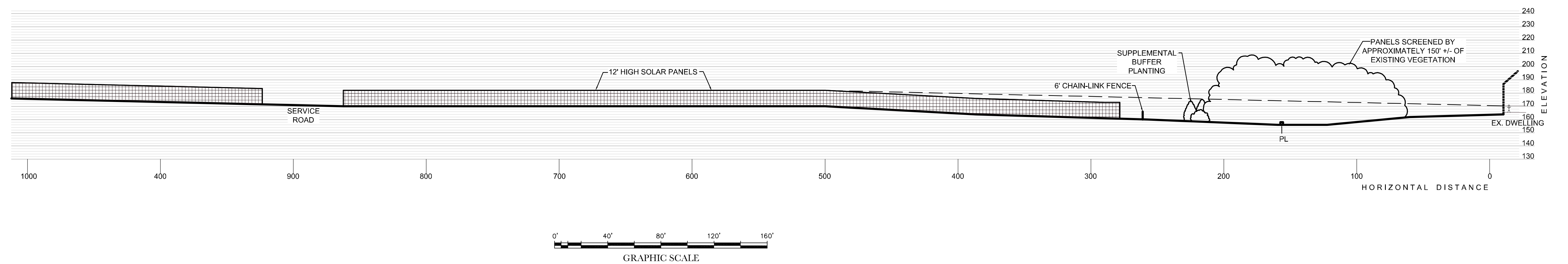
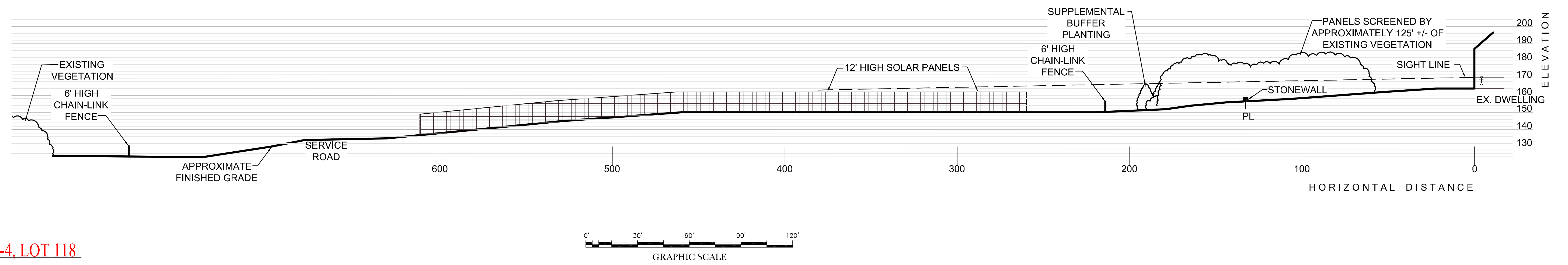
PREPARED FOR
REVITY ENERGY, LLC.
117 Metro Center Blvd.
Warwick, RI

SHEET **3** OF 6

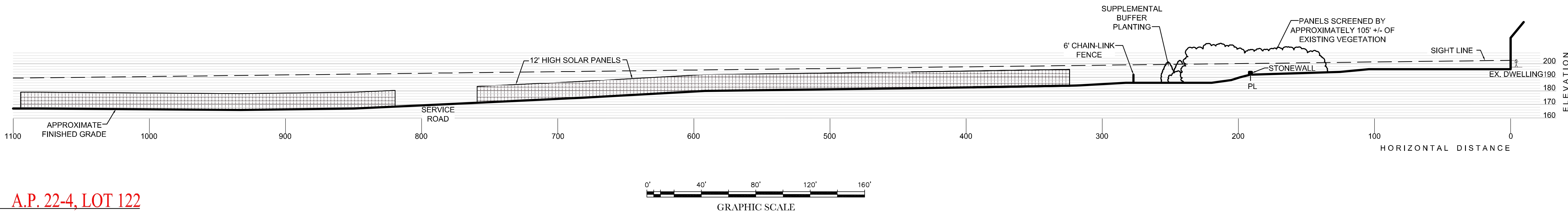
NO.	DATE	DESCRIPTION	BY
01	04-1-25	UPDATED PER LAYOUT REVISIONS	LMW
02	10-22-20	TRANSECTS UPDATED	LMW
03	10-07-20	TRANSECT ADDED	LMW
04	09-22-20	GRADING	LMW

MAY 8, 2020

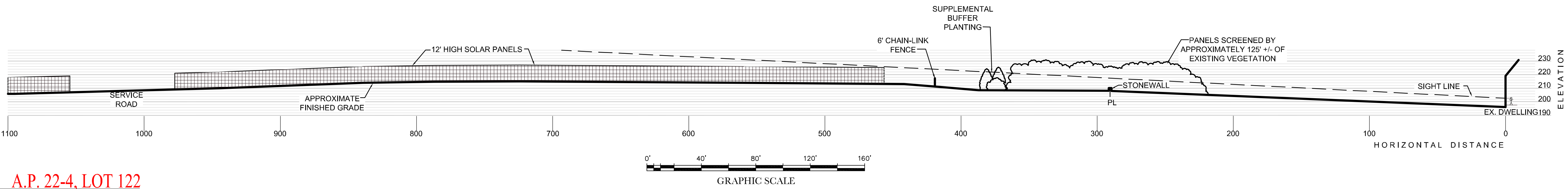
DWN. BY: L.M.W.



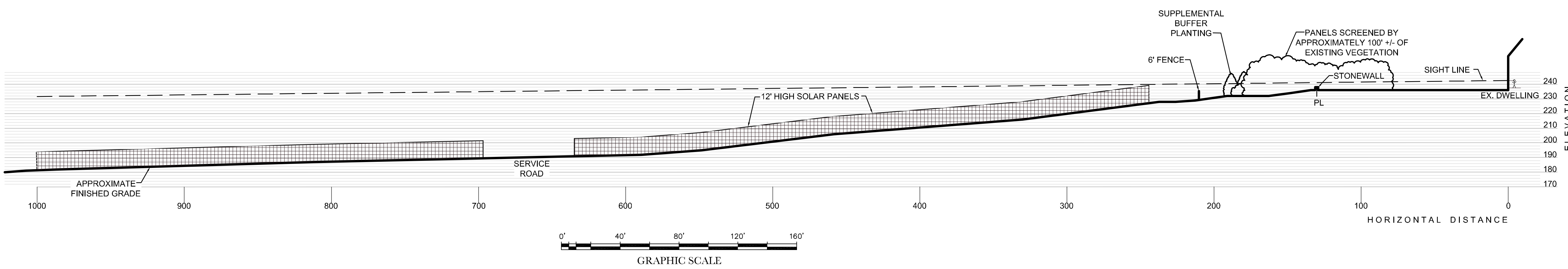
		CROSS SECTIONS 2	
		NATICK AVENUE SOLAR ASSESSOR'S PLAT 22-3 LOTS 108 & 119 CRANSTON, RHODE ISLAND	
PREPARED BY JOHN C. CARTER & COMPANY, INC. LANDSCAPE ARCHITECTURE 960 Boston Neck Road Narragansett, RI 02882 (401) 783-3500 Fax: (401) 792-1327		PREPARED FOR REVITY ENERGY, LLC. 117 Metro Center Blvd. Warwick, RI	
		MAY 8, 2020 DWN. BY: L.M.W.	
NO. DATE DESCRIPTION BY		SHEET 4 OF 6	



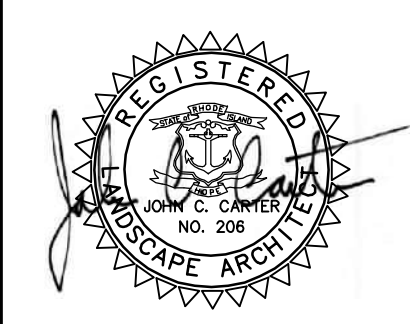
10. A.P. 22-4, LOT 122



11. A.P. 22-4, LOT 122



12. A.P. 22-4, LOT 324



CROSS SECTIONS 3
NATICK AVENUE SOLAR
ASSESSOR'S PLAT 22-3 LOTS 108 & 119
CRANSTON, RHODE ISLAND

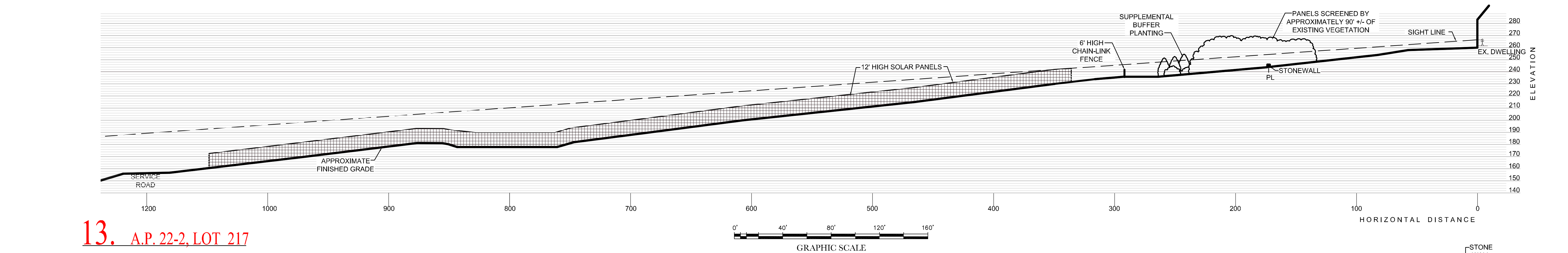
PREPARED BY
JOHN C. CARTER & COMPANY, INC.
LANDSCAPE ARCHITECTURE
960 Boston Neck Road
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PREPARED FOR
REVITY ENERGY, LLC.
117 Metro Center Blvd.
Warwick, RI

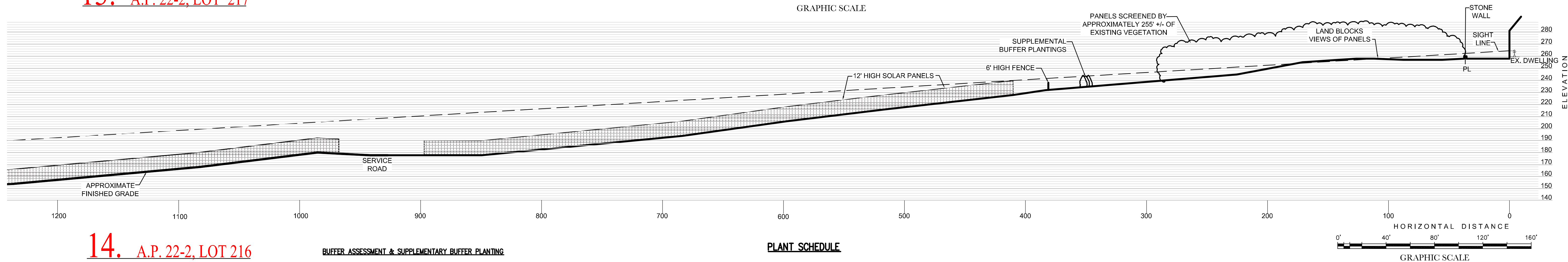
NO.	DATE	DESCRIPTION	BY
04	04-1-20	UPDATED PER LAYOUT REVISIONS	L.M.W.
03	10-22-20	TRANSECTS UPDATED	L.M.W.
02	10-17-20	TRANSECTS UPDATED	L.M.W.
01	9-22-20	GRADING	L.M.W.

MAY 8, 2020
DWN. BY: L.M.W.

13. A.P. 22-2, LOT 217



14. A.P. 22-2, LOT 216



BUFFER ASSESSMENT & SUPPLEMENTARY BUFFER PLANTING

- THE PROPOSED LIMIT OF CLEARING WILL BE DELINEATED IN THE FIELD PRIOR TO ANY LOT CLEARING.
- LARGE TREES ON THE SOUTH PROPERTY LINE THAT CAST SHADE ON THE SOLAR ARRAY SHALL BE SELECTIVELY REMOVED

PLANTING SEQUENCE

- CARE SHALL BE TAKEN TO NOT DAMAGE THE EXISTING BUFFER VEGETATION WHILE INSTALLING ADDITIONAL PLANTS.
- IF POSSIBLE, EXCAVATION SHALL BE AVOIDED WITHIN THE DRIP-LINE OF THE EXISTING TREES.

PLANTING

- PROVIDE QUALITY PLANTS IN THE GENUS, SPECIES AND VARIETY INDICATED IN THE PLANT SCHEDULE, COMPLYING WITH APPLICABLE REQUIREMENTS OF "ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK."
- PROVIDE PLANTS IN THE SIZE AND NUMBER INDICATED IN THE PLANT SCHEDULE.
- DELIVER FRESH DUG TREES WHICH ARE BALLED AND BURLAPPED. SHRUBS MAY BE BALLED AND BURLAPPED OR IN CONTAINERS. ALL PLANTS ARE TO BE HEALTHY, VIGOROUS AND FREE OF INSECTS AND DISEASE.
- PLANTS ARE TO BE INSTALLED AS SPECIFIED IN THE PLANTING DETAILS WITH ADEQUATE WATER PROVIDED DURING PLANTING TO ALLOW COMPACTION OF THE PLANTING SOIL TO PREVENT ANY AIR POCKETS OR SETTLEMENT AFTER PLANTING.
- ALL PLANTING BEDS ARE TO BE COVERED WITH 2" OF WOOD CHIP MULCH.
- RECOMMENDED PLANTING DATES ARE APRIL 15 TO JUNE 15 AND SEPTEMBER 15 TO NOVEMBER 15.
- PLANT SUBSTITUTIONS SHALL BE ALLOWED BASED ON AVAILABILITY. SUBSTITUTIONS MAY BE MADE ONLY WITH DIRECT APPROVAL FROM THE APPLICANT'S LANDSCAPE ARCHITECT OR OWNER. ALL SUBSTITUTIONS SHALL BE THE SAME PLANTING HEIGHT AND GROWTH HABIT AS THE PLANT BEING SUBSTITUTED.

MAINTENANCE & WARRANTY

- AFTER PLANTING IS COMPLETED, THE OWNER SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE WATER TO ENSURE HEALTHY AND VIGOROUS GROWTH.
- ANY PLANT WHICH IS NOT ALIVE AND GROWING SATISFACTORILY WITHIN A THREE-YEAR PERIOD SHALL BE REPLACED BY THE CONTRACTOR IN CONFORMANCE WITH THE PLANTING SPECIFICATIONS.
- PLANTINGS IN AREA D WILL BE TRIMMED TO A HEIGHT OF NO LESS THAN 12'. PLANTINGS IN AREA E WILL BE TRIMMED TO A HEIGHT OF NO LESS THAN 18'.
- CONTROL OF GROWTH UNDER THE PANELS SHALL BE LIMITED TO MECHANICAL METHODS (MOWING). NO HERBICIDES OR OTHER CHEMICAL MEANS MAY BE USED TO CONTROL GROWTH UNDER THE PANELS.

PLANT SCHEDULE

AREA 'A'

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
PS	10	PINUS STROBUS	EASTERN WHITE PINE	5-8' HT.	10' O.C.

AREA 'B'

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
PS	10	PINUS STROBUS	EASTERN WHITE PINE	5-8'	10' O.C.
TP	4	THUJA PLICATA 'GREEN GIANT'	GREEN GIANT ARBORVITAE	5-8'	10' O.C.

AREAS 'C', 'D' & 'E'

TREES

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
AC1	35	AMELANCHIER CANADENSIS OR BETULA POPULIFOLIA	SHADBLOW SERVICEBERRY OR GRAY BIRCH	5-6' HT.	CLUMP
AC2	50	AMELANCHIER CANADENSIS OR BETULA POPULIFOLIA	SHADBLOW SERVICEBERRY OR GRAY BIRCH	8-10' HT.	CLUMP
JO	20	ILEX OPACA	AMERICAN HOLLY	4-5' HT.	
JV	95	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	7-8' HT.	
PS1	30	PINUS STROBUS	EASTERN WHITE PINE	4-5' HT.	
PS2	30	PINUS STROBUS	EASTERN WHITE PINE	7-8' HT.	

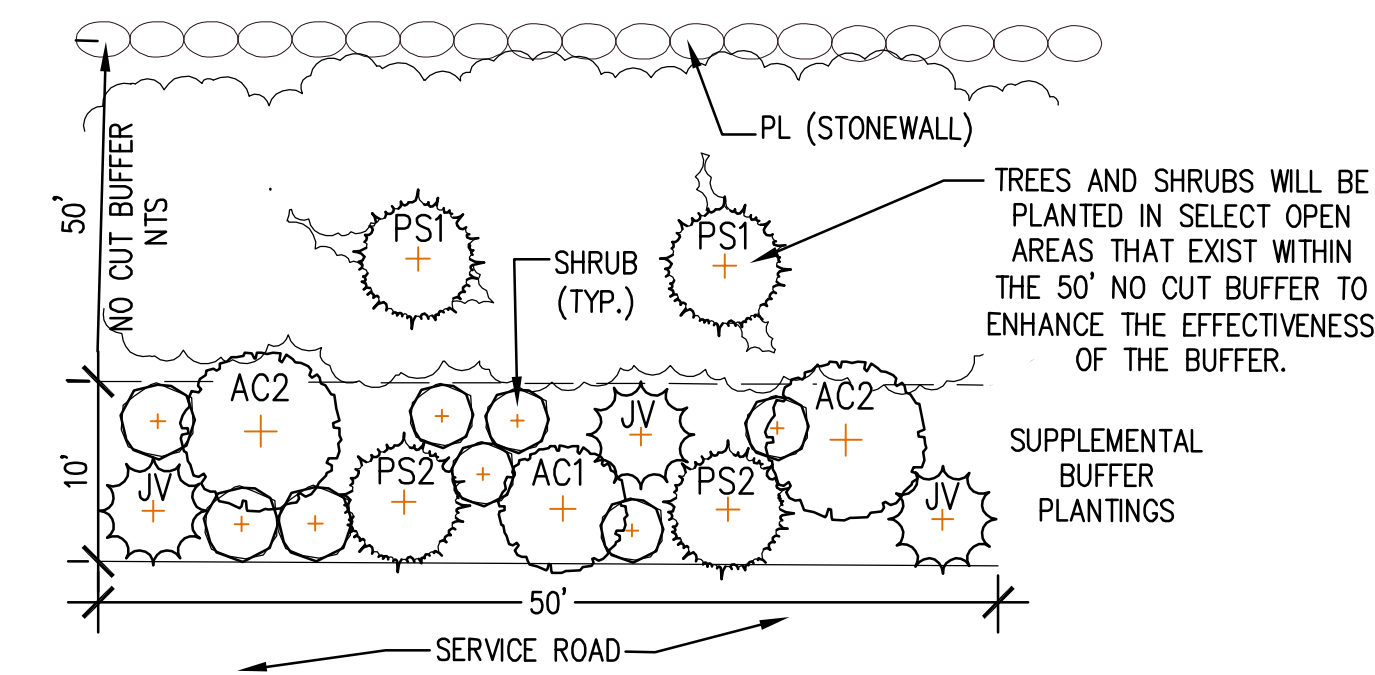
SHRUBS

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE
200 TOTAL				
+		VACCINIUM CORYMBOSUM	HIGH BUSH BLUEBERRY	2 1/2-3'
+		VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	2 1/2-3'
+		MORELLA PENSYLVANICA	BAYBERRY	2 1/2-3'
+		CORNUS RACEMOSA	GRAY DOGWOOD	2 1/2-3'

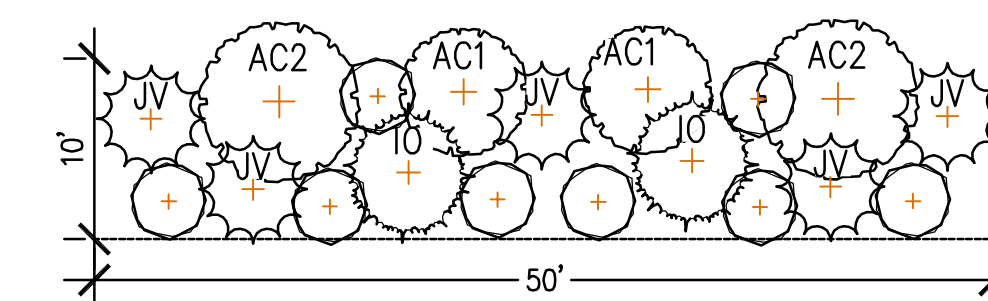
SEED MIXES: REFER TO LEC ENVIRONMENTAL CONSULTANTS, INC. SEED MIX AS STATED IN FINAL APPROVED REPORT.

DETENTION PONDS AND STEEP SLOPES WILL BE SEEDDED AS SPECIFIED IN THE DEM APPROVED PLAN PREPARED BY DIPRETE ENGINEERING.

NOTE: PLANT AREAS 'A' AND 'B' ARE NOT PART OF THE NATICK AVENUE SOLAR PROJECT UNDER REVIEW BY THE CITY OF CRANSTON.



C-TYPICAL SUPPLEMENTAL PLANTING DETAIL - 50' PATTERN
SCALE: NTS



D & E - TYPICAL (AMENDED) SUPPLEMENTAL PLANTING DETAIL - 50' PATTERN
SCALE: NTS



CROSS SECTIONS 4

NATICK AVENUE SOLAR

ASSESSOR'S PLAT 22-3 LOTS 108 & 119
CRANSTON, RHODE ISLAND

PREPARED BY

JOHN C. CARTER & COMPANY, INC.
LANDSCAPE ARCHITECTURE

960 Boston Neck Road
Narragansett, RI 02882
(401) 783-3500 Fax: (401) 792-1327

PREPARED FOR

REVITY ENERGY, LLC.

117 Metro Center Blvd.
Warwick, RI

MAY 8, 2020
DWN. BY: L.M.W.

SHEET 6 OF 6

NO.	DATE	DESCRIPTION	BY
08-04-1-25		UPDATED PER LAYOUT REVISIONS	LMW
07-01-03-22		PLANTABLE SOIL NOTE, MAIN	LMW
06-01-15-21		NOTES & REMOVED NO. 2	LMW
05-01-14-21		PLANTING SCHEDULES & NOTES	LMW
04-11-30-20		PLANTING SCHEDULES & DETAIL	LMW
03-10-22-20		PLANTING SCHEDULES & DETAIL	LMW
02-10-07-20		TRANSECTS UPDATED NOTES	LMW
01-7-22-20		GRADING	LMW
NO.	DATE	DESCRIPTION	BY