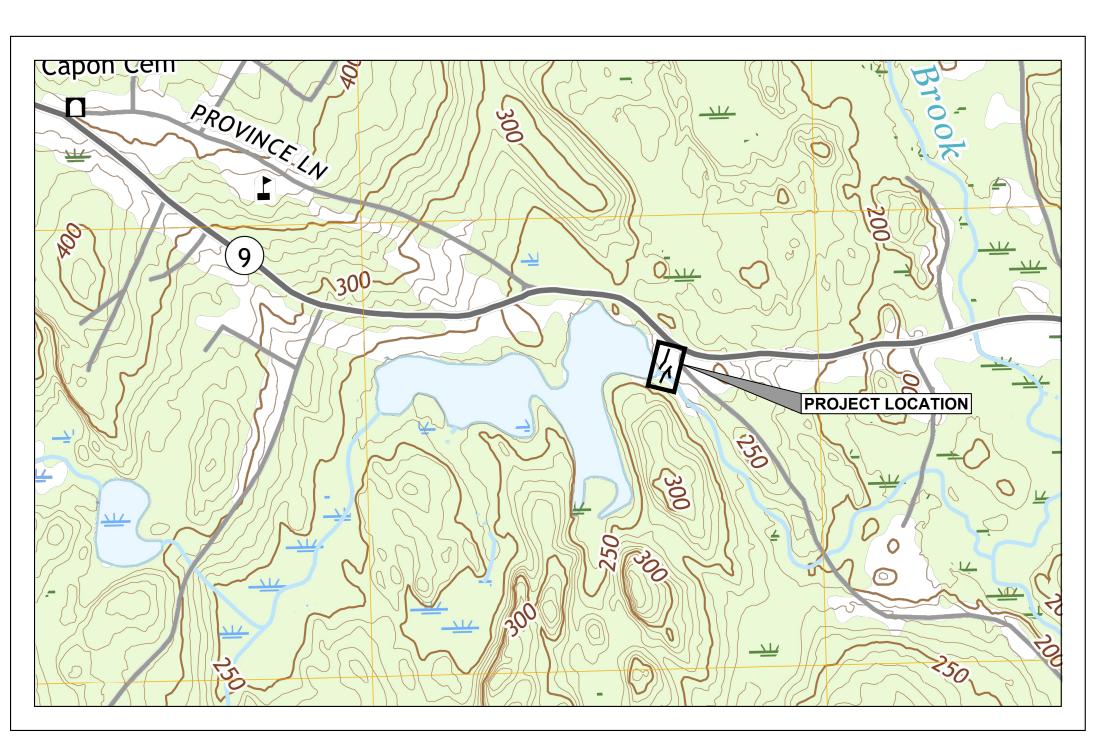
# TOWN OF BARRINGTON

GOODWILL CONSERVATION
PARKING LOT IMPROVEMENTS
(TAX MAP 233 / LOT 038)
BID PLANS
NOT FOR CONSTRUCTION
BARRINGTON, N.H.

DUBOIS & KING PROJECT NO. 324362P1
MAY 2019

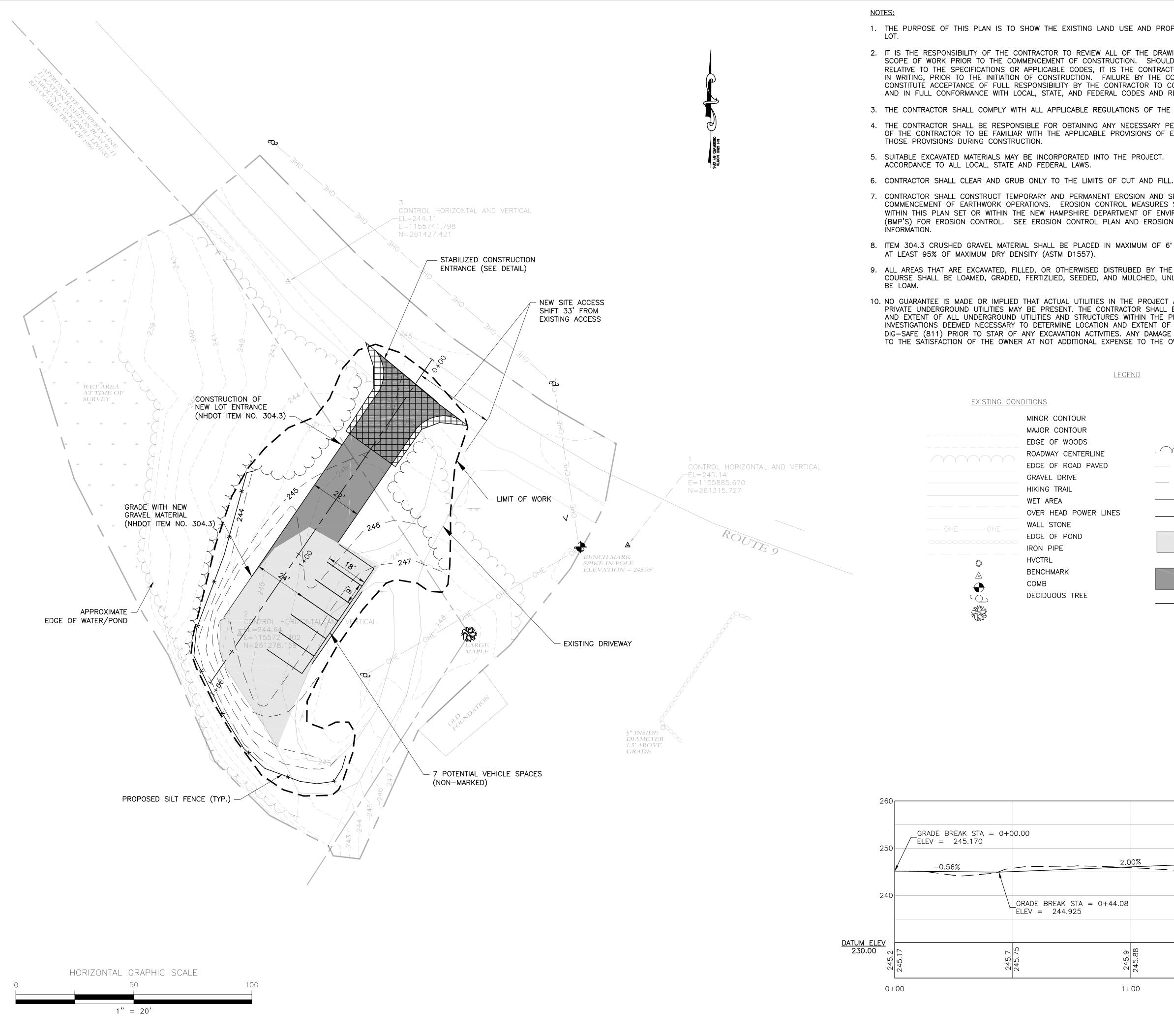


VICINITY MAP N.T.S.

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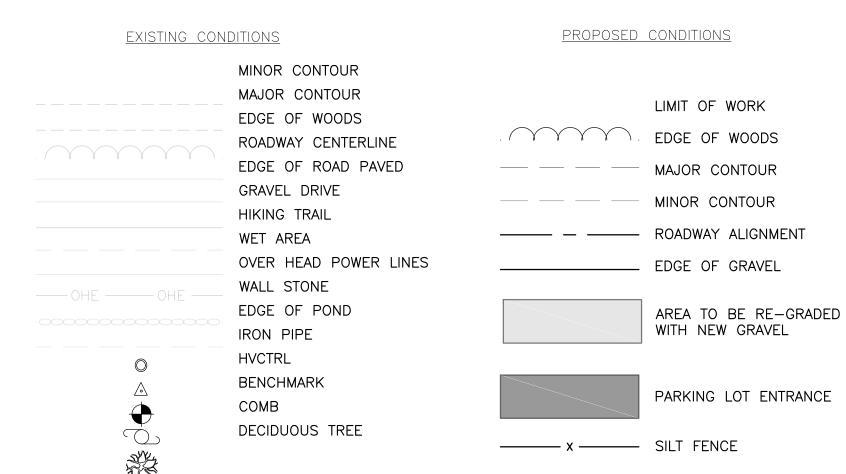
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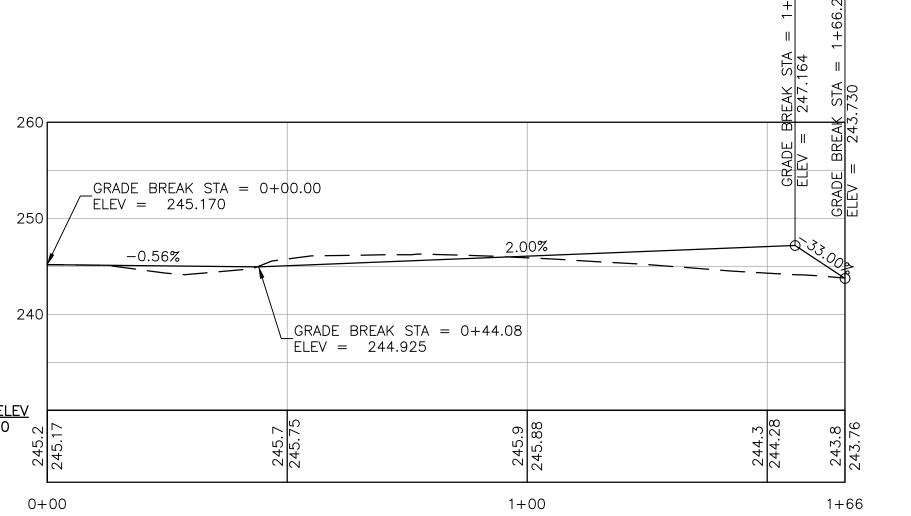
DRAWING LIST						
SHEET NUMBER	DRAWING	TITLE				
1	CO.0	COVER				
2	C1.1	SITE IMPROVEMENTS PLAN & PROFILE				
3	C1.2	EROSION CONTROL DETAILS & SECTION VIEWS				
4	C1.3	EROSION CONTROL NOTES				



- 1. THE PURPOSE OF THIS PLAN IS TO SHOW THE EXISTING LAND USE AND PROPOSED SITE LAYOUT OF A RECONSTRUCTED GRAVEL PARKING
- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THIS PROJECT'S SCOPE OF WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS, RELATIVE TO THE SPECIFICATIONS OR APPLICABLE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CONTRACTING OFFICER, IN WRITING, PRIOR TO THE INITIATION OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE CONTRACTING OFFICER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK DEFINED BY THE DRAWINGS AND IN FULL CONFORMANCE WITH LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS.
- 3. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A.).
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS PRIOR TO CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BE FAMILIAR WITH THE APPLICABLE PROVISIONS OF EACH PERMIT AS THEY APPLY TO THE WORK AND ABIDE BY
- 5. SUITABLE EXCAVATED MATERIALS MAY BE INCORPORATED INTO THE PROJECT. UNSUITABLE MATERIAL SHALL BE DISPOSED OF IN
- 7. CONTRACTOR SHALL CONSTRUCT TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL FACILITIES PRIOR TO THE COMMENCEMENT OF EARTHWORK OPERATIONS. EROSION CONTROL MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, ITEMS IDENTIFIED WITHIN THIS PLAN SET OR WITHIN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES) BEST MANAGEMENT PRACTICES (BMP'S) FOR EROSION CONTROL. SEE EROSION CONTROL PLAN AND EROSION CONTROL NOTES & DETAIL SHEET FOR SUPPLEMENTAL
- 8. ITEM 304.3 CRUSHED GRAVEL MATERIAL SHALL BE PLACED IN MAXIMUM OF 6"LIFTS. COMPACT EACH LAYER OF EMBANKMENT MATERIAL TO AT LEAST 95% OF MAXIMUM DRY DENSITY (ASTM D1557).
- 9. ALL AREAS THAT ARE EXCAVATED, FILLED, OR OTHERWISED DISTRUBED BY THE CONTRACTOR THAT ARE NOT INTENDED FOR A GRAVEL TOP COURSE SHALL BE LOAMED, GRADED, FERTIZLIED, SEEDED, AND MULCHED, UNLESS OTHERWISE NOTED. THE TOP 4 INCHES OF SOIL SHALL
- 10. NO GUARANTEE IS MADE OR IMPLIED THAT ACTUAL UTILITIES IN THE PROJECT AREA MATCH WHAT IS SHOWN ON THE PLAN. LOCATION OF PRIVATE UNDERGROUND UTILITIES MAY BE PRESENT. THE CONTRACTOR SHALL BARE ALL RESPONSIBILITY FOR DETERMINING THE PRESENCE AND EXTENT OF ALL UNDERGROUND UTILITIES AND STRUCTURES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL MAKE ALL INVESTIGATIONS DEEMED NECESSARY TO DETERMINE LOCATION AND EXTENT OF UNDERGROUND UTILITIES. CONTRACTOR SHALL CONTACT DIG-SAFE (811) PRIOR TO STAR OF ANY EXCAVATION ACTIVITIES. ANY DAMAGE TO ACTIVE UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER AT NOT ADDITIONAL EXPENSE TO THE OWNER.

<u>LEGEND</u>



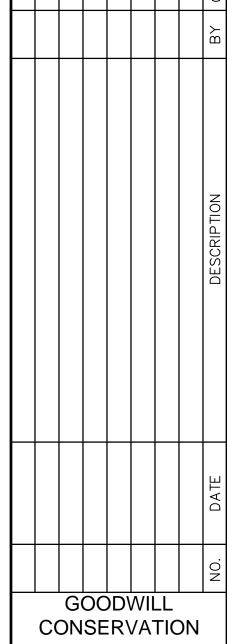


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**BID PLANS** 

PROFESSIONAL SEAL

**NOT FOR** CONSTRUCTION



PARKING LOT **IMPROVEMENTS** 245 FRANKLIN PIERCE HWY BARRINGTON, NH 03825

DRAWING DESCRIPTION

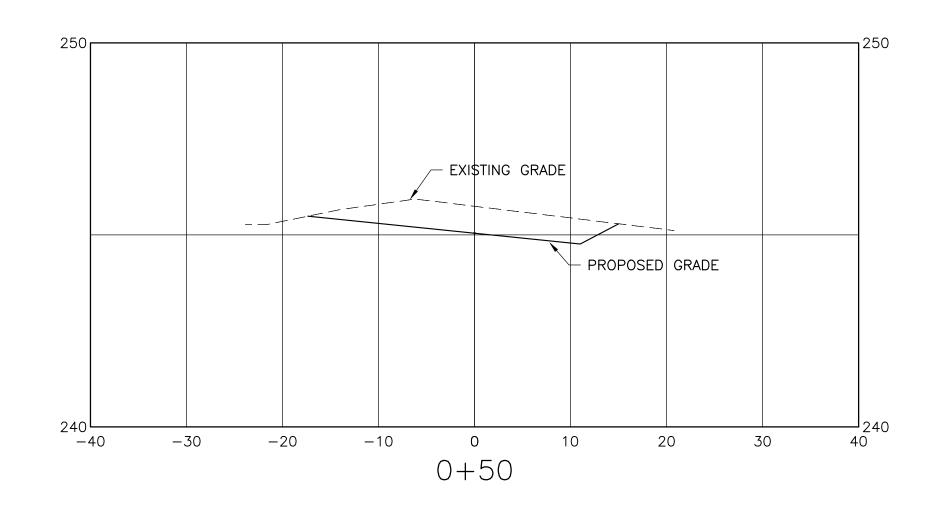
SITE **IMPROVEMENTS** PLAN & PROFILE

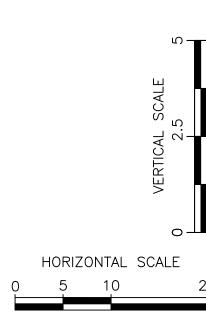
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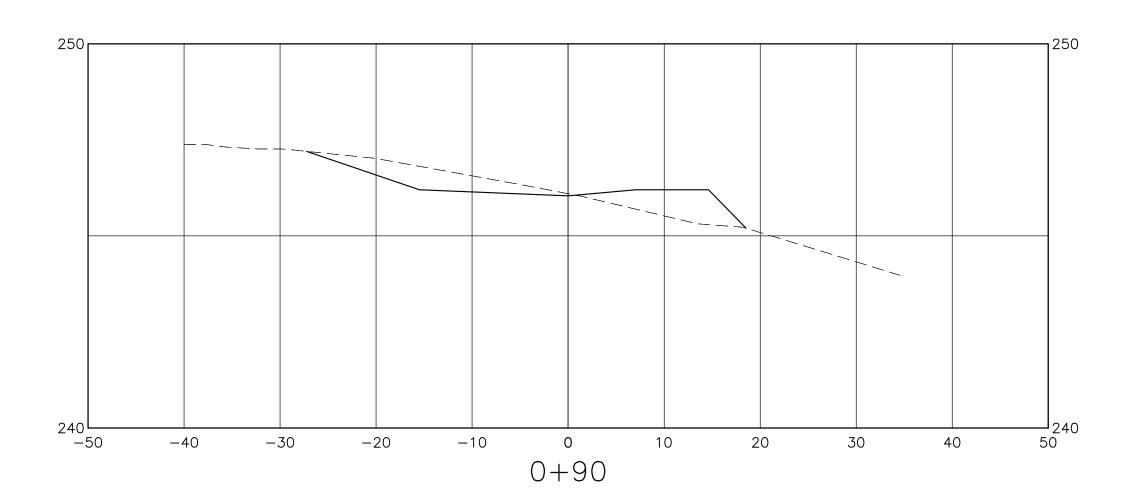
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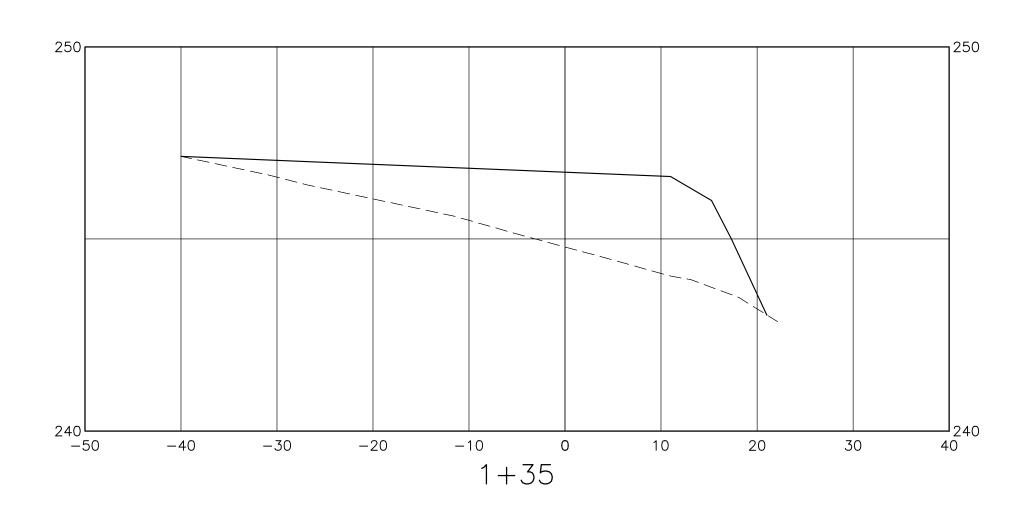
SHEET 2 OF 4

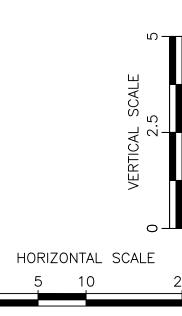
# PARKING LOT SECTION VIEWS











# NOTES:

1. CONTRACTOR SHALL FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS, ALONG WITH BELOW FENCE—END JOINING INSTALLATION INSTRUCTIONS.

SILT FENCE ENDS COUPLED

SECTION A

SECTION B

- 2. FENCE AND ALL COMPONENTS SHALL BE BIODEGRADABLE, AND SHALL BE FUNCTIONAL FOR A MINIMUM OF 1.5 TO 2 YEARS.
- 3. WHEN TWO SECTION S OF SILT FENCE ADJOIN EACH OTHER AS SHOWN JOINING FENCE SECTIONS.

#### FENCE-END JOINING INSTALLATION INSTRUCTIONS

MINIMUM HEIGHT FROM

GROUND SURFACE IS 2.5 FEET

BIODEGRADABLE FILTER FABRIC

EXCAVATE 6"x6" TRENCH UPSLOPE

EXTEND SILT FENCE INTO TRENCH,

FROM AND ALONG THE LINE OF POSTS,

BACKFILL AND COMPACT EXCAVATED SOIL

SHALL EQUAL TO BIOFENCE

BY ERC/BIOMASS FARMS

OF EAST FREETOWN, MA

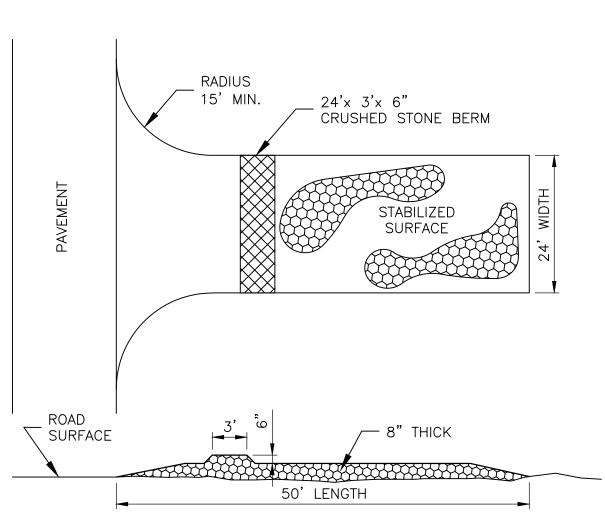
FLOW

- 1. PLACE THE END POST OF ONE FENCE INSIDE THE END POST OF THE OTHER FENCE.
- 2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL.
- 3. DRIVE BOTH POSTS 18 INCHES INTO THE GROUND AND BURY THE FLAP IN THE TRENCH.

# **MAINTENENACE:**

- 1. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAILFALL AND AT LEAST DAILY DURING PROLONGED RAILFALL EVENTS. REPAIRS THAT ARE SHALL BE MADE IMMEDIATELY.
- 2. IF THE FABRIC OF THE SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED PROMPTLY.
- 3. SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS HAS REACHED APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- 4. SEDIMENT DEPOSITS THAT ARE REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

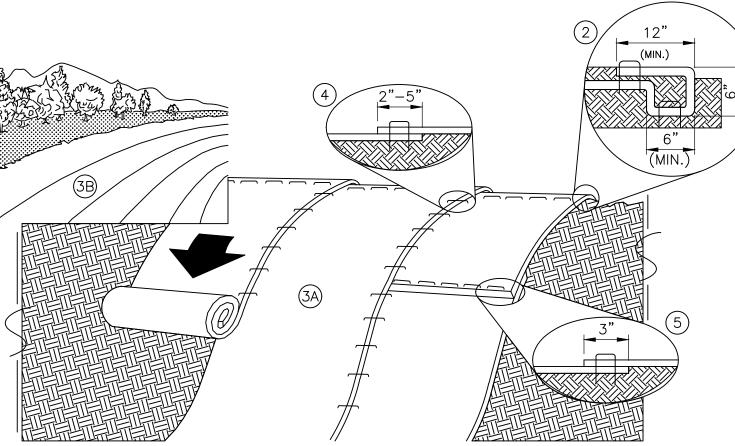
BIODEGRADABLE SILT FENCE DETAIL NOT TO SCALE



# MAINTENANCE:

- 1. IN THE EVENT THAT MUD OR SOIL PARTICLES CLOG THE VOIDS OF THE CONSTRUCTION ENTRANCE, THE CONSTRUCTION ENTRANCE SHOULD BE TOPDRESSED WITH NEW STONE. COMPLETE REPLACEMENT OF THE CONSTRUCTION ENTRANCE MAY BE REQUIRED.
- 2. IF WASH FACILITIES ARE USED, SEDIMENTATION TRAPS SHOULD BE CLEANED AS OFTEN AS NECESSARY TO ASSURE THAT ADEQUATE PERFORMANCE OF SEDIMENTATION COLLECTION AND STORAGE IS AVAILABLE.

STABILIZED CONSTRUCTION ENTRANCE (TEMPORARY, TO BE REMOVED PRIOR TO FINAL PAVING) NOT TO SCALE



- 1. MANUFACTURER'S INSTALLATION PROCEDURES SUPERSEDE THE FOLLOWING RECOMMENDED PROCEDURES.
- 2. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP)
- 3. BEGIN INSTALLATION OF MATTING AT THE TOP OF THE SLOPE BY ANCHORING THE RECP IN A 6" DEEP X 6" WIDE TRENCH WITH 12" (APPROX.) OF RECP EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RÈCP WITH A ROW OF STAPLES/STAKES 12" (APPROX.) 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 RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED 12" (APPROX.) APART ACROSS THE WIDTH OF THE RECP.
- 4. ROLL THE RECP (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. ALL RECP MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS
- 5. THE EDGES OF PARALLEL RECP'S SHALL BE STAPLED WITH A 2" TO 5" (APPROX.) OVERLAP.
- 6. CONSECUTIVE RECP SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH A 3" (APPROX.) OVERLAP. STAPLE THROUGH OVERLAPPED AREA 12" (APPROX.) APART ACRÓSS ENTIRE RECP WIDTH.
- 7. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP.

SLOPE STABILIZATION MATTING DETAIL NOT TO SCALE

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# **BID PLANS**

# **NOT FOR** CONSTRUCTION

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								DESCRIPTION
								DATF
								NO.
GOODWILL								
CONSERVATION								

DRAWING DESCRIPTION

PARKING LOT **IMPROVEMENTS** 245 FRANKLIN PIERCE HWY BARRINGTON, NH 03825

SITE **IMPROVEMENTS** PLAN & PROFILE

DRAWN BY MAY 2019 CHECKED BY D&K PROJECT# 324362 PROJ. ENG. D&K ARCHIVE #

DRAWING NO.

SHEET 3 OF 4

### GENERAL EROSION AND SEDIMENTATION CONTROL NOTES:

THIS PLAN HAS BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE STANDARDS AND SPECIFICATIONS FOR EROSION PREVENTION IN DEVELOPING AREAS AS CONTAINED IN THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES) STORMWATER MANUAL, VOLUME 3. THE PROPOSED LOCATIONS OF EROSION CONTROL BEST MANAGEMENT PRACTICES (TO BE INSTALLED AT A MINIMUM) ARE SHOWN ON THE PLAN SET HEREIN.

- 1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE IN ACCORDANCE WITH THE "NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3 EROSION AND SEDIMENTATION CONTROLS DURING CONSTRUCTION", PUBLISHED BY THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES); DATED DECEMBER 2008 (OR CURRENT EDITION).
- 2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION SHALL BE MAINTAINED IN AN UNTREATED OR UNVEGETATED CONDITION FOR THE MINIMUM TIME REQUIRED. IN GENERAL, ALL DISTURBED AREAS SHALL NOT BE LEFT BARE FOR MORE THAN 30 DAYS, SHALL BE STABILIZED IN A MANNER TO MITIGATE EROSION OR SEDIMENTATION FROM EXITING THE LIMIT OF WORK AND SHALL BE RESTORED IN-KIND UPON COMPLETION OF THE PROJECT. THE MAXIMUM AREA ALLOWED TO BE DISTURBED AND LEFT UNSTABILIZED IS TWO (2) ACRES AT ANY ONE TIME
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT, MONITOR AND MAINTAIN ALL EROSION CONTROL INSPECTION, MONITORING & MAINTENANCE NOTES LOCATED HEREIN.
- 4. SEDIMENT BARRIERS (SILT FENCE, STONE CHECK DAMS, STABILIZED CONSTRUCTION ENTRANCES, ETC.) SHALL BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE OF UP—GRADIENT DRAINAGE AREAS.
- 5. ALL EXISTING STORM DRAINAGE INLETS SHALL BE PROTECTED BY STRAW BALE FILTERS AND CATCH BASIN FILTER BASKETS TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS INTO THE STORM DRAIN SYSTEM.
- 6. NO TREES ARE TO BE REMOVED FROM AREAS OUTSIDE THE LIMITS OF GRADING OR FROM SPECIFICALLY DESIGNATED UNDISTURBED AREAS WITHIN THE CONSTRUCTION AREA. IF TREES DESIGNATED TO BE SAVED ARE DAMAGED, CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING THEM AT NO COST TO THE OWNER OR OWNER'S REPRESENTATIVE.
- 7. SLOPES, EITHER PERMANENT OR TEMPORARY, BETWEEN SLOPES 3 HORIZONTAL TO ONE VERTICAL (3:1) TO TWO HORIZONTAL TO ONE VERTICAL (2:1) SHALL BE STABILIZED WITH EROSION CONTROL BLANKETS AND ANCHORED MULCH NETTING (100% BIODEGRADABLE PLASTIC NETTING WILL NOT BE ALLOWED AND BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS). SLOPES STEEPER THAT ONE VERTICAL TO ONE VERTICAL (1:1) SHALL BE STABILIZED WITH RIPRAP.
- 8. CUT AND FILL AREAS ARE TO BE PERMANENTLY STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 72 HOURS FOLLOWING FINAL GRADING.
- 9. ALL AREAS OF EXPOSED OR DISTURBED SOIL OTHER THAN THE NEWLY STABILIZED STREAM BANK TO BE STABILIZED AS SOON AS PRACTICABLE BUT NO LATER THAN 45 DAYS FROM THE TIME OF INITIAL DISTURBANCE, UNLESS A SHORTER TIME IS SPECIFIED BY LOCAL AUTHORITIES, THE CONSTRUCTION SEQUENCE APPROVED AS PART OF THE ISSUED PERMIT, OR AN INDEPENDENT
- 10. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. WHEN SEEDED AREAS ARE MULCHED, PLANTINGS MAY BE MADE FROM EARLY SPRING TO EARLY OCTOBER. WHEN SEEDED AREAS ARE NOT MULCHED, SEED SHOULD BE PLACED FROM EARLY SPRING TO MAY 20 OR FROM AUGUST 15 TO SEPTEMBER 15. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS (NOVEMBER THROUGH MARCH). SEE WINTER CONSTRUCTION NOTES. PLANT ANNUAL RYE GRASS PRIOR TO OCTOBER 15TH.
- 11. AFTER OCTOBER 15TH: WHERE MULCH IS USED, IT SHALL BE APPLIED AT TWICE THE RATE AS DURING REGULAR CONSTRUCTION SEASON TO PROVIDE ADDITIONAL PROTECTION. SNOW AND ICE SHALL BE REMOVED TO A THICKNESS LESS THAN ONE INCH BEFORE APPLYING MULCH (IF APPLICABLE) TO DISTURBED SOILS. WHERE FINISHED GRADE IS ACHIEVED, OR BEFORE FORECASTED THAW OR SPRING MELT, MULCH MUST BE SECURED WITH EROSION CONTROL NETTING, TRACKING, OR OTHER METHOD. DIVERSION SWALES OR DITCHES WITHOUT STABILIZED VEGETATION BY OCTOBER 15TH SHALL BE STABILIZED WITH STONE FILL OR EROSION CONTROL NETTING AS APPROVED BY OWNER OR OWNER'S DESIGNATED REPRESENTATIVE.
- 12. ONCE DISTURBED AREAS HAVE BEEN STABILIZED AND VEGETATION IS ESTABLISHED, ALL TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE SHALL BE REMOVED. AREAS DISTURBED BY REMOVAL OF THESE MEASURES SHALL BE IMMEDIATELY SEEDED ACCORDING TO SEEDING SPECIFICATIONS ON THESE DRAWINGS.
- 13. SPECIES CONSIDERED LOCALLY INVASIVE OR NOXIOUS MAY NOT BE USED.
- 14. USE ONLY NON-PHOSPHATE FERTILIZERS WITHIN 20' OF SURFACE WATERS.
- 15. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT WILL BE RETURNED TO THE SITE AND RE-GRADED ONTO OPEN AREAS. POST SEEDING SEDIMENT, IF ANY, WILL BE DISPOSED OF IN AN ACCEPTABLE MANNER.
- 16. RE-VEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE. ALL DISTURBED AREAS NOT OTHERWISE STABILIZED WILL BE GRADED, SMOOTHED, AND RE-VEGETATED AS FOLLOWS:
- 16.1. A MINIMUM OF FOUR (4) INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE.
- 16.2. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST. IF SOIL TESTING IS NOT DEEMED FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 800 POUNDS PER ACRE OR 18.4 POUNDS PER 1,000 SQUARE FEET USING 10-20-20 (N-P205-K20) OR EQUIVALENT. APPLY GROUND LIMESTONE (EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB PER 1,000 SQ. FT.).
- 16.3. FOLLOWING SEED BED PREPARATION, DITCHES AND BACK SLOPES WILL BE SEEDED WITH A MIXTURE OF 47% CREEPING RED FESCUE, 5% REDTOP, AND 48% TALL FESCUE. THE LAWN AREAS WILL BE SEEDED WITH A PREMIUM TURF MIXTURE OF 44% KENTUCKY BLUEGRASS, 44% CREEPING RED FESCUE, AND 12% PERENNIAL RYE GRASS: SEEDING RATE IS 1.03 LBS PER 1000 SQ. FT. LAWN QUALITY SOD MAY BE SUBSTITUTED FOR SEED.
- 16.4. HAY MULCH AT THE RATE OF 70-90 LBS PER 1000 SQUARE FEET OR A HYDRO-APPLICATION OF CELLULOSE FIBER SHALL BE APPLIED FOLLOWING SEEDING. A SUITABLE BINDER WILL BE USED ON HAY MULCH FOR WIND CONTROL.
- 17. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS STABILIZED.
- 18. AN AREA IS CONSIDERED "STABLE" IF ONE OF THE FOLLOWING HAS OCCURRED: BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED; A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED; A MINIMUM OF 3" OF NON-EROSIVE MATERIAL (SUCH AS STONE RIP RAP OR A CERTIFIED COMPOST BLANKET) HAS BEEN INSTALLED; OR EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 19. WETLANDS WILL BE PROTECTED WITH SILT FENCE INSTALLED AT THE EDGE OF THE WETLAND OR THE BOUNDARY OF WETLAND DISTURBANCE.
- 20. IN GENERAL, AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS SHALL HAVE A MAXIMUM PERIOD OF EXPOSURE OF NOT MORE THAN 15 DAYS.
- 21. FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IN ALL AREAS WITHIN 100 FEET OF DELINEATED WETLANDS OR STREAMS.

#### EROSION CONTROL - PERMANENT VEGETATED SPECIFICATIONS:

## 1. SITE PREPARATION:

- 1.1. INSTALL NEEDED EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILTATION BARRIERS, DIVERSIONS, AND SEDIMENT TRAPS.
- 1.2. GRADE AS NEEDED FOR THE ACCESS OF EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- 1.3. RUNOFF SHOULD BE DIVERTED FROM THE SEEDED AREA.
- 1.4. ON SLOPES 4:1 OR STEEPER, THE FINAL PREPARATION SHOULD INCLUDE CREATING HORIZONTAL GROOVES PERPENDICULAR TO THE DIRECTION OF THE SLOPE TO CATCH SEED AND REDUCE RUNOFF.

#### 2. SEEDBED PREPARATION:

- 2.1. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.
- 2.2. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, CONCRETE, CLODS, LUMPS, TRASH OR OTHER UNSUITABLE MATERIAL.
- 2.3. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED; THE AREA MUST BE TILLED AND FIRMED AS ABOVE.
- 2.4. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED.
- 2.5. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
  - 2.5.1. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER1 (N-P205-K20) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET).
  - 2.5.2. FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE (LESS THAN 2% PHOSPHORUS), SLOW RELEASE NITROGEN (AT LEAST 50% SLOW RELEASE COMPONENT) FERTILIZER WHEN APPLIED TO AREAS BETWEEN 25 FEET AND 250 FEET FROM A SURFACE WATER BODY. NO FERTILIZER EXCEPT LIMESTONE SHOULD BE APPLIED WITHIN 25 FEET OF A SURFACE WATER BODY. THESE LIMITATIONS ARE REQUIREMENTS FOR ANY WATER BODY PROTECTED BY THE COMPREHENSIVE SHORELAND PROTECTION ACT.

#### 3. SEEDING:

- 3.1. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE AND AMOUNT OF INOCULANT.
- 3.2. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING OPERATIONS SHOULD BE ON THE CONTOUR.
- 3.3. WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
- 3.4. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST. WHEN CROWN VETCH IS SEEDED IN LATER SUMMER, AT LEAST 35% OF THE SEED SHOULD BE HARD SEED (UNSCARIFIED). IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING PRACTICE," AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
  - 3.4.1. TEMPORARY SEEDING SHOULD TYPICALLY OCCUR PRIOR TO SEPTEMBER 15TH.
  - 3.4.2. AREAS SEEDED BETWEEN MAY 15TH AND AUGUST 15TH SHOULD BE COVERED WITH HAY OR STRAW MULCH, ACCORDING TO THE "TEMPORARY AND PERMANENT MULCHING" PRACTICE PRESENTED IN THE "NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL VOLUME 3 CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS".
- 3.5. VEGETATED GROWTH COVERING AT LEAST 85% OF THE DISTURBED AREA SHOULD BE ACHIEVED PRIOR TO OCTOBER 15TH. IF THIS CONDITION IS NOT ACHIEVED, IMPLEMENT TEMPORARY STABILIZATION MEASURES FOR OVERWINTER PROTECTION, AND COMPLETE PERMANENT SEED STABILIZATION DURING THE NEXT GROWING SEASON.

# 4. HYDROSEEDING:

- 4.1. WHEN HYDROSEEDING (HYDRAULIC APPLICATION), PREPARE THE SEEDBED AS SPECIFIED
  ABOVE OR BY HAND RAKING TO LOOSEN AND SMOOTH THE SOIL AND TO REMOVE SURFACE
  STONES LARGER THAN 2 INCHES IN DIAMETER.
- 4.2. SLOPES MUST BE NO STEEPER THAN 2 TO 1 (2 FEET HORIZONTALLY TO 1 FOOT VERTICALLY).
- 4.3. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED. THE USE OF FIBER MULCH ON CRITICAL AREAS IS NOT RECOMMENDED (UNLESS IT IS USED TO HOLD STRAW OR HAY). BETTER PROTECTION IS GAINED BY USING STRAW MULCH AND HOLDING IT WITH ADHESIVE MATERIALS OR 500 POUNDS PER ACRE OF WOOD FIBER MULCH.
- 4.4. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING.
- 4.5. RECOMMENDED SEEDING:

<u>SPECIES</u>	LBS/Ac LE	3S/1k S.F.	
TALL FESCUE	20	0.45	
CREEPING RED F	ESCUE 20	0.45	
REDTOP	2	0.05	
	42	0.95	TOTAL

- 5. MAINTENANCE REQUIREMENTS
- 5.1. PERMANENT SEEDED AREAS SHOULD BE INSPECTED AT LEAST MONTHLY DURING THE COURSE OF CONSTRUCTION. INSPECTIONS, MAINTENANCE, AND CORRECTIVE ACTIONS SHOULD CONTINUE UNTIL THE OWNER ASSUMES PERMANENT OPERATION OF THE SITE.
- 5.2. SEEDED AREAS SHOULD BE MOWED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION, WITH MOWING HEIGHT AND FREQUENCY DEPENDENT ON TYPE OF GRASS COVER.
- 5.3. BASED ON INSPECTION, AREAS SHOULD BE RESEEDED TO ACHIEVE FULL STABILIZATION OF EXPOSED SOILS.
- 5.4. AT A MINIMUM, 85% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION.
- 5.5. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHOULD BE MADE AND AREAS SHOULD BE RESEEDED, WITH OTHER TEMPORARY MEASURES (E.G., MULCH) USED TO PROVIDE EROSION PROTECTION DURING THE PERIOD OF VEGETATION ESTABLISHMENT.

# EROSION CONTROL - WINTER CONSTRUCTION

FOR SITE WORK CONSTRUCTION BETWEEN OCTOBER 15TH AND EARLY APRIL THE CONTRACTOR SHALL FOLLOW WINTER CONSTRUCTION EROSION PROTECTION METHODS AS DESCRIBED BELOW:

- 1. CHECK ALL PERIMETER EROSION CONTROL MEASURES AND COMPLETE ANY REQUIRED MAINTENANCE AND REPAIR BEFORE THE GROUND FREEZES.
- 2. PUT IN PLACE ANY ADDITIONALLY NECESSARY EROSION CONTROL MEASURES; DIVERSION DIKES, HAY BALES, SILT FENCE, SEDIMENT TRAPS AND/OR BASINS, ETC. TO PROTECT DOWNSTREAM WATER QUALITY FROM ANTICIPATED WINTER WORK PRIOR TO GROUND FREEZING.
- 3. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, 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 THAW OR SPRING MELT EVENTS.
- 4. ALL DITCHES OR SWALES THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH OR THAT ARE DISTURBED AFTER OCTOBER 15TH SHALL BE STABILIZED WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- 5. INSPECT THE EROSION AND SEDIMENT CONTROL MEASURES MORE FREQUENTLY THAN IS SPECIFIED IN THE EROSION CONTROL INSPECTION, MONITORING, AND MAINTENANCE SPECIFICATIONS FOUND ON THIS SHEET DURING THE WINTER AND SPRING THAW MONTHS TO PREVENT FAILURE AND/OR OVERLOADING.
- 6. BEFORE PREDICTED THAWS AND/OR HEAVY RAIN EVENTS CHECK ALL MEASURES TO ENSURE THAT THEY WILL BE ABLE TO HANDLE POTENTIALLY HEAVY AND INTENSE RUNOFF AND SEDIMENTATION.
- 7. CONTRACTOR SHALL BE PREPARED TO INSTALL A SECOND LINE OF DEFENSE IF PROBLEMS WITH IN-PLACE EROSION CONTROL MEASURES OCCUR DURING WINTER THAW AND SPRING RAIN EVENTS.
- 8. AS EARLY AS PRACTICAL AT THE BEGINNING OF THE NEXT GROWING SEASON, CONTRACTOR SHALL STABILIZE COMPLETED AREAS WITH PERMANENT VEGETATIVE CONTROLS AS SPECIFIED ON THESE DRAWINGS.

## EROSION CONTROL - SOIL STOCKPILE PRACTICES:

- STOCKPILES SHALL BE LOCATE A MINIMUM OF 50 FEET AWAY FROM CONCENTRATED FLOWS OF STORMWATER, DRAINAGE COURSES, AND INLETS.
- 2. STOCKPILES SHALL BE PROTECTED FROM STORMWATER RUN-ON USING TEMPORARY PERIMETER MEASURES SUCH AS DIVERSIONS, BERMS, SANDBAGS, OR OTHER APPROVED PRACTICE.
- 3. STOCKPILES SHALL BE SURROUNDED BY SEDIMENT BARRIERS TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.
- 4. STOCKPILES SHALL BE PROTECTED FROM WIND EROSION CONTROL PRACTICES AS APPROPRIATE.



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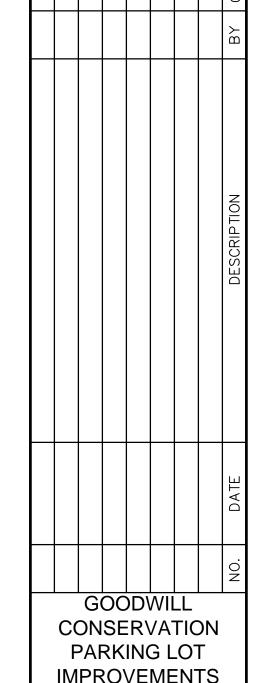
BRANDON, VT

PROFESSIONAL SEAL

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**BID PLANS** 

NOT FOR CONSTRUCTION



245 FRANKLIN

PIERCE HWY

BARRINGTON, NH

DRAWING DESCRIPTION

SITE IMPROVEMENTS PLAN & PROFILE

DRAWN BY
BJV
MAY 2019
CHECKED BY
JAA
324362

PROJ. ENG.

D&K ARCHIVE #

RLT

DRAWING NO.

C1.3

SHEET 4 OF 4