

# **BWC BOGASTOW BROOK BESS PROJECT PROPOSED BATTERY ENERGY STORAGE SYSTEM**

**CENTRAL STREET, HOLLISTON, MIDDLESEX COUNTY, MASSACHUSETTS**

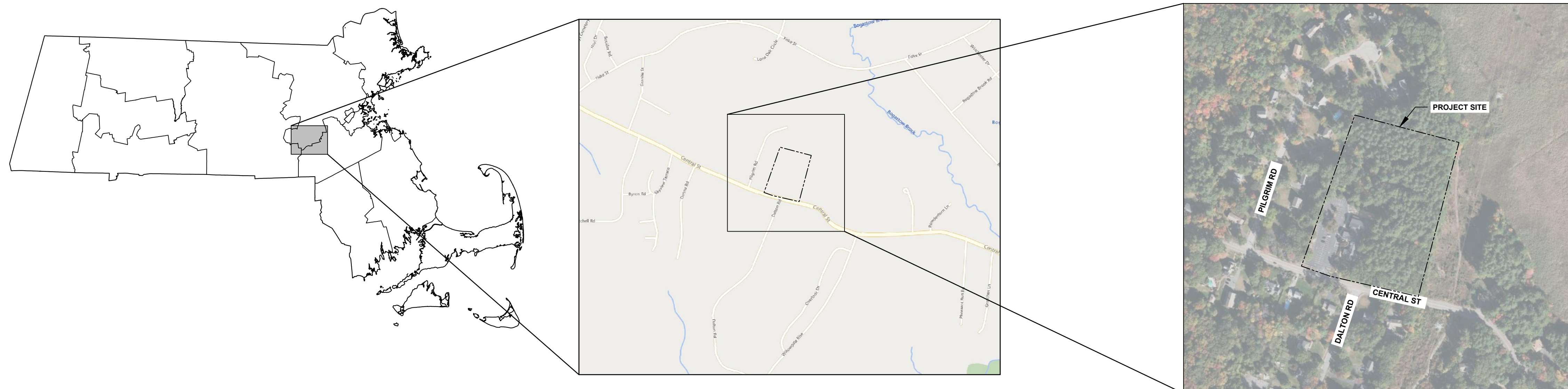
**DEVELOPER: BWC BOGASTOW BROOK, LLC  
C/O BLUEWAVE SOLAR  
501 BOYLSTON STREET, SUITE 10B134  
BOSTON, MA 02116**

**PREPARED BY: TRC**  
**LOWELL, MA 01854**

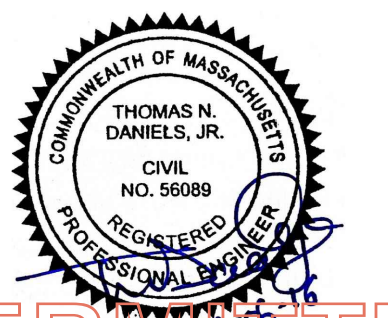
**DATE: JUNE 2023**

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G1.00	CIVIL COVER SHEET
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**MASSACHUSETTS****HOLLISTON**

## SITE LOCATOR



PERMITTING

NOTE: THESE PLANS ARE ACCOMPANIED BY PERMIT APPLICATIONS OF THE SAME TITLE. THESE DOCUMENTS ARE INTERRELATED AND ARE INTENDED TO BE USED TOGETHER. THESE DOCUMENTS ARE INTENDED TO BE USED FOR REGULATORY PURPOSES ONLY.

Y. NOT FOR CONSTRUCTION



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1. THE PROJECT HORIZONTAL COORDINATES SYSTEM IS BASED ON NAD83 MASSACHUSETTS STATE PLANE (US SURVEY FEET, MAINLAND ZONE, MAB30). ELEVATIONS ARE BASED ON NAVD83 (US SURVEY FEET).
2. PROJECT PROPERTY BOUNDARIES AND SITE TOPOGRAPHIC INFORMATION ARE BASED UPON ON-THE-GROUND FIELD SURVEY COMPLETED BY LAND PLANNING, INC. IN JANUARY 2022 AS PROVIDED IN A PLAN ENTITLED "EXISTING CONDITIONS PLAN, 600 CENTRAL STREET, IN HOLLISTON, MA" AND DATED JANUARY 19, 2022. SURVEY PLANS SEALED BY A LICENSED PROFESSIONAL LAND SURVEYOR ARE PROVIDED UNDER SEPARATE COVER.
3. SITE TOPOGRAPHIC INFORMATION OUTSIDE PROJECT LIMITS IS FROM AERIAL MAPPING (LIDAR) RETRIEVED FROM NOAA DATA ACCESS VIEWER.
4. UTILITY INFORMATION DEPICTED IS COMPILED USING PHYSICAL SURFACE EVIDENCE LOCATED IN THE FIELD IN CONJUNCTION WITH ANY RECORD INFORMATION AVAILABLE AT THE TIME OF THE FIELD SURVEY AND MAY NOT NECESSARILY REPRESENT ALL EXISTING UTILITIES. THEREFORE, ALL UTILITY LOCATIONS SHOULD BE CONSIDERED APPROXIMATE AND BE VERIFIED BY THE CONTRACTOR. DIGSAFE SHALL BE NOTIFIED A MINIMUM OF 72-HOURS PRIOR TO COMMENCING ANY EXCAVATION. FULL UTILITY COORDINATION WITH NON-MEMBER UTILITIES AND USE OF GROUND-PENETRATING RADAR TO LOCATE UTILITIES SHOULD BE PERFORMED AS NECESSARY.
5. WETLAND DELINEATION WITHIN THE PROJECT AREA WAS PERFORMED BY TRC IN JANUARY 2021 AND LOCATED USING MAPPING GRADE GPS UNITS. ADDITIONAL NATURAL RESOURCE AND ZONING INFORMATION IS COMPILED FROM A COMBINATION OF SOURCES INCLUDING STATE OF MASSACHUSETTS GIS DATA.
6. THIS IS A PRELIMINARY DESIGN PLAN. FINAL DESIGN SHALL BE MODIFIED BY CONTRACTOR TO MATCH FINAL ELECTRICAL INTERCONNECTION STUDIES, EQUIPMENT PURCHASED, AND POSSIBLE PERMIT CONSTRAINTS REVEALED DURING PROJECT'S REVIEW ELECTRICAL EQUIPMENT LAYOUT, INCLUDING BATTERY UNITS, EQUIPMENT PADS, UTILITY POLES, ETC. WERE PROVIDED BY BLUEVALE SOLAR IN A CAD FILE DATED MAY 19, 2022.
7. ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATION, THE PROJECT GEOTECHNICAL REPORT, PERMIT CONDITIONS, AND ANY OTHER APPLICABLE TECHNICAL REPORTS. WHERE INDICATED, STATE AND/OR LOCAL STANDARD SPECIFICATIONS SHALL APPLY. ALL WORK SHALL COMPLY WITH THE ASSOCIATED STANDARDS SET FORTH IN THE TOWN OF HOLLISTON ZONING BYLAWS.
8. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING STATE AND FEDERAL REQUIREMENTS WITH RESPECT TO STORMWATER DISCHARGE.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITY LINES AND SITE INFRASTRUCTURE WITHIN OR ADJACENT TO THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
10. CONSTRUCTION SHALL NOT OCCUR IN ANY PUBLIC RIGHTS OF WAY, PUBLIC OR PRIVATE EASEMENTS, BEYOND THE LIMITS OF DISTURBANCE, OR OUTSIDE THE PROPERTY LIMITS WITHOUT NECESSARY PERMITS. ANY PUBLIC OR PRIVATE PROPERTY OR IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE COST OF THE CONTRACTOR.
11. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT OF WAY. OVERNIGHT PARKING OF CONSTRUCTION VEHICLES ON PRIVATE PROPERTY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
12. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE LANDOWNER FOR SITE ACCESS AND USE AND SHALL COMPLETE WORK IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ACCESS AGREEMENT.
13. ALL PROPERTY CORNERS OR MONUMENTS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. ALL PROPERTY CORNERS MUST BE RESET BY A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF MASSACHUSETTS.
14. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONTROLLING THE POLLUTION OF THE ENVIRONMENT.
15. CONTRACTOR TO ENSURE ALL WORK PERFORMED IS IN ACCORDANCE WITH EXISTING PROJECT PERMITS, STUDIES, AND REPORTS PROVIDED IN THE CONTRACT DOCUMENTS INCLUDING STATE STORMWATER MANAGEMENT PERMIT AND LOCAL ORDINANCES.
16. IT IS THE INTENT OF THESE PLANS THAT THE CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE THE IDENTIFIED PROJECT BOUNDARIES AND APPROVED LIMITS OF DISTURBANCE.
17. IT IS THE INTENT OF THESE PLANS THAT THE CONTRACTOR AVOID "FILLING" WETLANDS AT ALL COSTS. CONTRACTOR TO AVOID THE DELINEATED WETLAND AREAS AND NATURAL RESOURCES ONSITE.
18. WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 60 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES SHOULD TAKE PLACE UPGRADATION TO AND LESS THAN 60 FEET OF ANY PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. ALL AREAS WITHIN 75 FEET OF A PROTECTED NATURAL RESOURCE MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS NOVEMBER 1 THROUGH APRIL 15. EXPOSED AREAS UPGRADATION TO AND LESS THAN 60 FEET OF ANY PROTECTED NATURAL RESOURCE MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS, OR PRIOR TO A STORM EVENT.
19. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THE PROJECT.
20. EXISTING ACCESS ROADS TO BE MAINTAINED SHALL BE SMOOTHED AND RESURFACED AS NECESSARY TO PROVIDE AN ACCEPTABLE SURFACE.
21. THE CONTRACTOR SHALL SECURE PERMITS FROM THE STATE AND TOWN OF HOLLISTON AS NECESSARY BEFORE DRIVING CONSTRUCTION EQUIPMENT OVER AND ACROSS STATE AND TOWN MAINTAINED ROADS.
22. ALL WORK IN THE PUBLIC RIGHTS OF WAY SHALL CONFORM WITH THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES".
23. WHERE APPROVAL OR DIRECTION BY AN ENGINEER IS SPECIFIED, THIS INCLUDES A QUALIFIED ENGINEER OR PROFESSIONAL (MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER (PE), CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENTATION CONTROL (CPESC), OR SIMILAR SPECIALIST).

CONTRACTOR SHALL MAINTAIN THE PROJECT SITE IN ACCORDANCE WITH THE FOLLOWING PERFORMANCE STANDARDS

- 1. SPILL PREVENTION.** CONTROLS SHALL BE IN PLACE TO PREVENT POLLUTANTS FROM BEING DISCHARGED FROM MATERIALS USED AND STORED ONSITE. APPROPRIATE CONTROLS INCLUDE, BUT ARE NOT LIMITED TO, PROPER STORAGE PRACTICES THAT MINIMIZE EXPOSURE OF MATERIALS TO STORMWATER, AND APPROPRIATE SIFT, PREVENTION, CONTAINMENT, AND RESPONSE PLANNING AND IMPLEMENTATION.
- 2. GROUNDWATER PROTECTION.** DURING CONSTRUCTION, THE CONTRACTOR MAY NOT STORE OR HANDLE LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER IN AREAS OF THE PROJECT SITES DRAINING TO AN INFILTRATION AREA OR WITHIN 100 FEET OF A CRITICAL RESOURCE AREA OR STREAM, DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORING AND HANDLING LIQUID HAZARDOUS MATERIALS.
- 3. FUGITIVE SEDIMENT AND DUST.** CONTRACTOR SHALL TAKE ALL NECESSARY ACTIONS TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OPERATIONS DURING DRY WEATHER SHALL BE MODIFIED TO PREVENT DUST. DUST SUPPRESSION SHALL BE USED AS NECESSARY TO PREVENT DUST. MORE FREQUENTLY AS NEEDED WITH WATER. CALCIUM CHLORIDE AND OIL MAY NOT BE USED FOR DUST CONTROL. CONTRACTOR SHALL MONITOR VEHICLES ENTERING AND EXITING THE PROJECT SITE FOR EVIDENCE OF TRACKING MUD ONTO PUBLIC OR PRIVATE PROPERTY. IF TRACKING IS OBSERVED, THE CONTRACTOR SHALL STOP THE VEHICLE, CLEAN IT, AND PREVENT TRACKING ON ROAD AREAS EXPERIENCING TRACKING. PAVED SURFACES SHALL BE VACUUM SWEEPED WHEN IF OFF-SITE TRACKING OCCURS ON PUBLIC ROADS, THEY SHOULD BE SWEEP IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. DURING THE MUD SEASON IT MAY BE NECESSARY TO INCREASE THE SIZE OF STABILIZED CONSTRUCTION ENTRANCES OR PROVIDE A WHEEL WASHING STATION.
- 4. DEBRIS AND OTHER MATERIALS.** CONTRACTOR SHALL MANAGE ALL LITTER, CONSTRUCTION DEBRIS, FROM CONSTRUCTION ACTIVITIES, AND PREVENT AND LANDSCAPING MATERIALS EXPOSED TO STORMWATER TO PREVENT MATERIALS FROM BECOMING A SOURCE OF POLLUTION.
- 5. CONSTRUCTION DEWATERING.** TRENCH Dewatering IS THE REMOVAL OF WATER FROM TRENCHES, FOUNDATIONS, Coffer Dams, Ponds, Sumps, Basins, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION. IN MOST CASES THE COLLECTED WATER IS HEAVILY SILTED AND HINDERS CORRECT AND SAFE CONSTRUCTION PRACTICES. THE CONTRACTOR SHALL REMOVE COLLECTED WATER FROM THE PONDED AREAS, EITHER THROUGH GRAVITY OR THROUGH PUMPING. MAINLINE DRAINAGE THROUGHOUT THE PROJECT WORK AREA SHALL BE MAINTAINED. THE CONTRACTOR IS DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE (E.G. COFFERDAM SEDIMENT BASIN). THE CONTRACTOR SHALL AVOID PRACTICES THAT ALLOW SEDIMENT LOADED WATER FROM DEWATERING TO FLOW OVER DISTURBED AREAS OF THE PROJECT SITE. OTHER MEASURES TO PREVENT SEDIMENT FROM BEING UTILIZED SHALL BE REVIEWED AND APPROVED BY THE ENGINEER AND, IF NECESSARY, THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
- 6. AUTHORIZED NON-STORMWATER DISCHARGES.** THE CONTRACTOR SHALL IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHEN ALLOWED NON-STORMWATER DISCHARGES EXIST, THEY MUST BE IDENTIFIED AND STEPS SHALL BE TAKEN TO ENSURE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENTS OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE: DISCHARGES FROM FIREFIGHTING OPERATIONS, HYDRO-PNEUMATIC TANKS, RAINWATER COLLECTION, UNAUTHORIZED STORMWATER DISCHARGES INCLUDE, BUT ARE NOT LIMITED TO, PAVEMENT WASHWATER (EXCLUDING AREAS OF SPILLS OR LEAKS OF TOXICHAZAROUS MATERIALS AND USE OF DETERGENTS), UNCONTAMINATED GROUNDWATER OR SPRING WATER, FOUNDATION OR FOOTING DRAIN WATER WHERE FLOWS ARE NOT CONTAMINATED, UNCONTAMINATED EXCAVATION DEWATERING, POTABLE WATER SOURCES INCLUDING WAREHOUSE FLUSHING, AND LANDSCAPE IRRIGATION.
- 7. UNAUTHORIZED NON-STORMWATER DISCHARGES.** THE CONTRACTOR SHALL IDENTIFY AND PREVENT CONTAMINATION BY UNAUTHORIZED NON-STORMWATER DISCHARGES. UNAUTHORIZED NON-STORMWATER DISCHARGES INCLUDE, BUT ARE NOT LIMITED TO, WASTEWATER FROM CONCRETE CURBOUT, FUELS OR HAZARDOUS SUBSTANCES, AND DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING.
- 8. ADDITIONAL REQUIREMENTS.** COMPLETION OF THE WORK WILL REQUIRE FREQUENT ACCESS TO VARIOUS PORTIONS OF THE PROJECT AREA FROM STATE AND LOCAL ROADWAYS. CONTRACTOR SHALL MONITOR PUBLIC ROADWAYS AND SHALL CLEAN PAVEMENT BY MEANS NECESSARY IN THE EVENT THAT SEDIMENT OR TRACKING IS OBSERVED. SIGNAGE SHALL BE POSTED AT INTERSECTIONS OF PROJECT ACCESS ROADS AND PUBLIC WAYS, STATING COMPANY NAME AND 24-HOUR CONTACT PHONE NUMBER.

	SURVEYED PROPERTY BOUNDARY
	APPROXIMATE ABUTTING PROPERTY BOUNDARY
	BOUNDARY MONUMENT, FOUND
	IRON PIPE, FOUND
	WATER HYDRANT
	BENCHMARK, FOUND
	LIGHT POST
	EXISTING EDGE OF PAVEMENT/CONCRETE
	EXISTING EDGE OF GRAVEL
	EXISTING FENCE
	EXISTING OVERHEAD ELECTRIC & POLES
	EXISTING RIP RAP
	EXISTING TREE
	EXISTING BUILDING
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING SPOT ELEVATION
	EXISTING TREES AND/OR BRUSH
	FIELD DELINEATED WETLAND
	DEP WETLAND
	WETLAND FLAG & I.D.
	CERTIFIED VERNAL POOL IDENTIFIED
	POTENTIAL VERNAL POOL IDENTIFIED
	FIELD DELINEATED STREAM OR WATERBODY
	DEP MAPPED STREAM
	25' NO-DISTURBANCE BUFFER
	100' WETLAND BUFFER
	200' RIVERFRONT AREA
	FEMA 100-YEAR FLOOD ZONE
	APPROXIMATE FLOOD ZONE LIMIT
	PROPOSED GRAVEL ACCESS
	PROPOSED CONCRETE EQUIPMENT PAD
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED TREE LINE/CLEARING LIMITS
	PROPOSED CHAIN LINK FENCE
	PROPOSED OVERHEAD ELECTRIC LINE AND POLES
	PROPOSED MV UNDERGROUND ELECTRIC LINE

ZONING DISTRICTS SUMMARY TABLE									
GENERAL ZONING DISTRICT					OVERLAY ZONING DISTRICTS				
AGRICULTURAL-RESIDENTIAL DISTRICT B (AR-2)					WELLHEAD PROTECTION AREA ZONE 1A, ZONE 3, MA DEP APPROVED ZONE II				

DIMENSIONAL STANDARDS								
DISTRICT	MIN. FRONT YARD SETBACK		MIN. SIDE YARD SETBACK		MIN. REAR YARD SETBACK		BUILDING MAX. HEIGHT	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED
AGRICULTURAL-RESIDENTIAL DISTRICT B (AR-2)	40'	380'	30'	70'	40'	115'	35'	12'

ID	NAME	SLOPE RANGE	TEXTURE	HYDROLOGIC SOIL GROUP
52A	FREETOWN MUCK	0 - 1%	MUCKY PEAT	B/D
253D	HINCKLEY	15 - 25%	LOAMY SAND	A
254C	MERRIMAC	8 - 15%	FINE SANDY LOAM	A
255B	WINDSOR	3 - 8%	LOAMY SAND	A
424C	CANTON	8 - 15%	FINE SANDY LOAM	A

SPECIFICS OF HOW WORK IS TO BE COMPLETED SHALL ALSO BE BASED ON ENVIRONMENTAL CONSIDERATIONS ASSOCIATED WITH SEASONAL CHANGES. THE FOLLOWING DATES ARE PROVIDED TO ESTABLISH A GENERAL GUIDELINE FOR THESE SEASONS:

- WINTER:	NOVEMBER 1 TO MARCH 19
- MUD SEASON:	MARCH 20 TO APRIL 30
- SPRING:	MAY 1 TO JUNE 21
- SUMMER:	JUNE 22 TO SEPTEMBER 21
- FALL:	SEPTEMBER 22 TO OCTOBER 31

IN GENERAL, FERTILIZER AND LIME APPLICATION RATES WILL FOLLOW THE GUIDELINES IDENTIFIED BELOW UNLESS SITE SPECIFIC SOIL TESTS IDENTIFY THE NEED FOR ALTERNATIVE FERTILIZER/LIME APPLICATION RATES. FERTILIZER WILL BE APPLIED TO UPLAND AREAS PRIOR TO SEEDING AT A RATE OF 600 POUNDS PER ACRE USING 0-10-10 ANALYSIS OR EQUIVALENT. GROUND LIMESTONE (EQUIVALENT TO 40 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) WILL BE APPLIED AT A RATE OF 2.5 TONS PER ACRE. AN EQUIVALENT MIXTURE OF FERTILIZER AND LIME MAY BE APPLIED USING THE HYDROSEEDING METHOD. NO LIME OR FERTILIZER WILL BE APPLIED TO WETLANDS.

ON SLOPES GREATER THAN 3 PERCENT, STRAW MULCH WILL BE FIRMLY ANCHORED INTO THE SOIL UTILIZING ONE OF THE FOLLOWING METHODS:

- CRIMPING WITH A STRAIGHT OR NOTCHED MULCH CRIMPING TOOL (FARM DISCS WILL NOT BE ALLOWED);
- TRACK WALKING WITH DEEP-CLEATED EQUIPMENT OPERATING UP AND DOWN THE SLOPE (MULCH CRIMPED PERPENDICULAR TO THE SLOPE) ON SLOPES <25 PERCENT;
- APPLICATION OF MULCH NETTING;
- APPLICATION OF 1000 LB./ACRE OF WOOD FIBER MULCH OVER STRAW/HAY MULCH; AND
- COMMERCIALLY AVAILABLE TACKIFIERS (EXCEPT WITHIN 100 FEET OF WATERBODIES OR WETLANDS).

PARCEL ID	PARCEL ADDRESS	PARCEL AREA (AC.)	OWNER NAME	OWNER ADDRESS	TOWN	STATE	ZIP CODE
009.0-0004-0062.0	600 CENTRAL ST	8.512	CHRIST THE KING LUTHERAN CHURCH	600 CENTRAL ST	HOLLISTON	MA	01746

PARCEL ID	PARCEL ADDRESS	OWNER NAME	OWNER ADDRESS	TOWN	STATE	ZIP CODE
009-0-0004-0028.0	0 CENTRAL ST	OLDE OAKS HOMEOWNERS ASSOC INC	54 PILGRIM ROAD	HOLLISTON	MA	01746
009-0-0004-0030.0	662 CENTRAL ST	PUPOLO, ANTHONY D. & DONNA	662 CENTRAL STREET	HOLLISTON	MA	01746
009-0-0004-0044.0	0 FISK ST	CENTURY-TY WOOD MANUFACTURING INC	79 LOWLAND ST	HOLLISTON	MA	01746
009-0-0004-0045.0	383 FISK ST	CENTURY-TY WOOD MANUFACTURING INC	79 LOWLAND ST	HOLLISTON	MA	017462030
009-0-0004-0046.0	349 FISK ST	COCKRILL, HUSTON G & CAROLINE A	349 FISK ST	HOLLISTON	MA	01746
009-0-0004-0062.0	600 CENTRAL ST	CHRIST THE KING LUTHERAN CHURCH	600 CENTRAL ST	HOLLISTON	MA	01746
009-0-0004-0063.0	654 CENTRAL ST	BYERS, ANNE E	654 CENTRAL ST	HOLLISTON	MA	01746
009-0-0004-0080.0	4 PILGRIM RD	JOHAL, GURDISH S & HARMINDER K	4 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0081.0	3 PILGRIM RD	RAYMER, BRIAN & KIMBERLEE	3 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0084.0	19 PILGRIM RD	MCDONALD, BENJAMIN E.	19 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0085.0	29 PILGRIM RD	BUREAU, DANA D & TANYA D	29 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0086.0	37 PILGRIM RD	QUINAN, JOSEPH & ALISON REED	37 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0087.0	47 PILGRIM RD	MCSHANE, BRIAN M & MEREDITH	47 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0088.0	57 PILGRIM RD	KELLY, BRIAN G & JUDY M	57 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0089.0	71 PILGRIM RD	CUMMINS, CHRISTOPHER S	71 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0090.0	81 PILGRIM RD	FLANAGAN, CHRISTOPHER & ANNA S	81 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0091.0	87 PILGRIM RD	RANDALL, MARCIE SCHEIN	87 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0092.0	99 PILGRIM RD	DE FARIA, FABRICIO L	99 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0094.0	82 PILGRIM RD	STANWELL, SCOTT A & CAROLYN R	82 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0095.0	74 PILGRIM RD	KELLY, DESMOND M & JOAN H	74 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0096.0	68 PILGRIM RD	PENNYPACKER, KATHI L	68 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0097.0	60 PILGRIM RD	ARMES, ROBERT C	60 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0098.0	54 PILGRIM RD	PIPE, RONALD W. & JULIE C.	54 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0099.0	46 PILGRIM RD	BARNARD, PAUL A & LINDA J	46 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0100.0	38 PILGRIM RD	O'NEILL, SEAN P & KRISTEN G	38 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0101.0	28 PILGRIM RD	DILLON, WILLIAM A & HEATHER J.	28 PILGRIM RD	HOLLISTON	MA	01746
009-0-0004-0102.0	20 PILGRIM RD	KAMPERSS, THOMAS A & JULIE A.	20 PILGRIM ROAD	HOLLISTON	MA	01746
009-0-0005-0136.0	567 CENTRAL ST	GERRY, THOMAS B & BETHANY J	567 CENTRAL ST	HOLLISTON	MA	01746
009-0-0005-0137.0	565 CENTRAL ST	KIPP, DAVID & LAURA	565 CENTRAL ST	HOLLISTON	MA	01746
009-0-0005-0138.0	631 CENTRAL ST	MILLER, JESSICA ANN	631 CENTRAL STREET	HOLLISTON	MA	01746
009-0-0005-0138.8	0 CENTRAL ST	HOLLISTON, TOWN OF	TOWN HALL	HOLLISTON	MA	01746
009-0-0005-0139.0	623 CENTRAL ST	ROWE, MARGARET M TRUSTEE	623 CENTRAL STREET	HOLLISTON	MA	01746
009-0-0005-0140.0	607 CENTRAL ST	TRUITT, DAVID P & LINDA A TTEES	607 CENTRAL ST	HOLLISTON	MA	01746
009-0-0005-0141.0	597 CENTRAL ST	RONSTADT, JASON ALEXANDER	597 CENTRAL ST	HOLLISTON	MA	01746
009-0-0005-0143.0	22 DALTON RD	BEESLEY, CHAD	22 DALTON RD	HOLLISTON	MA	01746
009-0-0005-0162.0	25 DALTON RD	GEBBSY, KATHRYN ALANDEES TTEE	25 DALTON RD	HOLLISTON	MA	01746
009-0-0006-0002.0	655 CENTRAL ST	LACONTE, NANCY J & ARTHUR M TTEES	655 CENTRAL ST	HOLLISTON	MA	01746

SEED MIX SPECIFICATIONS		
SEED MIX NAME	SEED MIX COMPONENTS	LB./ACRE <sup>1</sup>
TEMPORARY SEED MIX	ANNUAL RYEGRASS	40
PERMANENT SEED MIX	PERMANENT SEED MIXTURE #1 PART III, E&SC PRACTICES (OR APPROVED EQUAL)	25
SUPPLEMENTAL WINTER SEED MIX <sup>2</sup>	WINTER RYEGRASS	120

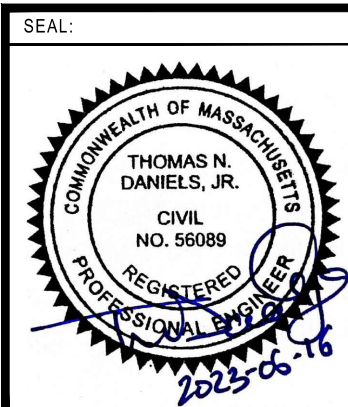
NOTES:

1. INCREASE SEEDING RATES 10% WHEN HYDROSEEDING
2. WINTER RYE WILL BE ADDED TO PERMANENT SEED MIX AT A RATE OF 120 LB./ACRE BETWEEN AUGUST 15 AND OCTOBER 15

CONDITION	TIMING	MULCH TYPE	APPLICATION RATES
TEMPORARY			
INACTIVE AREAS	IF NO ACTIVITY IN EXPOSED AREAS FOR 7 DAYS, OR PRIOR TO A STORM EVENT	STRAW MULCH OR WOOD FIBER MULCH OR EROSION CONTROL MIX	1000 LB /ACRE 1000 LB /ACRE 2" THICK OVER AREA
ALL DISTURBED AREAS OF THE CONSTRUCTION WORKSPACE	APPLY MULCH TO ALL EXPOSED AREAS IF NO ACTIVITY OCCURS WITHIN 30 DAYS. APPLY MULCH AND TEMPORARY SEEDING SOONER WHEN IT CAN BE ANTICIPATED THAT ACTIVITY IS NOT GOING TO OCCUR WITHIN 30 DAYS.	STRAW MULCH OR WOOD FIBER MULCH	1000 LB /ACRE
ALL WORK AREAS EXPOSED ARE TO BE MULCHED DAILY EACH TIME SOIL IS DISTURBED <sup>7</sup>	NOVEMBER 1 - APRIL 15	STRAW MULCH OR WOOD FIBER MULCH	1000 LB /ACRE
PERMANENT			
ON ALL EXPOSED AREAS AFTER SEEDING TO STABILIZE THE SOIL SURFACE	PERMANENT GRASS AND/OR LEGUME SEEDING COVERED BY STRAW MULCH ON ALL AREAS THAT HAVE BEEN RESTORED TO FINAL GRADE. THIS DOES NOT APPLY TO AREAS STABILIZED BY OTHER MEANS SUCH AS JUTE MATTING OR PERMANENT EROSION CONTROL MIX.	CRIMPED STRAW MULCH OR PAPER MULCH OR WOOD FIBER MULCH	1000 LB /ACRE

CONDITION	TIMING	SEED MIX
TEMPORARY SEEDING <sup>3</sup>	TEMPORARY SEED BETWEEN APRIL 1 AND JUNE 30 OR SEPTEMBER 1 AND SEPTEMBER 30. DISTURBED AREAS OR SOIL STOCKPILES WILL BE SEEDDED IMMEDIATELY IF FURTHER DISTURBANCE IS NOT EXPECTED FOR 30 DAYS OR MORE.	TEMPORARY SEED MIX
PERMANENT SEEDING <sup>3,4</sup>	SEED BETWEEN APRIL 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 10	PERMANENT SEED MIX
UPLAND PORTIONS OF THE CONSTRUCTION AREA	DISTURBED AREA WILL BE SEEDDED WITHIN 7 DAYS OF FINAL GRADING.	PERMANENT SEED MIX
SLOPES > 3:1	DISTURBED AREA WILL BE SEEDDED IMMEDIATELY AFTER SEEDBED PREPARATION.	PERMANENT SEED MIX
WINTER DORMANT SEEDING	DORMANT SEED BETWEEN NOVEMBER 1 AND DECEMBER 15 ONLY. NO SEEDING WILL OCCUR IF SNOW DEPTHS EXCEED 1 INCH.	PERMANENT SEED MIX PLUS SUPPLEMENTAL WINTER SEED MIX

NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER:

THOMAS N. DANIELS, JR.

DATE:  
JUNE 16, 2023

0	TRC	06/16/2023	ISSUED FOR PERMITTING	TND
NO.	BY	DATE	REVISION	APP'D.

PROJECT: **BLUEWAVE SOLAR**  
**BWC BOGASTOW BROOK, LLC**  
**HOLLISTON BATTERY ENERGY STORAGE SYSTEM**  
**CENTRAL STREET, HOLLISTON, MASSACHUSETTS**

TITLE: **GENERAL NOTES & LEGEND**

DRAWN BY:	TRC	PROJ. NO.:	412899.0001
CHECKED BY:	TND	<b>G1.01</b>	
APPROVED BY:	TND		
DATE:	JUNE 2023		



650 Suffolk Street  
Suite 200  
Lowell, MA 01854  
Phone: 978.970.5600

FILE NO.

412899.1 - G SHEETS.dwg



EROSION CONTROL NOTES

PROJECT DESCRIPTION

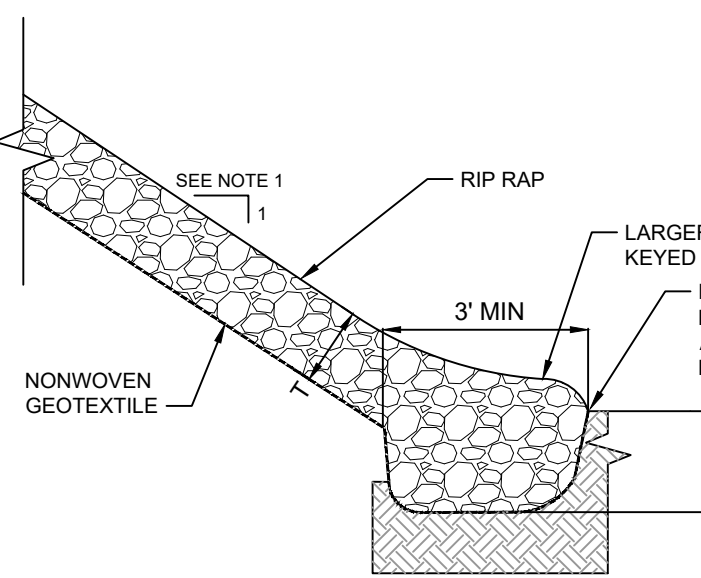
THE PROJECT INVOLVES THE CONSTRUCTION OF A BATTERY ENERGY STORAGE SYSTEM (BESS) AND ALL RELATED ACCESS ROADS, UTILITIES, SITE PREPARATION, CLEARING & GRUBBING, AND EROSION & SEDIMENTATION CONTROL MEASURES.

CONSTRUCTION SEQUENCE

1. ESTABLISH CONSTRUCTION WORKSPACE LIMITS; IDENTIFY AND MARK SENSITIVE RECEPTORS INCLUDING NATURAL RESOURCES AND DOWNGRADIENT DRAINAGE INFRASTRUCTURE.
2. INSTALLATION OF ALL EROSION AND SEDIMENT CONTROL MEASURES AND ASSOCIATED WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE "MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS".
3. PRIOR TO USAGE, CONSTRUCT AND STABILIZE THE CONSTRUCTION ENTRANCES IN THE LOCATIONS INDICATED ON THE EROSION CONTROL PLAN SHEET. AT A MINIMUM, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT EACH POINT SITE OF ACCESS/EGRESS FROM THE PROJECT AREA TO PAVED AREAS.
4. CLEAR TIMBER, BRUSH, AND COMPLETE TREE REMOVAL; GRUBBING SHALL NOT BE COMPLETED UNTIL JUST PRIOR TO PRELIMINARY GRADING AND ESTABLISHMENT AND STABILIZATION OF TEMPORARY OR PERMANENT DRAINAGE CONVEYANCES.
5. INSTALL AND MAINTAIN PERIMETER SEDIMENT BARRIERS SUCH AS SILT FENCING AND OTHER APPROVED EROSION CONTROL BARRIERS ALONG THE DOWNHILL LIMIT OF DISTURBANCE AS SHOWN ON THE DRAWINGS. SEDIMENT BARRIER LOCATIONS MAY BE ADJUSTED IN THE FIELD BASED ON ACTUAL SITE CONDITIONS AS DEEMED NECESSARY TO ENSURE PROPER FUNCTION. WHERE SILT FENCE CANNOT BE TOED-IN PROPERLY DUE TO TREE ROOTS, ROCKS, OR FROZEN GROUND, HAY BALES OR AN EROSION CONTROL MIX BERM MAY BE SUBSTITUTED. PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS SOON AS POSSIBLE BUT MAY FOLLOW INITIAL SITE PREPARATION. EROSION OR SEDIMENTATION ISSUES DEVELOPING DURING INITIAL SITE PREPARATION SHALL BE TEMPORARILY STABILIZED AS NECESSARY. SITE HAS WELL-DRAINED SOILS AND TEMPORARY SEDIMENT BASINS ARE NOT ANTICIPATED TO BE NEEDED AS SEDIMENT BARRIERS SHOULD BE ADEQUATE TO PREVENT OFFSITE SEDIMENTATION. HOWEVER, IF CONDITIONS AT THE TIME OF CONSTRUCTION DETERMINE THAT ADDITIONAL MEASURES ARE NEEDED, ENGINEER SHALL SPECIFY PROPERLY SIZED TEMPORARY SEDIMENT BASIN(S) OR OTHER MEASURE AS APPROPRIATE.
6. STABILIZE PERMANENT ACCESS ROAD SURFACES. PARKING AREAS, AND EQUIPMENT STORAGE AND LAYDOWN AREAS WITH MATTING, CRUSHED STONE, OR GRAVEL SUBBASE AS NECESSARY TO MINIMIZE RUTTING AND AVOID PONDING OF STORMWATER.
7. CONCURRENT WITH INITIATION OF SITE GRADING, CONSTRUCT CHECK DAMS AND HAYBALES TO MINIMIZE SEDIMENT IN SITE RUNOFF DURING CONSTRUCTION. DEWATERING SHALL BE IN ACCORDANCE WITH THE DEWATERING NOTES.
8. INSTALL PROPERLY SPACED STONE CHECK DAMS IN ANY SECTION OF DITCH WITHIN 24-HOURS OF FORMING, SHAPING, OR ROUGH GRADING THAT SECTION OF DITCH.
9. MINIMIZE THE AMOUNT OF DISTURBANCE AT ANY ONE TIME BY STAGING CONSTRUCTION AS MUCH AS PRACTICAL FOR EFFICIENT CONSTRUCTION OF THE FACILITY. NATURAL SLOPES SHOULD BE LEFT IN PLACE WHERE FEASIBLE TO AID IN EROSION CONTROL. SEDIMENT RETENTION AND REDUCE THE POTENTIAL FOR EROSION. OPEN AREA SHALL BE LIMITED TO NO MORE THAN CAN BE MULCHED IN A SINGLE DAY.
10. STABILIZE ANY DISTURBED SLOPES GREATER THAN 3H:1V AND ANY SECTION OF NEWLY CONSTRUCTED VEGETATED DITCH USING ANCHORED EROSION CONTROL BLANKETS OR OTHER APPROVED MULCHING TECHNIQUES WITHIN 24-HOURS. ALL VEGETATED DITCHES THAT HAVE NOT BEEN STABILIZED BY NOVEMBER 1, OR WILL BE WORKED ON BETWEEN NOVEMBER 1 AND APRIL 15, MUST BE STABILIZED WITH STONE LINING BACKED BY GRAVEL BED OR GEOTEXTILE AS SPECIFIED BY THE ENGINEER.
11. DUST CONTROL METHODS SHALL BE EMPLOYED AFTER GRADING AND PRIOR TO FINAL STABILIZATION TO PREVENT THE BLOWING AND MOVEMENT OF NUISANCE DUST THROUGH THE APPLICATION OF WATER AND/OR CALCIUM CHLORIDE.
12. APPLY TEMPORARY SEED AND MULCH TO EXPOSED AREAS WHERE ACTIVITY IS NOT ANTICIPATED FOR 30-DAYS. TEMPORARILY MULCH ANY EXPOSED AREAS AS FOLLOWS: (1) WITHIN 100-FEET OF A WETLAND OR NATURAL RESOURCE WHERE WORK IS NOT ANTICIPATED OR HAS NOT OCCURRED IN 7 DAYS, OR PRIOR TO A STORM EVENT; AND (2) ALL OTHER AREAS THAT WILL NOT BE ACTIVELY WORKED FOR MORE THAN 14 DAYS.
13. REMOVE EXCESS SPOILS FROM THE SITE THAT WILL NOT BE USED FOR THE FINAL DESIGN AND STABILIZATION. STOCKPILED SOILS THAT REMAIN IN PLACE FOR 48-HOURS OR MORE SHALL BE CONTAINED WITH SEDIMENT BARRIERS. THE SEDIMENT BARRIERS SHALL BE REINFORCED TO HANDLE A SIGNIFICANT RAIN EVENT AND THE POTENTIAL SLUMPING OF THE PILE. BETWEEN APRIL 15 AND OCTOBER 1, APPLY TEMPORARY SEED AND MULCH TO A STOCKPILE THAT IS NOT ANTICIPATED TO BE DISTURBED WITHIN 30-DAYS. APPLY ANCHORED MULCH DAILY AND/OR AS NEEDED DURING WINTER CONSTRUCTION.
14. INSPECT AND REPAIR EROSION CONTROL MEASURES DAILY IN AREAS OF ACTIVE CONSTRUCTION; OTHERWISE WEEKLY AND AFTER A RAINFALL EVENT OF 0.5-INCHES OR GREATER WITHIN A 24-HOUR PERIOD. REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES 1/2 OF THE HEIGHT OF THE BARRIER.
15. MONITOR PUBLIC ROADS FOR SIGNS OF TRACKING OR SPILLING OF SPOIL MATERIAL AND CLEAN-UP AS NECESSARY.
16. COMPLETE FINAL GRADING AND STABILIZATION OF EARTHEN STRUCTURES SUCH AS DIVERSION BERMS, LEVEL SPREADERS, AND SWALES THAT WILL CONTROL POST-CONSTRUCTION RUNOFF.
17. FINISH GRADE AND REPLACE TOPSOIL OR LOAM IN DISTURBED AREAS. SEED AND MULCH DISTURBED AREAS WITHIN 7 DAYS OF FINAL GRADING. BETWEEN NOVEMBER 1 AND APRIL 15, STABILIZE AREAS THAT ARE FINAL GRADED AT THE END OF EACH DAY.
18. MAINTAIN ALL TEMPORARY EROSION CONTROLS AND SEDIMENT BARRIERS UNTIL VEGETATION HAS BEEN ESTABLISHED OVER 90% OF THE AREA TO BE REVEGETATED. RESEED SPARSELY VEGETATED AREAS AS NECESSARY.
19. REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES ONCE THE SITE IS PERMANENTLY STABILIZED.

DEWATERING NOTES

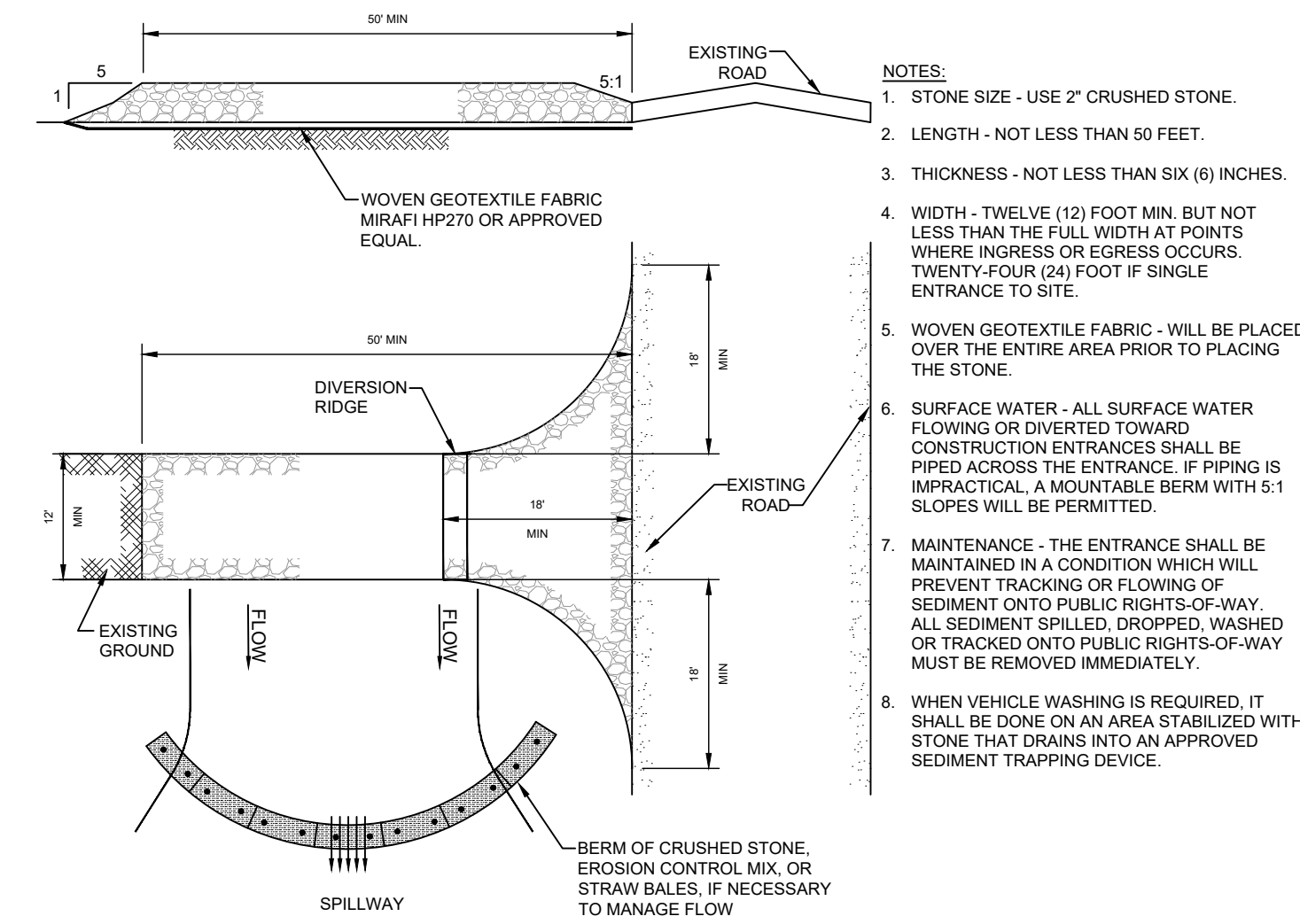
1. THE CONTRACTOR SHALL INSTALL, MAINTAIN, AND OPERATE ALL CHANNELS, SUMPS, AND OTHER TEMPORARY DIVERSION AND PROTECTIVE WORKS NEEDED TO DIVERT STREAM FLOW AND OTHER SURFACE WATER THROUGH OR AROUND THE CONSTRUCTION SITE. CONTROL OF SURFACE WATER SHALL BE CONTINUOUS DURING THE PERIOD THAT DAMAGE TO CONSTRUCTION WORK COULD OCCUR.
2. OPEN EXCAVATIONS SHALL BE DEWATERED AND KEPT FREE OF STANDING WATER AND MUDDY CONDITIONS AS NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ALL DRAINS, SUMPS AND ALL OTHER EQUIPMENT REQUIRED TO PROPERLY DEWATER THE SITE. DEWATERING SYSTEMS THAT CAUSE A LOSS OF SOIL FINES FROM THE FOUNDATION AREAS WILL NOT BE PERMITTED.
3. INSTALL DIVERSION DITCHES OR BERMS IF NECESSARY TO MINIMIZE THE AMOUNT OF CLEAN STORMWATER RUNOFF ALLOWED INTO THE EXCAVATION AREA.
4. REMOVAL OF WATER FROM THE CONSTRUCTION SITE SHALL BE ACCOMPLISHED SO THAT EROSION AND TRANSPORTATION OF SEDIMENT AND OTHER POLLUTANTS ARE MINIMIZED.
5. DISCHARGE DEWATERING EFFLUENT TO AREAS AS INDICATED ON THE SITE GRADING PLAN. DISCHARGE SHALL BE MANAGED TO ENSURE SHEET FLOW.
6. DEWATERING IN PERIODS OF INTENSE HEAVY RAIN OR WHEN THE INFILTRATIVE CAPACITY OF THE SOIL IS EXCEEDED, SHALL BE AVOIDED TO THE MAXIMUM EXTENT PRACTICABLE.
7. FLOW TO THE SEDIMENT REMOVAL STRUCTURE MAY NOT EXCEED THE STRUCTURE'S CAPACITY TO SETTLE AND FILTER FLOW OR THE STRUCTURE'S VOLUME CAPACITY.
8. WHEN TEMPORARY WORKS ARE NO LONGER NEEDED, THE CONTRACTOR SHALL REMOVE AND RETURN THE AREA TO A CONDITION SIMILAR TO THAT WHICH EXISTED BEFORE CONSTRUCTION. AREAS WHERE TEMPORARY WORKS WERE LOCATED SHALL BE GRADED FOR SIGHTLY APPEARANCE WITH NO OBSTRUCTION TO NATURAL SURFACE WATER FLOWS OR THE PROPER FUNCTIONING AND ACCESS TO THE WORKS OF IMPROVEMENTS INSTALLED. THE CONTRACTOR SHALL EXERCISE EXTREME CARE DURING THE REMOVAL STAGES TO MINIMIZE THE LOSS OF SOIL SEDIMENT AND DEBRIS THAT WAS COLLECTED DURING CONSTRUCTION.



- CONSTRUCTION NOTES:
1. SLOPE GRADED AS DEPICTED BY PROPOSED GRADES IN PLAN VIEW.
  2. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557 TO A DEPTH OF 12-INCHES.
  3. GEOTEXTILE SHALL BE MIRAFI 140N, OR ENGINEER APPROVED EQUAL AND SHALL BE KEYED IN AT THE UPPER LIMITS OF THE RIP RAPPED SLOPE.
  4. RIPRAP SIZING SHALL CONFORM TO MDOT 703.26.
  5. MINIMUM RIPRAP THICKNESS (T) OF RIPRAP COVER SHALL BE 15\"/>
  6. ENTRENCH THE TOE OF THE RIP RAPPED SLOPE USING LARGER ROCKS.

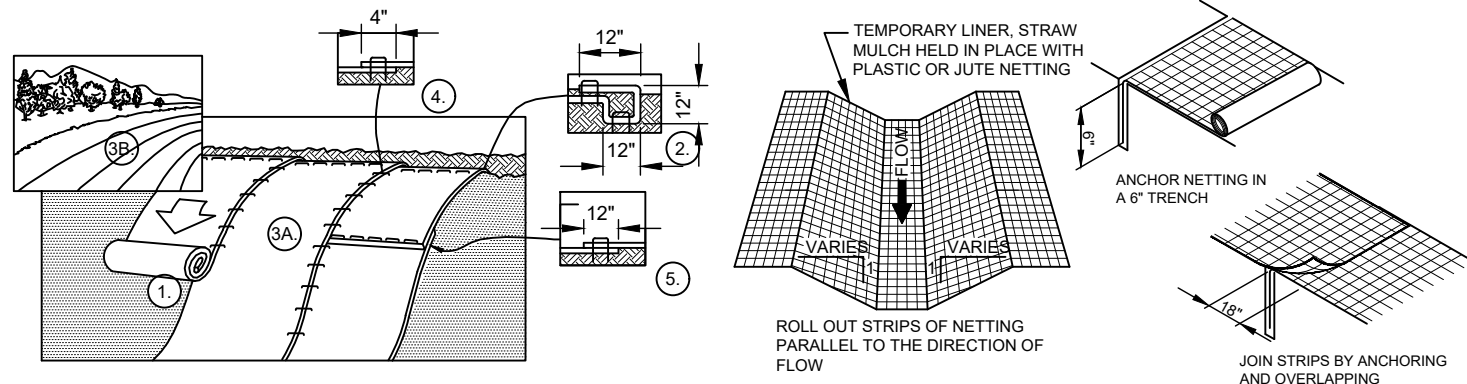
RIP RAP STABILIZATION DETAIL

NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELLO-SEED DO NOT SEED PREPARED AREA. CELLO-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 12\"/>
3. ROLL THE BLANKETS (A) DOWN THE SLOPE. HORIZONTAL (B) INSTALLATION MAY BE APPROPRIATE IN SOME INSTANCES AS APPROVED BY THE ENGINEER. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH A MINIMUM OF 4\"/>
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 12\"/>

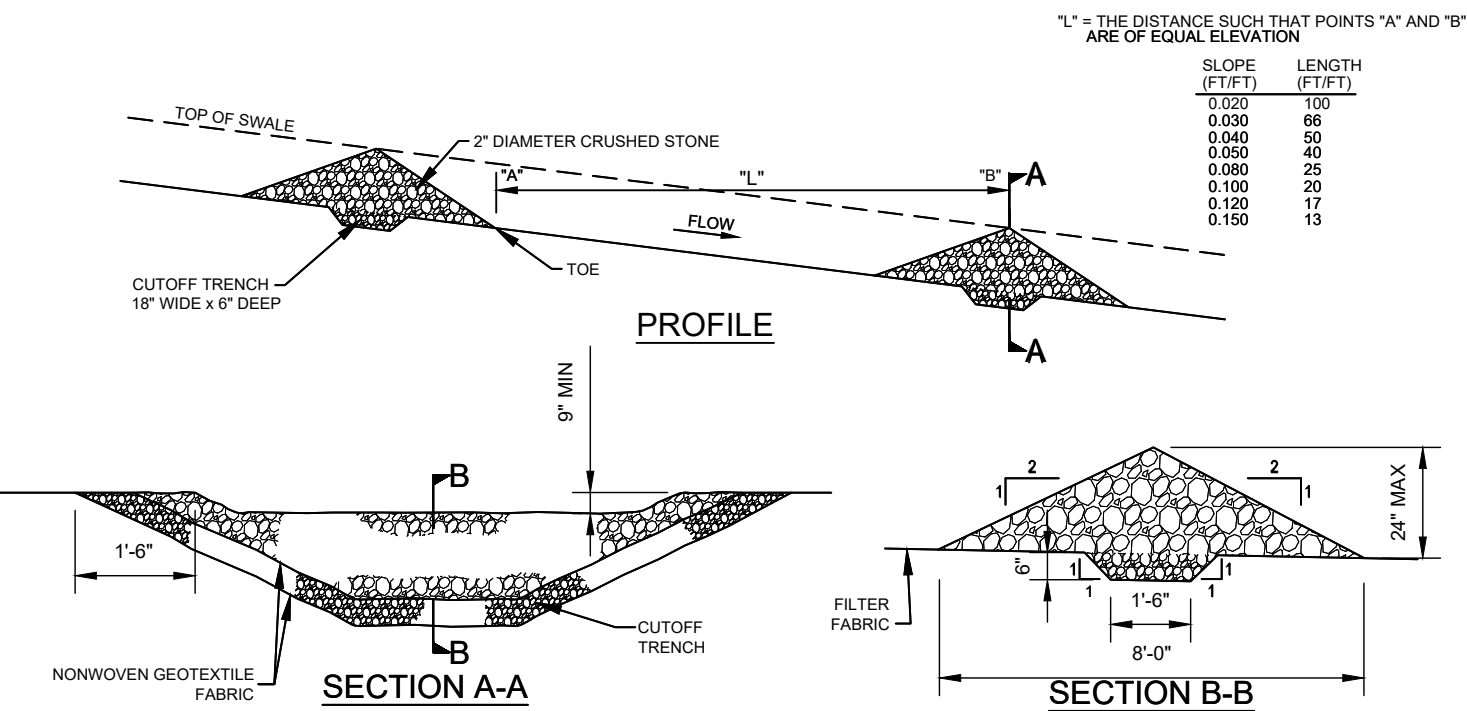
NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6\"/>

EROSION CONTROL BLANKET

NOT TO SCALE

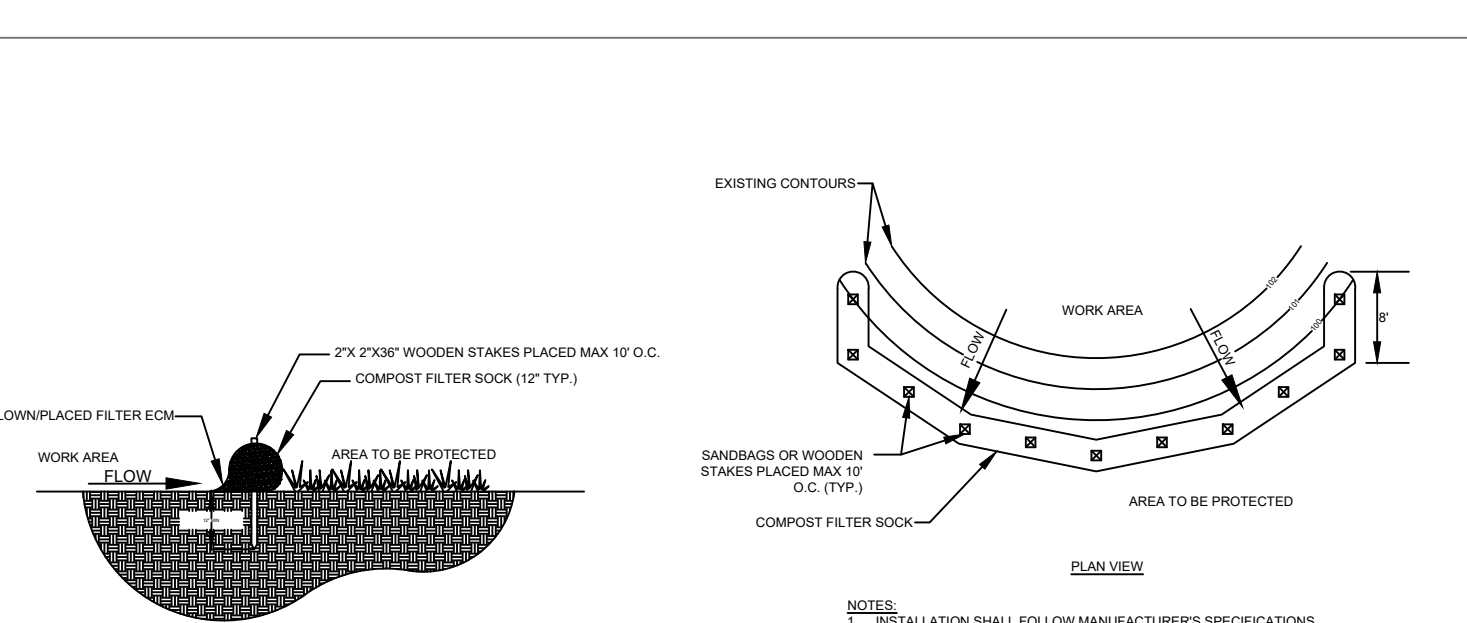
GRASS LINED DITCH

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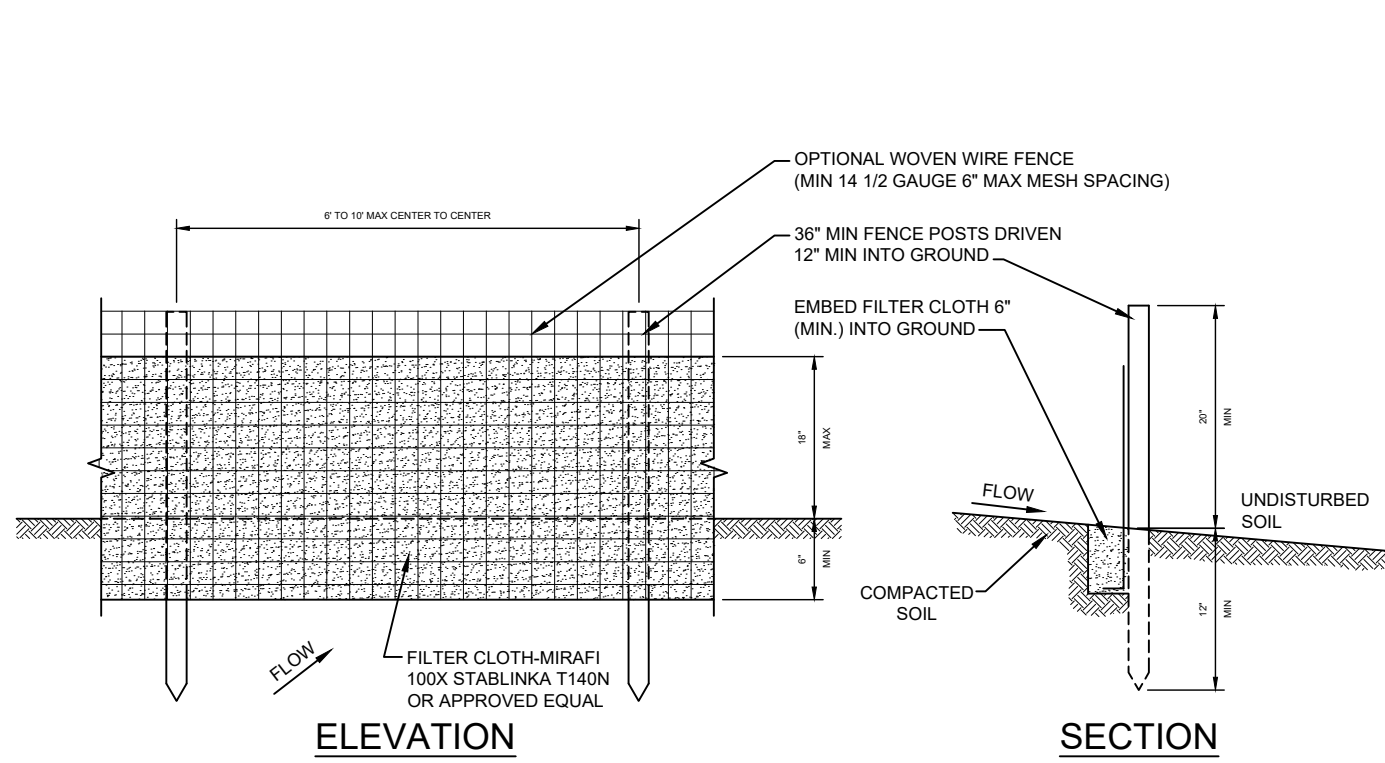
CHECK DAM DETAILS

NOT TO SCALE



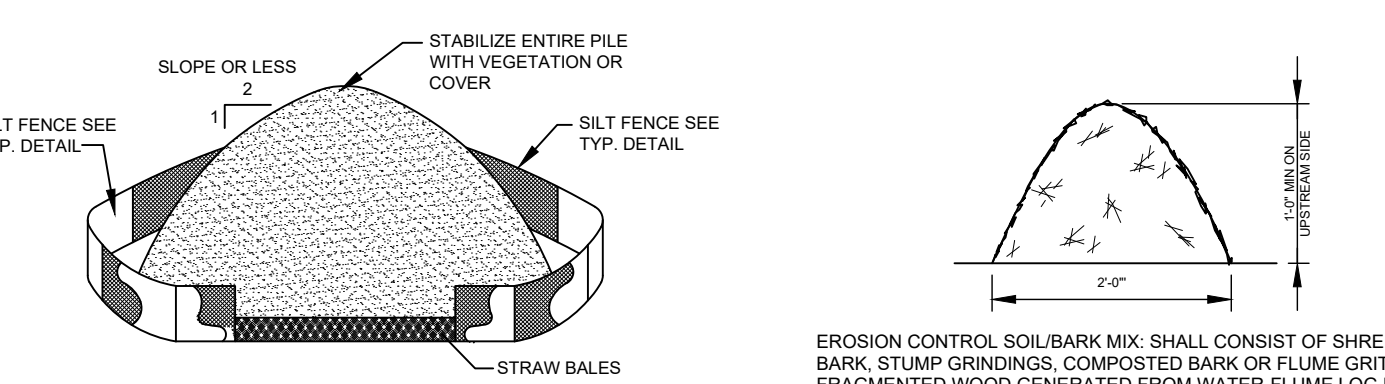
COMPOST FILTER SOCK

NOT TO SCALE



SILT FENCE DETAILS

NOT TO SCALE



INSTALLATION NOTES:

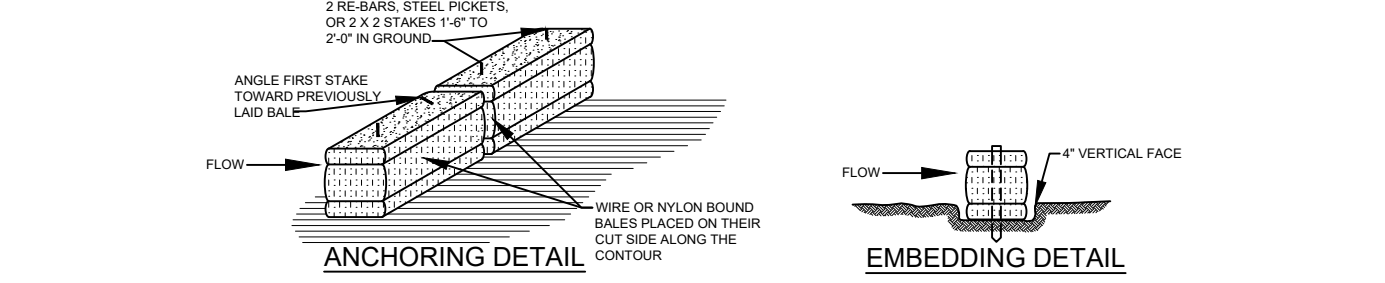
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

TYPICAL SOIL STOCKPILE

NOT TO SCALE

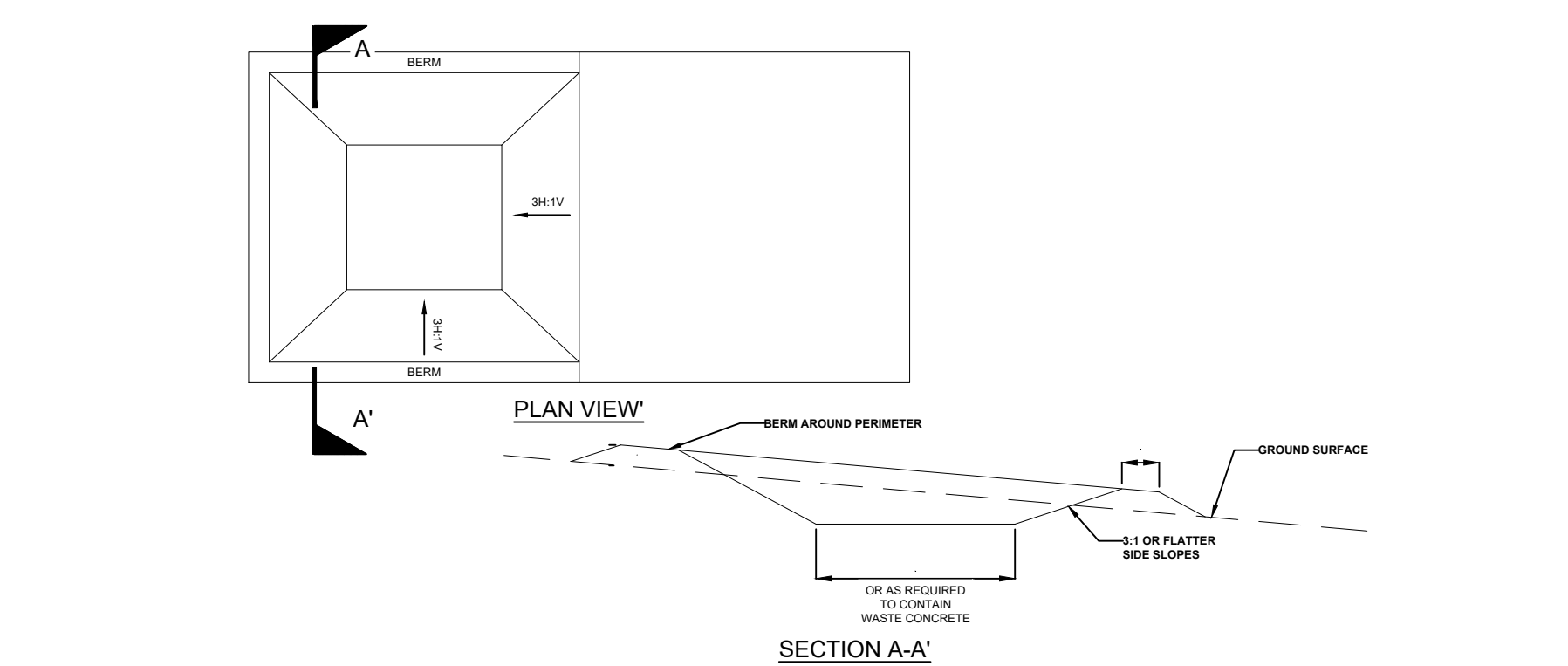
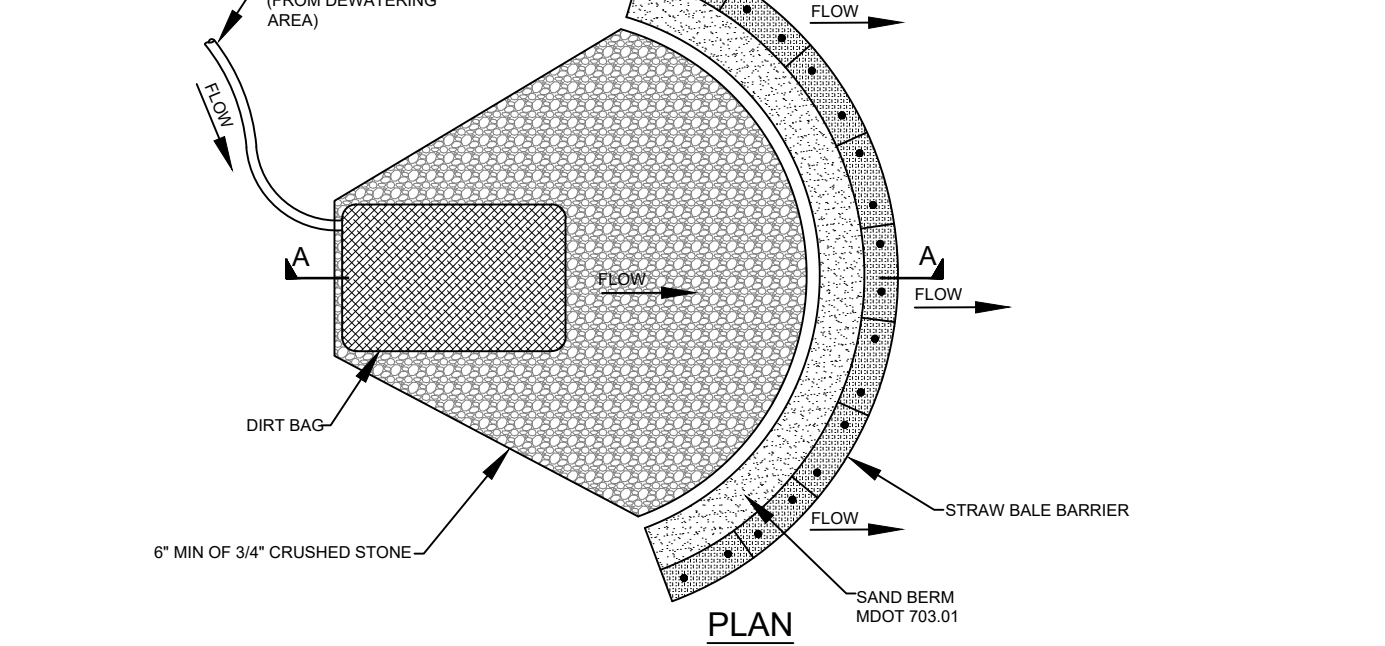
EROSION CONTROL BERM

NOT TO SCALE



STRAW BALE BARRIER

NOT TO SCALE



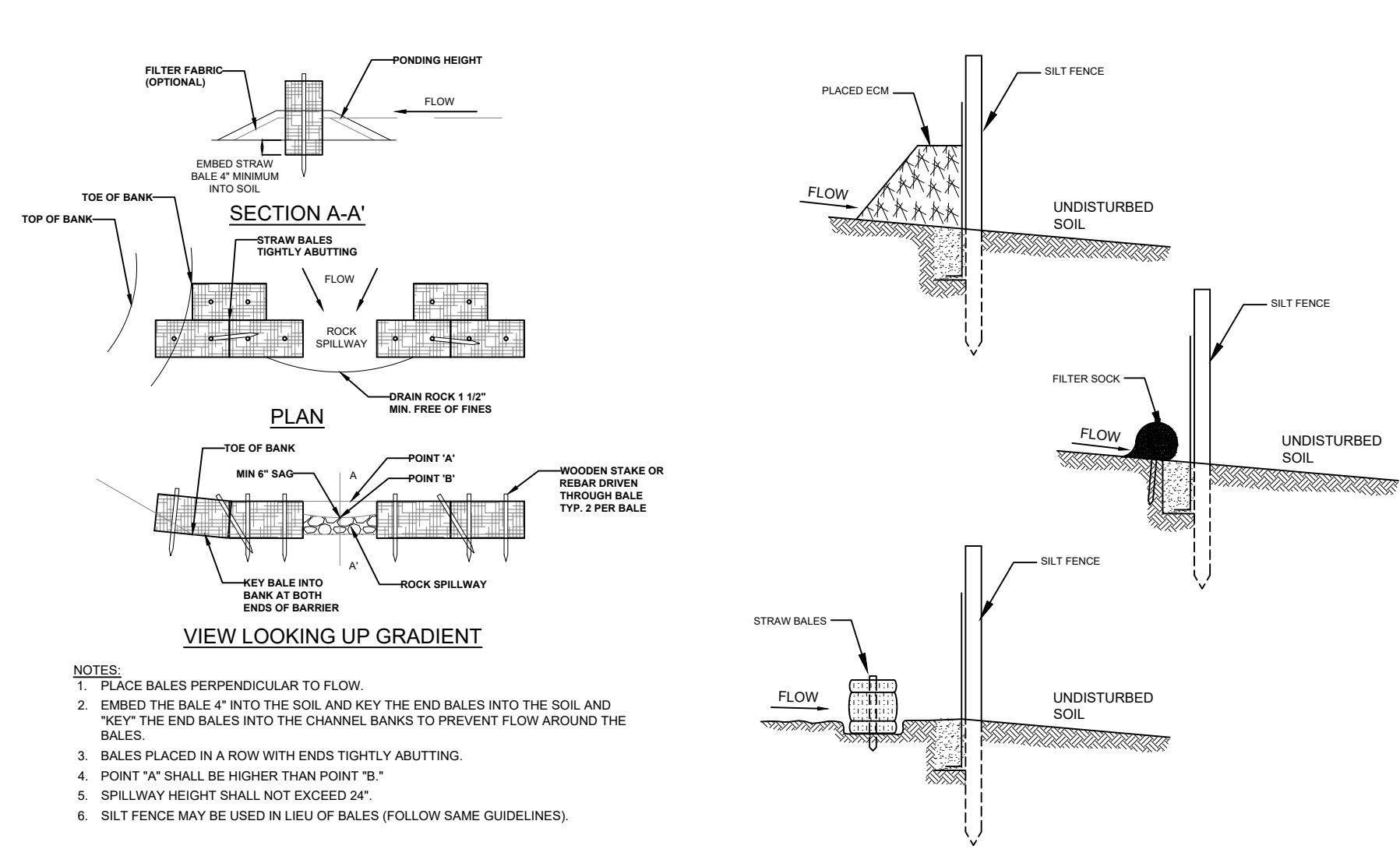
- CONCRETE WASHOUT AREA INSTALLATION AREA:
1. CONCRETE WASHOUT AREAS ARE TO BE INSTALLED WITHIN THE APPROVED WORK LIMITS IN THE LOCATION SHOWN ON THE SITE PLAN.
  2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON THE SITE.
  3. VEHICLE TRACKING CONTROL IS REQUIRED AT THE ACCESS POINT.
  4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRIS.
  5. MATERIAL EXCAVATED TO CREATE CONCRETE WASHOUT PIT SHALL BE UTILIZED TO CONSTRUCT PERIMETER BERM AROUND PIT.

CONCRETE WASHOUT AREA MAINTENANCE NOTES:

1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
2. AT THE END OF CONSTRUCTION, REMOVE ALL CONCRETE, COVER THE DISTURBED AREA WITH TOPSOIL, DRILL SEED AND CRIMP MULCH OR OTHERWISE STABILIZE IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

CONCRETE WASHOUT AREA

NOT TO SCALE

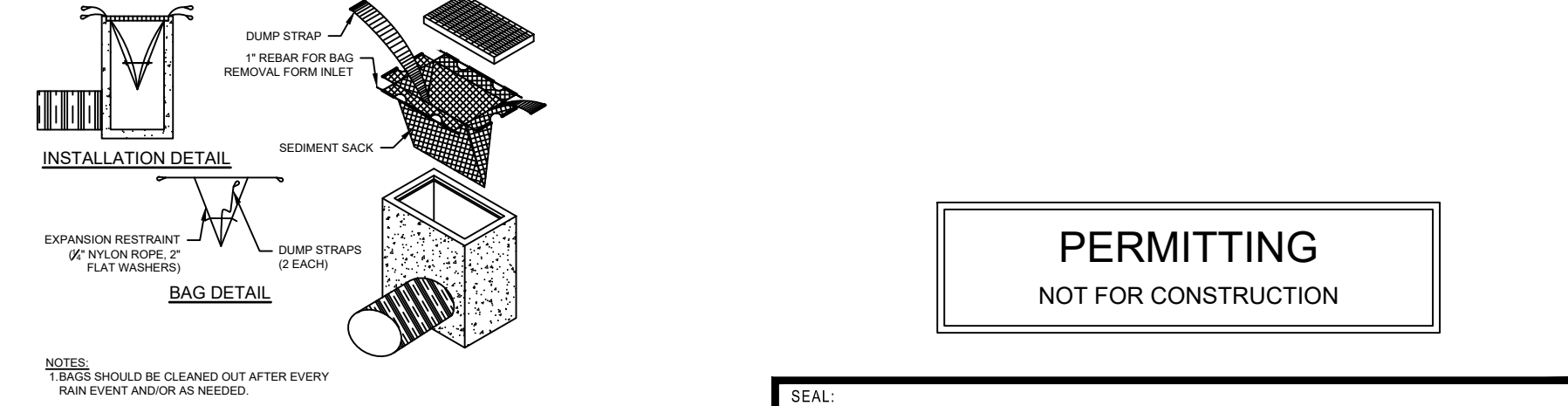


SEMI-PERVIOUS SEDIMENT BARRIER

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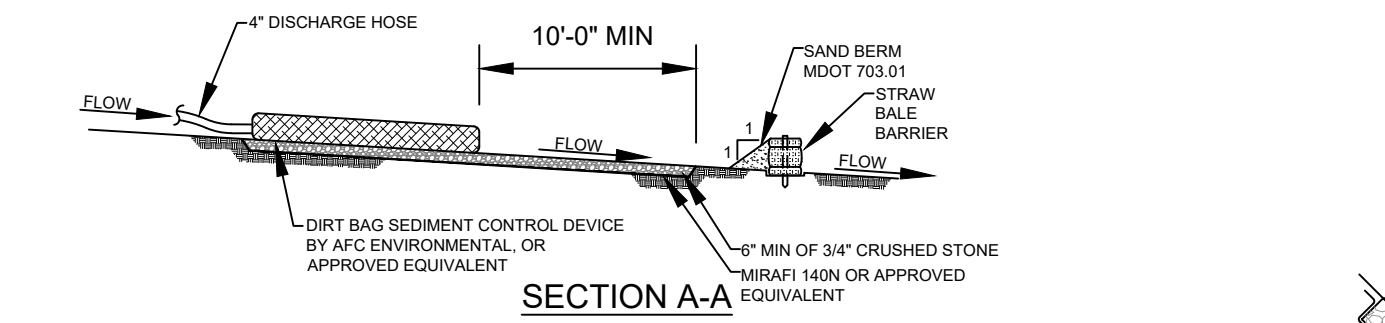
PAIRED PERIMETER CONTROLS FOR CRITICAL AREAS

NOT TO SCALE



CATCH BASIN INLET PROTECTION

NOT TO SCALE

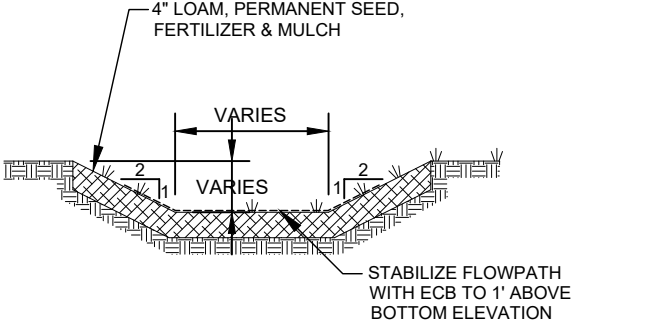


DEWATERING DETAIL NOTES:

1. DIRT BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER. I.E. FOR COARSE PARTICLES A WOVEN MATERIAL IS PREFERRED. FOR SILT/SOILS A NONWOVEN MATERIAL SHOULD BE IMPLEMENTED.
2. DO NOT OVER PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
3. LOCATE DISCHARGE SITE AS INDICATED ON THE SITE GRADING PLAN.
4. DOWNGRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION. E.G. PERMANENT VEGETATION OR COARSE GRAVEL/STONE.
5. DISCHARGE OF DEWATERING ACTIVITIES PROHIBITED WITHIN 25' OF A NATURAL RESOURCE.

EXCAVATION DEWATERING DETAIL

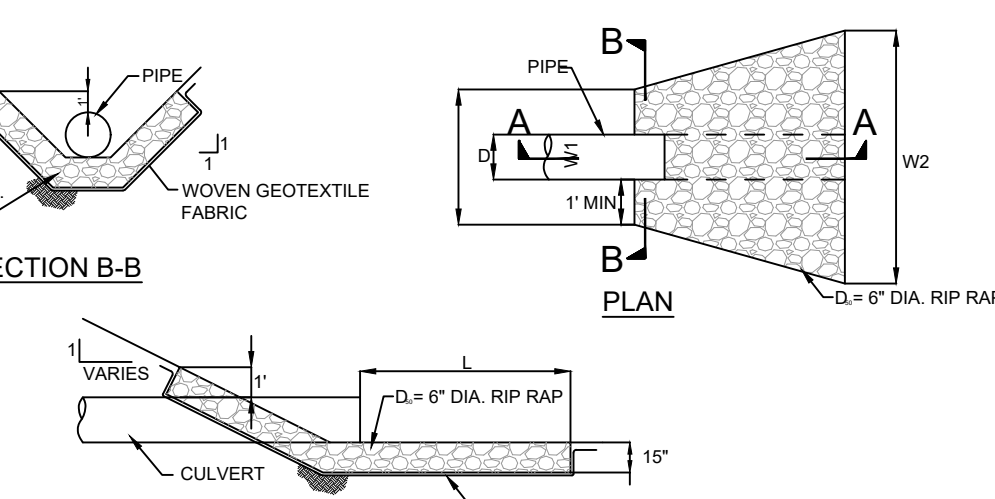
NOT TO SCALE



VEGETATED SWALE DETAIL

NOT TO SCALE

APRON SCHEDULE				
ID	CULVERT DIA. (D)	WIDTH 1 (W1)	WIDTH 2 (W2)	LENGTH (L)
INLET SD-1	12"	3'	10'	7'
OUTLET SD-1	12"	3'	10'	7'
OUTLET SD-2	4"	1'	4'	3'



- NOTES:
1. CULVERT SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PIPE.
  2. CONTRACTOR SHALL FIELD FIT CULVERT TO ENSURE THERE IS POSITIVE DRAINAGE.
  3. THERE SHALL BE A MINIMUM 1' OF SOIL COVER OVER CULVERT.

CULVERT INLET/OUTLET PROTECTION DETAIL

NOT TO SCALE

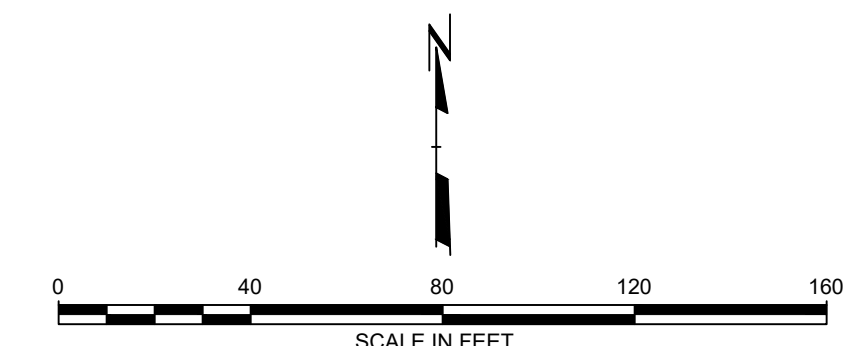
SEAL:		PROFESSIONAL ENGINEER:	
		THOMAS N. DANIELS, JR.	
DATE:		JUNE 16, 2023	
PROJECT: BLUEWAVE SOLAR BWC BOGASTOW BROOK, LLC HOLLISTON BATTERY ENERGY STORAGE SYSTEM CENTRAL STREET, HOLLISTON, MASSACHUSETTS			
TITLE: EROSION CONTROL NOTES & DETAILS			
DRAWN BY: TRC		PROJ. NO.: 412899.0001	
CHECKED BY: TND			
APPROVED BY: TND		G1.02	
DATE: JUNE 2023			
FILE NO.:		412899-1 - G SHEETS.dwg	



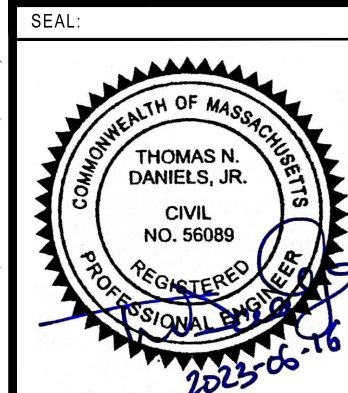


## NOTES

1. FEMA FLOOD MAPS DEPICT A BASE FLOOD ELEVATION OF 151 FEET. ACTUAL FLOOD ZONE LIMIT CONFIRMED BY SURVEYOR AS SHOWN IN PLAN.
2. WETLAND PROTECTION AREA DEP APPROVED ZONE III ENCOMPASSES FULL PROJECT SITE.



PERMITTING  
NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER:  
THOMAS N. DANIELS, JR.

DATE:  
JUNE 16, 2023

0	TRC	06/16/2023	ISSUED FOR PERMITTING		T
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NO.	DT	DATE	REVISION	AP
PROJECT:				
BLUEWAVE SOLAR				
BWC BOGASTOW BROOK, LLC				
HOLLISTON BATTERY ENERGY STORAGE SYSTEM				
CENTRAL STREET, HOLLISTON, MASSACHUSETTS				

TITLE: **EXISTING CONDITIONS PLAN**

DRAWN BY:	TRC	PROJ. NO:	412899
CHECKED BY:	TND	C1.00	
APPROVED BY:	TND		
DATE:	JUNE 2023		



FILE NO.: 412899.1 - EXISTING





1. FEMA FLOOD MAPS DEPICT A BASE FLOOD ELEVATION OF 151 FEET. ACTUAL FLOOD ZONE LIMIT CONFIRMED BY SURVEYOR AS SHOWN IN PLAN.
2. WETLAND PROTECTION AREA DEP APPROVED ZONE II ENCOMPASSES FULL PROJECT SITE.
3. EXISTING LEACH FIELD LOCATION TO BE CONFIRMED AND FLAGGED PRIOR TO START OF CONSTRUCTION AND PROTECTED THROUGHOUT CONSTRUCTION.



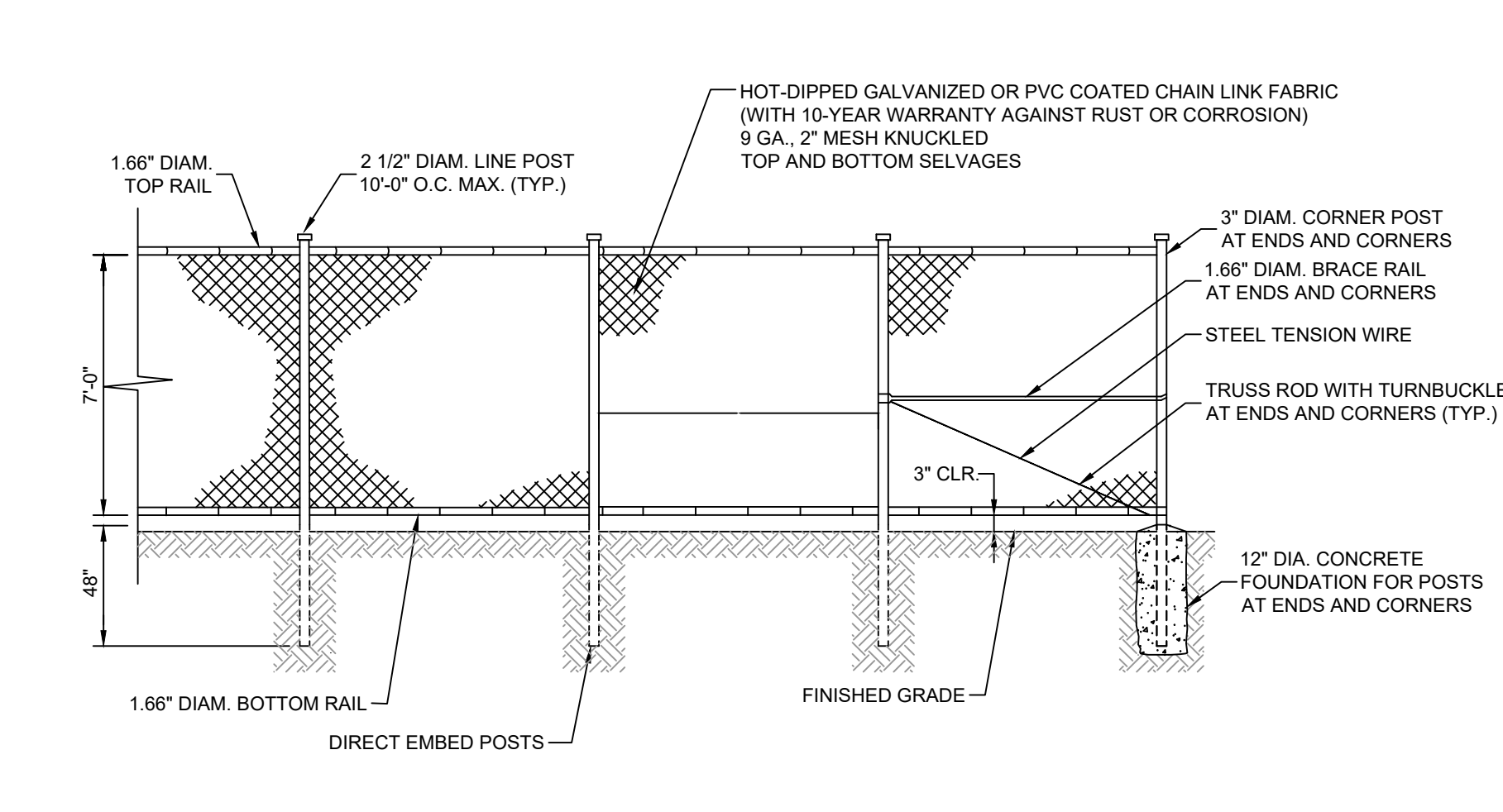
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DRAWING NAME: E:\RMD\ENV RMD Projects\BlueWave Energy\4







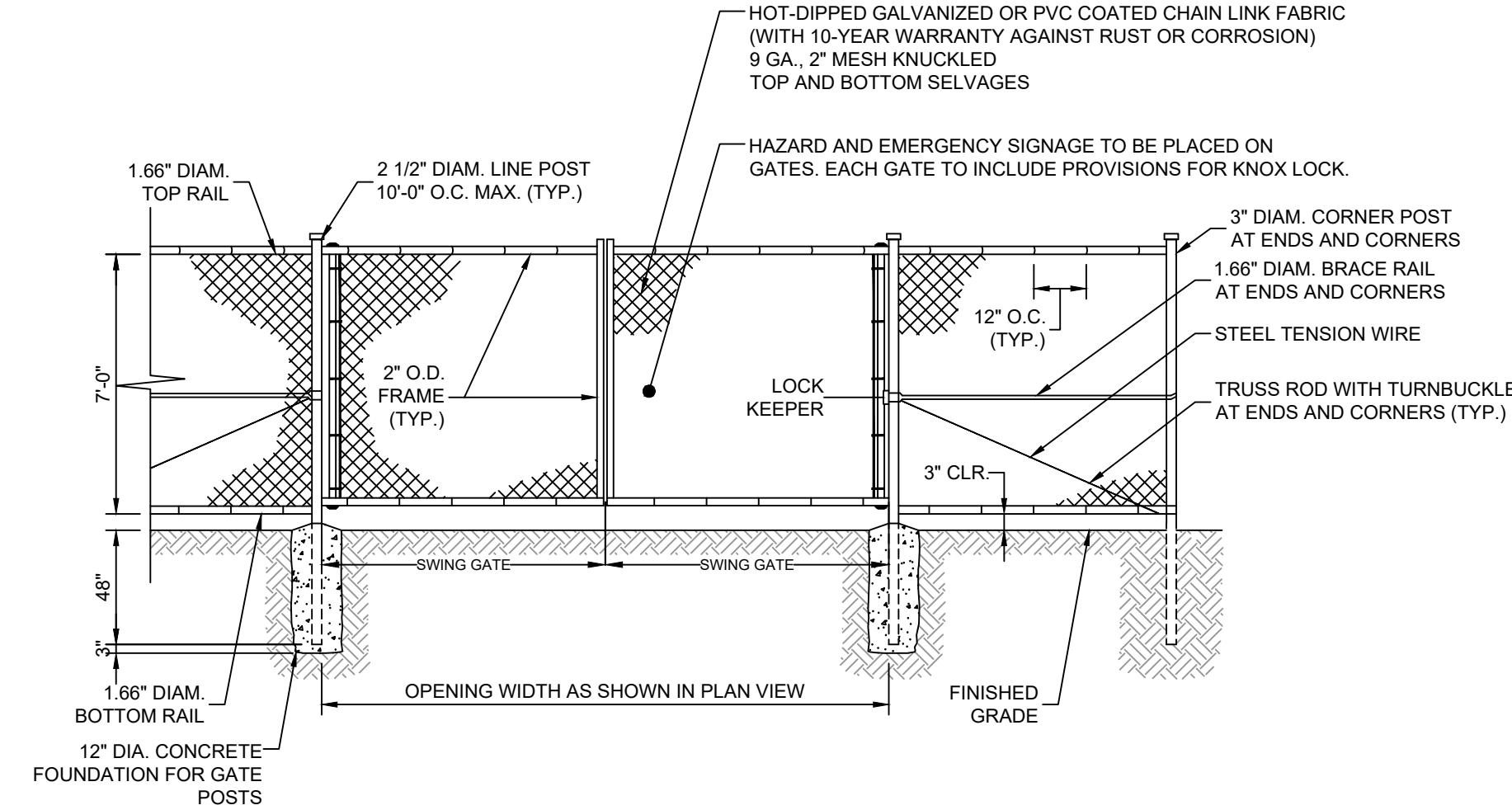
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NOTES:  
1. DETAIL IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL GATE DESIGN AND LAYOUT SUBJECT TO DETAILED ENGINEER, AIA APPROVAL AND CONTRACTOR SUBMITTAL.

#### CHAINLINK FENCE

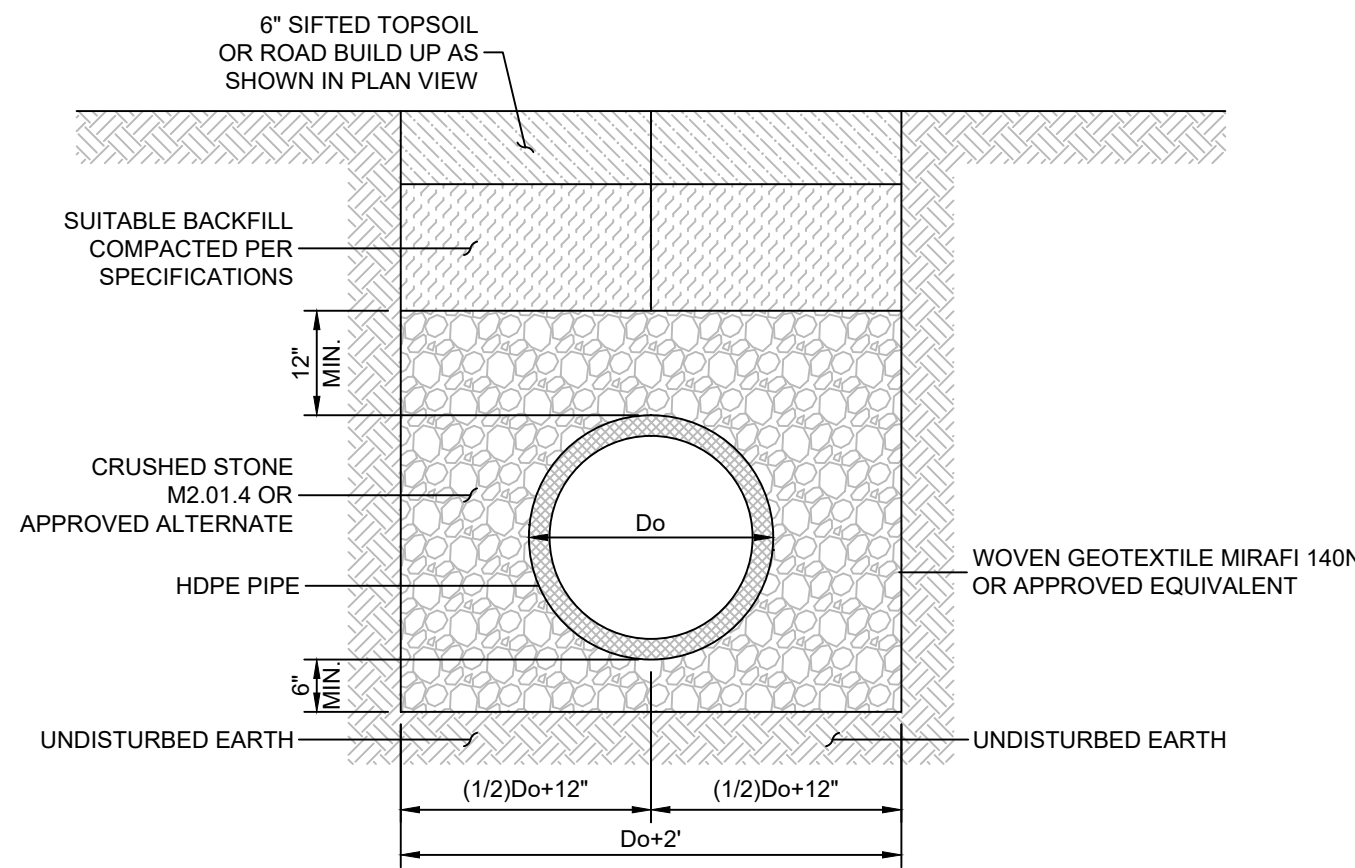
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NOTES:  
1. DETAIL IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL GATE DESIGN AND LAYOUT SUBJECT TO DETAILED ENGINEER, AIA APPROVAL AND CONTRACTOR SUBMITTAL. ALTERNATIVE DESIGN FOR GATE IS 20FT CANTILEVERED SLIDING GATE.

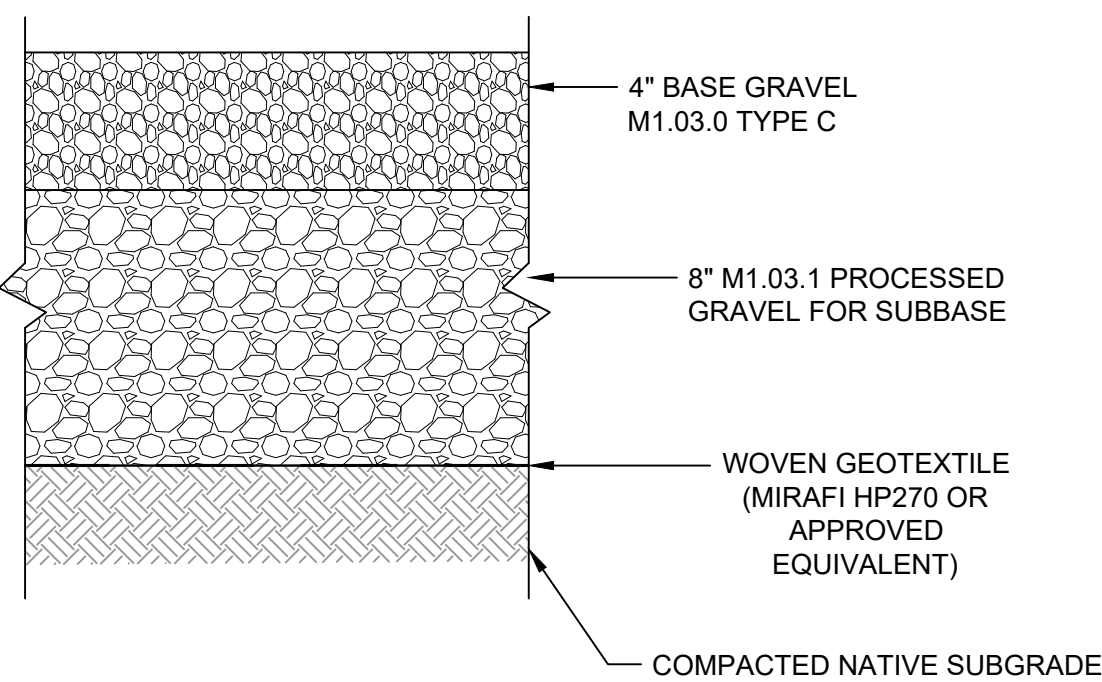
#### VEHICULAR GATE DETAIL

NOT TO SCALE



#### STORM PIPE TRENCH DETAIL

NOT TO SCALE

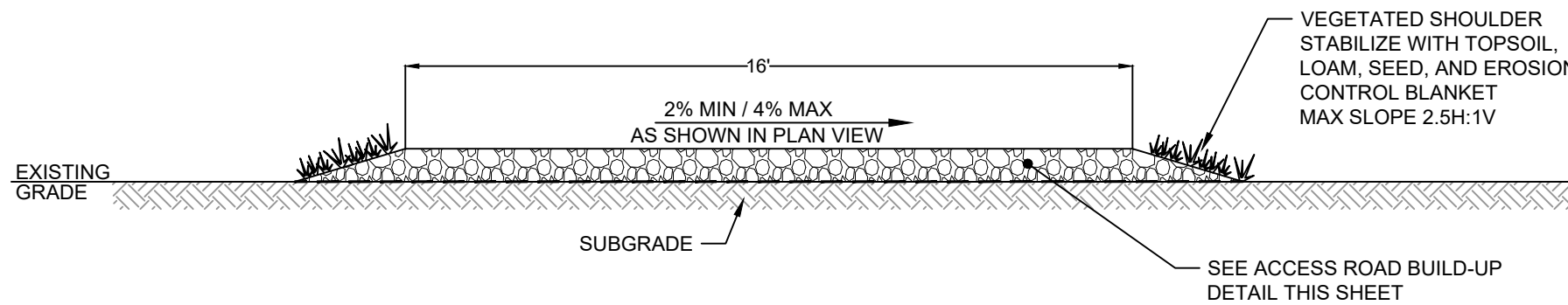


#### CONSTRUCTION NOTES:

1. BASE GRAVEL AND GRAVEL SUBBASE SHALL BE M1.03.1 AGGREGATE BACKFILL. AGGREGATE SHALL BE DURABLE CRUSHED ROCK CONSISTING OF THE ANGULAR FRAGMENTS OBTAINED BY BREAKING AND CRUSHING SOLID OR SHATTERED NATURAL ROCK, AND FREE FROM A DETRIMENTAL QUANTITY OF THIN, FLAT, ELONGATED, OR OTHER OBJECTIONABLE PIECES.
2. BASE GRAVEL AND SUBBASE GRAVEL, SHALL BE COMPACTED TO 95% OF ASTM D1557 AND PLACED IN MAXIMUM COMPACTED LIFTS OF 9-INCHES.
3. VEGETATION AND TOPSOIL WITHIN LIMIT OF ROAD FILL SHALL BE STRIPPED PRIOR TO PLACEMENT OF GEOTEXTILE.
4. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557 TO A DEPTH OF 12-INCHES.
5. SUBGRADE FILL REQUIRED TO ACHIEVE DESIGN GRADES, BEYOND DEPTH OF BASE GRAVEL AND GRAVEL SUBBASE, SHALL CONFORM TO THE REQUIREMENTS OF M1.02.0; SPECIAL BORROW MATERIAL EXCEPT THAT IT SHALL CONTAIN NO STONE LARGER THAN 6-INCHES AND SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8-INCHES IN DEPTH, COMPACTED MEASURE.

#### ACCESS DRIVE BUILD-UP

NOT TO SCALE

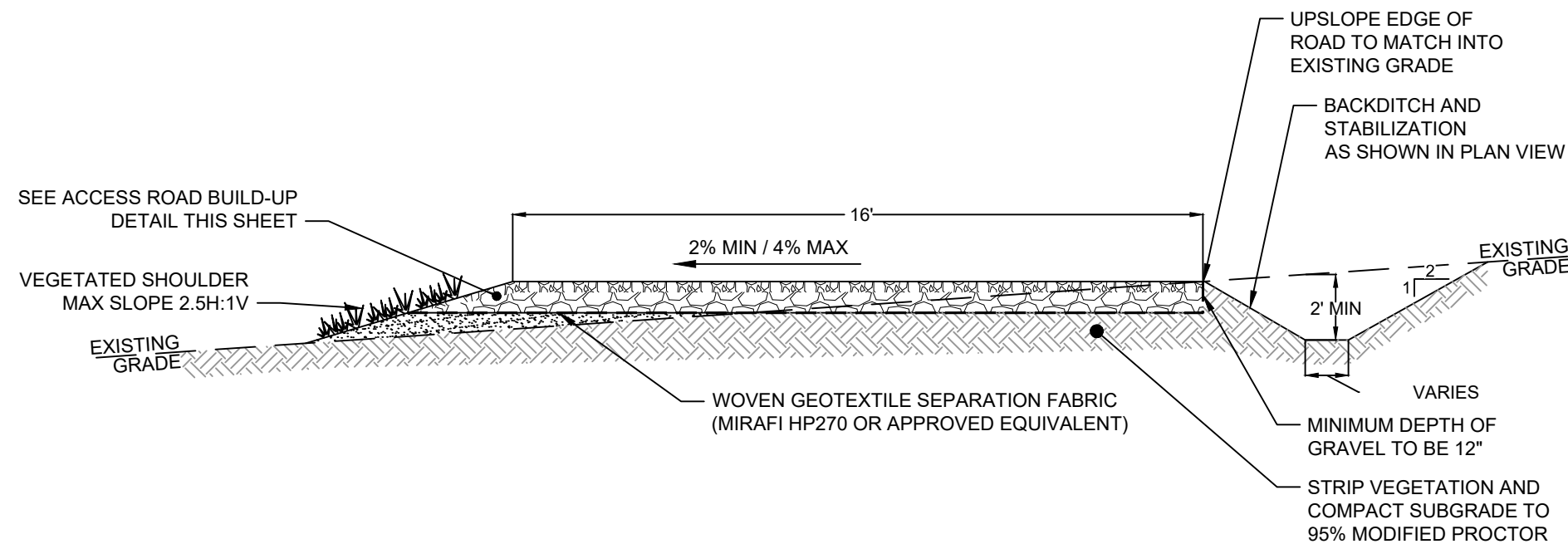


#### CONSTRUCTION NOTES:

1. BUILD-UP OF ACCESS ROAD SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ACCESS ROAD BUILD-UP DETAIL.
2. GRAVEL SURFACE SHALL BE SUPERELEVATED AND SLOPED A MINIMUM OF 2% AS INDICATED IN PLAN VIEW. CROSS SLOPE SHALL NOT EXCEED 4%.
3. VEGETATION AND TOPSOIL WITHIN LIMIT OF ROAD FILL SHALL BE REMOVED PRIOR TO PLACEMENT OF ROAD BUILD-UP MATERIALS AND USED IN SUPPORT OF STABILIZING ROADWAY SHOULDERS.
4. ROADWAY SHOULDER SHALL BE VEGETATED AND PREPARED TO DIRECT RUNOFF AS SHEETFLOW TO UNDISTURBED AREAS.

#### TYPICAL ACCESS ROAD SECTION

NOT TO SCALE



#### CONSTRUCTION NOTES:

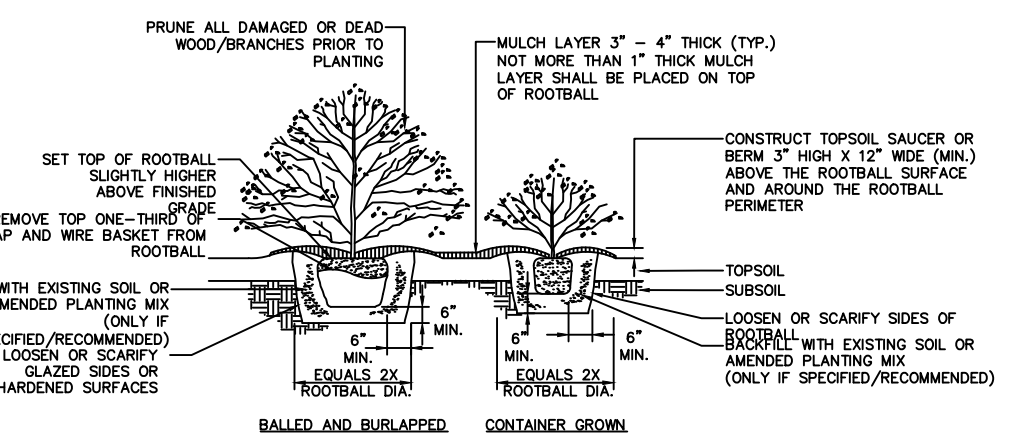
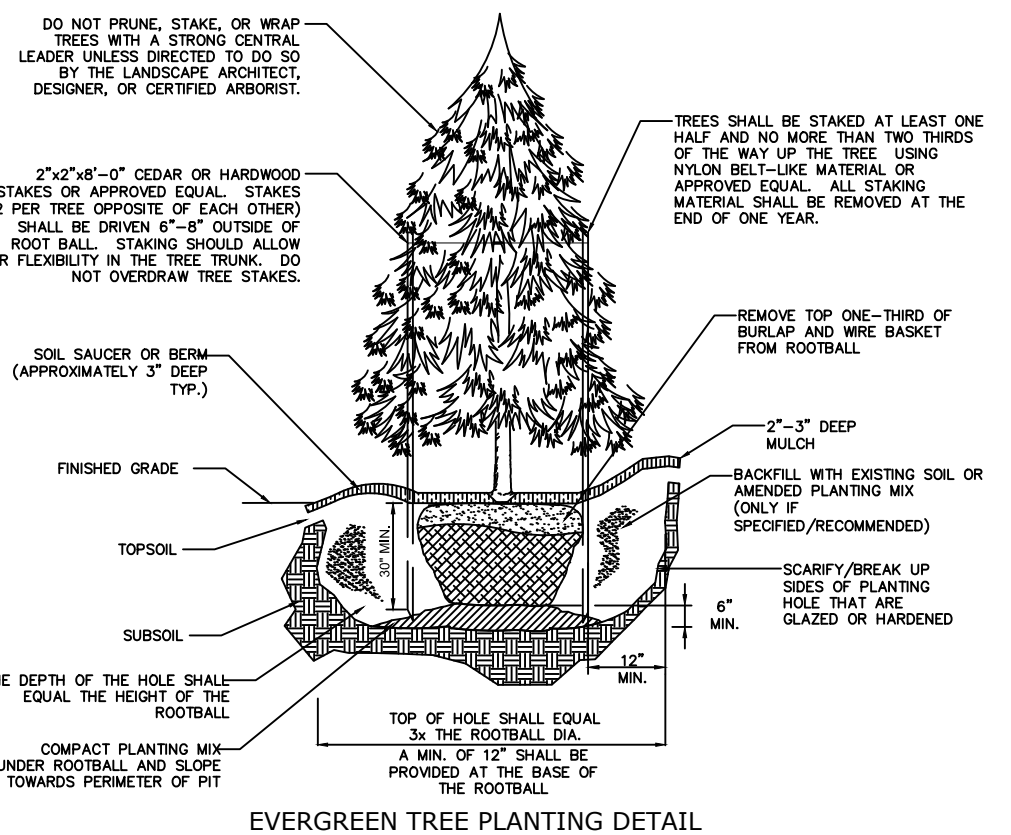
1. GRAVEL SURFACE SHALL BE SUPERELEVATED AND SLOPED A MINIMUM OF 2% AS INDICATED IN PLAN VIEW. CROSS SLOPE SHALL NOT EXCEED 4%.
2. ROADWAY SHOULDER SHALL BE VEGETATED AND PREPARED TO DIRECT RUNOFF AS SHEETFLOW TO IDENTIFIED BUFFER AREAS.
3. DITCH SHALL BE TRAPEZOIDAL WITH MINIMUM 2-FOOT FLAT BOTTOM AND A MINIMUM DEPTH OF 2 FEET.
4. DITCH SHALL BE STABILIZED IN ACCORDANCE WITH CONDITIONS SHOWN ON THE SITE GRADING & DRAINAGE PLAN, SHEET C2.00.

#### PROPOSED ACCESS DRIVE : STA. 1+75 TO 3+50

NOT TO SCALE

#### GENERAL LANDSCAPING NOTES AND VEGETATION MANAGEMENT RECOMMENDATIONS

1. THE CONTRACTOR SHALL MONITOR AND GUARANTEE THAT ALL PLANTS, TREES, AND SHRUBS SHALL BE HEALTHY AND FREE OF DISEASE FOR A PERIOD OF (2) TWO YEARS AFTER SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER. CONTRACTOR SHALL REPLACE ANY DEAD OR UNHEALTHY PLANTS AT CONTRACTOR'S EXPENSE. FINAL ACCEPTANCE SHALL BE MADE IF ALL PLANTS MEET THE GUARANTEE REQUIREMENTS INCLUDING MAINTENANCE, MAINTENANCE RESPONSIBILITIES INCLUDE INVASIVE SPECIES MONITORING, REMOVAL, AND SUPPLEMENTATION. ADDITIONAL MAINTENANCE RESPONSIBILITIES INCLUDE: APPROVED CULTIVATING, SPRAYING, WEEDING, WATERING, TIGHTENING OF TREE STRAP GUYS, PRUNING, FERTILIZING, MULCHING, AND ANY OTHER OPERATIONS NECESSARY TO MAINTAIN PLANT VIABILITY. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE.
2. PLANTS SHALL BE INSPECTED ANNUALLY FOR (5) FIVE YEARS POST-CONSTRUCTION AND REPLACED AS NEEDED TO ENSURE A CONTINUOUS SCREEN BECOMES ESTABLISHED.
3. WITHIN 24-HOURS OF PLANTING, AND CONTINUING THROUGHOUT ESTABLISHMENT (TWO MONTHS OR LONGER IN DROUGHT CONDITIONS), PLANTS SHALL BE WATERED WEEKLY UNLESS 0.5-INCHES OF RAIN OR GREATER FALLS WITHIN A GIVEN WEEK.
4. THE CONTRACTOR SHALL SUPPLY ALL LABOR, PLANTS, APPROVED SEEDING MIX, AND MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE DRAWING(S) AND LISTED IN THE PLANT SCHEDULE(S) AND/OR SEEDING TABLE(S). IN THE EVENT OF A DISCREPANCY BETWEEN QUANTITIES SHOWN IN THE PLANT SCHEDULE AND/OR SEEDING TABLE AND THOSE REQUIRED BY THE DRAWINGS, THE LARGER SHALL APPLY. ALL PLANTS SHALL BE ACCLIMATED BY THE SUPPLY NURSERY TO THE LOCAL HARDINESS ZONE AND BE CERTIFIED THAT THE PLANTING MATERIAL HAS BEEN GROWN FOR A MINIMUM OF (2) TWO YEARS AT THE SOURCE AND OBTAINED WITHIN 100 MILES OF PROJECT SITE UNLESS OTHERWISE APPROVED BY OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT.
5. THE LOCATIONS FOR PLANT MATERIAL ARE APPROXIMATE AND ARE SUBJECT TO FIELD ADJUSTMENT DUE TO SLOPE, VEGETATION, AND SITE FACTORS SUCH AS THE LOCATION OF ROCK OUTCROPS. PRIOR TO PLANTING THE CONTRACTOR SHALL ACCURATELY STAKE OUT THE LOCATIONS FOR ALL PLANTS. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL APPROVE THE FIELD LOCATIONS OR ADJUSTMENTS OF THE PLANT MATERIAL.
6. ALL SHRUB MASSING SHALL BE MULCHED TO A DEPTH OF 2" AND SHREDDED HARDWOOD BARK MULCH SHALL BE USED FOR SHRUB MASSING AREAS.
7. LANDSCAPE PLANTING PITS MUST BE FREE DRAINING. PAVEMENT, COMPACTED SUBGRADE, AND BLASTED ROCK SHALL BE REMOVED TO A DEPTH OF 2" OR TO A GREATER DEPTH IF REQUIRED BY PLANTING DETAILS OR SPECIFICATIONS. REPLACE SOIL WITH MODERATELY COMPACTED, LOAM OR SANDY LOAM FREE FROM STONES AND RUBBISH 1" OR GREATER IN DIAMETER AND ANY OTHER MATERIAL. HARMFUL TO PLANT GROWTH AND DEVELOPMENT. PLANTING INSTALLATION SHALL BE AS DETAILED AND CONTAIN PLANTING MIX AS SPECIFIED UNLESS RECOMMENDED OTHERWISE BY SOIL ANALYSIS.
8. PLANTING SOIL MIXTURE:
  - 2 PARTS PEAT MOSS
  - 5 PARTS TOPSOIL
  - MYCORRHIZA INOCULANT - "TRANSPLANT 1-STEP" AS MANUFACTURED BY ROOTS, INC. OR APPROVED EQUAL. USE PER MANUFACTURER'S RECOMMENDATIONS FOR TREES AND SHRUBS. FERTILIZER/LIME APPLY AS RECOMMENDED BY SOIL ANALYSIS.
9. TREES AND SHRUBS: TREES AND SHRUBS SHALL BE NURSERY GROWN UNLESS OTHERWISE NOTED AND HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCATION OF THE PROJECT. THEY SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY, WITH NORMAL HABIT OF GROWTH. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, WELL-BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE, INSECT PESTS, EGGS OR PESTS. TREES SHALL HAVE HEALTHY AND WELL-DEVELOPED ROOT SYSTEMS. ALL TREES SHALL HAVE STRAIGHT SINGLE TRUNKS WITH THEIR MAIN LEADER INTACT UNLESS OTHERWISE STATED. THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT SHALL ONLY PERMIT SUBSTITUTIONS UPON WRITTEN APPROVAL. THEIR SIZES SHALL CONFORM TO THE MEASUREMENT SPECIFIED ON THE DRAWINGS. PLANTS LARGER THAN SPECIFIED ON THE DRAWINGS MAY BE USED IF APPROVED. THE USE OF SUCH PLANTS SHALL NOT INCREASE THE CONTRACT PRICE. ALL TREES AND SHRUBS SHALL BE MULCHED IN ACCORDANCE WITH THE RESPECTIVE PLANTING DETAIL(S) PROVIDED IN THE LANDSCAPING PLAN.
10. TOPSOIL SURROUNDING LANDSCAPING FEATURES SHALL BE INSTALLED AT A MINIMUM DEPTH OF 4 INCHES. CONTRACTOR SHALL SUBMIT TOPSOIL TO A CERTIFIED TESTING LABORATORY TO DETERMINE PH, FERTILITY, ORGANIC CONTENT AND MECHANICAL COMPOSITION. THE CONTRACTOR SHALL SUBMIT THE TEST RESULTS FROM REGIONAL EXTENSION OFFICE OF USDA TO THE OWNER, CERTIFIED LANDSCAPE INSPECTOR, OR LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. CONTRACTOR SHALL INCORPORATE AMENDMENTS FOR GOOD PLANT GROWTH AND PROPER SOIL ACIDITY RECOMMENDED FROM THE TOPSOIL TEST.
11. NO PHOSPHOROUS SHALL BE USED AT PLANTING TIME UNLESS SOIL TESTING HAS BEEN COMPLETED AND TESTED BY A HORTICULTURAL TESTING LAB AND SOIL TESTS SPECIFICALLY INDICATE A PHOSPHOROUS DEFICIENCY THAT IS HARMFUL, OR WILL PREVENT NEW LAWNS/GRASSES AND PLANTINGS FROM ESTABLISHING PROPERLY.
12. IF SOIL TESTS INDICATE A PHOSPHOROUS DEFICIENCY THAT WILL IMPACT PLANT AND LAWN ESTABLISHMENT, PHOSPHOROUS SHALL BE APPLIED AT THE MINIMUM RECOMMENDED LEVEL PRESCRIBED IN THE SOIL TEST FOLLOWING ALL APPLICABLE STANDARDS, REQUIREMENTS, AND/OR REGULATIONS.
13. ALL WILDFLOWERS AND GRASSES SOWNED SHALL BE ALLOWED TO GROW TO THEIR NATURALLY OCCURRING HEIGHTS WHENEVER POSSIBLE. NATIVE WILDFLOWERS AND/OR GRASSES CAN BE MOWED/MAINTAINED (WITHIN ACCEPTABLE AREAS IDENTIFIED AND/OR APPROVED BY APPROPRIATE REGULATORY AGENCIES) AS OFTEN AS NEEDED TO KEEP THE VEGETATION AT A DESIRED AND/OR MANAGEABLE MAINTAINED HEIGHT.
14. INVASIVE SPECIES SHALL NOT BE PERMITTED.
15. ALL PLANT MATERIAL SHALL CONFORM TO THE PLAN SIZE SPECIFICATIONS AS ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK LATEST EDITION.

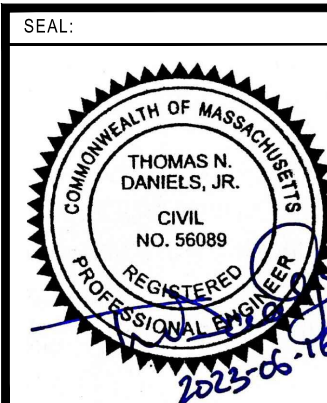


#### DETAIL NOTES

1. IN AREAS WITH MASS PLANTINGS, CONTINUOUS EXCAVATION AND MULCHING PRACTICES SHALL BE IMPLEMENTED WHENEVER POSSIBLE.
2. IT IS NOT RECOMMENDED TO AMEND THE EXISTING SOIL BEFORE BACKFILLING THE HOLE UNLESS SOIL CONDITIONS ARE POOR FOR PLANTING.
3. WATER THOROUGHLY TO HELP ENSURE THE REMOVAL OF AIR POCKETS.

#### PERMITTING

NOT FOR CONSTRUCTION



PROFESSIONAL ENGINEER:  
THOMAS N. DANIELS, JR.

DATE:  
JUNE 16, 2023

NO.	BY	DATE	REVISION	APPD.
0	TRC	06/16/2023	ISSUED FOR PERMITTING	TND

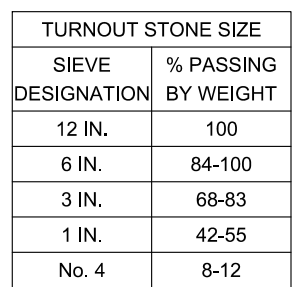
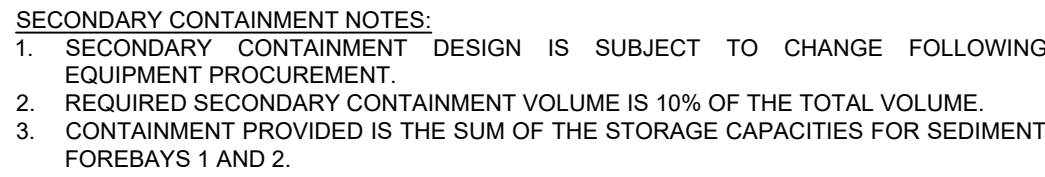
PROJECT: **BLUEWAVE SOLAR**  
**BWC BOGASTOW BROOK, LLC**  
**HOLLISTON BATTERY ENERGY STORAGE SYSTEM**  
**CENTRAL STREET, HOLLISTON, MASSACHUSETTS**

TITLE: <b>CIVIL CONSTRUCTION DETAILS</b>	
DRAWN BY: TRC	PROJ. NO.: 412899.0001
CHECKED BY: TND	
APPROVED BY: TND	<b>C4.00</b>
DATE: JUNE 2023	

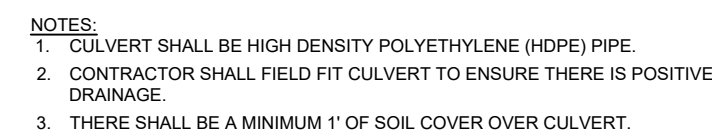
**TRC**  
650 Suffolk Street  
Suite 200  
Lowell, MA 01854  
Phone: 978.970.5800

FILE NO.: 412899-1-DT.dwg





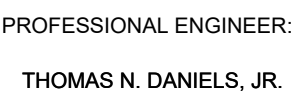
LEVEL SPREADER CHART			
ID	LENGTH (A)	INVERT (B)	DEPTH (C)
LS-1	25'	178.5.0'	18"



PLUNGE POOL SCHEDULE			
ID	INLET DIA.	ELEV. (A)	ELEV. (B)
PP-1	12"	178.2'	177.2'
PP-2	12"	174.5'	173.5'



PERMITTING  
NOT FOR CONSTRUCTION



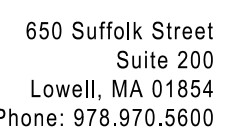
DATE:  
JUNE 16, 2023

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NO.	BY	DATE	REVISION	APP'D.

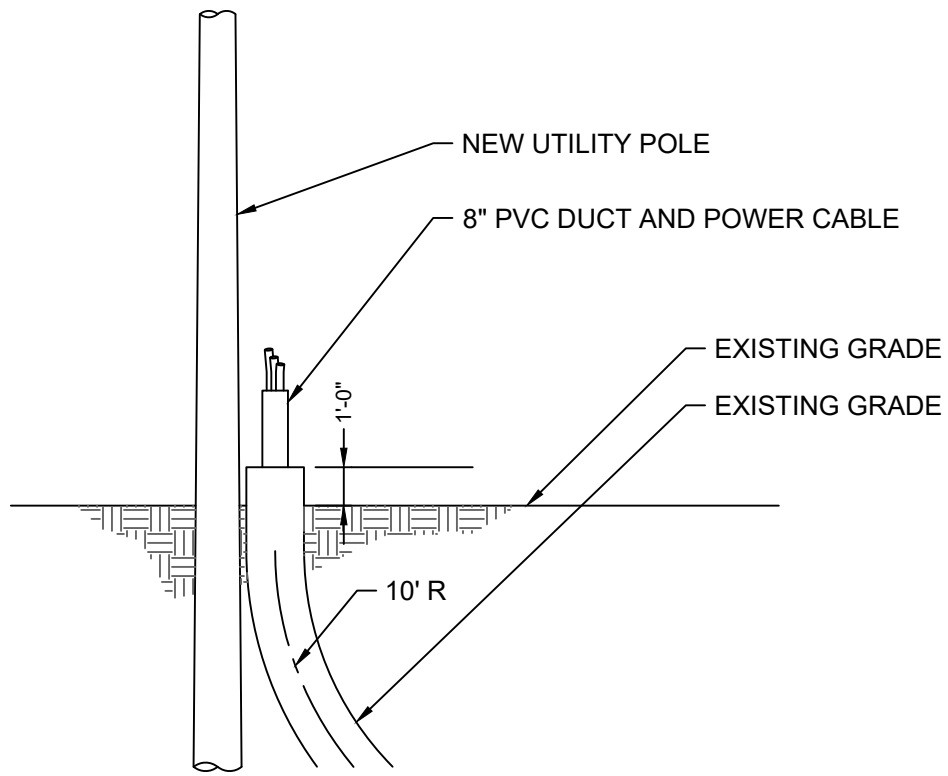
PROJECT: BLUEWAVE SOLAR  
BWC BOGASTOW BROOK, LLC  
HOLLISTON BATTERY ENERGY STORAGE SYSTEM  
CENTRAL STREET, HOLLISTON, MASSACHUSETTS

## CIVIL CONSTRUCTION DETAILS

DRAWN BY:	TRC	PROJ. NO.:	412899.0001
CHECKED BY:	TND	<b>C4.01</b>	
APPROVED BY:	TND		
DATE:	JUNE 2023		

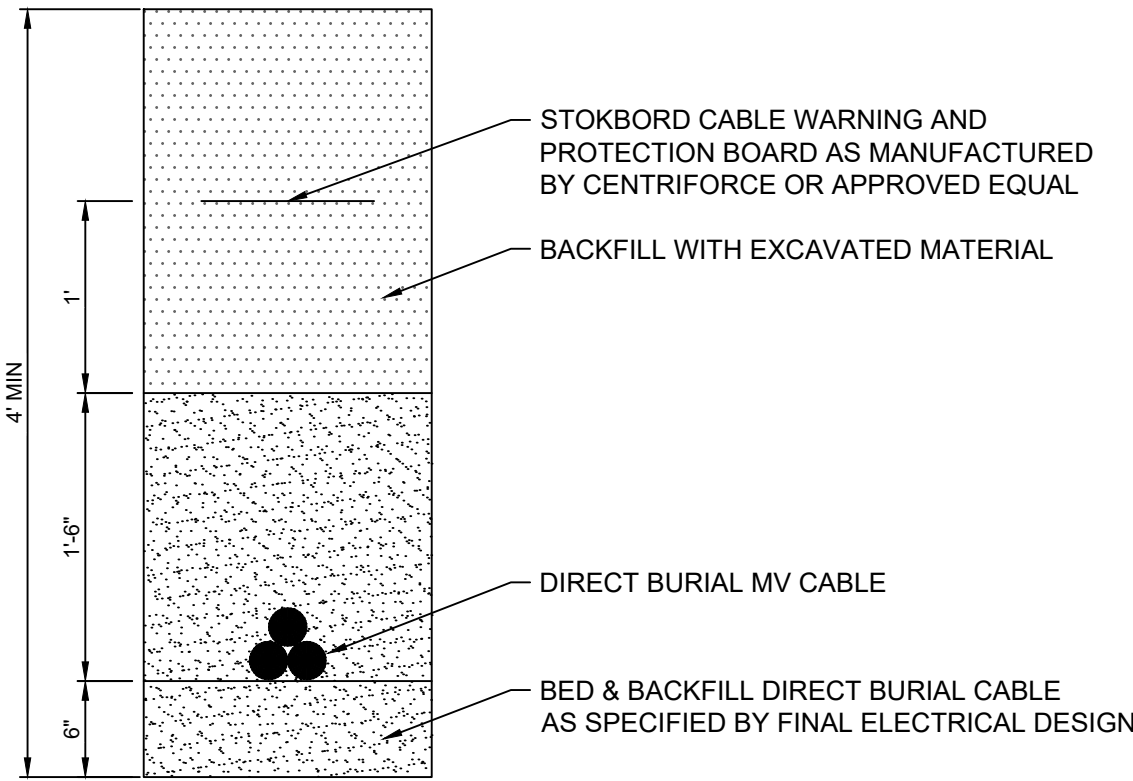




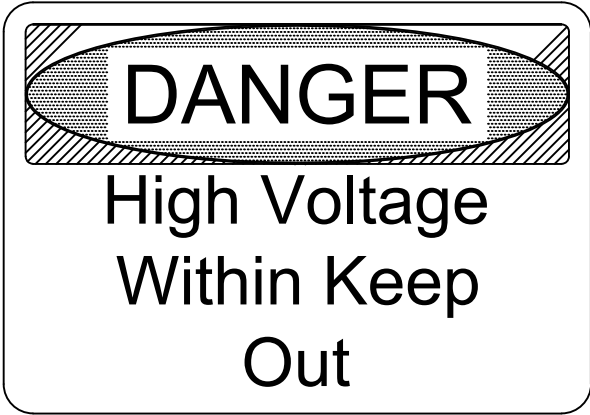
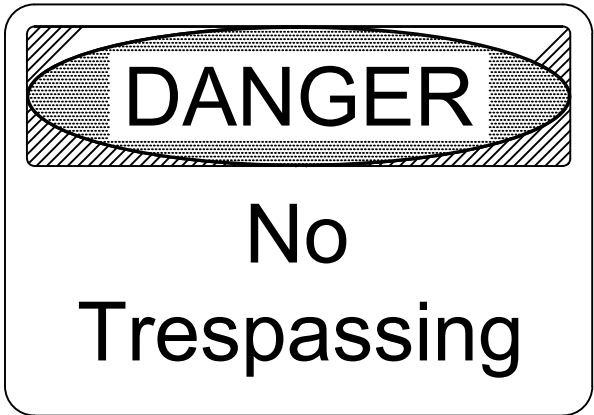


- NOTES:
1. EXTEND CONCRETE ENCASED DUCTBANK TO APPROXIMATELY 1'-0" ABOVE GRADE. CONTINUE PVC DUCT BANK TO TERMINATION / TRIFURCATION.
  2. TOP OF DUCT SHALL BE SEALED WITH APPROVED FIRE RETARDANT SEALER TERMINATION FITTING SUCH AS CONDULATOR BY ROBERT'S ELECTRIC PRODUCTS.

**UNDERGROUND TO OVERHEAD TRANSITION DETAIL**  
NOT TO SCALE

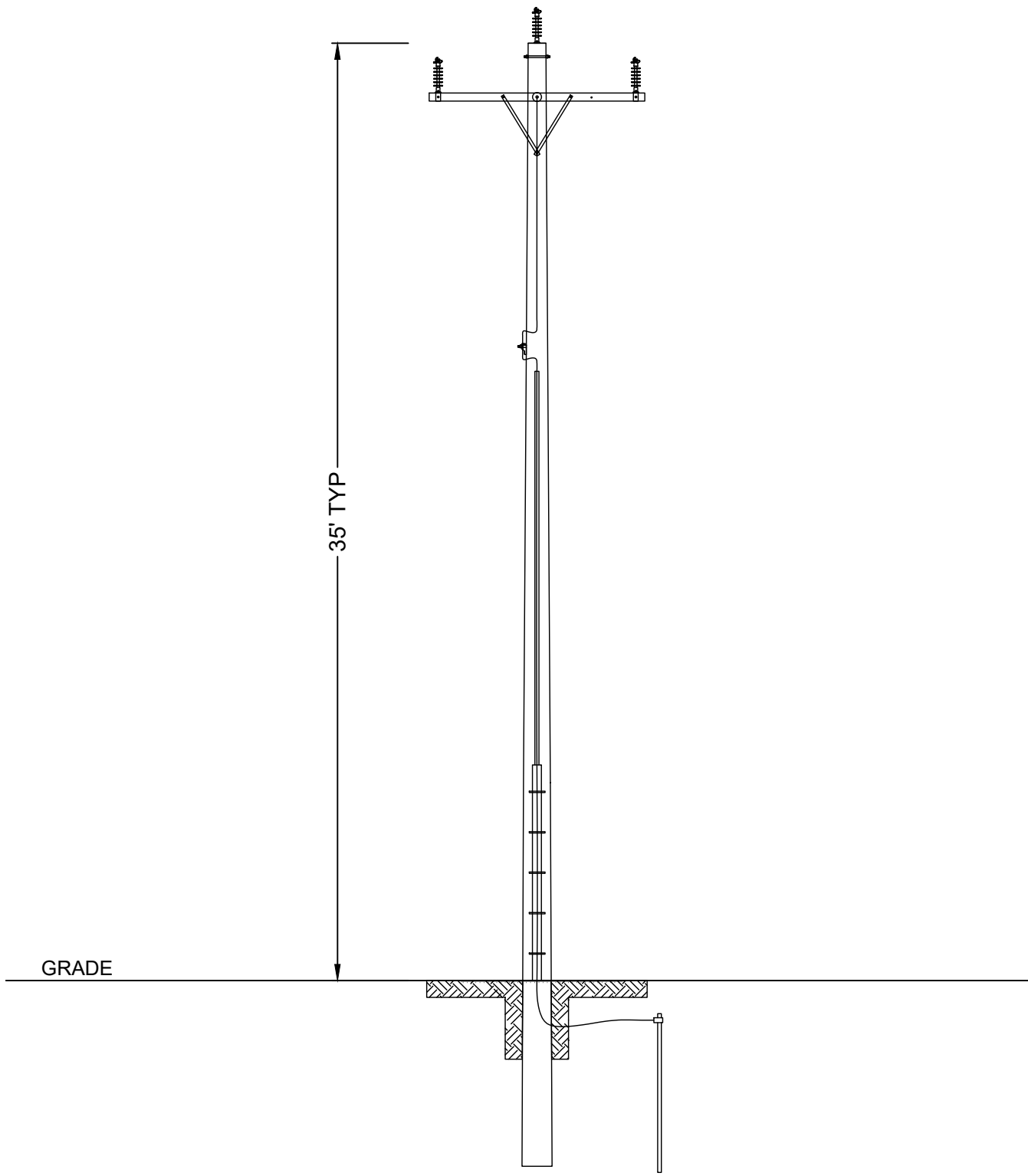


**MV UNDERGROUND COLLECTION LINE DETAIL**  
NOT TO SCALE

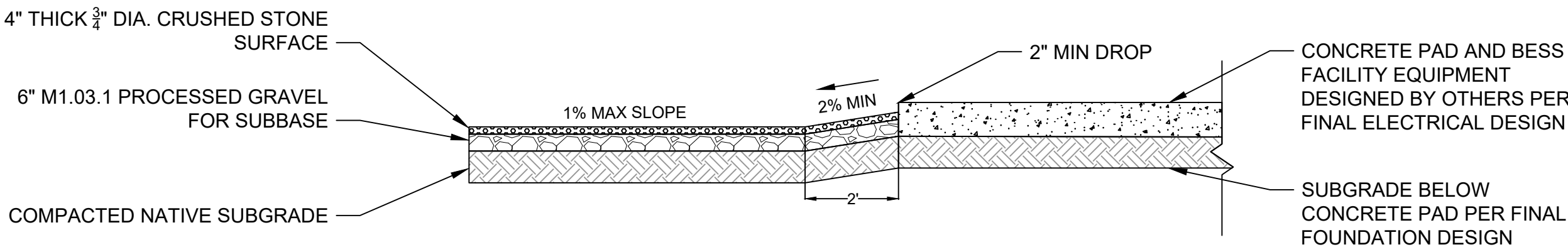


- NOTES
1. NO PARKING SIGN SHALL BE POSTED AT FACILITY ENTRANCE GATE. OTHER SIGNS SHALL BE PLACED ON GATES AND ALONG PERIMETER FENCING.
  2. SIGNS SHALL CONFORM TO THE 2013 OSHA AND ANSI REQUIREMENTS.
  3. SIGNS SHALL BE 20" WIDE BY 14" HIGH.
  4. SIGNS SHALL HAVE A MOUNTING HEIGHT OF BETWEEN 45 TO 66 INCHES.
  5. SIGN PANELS SHALL BE 10 GAUGE ALUMINUM WITH HIGH VISIBILITY REFLECTIVE SHEETING.
  6. SIGNAGE SHALL INCLUDE 24-HR EMERGENCY CONTACT INFORMATION FOR FACILITY OPERATOR.

**HAZARD & EMERGENCY SIGNAGE**  
NOT TO SCALE



**TYPICAL UTILITY POLE**  
NOT TO SCALE



- CONSTRUCTION NOTES:
1. GRAVEL SUBBASE SHALL BE M1.03.1 AGGREGATE BACKFILL. AGGREGATE SHALL BE DURABLE CRUSHED ROCK CONSISTING OF THE ANGULAR FRAGMENTS OBTAINED BY BREAKING AND CRUSHING SOLID OR SHATTERED NATURAL ROCK, AND FREE FROM A DETRIMENTAL QUANTITY OF THIN, FLAT, ELONGATED, OR OTHER OBJECTIONABLE PIECES.
  2. CRUSHED STONE SURFACE AND SUBBASE GRAVEL SHALL BE COMPACTED TO 95% OF ASTM D1557.
  3. VEGETATION AND TOPSOIL WITHIN LIMIT OF CRUSHED STONE YARD SHALL BE STRIPPED PRIOR TO PLACEMENT OF SUBBASE GRAVEL.
  4. SUBGRADE SHALL BE COMPACTED TO 95% OF ASTM D1557 TO A DEPTH OF 12-INCHES.
  5. SUBGRADE FILL REQUIRED TO ACHIEVE DESIGN GRADES, BEYOND DEPTH OF CRUSHED STONE SURFACE AND GRAVEL SUBBASE, SHALL CONFORM TO THE REQUIREMENTS OF M1.02.0: SPECIAL BORROW MATERIAL EXCEPT THAT IT SHALL CONTAIN NO STONE LARGER THAN 6-INCHES AND SHALL BE PLACED AND COMPACTED IN LAYERS NOT EXCEEDING 8-INCHES IN DEPTH, COMPACTED MEASURE.

**TYPICAL CRUSHED STONE YARD SECTION**  
NOT TO SCALE

**PERMITTING**  
NOT FOR CONSTRUCTION

SEAL:		PROFESSIONAL ENGINEER: THOMAS N. DANIELS, JR.	
DATE: JUNE 16, 2023			
PROJECT: BLUEWAVE SOLAR BWC BOGASTOW BROOK, LLC HOLLISTON BATTERY ENERGY STORAGE SYSTEM CENTRAL STREET, HOLLISTON, MASSACHUSETTS			
TITLE: PRELIMINARY ELECTRICAL DETAILS			
DRAWN BY: TRC		PROJ. NO.: 412899.0001	
CHECKED BY: TND			
APPROVED BY: TND		C5.00	
DATE: JUNE 2023			
FILE NO.:		412899.1 - DT.dwg	