#### 3/12/2024

New Hampshire Department of Environmental Services Supplement to Type IB Modification to Solid Waste Management Facility Permit 1.5 MW (AC) Solar Array – 9 Cross Road, Exeter, New Hampshire

#### **Prepared For (Applicant):**

Town of Exeter 10 Front St. Exeter, New Hampshire Dave Sharples dsharples@exeternh.gov

Existing Permit Number: DES-SW-SP-1992-001 Site Number: 123456789 Project Name: Solid Waste Bureau Trial Project Project Number: 35797 Special Projects 10/26/2015

#### Prepared By:

ReVision Energy Inc. 758 Westbrook St. South Portland, ME Nate Niles nniles@revisionenergy.com

TITI F

# **1.5 MW AC SOLAR ARRAY REVISION ENERGY** 9 CROSS ROAD EXETER, NEW HAMPSHIRE NHDES PERMIT NO. DES-SW-SP-1992-001

# LOCATION MAP



TITLE	DWG NO
COVER SHEET	
GENERAL NOTES, LEGEND, AND ABBREVIATIONS	C-100
EXISTING CONDITIONS AND CLEARING PLAN	C-101
SITE OVERVIEW PLAN	C-102
SITE PLAN	C-103
EROSION CONTROL NOTES AND DETAILS	C-300
SECTIONS AND DETAILS	C-301
SECTIONS AND DETAILS	C-302

# **MARCH 2024 ISSUED FOR CONSTRUCTION**



ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE

4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com





## WILDLIFE PROTECTION NOTES (ENV-WQ 1504.17):

- ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND GAME DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT
- IFGREVIEW@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB23-0910, 1.5 MW AC SOLAR ARRAY, WILDLIFE SPECIES OBSERVATION. PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHI
- DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION AS FEASIBLE THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHF&G AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHF&G. IF ANY, TO ASSURE THE PROJECT DOES NOT APPRECIABLY JEOPARDIZE THE CON
- ENDANGERED SPECIES AS DEFINED IN FIS 1002.04 • THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT

#### **GENERAL SITE NOTES:**

- 1. BASEMAP FROM SURVEY PERFORMED BY SME, DATED MARCH 22, 2023. ADDITIONAL SITE FEATURES FROM GOOGLE EARTH.
- HORIZONTAL DATUM: STATE PLAN NAD83 NEW HAMPSHIRE
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988 2. PROPERTY BOUNDARIES AND EXISTING TOPOGRAPHY FROM NH GRANIT GIS SERVICE.
- 3. LIMITS OF WASTE FROM PLAN TITLED "GRADING PLAN" FROM THE EXETER LANDFILL CLOSURE RECORD DRAWINGS, BY GZA GEOENVIRONMENTAL, INC., OF MANCHESTER, NEW HAMPSHIRE, DATED APRIL 1996.
- 4. WETLAND DELINEATION WITHIN THE LIMITS OF WORK WAS PERFORMED BY FB ENVIRONMENTAL ON JANUARY 15, 2023 AND INDICATED NO WATER FEATURES WERE FOUND, KEVIN RYAN, P.H.D, NH CERTIFIED WETLAND SCIENTIST NO. 308.
- 5. SOIL TYPES FROM A CUSTOM SOIL RESOURCE REPORT BY UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL
- RESOURCES CONSERVATION SERVICE. 6. AERIAL IMAGE FROM GOOGLE EARTH.
- EXISTING GAS VENT LOCATIONS SURVEYED BY SME ON MARCH 22, 2023.
- 8. STANDARD PRACTICE DICTATES THAT PLANS COMPILED IN THIS MANNER SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO ENGINEER. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
- 9. EXCAVATE AND STOCKPILE ON-SITE TOPSOIL. TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER DURING CONSTRUCTION, AND SHALL NOT BE REMOVED FROM THE SITE. AFTER FINAL LOAM AND SEED, EXCESS TOPSOIL SHALL BE REMOVED FROM SITE BY CONTRACTOR.

#### **ZONING NOTES:**

1.	OWNER/DEVELOPER:	OWNER TOWN OF EXETER 10 FRONT ST EXETER, NH 03833	DEVELOPER REVISION ENERGY 758 WESTBROOK ST SOUTH PORTLAND, MAINE 04106	
2.	PROJECT:	1.5 MC AC SOLAR ARRAY EXETER MUNICIPAL LANDFILL		
3.	ZONING DISTRICT:	Low Density Res Aq - Aquifer Pro	IDENTIAL (R1) TECTION ZONE (CODE 1)	
4.	ZONE STANDARDS: MINIMUM LOT SIZE SETBACKS FRONT SIDE REAR BUILDING COVERAGE MAX BUILDING HEIGHT	REQUIRED 2 AC 25 FEET 15 FEET 25 FEET 15% 35 FEET	PROVIDED 22.65 AC >25 FEET >15 FEET >25 FEET <15% <35 FEET	
5.	TAX MAP 98, LOT 3.			

PROPOSED USE:

5.	PROPOSED USE:	MUNICIPAL (WDL-00)
7.	PARKING SUMMARY:	
	EXISTING PARKING	0 SPACES
	PROPOSED PARKING	0 SPACES

8. THE PROPERTY IS OUTSIDE OF THE 100 YEAR FLOODPLAIN AS REFERENCED ON FEMA COMMUNITY PANELS NO. 33015 C0384 E, DATED MAY 17, 2005 AND NO. 33015 C0403 E, DATED MAY 17, 2005.

#### UTILITY NOTES:

- 1. EXISTING UTILITIES IN CROSS ROAD INCLUDE: OVERHEAD ELECTRIC OVERHEAD COMMUNICATIONS
- 2. EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES ARE NOT SHOWN ON THIS PLAN. PRIOR TO WORK THE CONTRACTOR SHALL USE PRIVATE UTILITY LOCATION SERVICE TO LOCATE ALL UNDERGROUND AND ABOVE GROUND UTILITIES WITHIN THE LIMITS OF WORK. LOCATION AND ELEVATION OF ALL UTILITIES SHALL BE SURVEYED BY THE CONTRACTOR AND PROVIDED TO THE OWNER ON AS-BUILT DRAWINGS PRIOR TO PROJECT COMPLETION.
- 3. THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS OUTSIDE THE LANDFILL LIMIT FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
- 4. COORDINATE WORK ON UTILITY LINES WITH THE TOWN OF EXETER.

#### TYPICAL ABBREVIATIONS:

ACCMP ACP AC AGG	ASPHALT COATED CMP ASBESTOS CEMENT PIPE ACRE AGGREGATE	D DBL DEG OR ° DEPT	DEGREE OF CURVE DOUBLE DEGREE DEPARTMENT	HDPE HORIZ HP HYD	HIGH DENSITY POLYETHYLENE HORIZONTAL HORSEPOWER
ALUM APPD	AUMINUM APPROVED	DI DIA OR	DUCTILE IRON DIAMETER	ID	INSIDE DIAMETER
ARMH	APPROXIMATE AIR RELEASE MANHOLE	DIM DIST	DIMENSION DISTANCE	IN OR " INV	INCHES
ASB ASP	ASBESTOS ASPHALT	DN DR	DOWN DRAIN	INV EL	INVERT ELEVATION
AUTO AUX	AUTOMATIC AUXILIARY	DWG	DRAWING	LB LC	POUND LEACHATE COLLECTION
AVE AZ	AVENUE AZIMUTH	EA EG	EACH EXISTING GROUND OR GRADE	LD	LEAK DETECTION
		ELEC	ELECTRIC	LOC	LOCATION
BCCMP BM	BITUMINOUS COATED CMP BENCH MARK	ELB	ELBOW	LI	LEACHATE TRANSPORT
BIT BLDG		eop Equip	EDGE OF PAVEMENT EQUIPMENT	MH MJ	MANHOLE MECHANICAL JOINT
BOT	воттом	EST	ESTIMATED	MATL	MATERIAL
BRG BV	BEARING BALL VALVE	EXIST	EXISTING	MFR	MANUFACTURE
СВ	CATCH BASIN	FI	FIELD INLET	MIN MISC	MINIMUM MISCELLANEOUS
CEN CEM LIN	CENTER CEMENT LINED	FG FBRGL	FINISH GRADE FIBERGLASS	MON	MONUMENT
CMP CO	CORRUGATED METAL PIPE CLEAN OUT	FDN FLEX	FOUNDATION FLEXIBLE	NITC NTS	NOT IN THIS CONTRACT NOT TO SCALE
CF CFS	CUBIC FEET CUBIC FEET PER SECOND	FLG FLR FDS	FLANGE FLOOR EEET DER SECOND	N/F NO OR #	NOW OR FORMERLY NUMBER
CL CONC	CLASS CONCRETE	FFS FT OR ' FTG	FEET FOOTING	OC OD	ON CENTER OUTSIDE DIAMETER
CONST CONTR	CONSTRUCTION CONTRACTOR	GA	GAUGE	PC	POINT OF CURVE
CTR	CORB STOP CENTER	GAL	GALLON GALVANIZED	PD PI	PERIMETER DRAIN POINT OF INTERSECTION
CU CY	CUPPER CUBIC YARD	GPD GPM	GALLONS PER DAY GALLONS PER MINUTE	PIV PT	POST INDICATOR VALVE POINT OF TANGENT

#### DIG SAFE NOTES:

#### FOLLOWING MINIMUM MEASURES:

- KNOW WHERE TO MARK THEIR LINES.

- AS-BUILT DRAWINGS.
- OTHER REASON.
- REQUIREMENTS.
- HTTPS://WWW.PUC.NH.GOV/
- SAFEGUARD HEALTH AND PROPERTY.
- PUC AT 1-800-852-3793.

#### **EROSION CONTROL AND GRADING NOTES:**

- MULCH. REMOVE SEDIMENTS FROM THE SITE.

- TOP SOIL.

PRIOR TO EXCAVATION, VERIFY THE UNDERGROUND UTILITIES, PIPES, STRUCTURES AND FACILITIES. PROVIDE THE

1. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS

2. CALL DIG SAFE, AT 811, AT LEAST THREE BUSINESS DAYS - BUT NO MORE THAN 30 CALENDAR DAYS - BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.

IF BLASTING, NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.

4. WAIT THREE BUSINESS DAYS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE

5. CONTACT THE LANDOWNER AND OTHER "NON-MEMBER" UTILITIES (WATER, SEWER, GAS, ETC.). FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.

6. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY

7. HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.

8. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY AND/OR STATE DOT STREET OPENING PERMIT

9. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUBLIC UTILITIES COMMISSION (PUC) AT 1-800-852-3793 OR VISIT

10. IF YOU DAMAGE, DISLOCATE OR DISTURB ANY UNDERGROUND UTILITY LINE, IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO

11. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE PUC FOR AN INCIDENT REPORT FORM VISIT HTTPS://WWW.PUC.NH.GOV/ OR CALL THE

1. ADD 6" LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES 6:1 OR STEEPER, AND ALONG DITCH CHANNELS. THERE SHALL BE NO PLASTIC, OR MULTI-FILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN 1/8 INCHES MATERIAL UTILIZED.

2. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. PLACE IN AREA OF LOW EROSION POTENTIAL, AND STABILIZE WITH SEED AND

3. PERIMETER CONTROLS MUST BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.

4. EROSION CONTROL PRACTICES ARE TO BE INSPECTED WEEKLY AND AFTER 0.5" OF RAINFALL.

5. IN AREAS THAT WILL NOT BE PAVED, "STABLE" MEANS THAT:

 A MINIMUM OF 85% OF VEGETATIVE COVER HAS BEEN ESTABLISHED; • A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED; OR • EROSION CONTROL BLANKETS HAVE BEEN INSTALLED IN ACCORDANCE WITH ENV-WQ 1506.03.

6. IN AREAS TO BE PAVED, BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.

7. UNSTABILIZED AREAS SHALL BE TEMPORARILY STABILIZED WITHIN 72 HOURS OF FINAL GRADING, OR PRIOR TO A 0.25" STORM OCCURRING AFTER THE DISTURBANCE, WHICHEVER OCCURS SOONER.

8. TEMPORARY STABILIZATION MEASURES MUST REMAIN IN PLACE THROUGHOUT CONSTRUCTION AND BE MAINTAINED AS NECESSARY TO MEET THE REQUIREMENTS OF ENV-WQ 1506.01 UNTIL FINAL SEEDING IS PLACED.

9. WHEN EARTH DISTURBANCE WILL OCCUR WITHIN 50 FEET OF A SURFACE WATER OF THE STATE, AND WETLANDS AS DEFINED IN RSA 482-A, A DOUBLE ROW OF PERIMETER CONTROLS MUST BE INSTALLED ALONG THE LIMITS OF THE EARTH DISTURBANCE.

10. SOILS WITH A DEPTH TO BEDROCK OF 12 INCHES OR LESS SHALL BE ENHANCED BY THE ADDITION OF AT LEAST 4 INCHES OF

11. ANY OVERBURDEN ERODED IN AREAS WITH A DEPTH OF BEDROCK OF 12 INCHES OR LESS SHALL BE REPLACED.

12. THE SITE SHALL BE STABILIZED BY ESTABLISHING AT LEAST 85% VEGETATIVE COVER UNIFORMLY DISTRIBUTED.

PERF	PERFORATED
PP	POWER POLE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
RAD	RADIUS
REQD	REQUIRED
RT	RIGHT
RTE	ROUTE
S SCH SF SHT SMH ST STA STA SY TAN TDH TEMP TYP	SLOPE SCHEDULE SQUARE FEET SHEET SANITARY MANHOLE STREET STATION SQUARE YARD TANGENT TOTAL DYNAMIC HEAD TEMPORARY TYPICAL
UD	UNDERDRAIN
V	VOLTS
VA TEE	VALVE ANCHORING TEE
VERT	VERTICAL
WG	WATER GATE
W/	WITH
W/O	WITHOUT
YD	YARD

#### LEGEND



	DPD	3/2024	ISSUED FOR CONSTRUCTION				
	DPD	2/2024	REISSUED FOR NHDES REVIEW				
	DPD	9/2023	ISSUED FOR NHDES REVIEW				
REV.	BY	DATE	STATUS				
unun.	QF M	111,	1.5 MW AC SOLAR ARR	AY			
NUMBER AND			<b>REVISION ENERGY</b>				
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11841 AL			EXETER, NEW HAMPSHI	RE			
			GENERAL NOTES, LEGEND,				
V	Mun mining		AND ABBREVIATIONS				
			CME	DESIGN BY: JTR			
			DRAWN BY: JRL				
			DATE: 9/2023				
			ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE	CHECKED BY: DPD			
			4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021	LMN: NONE			
			Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com	CTB: SME-STD			
			JOB NO. 220241.00 DWG FILE GEN-NOTES	C-100			



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	<u>NOTES</u> : 1. SEE 2. DAM, SHAL	DRAWING ( AGE TO TH L BE REPAI	C-100 FOR E LANDFILI IRED TO TO	GENERAL SITE NOTES AND PLAN REFERENCES. COVER SYSTEM AND EXISTING LANDFILL GAS VENTS DWN AND NHDEP SPECIFICATIONS. 40 0 40	80 160 FEET		
10/1							
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DANIEL DANIEL DIPFIN DIPFIN 11841 DENSER				1.5 MW AC SOLAR ARRAY REVISION ENERGY 9 CROSS ROAD EXETER, NEW HAMPSHIRE SITE OVERVIEW PLAN			
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10th				Phone 207.829.5016 • Fax 207.829.5692 • sme-engineers.com	CTB: SME-STD		
-				JOB NO. 220241.00 DWG FILE BASE	C-102		

OLE (POLE #2



EROSION CONTROL NO	DTES:
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- A. CONSTRUCTION PHASING
- . All soil erosion and sedimentation control shall be done in accordance with: (1) the New Hampshire Stormwater Manual Vol. 3: Erosion and Sediment Controls During Construction, New Hampshire Department of Environmental Services (NHDES) December 2008.
- . The site Contractor (to be determined) will be responsible for the inspection and repair/replacement/maintenance of all erosion control measures, disturbed areas, material storage areas, and vehicle access points until all disturbed areas are
- . All areas of exposed or disturbed soil should be temporarily stabilized as soon as practicable but no later than 45 days from the time of initial disturbance, unless a shorter time is specified by local authorities, the construction sequence approved as part of the issued permit, or an independent monitor. All areas of exposed or disturbed soil should be permanently stabilized
- as soon as practicable but no later than 3 days following final grading. The area of unstabilized soil should not exceed 5 acres at any time unless project permits specifically provide for a greater area of disturbance. Any such greater area of disturbance requires, as part of the permitting process: a. Documentation that the required areas of earth cuts and fills are such that an area of disturbance of 5 acres or less
- would unreasonably limit the construction schedule; b. An approved construction sequence plan, developed by a professional engineer licensed to practice in the state of c. New Hampshire or a Certified Professional in Erosion and Sediment Control as certified by the CPESC Council of
- EnviroCert International, Inc.; and d. Employment or retainment of a professional engineer licensed to practice in the state of New Hampshire or a Certified Professional in Erosion and Sediment Control as certified by the CPESC Council of EnviroCert International, Inc. to
- serve as an environmental monitor during construction. 5. Only disturb, clear, or grade areas necessary for construction. Flag or otherwise delineate areas not to be disturbed. Exclude
- vehicles and construction equipment from these areas to preserve natural vegetation. 5. All graded or disturbed areas including slopes should be protected during clearing and construction in accordance with an approved erosion and sediment control plan until they are permanently stabilized. There shall be no plastic, or multi-filament
- or mono-filament polypropylene netting or mesh with an opening size greater than 1/8 inches material utilized. All erosion and sediment control practices and measures should be constructed, applied and maintained in accordance with
- the approved erosion and sediment control plan. Topsoil required for the establishment of vegetation should be stockpiled in the amount necessary to complete finished grading and protected from erosion.
- 9. Stockpiles, borrow areas and spoils should be stabilized as described under "Soil Stockpile Practices." 10. Slopes should not be created so close to property lines as to endanger adjoining properties without adequate protection against sedimentation, erosion, slippage, settlement, subsidence or other related damages.
- 11. Areas to be filled should be cleared, grubbed and stripped of topsoil to remove trees, vegetation, roots or other objectionable materials.
- 12. Areas should be scarified to a minimum depth of 3 inches prior to placement of topsoil. Topsoil should be placed without significant compaction to provide a loose bedding for placement of seed.
- 13. All fills should be compacted in accordance with project specifications to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures, site utilities, conduits, and other facilities, should be compacted in accordance with local requirements or codes.
- 14. In general, fills should be placed and compacted in layers ranging from 6 to 24 inches in thickness. The contractor should review the project geotechnical report for specific guidance. Fill material should be free of brush, rubbish, rocks, logs, stumps, building debris, frozen material and other objectionable materials that would interfere with or prevent construction of satisfactory lifts.
- 15. Frozen material or soft, mucky or highly compressible materials are susceptible to accelerated settlement and potential accelerated erosion. Work in these materials should be performed under the direction of a professional engineer. 16. The outer face of the fill slope should be allowed to stay loose, not rolled, compacted, or bladed smooth. A bulldozer may run up and down the fill slope so the dozer treads (cleat tracks) create grooves perpendicular to the slope. If the soil is not too
- moist, excessive compaction will not occur. 17. Roughen the surface of all slopes during the construction operation to retain water, increase infiltration, and facilitate vegetation establishment.
- 18. Use slope breaks, such as diversions, benches, or contour furrows as appropriate, to reduce the length of cut-and-fill slopes to limit sheet and rill erosion and prevent gully erosion. All benches should be kept free of sediment during all phases of
- 19. Seeps or springs encountered during construction should be evaluated by a professional engineer to determine if the proposed design should be revised to properly manage the condition. 20. Stabilize all graded areas with vegetation, crushed stone, compost blanket, or other ground cover as soon as grading is completed or if work is interrupted for 21 working days or more. Use mulch or other approved methods to stabilize areas temporarily where final grading must be delayed.
- **B. TEMPORARY MEASURES**
- TEMPORARY CONSTRUCTION EXIT
- a. A stabilized construction exist consists of a pad of stone aggregate placed on a geotextile filter fabric, located at any point where traffic will be leaving a construction site to an existing access roadway or other paved surface. See detail for specifications
- b. The pad should be maintained or replaced when mud and soil particles clog the voids in the stone such that mud and soil particles are tracked off-site. 2. SILT FENCE
  - a. Silt fence should be installed prior to any soil disturbance of the contributing drainage area above them. b. Silt fences (synthetic filter) can be used for 60 days or longer depending on ultraviolet stability and manufacturer's recommendations. However, silt fences generally have a useful life of one season, and should be periodically replaced on longer duration construction projects.
  - c. Silt fences should be removed when they have served their useful purpose, but not before the upslope areas have been permanently stabilized
  - d. Silt Fence s should be inspected and maintained immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers should be replaced with a temporary check dam
- e. Sediment deposition should be removed, at a minimum, when deposition accumulates to one-half the height of the fence, and moved to an appropriate location so the sediment is not readily transported back toward the silt fence. EROSION CONTROL MIX BERMS
- a. The barrier must be placed along a relatively level contour. It may be necessary to cut tall grasses or woody vegetation to avoid creating voids and bridges that would enable fines to wash under the barrier through the grass blades or plant
- b. Where approved, erosion control mix berms may be used as a substitute for silt fence. See the details in this drawing set for specifications. . TEMPORARY CHECK DAMS
- a. Check dams should be installed before runoff is directed to the swale or drainage ditch.
- b. The check dam may be left in place permanently to avoid unnecessary disturbance of the soil on removal, but only if the project design has accounted for their hydraulic performance and construction plans call for them to be retained.
- c. If it is necessary to remove a stone check dam from a grass- lined channel that will be mowed, care should be taken to ensure that all stones are removed. This includes stone that has washed downstream.
- d. Check dams should be inspected after each rainfall and at least daily during prolonged rainfall and necessary repairs should be made immediately. Check dams should be checked for sediment accumulation after each significant rainfall.
- Sediment should be removed when it reaches one half of the original height or before. e. Temporary structures should be removed once the swale or ditch has been stabilized or when it is no longer needed. TEMPORARY VEGETATION
- a. stabilize disturbed areas that will not be brought to final grade for a year or less and to reduce problems associated with mud and dust production from exposed soil surfaces during construction with temporary seeding. b. Areas seeded between May 15th and August 15th should be covered with hay or straw mulch, according to the "Temporary and Permanent Mulching" practice.
- c. Temporary seeding should occur prior to September 15.
- d. Vegetated growth covering at least 85% of the disturbed area should be achieved prior to October 15th. If this condition is not achieved, implement other temporary stabilization measures for overwinter protection. TEMPORARY SEEDING SPECIFICATIONS

SPECIES	PER ACRE POUNDS (LBS) PER 1,000SF			
WINTER RYE	112	2.5		
OATS	80 LBS	2 LBS		
ANNUAL RYEGRASS	40 LBS	1 LB		
PERENNIAL RYEGRASS	30 LBS	0.7 LBS		

- . TEMPORARY MULCHING
- a. In sensitive areas (within 100 feet of streams, wetland and in lake watersheds) temporary mulch will be applied within 7 days of exposing soil or prior to any storm event.
- b. In other areas, the time period can range from 14 to 30 days, the length of time varying with site conditions (soil erodibility, season of year, extent of disturbance, proximity to sensitive resources) and the potential impact of erosion on adjacent areas. Other state or local restrictions may also apply.
- c. Areas that have been temporarily or permanently seeded should be mulched immediately following seeding. d. Areas that cannot be seeded within the growing season should be mulched for over-winter protection. The area should
- be seeded at the beginning of the next growing season. e. Mulch can be used in conjunction with tree, shrub, vine, and ground cover plantings.
- f. Mulch anchoring should be used on slopes with gradients greater than 5% in late fall (past September 15), and over-winter (September 15 May 15).
- g. The choice of materials for mulching should be based on site conditions, soils, slope, flow conditions, and time of year. The following materials may be used for temporary mulch:
- h. Hay or Straw material shall be air-dried, free of undesirable seeds and coarse materials. Apply 2 bales (70-90 lbs) per 1000 sf or 1.5 to 2 tons (90 100 bales) per acre to cover 75 90% of the ground surface. Hay or straw mulch should be anchored to prevent displacement by wind or flowing water, using one of the following methods:
- Netting: Install jute, wood fiber, or biodegradable plastic netting over hay or straw to anchor it to the soil surface. Install netting material according to manufacturer's recommendation. There shall be no plastic, or multi-filament or mono-filament polypropylene netting or mesh with an opening size greater than 1/8 inches material utilized. Netting should be used judiciously, as wildlife can become entangled in the materials.

- uphill side of the barrier, and a minimum of two feet wide.
- mats (or mulch and netting) on: The base of grassed waterways
- Steep slopes (15% or greater)
- lighter grade mats (or mulch and netting) on:
- Side slopes of grassed waterways
- C. TEMPORARY DUST CONTROL
- D. CONSTRUCTION DE-WATERING
- pumped discharges
- 2. Temporary basin designs include but are not limited to: An enclosure of Jersey Barriers lined with Geotextile Fabric

  - weight of impounded water
- the NHDES Stormwater Manual Vol. 3. E. PERMANENT MEASURES
- vegetation.

b. Where feasible, except where eith following seeding operations with
c. Select a seed mixture that is appr

sun exposure	and t	or level of us	se.			
SEED MIXTURE	BASE	d on soil t	YPE			
USE	SEED	MIX	SOIL DRAIN	NAGE		
	(SEE	TABLE)	DROUGHT	WELL DRAIN	ED MODERATELY V	VELL DRAINED POORLY D
Steep cuts and f	fills,	А	FAIR	GOOD	GOOD	FAIR
borrow and		В	POOR	GOOD	FAIR	FAIR
disposal areas		С	POOR	GOOD	EXCELLENT	GOOD
		D	FAIR	FAIR	GOOD	EXCELLENT
		E	FAIR	EXCELLENT	EXCELLENT	POOR
Waterways,		А	GOOD	GOOD	GOOD	FAIR
Emergency		С	GOOD	EXCELLENT	EXCELLENT	FAIR
spillways,		D	GOOD	EXCELLENT	EXCELLENT	FAIR
and other chan	nels					
with flowing wat	ter					
Lightly used par	king	А	GOOD	GOOD	GOOD	FAIR
lots, odd areas,	,	В	GOOD	GOOD	FAIR	POOR
unused lands, a	nd	С	GOOD	EXCELLENT	EXCELLENT	FAIR
low intensity use	e	D	FAIR	GOOD	GOOD	EXCELLENT
recreation sites						_
Play areas and		F	FAIR	EXCELLENT	EXCELLENT	SEE NOTE 2
athletic fields. (	Гор-	G	FAIR	EXCELLENT	EXCELLENT	SEE NOTE 2
soil is essential	for					
good turf.)						

A	Tall fescue
	Creeping red fescue
	Redtop
	Total
B <sup>3</sup>	Tall fescue
	Creeping red fescue
	Crown Vetch
	Or Flatpea
	Total
C <sup>3</sup>	Tall fescue
	Creeping red fescue
	Redtop
	Total
$D^3$	Birdsfoot Trefoil
	Redtop
	Reed Canarygrass <sup>1</sup>
	Total
E	Tall fescue
	Flatpea
	Total
F	Creeping red fescue <sup>2</sup>
	Kentucky Bluegrass <sup>2</sup>
	Total
G	Tall Fescue

- varieties and seeding rates.
- 20 pounds per acre



Tackifier: Apply polymer or organic tackifier to anchor hay or straw mulch. Application rates vary by manufacturer: typically 40-60 lbs/acre for polymer material, and 80-120 lbs/acre for organic material. Liquid

mulch binders are also typically applied heavier at edges, in valleys, and at crests than other areas. i. Wood chips or ground bark should be applied to a thickness of 2 to 6 inches. Wood chips or ground bark should be applied at a rate of 10 to 20 tons per acre or 460 to 920 pounds per 1,000 square feet.

j. Erosion control mix can be manufactured on or off the project site. It must consist primarily of organic material, separated at the point of generation, and may include shredded bark, stump grindings, composted bark, or acceptable manufactured products. Wood and bark chips, ground construction debris or reprocessed wood products will not be acceptable as the organic component of the mix. The barrier must be a minimum of 12" high, as measured on the

k. Erosion Control Mats: Mats are manufactured combinations of mulch and netting designed to protect against erosion and also to retain soil moisture and modify soil temperature. During the growing season (April 15 - September 15) use

Any disturbed soil within 100 feet of lakes, streams and wetlands

During the late fall and winter (September 15 - April 15) use heavy grade mats on all areas noted above plus use

• Moderate slopes (greater than 8%) There may be cases where mats will be needed on slopes flatter than 8%, depending on site conditions and the length of the slope.

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water, or other dust inhibiting agents or tackifiers, as approved by the NHDES.

## Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, streams, water bodies, or site boundaries. Use temporary basins or sediment traps, and manufactured fabric bags designed for filtering

• A temporary enclosure constructed with hay bales, silt fence, or both. Erosion control mix also may be incorporated with silt fence or hay bales. Silt fence must be supported to prevent it from collapsing under the

Chambered settling system fabricated of concrete or steel and designed for sediment removal.

 Excavated or bermed sedimentation trap designed in accordance with the NHDES Stormwater Manual Vol. 3. • A sediment basin (including temporarily modified stormwater detention ponds), if designed in accordance with

. Topsoil, Seed, and mulch: All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched. At a minimum, 85% of the soil surface should be covered by

Seed Preparation: Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring tooth harrow or other suitable equipment. The final harrowing operation should be on the general contour. Continue tillage until a reasonably uniform, fine seedbed is prepared. All but clay or silty soils and coarse sands should be rolled to irm the seedbed wherever feasible. Remove all stones 2 inches or larger in any dimension and any other debris from surface. On slopes 4:1 or steeper, the final preparation should include creating horizontal grooves perpendicular to the direction of the slope to catch seed and reduce runoff. Grade as needed.

a. Seeding will be completed by August 15 of each year. Late season seeding may occur between August 15 - September 15. Areas not seeded or achieved 85% growth of the disturbed area by October 15 will be temporarily stabilized in accordance to overwinter protections and complete permanent seed stabilization during the next growing season. ner a cultipacker type seeder or hydroseeder is used, the seedbed should be firmed a roller, or light drag.

opriate for the soil type and moisture content as found at the site, for the amount of

DRAINED

Gravel PitSee source document for recommendations or consult with USDA Natural Resource Conservation Service.

#### SEED MIXTURES FOR PERMANENT VEGETATION

PER ACRE	POUNDS (LBS)	PER 1	1,000SF
20	0.45		

-	
20	0.45
2	0.05
42	0.95
15	0.35
10	0.25
15	0.35
30	0.75
40 or 55	0.95 or 1.35
20	0.45
20	0.45
8	0.20
48	1.10
10	0.25
5	0.10
15	0.35
30	0.70
20	0.45
30	0.75
50	1.20
50	1.15
50	1.15
100	2.30

Reed canary grass is on the invasive species watch list due to its rapid, aggressive growth and its ability to move into wetlands and out-compete other desirable wetland plants. Caution should be used when planted near wetlands. . For heavy use athletic fields, consult the University of New Hampshire Cooperative Extension Turf Specialist for current

The University of New Hampshire Cooperative Extension recommends red clover to substitute for crown vetch or birdsfoot trefoil if they are going to be mowed to a height of 4 inches or less. Red clover (Alsike variety) should be seeded at a rate of

a. Mulch in accordance with specifications for temporary mulching

03.60

F. WINTER CONSTRUCTION AND STABILIZATION

- To adequately protect water quality during cold weather and during spring runoff, the following stabilization techniques should be employed during the period from October 15th through May 15th. 1. The area of exposed, unstabilized soil should be limited to one acre and should be protected against erosion by the methods described in this section prior to any thaw or spring melt event. Subject to applicable regulations, the allowable area of
- exposed soil may be increased if activities are conducted according to a winter construction plan, developed by a professional engineer licensed to practice in the state of New Hampshire or a Certified Professional in Erosion and Sediment Control as certified by the CSPESC Council of EnviroCert International, Inc.
- Mulching: a. All mulch applied during winter should be anchored (e.g., by netting, tracking, wood cellulose fiber).
  - b. When mulch is applied to provide protection over winter (past the growing season), it should be applied to a depth of four inches (150-200 pounds of hay or straw per 1000 square feet, or double standard application rate). Seeding cannot generally be expected to grow up through this depth of mulch and will be smothered. If vegetation is desired, the mulch will need to be removed in the springtime and the area seeded and mulched. c. Installation of anchored hay mulch or erosion control mix should not occur over snow of greater than one inch in
- d. Installation of erosion control blankets should not occur over snow of greater than one inch in depth or on frozen around
- 3. Soil Stockpiles: Stockpiles of soil materials should be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. Mulching should be done within 24 hours of stocking, and re-established prior to any rainfall or snowfall. No soil stockpile should be placed (even covered with mulch) within 100 feet from any wetland or other water resource area. Frozen materials, (e.g., frost layer that is removed during winter construction), should be stockpiled separately and in a location that is away from any area needing to be protected. Stockpiles of frozen material can melt in the spring and become unworkable and difficult to transport due to the high moisture content in the soil. 4. Ditches and Channels:
  - a. All grass-lined ditches and channels should be constructed and stabilized by September 1. All ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, should be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions, as determined by a qualified Professional Engineer or a Certified Professional in Erosion and Sediment Control as certified by the CSPESC Council of EnviroCert International, Inc. If a stone lining is necessary, the contractor may need to ré-grade the ditch as required to provide adequaté cross-section after allowing for placement of the stone.
- 5. Road and Parking areas: After October 15th, incomplete road or parking areas where active construction of the road or parking area has stopped for the winter season should be protected with a minimum 3 inch layer of sand and gravel with a gradation such that less than 12% of the sand portion, or material passing the number 4 sieve, by weight, passes the number 200 sieve

b. All stone-lined ditches and channels must be constructed and stabilized by October 15.

- 6. Sediment Barriers: Sediment barriers that are installed during frozen conditions should consist of erosion control mix berms, or continuous contained berms. Silt fences and hay bales should not be installed when frozen conditions prevent proper embedment of these barriers.
- . Seeding: If seeding cannot be done within the specified seeding dates, mulch according to the "Temporary and Permanent Mulching practice," and delay seeding until the next recommended seeding period. 8. Maintenance: Maintenance measures should continue as needed throughout construction, including the over-winter period After each rainfall, snowstorm, or period of thawing and runoff, the site contractor should conduct an inspection of all installed erosion control measures and perform repairs as needed to insure their continuing function. For any area stabilized by temporary or permanent seeding prior to the onset of the winter season, the contractor should conduct an inspection in the

achieve an established vegetative cover (at least 85% of area vegetated with healthy, vigorous growth).

- G. OVERWINTER CONSTRUCTION CONTROL MEASURES
- 1. Stabilization as follows should be completed within a day of establishing the grade that is final or that otherwise will exist for more than 5 days:
  - a. All proposed vegetated areas having a slope of less than 15% which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, should be seeded and covered with 3 to 4 tons of hay or straw mulch per acre secured with anchored netting, or 2 inches of erosion control mix (see description of areas areas for material constraints). erosion control mix berms for material specification)
  - b. All proposed vegetated areas having a slope of greater than 15% which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, should be seeded and covered with a properly installed and anchored erosion control blanket or with a minimum 4 inch thickness of erosion control mix, unless otherwise specified by the manufacturer. Note that compost blankets should not exceed 2 inches in thickness or they may overhea
- 2. All stone-covered slopes must be constructed and stabilized by October 15.

H. MAINTENANCE PLAN

- 1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.
- I. Housekeeping.
- 1. Spill prevention. Controls must be used to prevent pollutants from being discharged from materials on site, including storage practices to minimize exposure of the materials to stormwater, and appropriate spill prevention, containment, and response planning and implementation.
- 2. Groundwater protection. During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. 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 storage and handling of these materials.
- 3 Eugitive sediment and dust Actions must be taken to ensure that activities do not result in noticeable erosion of soils or ugitive dust emissions during or after construction. Oil may not be used for dust control. If off-site tracking occurs roadways should be swept immediately and no loss once a week and prior to significant storm events. 4. Debris and other materials. Litter, construction debris, and chemicals exposed to stormwater must be prevented from
- becoming a pollutant source. 5. Trench or foundation de-watering. Trench de-watering is the removal of water from trenches, foundations, coffer dams ponds, 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 collected water must be removed from the ponded area, éither through gravity or pumping, and must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid
- allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the department. 6. Care must be exercised to prevent contact of water from construction dewatering with oil, grease, other petroleum products, or toxic and hazardous materials. Contaminated runoff must be contained, treated, and discharged or removed in accordance with NHDES requirements.
- 7. Additional requirements. Additional requirements may be applied on a site-specific basis.

J. CONSTRUCTION SEQUENCE

In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Spring 2024 and end in 2025.

- Mobilization
- Install temporary erosion control measures
- Clearing and grubbing
- Site Grading
- EDGE OF EX PAVEMENT 3" COURSE AGGREGATE — EX BASE AND SUBBASE -75'-0" MIN GEOTEXTILE MIRAFI 6" MIN 600X OR EQUAL -SECTION  $(A \otimes A \otimes A)$ .V. : .V. : 'A' : 'A ·V. : .V.  $\mathcal{N}$  :  $\mathcal{N}$  :  $\mathcal{N}$ 10' (MIN) . 'A' : 'A . .V. . .V. . .V  $\nabla = \nabla = \nabla = \nabla = \nabla = \nabla = \nabla$  $(X, \cdot) (X, \cdot)$ PLAN NOTES: 1. MAINTAIN ENTRANCE IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. IF WASHING IS REQUIRED PREVENT
  - SEDIMENT FROM ENTERING WATERWAYS, DITCHES OR STORM DRAINS.
  - 2. REMOVE STABILIZED CONSTRUCTION ENTRANCE TO FINISH ROAD CONSTRUCTION AND PAVEMENT.

## STABILIZED CONSTRUCTION ENTRANCE DETAIL

- Install site utilities and solar panels Site stabilization, loam and seed, and landscaping
- Install gravel access road







	UCTION	USE	
	5" TOPSOIL, AS NEEDED, NO STONES OVER 3/4" DIA SEED WITH NEW ENGLAND MEADOW MIX OR APPROVED EQUAL GRANULAR MATERIAL IN FILL AREAS SUBGRADE	<u>GRASS</u> ALL DISTURBED AREAS AND UNDER ARRAY	
<u>NOTES:</u> 1. HMA = HOT MIX NHDOT = NEW H 2. COMPACT SUBGE MATERIAL TO MI <u>SCHEDU</u> NTS	ASPHALT. IAMPSHIRE DEPARTMENT OF TRANSPORTATIO ADE AND EACH LAYER OF BORROW , SUBBASE NIMUM 95% OF MATERIAL MAXIMUM DRY DEN	N. E MATERIAL, AND BASE ISITY PER ASTM D1557.	
		-2"x*	4" PRESSURE TREATED RAI
2"x4" PRESSURE TREATED RAIL (TYP	) Т		4" PRESSURE TREATED RAI
2"x4" PRESSURE TREATED RAIL (TYP 2"x8" PRESSURE TREATED DECKING (TYP)			

## CONDUIT (TIMBER MAT) BRIDGE



 $\times$ 

TREATED DECKING (TYP) -

2"x8" PRESSURE

B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN C. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. D. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. E. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM. F. PH: 5.0 - 8.0

COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:

A. ORGANIC MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)

4. IF SLOPE OF LAND IS GREATER THAN 5%, CONSTRUCT A DIVERSION BERM UPHILL OF THE STOCKPILE TO DIVERT FLOW.

## SOILS STOCKPILE DETAIL

TOPSOIL STOCKPILE AREA - SILT FENCE OR ECM BERM

#### NOTES:

Marshall

- 1. LOCATE SOIL STOCKPILES AS FAR FROM PROTECTED RESOURCES AS POSSIBLE (PONDS, RIVERS, STREAMS, BROOKS, & WETLANDS). LOCATE SOIL STOCKPILES AWAY FROM AREAS OF CONCENTRATED FLOW OR POTENTIAL FLOODING.





/ DIVERSION BERM



2. ERECT SEDIMENT BARRIER (SILT FENCE OR ECM BERM) DOWN SLOPE OF STOCKPILES STABILIZE STOCKPILES THAT WILL NOT BE WORKED FOR 14 OR MORE DAYS IN THE GROWING SEASON OR WILL REMAIN UNWORKED OR PARTIALLY UNWORKED OVER THE WINTER (NOVEMBER 1 TO APRIL 15) WITH TEMPORARY SEED, MULCH AND MULCH ANCHORING OR EROSION CONTROL BLANKET OR

MESH AS SPECIFIED IN THE EROSION CONTROL PLAN. IN WINTER APPLY HAY MULCH AT THE RATE OF AT LEAST 150 LBS/1000 SF AND THICK ENOUGH THAT THE GROUND SURFACE IS NOT VISIBLE AND ANCHOR IF STOCKPILE HAS NOT BEEN PERMANENTLY STABILIZED USING ANOTHER METHOD (TARPS,

PERMANENT SEED (< 90% VEGETATED), EROSION CONTROL BLANKET OR EROSION CONTROL MIX. EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY

OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED

BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING SYSTEMS. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS,

REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC

COMPONENT OF THE MIX. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX



- 1. CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY SELF-CONTAINED.
- 2. LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 50 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE.
- 3. SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR.
- 4. SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES AS APPROVED BY THE ENGINEER, SHOULD BE USED AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.
- 5. SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S), AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED METHOD.
- 6. WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.
- 7. HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.



		DPD	3/2024	ISSUED FOR CONSTRUCTION	
		DPD	2/2024	REISSUED FOR NHDES REVIEW	
		DPD	9/2023	ISSUED FOR NHDES REVIEW	
	REV.	BY	DATE	STATUS	
	DANIEL DANIEL DIPFIN 11841 VCENSER S/ONAD INGULUL			1.5 MW AC SOLAR ARRAY REVISION ENERGY 9 CROSS ROAD EXETER, NEW HAMPSHIRE	
			Munner .	SECTIONS AND DETAILS	
7				CME 🔶	DESIGN BY: JTR
					DRAWN BY: JRL
				DATE: 9/2023	
				ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE	CHECKED BY: DPD
				4 Blanchard Road, PO Box 85A, Cumberland, Maine 04021	LMN: NONE
			Phone 207.829.5016 • Fax 207.829.5692 • smemaine.com	CTB: SME-STD	
				JOB NO. 220241.00 DWG FILE DETAILS	C-302