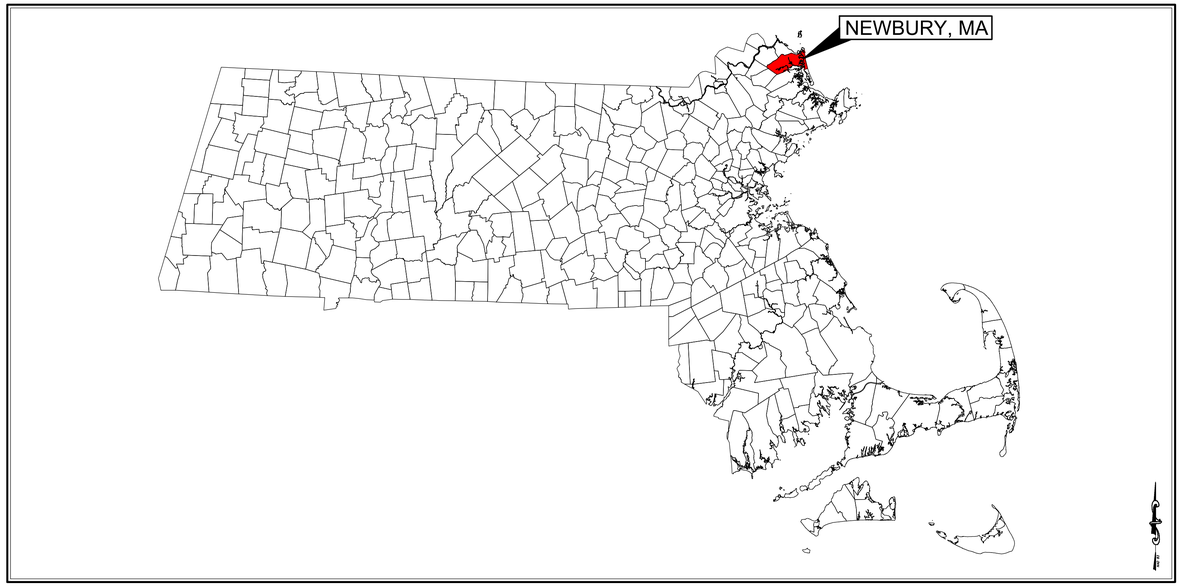
NEWBURY LANDFILL SOLAR PROJECT

PROPOSED ±582.4 kW(DC) SOLAR PHOTOVOLTAIC (PV) PROJECT

75 BOSTON ROAD, NEWBURY, MA



MASSACHUSETTS MUNICIPAL MAP

NOT TO SCALE

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SOLAR PV SYSTEM INFORMATION

SYSTEM SIZE:	582.4 kW(DC) / 432.9 kW(AC)
MODULE TYPE:	HANWHA
MODULE POWER RATING:	400-WATT
MODULE QUANTITY:	±1,456
INVERTER TYPE:	SOLAR EDGE SE 33.3 kW
INVERTER QUANTITY:	13
RACKING TYPE:	BALLASTED GROUND MOUNT
RACKING CONFIGURATION:	PORTRAIT 1L
SYSTEM TILT ANGLE:	20° TO 35°
SYSTEM AZIMUTH ANGLE:	VARIES

NOTE:

1. REFERENCE THE ELECTRICAL AND RACKING CONSTRUCTION DRAWINGS FOR FINAL SYSTEM SPECIFICATIONS, COMPONENTS, AND DETAILS.

ZONING INFORMATION

ZONE: RESIDENTIAL/AGRICULTURAL (R-AG)

DIMENSIONAL REQUIREMENTS

MIN. LOT AREA:	40,000 SQUARE FEET
SETBACK FROM PROPERTY LINE:	10 FEET (MIN.)
SETBACK FROM STREET:	20 FEET (MIN.)
MAX. STRUCTURE HEIGHT:	35 FEET

NOTES:

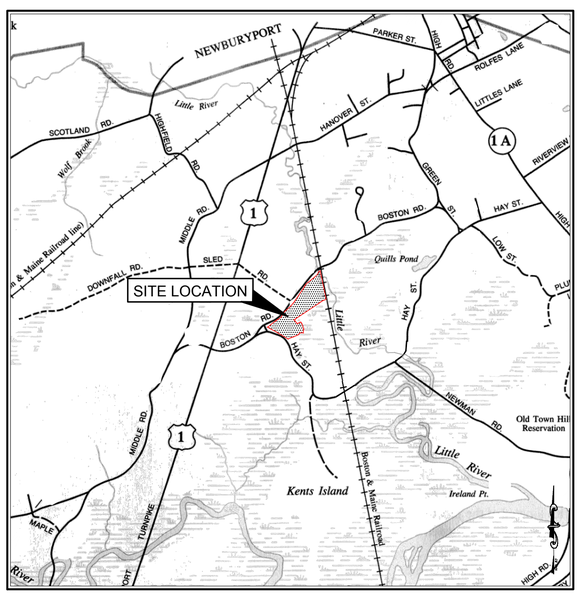
1. SETBACKS AND QUANTITIES PER THE TOWN OF NEWBURY ZONING BYLAWS TABLE OF DIMENSIONAL REQUIREMENTS.

SITE INFORMATION

PROPERTY ID:	R36-0-27
LAND OWNER:	TOWN OF NEWBURY
LOT SIZE:	26.9173 ACRES
LAND USE CODE:	930

SOLAR PV SYSTEM OWNER

ALLIANCE NEWBURY I LLC
1600 OSGOOD STREET, SUITE 2043
NORTH ANDOVER, MA 01815
978-884-2903



SITE LOCUS MAP

1" = 2,000'

SITE AERIAL MAP

1" = 500'

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811 Know what's below. Call before you dig.

REV #	DESCRIPTION	DATE
0	PERMITTING	05/27/2020
1	MASSDEP COMMENTS	04/09/2021
2	PLANNING COMMENTS	06/22/2021
3	PLANNING BOARD SUBMISSION	10/28/2021
4	PLANNING BOARD COMMENTS	02/15/2022

Seal: COMMONWEALTH OF MASSACHUSETTS — BRIAN J MCCORMACK — ENVIRONMENTAL — No. 520021 — REGISTERED PROFESSIONAL ENGINEER

Issued For: PERMITTING	Drawn By: RWG
	Reviewed By: SPW / RJB
Issued Date: 02/15/2022	Approved By: BJM
	Job No: ENG20-0106
Drawing Title: COVER SHEET	Sheet Number: G000

READING, MA | BOSTON, MA | FOXBOROUGH, MA | WORCESTER, MA | WOBURN, MA | CATAUMET, MA | CHATHAM, MA | SOUTH YARMOUTH, MA | PORTSMOUTH, NH | MANCHESTER, NH | WATERBURY, VT | ROCKY HILL, CT | ALBANY, NY | HOPEWELL JUNCTION, NY | CHARLESTON, SC | COLUMBIA, SC | FORT MYERS, FL

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CONSTRUCTION NOTES:

1. THE FOLLOWING NOTES ARE PROVIDED AS A SUMMARY REFERENCE FOR THE CONTRACTOR ONLY. THE REQUIREMENTS IN THE FULL SPECIFICATIONS FOR THE PROJECT SHALL BE FOLLOWED BY THE CONTRACTOR. IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS AND THE SPECIFICATIONS, THE ENGINEER SHALL DETERMINE THE CORRECT REQUIREMENTS.
2. 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.
3. 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.
4. 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.
5. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE PROJECT AREA SHALL BE RESTORED AT NO ADDITIONAL COST TO THE OWNER.
6. HORIZONTAL CONTROLS REFER TO MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MAINLAND ZONE) (1983 NORTH AMERICAN DATUM).
7. ELEVATIONS REFER TO THE 1988 NORTH AMERICAN VERTICAL DATUM (NAVD 88).
8. NOTHING SHOWN OR OMITTED FROM THE DOCUMENTS PROVIDED SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, BYLAWS, AND ORDINANCES.

DRAINAGE AND GROUNDWATER CONTROLS:

1. THE CONTRACTOR SHALL PROVIDE, AT ITS OWN EXPENSE, ADEQUATE DRAINAGE AND DEWATERING FACILITIES TO COMPLETE ALL WORK ITEMS IN AN ACCEPTABLE MANNER. DRAINAGE AND DEWATERING SHALL BE COMPLETED IN A MANNER SUCH THAT DISCHARGES OR RUNOFF WILL NOT ADVERSELY AFFECT CONSTRUCTION PROCEDURES NOR CAUSE EXCESSIVE DISTURBANCE OF UNDERLYING NATURAL GROUND OR ABUTTING PROPERTIES.

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.

MATERIALS SPECIFICATIONS:

GEOSYNTHETICS:

1. GENERAL:

SUBMIT SHOP DRAWINGS FOR EACH MATERIAL. 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 FOR TEMPORARY ACCESS ROADS SHALL BE MIRAFI 500X FABRIC, BY MIRAFI INC., OR APPROVED EQUIVALENT. THE WOVEN GEOTEXTILE FOR WIDENED/IMPROVED ACCESS ROADS SHALL BE MIRAFI FW700, 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. GENERAL:

SUBMIT SHOP DRAWINGS FOR EACH MATERIAL.

2. GRAVEL BORROW

GRAVEL BORROW SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION SECTION M1.03.0, TYPE B.

3. CRUSHED STONE:

CRUSHED STONE SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION SECTION M2.01.0.

4. DENSE GRADED CRUSHED STONE:

DENSE GRADED CRUSHED STONE SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION SECTION M2.01.7.

5. RIPRAP:

RIPRAP SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION SECTION M2.02.3, STONE FOR PIPE ENDS.

6. MODIFIED ROCKFILL:

MODIFIED ROCKFILL SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION SECTION M2.02.4.

7. LOAM BORROW:

LOAM BORROW SHALL SATISFY THE REQUIRENTS LISTED IN MASSDOT SPECIFICATION SECTION M1.05.0.

8. 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.

DRAINAGE PIPES:

1. GENERAL:

SUBMIT SHOP DRAWINGS FOR EACH MATERIAL.

2. CULVERTS:

CULVERTS SHALL BE: 8-INCH DIAMETER HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE WITH SMOOTH INTERIOR AND MITERED EDGE AND 6"-DIAMETER DUCTILE IRON (DI) PIPE.

3. PANEL PIPING:

PANEL PIPING SHALL BE 12-INCH CORRUGATED, PERFORATED PANEL-SHAPED HIGH DENSITY POLYETHYLENE (HDPE) PIPE.

MATERIAL PLACEMENT AND COMPACTION:

1. THE CONTRACTOR SHALL FILL AREAS TO REQUIRED CONTOURS AND ELEVATIONS WITH SPECIFIED MATERIALS.
2. THE CONTRACTOR SHALL PLACE AND COMPACT MATERIALS IN CONTINUOUS HORIZONTAL LAYERS NOT TO EXCEED 12 INCHES IN UNCOMPACTED LIFTS.

TYPICAL SEQUENCE OF CONSTRUCTION:

PRIOR TO THE DEVELOPMENT OF THE SITE, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH THE SUGGESTED SEQUENCE INDICATED ON THIS SHEET. SITE DEVELOPMENT SCHEDULING SHALL TAKE INTO CONSIDERATION THE GROWING SEASON, SUCH THAT BULK 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 CONTROL MEASURES AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, NOTIFY TOWN OFFICIALS OF CONSTRUCTION COMMENCEMENT, AND SUBMIT CONSTRUCTION TIMETABLE.
2. ON-SITE CONSTRUCTION SHALL START WITH THE INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON SHEET C202. THIS INCLUDES, COMPOST FILTER TUBES, ANTI-TRACKING PADS, AND OTHER MEASURES AS NOTED ON THE PLANS. NO WORK SHALL TAKE PLACE UNTIL THE ENGINEER HAS INSPECTED AND APPROVED INSTALLED MEASURES.
3. PROCEED WITH NEW SECURITY PERIMETER FENCE INSTALLATION/CONSTRUCTION WORK AS DEPICTED ON THE PROPOSED SOLAR PV SYSTEM PLAN (SHEET C206).
4. PROCEED WITH IMPROVEMENTS TO EXISTING ACCESS ROAD AS DEPICTED ON THE ACCESS ROAD PLAN (SHEET C203).
5. PROCEED WITH THE INSTALLATION OF PERFORATED PANEL PIPING AS DEPICTED ON THE PROPOSED DRAINAGE PLAN (SHEET C204).
6. PROCEED WITH TEMPORARY ACCESS ROAD AND TEMPORARY CULVERT INSTALLATION WORK AS DEPICTED ON THE PROPOSED TEMPORARY ACCESS ROAD PLAN (SHEET C203).
7. PROCEED WITH STONE COVER MATERIAL PLACEMENT WORK AS DEPICTED ON THE PROPOSED FINAL COVER PLAN (SHEET C205).
8. PROCEED WITH STABILIZATION OF TEMPORARY MATERIAL STOCKPILE AREAS AS SOON AS PRACTICAL.
9. PROCEED WITH SOLAR PHOTOVOLTAIC (PV) SYSTEM RACKING INSTALLATION/CONSTRUCTION WORK AS DEPICTED ON THE PROPOSED SOLAR PV SYSTEM PLAN (SHEET C206). REFER TO RACKING CONSTRUCTION DRAWINGS FOR ADDITIONAL INFORMATION (BY OTHERS).
10. PROCEED WITH SOLAR PHOTOVOLTAIC (PV) SYSTEM STRUCTURAL CONSTRUCTION WORK FOR EQUIPMENT PADS AS DEPICTED ON THE PROPOSED SOLAR PV SYSTEM PLAN (SHEET C206).
11. PROCEED WITH SOLAR PHOTOVOLTAIC (PV) SYSTEM ELECTRICAL INSTALLATION/CONSTRUCTION WORK. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION (BY OTHERS).
12. REMOVE TEMPORARY ACCESS ROADS AND TEMPORARY CULVERTS, REPAIR ALL DISTURBED AREAS, AND REAPPLY LOAM AND SEED WHERE NECESSARY.
13. REMOVE ALL EROSION AND SEDIMENT CONTROL MEASURES AFTER FINAL ACCEPTANCE.

GENERAL STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PERFORMED IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES. THE CONTRACTOR SHALL OWN AND MAINTAIN A COPY OF THE GUIDELINES ON-SITE DURING CONSTRUCTION.
2. ALL DISTURBED AREAS SHALL BE KEPT TO A MINIMUM. FINAL GRADING AND RESTORATION SHALL BE ACCOMPLISHED AS SOON AS PRACTICAL.
3. EROSION AND SEDIMENT CONTROL STRUCTURES SHALL BE INSTALLED PRIOR TO SITE WORK.
4. 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 TOWN OF NEWBURY AND/OR ENGINEER, ADDITIONAL CONTROL MEASURES SHALL BE TAKEN.
5. ALL RUNOFF FROM THE DISTURBED AREA SHALL BE CONTROLLED AND FILTERED. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON SHEET C202.
6. A NPDES GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WATERS FROM CONSTRUCTION ACTIVITIES WILL BE REQUIRED FOR THE PROPOSED PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREPARATION AND SUBMITTAL OF THE NPDES PERMIT APPLICATION, AND SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION AND COMPLIANCE WITH THE APPROVED SWPPP.
7. THE CONTRACTOR MUST OBTAIN COPIES OF ALL APPLICABLE PERMITS PRIOR TO THE START OF WORK.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF SEDIMENT AND EROSION CONTROL MEASURES. THIS RESPONSIBILITY INCLUDES THE ACQUISITION OF MATERIALS, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENT STRUCTURES, THE COMMUNICATION AND DETAILED EXPLANATION TO ALL PEOPLE INVOLVED IN THE SITE WORK OF THE REQUIREMENTS AND OBJECTIVE OF THE EROSION AND SEDIMENT CONTROL MEASURES.
9. 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.
10. THE ENGINEER SHALL BE NOTIFIED OF ANY PROPOSED ALTERATION TO THE EROSION AND SEDIMENT CONTROL PLAN, PRIOR TO ALTERING, IN ORDER TO ENSURE THE FEASIBILITY OF THE ADDITION, SUBTRACTION, OR CHANGE IN THE PLAN.

GRADING:

1. THE MAXIMUM ALLOWABLE SLOPE OF SITE GRADING IS 3:1.

SOIL STABILIZATION/SEEDING:

1. RESTORE DISTURBED VEGETATED AREAS WITH A MINIMUM OF 4 INCHES OF LOAM AND SEED AND STABILIZE WITH GRASS COVER. ALL RESTORED 3:1 SLOPES SHALL BE ALSO STABILIZED WITH A TEMPORARY EROSION CONTROL BLANKET.
2. 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).
3. AREAS OF BARE SOIL SHALL RECEIVE 4-INCHES OF LOAM PRIOR TO SEEDING. ALL DISTURBED AREAS OUTSIDE OF PV DEVELOPMENT AREAS SHALL BE RESTORED WITH A VEGETATIVE STABILIZATION MATERIAL (GRASS). THE SOIL SHALL BE ADJUSTED TO A PH OF 5.70 OR HIGHER. THIS CAN BE DONE BY USING THE APPROPRIATE AMOUNT OF GROUND LIMESTONE OR FERTILIZER, AS REQUIRED BY A SOIL TEST. IF A TEST IS NOT PERFORMED, THE AREA SHALL BE FERTILIZED WITH 10-10-10 U.F. OR EQUAL AT A RATE OF 300 POUNDS PER ACRE (11 POUNDS PER 1000 SQUARE FEET). THE LIME OR FERTILIZER SHALL BE WORKED INTO THE SOIL A MINIMUM OF 4 INCHES AND UNIFORMLY BLENDED. ALL STONES TWO INCHES OR LARGER IN DIAMETER SHALL BE APPROPRIATELY REMOVED ALONG WITH ALL DELETERIOUS MATERIAL (SUCH AS BUILDING MATERIAL WASTE, ETC.). THE SEED SHALL BE APPLIED BY EITHER HAND, CYCLONE SEEDER, A CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING BOTH SEED AND FERTILIZER). HYDROSEEDING, WHICH SHALL BE MULCHED, MAY BE LEFT ON SOIL SURFACE. SEED MIX SHALL CONSIST OF 20 POUNDS OF KENTUCKY BLUEGRASS, 20 POUNDS OF CREEPING RED FESCUE, AND 5 POUNDS OF PERENNIAL RYEGRASS, FOR A TOTAL OF 45 POUNDS OF SEED PER ACRE. SEEDING SHALL BE COMPLETED BETWEEN APRIL 15 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. ALL SEEDED AREAS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND TO MINIMIZE EROSION.
4. 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.
5. ALL BARE SPOTS, WHICH BECOME APPARENT AS THE GRASS GERMINATES, SHALL BE RESEEDED BY THE CONTRACTOR AT THEIR 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 HYDROMULCHING OR BY MECHANICAL MEANS AS DETERMINED BY THE AREA OF RESEEDING TO BE ACCOMPLISHED.
6. AT ALL AREAS TO BE SEEDED WHERE HYDROMULCHING CANNOT BE ACCOMPLISHED, I.E., ADJACENT TO NARROW OR IRREGULARLY SHAPED AREAS, PERFORM THE WORK MANUALLY AND PROTECT THE SEEDED AREAS WITH STRAW, OR WOOD FIBER MULCH SPRINKLED TO COVER THE AREA.
7. CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS GERMINATING. THESE MEASURES SHALL INCLUDE FURNISHING OF WARNING SIGNS, BARRIERS, TEMPORARY FENCE OR ANY OTHER NECESSARY MEASURES OF PROTECTION.
8. 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.
9. SIX WEEKS AFTER THE GRASS IS ESTABLISHED, CONTRACTOR SHALL APPLY FERTILIZER TO THE SURFACE OF SEEDED AREAS AT ONE-HALF THE RATE RECOMMENDED BY INITIAL LABORATORY TESTS AS INDICATED HEREIN.

SUGGESTED EROSION CONTROL CONSTRUCTION SCHEDULE:

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS INDICATED ON THESE PLANS OR AS REQUIRED BY THE ON-SITE ENGINEER.
2. A CHECKLIST (PROVIDED TO THE ENGINEER) SHALL BE FILLED OUT BY THE CONTRACTOR EVERY WEEK OR AFTER EACH RAINFALL EVENT OF 1/2 INCH OR GREATER.
3. FLAG THE GRADING LIMITS AND MARK A 10 FOOT BUFFER AREA BEYOND THE GRADING LIMITS FOR PROTECTION.
4. INSTALL TEMPORARY CONSTRUCTION ENTRANCE AT APPROXIMATE LOCATION OF SITE ENTRANCES, AS INDICATED ON SHEET C202.
5. INSTALL BRIGHTLY COLORED CONSTRUCTION FENCE ALONG GRAVEL ACCESS ROAD AND EQUIPMENT PAD AREAS TO LIMIT VEHICULAR ACCESS TO THESE AREAS, UNLESS OTHERWISE NEEDED.
6. INSTALL INLET PROTECTION DEVICES AT CATCH BASINS DOWN SLOPE FROM THE SITE THAT ARE VULNERABLE TO SEDIMENT ACCUMULATIONS, IF REQUIRED.
7. INSTALL COMPOST FILTER TUBES AROUND THE PERIMETER OF SITE WORK, STOCKPILE AREA AND ALONG ALL DISTURBED SLOPES AT A MINIMUM OF EVERY 50 FEET OF HORIZONTAL DISTANCE OR AS SPECIFIED, MEASURED PERPENDICULAR TO THE SLOPE.
8. INSTALL COMPOST FILTER TUBES ALONG CONTOURS PERPENDICULAR TO DIRECTION OF STORMWATER RUNOFF. CONFIGURE COMPOST FILTER TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.
9. CONTRACTOR MUST ROUTINELY INSPECT AND MAINTAIN EROSION CONTROL MEASURES AND STORMWATER MANAGEMENT FEATURES (SWALES, BASINS, ETC.) UNTIL ALL AREAS HAVE BEEN ADEQUATELY STABILIZED. THE TEMPORARY AND PERMANENT STORMWATER CONTROLS SHALL BE PERIODICALLY CLEANED OF SEDIMENT, OR AS REQUIRED BY THE ON-SITE ENGINEER. THE SEDIMENT WILL BE REMOVED TO A SECURE LOCATION SO AS TO PREVENT SILTATION OF NATURAL WATER WAYS.
10. THE CONTRACTOR SHALL INITIATE STABILIZATION OF ANY BARE SOIL AREAS, AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER INITIAL DISTURBANCE OF THE RESPECTIVE AREAS OF THE SITE. THE CONTRACTOR SHALL RETAIN SITE RECORDS OF THE EARTHWORK AND STABILIZATION WORK PERFORMED. EXCEPTIONS TO THIS POLICY CAN BE GRANTED UNDER NORMAL CONDITIONS IN THE FOLLOWING INSTANCES:
    A. WHERE THE INITIATION OF STABILIZATION MEASURES BY THE 14TH DAY AFTER CONSTRUCTION ACTIVITY TEMPORARILY OR PERMANENTLY CEASED IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE.
    B. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN TWENTY-ONE (21) DAYS, TEMPORARY STABILIZATION MEASURES NEED NOT BE INITIATED ON THAT PORTION OF THE SITE IF REQUESTED IN WRITING AND APPROVED BY THE ENGINEER.
11. ALL EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ATTAINED. REMOVAL OF ANY EROSION CONTROL MEASURES MUST FIRST BE APPROVED BY THE ENGINEER AND/OR THE JURISDICTION HAVING AUTHORITY.
12. WHEN WEATHER CONDITIONS PROHIBIT SEED GERMINATION, DISTURBED GROUND SHALL BE SEEDED WITH A TEMPORARY/WINTER SEEDING MIX, MULCHED WITH STRAW OR FIBER MULCH, AND RECEIVE A BINDER/TACK APPLICATION OR EQUIVALENT.
13. THE SCHEDULE DESCRIPTIONS ABOVE ARE SUGGESTIONS PROVIDED TO ASSIST THE CONTRACTOR(S) IN DEVELOPING THEIR SWPPP SCHEDULE SPECIFIC TO THIS PROJECT. THE ACTUAL SCHEDULING AND IMPLEMENTATION OF THE SWPPP AND MAINTENANCE OF REQUIRED WATER QUALITY IS THE RESPONSIBILITY OF THE CONTRACTOR. THE EROSION AND SEDIMENT CONTROL PLAN AND MEASURES SHOWN ARE CONSIDERED TO COMPRISE THE MAJORITY OF EFFORTS NEEDED, BUT NOT NECESSARILY ALL THAT WILL BE REQUIRED. WEATHER, SITE AND UNFORESEEN CONDITIONS CAN DICTATE THAT GREATER EFFORTS WILL BE NECESSARY. A COMPETENT PERSON FOR THE CONTRACTOR SHALL DEVELOP THE SWPPP TO INCLUDE AN EROSION CONTROL SCHEDULE, SHORT NARRATIVE OF ANTICIPATED EROSION CONTROL ACTIVITIES, INSPECTION REPORTS AND LOGS AND SIGNED CERTIFICATION STATEMENTS AND PRE-CONSTRUCTION PHOTOGRAPHS AS SPECIFIED. THIS COMPETENT PERSON SHALL BE EITHER A LICENSED ENGINEER, LANDSCAPE ARCHITECT OR CERTIFIED EROSION CONTROL SPECIALIST.

GENERAL MAINTENANCE PLAN (DURING CONSTRUCTION):

1. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF PRODUCING RAINFALL, BUT IN NO CASE LESS THAN ONCE EVERY WEEK, IN ACCORDANCE WITH THE SWPPP.
2. ACCUMULATED SEDIMENT WILL BE REMOVED FROM BEHIND COMPOST FILTER TUBES WHEN IT BECOMES 4 INCHES DEEP OR WHEN ACCUMULATIONS HAVE ADVERSELY AFFECTED IT'S FUNCTION. COMPOST FILTER TUBES WILL BE REPAIRED BY REMOVING SILT AND SEDIMENTS AND THEN TAMPING LOOSE SOIL ALONG BASE, REPLACING DAMAGED OR WEAKENED POSTS AND STAKES, OR AS NECESSARY TO MAINTAIN A BARRIER.
3. SEDIMENT WILL BE REMOVED AND FILTER DEVICES CLEANED OR REPLACED AT CATCH BASINS WHEN THE SEDIMENT POOL NO LONGER DRAINS FREELY. SEDIMENT ACCUMULATIONS WITHIN DRAINAGE STRUCTURES AND PIPING SHALL BE CLEANED OUT AT THE PROJECT COMPLETION AND AS ORDERED BY ENGINEER WHEN DETERMINED THAT PRE-COMPLETION INSTALLATIONS NO LONGER FUNCTION PROPERLY DUE TO SEDIMENT OR DEBRIS. EVENTUAL SYSTEM CLEANING IS NOT AN EXCUSE TO NOT IMPLEMENT APPROPRIATE CONTROLS UPSTREAM. THE ENGINEER SHALL BE THE FINAL JUDGE REGARDING WHETHER THE PIPING SYSTEM REQUIRES CLEANING. THE CONTRACTOR CAN MINIMIZE THE NECESSITY OF EXTENSIVE SILT AND SEDIMENT ACCUMULATION REMOVALS BY EFFECTIVE IMPLEMENTATION OF THE SWPPP.
4. ALL DISTURBED AREAS WILL 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.
5. IMMEDIATELY REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT, MAINTENANCE OR OTHER ACTIVITY TO ANY EROSION CONTROL MEASURE, OR BEST MANAGEMENT PRACTICE (BMP) OR DEVICE.
6. THE PRIME CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND COMPLIANCE OF ITS SUB-CONTRACTOR'S ACTIVITIES RELATING TO THE SWPPP. THEY SHALL MAKE FREQUENT INSPECTIONS OF THEIR WORK AND COORDINATE APPROPRIATE INSTALLATION AND MAINTENANCE OF EROSION CONTROL AND WATER QUALITY DEVICES.
7. 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 BMP'S, 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.

SPECIFICATIONS FOR WORK ON LANDFILL:

1. THE CONTRACTOR SHALL BE AWARE THAT WORK IS LOCATED ON A LANDFILL AND IS SUBJECT TO THE MASSACHUSETTS SOLID WASTE REGULATIONS (310 CMR 19.000).
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 CAP PROFILE.
3. WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION'S POST CLOSURE USE PERMIT APPROVAL.
4. THE CONTRACTOR SHALL HAVE, AND PERFORM WORK IN ACCORDANCE WITH, A HEALTH AND SAFETY PLAN WHILE WORKING ON THE LANDFILL.

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. STRESSES IMPOSED ON THE FML FROM CONSTRUCTION EQUIPMENT AND COVER SOILS SHALL NOT EXCEED 7 PSI.
3. THE TABLE BELOW IS PROVIDED TO INDICATE ESTIMATED STRESS INCREASES ON THE FML FROM TYPICAL CONSTRUCTION EQUIPMENT:

ESTIMATED STRESS ON FML FROM CONSTRUCTION EQUIPMENT EXPECTED ON THE LANDFILL

EQUIPMENT TYPE	COMPACT TRACK LOADER	FULL SIZE EXCAVATOR	FRONT END LOADER	DUMP TRUCK	FLAT BED TRUCK
ESTIMATED MAXIMUM WEIGHT (OPERATING WEIGHT + LOAD)	13,300 POUNDS	36,000 POUNDS	35,500 POUNDS	65,000 POUNDS	75,000 POUNDS
POINTS OF CONTACT	2	2	4	8 (4 AXLES)	10 (5 AXLES)
ESTIMATED EQUIPMENT GROUND STRESS INCREASE PER POINT OF CONTACT (MAX)	7.5 PSI	7.9 PSI	79.2 PSI	96.7 PSI	75.9 PSI
TOTAL (SOIL AND EQUIPMENT) ESTIMATED STRESS ON FML - LANDFILL	5 PSI	6.1 PSI	18.5 PSI OPERATE ON ACCESS ROAD ONLY	22.4 PSI OPERATE ON ACCESS ROAD ONLY	21 PSI OPERATE ON ACCESS ROAD ONLY
TOTAL (SOIL AND EQUIPMENT) ESTIMATED STRESS ON FML - ACCESS ROAD	4.2 PSI	5 PSI	6.8 PSI	6.9 PSI	6.9 PSI

EXISTING AND ANTICIPATED SOIL STRESSES ON FML DUE TO COVER SOILS
MINIMUM SOIL COVER OVER FML ON LANDFILL = 11-INCHES; EXISTING SOIL STRESS ON FML (LANDFILL) = 0.75 PSI
MINIMUM SOIL COVER PROPOSED OVER FML ON ACCESS ROAD = 36-INCHES; SOIL STRESS ON FML (ACCESS ROAD) 2.6 PSI

NOTES:

1. THE ESTIMATED EQUIPMENT STRESSES INDICATED IN THE ABOVE TABLE ARE FOR TYPICAL CONSTRUCTION EQUIPMENT ONLY. ACTUAL STRESS INCREASES WILL BE EVALUATED DURING CONSTRUCTION BASED ON ACTUAL VEHICLE TYPES, WEIGHTS, AND DIMENSIONS PROVIDED BY THE CONTRACTOR.
2. EQUIPMENT SUCH AS FRONT END LOADERS, DUMP TRUCKS, AND FLAT BEDS WILL ONLY BE ALLOWED TO OPERATE ON THE PROPOSED ACCESS ROAD.
3. EQUIPMENT THAT WILL IMPART A TOTAL STRESS INCREASE ON THE FML GREATER THAN 7.0 PSI WILL NOT BE ALLOWED TO OPERATE ON THE LANDFILL.

EXCAVATIONS

1. EXCAVATIONS ON THE LANDFILL AREA SHALL BE PERFORMED WITH THE GUIDANCE OF A LABORER OR 'SPOTTER' AT ALL TIMES.
2. IT IS PREFERABLE TO USE A SMOOTH BUCKET EXCAVATOR IN LIEU OF A BUCKET WITH TEETH.

SITE ACCESS NOTES:

1. THE SITE SHALL HAVE A FENCED PERIMETER (NEC 103.31) WITH ACCESS GATES AT EITHER END FOR FIRE DEPARTMENT ACCESS. ACCESS GATES SHALL BE EQUIPPED WITH APPROVED ACCESS BOXES WITH KEY REQUIREMENTS CODING TO BYFIELD (KNOX BRAND).
2. ALL ACCESS ROADS SHALL BE NO LESS THAN 11' IN WIDTH, WITH NO LESS THAN 3' ENCROACHMENT TO THE TRAVEL PATH.
3. ROADS MUST BE ABLE TO WITHSTAND 75,000 LBS.
4. ROADS SHALL PROVIDE A MINIMUM TURNING RADIUS OF 34 FT.

Project:
NEWBURY LANDFILL SOLAR PROJECT
75 BOSTON ROAD
NEWBURY, MA

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ACE Solar
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Revisions:

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3	02/15/2022	PLANNING BOARD COMMENTS

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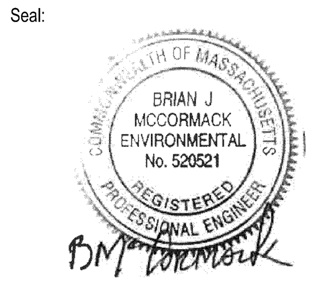

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CIVIL NOTES AND SPECIFICATIONS

Sheet Number:
C001

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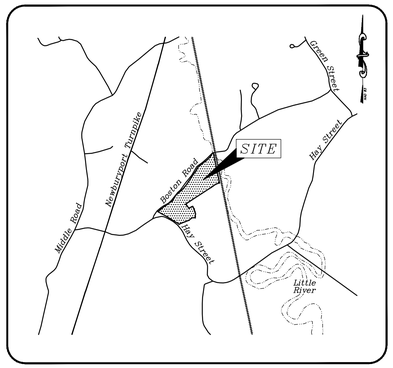

LOCUS MAP
SCALE: 1" = 2,000'±

GENERAL NOTES:

1. BASE MAPPING PREPARED USING INFORMATION OBTAINED FROM THE FOLLOWING SOURCES:
   A. SURVEY TITLED, "TOPOGRAPHIC PLAN OF LAND IN NEWBURY, MASSACHUSETTS", PREPARED FOR ACE SOLAR 1600 OSGOOD STREET-SUITE 2042 NORTH ANDOVER, MASSACHUSETTS 01845, PREPARED BY MERRIMACK ENGINEERING SERVICES, SCALE: 1" = 40', AND DATED DECEMBER 13, 2019 REVISED JANUARY 4, 2021.
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4. PORTIONS OF THE SITE ARE LOCATED WITHIN AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) ACCORDING TO THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
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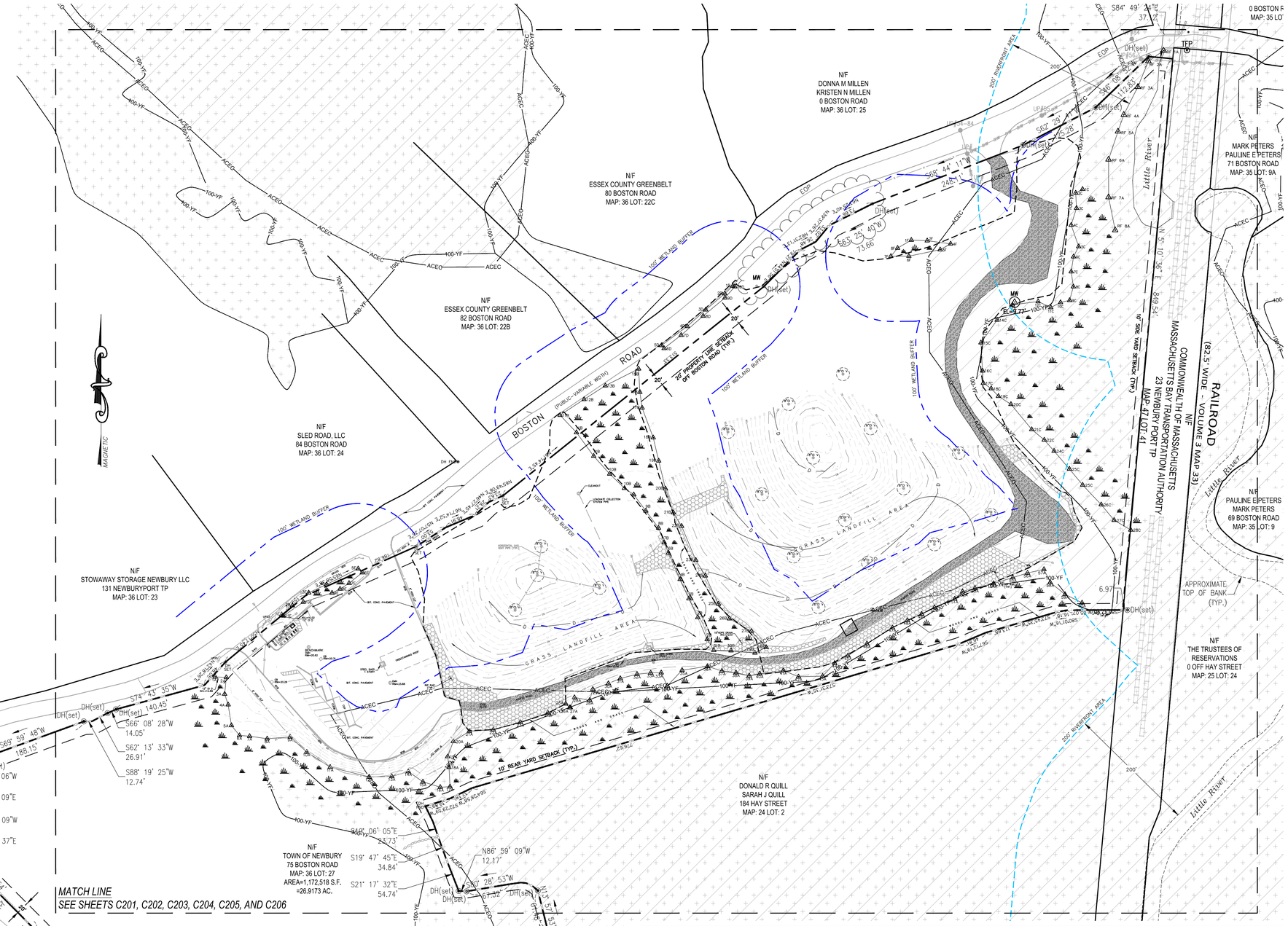

PLAN SCALE
0 80 160 240 400
1 inch = 80 ft.

LEGEND

DH	DRILL HOLE	CI	CAST IRON
DMH	DRAIN MANHOLE	DI	DUCTILE IRON
SMH	SEWER MANHOLE	BCB	BITUMINOUS CONCRETE BERM
EMH	ELECTRIC MANHOLE	N/F	NOW OR FORMERLY
CB	CATCH BASIN	FND	FOUND
V	VENT	W.F.	WOOD FRAME
MW	MONITORING WELL	STY.	STORY
EM	ELECTRIC METER	G	GRASS
B	BOLLARD	CEM. CONC.	CEMENT CONCRETE
UP	UTILITY POLE	BIT. CONC.	BITUMINOUS CONCRETE
8E	WETLAND FIELD FLAG	CC	CEMENT CONCRETE
	WETLAND SYMBOL	CCRW	CEMENT CONCRETE RETAINING WALL
X 22.12	SPOT ELEVATION	CCP	CEMENT CONCRETE PAD

PROPERTY LINE
SETBACK FROM PROPERTY LINE
EDGE OF WETLANDS
100' WETLAND BUFFER
200' RIVERFRONT AREA
60 MAJOR CONTOUR
58 MINOR CONTOUR
OHW OVERHEAD WIRES
X CLF CHAIN LINK FENCE
G HORIZONTAL GAS VENT PIPE
D SWALE UNDERDRAIN
APPROXIMATE LIMIT OF HDPE CAP
100-YR 100-YR 100-YR 100-YR 100-YEAR FLOOD ZONE
FLOOD ZONE X
ACEC ACEC AREAS OF CRITICAL ENVIRONMENTAL CONCERN
ACCESS ROAD

Project:
NEWBURY LANDFILL SOLAR PROJECT
75 BOSTON ROAD
NEWBURY, MA

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5	02/15/2022	PLANNING BOARD COMMENTS

Seal: COMMONWEALTH OF MASSACHUSETTS BRIAN J MCCORMACK ENVIRONMENTAL No. 520521 REGISTERED PROFESSIONAL ENGINEER

Issued For:
PERMITTING

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W&S File No.:	ACE Solar

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SITE OVERVIEW PLAN

Sheet Number:
C101

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LEGEND

EXISTING

DH	DRILL HOLE
DMH	DRAIN MANHOLE
SMH	SEWER MANHOLE
EMH	ELECTRIC MANHOLE
CB	CATCH BASIN
V	VENT
MW	MONITORING WELL
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X 22.12	SPOT ELEVATION
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FND	FOUND
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STY.	STORY
G	GRASS
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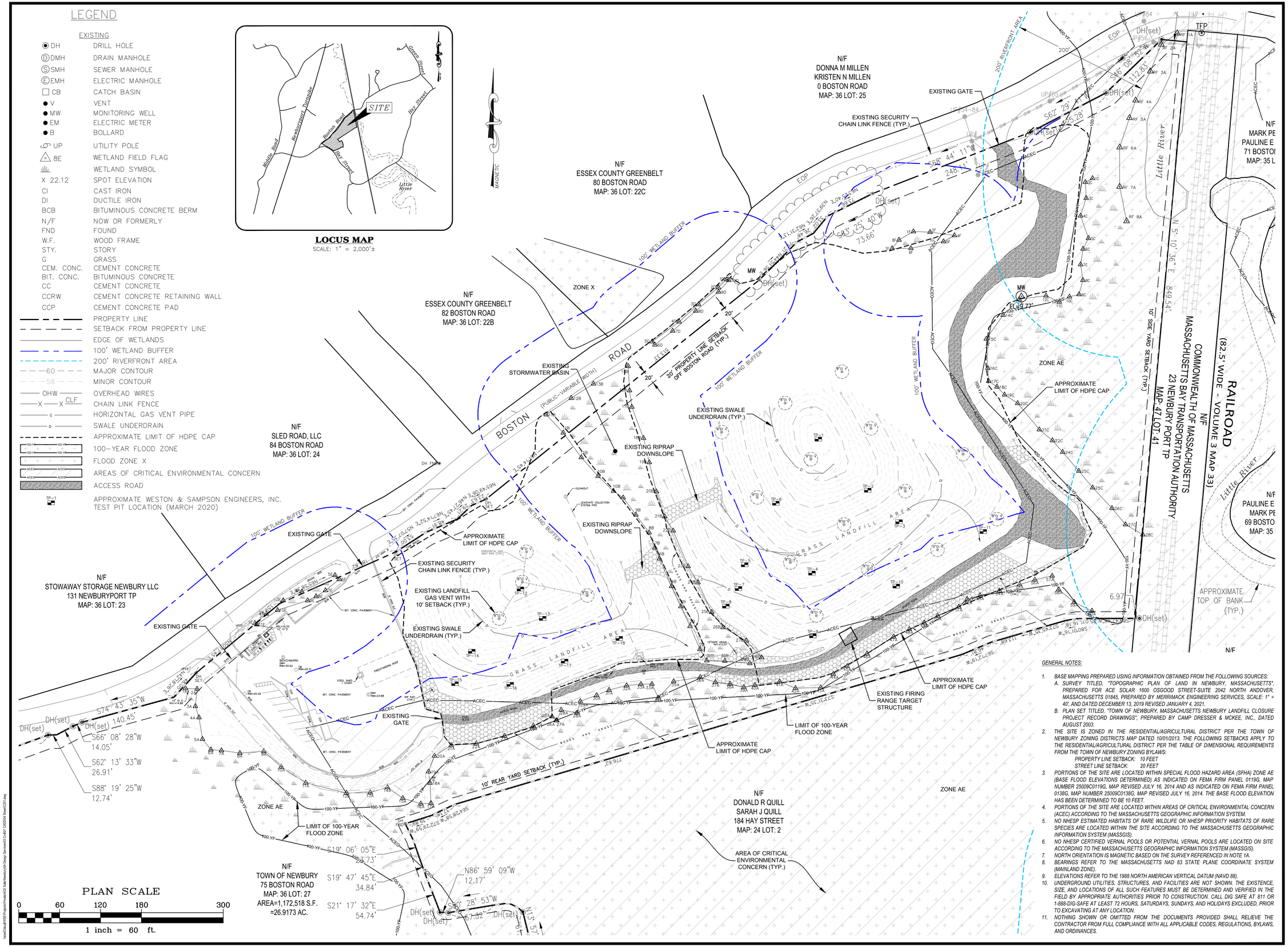
X CLF X	CHAIN LINK FENCE
G	HORIZONTAL GAS VENT PIPE
D	SWALE UNDERDRAIN
	APPROXIMATE LIMIT OF HDPE CAP
100-YR	100-YEAR FLOOD ZONE
X	FLOOD ZONE X
ACEC	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	ACCESS ROAD
TP-1	APPROXIMATE WESTON & SAMPSON ENGINEERS, INC. TEST PIT LOCATION (MARCH 2020)

LOCUS MAP
SCALE: 1" = 2,000'±



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Project:

NEWBURY LANDFILL SOLAR PROJECT

75 BOSTON ROAD
NEWBURY, MA

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COMMONWEALTH OF MASSACHUSETTS
BRIAN J MCCORMACK
ENVIRONMENTAL
No. 520521
REGISTERED PROFESSIONAL ENGINEER

Issued For:

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W&S File No.:	ACE Solar

Drawing Title:

EXISTING CONDITIONS PLAN

Sheet Number:

C201

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LEGEND

EXISTING

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V	VENT
MW	MONITORING WELL
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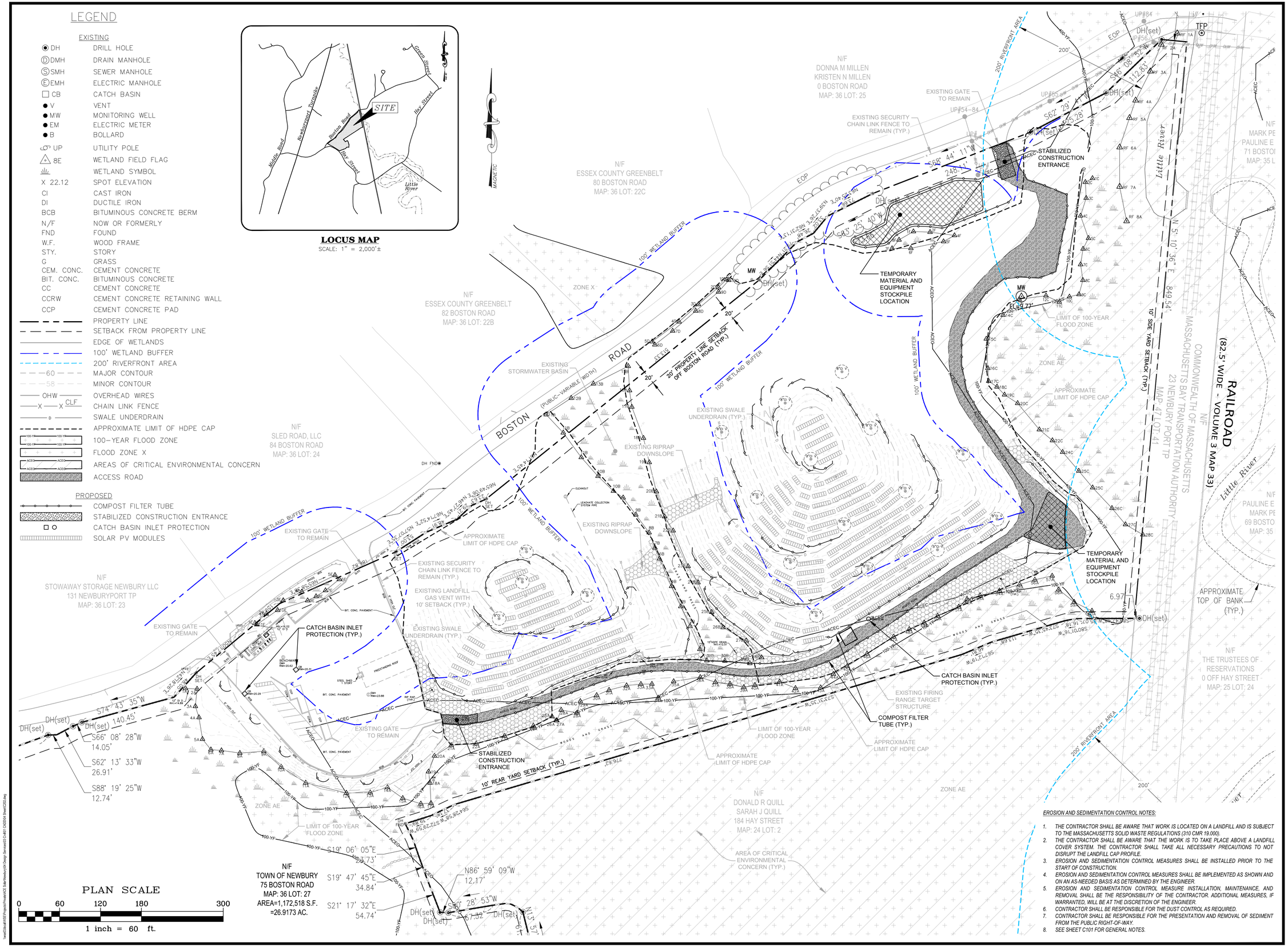
	APPROXIMATE LIMIT OF HDPE CAP
100-YR	100-YEAR FLOOD ZONE
	FLOOD ZONE X
ACEC	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	ACCESS ROAD

PROPOSED

	COMPOST FILTER TUBE
	STABILIZED CONSTRUCTION ENTRANCE
	CATCH BASIN INLET PROTECTION
	SOLAR PV MODULES

LOCUS MAP
SCALE: 1" = 2,000'±



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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 CAP PROFILE.*
3. *EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.*
4. *EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED AS SHOWN AND ON AN AS-NEEDED BASIS AS DETERMINED BY THE ENGINEER.*
5. *EROSION AND SEDIMENTATION CONTROL MEASURE INSTALLATION, MAINTENANCE, AND REMOVAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ADDITIONAL MEASURES, IF WARRANTED, WILL BE AT THE DISCRETION OF THE ENGINEER.*
6. *CONTRACTOR SHALL BE RESPONSIBLE FOR THE DUST CONTROL AS REQUIRED.*
7. *CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESENTATION AND REMOVAL OF SEDIMENT FROM THE PUBLIC RIGHT-OF-WAY.*
8. *SEE SHEET C101 FOR GENERAL NOTES.*

Project:

NEWBURY LANDFILL SOLAR PROJECT

75 BOSTON ROAD
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5	02/15/2022	PLANNING BOARD COMMENTS

Seal:

COMMONWEALTH OF MASSACHUSETTS
BRIAN J MCCORMACK
ENVIRONMENTAL
No. 520521
REGISTERED PROFESSIONAL ENGINEER

Issued For:

PERMITTING

Scale:	AS SHOWN
Date:	02/15/2022
Drawn By:	RWG
Reviewed By:	SPW / RJB
Approved By:	BJM
W&S Project No.:	ENG20-0106
W&S File No.:	ACE Solar

Drawing Title:

EROSION AND SEDIMENTATION CONTROL PLAN

Sheet Number:

C202

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LEGEND

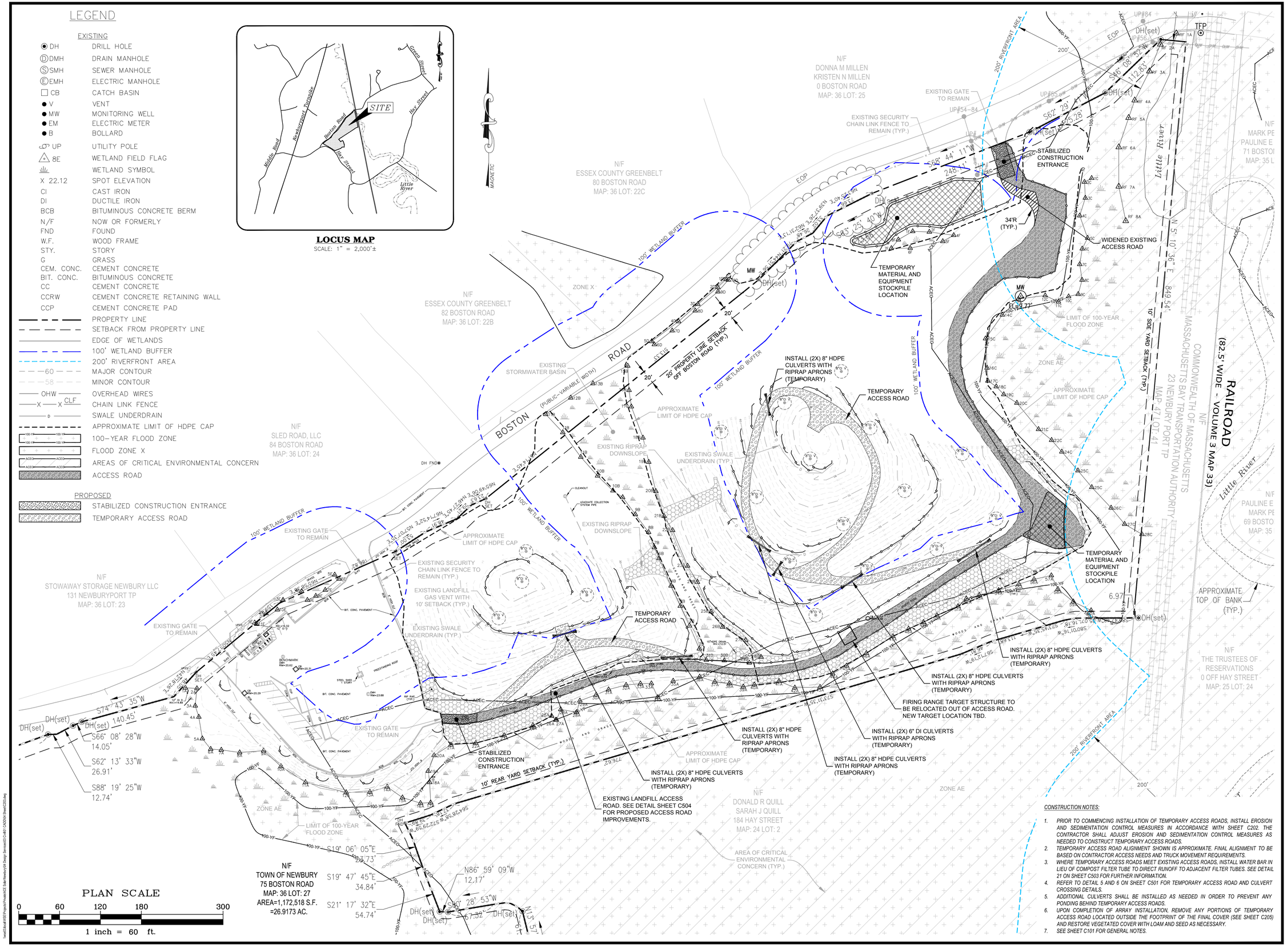
EXISTING

DH	DRILL HOLE
DMH	DRAIN MANHOLE
SMH	SEWER MANHOLE
EMH	ELECTRIC MANHOLE
CB	CATCH BASIN
V	VENT
MW	MONITORING WELL
EM	ELECTRIC METER
B	BOLLARD
UP	UTILITY POLE
8E	WETLAND FIELD FLAG
	WETLAND SYMBOL
X 22.12	SPOT ELEVATION
CI	CAST IRON
DI	DUCTILE IRON
BCB	BITUMINOUS CONCRETE BERM
N/F	NOW OR FORMERLY
FND	FOUND
W.F.	WOOD FRAME
STY.	STORY
G	GRASS
CEM. CONC.	CEMENT CONCRETE
BIT. CONC.	BITUMINOUS CONCRETE
CC	CEMENT CONCRETE
CCRW	CEMENT CONCRETE RETAINING WALL
CCP	CEMENT CONCRETE PAD
	PROPERTY LINE
	SETBACK FROM PROPERTY LINE
	EDGE OF WETLANDS
	100' WETLAND BUFFER
	200' RIVERFRONT AREA
60	MAJOR CONTOUR
58	MINOR CONTOUR
OHW	OVERHEAD WIRES
X CLF	CHAIN LINK FENCE
D	SWALE UNDERDRAIN
	APPROXIMATE LIMIT OF HDPE CAP
100-YF	100-YEAR FLOOD ZONE
	FLOOD ZONE X
ACEC	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	ACCESS ROAD

PROPOSED

	STABILIZED CONSTRUCTION ENTRANCE
	TEMPORARY ACCESS ROAD

LOCUS MAP
SCALE: 1" = 2,000'±



CONSTRUCTION NOTES:

1. PRIOR TO COMMENCING INSTALLATION OF TEMPORARY ACCESS ROADS, INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES IN ACCORDANCE WITH SHEET C202. THE CONTRACTOR SHALL ADJUST EROSION AND SEDIMENTATION CONTROL MEASURES AS NEEDED TO CONSTRUCT TEMPORARY ACCESS ROADS.
2. TEMPORARY ACCESS ROAD ALIGNMENT SHOWN IS APPROXIMATE. FINAL ALIGNMENT TO BE BASED ON CONTRACTOR ACCESS NEEDS AND TRUCK MOVEMENT REQUIREMENTS.
3. WHERE TEMPORARY ACCESS ROADS MEET EXISTING ACCESS ROADS, INSTALL WATER BAR IN LIEU OF COMPOST FILTER TUBE TO DIRECT RUNOFF TO ADJACENT FILTER TUBES. SEE DETAIL 21 ON SHEET C503 FOR FURTHER INFORMATION.
4. REFER TO DETAIL 5 AND 6 ON SHEET C501 FOR TEMPORARY ACCESS ROAD AND CULVERT CROSSING DETAILS.
5. ADDITIONAL CULVERTS SHALL BE INSTALLED AS NEEDED IN ORDER TO PREVENT ANY PONDING BEHIND TEMPORARY ACCESS ROADS.
6. UPON COMPLETION OF ARRAY INSTALLATION, REMOVE ANY PORTIONS OF TEMPORARY ACCESS ROAD LOCATED OUTSIDE THE FOOTPRINT OF THE FINAL COVER (SEE SHEET C205) AND RESTORE VEGETATED COVER WITH LOAM AND SEED AS NECESSARY.
7. SEE SHEET C101 FOR GENERAL NOTES.

Project:
NEWBURY LANDFILL SOLAR PROJECT
75 BOSTON ROAD
NEWBURY, MA

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3	02/15/2022	PLANNING BOARD COMMENTS

Seal: COMMONWEALTH OF MASSACHUSETTS BRIAN J MCCORMACK ENVIRONMENTAL No. 520521 REGISTERED PROFESSIONAL ENGINEER

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W&S File No.:	ACE Solar

Drawing Title:
ACCESS ROAD PLAN

Sheet Number:
C203

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LEGEND

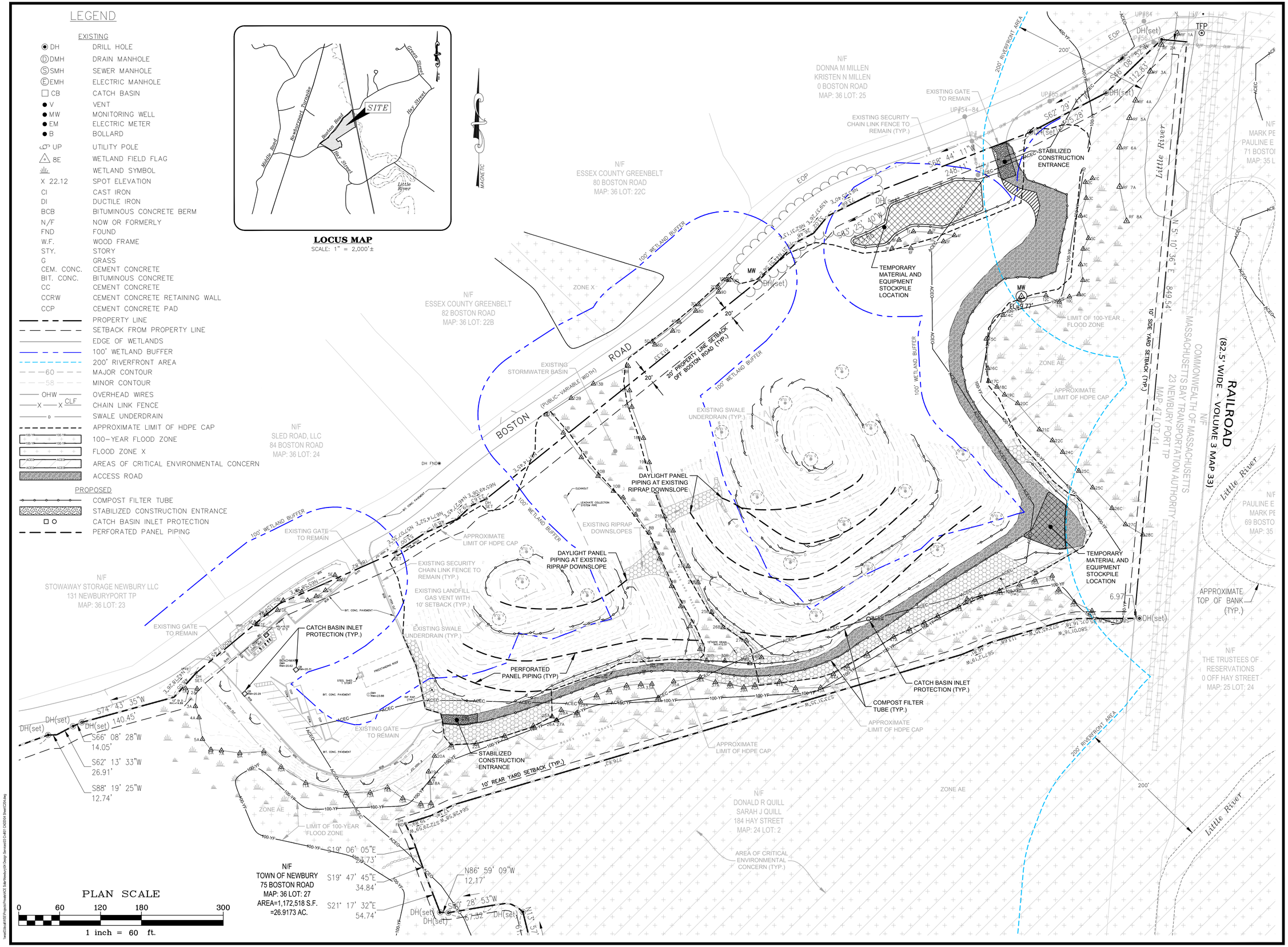
EXISTING

DH	DRILL HOLE
DMH	DRAIN MANHOLE
SMH	SEWER MANHOLE
EMH	ELECTRIC MANHOLE
CB	CATCH BASIN
V	VENT
MW	MONITORING WELL
EM	ELECTRIC METER
B	BOLLARD
UP	UTILITY POLE
8E	WETLAND FIELD FLAG
	WETLAND SYMBOL
X 22.12	SPOT ELEVATION
CI	CAST IRON
DI	DUCTILE IRON
BCB	BITUMINOUS CONCRETE BERM
N/F	NOW OR FORMERLY
FND	FOUND
W.F.	WOOD FRAME
STY.	STORY
G	GRASS
CEM. CONC.	CEMENT CONCRETE
BIT. CONC.	BITUMINOUS CONCRETE
CC	CEMENT CONCRETE
CCRW	CEMENT CONCRETE RETAINING WALL
CCP	CEMENT CONCRETE PAD
	PROPERTY LINE
	SETBACK FROM PROPERTY LINE
	EDGE OF WETLANDS
	100' WETLAND BUFFER
	200' RIVERFRONT AREA
60	MAJOR CONTOUR
58	MINOR CONTOUR
OHW	OVERHEAD WIRES
X CLF X	CHAIN LINK FENCE
D	SWALE UNDERDRAIN
	APPROXIMATE LIMIT OF HDPE CAP
100-YR	100-YEAR FLOOD ZONE
	FLOOD ZONE X
ACEC	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	ACCESS ROAD

PROPOSED

	COMPOST FILTER TUBE
	STABILIZED CONSTRUCTION ENTRANCE
	CATCH BASIN INLET PROTECTION
	PERFORATED PANEL PIPING

LOCUS MAP
SCALE: 1" = 2,000'±



Project:

NEWBURY LANDFILL SOLAR PROJECT

75 BOSTON ROAD
NEWBURY, MA

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3	06/22/2021	PLANNING COMMENTS
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COMMONWEALTH OF MASSACHUSETTS
BRIAN J MCCORMACK
ENVIRONMENTAL
No. 520521
REGISTERED PROFESSIONAL ENGINEER

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Drawing Title:

PROPOSED DRAINAGE PLAN

Sheet Number:

C204

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LEGEND

EXISTING

DH	DRILL HOLE
DMH	DRAIN MANHOLE
SMH	SEWER MANHOLE
EMH	ELECTRIC MANHOLE
CB	CATCH BASIN
V	VENT
MW	MONITORING WELL
EM	ELECTRIC METER
B	BOLLARD
UP	UTILITY POLE
8E	WETLAND FIELD FLAG
	WETLAND SYMBOL
X 22.12	SPOT ELEVATION
CI	CAST IRON
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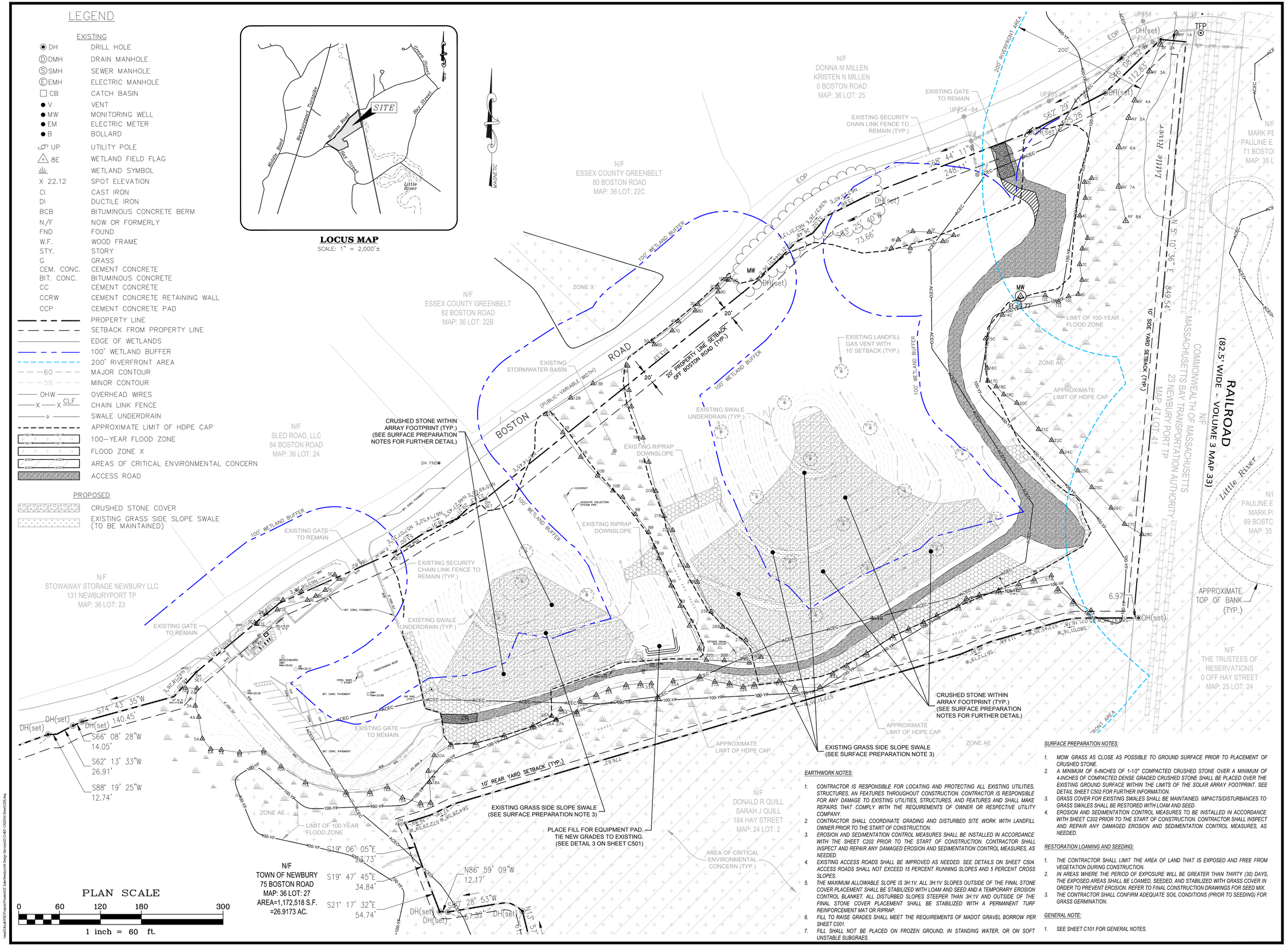
BCB	BITUMINOUS CONCRETE BERM
N/F	NOW OR FORMERLY
FND	FOUND
W.F.	WOOD FRAME
STY.	STORY
G	GRASS
CEM. CONC.	CEMENT CONCRETE
BIT. CONC.	BITUMINOUS CONCRETE
CC	CEMENT CONCRETE
CCRW	CEMENT CONCRETE RETAINING WALL
CCP	CEMENT CONCRETE PAD
	PROPERTY LINE
	SETBACK FROM PROPERTY LINE
	EDGE OF WETLANDS
	100' WETLAND BUFFER
	200' RIVERFRONT AREA
60	MAJOR CONTOUR
58	MINOR CONTOUR
OHW	OVERHEAD WIRES
X CLF X	CHAIN LINK FENCE
D	SWALE UNDERDRAIN
	APPROXIMATE LIMIT OF HDPE CAP
100-YF	100-YEAR FLOOD ZONE
	FLOOD ZONE X
ACEC	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	ACCESS ROAD

PROPOSED

	CRUSHED STONE COVER
	EXISTING GRASS SIDE SLOPE SWALE (TO BE MAINTAINED)

LOCUS MAP
SCALE: 1" = 2,000'±



SURFACE PREPARATION NOTES:

1. MOW GRASS AS CLOSE AS POSSIBLE TO GROUND SURFACE PRIOR TO PLACEMENT OF CRUSHED STONE.
2. A MINIMUM OF 6-INCHES OF 1-1/2" COMPACTED CRUSHED STONE OVER A MINIMUM OF 4-INCHES OF COMPACTED DENSE GRADED CRUSHED STONE SHALL BE PLACED OVER THE EXISTING GROUND SURFACE WITHIN THE LIMITS OF THE SOLAR ARRAY FOOTPRINT. SEE DETAIL SHEET C502 FOR FURTHER INFORMATION.
3. GRASS COVER FOR EXISTING SWALES SHALL BE MAINTAINED. IMPACTS/DISTURBANCES TO GRASS SWALES SHALL BE RESTORED WITH LOAM AND SEED.
4. EROSION AND SEDIMENTATION CONTROL MEASURES TO BE INSTALLED IN ACCORDANCE WITH SHEET C202 PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL INSPECT AND REPAIR ANY DAMAGED EROSION AND SEDIMENTATION CONTROL MEASURES, AS NEEDED.

RESTORATION LOAMING AND SEEDING:

1. THE CONTRACTOR SHALL LIMIT THE AREA OF LAND THAT IS EXPOSED AND FREE FROM VEGETATION DURING CONSTRUCTION.
2. IN AREAS WHERE THE PERIOD OF EXPOSURE WILL BE GREATER THAN THIRTY (30) DAYS, THE EXPOSED AREAS SHALL BE LOAMED, SEEDED, AND STABILIZED WITH GRASS COVER IN ORDER TO PREVENT EROSION. REFER TO FINAL CONSTRUCTION DRAWINGS FOR SEED MIX.
3. THE CONTRACTOR SHALL CONFIRM ADEQUATE SOIL CONDITIONS (PRIOR TO SEEDING) FOR GRASS GERMINATION.

GENERAL NOTE:

1. SEE SHEET C101 FOR GENERAL NOTES.

EARTHWORK NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES, STRUCTURES, AN FEATURES THROUGHOUT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES, STRUCTURES, AND FEATURES AND SHALL MAKE REPAIRS THAT COMPLY WITH THE REQUIREMENTS OF OWNER OR RESPECTIVE UTILITY COMPANY.
2. CONTRACTOR SHALL COORDINATE GRADING AND DISTURBED SITE WORK WITH LANDFILL OWNER PRIOR TO THE START OF CONSTRUCTION.
3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE SHEET C202 PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL INSPECT AND REPAIR ANY DAMAGED EROSION AND SEDIMENTATION CONTROL MEASURES, AS NEEDED.
4. EXISTING ACCESS ROADS SHALL BE IMPROVED AS NEEDED. SEE DETAILS ON SHEET C504. ACCESS ROADS SHALL NOT EXCEED 15 PERCENT RUNNING SLOPES AND 5 PERCENT CROSS SLOPES.
5. THE MAXIMUM ALLOWABLE SLOPE IS 3H:1V. ALL 3H:1V SLOPES OUTSIDE OF THE FINAL STONE COVER PLACEMENT SHALL BE STABILIZED WITH LOAM AND SEED AND A TEMPORARY EROSION CONTROL BLANKET. ALL DISTURBED SLOPES STEEPER THAN 3H:1V AND OUTSIDE OF THE FINAL STONE COVER PLACEMENT SHALL BE STABILIZED WITH A PERMANENT TURF REINFORCEMENT MAT OR RIPRAP.
6. FILL TO RAISE GRADES SHALL MEET THE REQUIREMENTS OF MADOT GRAVEL BORROW PER SHEET C001.
7. FILL SHALL NOT BE PLACED ON FROZEN GROUND, IN STANDING WATER, OR ON SOFT UNSTABLE SUBGRAES.

Project:
NEWBURY LANDFILL SOLAR PROJECT
75 BOSTON ROAD
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PROPOSED FINAL COVER PLAN

Sheet Number:
C205

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LEGEND

EXISTING

DH	DRILL HOLE
DMH	DRAIN MANHOLE
SMH	SEWER MANHOLE
EMH	ELECTRIC MANHOLE
CB	CATCH BASIN
V	VENT
MW	MONITORING WELL
EM	ELECTRIC METER
B	BOLLARD
UP	UTILITY POLE
8E	WETLAND FIELD FLAG
	WETLAND SYMBOL
X 22.12	SPOT ELEVATION
CI	CAST IRON
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N/F	NOW OR FORMERLY
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	PROPERTY LINE
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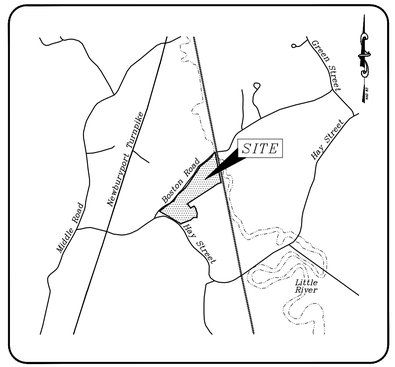
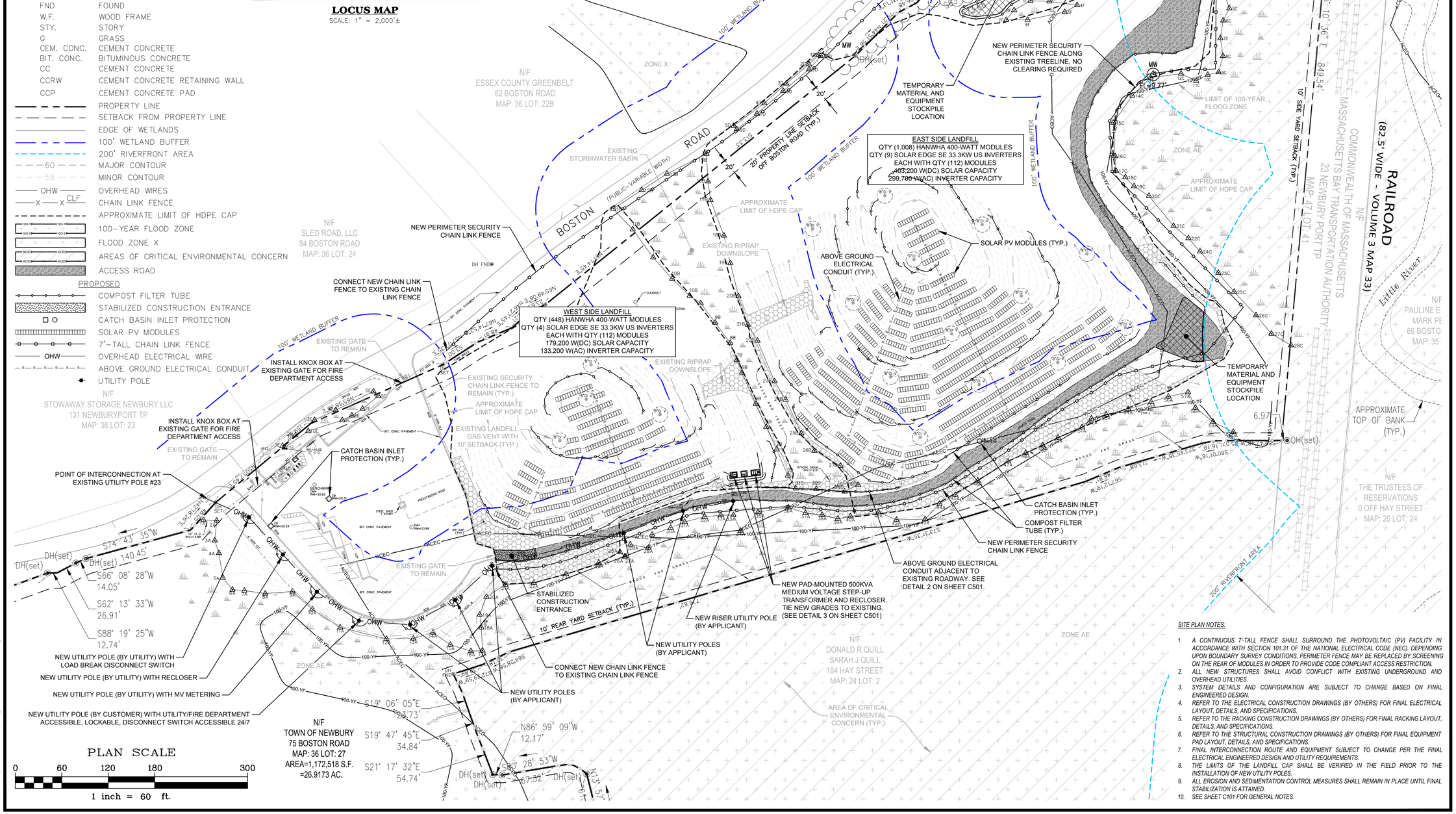
OHW	OVERHEAD WIRES
X CLF X	CHAIN LINK FENCE
	APPROXIMATE LIMIT OF HDPE CAP
100-YR	100-YEAR FLOOD ZONE
	FLOOD ZONE X
ACEC	AREAS OF CRITICAL ENVIRONMENTAL CONCERN
	ACCESS ROAD

PROPOSED

	COMPOST FILTER TUBE
	STABILIZED CONSTRUCTION ENTRANCE
	CATCH BASIN INLET PROTECTION
	SOLAR PV MODULES
	7'-TALL CHAIN LINK FENCE
OHW	OVERHEAD ELECTRICAL WIRE
	ABOVE GROUND ELECTRICAL CONDUIT
	UTILITY POLE



LOCUS MAP
SCALE: 1" = 2,000'±



SITE PLAN NOTES:

1. *A CONTINUOUS 7'-TALL FENCE SHALL SURROUND THE PHOTOVOLTAIC (PV) FACILITY IN ACCORDANCE WITH SECTION 101.31 OF THE NATIONAL ELECTRICAL CODE (NEC). DEPENDING UPON BOUNDARY SURVEY CONDITIONS, PERIMETER FENCE MAY BE REPLACED BY SCREENING ON THE REAR OF MODULES IN ORDER TO PROVIDE CODE COMPLIANT ACCESS RESTRICTION.*
2. *ALL NEW STRUCTURES SHALL AVOID CONFLICT WITH EXISTING UNDERGROUND AND OVERHEAD UTILITIES.*
3. *SYSTEM DETAILS AND CONFIGURATION ARE SUBJECT TO CHANGE BASED ON FINAL ENGINEERED DESIGN.*
4. *REFER TO THE ELECTRICAL CONSTRUCTION DRAWINGS (BY OTHERS) FOR FINAL ELECTRICAL LAYOUT, DETAILS, AND SPECIFICATIONS.*
5. *REFER TO THE RACKING CONSTRUCTION DRAWINGS (BY OTHERS) FOR FINAL RACKING LAYOUT, DETAILS, AND SPECIFICATIONS.*
6. *REFER TO THE STRUCTURAL CONSTRUCTION DRAWINGS (BY OTHERS) FOR FINAL EQUIPMENT PAD LAYOUT, DETAILS, AND SPECIFICATIONS.*
7. *FINAL INTERCONNECTION ROUTE AND EQUIPMENT SUBJECT TO CHANGE PER THE FINAL ELECTRICAL ENGINEERED DESIGN AND UTILITY REQUIREMENTS.*
8. *THE LIMITS OF THE LANDFILL CAP SHALL BE VERIFIED IN THE FIELD PRIOR TO THE INSTALLATION OF NEW UTILITY POLES.*
9. *ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ATTAINED.*
10. *SEE SHEET C101 FOR GENERAL NOTES.*

Project:

NEWBURY LANDFILL
SOLAR PROJECT

75 BOSTON ROAD
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W&S File No.:	ACE Solar

Drawing Title:

PROPOSED
SOLAR PV SYSTEM
PLAN

Sheet Number:

C206

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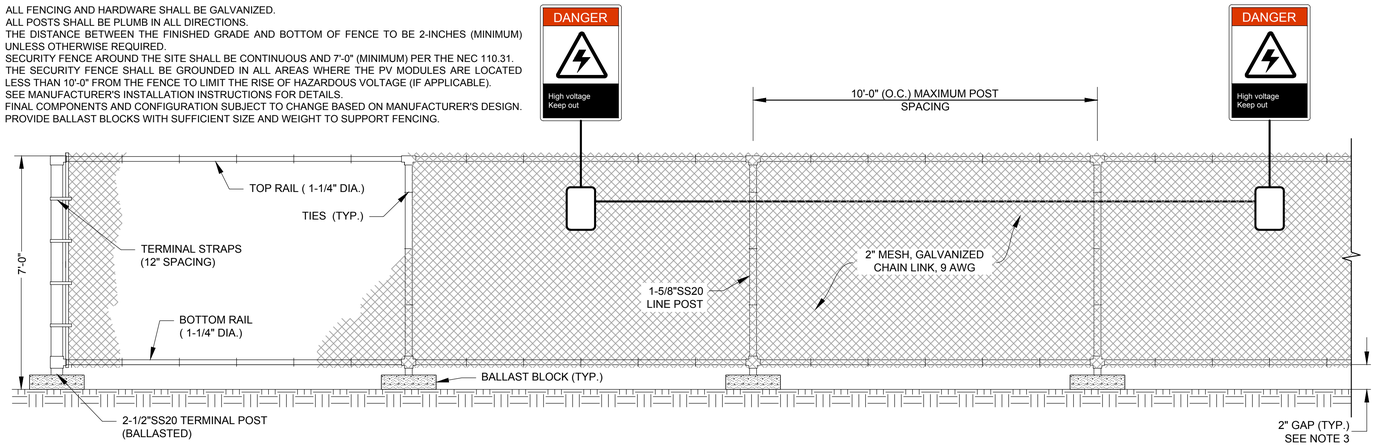
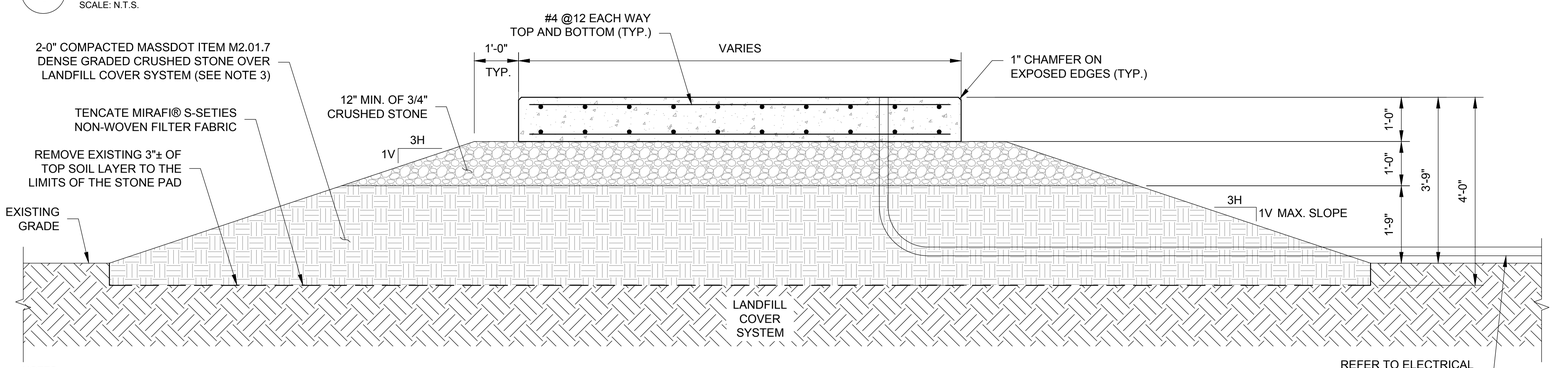
NOTES:

1. ALL FENCING AND HARDWARE SHALL BE GALVANIZED.
2. ALL POSTS SHALL BE PLUMB IN ALL DIRECTIONS.
3. THE DISTANCE BETWEEN THE FINISHED GRADE AND BOTTOM OF FENCE TO BE 2-INCHES (MINIMUM) UNLESS OTHERWISE REQUIRED.
4. SECURITY FENCE AROUND THE SITE SHALL BE CONTINUOUS AND 7'-0" (MINIMUM) PER THE NEC 110.31.
5. THE SECURITY FENCE SHALL BE GROUNDED IN ALL AREAS WHERE THE PV MODULES ARE LOCATED LESS THAN 10'-0" FROM THE FENCE TO LIMIT THE RISE OF HAZARDOUS VOLTAGE (IF APPLICABLE).
6. SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR DETAILS.
7. FINAL COMPONENTS AND CONFIGURATION SUBJECT TO CHANGE BASED ON MANUFACTURER'S DESIGN.
8. PROVIDE BALLAST BLOCKS WITH SUFFICIENT SIZE AND WEIGHT TO SUPPORT FENCING.



1 TYPICAL BALLASTED CHAIN LINK FENCE

SCALE: N.T.S.

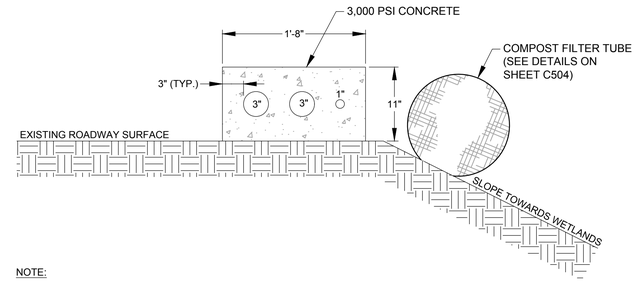


NOTES:

1. SLAB DIMENSIONS AND DESIGN IS SUBJECT TO CHANGE BASED ON FINAL STRUCTURAL ENGINEERED DESIGN.
2. DETAIL IS SHOWN FOR REPRESENTATIVE PURPOSES ONLY.
3. COMPACT UNTIL A FIRM AND STABLE CONDITIONS IS ACHIEVED, AS APPROVED BY THE ENGINEER.

3 TYPICAL SLAB SECTION DETAIL

SCALE: N.T.S.

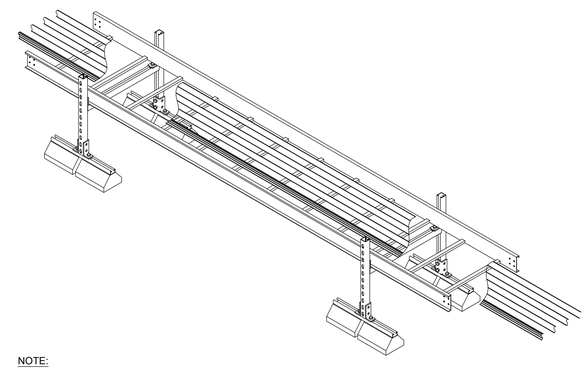


NOTE:

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

2 TYPICAL ABOVE GROUND CONCRETE ENCASED CONDUIT

SCALE: N.T.S.

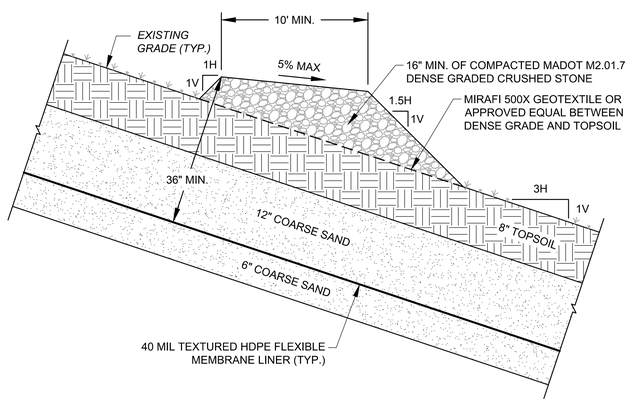


NOTE:

1. ALL CONDUIT THAT IS LOCATED ABOVE THE LANDFILL COVER SYSTEM SHALL BE RUN IN ABOVE GROUND CABLE TRAYS OR APPROVED SIMILAR.
2. DETAIL SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ELECTRICAL DESIGN AND CONFORMANCE WITH ELECTRICAL CODE REQUIREMENTS BY OTHERS.

4 TYPICAL ABOVE GROUND CABLE TRAY DETAIL

SCALE: N.T.S.

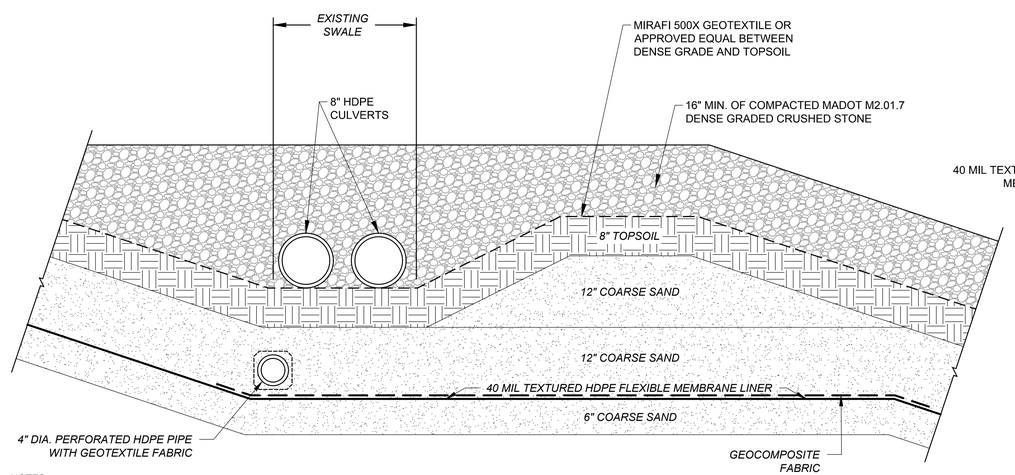


NOTES:

1. THIS DETAIL IS FOR TEMPORARY ACCESS ROAD CONSTRUCTION.
2. ALL MATERIAL AND CONSTRUCTION EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE OF THE LANDFILL SURFACE.
3. TEMPORARY ROADS ARE TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION AND SHALL BE REMOVED AT THE END OF CONSTRUCTION. AFTER REMOVAL, THE GROUND SURFACES SHALL BE RESTORED AND STABILIZED AS REQUIRED.

5 TYPICAL TEMPORARY ACCESS ROAD ON LANDFILL DETAIL

SCALE: N.T.S.

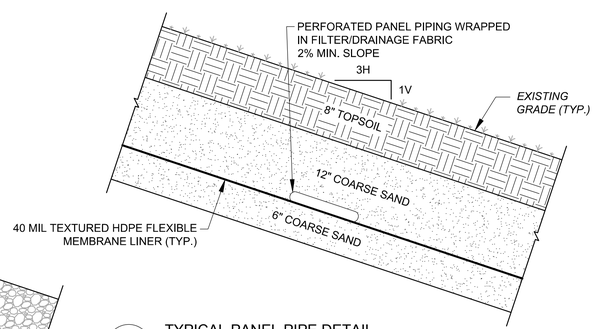


NOTES:

1. THIS DETAIL IS FOR TEMPORARY CULVERT CROSSING APPLICATIONS.
2. ALL MATERIAL AND CONSTRUCTION EQUIPMENT SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE OF THE LANDFILL SURFACE.
3. CULVERTS SHALL BE INSTALLED AS NEEDED IN ORDER TO PREVENT PONDING.
4. PROVIDE MINIMUM PIPE COVER IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
5. INSTALL RIPRAP AT THE INLETS AND OUTLETS OF ALL TEMPORARY CULVERTS.
6. TEMPORARY CULVERTS SHALL BE REMOVED AT THE END OF CONSTRUCTION, AND SWALES SHALL BE RESTORED/STABILIZED WITH GRASS COVER.

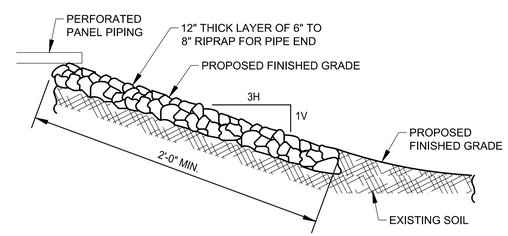
6 TYPICAL TEMPORARY CULVERT CROSSING DETAIL

SCALE: 1" = 1'



7 TYPICAL PANEL PIPE DETAIL

SCALE: N.T.S.



8 TYPICAL RIPRAP FOR PANEL PIPE END DETAIL

SCALE: N.T.S.

Project:

NEWBURY LANDFILL SOLAR PROJECT

75 BOSTON ROAD
NEWBURY, MA

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Revisions:

No.	Date	Description
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Seal:

COMMONWEALTH OF MASSACHUSETTS
BRIAN J. MCCORMACK
ENVIRONMENTAL
No. 520521
REGISTERED PROFESSIONAL ENGINEER

Issued For:

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TYPICAL CIVIL DETAILS I

Sheet Number:

C501

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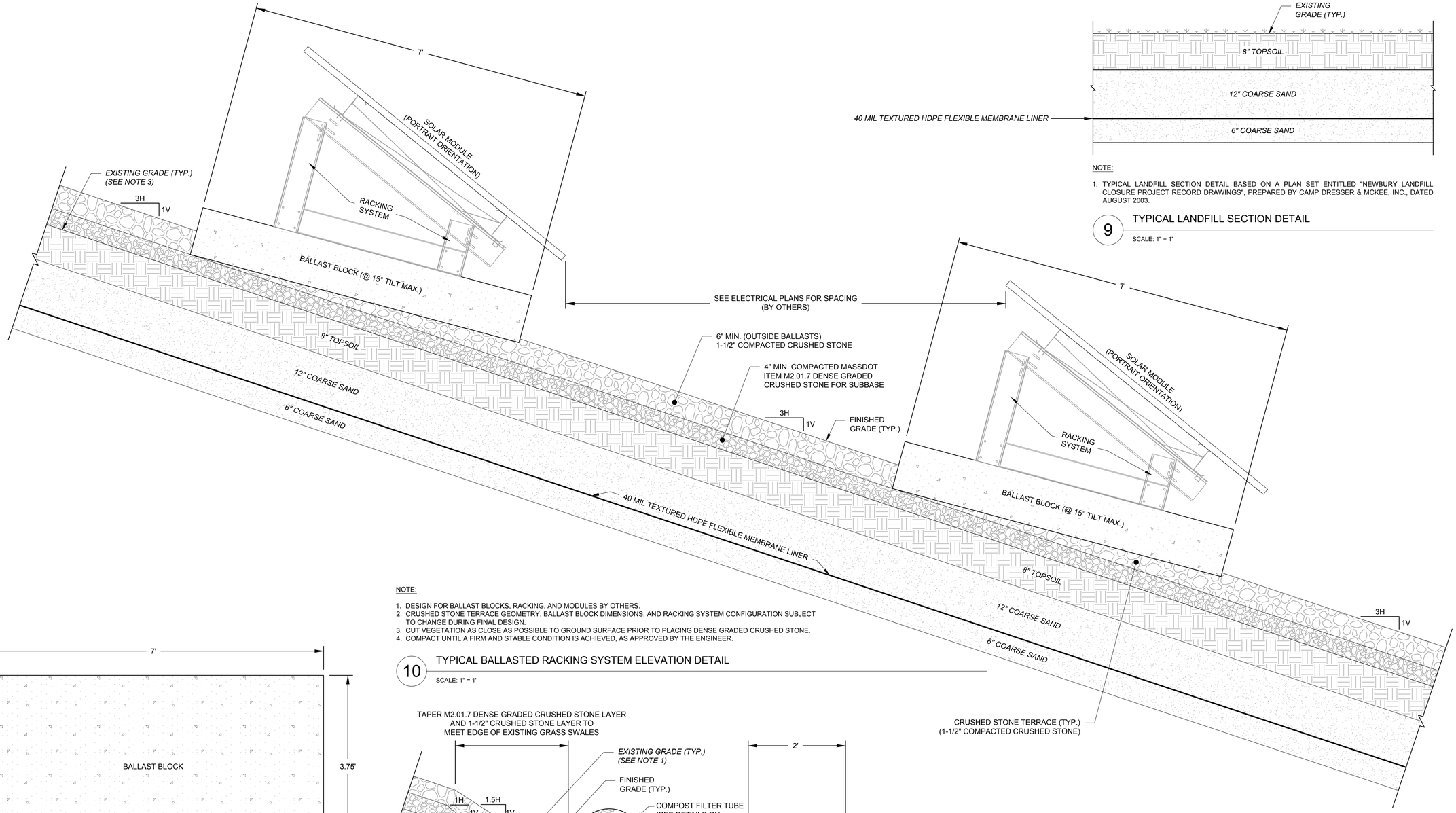


NOTE:

1. TYPICAL LANDFILL SECTION DETAIL BASED ON A PLAN SET ENTITLED "NEWBURY LANDFILL CLOSURE PROJECT RECORD DRAWINGS", PREPARED BY CAMP DRESSER & MCKEE, INC., DATED AUGUST 2003.

9 TYPICAL LANDFILL SECTION DETAIL

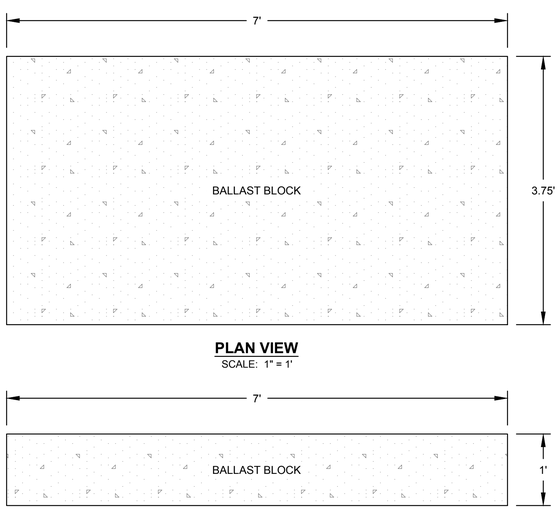
SCALE: 1" = 1'

NOTE:

1. DESIGN FOR BALLAST BLOCKS, RACKING, AND MODULES BY OTHERS.
2. CRUSHED STONE TERRACE GEOMETRY, BALLAST BLOCK DIMENSIONS, AND RACKING SYSTEM CONFIGURATION SUBJECT TO CHANGE DURING FINAL DESIGN.
3. CUT VEGETATION AS CLOSE AS POSSIBLE TO GROUND SURFACE PRIOR TO PLACING DENSE GRADED CRUSHED STONE.
4. COMPACT UNTIL A FIRM AND STABLE CONDITION IS ACHIEVED, AS APPROVED BY THE ENGINEER.

10 TYPICAL BALLASTED RACKING SYSTEM ELEVATION DETAIL

SCALE: 1" = 1'



PLAN VIEW
SCALE: 1" = 1'

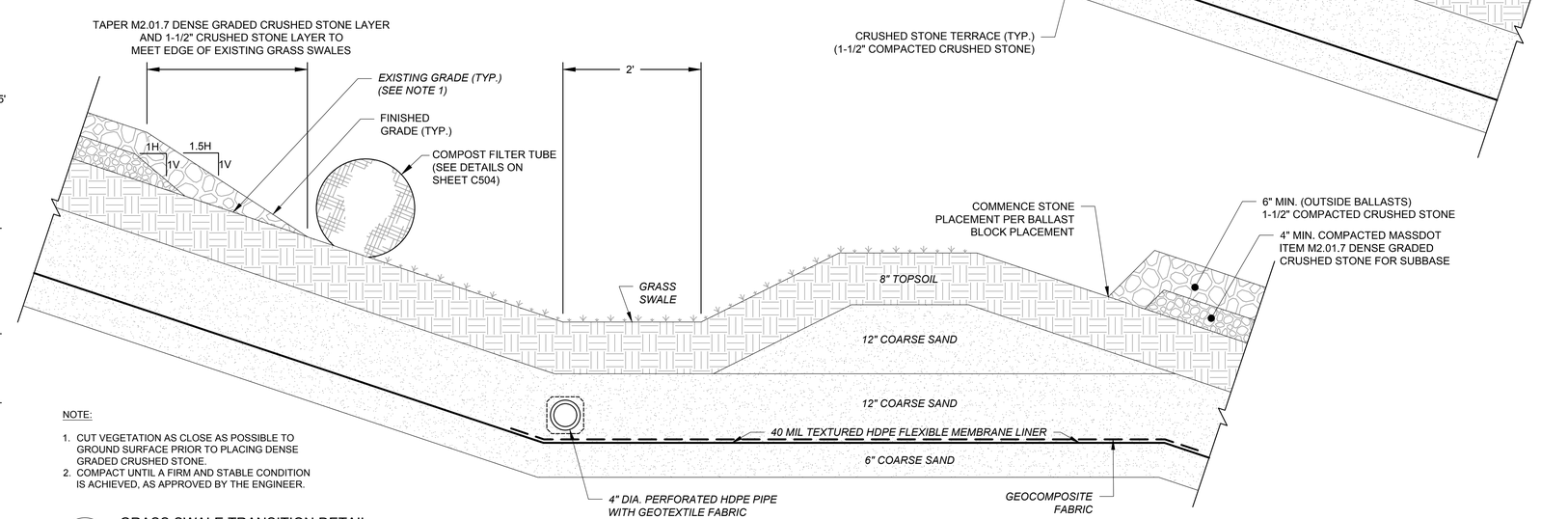
SIDE VIEW (LENGTH)
SCALE: 1" = 1'

NOTE:

1. DESIGN FOR BALLAST BLOCKS BY OTHERS. DETAIL SHOWN FOR ILLUSTRATIVE PURPOSES ONLY.

11 BALLAST BLOCK DETAILS

SCALE: 1" = 1'



NOTE:

1. CUT VEGETATION AS CLOSE AS POSSIBLE TO GROUND SURFACE PRIOR TO PLACING DENSE GRADED CRUSHED STONE.
2. COMPACT UNTIL A FIRM AND STABLE CONDITION IS ACHIEVED, AS APPROVED BY THE ENGINEER.

12 GRASS SWALE TRANSITION DETAIL

SCALE: 1" = 1'

Project:

NEWBURY LANDFILL SOLAR PROJECT

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Seal:

COMMONWEALTH OF MASSACHUSETTS
BRIAN J MCCORMACK
ENVIRONMENTAL
No. 520521
REGISTERED PROFESSIONAL ENGINEER

Issued For:

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Approved By:	BJM
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W&S File No.:	ACE Solar

Drawing Title:

TYPICAL CIVIL DETAILS II

Sheet Number:

C502

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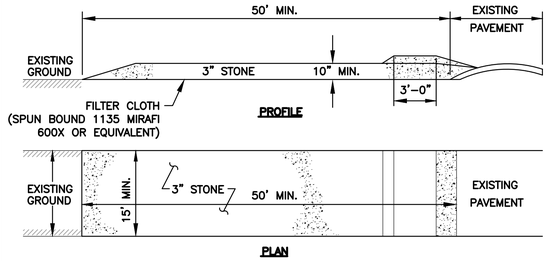
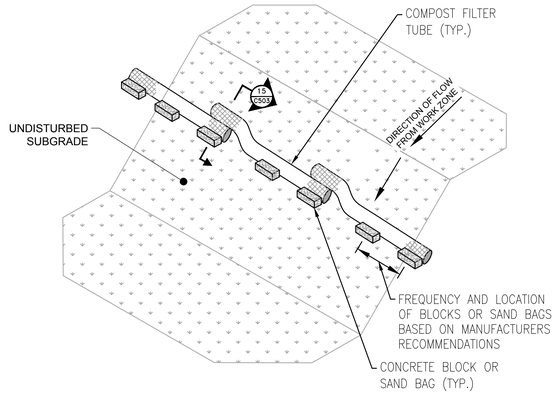


STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. FILTER CLOTH - 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.

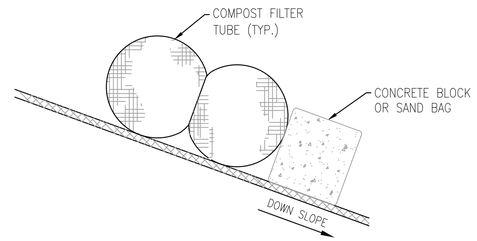
13 STABILIZED CONSTRUCTION ENTRANCE (ANTI-TRACKING PAD)

SCALE: N.T.S.



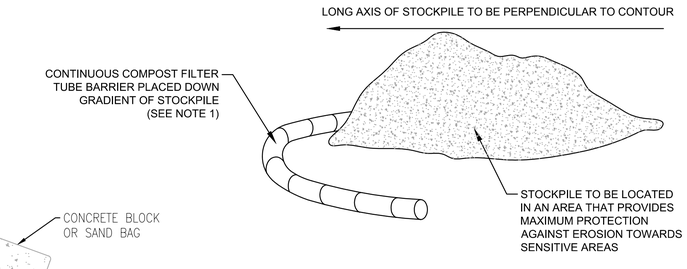
14 COMPOST FILTER TUBE ON SLOPE DETAIL (ISOMETRIC VIEW)

SCALE: N.T.S.



15 COMPOST FILTER TUBE ON SLOPE DETAIL (SECTION VIEW)

SCALE: N.T.S.

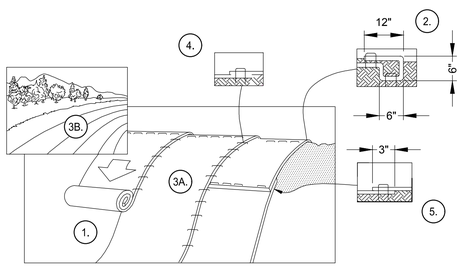


NOTE:

1. COMPOST FILTER SHALL BE HELD IN PLACE WITH CONCRETE BLOCKS OR SAND BAGS. IF STOCKPILE IS PLACED OFF THE LANDFILL COVER SYSTEM, THE COMPOST FILTER TUBE MAY BE STAKED, IN LIEU OF CONCRETE BLOCKS OR SAND BAGS.

16 TEMPORARY STOCKPILE DETAIL

SCALE: N.T.S.

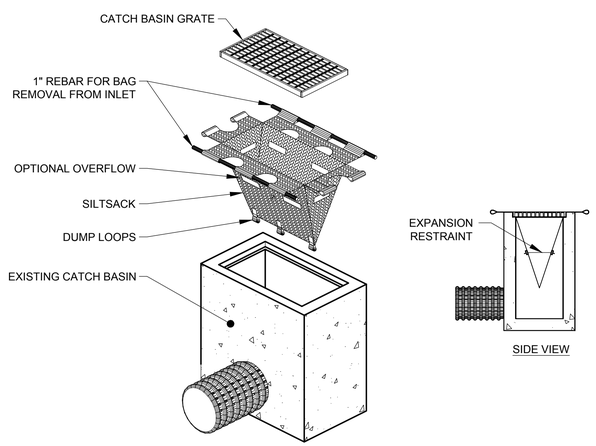


NOTES:

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" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. ALL 3H:1V SLOPES SHALL BE STABILIZED WITH EROSION CONTROL BLANKETING. BLANKETING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
7. ALL SLOPES STEEPER THAN 3H:1V SHALL BE STABILIZED WITH PERMANENT TURF REINFORCEMENT MATTING OR RIPRAP.

17 EROSION CONTROL BLANKET INSTALLATION

SCALE: N.T.S.

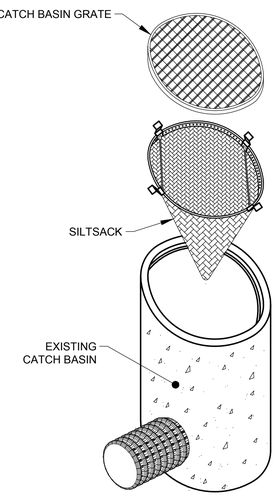


NOTE:

1. CATCH BASIN INLET PROTECTION TO BE INSTALLED PER THE MANUFACTURERS REQUIREMENTS AND IMPLEMENTED AS DETERMINED BY THE ENGINEER.

18 RECTANGULAR CATCH BASIN INLET PROTECTION

SCALE: N.T.S.

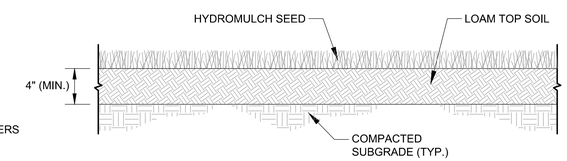


NOTE:

1. CATCH BASIN INLET PROTECTION TO BE INSTALLED PER THE MANUFACTURERS REQUIREMENTS AND IMPLEMENTED AS DETERMINED BY THE ENGINEER.

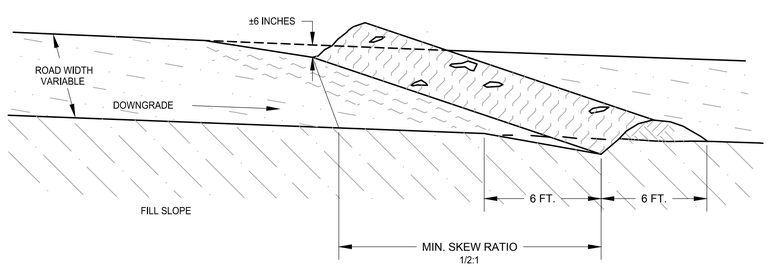
19 CIRCULAR CATCH BASIN INLET PROTECTION

SCALE: N.T.S.



20 LOAM AND SEED DETAIL

SCALE: N.T.S.



NOTES:

1. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS WITH A 5' BY 5' #3 CRUSHED STONE SPLASH PAD FOR EROSION PROTECTION.

21 TYPICAL WATER BAR DETAIL

SCALE: N.T.S.

Project:

NEWBURY LANDFILL SOLAR PROJECT

75 BOSTON ROAD
NEWBURY, MA

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BRIAN J MCCORMACK
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No. 520521
REGISTERED PROFESSIONAL ENGINEER

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TYPICAL CIVIL DETAILS III

Sheet Number:

C503

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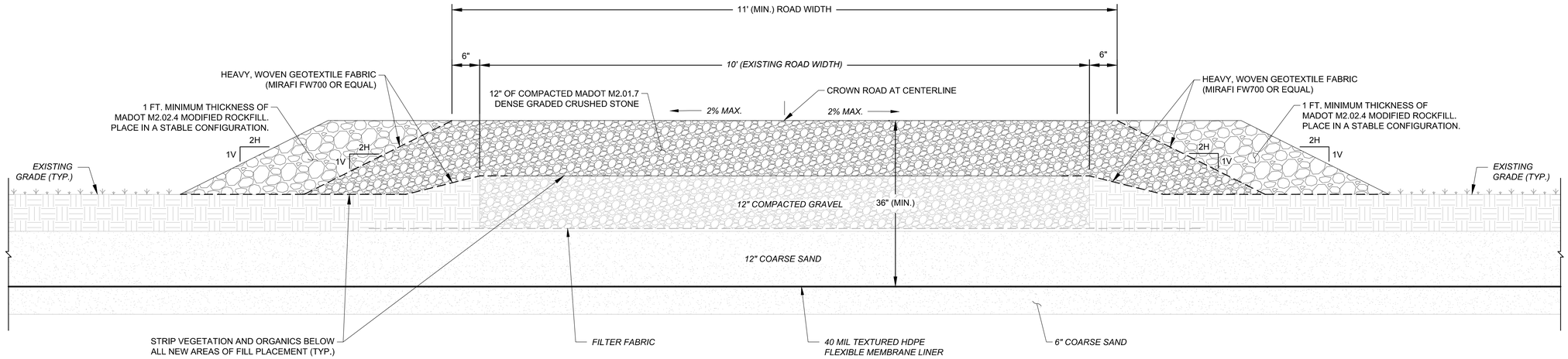
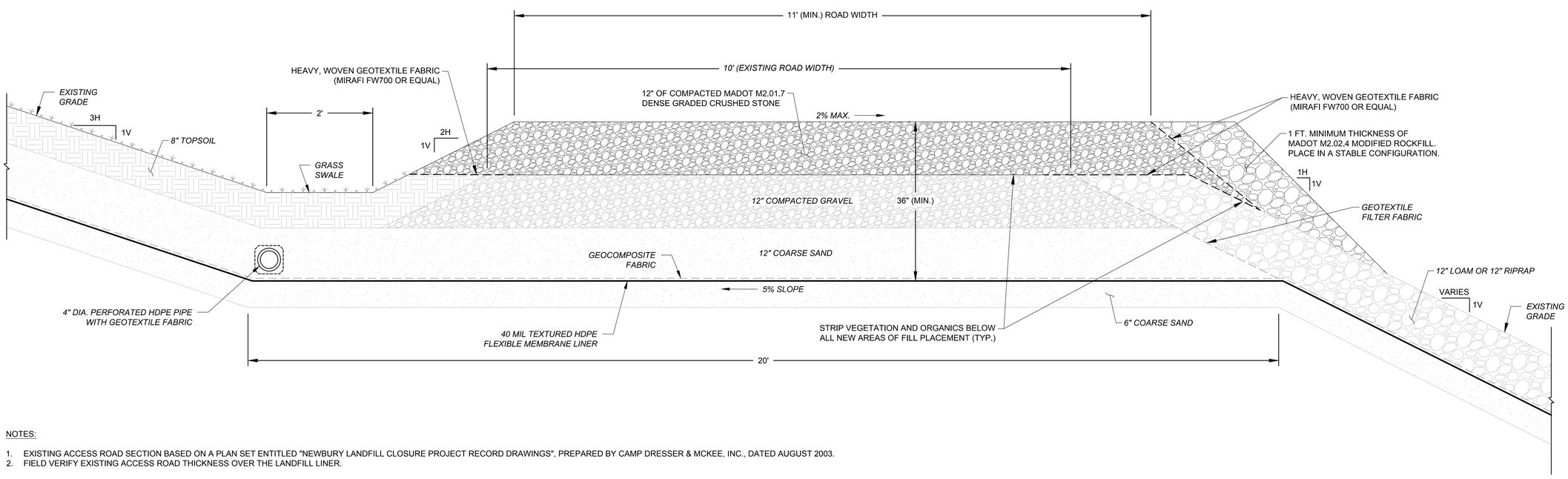


NOTES:

1. EXISTING ACCESS ROAD SECTION BASED ON A PLAN SET ENTITLED "NEWBURY LANDFILL CLOSURE PROJECT RECORD DRAWINGS", PREPARED BY CAMP DRESSER & MCKEE, INC., DATED AUGUST 2003.
2. FIELD VERIFY EXISTING ACCESS ROAD THICKNESS OVER THE LANDFILL LINER.

22 WIDENED/IMPROVED ACCESS ROAD ON LANDFILL SURFACE

SCALE: N.T.S.



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1. EXISTING ACCESS ROAD SECTION BASED ON A PLAN SET ENTITLED "NEWBURY LANDFILL CLOSURE PROJECT RECORD DRAWINGS", PREPARED BY CAMP DRESSER & MCKEE, INC., DATED AUGUST 2003.
2. FIELD VERIFY EXISTING ACCESS ROAD THICKNESS OVER THE LANDFILL LINER.

23 WIDENED/IMPROVED ACCESS ROAD ON LANDFILL SURFACE (WITH SWALE)

SCALE: N.T.S.

Project:

NEWBURY LANDFILL
SOLAR PROJECT

75 BOSTON ROAD
NEWBURY, MA

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TYPICAL CIVIL
DETAILS IV

Sheet Number:

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