

CITY OF CONCORD LANDFILL SOLAR PROJECT

PROPOSED 5 MW(AC) SOLAR PHOTOVOLTAIC (PV) PROJECT

77 OLD TURNPIKE ROAD, CONCORD, NEW HAMPSHIRE

FACILITY: CONCORD MUNICIPAL LANDFILL

PERMIT NUMBER: DES-SW-TP-94-016

5 Land Owner / Co-Applicant



City of Concord
41 Green Street
Concord, NH 03301-4255
(603) 225-8610

5 Project Developer / Co-Applicant



Kearsarge Old Turnpike Road LLC
1380 Soldiers Field Road, Suite 3900
Boston, MA 02135
Tel: (855) 277-6217
www.kearsargeenergy.com

Consultants:



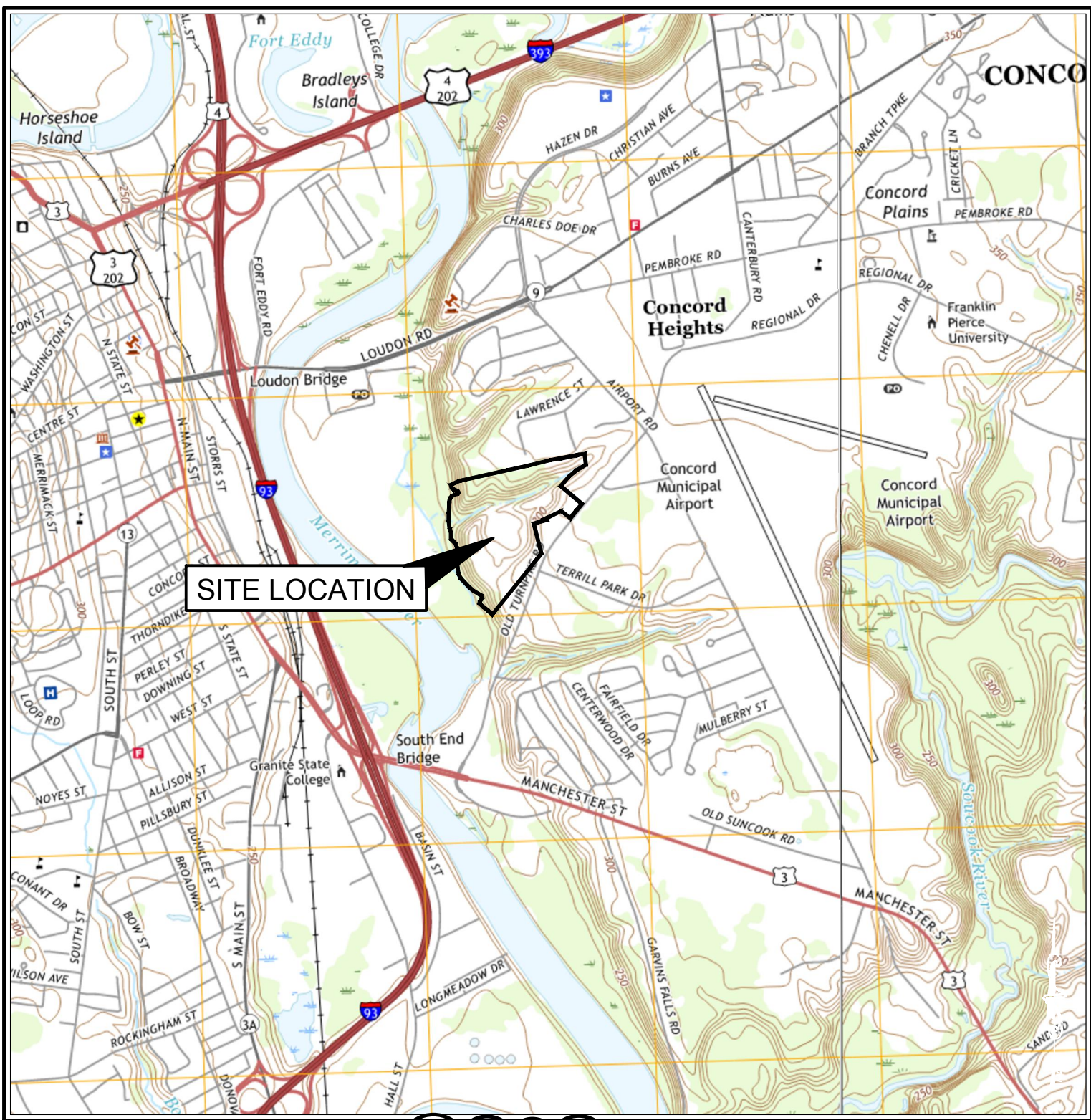
Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON
www.westonandsampson.com

ZONING INFORMATION	
ZONE:	OPEN SPACE RESIDENTIAL DISTRICT (RO)
DIMENSIONAL REQUIREMENTS	
MIN. LOT AREA:	2 ACRES
MIN. FRONT SETBACK:	50 FEET
MIN. SIDE SETBACK:	40 FEET
MIN. REAR SETBACK:	50 FEET
MAX. BUILDING HEIGHT:	35 FEET

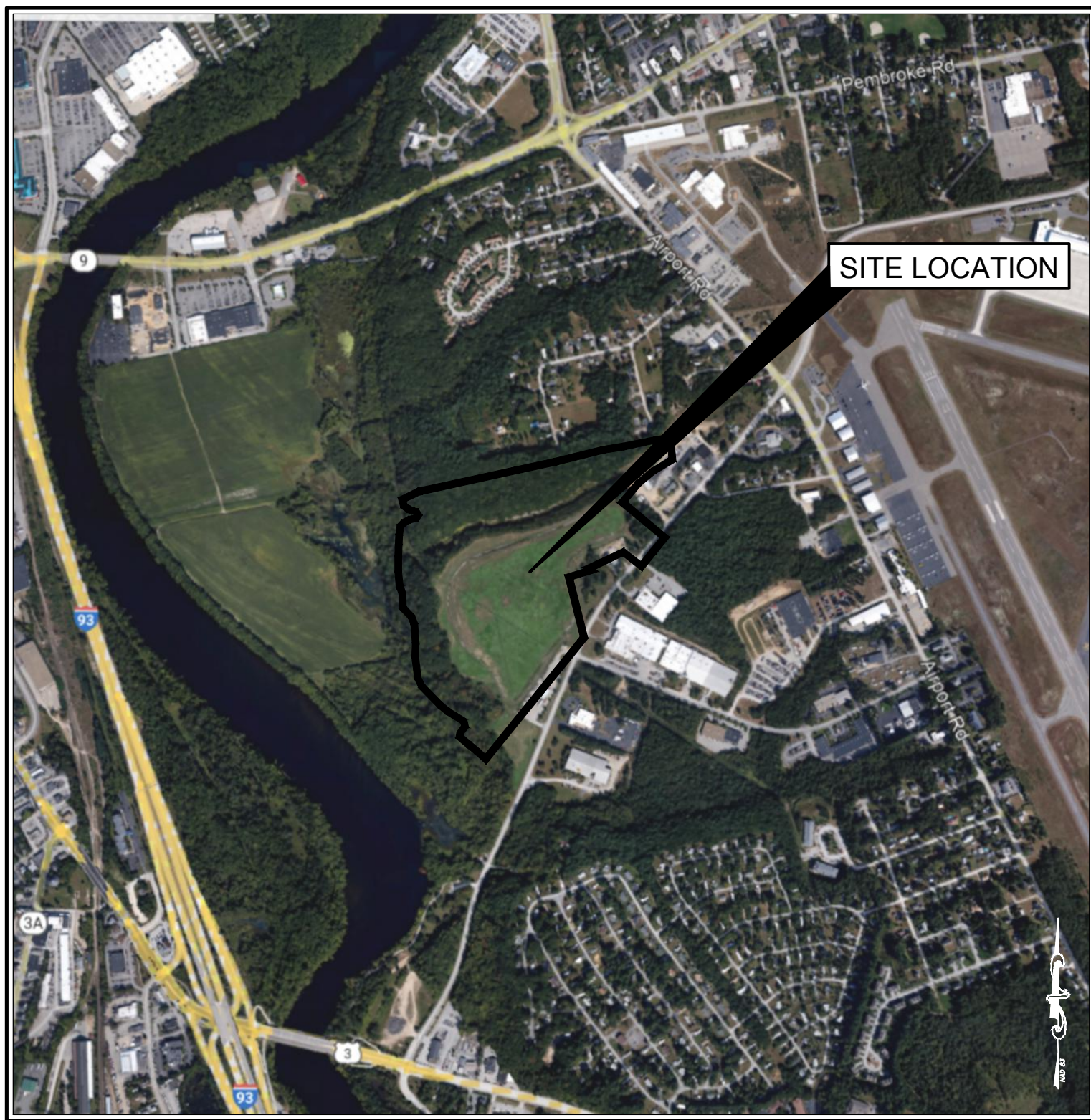
ZONING INFORMATION	
ZONE:	INDUSTRIAL DISTRICT (IN)
DIMENSIONAL REQUIREMENTS	
MIN. LOT AREA:	40,000 SQUARE FEET
MIN. FRONT SETBACK:	50 FEET
MIN. SIDE SETBACK:	25 FEET
MIN. REAR SETBACK:	30 FEET
MAX. BUILDING COVERAGE OF AREA:	45 FEET

DRAWING INDEX	
SHEET	TITLE
GENERAL	
G001	COVER SHEET
SURVEY	
V101	EXISTING CONDITIONS PLAN
CIVIL	
C001	NOTES AND SPECIFICATIONS
C002	RECOMMENDED PERMIT CONDITIONS
C101	PROPOSED SITE PLAN
C501	DETAILS I
C502	DETAILS II

SITE INFORMATION	
LAND OWNER:	CITY OF CONCORD C/O CASELLA WASTE SYSTEM
BOOK:	0
PAGE:	0
MBLU	751 / Z 21 / A II



5 VICINITY PLAN
SCALE: 1" = 2000'



SITE AERIAL MAP
SCALE: 1" = 1000'

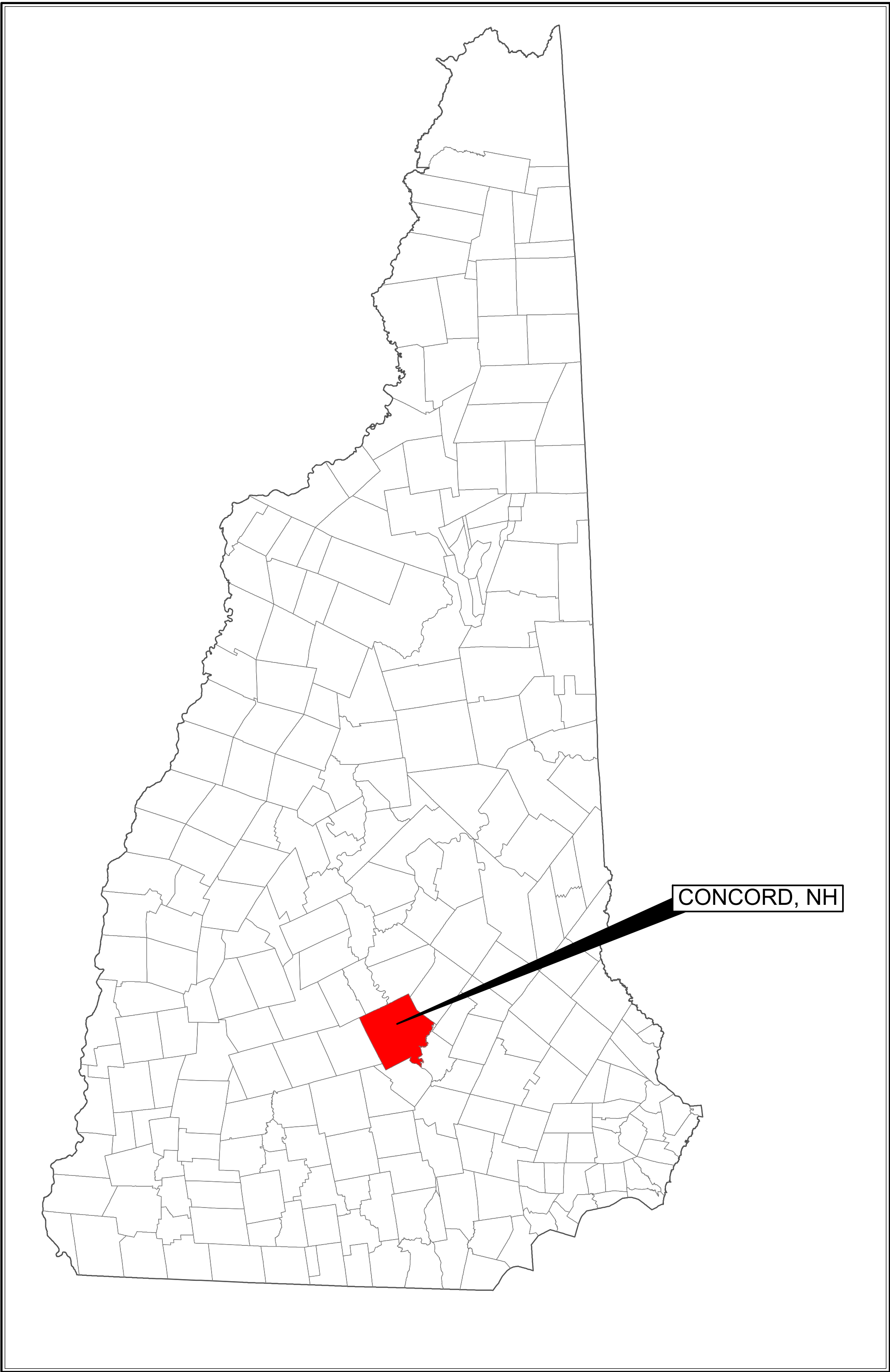
NOT FOR CONSTRUCTION

5	REVISED PER CITY COMMENTS	04/28/2025
4	NHFG RECOMMENDED PERMIT CONDITIONS	03/14/2025
3	NO CHANGES THIS SHEET	02/11/2025
2	ISSUED FOR PERMITTING - TYPE 1B	01/30/2025
1	NO CHANGES THIS SHEET	01/03/2025
0	ISSUED FOR PERMITTING - AOT	10/24/2024
REV #	DESCRIPTION	DATE



Know what's below.
Call before you dig.

Issued For:	PERMITTING	Drawn By:	DED
Issued Date:	10/24/2024	Reviewed By:	MRC
Approved By:	RJB	Job No:	ENG24-0294
Drawing Title:	COVER SHEET	Sheet Number:	G001



NEW HAMPSHIRE MUNICIPAL MAP
NOT TO SCALE

GENERAL NOTES:

- OWNER OF RECORD: CITY OF CONCORD - 77 OLD TURNPIKE ROAD - CONCORD, NEW HAMPSHIRE. SEE BOOK 3421 PAGE 1859 (AGREEMENT LINE WITH ANTOINE - MAP REFERENCE 2), WITH A TOWN LISTED PROPERTY ADDRESS OF 107 OLD TURNPIKE ROAD, CONCORD, MERRIMACK COUNTY, NEW HAMPSHIRE. FIELD WORK WAS COMPLETED MARCH 14, 2024.
- HORIZONTAL DATUM IS BASED ON NEW HAMPSHIRE STATE GRID COORDINATE SYSTEM NAD83 (2011). VERTICAL DATUM IS REFERENCED TO NAVD 88. TOPOGRAPHY SHOWN WAS DEVELOPED UTILIZING THE MOST UP TO DATE ONLINE ELECTRONIC LIDAR FILES FROM NGS, IN COMBINATION WITH ON THE GROUND DATA COLLECTION WITH SURVEY GRADE GPS AND OR ROBOTIC TOTAL STATION. CONTOUR INTERVAL SHOWN ON PLAN IS 2 - FOOT.
- THE WETLANDS SHOWN ON THIS PLAN WERE INTERPRETED, DEFINED, AND POSITIONED BASED ON NEW HAMPSHIRE GIS LOCATION.
- PROPERTIES ARE LOCATED WITHIN 2 - ZONING DISTRICTS PER ONLINE CITY RECORDS. TAX MAP 754/BLOCK Z - / LOT 1 IS LOCATED WITHIN DISTRICT RO (OPEN SPACE RESIDENTIAL ZONING DISTRICT), AND TAX MAP 751/BLOCK Z / LOT 21 IS LOCATED WITHIN DISTRICT IN (INDUSTRIAL ZONING). BOTH DISTRICTS HAVE THE FOLLOWING DIMENSIONAL REQUIREMENTS:

	OPEN SPACE RESIDENTIAL DISTRICT	INDUSTRIAL DISTRICT
A. FRONT SETBACK	50 FT	50 FT
B. SIDE SETBACK	40 FT	25 FT
C. REAR SETBACK	50 FT	30 FT
D. MINIMUM LOT AREA	2 - ACRES	40,000 SF
E. MAXIMUM HEIGHT	35 FT	45 FT

- THE PRESENT LANDFILL AREA IS NOT AFFECTED AS A FLOOD PRONE AREA AND IS LOCATED WITHIN ZONE "X". SEE F.I.R.M. - FLOOD INSURANCE RATE MAP - COMMUNITY PANEL NUMBER 330110 - PANEL 0534 E / MAP NUMBER 3301300534 E FOR THE CITY OF CONCORD, MERRIMACK COUNTY, NEW HAMPSHIRE (ALL JURISDICTIONS), WITH AN EFFECTIVE DATE OF APRIL 19, 2010. ZONE "X" IS DESCRIBED AS AN AREA OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL FLOODING.
- SGC ENGINEERING, LLC HAS NOT INDEPENDENTLY VERIFIED THE LOCATION, EXISTENCE, AND SERVICEABILITY OF ANY UTILITIES AND MAKES NO GUARANTEE TO THE COMPLETENESS OR THE ACCURACY OF ANY UTILITIES. THE UTILITIES SHOWN ON THIS PLAN WERE ABOVEGROUND AND VISUAL FOR FIELD LOCATES OR WERE SHOWN ON PLAN-MAP REFERENCES. ADDITIONAL UTILITIES MAY EXIST IN THE FIELD, WHICH ARE NOT SHOWN ON THIS PLAN. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD PRIOR TO EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES. CALL "DIG SAFE" AT 1-888-344-7233 OR DIAL 811. SGC ENGINEERING, LLC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF THE UTILITIES OMITTED OR INACCURATELY SHOWN ON THIS PLAN.
- THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS, OR ENTITY NAMED IN THE CERTIFICATION AND TITLE BLOCK OF THIS PLAN. THIS SURVEY DOES NOT EXTEND TO ANY UNNAMED PERSON, PERSONS, OR ENTITY WITHOUT HAVING SGC ENGINEERING'S CONSENT IN WRITING.
- OBSERVED PREMISES:
 - FIELD EVIDENCE NOTE THE SITE IS BEING USED AS A SOLID WASTE DUMP - SEE MAP REFERENCE 1.
 - NO EVIDENCE OF EARTH MOVING WORK, BUILDING CONSTRUCTION, AND BUILDING ADDITIONS OBSERVED ON SURVEYED PREMISES.
 - LOCUS PARCEL HAS FREE AND CLEAR ACCESS, IN AND TO OLD TURNPIKE ROAD, A DEDICATED AND PUBLIC WAY.

GENERAL NOTES:

- APPROXIMATE LIMIT OF WASTE FROM PLAN SET ENTITLED "CONSTRUCTION PLANS FOR CLOSURE OF MUNICIPAL LANDFILL OLD TURNPIKE ROAD CONCORD, NEW HAMPSHIRE", DATED NOVEMBER 1993, FOR CITY OF CONCORD GENERAL SERVICES DEPARTMENT, PREPARED BY WESTON, MANAGERS, DESIGNERS/CONSULTANTS OF CONCORD, NEW HAMPSHIRE.
- APPROXIMATE LIMIT OF CAP FROM PLAN ENTITLED "POST-CLOSURE DRAINAGE PLAN", DATED DECEMBER 1990, PREPARED BY WESTON, MANAGERS, DESIGNERS/CONSULTANTS OF CONCORD, NEW HAMPSHIRE.
- THE CONCORD MUNICIPAL LANDFILL DOES NOT HAVE EXISTING OUTDOOR LIGHTING.
- THE CONCORD MUNICIPAL LANDFILL DOES NOT HAVE EXISTING ONSITE PARKING.
- THE CONCORD MUNICIPAL LANDFILL DOES NOT HAVE EXISTING LOADING AREAS/ACCESS POINTS.
- NO MUNICIPAL UTILITIES SERVE THE SITE.
- NO NON-MUNICIPAL UTILITIES SERVE THE SITE.
- THERE ARE NO EXISTING WELLS OR SUBSURFACE WASTE DISPOSAL SYSTEMS ONSITE.

MAP REFERENCES:

- A PLAN ENTITLED "CONSTRUCTION PLANS FOR THE CLOSURE OF MUNICIPAL LANDFILL - OLD TURNPIKE ROAD - CONCORD, NEW HAMPSHIRE" DATED NOVEMBER 1993, AND FILED WITH THE CITY OF CONCORD NUMBER 03301.
- A PLAN ENTITLED "RESUBDIVISION PLAT PREPARED FOR THE CITY OF CONCORD - 41 GREEN STREET - CONCORD, N.H. 03301 AND GEORGE & JACQUELINE ANTOINE - OLD TURNPIKE RD. - CONCORD, NH 03301" DATED MARCH 19, 2012, RECORDED DOCKET 20273.
- A PLAN RECORDED WITH DEED BOOK 1709 PAGE 529 ENTITLED "SANITARY LANDFILL PROJECT - OLD TURNPIKE ROAD - LAND ACQUISITION AND BOUNDARY LINE AGREEMENT" DATED AUGUST 1957, BY THE PUBLIC WORKS OF CONCORD, NH
- AN UNTITLED PLAN SHOWING THE BEARING DISTANCES (MATH) AND MONUMENTATION FOR THE OLD TURNPIKE ROAD LOCATED IN CONCORD, NEW HAMPSHIRE AND FILED WITH THE CITY OF CONCORD, NEW HAMPSHIRE.
- PLAN ENTITLED "CONSTRUCTION PLANS FOR THE CLOSURE OF MUNICIPAL LANDFILL - OLD TURNPIKE ROAD - CONCORD, NEW HAMPSHIRE" DATED NOVEMBER 1993, AND FILED WITH THE CITY OF CONCORD NUMBER 3033.
- A PLAN ENTITLED "RESUBDIVISION PLAT PREPARED FOR THE CITY OF CONCORD - PROJECT MAP 110 BLOCK 6, LOT 3 & 8 - LOCATION 109 TURNPIKE RD - CONCORD, NH" DATED SEPTEMBER 2018, RECORDED PLAN NUMBER 201800021266.
- A PLAN ENTITLED "SUBDIVISION AND RESUBDIVISION PLAT FOR THOMAS & ANTOINETTE CORSON, GEORGE & JACQUELINE ANTOINE & THE CITY OF CONCORD" DATED JULY 1995 AND RECORDED AS PLAN NUMBER 13459.
- A PLAN ENTITLED "SUBDIVISION AND RESUBDIVISION ESTATE OF ANNA MURRAY - C/O HERBERT UCHIDA OF CONCORD, NH" DATED AUGUST 2006 AND RECORDED AS PLAN NUMBER 18297.
- A PLAN ENTITLED "PROPOSED SITE IMPROVEMENTS - SHEET 2 OF 3 - CONCORD RECYCLING & SOLID WASTE - CONCORD, NH" DATED SEPTEMBER 1994 AND RECORDED AS PLAN NUMBER 2262.
- A PLAN ENTITLED "BOUNDARY PLAN - MAP 110 - BLOCK 1 - LOT 2 & MAP 110H - BLOCK 1 - LOT 1 - MANCHESTER STREET & OLD TURNPIKE ROAD - CONCORD, NH" DATED APRIL 1995 AND RECORDED AS PLAN NUMBER 1922.

ADDITIONAL NOTES:

- SURFACE MONITORING WELLS NUMBERED 1, 2S, 2D, 4, 5, 6, AND 7 ARE MONITORED PER NHDES. LOCATIONS ARE BASED ON A SCANNED IMAGE FROM THE CONCORD, NH LANDFILL CLOSURE PLANS AND ARE CONSIDERED APPROXIMATE. SEE EASEMENT IN DEED BOOK 2619 PAGE 1387.
- WARRANTY DEED BREW & CO. - BOOK 970 PAGE 148 / PARCEL LOCATED TO THE SOUTH SIDE OF THE BRANCH TURNPIKE (OLD TURNPIKE ROAD).
- NEW HAMPSHIRE DES - GROUNDWATER PERMIT BOOK 2055 PAGE 367 / SEE ITEM 1 / UNKNOWN LOCATIONS OF 3-SURFACE WATER SAMPLING POINTS AND 1 - LEACHATE SEEP.

CERTIFICATION

I CERTIFY THAT THIS SURVEY IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

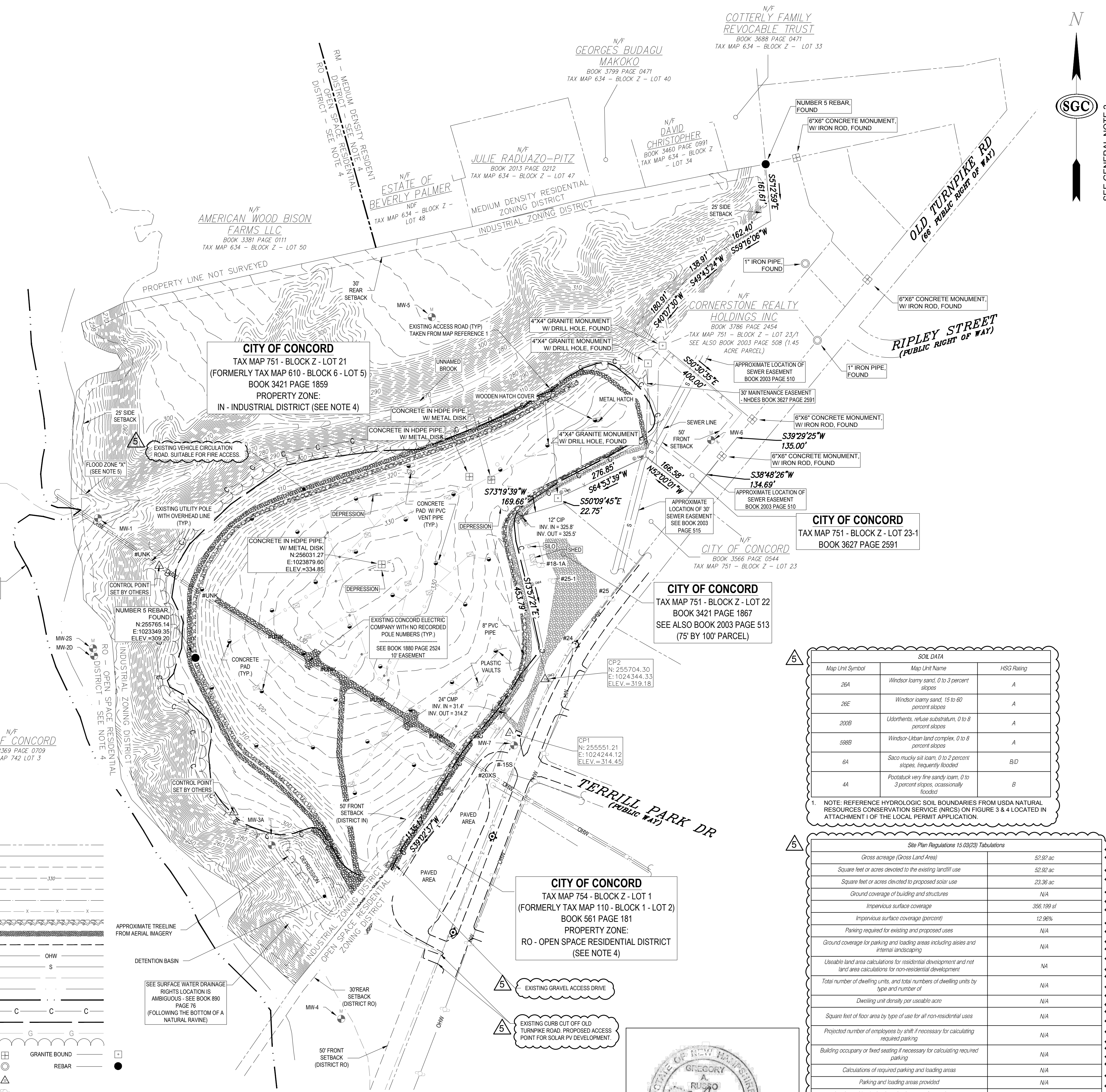
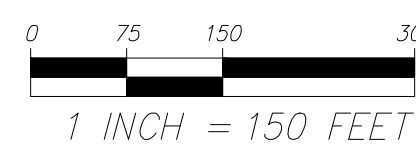
Christopher R. Michaud

CHRISTOPHER MICHAUD NEW HAMPSHIRE PLS: 1116 DATE: APRIL 29, 2025

LEGEND:

ADJACENT LOT LINE	---
LOCUS BOUNDARY LINE	---
PROPERTY LINE SETBACK	---
MAJOR CONTOUR	---
MINOR CONTOUR	---
EASEMENT LINE	---
METAL FENCE	X X X X
RIP RAP	~ ~ ~ ~
EDGE OF GRAVEL	=====
EDGE OF PAVEMENT	=====
OVERHEAD WIRE	---
SANITARY SEWER LINE	---
CENTERLINE OF STREAM	---
FLOOD ZONE "X"	---
FLOOD ZONE "AE"	---
APPROXIMATE LOCATION OF LIMIT OF CAP	---
APPROXIMATE LOCATION OF LIMIT OF WASTE	---
LANDFILL GAS PIPES	---
APPROXIMATE TREE LINE	---
CONCRETE BOUND	⊕
PIPE	---
CONTROL	△
UTILITY POLE	○
GUY POLE	○
VENTILATION PIPE	○
HYDRANT	⊕
POSSIBLE GROUND MONITORING WELL	⊕
CONCRETE PAD W/ PVC VENT PIPE	⊕
CONCRETE PAD	⊕

SCALE:



Map Unit Symbol	Map Unit Name	HSG Rating
26A	Windsor loamy sand, 0 to 3 percent slopes	A
26E	Windsor loamy sand, 15 to 80 percent slopes	A
200B	Udorthents, refuse substratum, 0 to 8 percent slopes	A
598B	Windsor-Urban land complex, 0 to 8 percent slopes	A
6A	Silco musky silt loam, 0 to 2 percent slopes, frequently flooded	B/D
4A	Postabuck very fine sandy loam, 0 to 3 percent slopes, occasionally flooded	B

1. NOTE: REFERENCE HYDROLOGIC SOIL BOUNDARIES FROM USDA NATURAL RESOURCES CONSERVATION SERVICE (NRCS) ON FIGURE 3 & 4 LOCATED IN ATTACHMENT 1 OF THE LOCAL PERMIT APPLICATION

Site Plan Regulations 15.03(2) Tabulations	
Gross acreage (Gross Land Area)	52.82 ac
Square feet or acres devoted to the existing landfill use	52.82 ac
Square feet or acres devoted to proposed solar use	23.36 ac
Ground coverage of building and structures	N/A
Impervious surface coverage	356,189 sf
Impervious surface coverage (percent)	12.96%
Parking required for existing and proposed uses	N/A
Ground coverage for parking and loading areas including aisles and internal landscaping	N/A
Usable land area calculations for residential development and net land area calculations for non-residential development	N/A
Total number of dwelling units, and total numbers of dwelling units by type and number of	N/A
Dwelling unit density per useable acre	N/A
Square feet of floor area by type of use for all non-residential uses	N/A
Projected number of employees by shift if necessary for calculating required parking	N/A
Building occupancy or lived seating if necessary for calculating required parking	N/A
Calculations of required parking and loading areas	N/A
Parking and loading areas provided	N/A
Interior parking lot landscaping in square foot and percent	N/A
Calculations of required trees to be provided on the landscape plan and number provided	N/A
Residential buffer option selected	N/A

NEW HAMPSHIRE CERTIFIED WETLAND SCIENTIST

DATE

NOT FOR CONSTRUCTION

Concord Landfill
Solar PV Development

Facility:
Concord Municipal Landfill

Permit Number:
DES-SW-TP-94-016

77 Old Turnpike Road
Concord, NH

Weston & Sampson

Weston & Sampson Engineers, Inc.
150 Dow St, Tower 4, Suite 350
Manchester, NH 03101
603.263.9296 800.SAMPSON
www.westonandsampson.com

Land Owner / Co-Applicant



City of Concord
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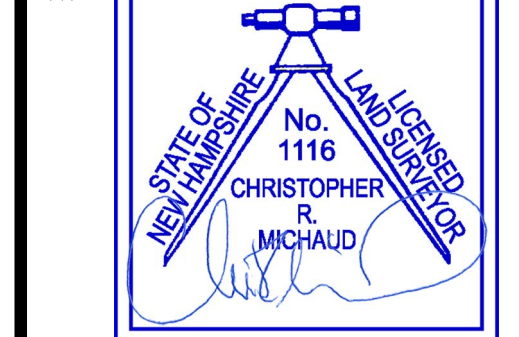
KEARSARGE
ENERGY

Kearsarge Old Turnpike Road LLC
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Tel: (617) 393-4222
www.kearsargeenergy.com

Revisions:

No.	Date	Description
5	04/28/2025	REVISED PER CITY COMMENTS
4	03/14/2025	NO CHANGES THIS SHEET
3	02/11/2025	NO CHANGES THIS SHEET
2	01/30/2025	ISSUED FOR PERMITTING - TYPE 18
1	01/03/2025	NO CHANGES THIS SHEET
0	10/24/2024	ISSUED FOR PERMITTING - AOT

Seal:



Issued For:

PERMITTING

Scale:

Date: 10/24/2024

Drawn By: DED

Reviewed By: MRC

Approved By: RJB

W&S Project No.: ENG24-0294

W&S File No.: Kearsarge
Concord, NH

Drawing Title:

EXISTING
CONDITIONS PLAN

Sheet Number:

V101

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL CALL DIG SAFE AT 811 OR 1-888-DIG-SAFE AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIG SAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION.
2. LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.
3. STONE WALLS, FENCES, CURBS, ETC., SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK, UNLESS OTHERWISE INDICATED, ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.
4. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE PROJECT AREA SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
5. HORIZONTAL CONTROLS REFER TO NEW HAMPSHIRE STATE PLANE COORDINATES (1983 NORTH AMERICAN DATUM).
6. ELEVATIONS REFER TO THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD 88).
7. NOTHING SHOWN OR OMITTED FROM THE DOCUMENTS PROVIDED SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, BYLAWS, AND ORDINANCES.

FROST PROTECTION AND SNOW REMOVAL:

1. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, KEEP EARTHWORK OPERATIONS CLEAR AND FREE OF ACCUMULATIONS OF SNOW AS REQUIRED TO CARRY OUT THE WORK.
2. THE CONTRACTOR SHALL PROTECT THE SUBGRADE BENEATH NEW STRUCTURES AND PIPES FROM FROST PENETRATION WHEN FREEZING TEMPERATURES ARE EXPECTED.
3. ROAD SALT SHOULD NOT BE USED ON ACCESS ROADS OR ROADS WITHIN THE SOLAR FACILITY TO MINIMIZE NEGATIVE IMPACTS TO WILDLIFE HABITAT.

MATERIAL SPECIFICATIONS:

GEOSYNTHETICS:

1. GENERAL:
INSTALLATION OF GEOTEXTILE FABRICS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFIC LAYOUT PLANS AND DETAILS REVIEWED BY ENGINEER.
2. WOVEN GEOTEXTILE:
THE WOVEN GEOTEXTILE SHALL BE MIRAFI HP 770 FABRIC, BY MIRAFI INC., OR APPROVED EQUIVALENT. THE WOVEN GEOTEXTILE SHALL BE COMPOSED OF POLYPROPYLENE STABILIZED WITH CARBON BLACK TO RESIST ULTRAVIOLET DEGRADATION AND BE RESISTANT TO BIOLOGICAL AND CHEMICAL DEGRADATION DUE TO ALL NATURALLY OCCURRING ORGANISMS OR REAGENTS NORMALLY ENCOUNTERED IN NATURAL SOIL ENVIRONMENTS.
3. NON-WOVEN GEOTEXTILE:
THE NON-WOVEN GEOTEXTILE SHALL BE MIRAFI 140N FABRIC, BY MIRAFI INC., OR APPROVED EQUIVALENT. THE NON-WOVEN GEOTEXTILE SHALL BE COMPOSED OF POLYPROPYLENE FIBERS AND SHALL BE INERT TO BIOLOGICAL DEGRADATION AND RESISTANT TO NATURALLY ENCOUNTERED CHEMICALS, ALKALIS, AND ACIDS.

EARTHWORK MATERIALS:

1. CRUSHED STONE FINE:
CRUSHED STONE SHALL SATISFY THE REQUIREMENTS LISTED IN NHDOT SPECIFICATION SECTION 304.4. ACCEPTABLE SAND MAY BE BLENDED AS NECESSARY TO OBTAIN THE PROPER GRADATION FOR THE FINE AGGREGATE PORTION.

2 INCH	100
1 1/2 INCH	85-100
3/4 INCH	45-75
NO.4	10-45
NO. 200*	0-5

*IN TOTAL SAMPLE
AS AN ALTERNATIVE, RCA OR ASPHALT MILLINGS MAY BE USED PROVIDED THEY MEET THE GRADATION REQUIREMENTS ABOVE.

BACKFILL MATERIALS:

1. ORDINARY BORROW:
ORDINARY BORROW SHALL BE GRANULAR, WELL GRADED FRIABLE SOIL; FREE OF DEBRIS, RUBBISH, ICE, SNOW, TREE STUMPS, ROOTS, CLAY AND ORGANIC MATTER; WITH 30 PERCENT OR LESS PASSING THE NO. 200 SIEVE; NO STONE GREATER THAN TWO-THIRD (2/3) LOOSE LIFT THICKNESS, OR SIX INCHES, WHICHEVER IS SMALLER.

BACKFILL PLACEMENT AND COMPACTION:

1. PRIOR TO BACKFILLING, THE CONTRACTOR SHALL COMPACT THE EXPOSED NATURAL SUBGRADE TO THE DENSITIES AS SPECIFIED HEREIN.
2. AFTER APPROVAL OF SUBGRADE BY THE ENGINEER, THE CONTRACTOR SHALL BACKFILL AREAS TO REQUIRED CONTOURS AND ELEVATIONS WITH SPECIFIED MATERIALS.
3. THE CONTRACTOR SHALL PLACE AND COMPACT MATERIALS IN CONTINUOUS HORIZONTAL LAYERS UNTIL FIRM. LIFT THICKNESS SHALL NOT EXCEED THE FOLLOWING THICKNESS:

3.1. GRAVEL ACCESS ROADS - 6 INCHES
3.2. BALLAST BLOCKS (AS REQUIRED), CONDUIT SUPPORTS, AND EQUIPMENT PADS - 6 INCHES.
4. IF THE MATERIAL REMOVED FROM THE EXCAVATION IS SUITABLE FOR BACKFILL WITH THE EXCEPTION THAT IT CONTAINS STONES LARGER THAN PERMITTED, THE CONTRACTOR HAS THE OPTION TO REMOVE THE OVERSIZED STONES AND USE THE MATERIAL FOR BACKFILL OR TO PROVIDE REPLACEMENT BACKFILL AT NO ADDITIONAL COST TO THE OWNER.
4. ALL MATERIAL AND BALLAST BLOCK PLACEMENT ON THE SURFACE OF THE LANDFILL (BEYOND THE ACCESS ROAD) SHALL BE PERFORMED USING LOW GROUND PRESSURE (<10 PSI) EQUIPMENT.

CLEARING NOTES (INTERCONNECTION AREA ONLY):

1. INSTALL EROSION AND SEDIMENT CONTROLS PRIOR TO CLEARING.
2. CONTRACTOR SHALL LIMIT THE AREA OF LAND WHICH IS EXPOSED AND FREE FROM VEGETATION DURING CONSTRUCTION. IN AREAS WHERE THE PERIOD OF EXPOSURE WILL BE GREATER THIRTY (30) DAYS, MULCHING, EROSION CONTROL MATS, TEMPORARY SEEDING, OR OTHER PROTECTIVE MEASURES SHALL BE PROVIDED WITHIN 2 WEEKS OF INITIAL SOIL DISTURBANCE. THE CONTRACTOR SHALL TAKE ACCOUNT OF THE CONDITIONS OF THE SOIL WHERE EROSION CONTROL SEEDING WILL TAKE PLACE TO INSURE THAT MATERIALS USED FOR RE-VEGETATION ARE ADAPTIVE TO THE SEDIMENT CONTROL.

SOIL STABILIZATION NOTES:

1. THE MAXIMUM ALLOWABLE SLOPE IS 3:1. ALL 3:1 SLOPES SHALL BE STABILIZED WITH A TEMPORARY EROSION CONTROL BLANKET (SEE SHEET C501).
2. ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 4-INCHES OF LOAM AND SEED AND STABILIZED WITH GRASS COVER.
3. IF SUFFICIENT STABILIZATION CANNOT BE ACCOMPLISHED AFTER SEEDING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDING THE NECESSARY SOIL AMENDMENTS AND/OR LOAM UNTIL STABILIZATION IS ACHIEVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
4. THE SMALLEST PRACTICABLE AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL DISTURBED AREA EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED.
5. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED AFTER SOIL DISTURBANCE:

5.1. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
5.2. A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED.
5.3. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
5.4. OR, EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
6. 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.
7. 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.
8. 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.

TYPICAL SEQUENCE OF CONSTRUCTION:

PRIOR TO THE DEVELOPMENT OF THE SITE, EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS. SITE DEVELOPMENT SCHEDULING SHALL TAKE INTO CONSIDERATION THE GROWING SEASON, SUCH THAT BULK OF THE EARTHWORK IS NOT INITIATED DURING A PERIOD WHEN VEGETATIVE STABILIZATION CANNOT BE ACHIEVED WITHIN 14 DAYS OF COMPLETING THE EARTHWORK IN A GIVEN AREA. A TYPICAL SEQUENCE OF CONSTRUCTION IS:

1. PRIOR TO STARTING ANY WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, NOTIFY APPROPRIATE OFFICIALS OF CONSTRUCTION COMMENCEMENT, AND SUBMIT CONSTRUCTION TIMETABLE.
2. ON-SITE CONSTRUCTION SHALL START WITH INSTALLATION OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON SHEET C101. THIS INCLUDES COMPOST SOCKS, CONSTRUCTION ENTRANCE/EXIT, AND OTHER MEASURES NOTED ON THE PLAN. NO WORK SHALL TAKE PLACE UNTIL THE ENGINEER HAS INSPECTED AND APPROVED INSTALLED MEASURES. NO EROSION/SEDIMENTATION CONTROL DEVICE SHALL PENETRATE THE EXISTING LANDFILL COVER MATERIALS WITHIN THE LIMITS OF THE CAP.
3. STOCKPILED TOPSOIL SHALL BE SEEDED AND MULCHED WHEN IT IS TO BE STORED MORE THAN 30 DAYS FROM TIME OF STOCKPILES. STOCKPILES SHALL NOT BE PLACED WITHIN THE 100' WETLAND BUFFER ZONE. SEE SHEET C501 FOR A TYPICAL TEMPORARY STOCKPILE DETAIL.
4. CONSTRUCT GRAVEL ACCESS ROADS, INSTALL ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED TO PREVENT EROSION OF GRAVEL SURFACE.
5. PROCEED WITH SOLAR PHOTOVOLTAIC (PV) SYSTEM INSTALLATION/CONSTRUCTION WORK.
6. REPAIR ALL DISTURBED AREAS, AND REAPPLY LOAM AND SEED WHERE NECESSARY.
7. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL AFTER THE SITE IS STABILIZED IN ACCORDANCE WITH THE SWPPP AND FINAL ACCEPTANCE IS GIVEN BY THE ENGINEER.

DUST CONTROL:

1. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE AREAS OF DISTURBED SOIL EXPOSED AT ONE TIME.
2. DUST SHALL BE CONTROLLED ON CONSTRUCTION ROUTES AND OTHER DISTURBED AREAS SUBJECT TO SURFACE DUST MOVEMENT AND DUST BLOWING.
3. MAINTAIN DUST CONTROL MEASURES PROPERLY THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
4. DUST CONTROL METHODS SHALL INCLUDE VEGETATIVE COVER, MULCH (INCLUDING GRAVEL MULCH), WATER SPRINKLING, STONE, AND/OR BARRIERS.

GENERAL MAINTENANCE PLAN (DURING CONSTRUCTION):

1. ALL EROSION AND SEDIMENTATION CONTROL PRACTICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY HALF-INCH OF RAINFALL IN ACCORDANCE WITH THE ALTERATION OF TERRAIN PERMIT INSPECTION FREQUENCY.
2. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM BEHIND SEDIMENT BARRIERS WHEN ACCUMULATION HAS BEEN HALF THE DEPTH OF THE WATTLE, OR ADVERSELY AFFECTED ITS FUNCTION. SEDIMENT BARRIERS SHALL BE REPAIRED BY REMOVING SILT AND SEDIMENTS AND THEN TAMPING LOOSE SOIL ALONG BASE, REPLACING DAMAGED OR WEAKENED SAND BAGS, OR AS NECESSARY TO MAINTAIN A BARRIER.
3. ALL DISTURBED AREAS SHALL BE STABILIZED PER THESE SPECIFICATIONS TO MAINTAIN VIGOROUS, DENSE VEGETATION. REPAIR ANY ERODED SLOPES, REAPPLY TOPSOIL, RESEED AND STABILIZE REPAIR AREA AS REQUIRED FOR PERMANENT OR TEMPORARY MEANS. REPAIR SOIL AREAS DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
4. IMMEDIATELY REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT, MAINTENANCE OR OTHER ACTIVITY TO ANY EROSION AND SEDIMENTATION CONTROL MEASURE, OR BEST MANAGEMENT PRACTICE (BMP) OR DEVICE.
5. THE PRIME CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND COMPLIANCE OF ITS SUBCONTRACTOR'S ACTIVITIES RELATING TO THE SWPPP. THEY SHALL MAKE FREQUENT INSPECTIONS OF THEIR WORK AND COORDINATE APPROPRIATE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL AND WATER QUALITY DEVICES.
6. EMPLOY POLLUTION PREVENTION MEASURES TO CONTROL LITTER, CONSTRUCTION CHEMICALS, SEDIMENT, AND CONSTRUCTION DEBRIS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: SALVAGE AND REUSE OF MATERIALS; MINIMIZING PACKAGING WASTE; RECYCLING; PROPER DISPOSAL AT FREQUENT INTERVALS IN ACCORDANCE WITH PREVAILING LAWS, ONSITE INSTRUCTION REGARDING APPROPRIATE SEPARATION/HANDLING/RECYCLING, PERIODIC DEBRIS REMOVAL AT DRAINAGE STRUCTURES (GRATES AND SUMPS)/SEDIMENT TRAPS/ FOREBAY AND OTHER BMPS, PROPER MAINTENANCE OF SEDIMENT/ EROSION CONTROL SYSTEMS, ROUTINE AND EVENT RELATED INSPECTIONS OF DRAINAGE AND BMP SYSTEMS PER PERMIT REQUIREMENTS, PROVIDE APPROPRIATE SANITARY FACILITIES FOR ONSITE PERSONNEL, PICK UP TRASH AND DEBRIS FREQUENTLY AND USE WATER MIST, CALCIUM CHLORIDE, OR OTHER LEGAL MEANS TO LIMIT THE SPREAD OF DUST AND SOIL PARTICLES.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

1. THE FOLLOWING NOTES ARE PROVIDED AS A SUMMARY REFERENCE FOR THE CONTRACTOR ONLY. THE REQUIREMENTS IN THE FULL SWPPP FOR THE PROJECT SHALL BE FOLLOWED BY THE CONTRACTOR. IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS AND THE SWPPP, THE ENGINEER SHALL DETERMINE THE CORRECT REQUIREMENTS.
2. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PERFORMED IN ACCORDANCE WITH THE NHDOT GUIDELINES FOR TEMPORARY EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT. THE CONTRACTOR SHALL OWN AND MAINTAIN A COPY OF THE GUIDELINES ON-SITE DURING CONSTRUCTION.
3. NO EROSION AND SEDIMENTATION CONTROL DEVICE SHALL PENETRATE THE EXISTING LANDFILL COVER MATERIALS WITHIN THE LIMITS OF WASTE.
4. ALL DISTURBED AREAS SHALL BE KEPT TO A MINIMUM. FINAL GRADING AND RESTORATION SHALL BE ACCOMPLISHED AS SOON AS PRACTICAL.
5. EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE INSTALLED PRIOR TO SITE WORK.
6. ALL CONTROL STRUCTURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND REMOVED WHEN STABILIZATION HAS BEEN ATTAINED. IF THE PROPOSED CONTROL MEASURES ARE NOT SATISFACTORY TO THE ENGINEER, ADDITIONAL CONTROL MEASURES SHALL BE TAKEN.
7. ALL RUNOFF FROM THE DISTURBED AREA SHALL BE CONTROLLED AND FILTERED. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS.
8. A NPDES CONSTRUCTION GENERAL PERMIT WILL BE REQUIRED FOR THE PROPOSED PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION AND COMPLIANCE WITH THE APPROVED NPDES NOTICE OF INTENT (NOI) AND SWPPP.
9. THE CONTRACTOR MUST OBTAIN COPIES OF ALL APPLICABLE PERMITS PRIOR TO THE START OF WORK.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROL MEASURES. THIS RESPONSIBILITY INCLUDES THE ACQUISITION OF MATERIALS, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENTATION STRUCTURES. THE COMMUNICATION AND DETAILED EXPLANATION TO ALL PEOPLE INVOLVED IN THE SITE WORK OF THE REQUIREMENTS AND OBJECTIVE OF THE EROSION AND SEDIMENTATION CONTROL MEASURES.
11. TWO (2) WEEKS PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL PROVIDE THE NAME AND PHONE NUMBER OF THE INDIVIDUAL RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION & SEDIMENTATION CONTROL PLAN.
12. THE ENGINEER SHALL BE NOTIFIED OF ANY PROPOSED ALTERATION TO THE EROSION AND SEDIMENTATION CONTROL PLAN, PRIOR TO ALTERING, IN ORDER TO ENSURE THE FEASIBILITY OF THE ADDITION, SUBTRACTION, OR CHANGE IN THE PLAN.

SEEDING:

1. THE SEEDING OF THE SITE WILL BE DONE IN A MANNER AND WITH SPECIES THAT MEETS THE REQUIREMENTS AND INTENT OF THE INVASIVE SPECIES REGULATIONS FOUND IN NEW HAMPSHIRE REV. STAT. 430:53 AND CHAPTER AGR 3800.
2. ALL FILL SLOPES SHALL BE SEEDED AND LOAMED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
3. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING. ELSEWHERE, THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAT OR SPRING MELT EVENTS.
4. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

SHADE SEEDING MIX (WITHIN PV DEVELOPMENT AREAS):

ALL DISTURBED AREAS AND EXISTING AREAS WITH LESS THAN 85% VEGETATIVE COVER WITHIN THE PHOTOVOLTAIC DEVELOPMENT AREA SHALL BE MULCHED AND/OR SEEDED IN ACCORDANCE WITH THE FOLLOWING CONSTRUCTION METHOD:

1. THE LIMING, FERTILIZING, AND SEEDING TO BE ACCOMPLISHED UNDER THIS SECTION SHALL BE DONE DURING A PERIOD OF TIME TO BE APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOTIFY THE ENGINEER OR ARCHITECT 30 DAYS PRIOR TO THE TIME THAT HE/SHE INTENDS TO BEGIN THIS WORK.
2. SEEDING SHOULD NOT BE COMPLETED USING HYDROSEEDING METHODS DUE TO THE POSSIBLE NEGATIVE IMPACTS TO WILDLIFE AND WILDLIFE HABITAT.
3. AFTER ALL SURFACES TO BE SEEDED HAVE BEEN BROUGHT TO FINISHED GRADE, THE CONTRACTOR SHALL FURNISH AND APPLY LIMESTONE AS HEREIN SPECIFIED.
4. LIMESTONE SHALL BE APPLIED AT A RATE UP TO A MAXIMUM OF 100 POUNDS PER 1000 SQUARE FEET, OR AS DETERMINED BY THE RESULTS OF LABORATORY TESTS CONDUCTED BY AN APPROVED TESTING LABORATORY.
- 4.1. IT IS RECOMMENDED THAT THE CONTRACTOR COLLECT TOPSOIL SAMPLES FOR LABORATORY ANALYSIS. A MINIMUM OF 4 SUB-SAMPLES, TAKEN TO THE PROPOSED DEPTH OF TOPSOIL, SHALL BE TAKEN PER ACRE OF AREA TO BE LIMED. THESE SAMPLES SHALL BE PLACED IN A SUITABLE CONTAINER OBTAINED FROM THE TESTING LABORATORY AND MARKED SO AS TO CLEARLY INDICATE THE ACRE AREA FROM WHICH THEY WERE TAKEN.
- 4.2. THE SAMPLE SHALL BE DELIVERED BY THE CONTRACTOR TO THE TESTING LABORATORY FOR CHEMICAL AND MECHANICAL ANALYSIS. THE TESTING LABORATORY SHALL BE DIRECTED BY THE CONTRACTOR TO FURNISH TEST RESULTS AND RECOMMENDATIONS FOR LIMING AND FERTILIZING TO THE ENGINEER OR ARCHITECT FOR APPROVAL.
5. LIME SHALL BE MECHANICALLY SPREAD IN TWO APPLICATIONS UP TO 50 POUNDS PER 1000 SQUARE FEET, ON ALL AREAS. THE LIME SHALL BE DISTRIBUTED UNIFORMLY.
6. FERTILIZER SHALL BE MECHANICALLY SPREAD SO AS TO OBTAIN UP TO A MINIMUM SOWN FERTILIZER COVERAGE YIELD OF 16 POUNDS PER 1000 SQUARE FEET. THE ACTUAL AMOUNTS AND TYPE OF FERTILIZER APPLIED SHALL BE AS DETERMINED BY THE RESULTS OF LABORATORY TESTS CONDUCTED ABOVE. AT SLOPES EXCEEDING 25% GRADE, THE FERTILIZER SHALL BE APPLIED MANUALLY IN AN APPROVED MANNER.
7. SEED SHALL BE INCORPORATED WITH THE MULCHING MATERIAL SO AS TO OBTAIN A MINIMUM SOWN COVERAGE OF 200 POUNDS OF THE SPECIFIED MIX PER ACRE. SEED SUBSTITUTIONS MAY REQUIRE RATE ADJUSTMENTS AS RECOMMENDED BY THE SEED SUPPLIERS, IF APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT.
8. AT AREAS TO BE SEEDED, CONTRACTOR SHALL REMOVE AND APPROPRIATELY DISPOSE OF ALL STONES OVER 2 INCHES IN SIZE OR OTHER UNSUITABLE MATERIAL OFF SITE.
9. AFTER THE SURFACE IS PREPARED FOR SEEDING AND APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL SEED THE AREA INDICATED, AS SPECIFIED HEREIN.
10. THE MULCHING MATERIAL SHALL BE USED AT THE RATE OF 1000 POUNDS PER ACRE ON FLAT SURFACES AND 1400 POUNDS PER ACRE ON SLOPES EXCEEDING FOUR PERCENT.
11. SEEDING EQUIPMENT SPECIFICATIONS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO SITE ENTRY TO ASSESS GROUND PRESSURE.

WILDLIFE PROTECTION:

1. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE NEW HAMPSHIRE FISH AND WILDLIFE DEPARTMENT NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL AT nhfgrreview@WILDLIFE.NH.GOV. EMAIL SUBJECT LINE: NHB24-2209, CONCORD LANDFILL SOLAR PV DEVELOPMENT, WILDLIFE SPECIES OBSERVATION.
2. PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHF&G IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION AS FEASIBLE;
3. IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL 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 CONTINUED EXISTENCE OF THREATENED AND ENDANGERED SPECIES AS DEFINED IN FIS 1002.04.
4. THE NHF&G, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.
5. ALL EROSION CONTROL PRODUCTS AND METHODS TO BE USED ONSITE SHALL MEET UNITED STATES FISH AND WILDLIFE REQUIREMENTS FOR "WILD-LIFE FRIENDLY" EROSION CONTROL PRODUCTS.

SEEDING MATERIALS:

LIME:

1. LIME SHALL BE STANDARD COMMERCIAL GROUND LIMESTONE CONTAINING AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE AND MAGNESIUM OXIDE) AND 50% PERCENT OF THE MATERIAL MUST PASS THROUGH A #100 MESH SIEVE, WITH 98% PASSING A #20 MESH SIEVE.

FERTILIZER:

1. FERTILIZER SHALL BE COMMERCIAL FERTILIZER 10-6-4 U.F. FERTILIZER MIXTURE CONTAINING AT LEAST 60% OF ORGANIC MATERIAL OR TYPE DETERMINED BY CHEMICAL SOIL ANALYSIS AS TESTED BY AN APPROVED LABORATORY. IT SHALL BE DELIVERED AT THE SITE IN THE ORIGINAL SEALED CONTAINERS WITH CONTENTS CLEARLY DESCRIBED.

SEED:

1. THE SEED MIX WITHIN THE LIMITS OF THE FENCE SHALL BE MODIFIED NEW ENGLAND WETLANDS PLANTS, INC. CONSERVATION/WILDLIFE MIX, OR APPROVED EQUAL. SUBMIT SUPPLIER'S SEED BLEND SPECIFICATIONS TO THE ENGINEER OR LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO COMMENCING WITH THE SEEDING OPERATIONS. SEEDING SHALL BE APPLIED AT A RATE OF 6 LB PER 1,000 SQFT.

MODIFIED NEW ENGLAND WETLAND PLANTS, INC. CONSERVATION/WILDLIFE MIX			
BOTANICAL NAME	COMMON NAME	INDICATOR	WEIGHT
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	FACW-	32%
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU	28%
ANDROPOGON GERARDII	BIG BLUESTEM	FAC	25%
DESMODIUM CANADENSE	SHOWY TICK TREFOIL	FAC	5%
ASCLEPIAS SYRIACA	COMMON MILKWEED	FACU-	5%
EUPATORIUM PERFORIATUM	BONESET	FACW	2%
ASTER NOVAE - ANGLIAE	NEW ENGLAND ASTER	FACW-	2%
SOLIDAGO JUNCEA	EARLY GOLDENROD		1%

2. THE CONTRACTOR SHALL SCHEDULE WORK SUCH THAT SEEDING IS PERFORMED DURING THE PLANTING SEASON BETWEEN APRIL AND MAY, OR BETWEEN SEPTEMBER AND OCTOBER. IF THE CONTRACTOR PERFORMS WORK OUTSIDE OF THESE PLANTING WINDOWS, THE CONTRACTOR SHALL APPLY SEED AT A RATE OF 12 LBS PER 1,000 SQFT.

MULCH:

1. MULCH MATERIAL SHALL BE A MANUFACTURED PRODUCT OF NATURAL WOOD CELLULOSE FIBERS. MATERIAL SHALL BE INTERNATIONAL PAPER COMPANY'S "TURFIBER," WEYERHAEUSER COMPANY'S "SILVA-FIBER," OR APPROVED EQUAL AND CLEARLY PACKED IN ORIGINAL CONTAINERS, SEALED AND CLEARLY LABELED WITH BRAND NAME AND MANUFACTURER. IT SHALL HAVE A DELIVERED MOISTURE CONTENT OF NOT OVER 12%.

MAINTENANCE OF SEEDED AREAS:

1. CONTRACTOR SHALL MAINTAIN THE ENTIRE SEEDED AREAS UNTIL FINAL ACCEPTANCE AT THE COMPLETION OF THE PROJECT OR FOR 90 DAYS, WHICHEVER IS LONGER. MAINTENANCE SHALL INCLUDE WATERING AS SPECIFIED, WEEDING, REMOVAL OF STONES WHICH MAY APPEAR AND REGULAR CUTTINGS OF THE GRASS NO CLOSER THAN 10 DAYS APART. THE FIRST CUTTING SHALL BE ACCOMPLISHED WHEN THE GRASS IS FROM 2-1/2 TO 3 INCHES HIGH. WEEKLY WATERING SHALL PROVIDE THE SEEDED AREAS WITH THE EQUIVALENT OF 1 INCH OF RAINFALL PER WEEK. IF THE SEEDED AREAS ARE WATERED BY NORMAL RAINFALL OR THE NORMAL WATERING IS INADEQUATE DUE TO WEATHER, THE CONTRACTOR MAY AT HIS/HER DISCRETION ELIMINATE OR INCREASE RESPECTIVELY, THE WATERING DURING A GIVEN WEEK. HOWEVER, SUCH ACTION BY THE CONTRACTOR SHALL IN NO WAY WAIVE THE CONTRACTOR'S RESPONSIBILITY FOR THE GROWTH AND HEALTH OF THE GRASS UNTIL FINAL ACCEPTANCE. CONTRACTOR SHALL FURNISH ALL TEMPORARY PIPE AND CONNECTIONS FOR SPRINKLING. CONTRACTOR SHALL FURNISH ALL REQUIRED WATER AT NO EXPENSE TO THE OWNER. GARDEN HOSE AND HAND SPRINKLING SHALL BE PERMITTED ONLY IN SPECIAL INSTANCES BY THE ENGINEER OR LANDSCAPE ARCHITECT.
2. ALL BARE SPOTS, WHICH BECOME APPARENT AS THE GRASS GERMINATES, SHALL BE RESEEDED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE AS MANY TIMES AS NECESSARY TO SECURE AN ADEQUATE GROWTH, AND THE ENTIRE AREA SHALL BE MAINTAINED AND CUT UNTIL ALL WORK HAS BEEN COMPLETED AND FINAL ACCEPTANCE HAS OCCURRED. RESEEDING MAY BE ACCOMPLISHED BY MECHANICAL MEANS AS DETERMINED BY THE AREA OF RESEEDING TO BE ACCOMPLISHED.
3. CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS GERMINATING. THESE MEASURES SHALL INCLUDE FURNISHING WARNING SIGNS, BARRIERS, TEMPORARY FENCE OR ANY OTHER NECESSARY MEASURES OF PROTECTION.
4. CONTRACTOR SHALL FURNISH, PROTECT, AND MAINTAIN ALL TEMPORARY BARRIERS UNTIL FINAL ACCEPTANCE OF THE SEEDED AREAS BY THE OWNER AND SHALL REMOVE THEM UPON SUCH FINAL ACCEPTANCE. THE BARRIERS SHALL REMAIN THE PROPERTY OF CONTRACTOR AT ALL TIMES.

SPECIFICATIONS FOR WORK ON LANDFILL:

1. THE CONTRACTOR SHALL BE AWARE THAT THE WORK IS LOCATED ON A LANDFILL AND IS SUBJECT TO NEW HAMPSHIRE'S SOLID WASTE MANAGEMENT ACT, RSA 149-M, AND THE NEW HAMPSHIRE SOLID WASTE ADMINISTRATIVE RULES (ENV-SW 100 ET SEQ.).
2. THE CONTRACTOR SHALL BE AWARE THAT THE WORK IS TO TAKE PLACE ABOVE A LANDFILL COVER SYSTEM. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO NOT DISRUPT THE LANDFILL COVER PROFILE. TO THE MAXIMUM EXTENT PRACTICABLE, THE CURRENT VEGETATION STAND ON THE LANDFILL SHALL REMAIN UNDISTURBED DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL HAVE A HEALTH AND SAFETY PLAN WHILE WORKING ON THE LANDFILL.
4. THE CONTRACTOR SHALL MAINTAIN A 10 FOOT PROTECTION RADIUS AROUND ALL LANDFILL GAS VENTS, MONITORING WELLS, AND OTHER REMEDY STRUCTURES AT THE LANDFILL FOR THE DURATION OF THE PROJECT.

EQUIPMENT

1. THE CONTRACTOR SHALL PROVIDE A LIST OF ALL EQUIPMENT PROPOSED TO BE WORKING ON THE LANDFILL. THE LIST SHALL INCLUDE THE EQUIPMENT WEIGHT, GROUND PRESSURE, AND ANY RESTRICTIONS THAT WILL BE IMPOSED ON THE VEHICLE (E.G., LIMITED TO TEMPORARY ACCESS ROADS, LIMITED TO CARRYING 1/2 LOADS, ETC.).
2. ALL EQUIPMENT IS SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER, AS A GENERAL RULE, EQUIPMENT SHALL HAVE A MAXIMUM GROUND PRESSURE OF LESS THAN 10 PSI ON THE EXISTING LANDFILL SYSTEM (OFF THE PROPOSED ACCESS ROAD).

Project:
Concord Landfill
Solar PV Development

Facility:
Concord Municipal Landfill

Permit Number:
DES-SW-TP-94-016

77 Old Turnpike Road
Concord, NH

Weston & Sampson

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Land Owner / Co-Applicant:



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(603) 225-8610

Project Developer / Co-Applicant:



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Revisions:

No.	Date	Description
5	04/28/2025	REVISED PER CITY COMMENTS
4	03/14/2025	NHFG REC. PERMIT CONDITIONS
3	02/11/2025	NHFG AOT RFMI COMMENTS
2	01/30/2025	ISSUED FOR PERMITTING - TYPE 1B
1	01/03/2025	NHDES AOT RFMI COMMENTS
0	10/24/2024	ISSUED FOR PERMITTING - AOT

Seal:



Issued For:

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Scale:

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Concord, NH

Drawing Title:

NOTES AND
SPECIFICATIONS

Sheet Number:

C001

NOT FOR CONSTRUCTION

1. EASTERN HOGNOSE SNAKE (STATE ENDANGERED), NORTHERN BLACK RACER (STATE THREATENED), KARNER BLUE BUTTERFLY (STATE ENDANGERED), FROSTED ELFIN (STATE ENDANGERED), PERSIUS DUSKYWING (STATE ENDANGERED), GRASSHOPPER SPARROW (STATE THREATENED), AND EASTERN MEADOWLARK (STATE THREATENED) OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. ALL OPERATORS AND PERSONNEL WORKING ON OR ENTERING THE SITE SHALL BE MADE AWARE OF THE POTENTIAL PRESENCE OF THESE SPECIES. ALL FIELD PERSONNEL SHALL PROVIDE FLYERS THAT HELP TO IDENTIFY THESE SPECIES, ALONG WITH NHFG CONTACT INFORMATION. SEE PLAN SHEET C002 FOR NHFG CONTACT INFORMATION. SEE ATTACHED FLYERS AT THE END OF THIS SHEET SET.
2. RARE SPECIES INFORMATION (E.G. IDENTIFICATION, OBSERVATION AND REPORTING OF OBSERVATIONS, WHEN TO CONTACT NHFG IMMEDIATELY AND NHFG CONTACT INFORMATION) SHALL BE COMMUNICATED DURING MORNING TAILGATE MEETINGS PRIOR TO WORK COMMENCEMENT DURING THE CONSTRUCTION PHASE OF THE PROJECT. SEE PLAN SHEET C002 FOR NHFG CONTACT INFORMATION.
3. OBSERVATIONS OF NORTHERN BLACK RACER AND EASTERN HOGNOSE SHALL BE REPORTED IMMEDIATELY TO NHFG WILDLIFE BIOLOGISTS MELISSA WINTERS AND BRENDAN J. CLIFFORD FOR FURTHER CONSULTATION - VIA GROUP TEXT PREFERRED. SEE SPECIES FLYERS INCLUDED AT THE END OF THIS SHEET SET. SEE PLAN SHEET C002 FOR NHFG CONTACT INFORMATION.
4. MOWING SHALL NOT OCCUR BETWEEN MAY 1ST AND JUNE 30TH IN EACH CALENDAR YEAR, UNLESS ABSOLUTELY NECESSARY FOR THE SAFE ACCESS AND OPERATION OF THE SITE, OR FOR ANY EMERGENCY RESPONSE RELATED TO THE CITY OF CONCORD'S MANAGEMENT OF GAS, WATER WELL, SURFACE COVER, AND STORMWATER SYSTEMS UNDER THE CONCORD MUNICIPAL LANDFILL CLOSURE PLAN.
5. GRASSLAND BIRD SURVEYS SHALL BE CONDUCTED DURING MAY - JULY PRIOR TO ANY CONSTRUCTION ACTIVITIES AND ANNUALLY FOR A PERIOD OF 3 YEARS AFTER SOLAR INSTALLATION, DEPENDING ON PRE-SOLAR INSTALLATION SURVEY RESULTS.
 - A. A MINIMUM OF FOUR YEARS OF SURVEYS SHALL BE CONDUCTED WITH NHFG, RETAINING THE ABILITY TO REQUIRE A 5TH YEAR SURVEY, DEPENDING ON PRE-SOLAR INSTALLATION SURVEY RESULTS.
 - B. SURVEY PROTOCOL SHALL INCLUDE BUT NOT BE LIMITED TO SURVEYS ONCE EVERY TWO WEEKS BETWEEN MAY AND JULY AND SHALL INCLUDE MAPPING OF BREEDING BIRD TERRITORIES.
 - C. SURVEYS SHALL BE COMPLETED BY A WILDLIFE BIOLOGIST WITH EXPERIENCE PROVIDED TO NHFG AND QUALIFICATIONS CONFIRMED BY NHFG.
 - D. SURVEY PROTOCOL DETAILS SHALL BE COORDINATED WITH NHFG ANNUALLY BY APRIL 1ST OF THE SURVEY YEAR AND SHALL BE DEVELOPED OFF OF PREVIOUSLY APPROVED METHODS.
 - E. A DRAFT OF THE SURVEY PROTOCOL SHALL BE SUBMITTED ALONG WITH AN APPLICATIONS FOR A SCIENTIFIC LICENSE. TO: NHFGREVIEW@WILDLIFE.NH.GOV AND BRENDAN.J.CLIFFORD@WILDLIFE.NH.GOV WITH EMAIL SUBJECT LINE: NH24-2209_SCIENTIFIC PERMIT APPLICATION_ANNUAL GRASSLAND BIRD SURVEY_CONCORD.
 - F. A SUMMARY OF FINDINGS SHALL BE PROVIDED TO NHFG WITHIN 30-DAYS OF SURVEY COMPLETION. COMPLETE TERMS AND METHODS SHALL BE INCORPORATED IN THE APPROVED NHFG SCIENTIFIC LICENSE.
 - G. SURVEY RESULTS WILL BE USED TO INFORM FUTURE SURVEY REQUIREMENTS AS WELL AS IDENTIFY POTENTIAL ADAPTIVE MANAGEMENT STRATEGIES TO MINIMIZE THE IMPACT TO MIGRATORY BIRDS POST-CONSTRUCTION AND DURING THE LIFE OF THE SOLAR FACILITY.
6. A NATIVE SEED MIXTURE SHALL BE OBTAINED TO ALL AREAS AFFECTED BY CONSTRUCTION. SEED MIXTURES SHALL NOT CONTAIN DUTCH WHITE CLOVER. SEE PLAN SHEET C001 FOR FURTHER SEEDING INFORMATION.
7. ANY NEW FENCING INSTALLED AROUND THE SOLAR FACILITY SHALL BE RAISED 6"-8" TO ALLOW THE PASSAGE OF TURTLES AND OTHER WILDLIFE. SEE PLAN SHEET C502, DETAIL 1.
8. HYDROSEED WITH FERTILIZER AND DYES SHALL NOT BE USED ON THE SITE. SEE PLAN SHEET C001 FOR FURTHER SEEDING INFORMATION.
9. ROAD SALT SHALL NOT BE USED ON ACCESS ROADS OR ROADS WITHIN THE SOLAR FACILITY TO MINIMIZE IMPACT TO WILDLIFE HABITAT. SEE PLAN SHEET C001 FOR FURTHER INFORMATION ON ACCESS ROADS.
10. ALL MANUFACTURED EROSION AND SEDIMENT CONTROL PRODUCTS, WITH THE EXCEPTION OF TURF REINFORCEMENT MATS, UTILIZED FOR, BUT NOT LIMITED TO, SLOPE PROTECTION, RUNOFF DIVERSION, SLOPE INTERRUPTION, PERIMETER CONTROL, INLET PROTECTION, CHECK DAMS, AND SEDIMENT TRAPS SHALL NOT CONTAIN PLASTIC, OR MULTIFILAMENT OR MONOFILAMENT POLYPROPYLENE NETTING OR MESH WITH AN OPENING SIZE OF GREATER THAN $\frac{1}{8}$ INCHES. SEE SHEET C501 FOR FURTHER INFORMATION ON EROSION AND SEDIMENT CONTROL PRODUCTS SPECIFIED.
11. ALL OBSERVATIONS OF THREATENED OR ENDANGERED SPECIES ON THE PROJECT SITE SHALL BE REPORTED IMMEDIATELY TO THE NHFG NONGAME AND ENDANGERED WILDLIFE ENVIRONMENTAL REVIEW PROGRAM BY PHONE AT 603-271-2461 AND BY EMAIL TO NHFGREVIEW@WILDLIFE.NH.GOV WITH THE EMAIL SUBJECT LINE CONTAINING THE NHG DATA COLLECTION RESULTS, THE LOT ASSIGNED NUMBER, THE PROJECT NAME, AND THE TERM "WILDLIFE SPECIES OBSERVATION".
 - A. PHOTOGRAPHS OF THE OBSERVED SPECIES AND NEARBY ELEMENTS OF HABITAT OR AREAS OF LAND DISTURBANCE SHALL BE PROVIDED TO NHFG IN DIGITAL FORMAT AT THE ABOVE EMAIL ADDRESS FOR VERIFICATION, AS FEASIBLE.
12. IN THE EVENT A THREATENED OR ENDANGERED SPECIES IS OBSERVED ON THE PROJECT SITE DURING THE TERM OF THE PERMIT, THE SPECIES SHALL NOT BE DISTURBED, HANDLED, OR HARMED IN ANY WAY PRIOR TO CONSULTATION WITH NHFG AND IMPLEMENTATION OF CORRECTIVE ACTIONS RECOMMENDED BY NHFG.
 - A. SITE OPERATORS SHALL BE ALLOWED TO RELOCATE WILDLIFE ENCOUNTERED IF DISCOVERED WITHIN THE ACTIVE WORK ZONE IF IN DIRECT HARM FROM PROJECT ACTIVITIES.
 - B. WILDLIFE SHALL BE RELOCATED IN CLOSE PROXIMITY TO THE CAPTURE LOCATION BUT OUTSIDE OF THE WORK ZONE AND IN THE DIRECTION THE INDIVIDUAL WAS HEADING.
 - C. NHFG SHALL BE CONTACT IMMEDIATELY IS THIS ACTION OCCUR.
13. NHFG, INCLUDING ITS EMPLOYEES AND AUTHORIZED AGENTS, SHALL HAVE ACCESS TO THE PROPERTY DURING THE TERM OF THE PERMIT.

1. WOOD TURTLE (SPECIAL CONCERN, PROTECTED UNDER FIS 1400 RULES), NORTHERN LEOPARD FROG (SPECIAL CONCERN), HORNED LARK (SPECIAL CONCERN), AND VESPER SPARROW (SPECIAL CONCERN) OCCUR WITHIN THE VICINITY OF THE PROJECT AREA. ALL OPERATORS AND PERSONNEL WORKING ON OR ENTERING THE SITE SHOULD BE MADE AWARE OF THE POTENTIAL PRESENCE OF THIS SPECIES AND SHOULD BE PROVIDED FLYERS TO THE FIELD TO IDENTIFY THIS SPECIES, ALONG WITH AN OUTLINE OF INFORMATION. SEE FLYERS PROVIDED AT THE END OF THIS SHEET SET. SEE PLAN SHEET C002 FOR NHFG CONTACT INFORMATION.
2. TURTLES MAY BE ATTRACTED TO DISTURBED GROUND DURING THE NESTING SEASON (MAY 15TH - JUNE 30TH). TURTLE NESTS ARE PROTECTED BY NH LAWS. IF A NEST IS OBSERVED OR SUSPECTED, OPERATORS SHALL CONTACT JOSH MEGEYAS AT NHFG IMMEDIATELY FOR FURTHER CONSULTATION. SEE SPECIES FLYERS INCLUDED AT THE END OF THIS SHEET SET. SEE PLAN SHEET C002 FOR NHFG CONTACT INFORMATION.
- A. THE NEST OR SUSPECTED NEST SHALL BE MARKED (SURROUNDING BUFFER OFF OR CONE BUFFER DELETED) AND AVOIDED; THIS SHALL BE COMMUNICATED TO ALL PERSONNEL ONSITE.
- B. SITE ACTIVITIES SHALL NOT OCCUR IN THE AREA SURROUNDING THE NEST OR SUSPECTED NEST UNTIL FURTHER GUIDANCE IS PROVIDED BY NHFG.

- SECTION 12 - GENERAL REQUIREMENTS FOR ALL DRAWINGS
 - SECTIONS 12.03(3), 12.03(4), 12.03(6), 12.04, 12.06(3), 12.06(4)
- SECTION 13 - GENERAL REQUIREMENTS FOR DOCUMENTATION
 - SECTIONS 13.01(5), 13.01(6), 13.01(8)(c), 13.01(8)(d), 13.01(8)(e), 13.01(8)(f), 13.02
- SECTION 15 - APPLICATION REQUIREMENTS FOR MINOR SITE PLANS
 - SECTIONS 15.01(8), 15.02(3), 15.02(8), **15.03(1) BEARINGS AND DIMS**, 15.03(2), 15.03(4), 15.03(5), 15.03(6), 15.03(7), 15.03(8), 15.03(14), 15.03(16), 15.03(22), 15.03(24), 15.03(25), **15.04(1) BEARINGS AND DIMENSIONS**, 15.04(2), 15.04(3), 15.04(8), 15.04(10), 15.04(11), 15.04(13), 15.04(14), 15.04(15), 15.04(21), 15.04(23)
- SECTION 16.02 - SITE PLAN REQUIREMENTS
 - SECTIONS 16.02(3), 16.02(6), 16.02(12), 16.02(13), 16.02(14), 16.02(15), 16.02(16), 16.02(17), 16.02(18), 16.02(19), 16.02(20), 16.02(21), 16.03
- SECTION 17 - GENERAL DESIGN STANDARDS
 - 17.04
- SECTION 18 - PARKING LOT DESIGN STANDARDS
 - NOT APPLICABLE
- SECTION 19 - ACCESS AND DRIVEWAY STANDARDS
 - SECTIONS 19.01, 19.04, 19.05, 19.07, 19.08, 19.09, 19.10, 19.11
- SECTION 20 - LOADING, AND SOLID WASTE FACILITY STANDARDS
 - NOT APPLICABLE
- SECTION 21 - SIDEWALKS, MULTI-USE PATHS, AND TRAILS
 - NOT APPLICABLE
- SECTION 22 - STORM WATER MANAGEMENT
 - 22.07(3), 22.08(3), 22.19
- SECTION 25 - NON-MUNICIPAL UTILITIES
 - NOT APPLICABLE
- SECTION 26 - BUFFERS AND SCREENING
 - SECTION 26.06
- SECTION 27 - LANDSCAPING
 - SECTION 27.03, 27.06, 27.07, 27.09
- SECTION 29 - LIGHTING
 - SECTION 29.06

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Solar PV Development

Facility:
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Permit Number:
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Revisions:		
No.	Date	Description
5	04/28/2025	REVISED PER CITY COMMENTS
4	03/14/2025	NHFG REC. PERMIT CONDITIONS
3	02/11/2025	NHFG AOT RFai COMMENTS
2	01/30/2025	ISSUED FOR PERMITTING - TYPE 1B
1	01/03/2025	NHDES AOT RFMI COMMENTS
0	10/24/2024	ISSUED FOR PERMITTING - AOT

PERMITTING

Date:	10/24/2024
Drawn By:	DED
Reviewed By:	MRC
Approved By:	RJB

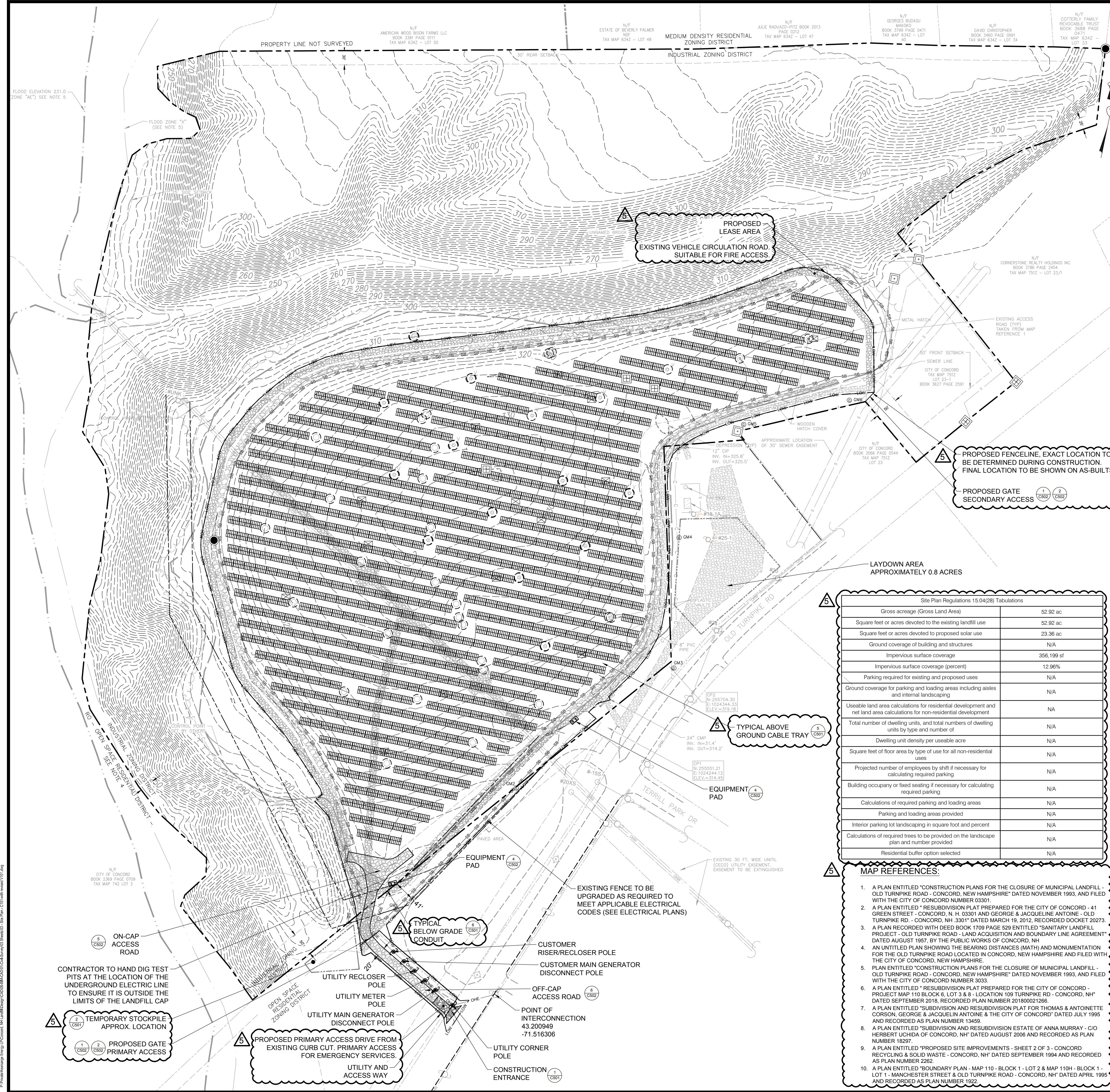
Drawing Title:

Sheet Number:

C002

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- GENERAL NOTES:**
- OWNER OF RECORD: CITY OF CONCORD - 77 OLD TURNPIKE ROAD - CONCORD, NEW HAMPSHIRE. SEE BOOK 3421 PAGE 1859 (AGREEMENT LINE WITH ANTOINE - MAP REFERENCE 2), WITH A TOWN LISTED PROPERTY ADDRESS OF 107 OLD TURNPIKE ROAD, CONCORD, MERRIMACK COUNTY, NEW HAMPSHIRE. FIELD WORK WAS COMPLETED MARCH 14, 2024.
 - ELECTRICAL DESIGN AND EQUIPMENT LOCATIONS, INCLUDING UTILITY POLES, PERFORMED BY OTHERS. ELECTRICAL EQUIPMENT AND COMPONENTS SHOWN TO ILLUSTRATE LOCATIONS ONLY. REFER TO ELECTRICAL DRAWINGS FOR DETAILED ELECTRICAL SYSTEM INFORMATION.
 - SOLAR ARRAY LAYOUT IS SUBJECT TO FINAL DESIGN BUT WILL REMAIN WITHIN THE PROPOSED LIMITS OF WORK. PROPOSED FENCE MAY BE RELOCATED BEYOND THE LIMIT OF WORK PENDING FINAL DESIGN.
 - NOTHING SHOWN OR OMITTED FROM THE DOCUMENTS PROVIDED SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, BYLAWS, AND ORDINANCES.
 - CONTRACTOR SHALL INSTALL TEMPORARY ACCESS ROADS AS NEEDED DURING CONSTRUCTION. TEMPORARY ACCESS ROADS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAIL 5 ON SHEET C502.
 - TEMPORARY ACCESS ROADS TO BE INSTALLED AS NEEDED DURING CONSTRUCTION IN ACCORDANCE WITH DETAIL 5 ON SHEET C502. ANY TEMPORARY ACCESS ROADS SHALL BE REMOVED AND RESTORED TO PRE-CONSTRUCTION CONDITIONS.
 - APPROXIMATE LIMIT OF WASTE FROM PLAN SET ENTITLED "CONSTRUCTION PLANS FOR CLOSURE OF MUNICIPAL LANDFILL OLD TURNPIKE ROAD CONCORD, NEW HAMPSHIRE", DATED NOVEMBER 1993, FOR CITY OF CONCORD GENERAL SERVICES DEPARTMENT, PREPARED BY WESTON, MANAGERS, DESIGNERS/CONSULTANTS OF CONCORD, NEW HAMPSHIRE.
 - APPROXIMATE LIMIT OF CAP FROM PLAN ENTITLED "POST-CLOSURE DRAINAGE PLAN", DATED DECEMBER 1990, PREPARED BY WESTON, MANAGERS, DESIGNERS/CONSULTANTS OF CONCORD, NEW HAMPSHIRE.
 - ENTIRE ARRAY AND ASSOCIATED ELECTRICAL EQUIPMENT TO BE SURROUNDED BY 7' HIGH CHAIN LINK FENCE (SEE FENCE DETAIL ON SHEET C502 AND PROJECT NARRATIVE).
 - CONTRACTOR TO HAND DIG TEST PITS AT THE LOCATION OF THE UNDERGROUND ELECTRIC LINE TO ENSURE IT IS OUTSIDE THE LIMITS OF THE LANDFILL CAP.
 - EXISTING USE: CLOSED LANDFILL. PROPOSED USE: CLOSED LANDFILL WITH ACCESSORY SOLAR DEVELOPMENT.
 - NO ON-SITE LIGHTING IS PROPOSED. NO OUTSIDE STORAGE IS PROPOSED.
 - NO LIGHT TRESPASS BEYOND PROPERTY BOUNDARIES GREATER THAN 0.2 FOOT-CANDLES ANYWHERE ABOVE THE HORIZONTAL PLAN SHALL OCCUR AS A RESULT OF THE PROJECT.
 - NO PARKING LOTS OR LOADING AREAS ARE PROPOSED.
 - NO NEW STORMWATER MANAGEMENT BMPs ARE PROPOSED.
 - EROSION CONTROL METHODS ARE DISPLAYED ON THIS SHEET. EROSION CONTROL DETAILS ARE INCLUDED ON SHEETS C501 AND C502.
 - SITE IS LOCATED WITHIN FLOOD HAZARD ZONING OVERLAY DISTRICT (FH).
 - PV PANELS ARE DESIGNED TO ABSORB AS MUCH LIGHT AS POSSIBLE IN ORDER TO INCREASE THE EFFICIENCY WITH WHICH THE PHOTOCELLS CONVERT SOLAR RADIATION INTO ELECTRICITY.

EXISTING LEGEND:

ADJACENT LOT LINE	---
LOCUS BOUNDARY LINE	---
PROPERTY LINE SETBACK	---
MAJOR CONTOUR	---
MINOR CONTOUR	---
EASEMENT LINE	---
METAL FENCE	---
RIP RAP	---
EDGE OF GRAVEL	---
EDGE OF PAVEMENT	---
OVERHEAD WIRE	---
SANITARY SEWER LINE	---
CENTERLINE OF STREAM	---
FLOOD ZONE "X"	---
FLOOD ZONE "AE"	---
APPROXIMATE LOCATION OF LIMIT OF CAP	---
APPROXIMATE LOCATION OF LIMIT OF WASTE	---
LANDFILL GAS PIPES	---
APPROXIMATE TREE LINE	---
CONCRETE BOUND	---
PIPE	---
CONTROL	---
UTILITY POLE	---
GUY POLE	---
VENTILATION PIPE	---
HYDRANT	---
POSSIBLE GROUND MONITORING WELL	---
CONCRETE PAD W/ PVC VENT PIPE	---
CONCRETE PAD	---

PROPOSED LEGEND:

LIMIT OF WORK	---
PROPOSED LEASE LINE	---
PROPOSED FENCE	---
UTILITY / ACCESS WAY	---
UNDERGROUND ELECTRIC LINE	---
SEDIMENT BARRIER	---
OVERHEAD ELECTRIC	---
APPROXIMATE UTILITY EASEMENT	---
10' RADIUS BUFFER FOR PVC VENT	---
10' RADIUS BUFFER CONCRETE PAD	---
SOLAR RACK & PANELS	---

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2	01/30/2025	ISSUED FOR PERMITTING - TYPE 18
1	01/03/2025	NO CHANGES THIS SHEET
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Seal: Robert J. Bukowski, No. 12735, Professional Engineer, State of New Hampshire

Issued For: PERMITTING

Scale: 1" = 100' HORIZONTAL

Date: 10/24/2024

Drawn By: DED

Reviewed By: MRC

Approved By: RJB

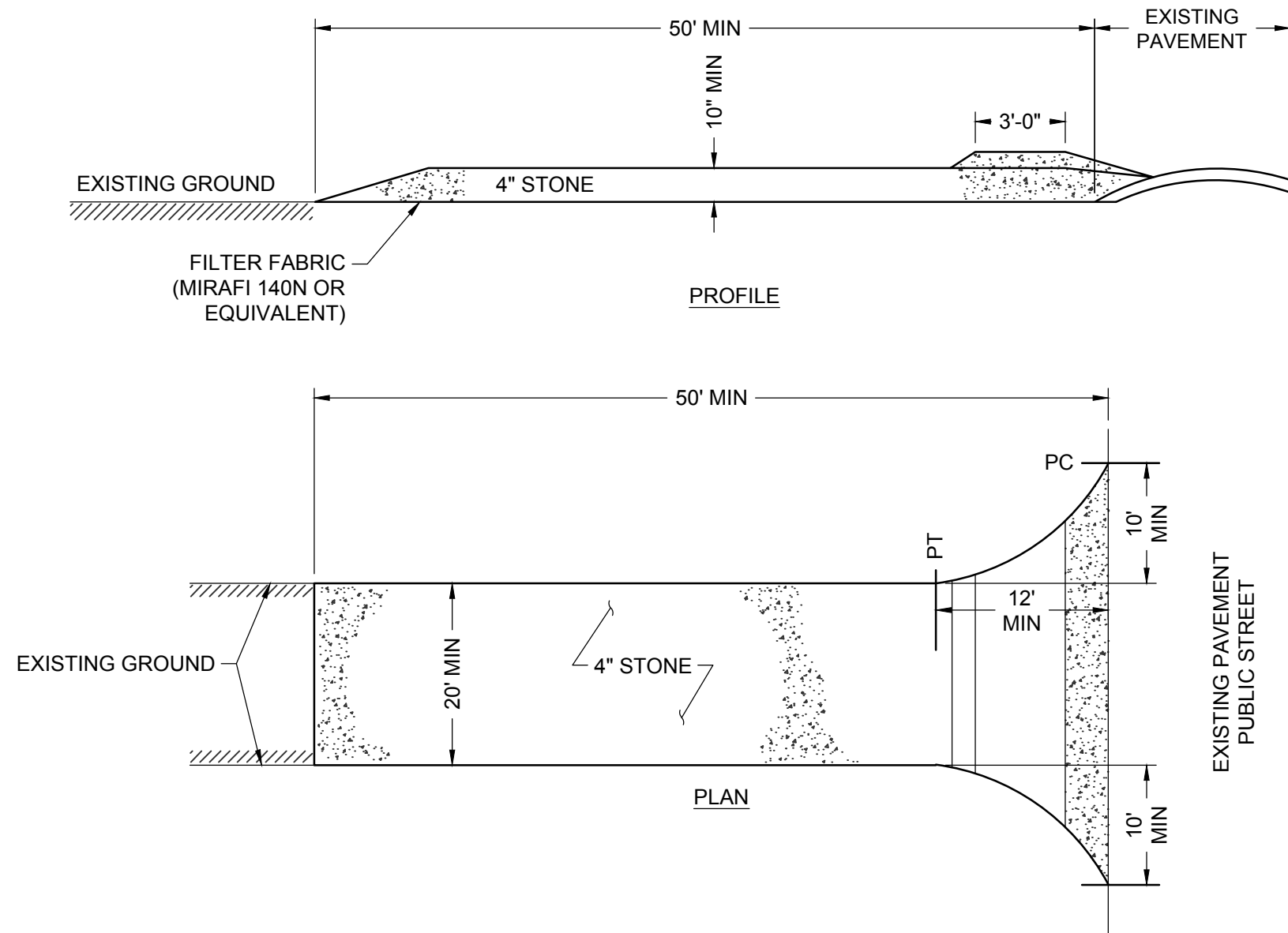
W&S Project No.: ENG24-0294

W&S File No.: Kearsarge Concord, NH

Drawing Title: PROPOSED SITE PLAN

Sheet Number: C101

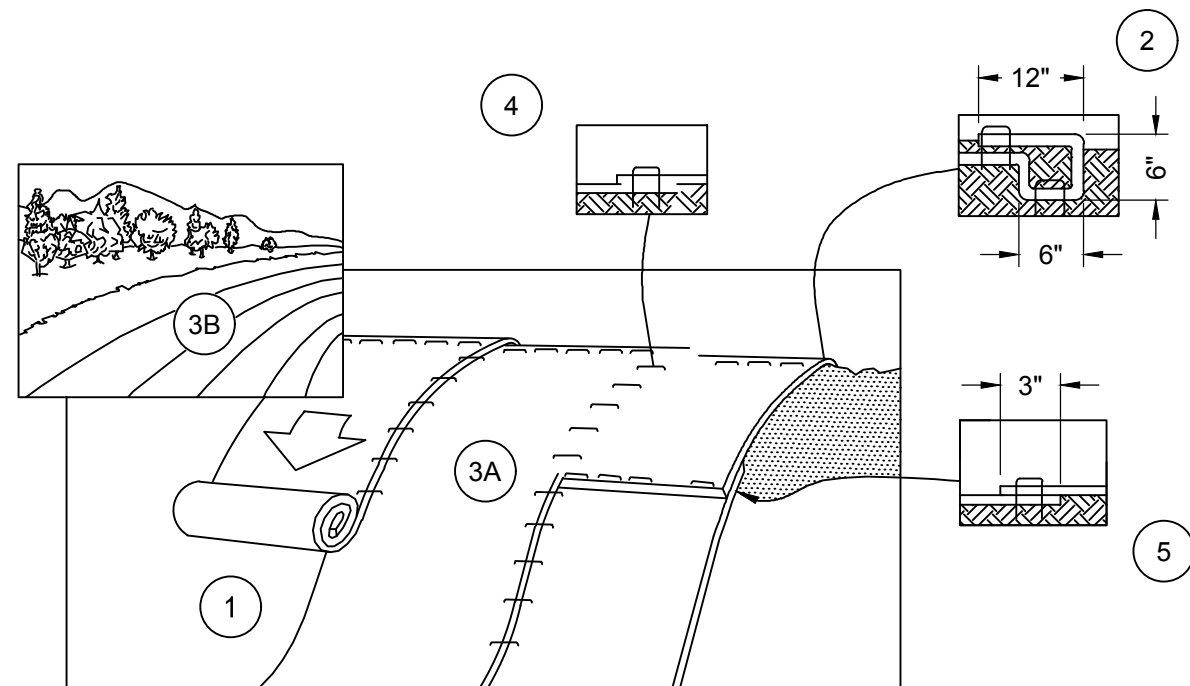
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STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. FILTER FABRIC - WILL BE PLACED OVER THE ENTIRE AREA FOLLOWING GRADING (AS NEEDED) TO LEVEL PAD PRIOR TO PLACING OF STONE.
2. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
3. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED BY THE CONTRACTOR IMMEDIATELY.
4. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
5. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
6. AT THE CONCLUSION OF PROJECT, ANY ACCUMULATED SEDIMENT SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. REMOVAL OF ANTI-TRACKING PAD SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
7. P.C. = POINT OF CURVATURE
8. P.T. = POINT OF TANGENCY

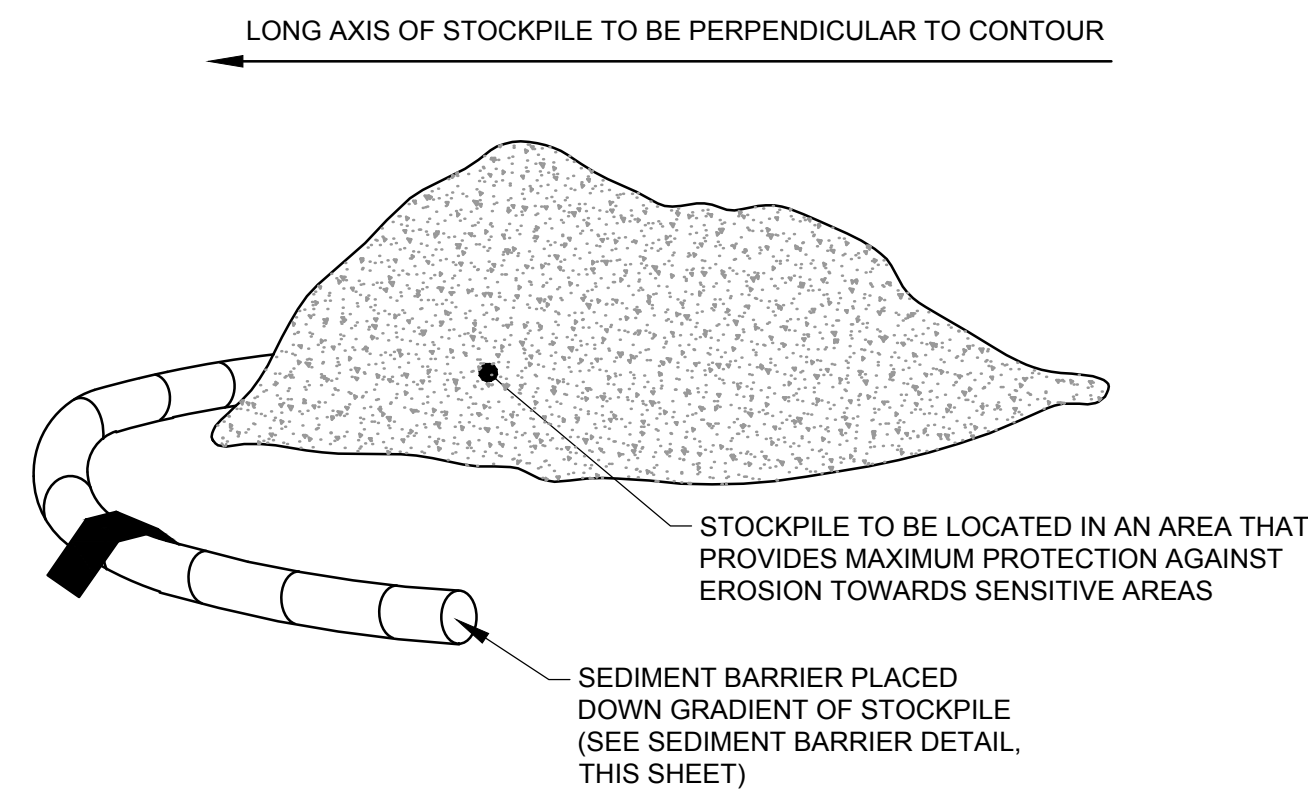
1 STABILIZED CONSTRUCTION ENTRANCE
SCALE: N.T.S.



NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6\"/>

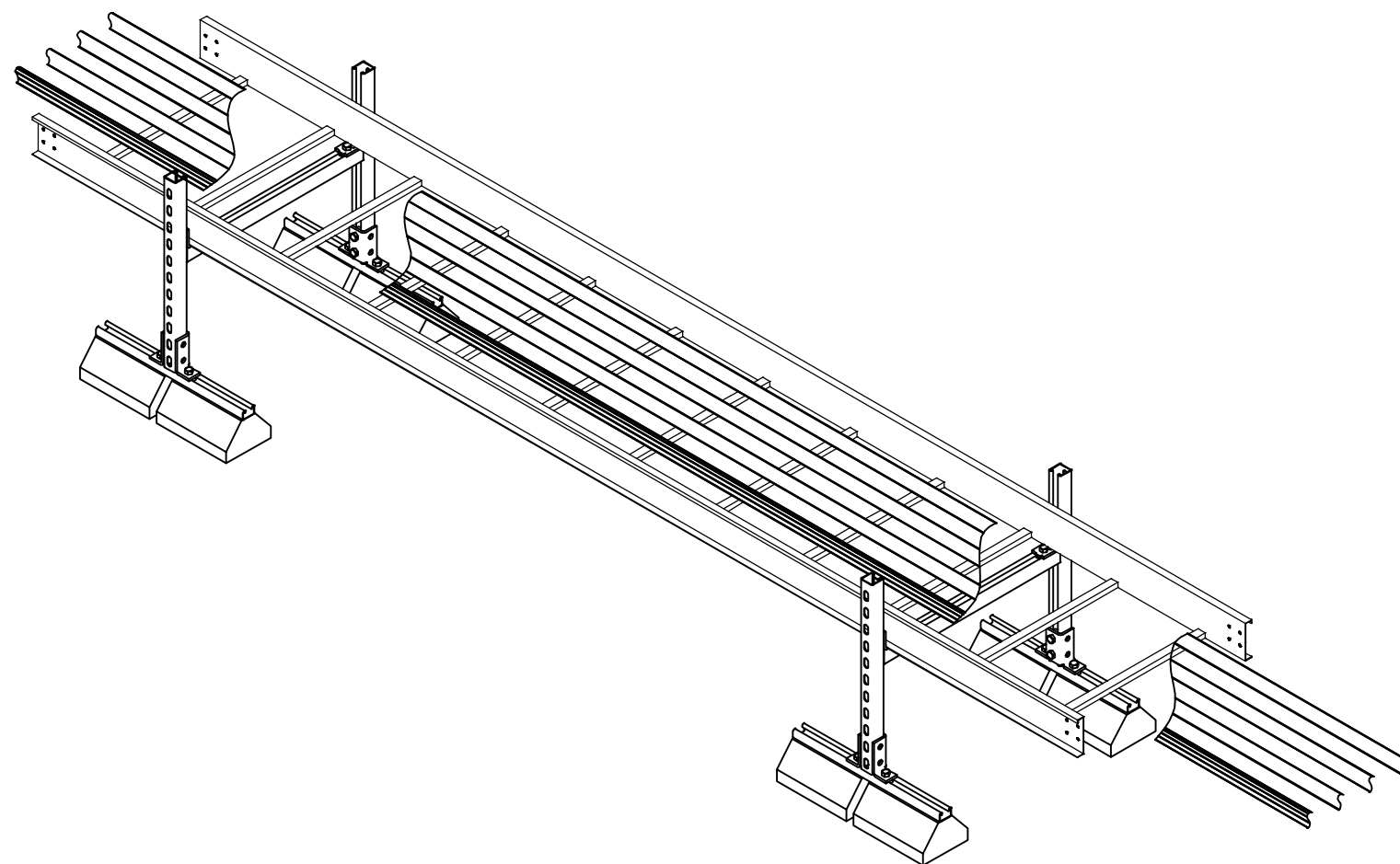
4 TEMPORARY EROSION CONTROL BLANKET
SCALE: N.T.S.



NOTES:

1. STOCKPILE AREAS SHALL BE LOCATED OUTSIDE OF WETLANDS AND 100-FT WETLAND BUFFERS.
2. WOODEN RAMPS SHOULD BE SET UP OVER THE SEDIMENT BARRIER EVERY 150' ENCIRCLING THE STOCKPILE TO PROVIDE WILDLIFE A MEANS OF EGRESS.

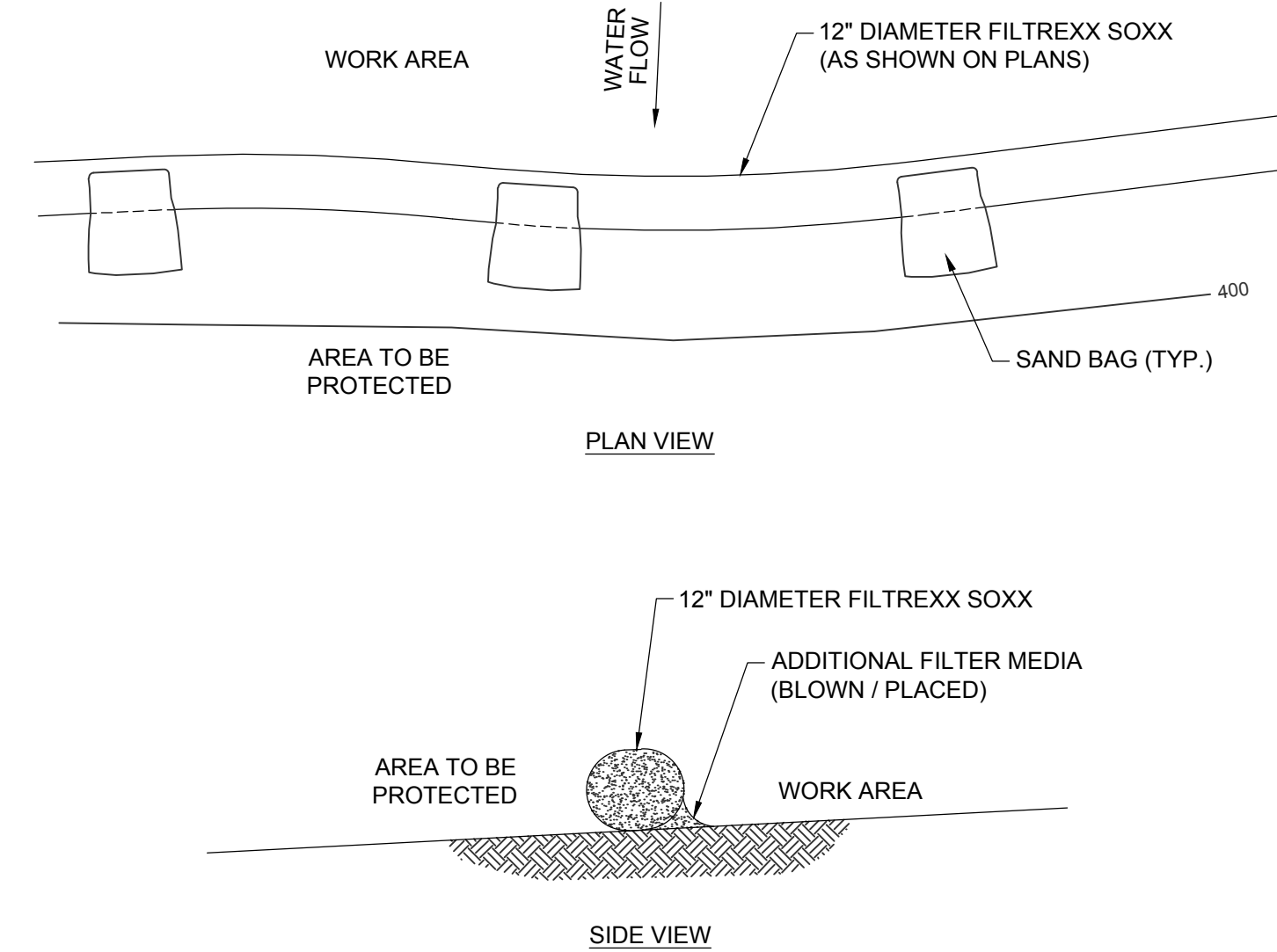
2 TEMPORARY STOCKPILE
SCALE: N.T.S.



NOTE:

1. ALL CONDUIT THAT IS LOCATED ABOVE THE LANDFILL COVER SYSTEM SHALL BE RUN IN ABOVE GROUND CABLE TRAYS OR APPROVED SIMILAR.
2. ELECTRICAL DESIGN AND CONFORMANCE WITH ELECTRICAL CODE REQUIREMENTS BY OTHERS.
3. LOADING OF CONDUIT SUPPORT BLOCKS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION.

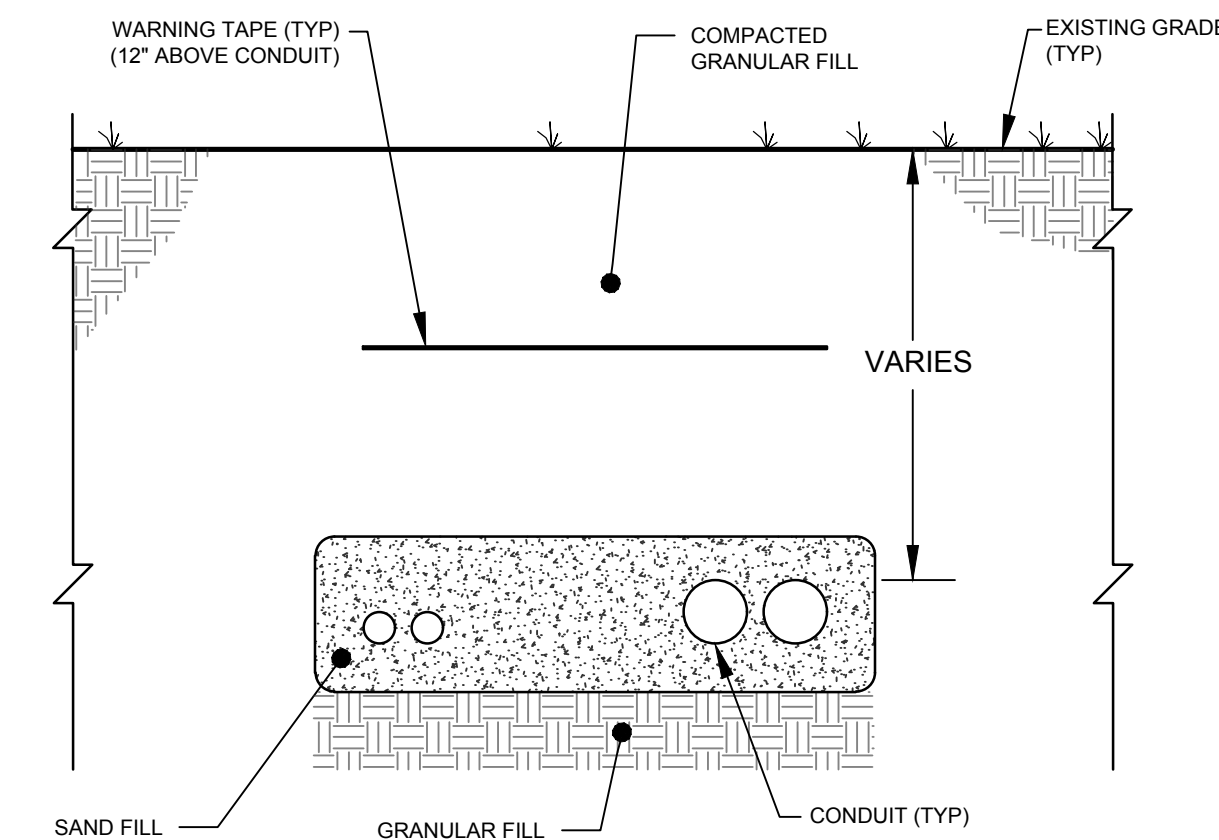
5 TYPICAL ABOVE GROUND CABLE TRAY DETAIL
SCALE: N.T.S.



NOTES:

1. SUPPORT POSTS OR STAKES ARE PROHIBITED FOR USE TO SECURE SEDIMENT BARRIER OVER THE EXISTING LANDFILL CAP. NO EROSION/SEDIMENTATION CONTROL DEVICE SHALL PENETRATE THE EXISTING LANDFILL CAP MATERIAL.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
4. SAND BAGS TO BE SPACED EQUALLY TO SECURE COMPOST SOCKS IN PLACE, IF REQUIRED.
5. UPON COMPLETION, COMPOST MATERIAL TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER.

3 SEDIMENT BARRIER - COMPOST SOCK
SCALE: N.T.S.



NOTE:

1. TRENCH SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ELECTRICAL DESIGN AND CONFORMANCE WITH ELECTRICAL CODE REQUIREMENTS BY OTHERS.

6 TYPICAL BELOW GRADE CONDUIT DETAIL
SCALE: N.T.S.

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Seal:



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Reviewed By: MRC

Approved By: RJB

W&S Project No.: ENG24-0294

W&S File No.: Kearsarge
Concord, NH

Drawing Title:

DETAILS I

Sheet Number:

C501

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