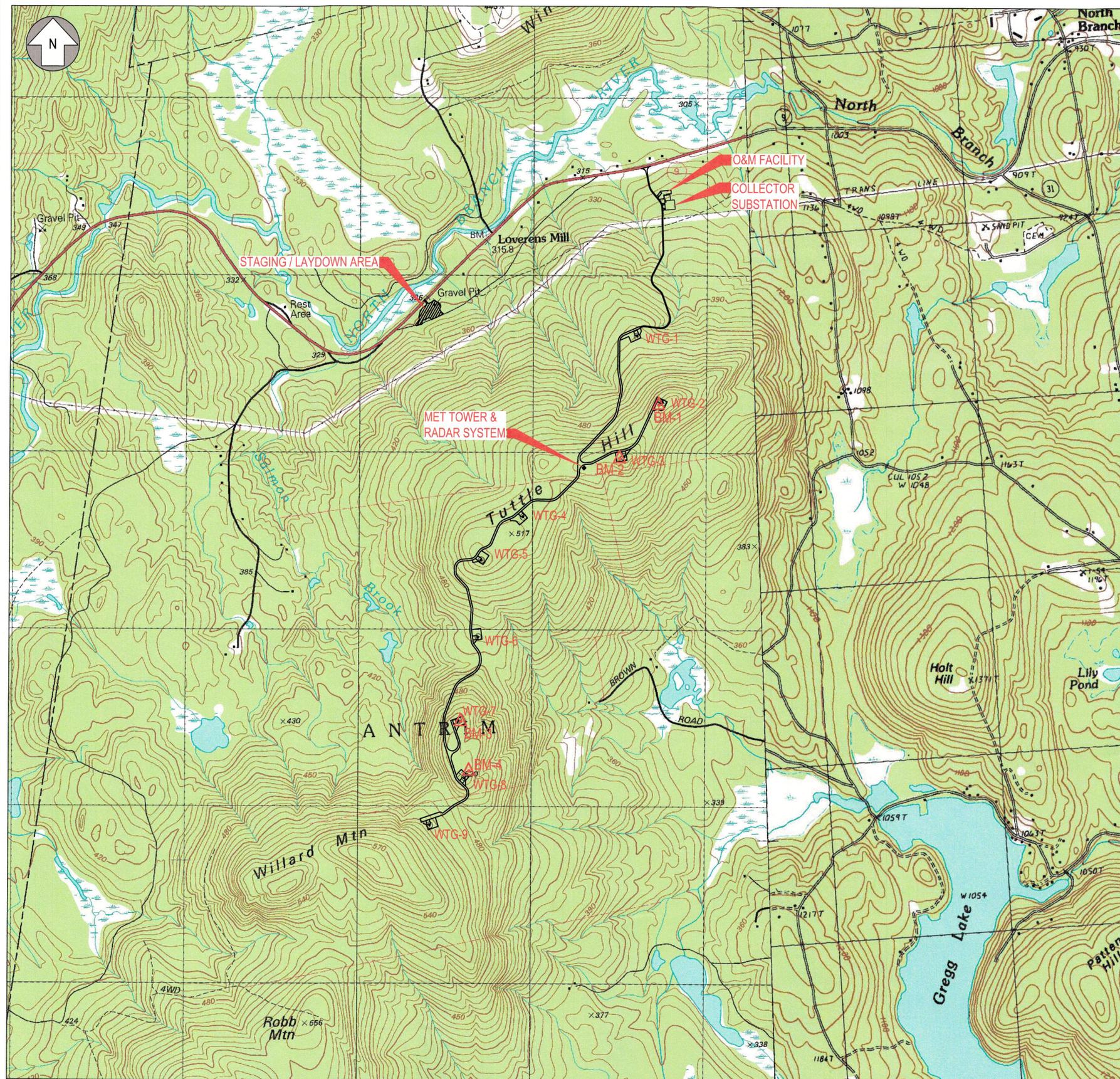
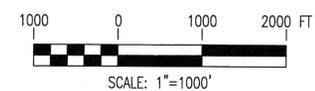


**APPENDIX 7A-2:  
REVISED  
CIVIL DESIGN DRAWINGS**



OVERALL LOCATION MAP  
SCALE: 1"=1000'



**NOTES:**  
1. SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND & ABBREVIATIONS.

**NOT FOR CONSTRUCTION**

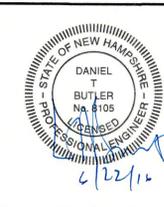
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C-5	PLAN: MAIN ACCESS ROAD	STA 60+00 TO 75+00
C-6	PLAN: MAIN ACCESS ROAD	STA 75+00 TO 90+00
C-7	PLAN: MAIN ACCESS ROAD	STA 90+00 TO 105+00
C-8	PLAN: MAIN ACCESS ROAD	STA 105+00 TO 120+00
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SW-6	STORMWATER MANAGEMENT PLAN	STA 75+00 TO 90+00
SW-7	STORMWATER MANAGEMENT PLAN	STA 90+00 TO 105+00
SW-8	STORMWATER MANAGEMENT PLAN	STA 105+00 TO 120+00
SW-9	STORMWATER MANAGEMENT PLAN	STA 120+00 TO 135+00
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SW-12	STORMWATER MANAGEMENT PLAN	NORTH SPUR ROAD: STA 0+00 TO 15+00
SW-13	STORMWATER MANAGEMENT PLAN	NORTH SPUR ROAD: STA 15+00 TO 21+30

**PROJECT BENCHMARKS**

- ▲ BM-1 12" SPIKE  
ELEV=1741.83
- ▲ BM-2 12" SPIKE  
ELEV=1758.94
- ▲ BM-3 12" SPIKE  
ELEV=1661.68
- ▲ BM-4 12" SPIKE  
ELEV=1700.58

NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
C	REVISED PER NHDES REVIEW COMMENTS	6/17/16	PMM	DTB	DTB	8105
B	ISSUED FOR PERMITTING	5/1/15	PMM	DTB	DTB	8105
A	ISSUED FOR CLIENT REVIEW	4/6/15	PMM	DTB		



CLIENT APPROVAL	TRC/PMM DESIGNED
APPROVED BY	TRC/KAV DRAWN
COMPANY	TRC/DTB CHECKED
DATE	APPROVED
	REVIEWED

OVERALL LOCATION MAP & DRAWING INDEX  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**TRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
SCALE: AS NOTED DATE: 11-8-11

G-3

REV. C

**GENERAL NOTES**

- 2 FOOT CONTOURS DEVELOPED FROM AERIAL SURVEY BY JAMES W SEWALL CO, 2011.
- PLANIMETRIC AND TOPOGRAPHIC INFORMATION ARE SHOWN IN NEW HAMPSHIRE STATE PLANE, US- FEET, NAD 83. VERTICAL DATUM IS NAVD 1988 US- FEET. SEE DRAWING G-3 FOR PROJECT BENCHMARKS. HORIZONTAL AND VERTICAL LOCATION COORDINATES FOR ALL IMPROVEMENTS WILL BE PROVIDED TO THE CONTRACTOR BY THE ENGINEER IN ELECTRONIC FORMAT AFTER NH DES APPROVALS.
- NATURAL RESOURCE DATA, INCLUDING WETLAND DELINEATION BOUNDARIES AND OTHER SENSITIVE RESOURCES PERFORMED BY TRC, 2014.

**CLEARING AND STOCKPILING OPERATIONS**

- INSTALL PERIMETER EROSION CONTROL MEASURES PRIOR TO SOIL DISTURBANCE.
- EQUIPMENT LAYDOWN AREA AND THE SUBSTATION AREA: CLEAR TIMBER AND BRUSH WITHIN LIMIT OF DISTURBANCE. GRUBBING SHALL BE PERFORMED AFTER ESTABLISHMENT AND STABILIZATION OF TEMPORARY OR PERMANENT DRAINAGE COURSES BUT JUST PRIOR TO PRELIMINARY GRADING; STUMPS SHALL BE GROUND TO GRADE OR REMOVED AND GROUND ON-SITE TO GENERATE EROSION CONTROL MIX (ECM).
- ALL DISTURBED AREAS SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICABLE, BUT NO LATER THAN 45 DAYS OF INITIAL DISTURBANCE. WHERE FEASIBLE, CONTRACTOR OPERATIONS SHALL MAINTAIN THE NATURAL COVER MATERIAL OR USE NATURAL VEGETATIVE BUFFER STRIPS TO AID IN SEDIMENT RETENTION, AND TO REDUCE THE POTENTIAL OF SOIL EROSION
- THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBANCE AT ANY ONE TIME BY STAGING CONSTRUCTION AS MUCH AS PRACTICAL FOR EFFICIENT CONSTRUCTION OF THE PROJECT. THE UNSTABILIZED DISTURBED AREA SHALL NOT EXCEED 5 ACRES UNLESS THE FOLLOWING CONDITIONS ARE MET:
  - SUBMIT DOCUMENTATION THAT THE REQUIRED AREAS OF CUTS AND FILLS ARE SUCH THAT AN AREA OF DISTURBANCE OF 5 ACRES OR LESS WOULD UNREASONABLY LIMIT THE CONSTRUCTION SCHEDULE;
  - SUBMIT A CONSTRUCTION SEQUENCE PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST; AND
  - EMPLOY AN ENVIRONMENTAL MONITOR DURING CONSTRUCTION
- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
  - BASE COURSE GRAVELS HAVE BEEN INSTALLED.
  - A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED.
  - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
  - OR, EROSION CONTROL BLANKETS OR EROSION CONTROL MIX HAS BEEN PROPERLY INSTALLED.
  - EXPOSED LEDGE SHALL BE CONSIDERED STABLE.
- ACCESS ROADS, WTG ASSEMBLY AREAS, AND RIDGE ROADS: IN FILL AREAS LESS THAN 5 FEET, CLEAR TIMBER AND BRUSH AND GRUB AS DESCRIBED IN 2 ABOVE. IN FILL AREAS EXCEEDING 5 FEET, GRUBBING AND STUMP REMOVAL IS NOT REQUIRED.
- STRIPPED TOPSOIL SHALL BE STOCKPILED ON-SITE WITHIN DISTURBED AREAS FOR USE IN STABILIZING ACCESS ROAD DITCHES AND FOR FINAL STABILIZATION OF ROAD SHOULDERS, WTG ASSEMBLY AREAS, LAYDOWN AREAS AND SLOPES. AN EROSION CONTROL BARRIER SHALL BE INSTALLED AROUND SOIL STOCKPILES THAT ARE EXPECTED TO REMAIN UNDISTURBED FOR MORE THAN 48 HOURS, OR PRIOR TO A STORM EVENT. THAT BARRIERS SHALL BE ADEQUATELY LOCATED AND REINFORCED TO PREVENT COLLAPSE DURING A STORM EVENT AND THE POTENTIAL SLUMPING OF THE PILE. IF NO ACTIVITY IS SCHEDULED WITHIN 30 DAYS, APPLY HAY AND/OR STRAW MULCH AS SPECIFIED HEREIN, UNLESS DIRECTED OTHERWISE. 4 INCHES OF ECM MAY ALSO BE USED. HAY/STRAW MULCH MAY ALSO BE SUPPLEMENTED BY TEMPORARY SEEDING WITH ANNUAL RYEGRASS AS SPECIFIED HEREIN FOR AREAS WHERE ADDITIONAL ACTIVITY IS NOT EXPECTED FOR SEVERAL MORE WEEKS. APPLY ANCHORED MULCH OR SUPPLEMENTAL SEEDING DURING WINTER CONSTRUCTION.
- STOCKPILE GENERATED ECM ON-SITE WITHIN DISTURBED AREAS.
- REMOVE EXCESS SPOILS FROM SITE THAT WILL NOT BE USED FOR THE FINAL DESIGN AND STABILIZATION.

**CONSTRUCTION OF ACCESS ROADS, ASSEMBLY AREAS, RIDGE ROADS & SUBSTATION**

- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL USE SURVEY CREWS TO ACCURATELY LOCATE ALL IMPROVEMENTS INCLUDING ROADWAY CENTERLINES AND LIMITS OF DISTURBANCE. PROVIDE ADDITIONAL STAKING AND MARKING AT LOCATIONS WHERE STORMWATER CONTROL MEASURES ARE TO BE INSTALLED.
- DUE TO DIFFERING SITE CONDITIONS, MINOR HORIZONTAL AND VERTICAL ADJUSTMENTS MAY BE NECESSARY FOR PROPER CONSTRUCTION AND INTERPRETATION OF THE CONTRACT DRAWINGS. ALL ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.

**CONSTRUCTION OF PERMANENT STORMWATER MANAGEMENT SYSTEMS**

- GRADING TO BE CONDUCTED IN ACCORDANCE WITH PERMITTED PERMANENT STORMWATER MANAGEMENT DESIGN.
- ONCE FINAL GRADES ARE ACHIEVED, EXPOSED SOIL SURROUNDING THE STORMWATER MANAGEMENT STRUCTURES SHALL BE PERMANENTLY STABILIZED AS DESCRIBED HEREIN.

**CRANE PAD CONSTRUCTION**

- FOLLOWING CONSTRUCTION OF THE WTG ASSEMBLY AREA SUBGRADES, BRING CRANE PADS TO FINISH GRADE WITH 4-INCH MINUS CRUSHED STONE. AREAS TO BE REVEGETATED (ASSEMBLY AREAS, ETC.) MAY BE BROUGHT TO FINISH GRADE WITH SUBGRADE MATERIAL, SPREAD AND COMPACT MATERIAL AS NECESSARY TO THE LIMITS DEPICTED ON CONTRACT DOCUMENTS. MINOR VERTICAL AND HORIZONTAL ADJUSTMENTS MAY BE NECESSARY TO ACCOMMODATE SPECIFIC SITE CONDITIONS. ALL ADJUSTMENTS SHALL BE APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION.
- PORTIONS OF THE WTG ASSEMBLY AREA WITHIN A 50-FOOT RADIUS OF THE TURBINE GENERATOR AND THE CRANE PAD SHALL REMAIN AS A PERMANENT DISTURBANCE. ALL OTHER AREAS WITHIN THE WTG ASSEMBLY AREA SHALL BE PERMANENTLY STABILIZED AS DESCRIBED HEREIN. PRIOR TO PERMANENT STABILIZATION, THE CONTRACTOR SHALL PERMANENTLY PIN THE FOUR CORNERS OF THE WTG LAYDOWN AREA.

**CLEAN-UP & FINAL STABILIZATION**

- AT STREAM CROSSINGS, COMPLETE FINAL RESTORATION (FINISH GRADE, SEED AND MULCH) OF ALL AREAS WITHIN 100 FEET OF THE WATERBODY WITHIN 48 HOURS OF FINAL GRADING, UNLESS DIRECTED OTHERWISE. ALL OTHER AREAS OF EXPOSED SOIL SHALL BE PERMANENTLY RE-VEGETATED OR OTHERWISE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING.
- UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL WORK AREAS SHALL BE CLEARED OF CONSTRUCTION DEBRIS AND OTHER MATERIALS.
- SPECIFIC CLEAN-UP REQUIREMENTS TO INVOLVE: REMOVAL OF ALL TEMPORARY WORK TRAILERS; REMOVAL OF MATERIAL & EQUIPMENT; DISPOSAL OF ALL RUBBISH RESULTING FROM CLEARING, CONSTRUCTION, & INSTALLATION; ROUGH GRADING & STABILIZATION OF EMBANKMENTS MADE FOR CONSTRUCTION PURPOSES; FILLING OF ANY EXCAVATIONS; & REPAIRING RUTS IN ACCESS ROADS.

**CONSTRUCTION MONITORING**

- THE PERMITTEE SHALL EMPLOY THE SERVICES OF AN ENVIRONMENTAL MONITOR ("MONITOR"). THE MONITOR SHALL BE A CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL OR A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW HAMPSHIRE AND SHALL BE EMPLOYED TO INSPECT THE SITE FROM THE START OF ALTERATION OF TERRAIN ACTIVITIES UNTIL THE ALTERATION OF TERRAIN ACTIVITIES ARE COMPLETED AND THE SITE IS CONSIDERED STABLE.
- DURING THIS PERIOD, THE MONITOR SHALL INSPECT THE SUBJECT SITE AT LEAST ONCE A WEEK, AND IF POSSIBLE, DURING ANY 1/2-INCH OR GREATER RAIN EVENT (I.E. 1/2-INCH OF PRECIPITATION OR MORE WITHIN A 24 HOUR PERIOD). IF UNABLE TO BE PRESENT DURING SUCH A STORM, THE MONITOR SHALL INSPECT THE SITE WITHIN 24 HOURS OF THIS EVENT.
- THE INSPECTIONS SHALL BE FOR THE PURPOSES OF DETERMINING COMPLIANCE WITH THE PERMIT. THE MONITOR SHALL SUBMIT A WRITTEN REPORT TO THE DEPARTMENT WITHIN 24 HOURS OF THE INSPECTIONS. THE REPORTS SHALL, AT A MINIMUM, DESCRIBE WHETHER THE PROJECT IS BEING CONSTRUCTED IN ACCORDANCE WITH THE APPROVED SEQUENCE, IDENTIFY ANY DEVIATION FROM THE CONDITIONS OF THIS PERMIT AND THE APPROVED PLANS, AND IDENTIFY ANY OTHER NOTED DEFICIENCIES.
- THE MONITOR SHALL PROVIDE TECHNICAL ASSISTANCE AND RECOMMENDATIONS TO THE CONTRACTOR ON THE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROLS REQUIRED TO MEET THE REQUIREMENTS OF RSA 485-A:17 AND ALL APPLICABLE DES PERMIT CONDITIONS.
- WITHIN 24 HOURS OF EACH INSPECTION, THE MONITOR SHALL SUBMIT A REPORT TO DES VIA EMAIL (TO CRAIG RENNIE AT: craig.rennie@des.nh.gov AND TO JENNIFER DROCIK AT: jennifer.drociak@des.nh.gov).

**WINTER CONSTRUCTION NOTES**

FOR WORK PROPOSED DURING THE WINTER SEASON (TYPICALLY NOVEMBER 1 - APRIL 15), THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PRACTICES:

- A PLAN AND SCHEDULE OF ACTIVITIES SHALL BE SUBMITTED TO THE PERMITTEE FOR APPROVAL PRIOR TO ANY WORK BEING DONE.
- LIMIT THE TOTAL AREA OF EXPOSED SOIL TO THAT IN WHICH EARTH WORK CAN BE COMPLETED WITHIN 15 DAYS AND MULCHED WITHIN ONE DAY PRIOR TO A SNOW EVENT.
- EXPOSED SOIL MAY BE LEFT BARE FOR NO MORE THAN 15 DAYS.
- MULCH ALL EXPOSED SOIL WHERE NO ACTIVITY IS SCHEDULED WITHIN 7 DAYS AND PRIOR TO A FORECASTED SNOW EVENT OF MORE THAN 1 INCH.
- WHERE PRACTICABLE, MULCH SHOULD BE APPLIED AT THE END OF EACH DAY'S WORK FOR AREAS THAT ARE FINAL GRADED. OTHERWISE, MULCH THE FOLLOWING DAY.
- DO NOT APPLY MULCH OVER MORE THAN 1 INCH OF SNOW.
- HAY OR STRAW MULCH SHALL BE APPLIED AT 140 LBS/1000 S.F. (APPROX. 4 BALES) AND SO THAT THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.
- ECM IS THE PREFERRED MULCHING MATERIAL AND SHALL BE APPLIED AT A MINIMUM 4 INCH THICKNESS, WITH HIGHER AMOUNTS AS DESCRIBED HEREIN.
- ECM IS THE PREFERRED EROSION CONTROL BARRIER. IF ECM IS NOT AVAILABLE, INSTALLATION OF SILT FENCE ON FROZEN GROUND MAY BE MODIFIED FROM ILLUSTRATIONS AND DETAIL DRAWINGS TO SUBSTITUTE SIX INCHES OF SUITABLE NON-ORGANIC MATERIAL OVER THE BOTTOM OF THE SILT FENCE IN LIEU OF TRENCHING AND BACKFILLING FABRIC.
- A DOUBLE ROW OF EROSION CONTROL BARRIER WILL BE USED WHERE REQUIRED WITHIN 100 FEET OF WETLANDS AND WATER BODIES.
- INSPECTION OF EROSION CONTROL MEASURES AND ANY NEEDED REPAIR/REPLACEMENT OF WHICH SHALL OCCUR EACH DAY.
- ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% 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/ACRE OF MULCH, SECURED WITH ANCHOR 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.
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% 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.
- AFTER NOVEMBER 15, INCOMPLETE ROAD, SUBSTATION, OR TURBINE PAD AREAS, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3.
- PERMANENT SEEDING IS NOT REQUIRED DURING THE WINTER SEASON; HOWEVER, IF DONE, THE CONTRACTOR SHALL FOLLOW PROCEDURES FOR DORMANT SEEDING. THE PERMANENT SEED MIX SHALL BE APPLIED AT THREE TIMES THE STANDARD RATE AND MULCHED. RE-VEGETATION SUCCESS MUST BE INSPECTED BY THE CONTRACTOR IN THE FOLLOWING SPRING (AFTER APRIL 15) AND RE-SEEDED AS NECESSARY IF VEGETATIVE COVER IS LESS THAN 75 PERCENT. ACCEPTANCE OF DORMANT SEEDING AS SUCCESSFUL WILL NOT OCCUR UNTIL AFTER JUNE 1 OF THE FOLLOWING SPRING.

**BLASTING NOTES**

BEST MANAGEMENT PRACTICES FOR BLASTING:  
 ALL ACTIVITIES RELATED TO BLASTING SHALL FOLLOW BEST MANAGEMENT PRACTICES (BMPs) TO PREVENT CONTAMINATION OF GROUNDWATER INCLUDING PREPARING, REVIEWING AND FOLLOWING AN APPROVED BLASTING PLAN; PROPER DRILLING; EXPLOSIVE HANDLING AND LOADING PROCEDURES; OBSERVING THE ENTIRE BLASTING PROCEDURES; EVALUATING BLASTING PERFORMANCE; AND HANDLING AND STORAGE OF BLASTED ROCK.

- LOADING PRACTICES - THE FOLLOWING BLASTHOLE LOADING PRACTICES TO MINIMIZE ENVIRONMENTAL EFFECTS SHALL BE FOLLOWED:
  - DRILLING LOGS SHALL BE MAINTAINED BY THE DRILLER AND COMMUNICATED DIRECTLY TO THE BLASTER. THE LOGS SHALL INDICATE DEPTHS AND LENGTHS OF VOIDS, CAVITIES, AND FAULT ZONES OR OTHER WEAK ZONES ENCOUNTERED AS WELL AS GROUNDWATER CONDITIONS.
  - EXPLOSIVE PRODUCTS SHALL BE MANAGED ON-SITE SO THAT THEY ARE EITHER USED IN THE BOREHOLE, RETURNED TO THE DELIVERY VEHICLE, OR PLACED IN SECURE CONTAINERS FOR OFF-SITE DISPOSAL.
  - SPILLAGE AROUND THE BOREHOLE SHALL EITHER BE PLACED IN THE BOREHOLE OR CLEANED UP AND RETURNED TO AN APPROPRIATE VEHICLE FOR HANDLING OR PLACEMENT IN SECURED CONTAINERS FOR OFF-SITE DISPOSAL.
  - LOADED EXPLOSIVES SHALL BE DETONATED AS SOON AS POSSIBLE AND SHALL NOT BE LEFT IN THE BLASTHOLES OVERNIGHT, UNLESS WEATHER OR OTHER SAFETY CONCERNS REASONABLY DICTATE THAT DETONATION SHOULD BE POSTPONED.
  - LOADING EQUIPMENT SHALL BE CLEANED IN AN AREA WHERE WASTEWATER CAN BE PROPERLY CONTAINED AND HANDLED IN A MANNER THAT PREVENTS RELEASE OF CONTAMINANTS TO THE ENVIRONMENT.
  - EXPLOSIVES SHALL BE LOADED TO MAINTAIN GOOD CONTINUITY IN THE COLUMN LOAD TO PROMOTE COMPLETE DETONATION. INDUSTRY ACCEPTED LOADING PRACTICES FOR PRIMING, STEMMING, DECKING AND COLUMN RISE NEED TO BE ATTENDED TO.
- EXPLOSIVE SELECTION - THE FOLLOWING BMPs SHALL BE FOLLOWED TO REDUCE THE POTENTIAL FOR GROUNDWATER CONTAMINATION WHEN EXPLOSIVES ARE USED:
  - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT ARE APPROPRIATE FOR SITE CONDITIONS AND SAFE BLAST EXECUTION.
  - EXPLOSIVE PRODUCTS SHALL BE SELECTED THAT HAVE THE APPROPRIATE WATER RESISTANCE FOR THE SITE CONDITIONS PRESENT TO MINIMIZE THE POTENTIAL FOR HAZARDOUS EFFECT OF THE PRODUCT UPON GROUNDWATER.
- PREVENTION OF MISFIRES - APPROPRIATE PRACTICES SHALL BE DEVELOPED AND IMPLEMENTED TO PREVENT MISFIRES.
- MUCK PILE MANAGEMENT. MUCK PILES (THE BLASTED PIECES OF ROCK) AND ROCK PILES SHALL BE MANAGED IN A MANNER TO REDUCE THE POTENTIAL FOR CONTAMINATION BY IMPLEMENTING THE FOLLOWING MEASURES:
  - REMOVE THE MUCK PILE FROM THE BLAST AREA AS SOON AS REASONABLY POSSIBLE.
  - MANAGE THE INTERACTION OF BLASTED ROCK PILES AND STORMWATER TO PREVENT CONTAMINATION OF WATER SUPPLY WELLS OR SURFACE WATER.
- SPILL PREVENTION MEASURES AND SPILL MITIGATION - SPILL PREVENTION AND SPILL MITIGATION MEASURES SHALL BE IMPLEMENTED TO PREVENT THE RELEASE OF FUEL AND OTHER RELATED SUBSTANCES TO THE ENVIRONMENT. THE MEASURES SHALL INCLUDE AT A MINIMUM:
  - THE FUEL STORAGE REQUIREMENTS SHALL INCLUDE:
    - STORAGE OF REGULATED SUBSTANCES ON AN IMPERVIOUS SURFACE.
    - SECURE STORAGE AREAS AGAINST UNAUTHORIZED ENTRY.
    - LABEL REGULATED CONTAINERS CLEARLY AND VISIBLY.
    - INSPECT STORAGE AREAS WEEKLY.
    - COVER REGULATED CONTAINERS IN OUTSIDE STORAGE AREAS.
    - WHEREVER POSSIBLE, KEEP REGULATED CONTAINERS THAT ARE STORED OUTSIDE MORE THAN 50 FEET FROM SURFACE WATER AND STORM DRAINS, 75 FEET FROM PRIVATE WELLS, AND 400 FEET FROM PUBLIC WELLS.
    - SECONDARY CONTAINMENT IS REQUIRED FOR CONTAINERS CONTAINING REGULATED SUBSTANCES STORED OUTSIDE, EXCEPT FOR ON PREMISE USE HEATING FUEL TANKS, OR ABOVEGROUND OR UNDERGROUND STORAGE TANKS OTHERWISE REGULATED.
  - THE FUEL HANDLING REQUIREMENTS SHALL INCLUDE:
    - EXCEPT WHEN IN USE, KEEP CONTAINERS CONTAINING REGULATED SUBSTANCES CLOSED AND SEALED.
    - PLACE DRIP PANS UNDER SPIGOTS, VALVES, AND PUMPS.
    - HAVE SPILL CONTROL AND CONTAINMENT EQUIPMENT READILY AVAILABLE IN ALL WORK AREAS.
    - USE FUNNELS AND DRIP PANS WHEN TRANSFERRING REGULATED SUBSTANCES.
    - PERFORM TRANSFERS OF REGULATED SUBSTANCES OVER AN IMPERVIOUS SURFACE.
  - THE TRAINING OF ON-SITE EMPLOYEES AND THE ON-SITE POSTING OF RELEASE RESPONSE INFORMATION DESCRIBING WHAT TO DO IN THE EVENT OF A SPILL OF REGULATED SUBSTANCES.
  - FUELING AND MAINTENANCE OF EXCAVATION, EARTHMOVING AND OTHER CONSTRUCTION RELATED EQUIPMENT WILL COMPLY WITH THE REGULATIONS OF THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES [NOTE THESE REQUIREMENTS ARE SUMMARIZED IN WD-DWGB-22-6 BEST MANAGEMENT PRACTICES FOR FUELING AND MAINTENANCE OF EXCAVATION AND EARTHMOVING EQUIPMENT\* OR ITS SUCCESSOR DOCUMENT. SEE: <http://des.nh.gov/organization/commissioner/PIP/FACTSHEETS/DWGB/DOCUMENTS/WDGB-22-6.PDF>

**CIVIL ABBREVIATIONS**

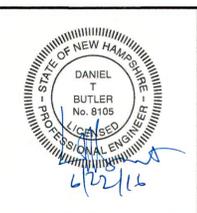
&	AND
Ø, DIA	DIAMETER
#, NO	NUMBER
APP'D	APPROVED
AR	TANGENT RIGID STRUCTURE
BLDG	BUILDING
CB	CATCH BASIN
CEN	CENTER
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL, ☉	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
COR	CORNER
CY	CUBIC YARD
DEMO	DEMOLITION
DER	DEAD END RIGID STRUCTURE
DMH	DRAIN MANHOLE
DI	DUCTILE IRON
DR	DRAIN
DWG	DRAWING
ECB	EROSION CONTROL BERM
EL	EROSION CONTROL MIX
ECM	ELEVATION
EMH	ELECTRIC MANHOLE
FM	FORCE MAIN
FT	FEET
G	GAS
HDPE	HIGH DENSITY POLYETHYLENE
HYD	HYDRANT
IN	INCH
INF	INFILTRANT
INV	INVERT
LF	LINEAR FEET
LBS	POUNDS
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MW	MONITORING WELL
N	NORTH
NAD83	NORTH AMERICAN DATUM 1983
NAVDB8	NORTH AMERICAN VERTICAL DATUM 1988
N/A	NOT AVAILABLE/APPLICABLE
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
PC	PERFORATED CLAY
P/O	PART OF
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PS	PRIMARY SLUDGE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R, RAD	RADIUS
RPC	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
REQ'D	REQUIRED
S	SLOPE, SEWER
SD	STORM DRAIN
SF	SQUARE FEET
SMH	SANITARY SEWER MANHOLE
SQ	SQUARE
STA	STATION
T, XFMR	TRANSFORMER
T/FNDN	TOP OF FOUNDATION
TBM	TEMPORARY BENCH MARK
THK	THICKNESS
TOS	TOP OF STRUCTURE
TYP	TYPICAL
UD	UNDERDRAIN
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UTM	UNIVERSAL TRANSVERSE MERCATOR
VC	VITRIFIED CLAY
W/	WITH
W	POTABLE WATER
WTG	WIND TURBINE GENERATOR

**LEGEND**

EXISTING	PROPOSED
	LEASE AREA
	PROPERTY LINE
	EASEMENT
	CENTERLINE
	EDGE OF PAVEMENT
	EDGE OF GRAVEL
	CONTOUR
	BUILDING
	STONEWALL
	TREELINE
	CHAIN LINK FENCE
	CULVERT
	UNDERGROUND FIBER
	UNDERGROUND 34KV COLLECTOR
	OVERHEAD 34KV COLLECTOR
	OVERHEAD TRANSMISSION
	UTILITY POLE
	SURVEY CONTROL POINT
	SPOT ELEVATION
	STREAM
	WETLANDS
	VERNAL POOL
	DRAINAGE FLOW
	SIGN
	PLUNGE POOL
	PERMANENT CHECK DAM
	EROSION CONTROL BARRIER
	LIMIT OF DISTURBANCE
	RIPRAP
	MATCHLINE
	PERMEABLE BASE ROAD CONSTRUCTION
	STORMWATER BUFFER
	TURBINE LOCATION
	WETLAND IMPACT AREA
	DIVERSION BERM

NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
C	REVISED PER NHDES REVIEW COMMENTS	6/17/16	PMM	DTB	DTB	8105
B	ISSUED FOR PERMITTING	5/1/15	PMM	DTB	DTB	8105
A	ISSUED FOR CLIENT REVIEW	4/6/15	PMM	DTB		



CLIENT APPROVAL	TRC/PMW DESIGNED
APPROVED BY	TRC/KAV DRAWN
COMPANY	TRC/DTB CHECKED
DATE	APPROVED
	REVIEWED

PROJECT NOTES, LEGEND AND ABBREVIATIONS	
ANTRIM WIND ENERGY, LLC ANTRIM WINDPARK	
ANTRIM	NEW HAMPSHIRE
TRC	249 WESTERN AVENUE AUGUSTA, ME 04330 PROJECT NO: 182878 DATE: 11-8-11
G-2	REV. C
SCALE: AS NOTED	

# Antrim Wind Energy, LLC

# Antrim Windpark

Antrim  
New Hampshire

Applicant:

Antrim Wind Energy, LLC  
155 Fleet Street  
Portsmouth, NH 03801

Prepared by:



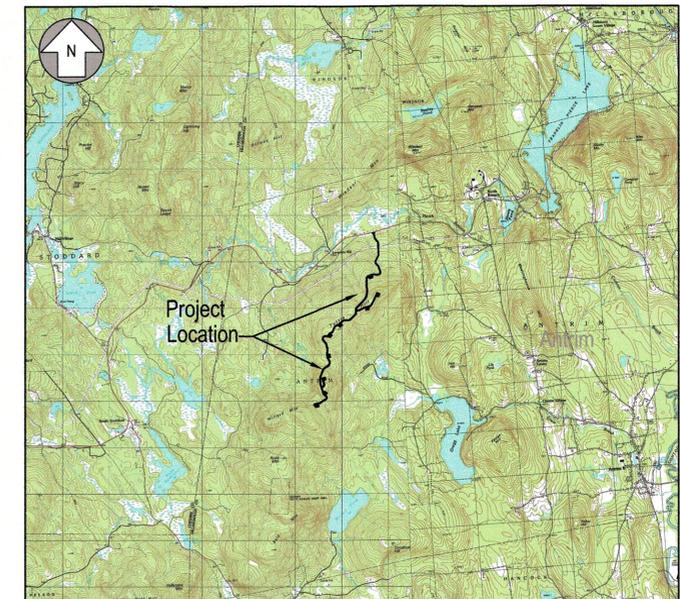
249 Western Avenue  
Augusta, Maine 04330

NOT FOR CONSTRUCTION

## Permit Plan Set

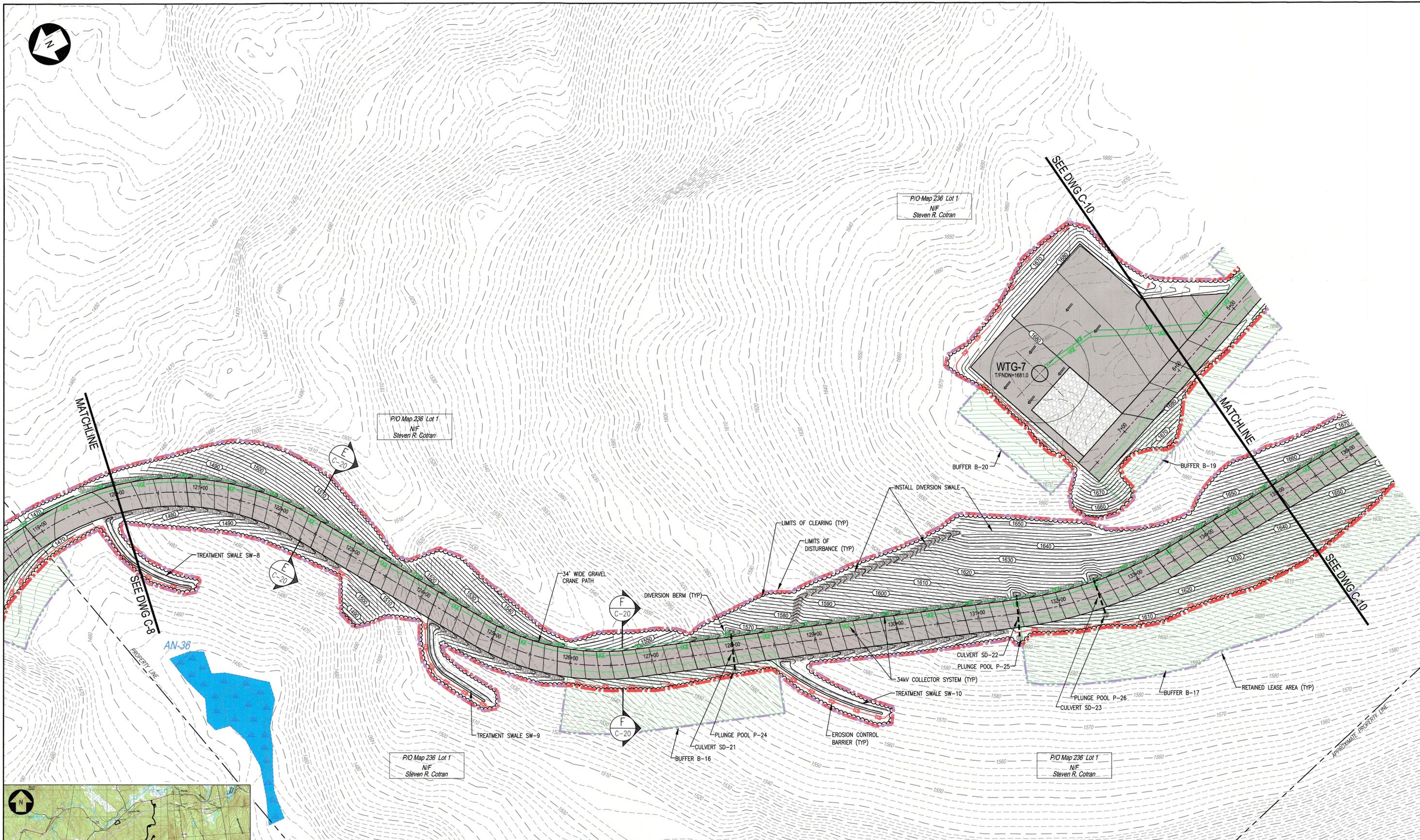
Revised Per NHDES Review Comments 6/17/2016

TRC Proj No. 182878



Locus Map  
1"=6,000'



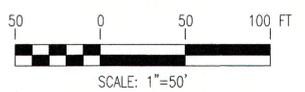


P/O Map 236 Lot 1  
N/F  
Steven R. Cotran

P/O Map 236 Lot 1  
N/F  
Steven R. Cotran

P/O Map 236 Lot 1  
N/F  
Steven R. Cotran

P/O Map 236 Lot 1  
N/F  
Steven R. Cotran

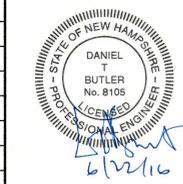


- NOTES:**
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
  - SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

**PLAN VIEW**  
SCALE: 1"=50'

**NOT FOR CONSTRUCTION**

NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
C	REVISED PER NHDES REVIEW COMMENTS	6/17/16	PMM	DTB	DTB	8105
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CLIENT APPROVAL	
APPROVED BY	TRC/KAV DRAWN
COMPANY	TRC/DTB CHECKED
DATE	APPROVED
	REVIEWED

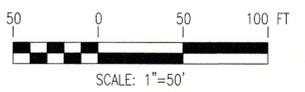
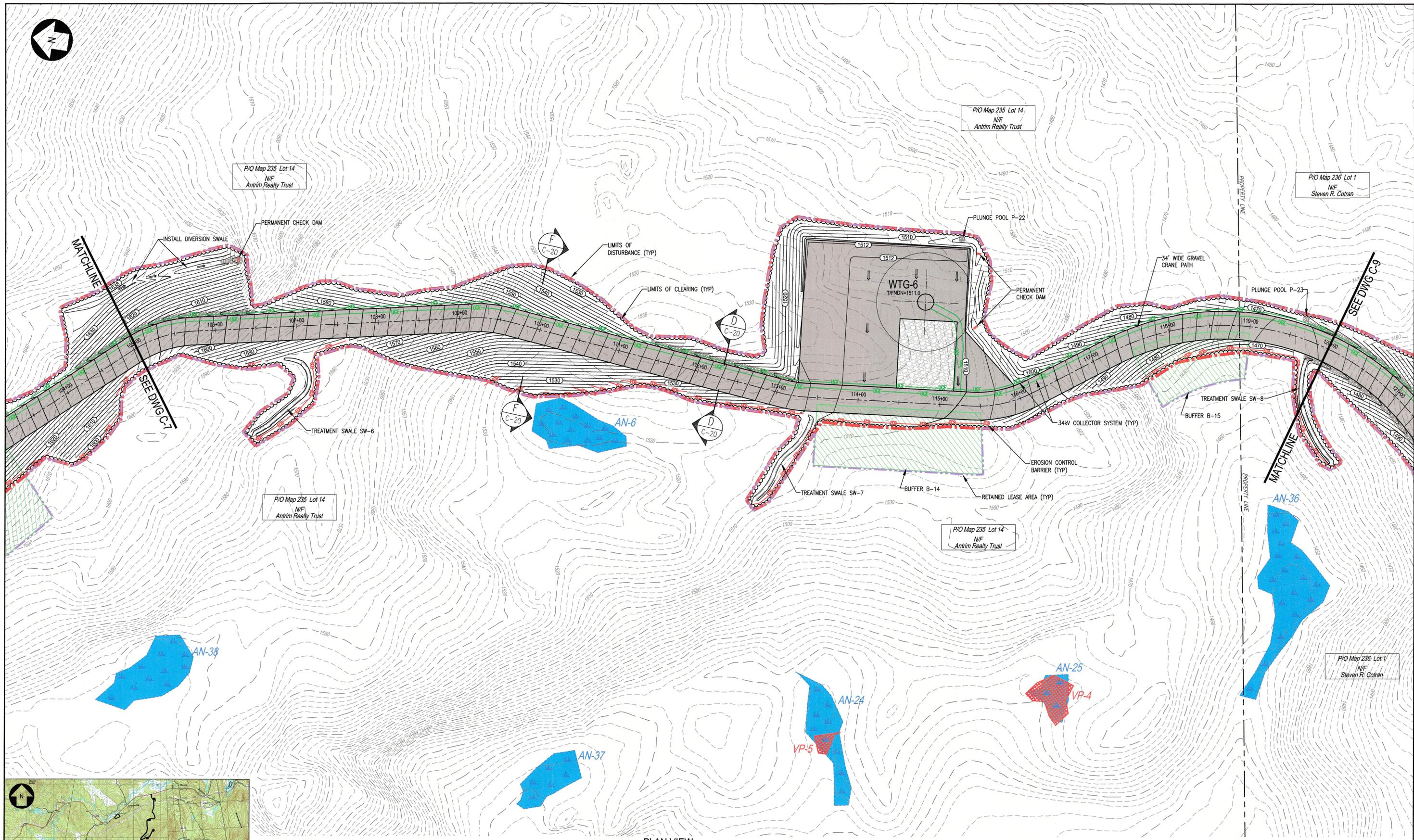
PLAN: MAIN ACCESS ROAD  
STA 120+00 TO 135+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**TRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
SCALE: AS NOTED PROJECT NO: 182878  
DATE: 11-8-11

C-9

REV. C

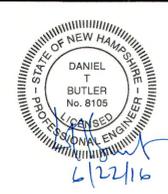


PLAN VIEW  
SCALE: 1"=50'

- NOTES:**
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
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CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

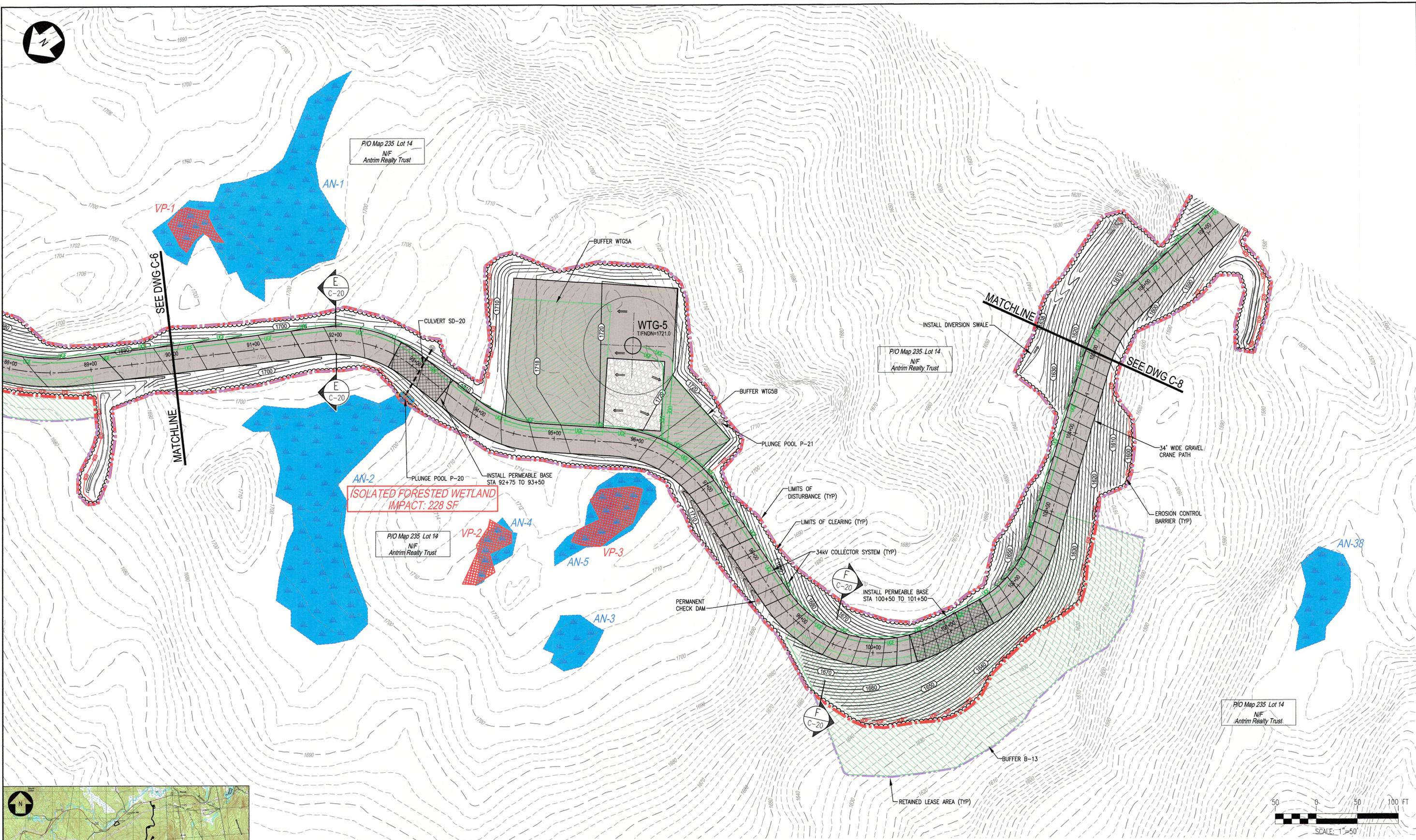
PLAN: MAIN ACCESS ROAD  
STA 105+00 TO 120+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**CTRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
SCALE: AS NOTED DATE: 11-8-11

C-8

REV. C



**ISOLATED FORESTED WETLAND**  
IMPACT: 228 SF

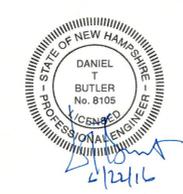


**PLAN VIEW**  
SCALE: 1"=50'

- NOTES:**
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
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CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PLAN: MAIN ACCESS ROAD  
STA 90+00 TO 105+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

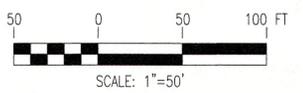
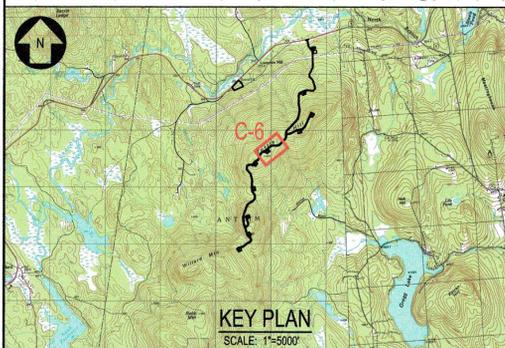
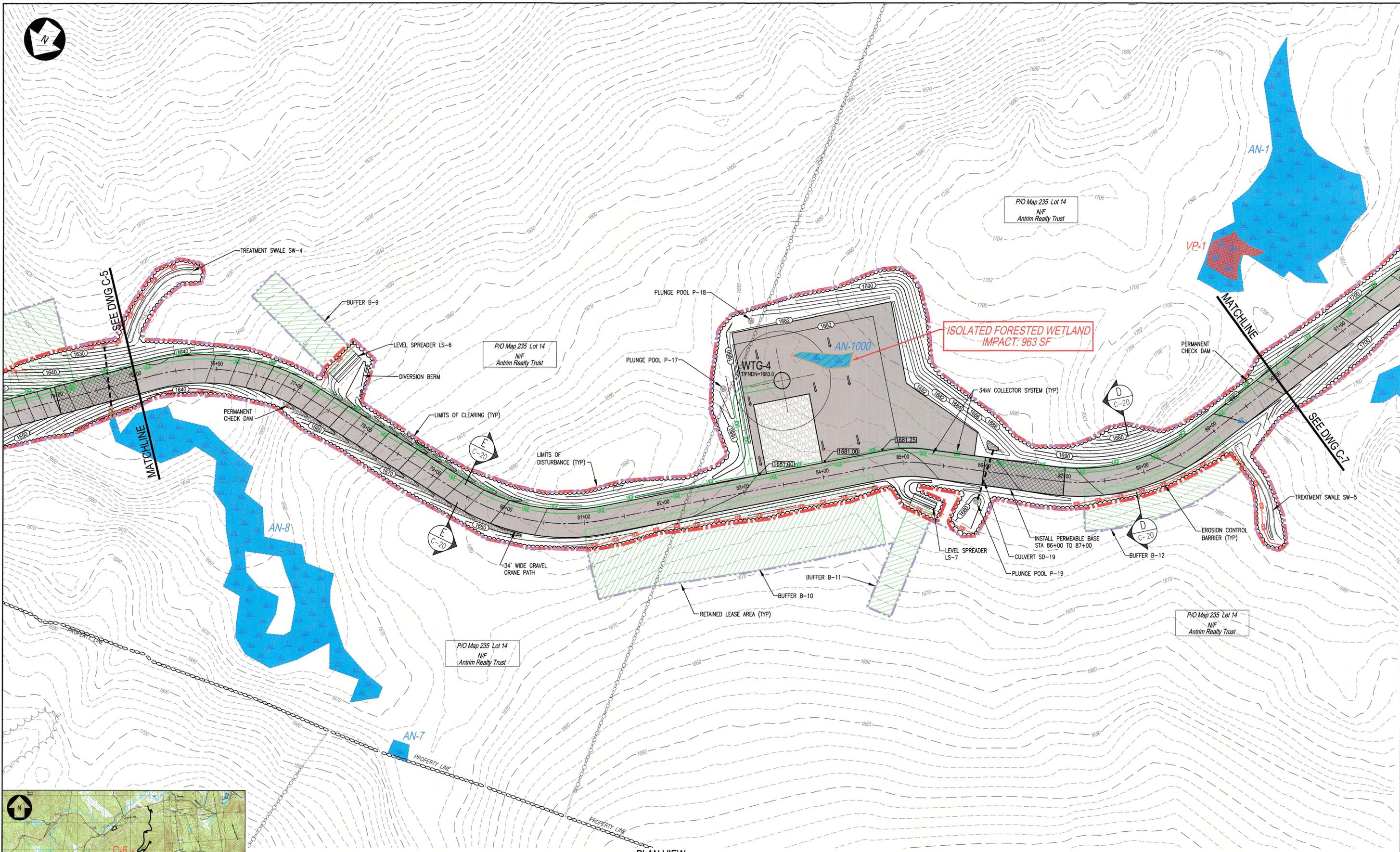
ANTRIM

**TRC**  
SCALE: AS NOTED

249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

C-7

REV. C

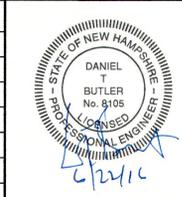


- NOTES:**
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**PLAN VIEW**  
SCALE: 1"=50'

**NOT FOR CONSTRUCTION**

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CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

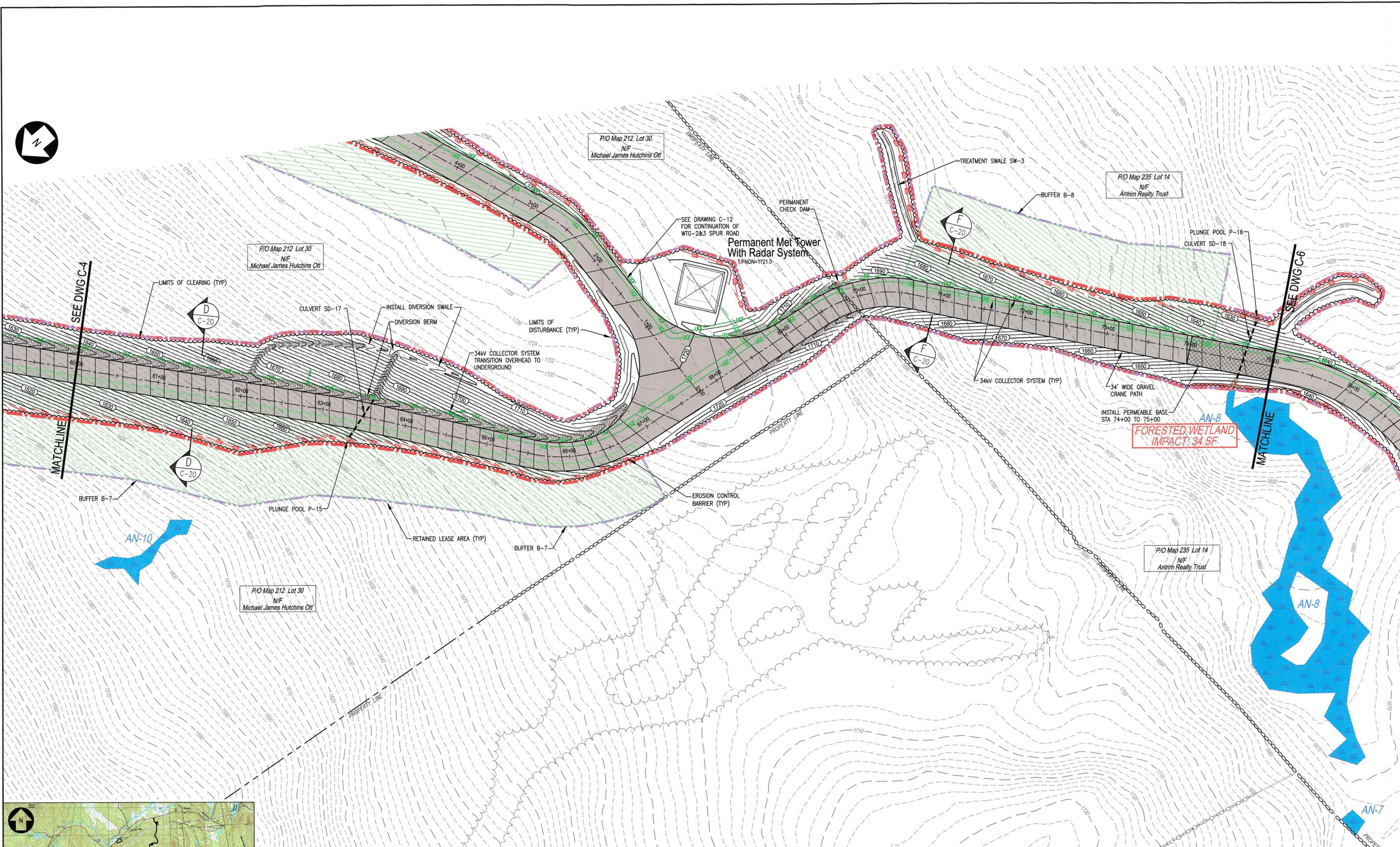
PLAN: MAIN ACCESS ROAD  
STA 75+00 TO 90+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**TRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
SCALE: AS NOTED PROJECT NO: 182876  
DATE: 11-8-11

C-6

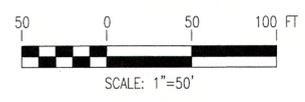
REV. C



SEE DWG C-4  
MATCHLINE

SEE DWG C-6  
MATCHLINE

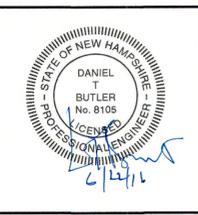
PLAN VIEW  
SCALE: 1"=50'



- NOTES:**
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
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NOT FOR CONSTRUCTION

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CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

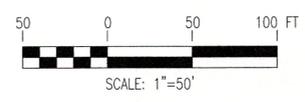
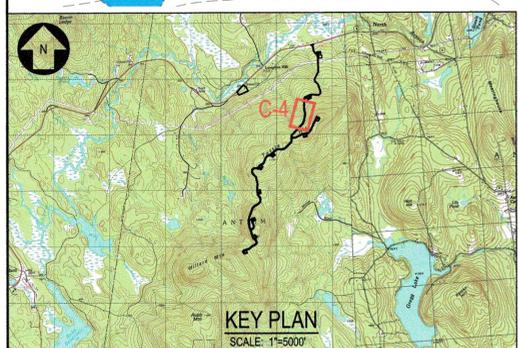
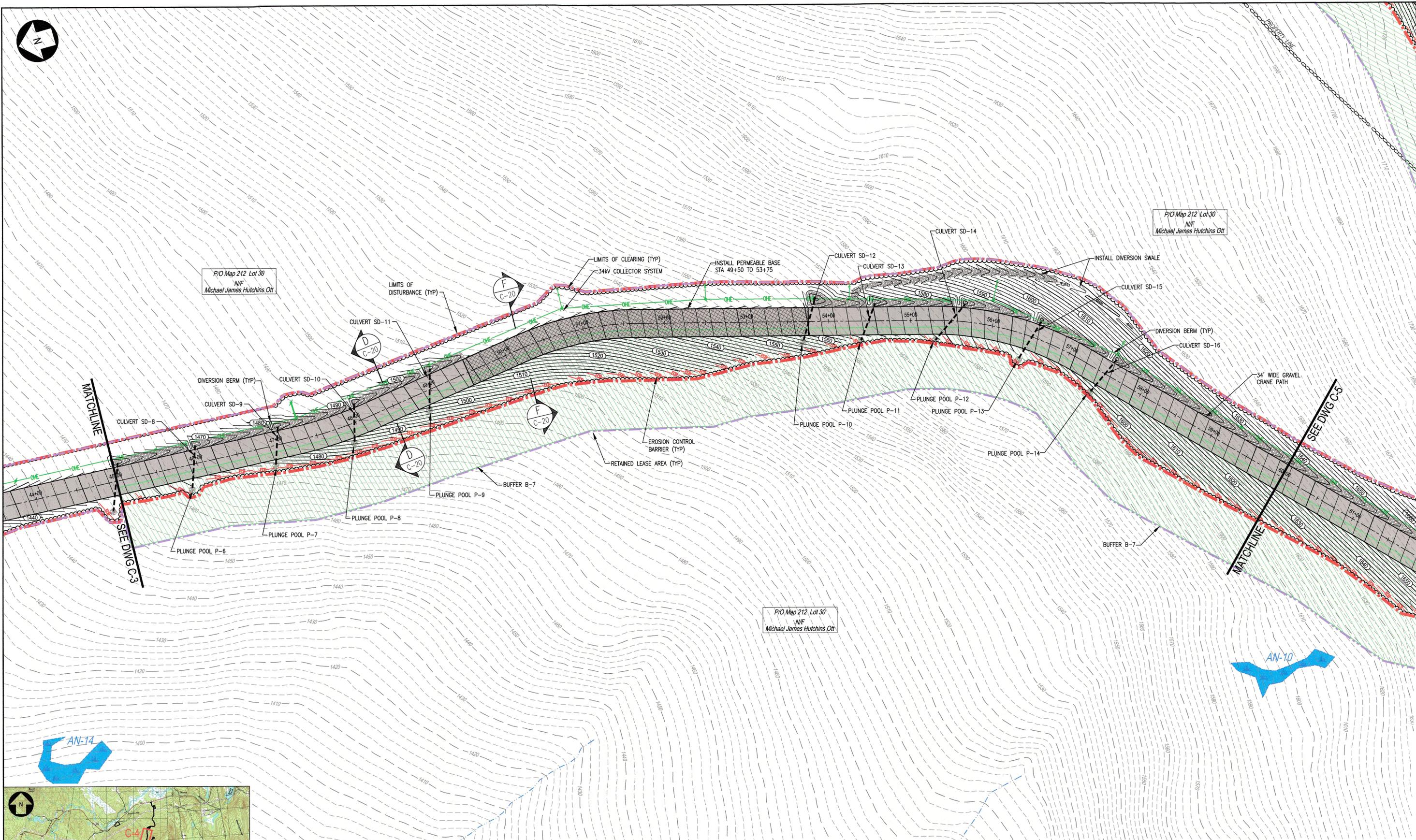
PLAN: MAIN ACCESS ROAD  
STA 60+00 TO 75+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**TRC**  
249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
SCALE: AS NOTED  
DATE: 11-8-11

C-5

REV. C



**PLAN VIEW**  
SCALE: 1"=50'

- NOTES:**
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
  - SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

**NOT FOR CONSTRUCTION**

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B	ISSUED FOR PERMITTING	5/11/15	PMM	DTB	DTB	8105
A	ISSUED FOR CLIENT REVIEW	12/19/14	PMM	DTB		



CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PLAN: MAIN ACCESS ROAD  
STA 45+00 TO 60+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

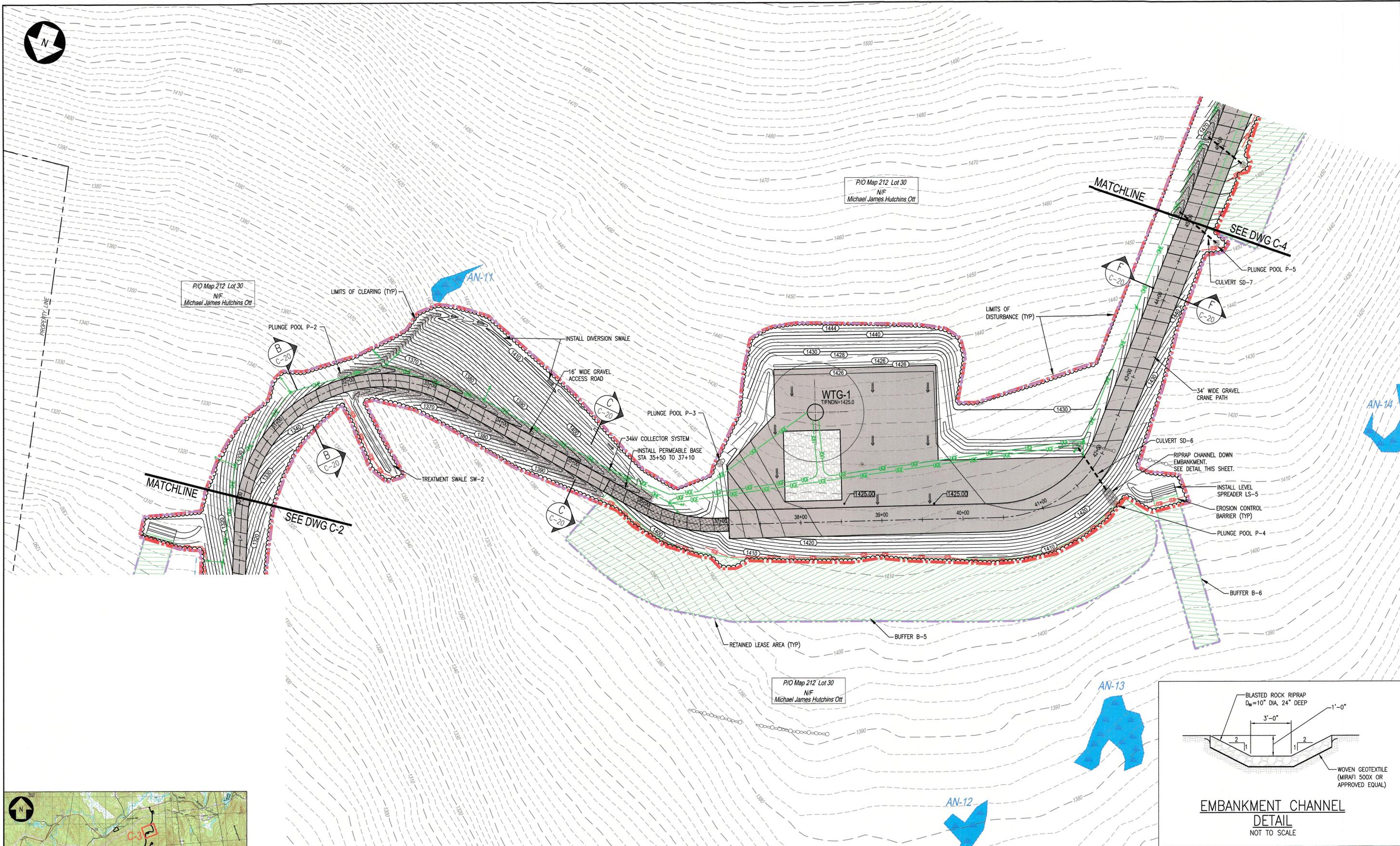
ANTRIM

**TRC**  
SCALE: AS NOTED

249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

C-4

REV. C



P/O Map 212 Lot 30  
N/F  
Michael James Hutchins Ott

P/O Map 212 Lot 30  
N/F  
Michael James Hutchins Ott

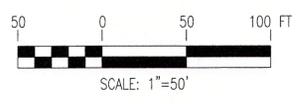
P/O Map 212 Lot 30  
N/F  
Michael James Hutchins Ott

MATCHLINE

MATCHLINE

SEE DWG C-2

SEE DWG C-4



- NOTES:**
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  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
  - SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

PLAN VIEW  
SCALE: 1"=50'

NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
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A	ISSUED FOR CLIENT REVIEW	12/19/14	PMM	DTB		



CLIENT APPROVAL

APPROVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

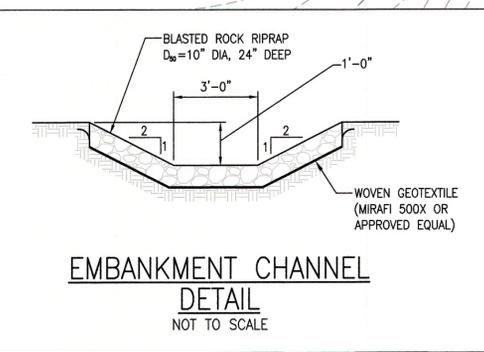
TRC/PMW DESIGNED

TRC/KAV DRAWN

TRC/DTB CHECKED

APPROVED

REVIEWED



PLAN: MAIN ACCESS ROAD  
STA 30+00 TO 45+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

TRC  
SCALE: AS NOTED

249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

C-3

REV. C

LEVEL SPREADER SCHEDULE			
ID #	LENGTH (A)	INVERT (B)	DEPTH (C)
LS-1	30'	1138.5	12"
LS-2	30'	1166.5	12"
LS-3	30'	1258.5	12"
LS-4	35'	1306.0	12"
LS-5	30'	1410.5	12"
LS-6	40'	1656.5	12"
LS-7	25'	1678.5	12"
LS-8	30'	1689.0	12"

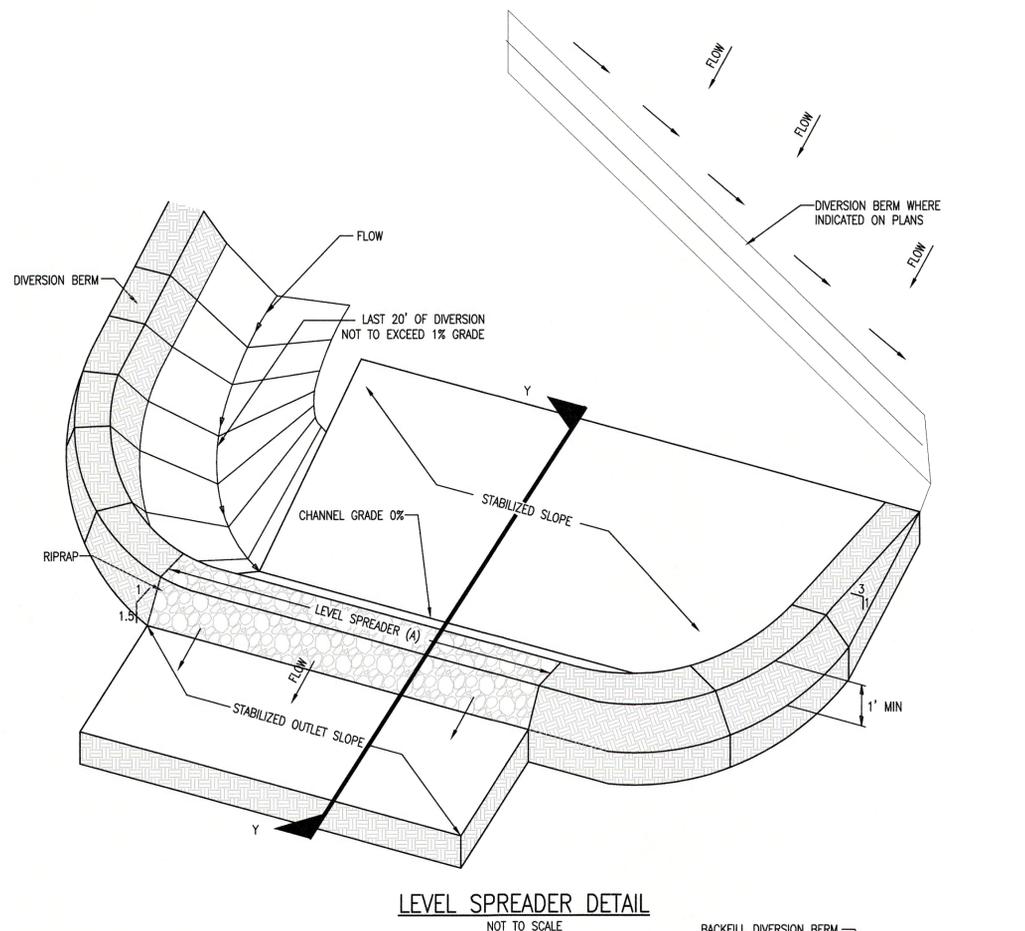
TREATMENT SWALE SCHEDULE			
ID #	LENGTH (FT)	BASE WIDTH (FT)	LONG. SLOPE (FT/FT)
SW-1	150	3	0.0075
SW-2	130	3	0.005
SW-3	130	3	0.010
SW-4	125	3	0.0075
SW-5	120	3	0.005
SW-6	120	4	0.0075
SW-7	120	3	0.0075
SW-8	135	3	0.0075
SW-9	120	3	0.0075
SW-10	135	3	0.0075
SW-11	125	3	0.005

BUFFER SIZING SCHEDULE			
ID #	AVG. SLOPE	LENGTH (FT)	BUFFER TYPE
B-1	11%	115	DITCH TURN-OUT
B-2	10%	50	ROADWAY
B-3	10%	50	ROADWAY
B-4	15%	120	DITCH TURN-OUT
B-5	12%	75	ROADWAY
B-6	11%	185	DITCH TURN-OUT
B-7	22%	75	ROADWAY
B-8	16%	75	ROADWAY
B-9	9%	135	DITCH TURN-OUT
B-10	8%	75	ROADWAY
B-11	11%	135	DITCH TURN-OUT
B-12	15%	50	ROADWAY
WTG-5A	3%	120	SMALL AREA
WTG-5B	6%	110	SMALL AREA
B-13	25%	75	ROADWAY
B-14	12%	75	ROADWAY
B-15	15%	50	ROADWAY
B-16	25%	75	ROADWAY
B-17	25%	75	ROADWAY
WTG-8	12%	50	SMALL AREA
B-18	20%	50	ROADWAY
B-19	20%	50	ROADWAY
B-20	9%	50	ROADWAY
B-21	30%	75	ROADWAY
WTG-9	3%	120	SMALL AREA
B-22	3%	50	ROADWAY
WTG-2	5%	120	SMALL AREA

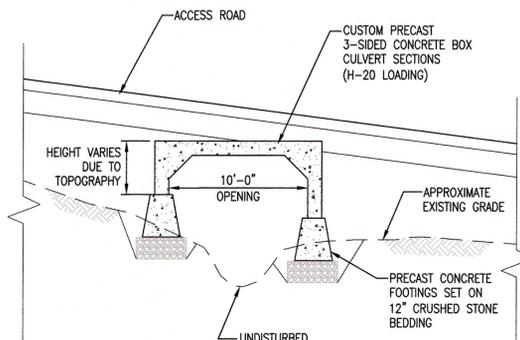
CULVERT SIZING SCHEDULE					
CULVERT ID #	STATION	CULVERT DIAMETER (IN)	LENGTH (FT)	INVERT	
				IN	OUT
SD-1	0+40	24	90	1042.00	1041.25
SD-2	2+30	15	28	1064.00	1063.25
SD-3	9+00	15	30	1122.00	1121.75
SD-3A	S/S	15	38	1120.00	1119.80
SD-4*	18+75	BOX	35		
SD-5	24+60	18	38	1262.00	1260.00
SD-6	41+75	24	62	1422.00	1420.25
SD-7	45+00	12	60	1453.00	1451.50
SD-8	46+00	12	52	1465.00	1463.50
SD-9	47+00	12	48	1477.00	1475.60
SD-10	48+00	12	48	1489.00	1487.60
SD-11	49+00	12	50	1501.00	1499.60
SD-12	53+75	12	50	1557.50	1556.50
SD-13	54+50	12	48	1567.00	1565.50
SD-14	55+50	12	58	1579.00	1577.40
SD-15	56+50	12	53	1590.00	1589.50
SD-16	57+50	15	50	1602.00	1599.50
SD-17	63+50	15	53	1675.00	1670.00
SD-18	74+75	36	80	1638.00	1628.00
SD-19	86+00	15	64	1680.60	1680.00
SD-20	93+10	36	65	1701.00	1700.00
SD-21	128+00	15	43	1563.00	1562.00
SD-22	131+50	12	50	1605.00	1604.00
SD-23	132+50	12	46	1617.00	1616.00
SD-24	137+00	15	46	1671.00	1670.00
SD-25	3+10 (SPUR)	15	50	1679.00	1676.00
SD-26	152+91	36	70	1600.00	1597.00

\*SD-4 - CONCRETE BOX CULVERT 10' X 2'

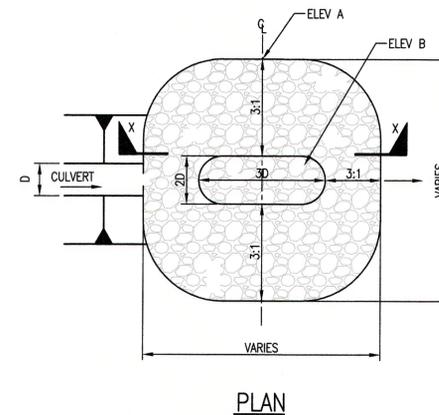
PLUNGE POOL SCHEDULE				
ID #	INLET TYPE	INLET DIA. (IN)	ELEVATION (A)	ELEVATION (B)
P-1	DITCH	24	1117.00	1116.00
P-2	DITCH	24	1353.00	1352.00
P-3	DITCH	24	1417.00	1416.00
P-4	DITCH	36	1410.00	1408.00
P-5	CULVERT	12	1451.00	1450.00
P-6	CULVERT	12	1463.00	1462.00
P-7	CULVERT	12	1475.00	1474.00
P-8	CULVERT	12	1487.00	1486.00
P-9	CULVERT	12	1499.00	1498.00
P-10	CULVERT	12	1556.00	1555.00
P-11	CULVERT	12	1565.00	1564.00
P-12	CULVERT	12	1577.00	1576.00
P-13	CULVERT	12	1589.00	1588.00
P-14	CULVERT	15	1599.00	1597.75
P-15	CULVERT	15	1668.00	1666.75
P-16	CULVERT	36	1627.00	1625.00
P-17	DITCH	24	1677.75	1676.75
P-18	DITCH	24	1681.50	1680.50
P-19	CULVERT	15	1679.50	1676.75
P-20	CULVERT	36	1700.00	1698.75
P-21	DITCH	24	1714.00	1713.00
P-22	DITCH	24	1505.00	1504.00
P-23	DITCH	24	1471.00	1469.00
P-24	CULVERT	15	1560.00	1558.75
P-25	CULVERT	12	1603.00	1602.00
P-26	CULVERT	12	1612.00	1611.00
P-27	CULVERT	15	1669.00	1667.75
P-28	CULVERT	15	1675.00	1673.75
P-29	CULVERT	12	1706.00	1705.00
P-30	CULVERT	12	1707.00	1706.00
P-31	CULVERT	15	1062.50	1064.00



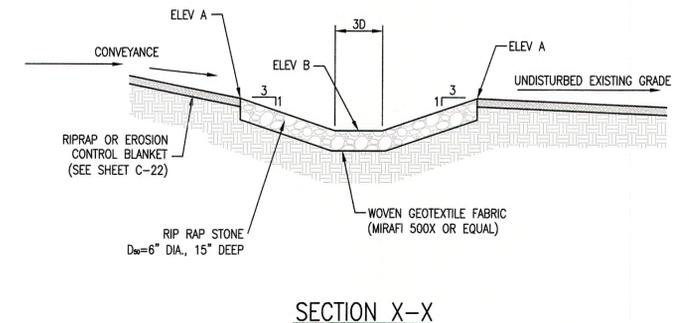
LEVEL SPREADER DETAIL  
NOT TO SCALE



BOX CULVERT  
NOT TO SCALE



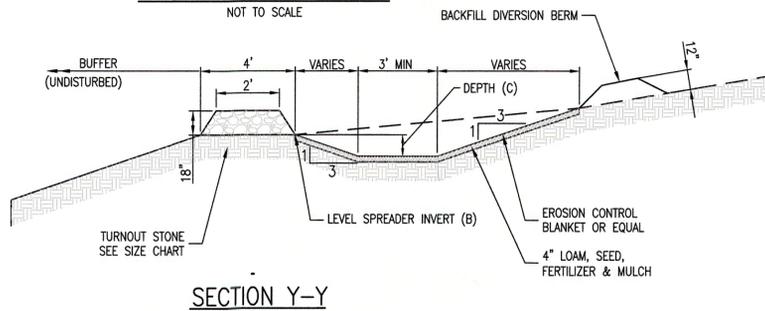
PLAN



SECTION X-X

PLUNGE POOL  
NOT TO SCALE

TURNOUT STONE SIZE	
SIEVE DESIGNATION	% PASSING BY WEIGHT
12 IN.	100
6 IN.	84-100
3 IN.	68-83
1 IN.	42-55
No. 4	8-12

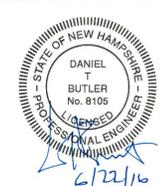


SECTION Y-Y

- NOTES:**
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.

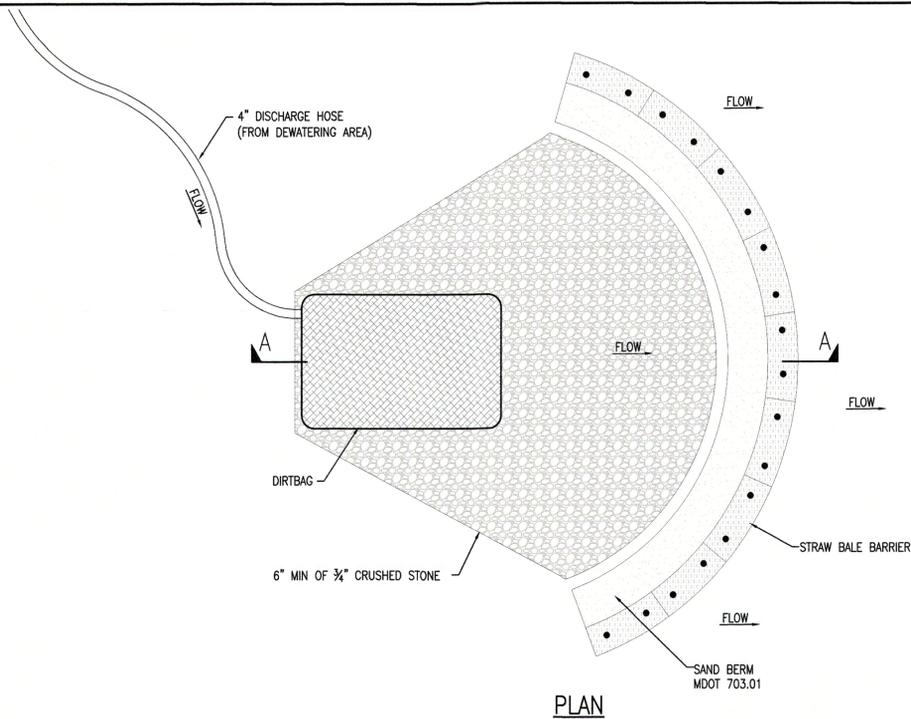
NOT FOR CONSTRUCTION

NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
C	REVISED PER NHDES REVIEW COMMENTS	6/17/16	PMW	DTB	DTB	8105
B	ISSUED FOR PERMITTING	5/1/15	PMW	DTB	DTB	8105
A	ISSUED FOR CLIENT REVIEW	4/6/15	PMW	DTB		



CLIENT APPROVAL	
APPROVED BY	DATE

TRC/PMW DESIGNED	CULVERT / BUFFER / TREATMENT SWALE / LEVEL SPREADER / PLUNGE POOL SCHEDULES	ANTRIM WIND ENERGY, LLC ANTRIM WINDPARK NEW HAMPSHIRE
TRC/KAV DRAWN		
TRC/DTB CHECKED	ANTRIM	NEW HAMPSHIRE
APPROVED		
REVIEWED		
		249 WESTERN AVENUE AUGUSTA, ME 04330 PROJECT NO: 182878 DATE: 11-8-11
	C-23	REV. C



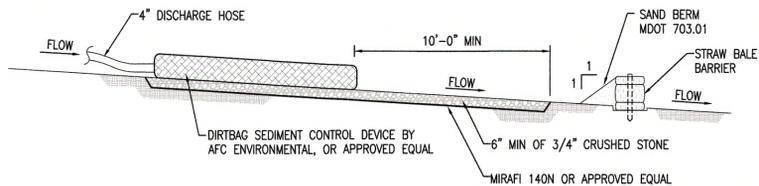
**DEWATERING NOTES**

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

**DEWATERING DETAIL NOTES:**

1. DIRT BAG MATERIAL BASED ON PARTICLE SIZE IN DIRTY WATER, I.E. FOR COARSE PARTICLES A WOVEN MATERIAL; FOR SILTS/CLAYS A NON-WOVEN MATERIAL.
2. DO NOT OVER PRESSURIZE DIRT BAG OR USE BEYOND CAPACITY.
3. DOWNGRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION, E.G. FOREST FLOOR OR COARSE GRAVEL/STONE.
4. DISCHARGE NOT PERMITTED WITHIN 75' OF A STREAM, WETLAND OR OTHER REGULATED RESOURCES.

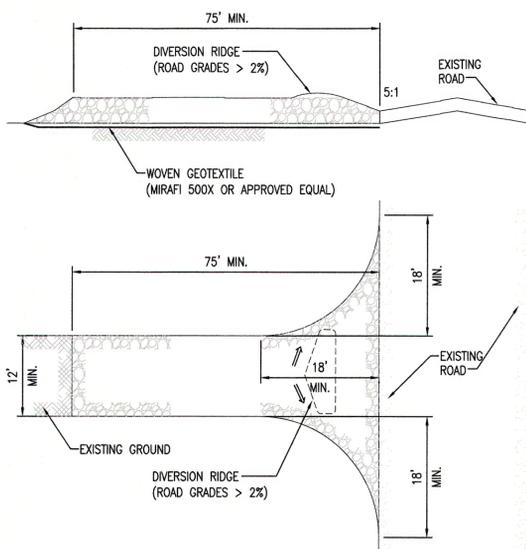
**PLAN**



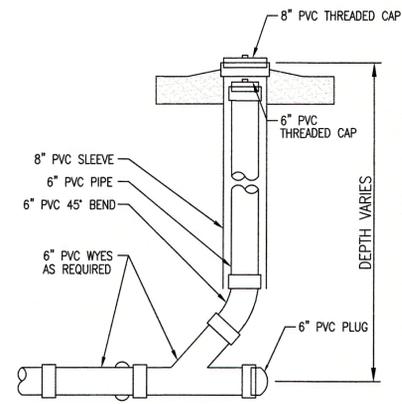
**SECTION A-A**

**TYPICAL DEWATERING OPERATION**

NOT TO SCALE

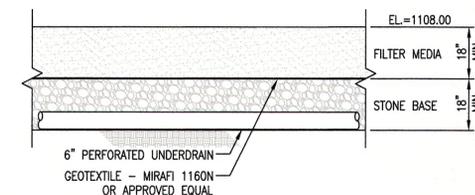


SURFACE SAND FILTER MEDIA			
COMPONENT MATERIAL	PERCENT MIXTURE BY VOLUME	GRADATION OF MATERIAL	
		SIEVE NO.	PERCENT BY WEIGHT PASSING STANDARD SIEVE
<b>FILTER MEDIA OPTION A</b>			
ASTM C-33 CONCRETE SAND	50 TO 55		
LOAMY SAND TOPSOIL, WITH FINES AS INDICATED	20 TO 30	200	15 TO 25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	< 5
<b>FILTER MEDIA OPTION B</b>			
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH, WITH FINES AS INDICATED	20 TO 30	200	< 5
LOAMY COARSE SAND	70 TO 80	10	85 TO 100
		20	70 TO 100
		60	15 TO 40
		200	8 TO 15



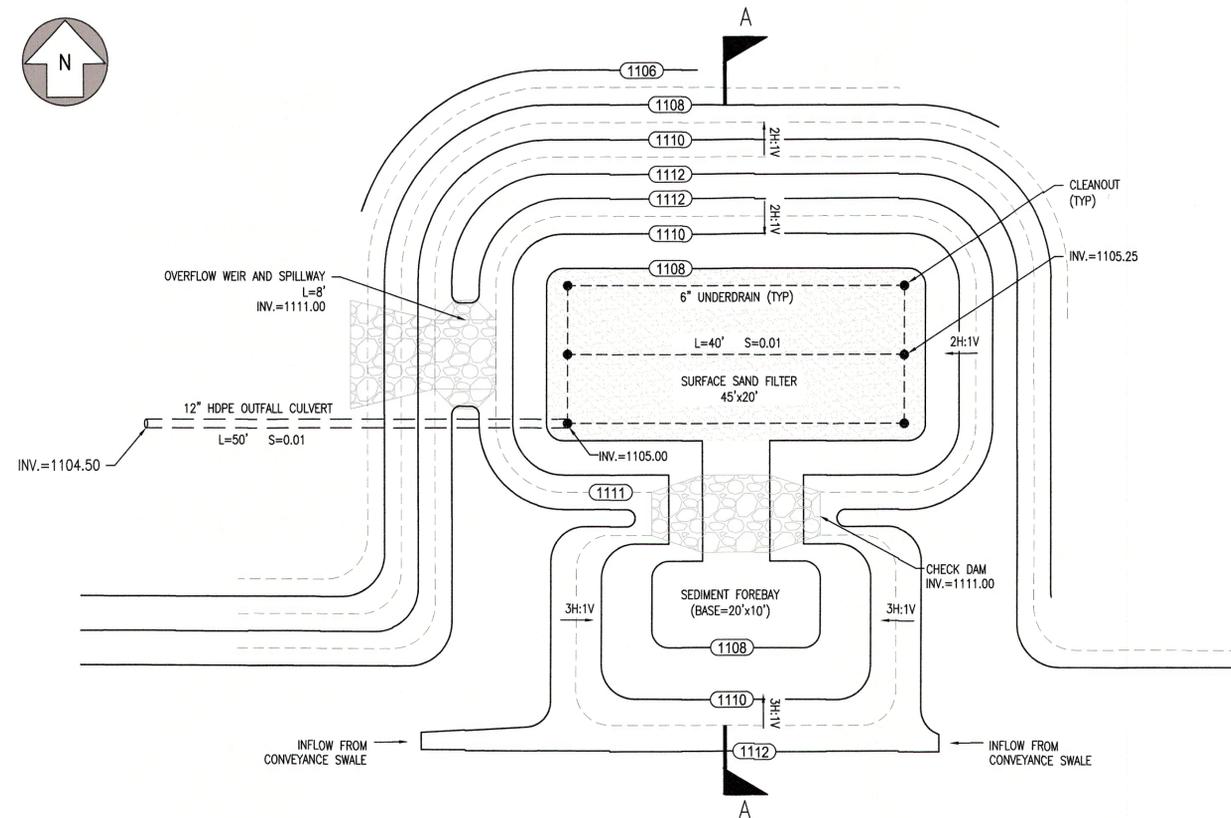
**CLEANOUT DETAIL**

NOT TO SCALE



**SURFACE SAND FILTER - TYPICAL SECTION**

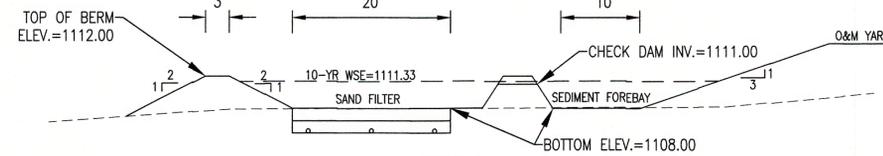
NOT TO SCALE



**SURFACE SAND FILTER - PLAN VIEW**

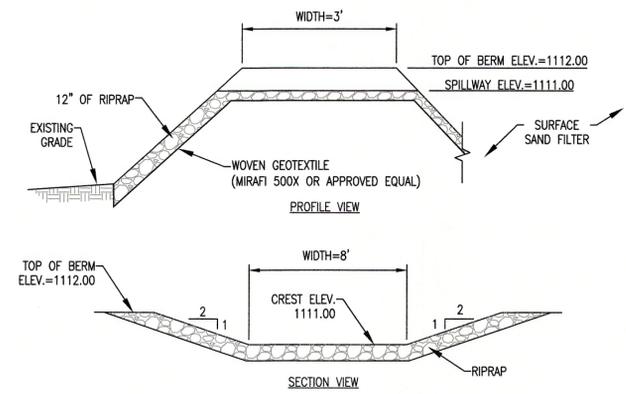
SCALE: 1"=40'

- NOTES:**
1. SEE SHEET C-1 FOR LOCATION OF SURFACE SAND FILTER.
  2. SAND FILTER SHALL BE KEPT FREE OF VEGETATION.
  3. STONE BASE SHALL BE 3/4" TO 2" DIAMETER WASHED CRUSHED STONE OR GRAVEL FREE OF FINES AND ORGANIC MATERIAL.



**SECTION A-A**

NOT TO SCALE



**OVERFLOW WEIR & SPILLWAY DETAILS**

NOT TO SCALE

- NOTES:**
1. STONE SIZE - USE 2" STONE.
  2. LENGTH - NOT LESS THAN 75 FEET.
  3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
  4. WIDTH - TWELVE (12) FOOT MIN. BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
  5. WOVEN GEOTEXTILE - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
  6. 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.
  7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
  8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

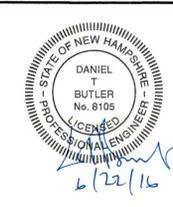
**STABILIZED CONSTRUCTION ENTRANCE**

NOT TO SCALE

- NOTES:**
1. SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
  2. SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
  3. SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

**NOT FOR CONSTRUCTION**

NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
C	REVISED PER NHDES REVIEW COMMENTS	6/17/16	PM	DTB	DTB	8105
B	ISSUED FOR PERMITTING	5/1/15	PM	DTB	DTB	8105
A	ISSUED FOR CLIENT REVIEW	4/6/15	PM	DTB		



CLIENT APPROVAL	
APPROVED BY	TRC/PM
COMPANY	DESIGNED
DATE	TRC/KAV
	DRAWN
	TRC/DTB
	CHECKED
	APPROVED
	REVIEWED

EROSION CONTROL NOTES & DETAILS II  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**TRC** 248 WESTERN AVENUE  
AJUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

SCALE: AS NOTED

C-22

REV. C

# MULCH AND SEEDING SPECIFICATIONS

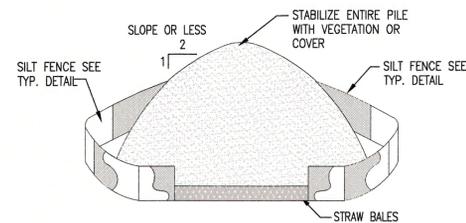
SUMMARY OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS	
<b>TEMPORARY</b>	
WITHIN 100 FEET OF WETLANDS AND WATERBODIES	APPLY HAY AND/OR STRAW MULCH AT A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED SOIL* MUST BE DONE WITHIN 48 HOURS OF INITIAL SOIL DISTURBANCE AND BEFORE FORECASTED STORM EVENTS, UNLESS OTHERWISE SPECIFIED. IF FINAL RESTORATION IS NOT SCHEDULED WITHIN 30 DAYS, APPLY ANNUAL RYEGRASS AT 1LB/1000 S.F.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES LESS THAN 8% AND SOILS STOCKPILES	IF NO ACTIVITY IS SCHEDULED WITHIN 30 DAYS, APPLY HAY AND/OR STRAW MULCH AT A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED SOIL*, UNLESS SPECIFIED OTHERWISE. ECM** MAY BE USED. HAY/STRAW MULCH MAY ALSO BE SUPPLEMENTED BY TEMPORARY SEEDING WITH ANNUAL RYEGRASS AT 1 LB/1000 S.F. FOR AREAS WHERE ADDITIONAL ACTIVITY IS NOT EXPECTED FOR SEVERAL MORE WEEKS. AN EROSION CONTROL BARRIER MUST BE INSTALLED AROUND SOIL STOCKPILES THAT ARE EXPECTED TO REMAIN UNDISTURBED FOR MORE THAN 48 HOURS, OR PRIOR TO A STORM EVENT.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES GREATER THAN 8%	IF FINAL RESTORATION IS NOT SCHEDULED WITHIN 30 DAYS OR PRIOR TO A STORM EVENT, APPLY HAY OR STRAW MULCH AT THE ABOVE RATES*. HAY OR STRAW MUST BE ANCHORED, UNLESS SPECIFIC SITE CONDITIONS DO NOT REQUIRE USE OF ANCHORING. ECM** OR MATTING MAY ALSO BE USED. TEMPORARY SEEDING WITH ANNUAL RYEGRASS AT 1LB/1000 S.F. IS ALSO RECOMMENDED FOR AREAS WHERE FINAL STABILIZATION IS NOT EXPECTED FOR SEVERAL MORE WEEKS.
TEMPORARY SEEDBED PREPARATION	APPLY LIMESTONE AND FERTILIZER (UPLANDS ONLY) ACCORDING TO SOIL TEST DATA. IF SOIL TEST IS NOT POSSIBLE, 10-0-10 FERTILIZER MAY BE APPLIED AT A RATE OF 600 LBS/ACRE AND LIMESTONE AT 3 TONS/ACRE. LOOSEN COMPACTED SOILS.
TEMPORARY SEEDING IN WETLANDS	IF REQUIRED, APPLY ANNUAL RYEGRASS AT A RATE OF 1 LB/1000 S.F. AND COVER WITH STRAW MULCH. DO NOT ADD LIME OR FERTILIZER TO WETLANDS.
<b>FINAL RESTORATION</b>	
PERMANENT MULCHING	ECM CAN BE USED AS A TEMPORARY OR PERMANENT SLOPE REINFORCEMENT AND LEFT TO RE-VEGETATE TO NEAR NATURAL CONDITIONS. IT IS NOT USED WHERE GRASS VEGETATION IS REQUIRED. RE-VEGETATION CAN BE ENHANCED BY SEEDING, WHICH IS ENCOURAGED IF USED AS A PERMANENT STABILIZATION MEASURE. PERMANENT MULCH MUST NOT BE USED IN AREAS OF CONCENTRATED WATER FLOWS AND EVIDENCE OF GROUNDWATER SEEPAGE ON SLOPES MAY REQUIRE THE ECM TO BE REPLACED WITH RIPRAP. <ul style="list-style-type: none"> <li>ON SLOPES THAT ARE 3H:1V OR LESS, ECM SHALL BE APPLIED AT A MINIMUM OF 2 INCHES THICK PLUS AN ADDITIONAL 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET (E.G. 3 INCHES THICK FOR 60 FEET OF SLOPE; 4 INCHES THICK FOR 100 FEET OF SLOPE).</li> <li>FOR SLOPES BETWEEN 3H:1V AND 2H:1V, ECM WILL BE APPLIED 4 INCHES THICK PLUS AN ADDITIONAL 1/2 INCH PER 20 FEET OF SLOPE UP TO 100 FEET (E.G. 5 INCHES THICK FOR 60 FEET OF SLOPE; 6 INCHES THICK FOR 100 FEET OF SLOPE).</li> <li>ECM MUST BE SPREAD EVENLY AND MUST PROVIDE 100 PERCENT SOIL COVERAGE.</li> </ul>
PERMANENT RE-VEGETATION	PERMANENT SEEDING SHALL BE USED ON ALL EXPOSED SOIL THAT IS NOT PERMANENTLY STABILIZED BY ROCK, GRAVEL OR ECM. THE FOLLOWING PERMANENT SEEDING MIX SPECIFICATIONS ARE BETWEEN APRIL 16 AND OCTOBER 31, HOWEVER WINTER RYE WILL BE ADDED TO THE PERMANENT SEED MIX AFTER OCTOBER 1. PERMANENT SEEDING IS NOT REQUIRED DURING THE WINTER CONSTRUCTION SEASON, ALTHOUGH DORMANT SEEDING MAY BE PERFORMED (SEE WINTER CONSTRUCTION NOTES SHEET G-2).

\* MULCH APPLICATION RATES SHALL BE DOUBLED FOR WINTER CONSTRUCTION  
 \*\*MINIMUM ECM THICKNESS IS 4 INCHES FOR WINTER CONSTRUCTION

PERMANENT SEED MIX SPECIFICATIONS				
	SOIL AMENDMENTS	SEED MIX VARIETIES	SEED RATE, LB/ACRE	MULCH, TONS/ACRE
UPLAND	APPLY GROUND LIMESTONE @ 3 TONS/ACRE	CREeping RED FESCUE/(PENNLAWN, ENSYLA, WINTERGREEN)	20	1.5-2 (90-100 BALES)
	APPLY 10-20-20 FERTILIZER @ 800 LBS/ACRE	REDTOP/(ANY NATIVE SPECIES)	2	
		TALL FESCUE/(KENTUCKY 31)	20	
WETLAND	NONE	ANNUAL RYEGRASS, IF REQUIRED (ANY NATIVE SPECIES)	40	1.5-2 (90-100 BALES)

- INCREASE SEEDING RATES BY 10% WHEN HYDROSEEDING.
- ADD WINTER RYE TO THE UPLAND MIX AT A RATE OF 120 LB/ACRE AFTER OCTOBER 1.
- SEED OR MULCH WETLANDS ONLY WHERE REQUIRED BY THE E1 OR 3P1, OR WHEN RESTORATION OCCURS AFTER OCTOBER 1. TYPICALLY, REPLACING THE ORIGINAL WETLAND SOIL ON THE RESTORED SURFACE WILL PROVIDE AN ADEQUATE SEED BED.
- DO NOT LIME OR FERTILIZE ANY AREAS WITHIN THE WATER BODY BUFFERS OR WETLANDS.
- MULCH WETLANDS WITH WEED-FREE STRAW ONLY.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL RE-VEGETATED AREAS UNTIL THE PROJECT HAS BEEN COMPLETED AND ACCEPTED. FOLLOWING FINAL SEEDING THE CONTRACTOR WILL INSPECT RESTORED AREAS EVERY 30 DAYS UNTIL 90 PERCENT VEGETATIVE COVER HAS BEEN ESTABLISHED UNLESS ADJACENT, UNDISTURBED AREAS INDICATE THAT ACHIEVING THAT LEVEL OF VEGETATION IN THE AREA IS UNLIKELY. WHERE SEEDING AREAS HAVE BECOME ERODED OR DAMAGED BY CONSTRUCTION OPERATIONS, OR WHERE POOR GERMINATION IS OBSERVED, THE AFFECTED AREAS WILL BE PROMPTLY RE-GRADED, LIMED, FERTILIZED, AND RE-SEEDING AS NEEDED UNTIL THE ABOVE CRITERIA ARE MET. THE CONTRACTOR MAY BE REQUIRED TO RE-SEED DURING THE FOLLOWING SPRING IN ORDER TO ACHIEVE THE REQUIRED VEGETATIVE COVER.



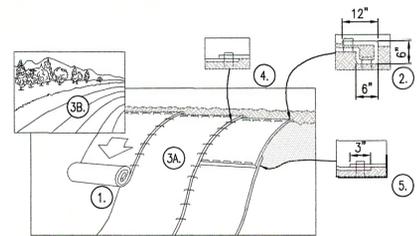
- INSTALLATION NOTES:**
- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
  - MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
  - UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

### TOPSOIL STOCKPILE

NOT TO SCALE

# GENERAL EROSION CONTROL NOTES

- INSTALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE SPECIFICATIONS HEREIN. SEE THE DES-APPROVED EROSION AND SEDIMENTATION CONTROL PLAN NARRATIVE FOR ADDITIONAL DETAILS.
- INSTALL ALL PERIMETER CONTROLS PRIOR TO COMMENCEMENT OF EARTH MOVING ACTIVITIES.
- PRIOR TO THE INITIATION OF GRADING OPERATIONS, CONSTRUCT AND STABILIZE TEMPORARY DRAINAGE SWALES, CHECK DAMS, AND PLUNGE POOLS AS NEEDED TO EFFECTIVELY CONTROL EROSION AND PREVENT TRANSPORT OF SEDIMENT INTO REGULATED RESOURCES OR OFF-SITE.
- DRAINAGE CHANNELS SHALL BE STABILIZED PRIOR TO RECEIVING RUNOFF. STABILIZE ROAD DITCHES WITH LOAM, SEED, EROSION CONTROL BLANKETS OR RIPRAP (DEPENDING ON SLOPE) WITHIN 24 HOURS OF FINAL GRADING.
- INSTALL STONE CHECK DAMS WITHIN 24 HOURS OF ROUGH OR FINISH GRADING ANY SECTION OF DITCH, AS SHOWN ON THE PROJECT PLANS AND AT OTHER LOCATIONS AS NEEDED.
- ALL ROADWAYS AND CUT/FILL SLOPES SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- ONCE A WEEK, OR AFTER RAINSTORMS PRODUCING AT LEAST 1/2 INCH OF RAINFALL, WHICHEVER IS MORE FREQUENT, INSPECT ALL AREAS WHERE TEMPORARY NON-STRUCTURAL MEASURES ARE USED. THE INSPECTION SCHEDULE WILL BE INCREASED TO DAILY DURING THE WINTER CONSTRUCTION PERIOD.
- AFTER GRADING AND PRIOR TO FINAL STABILIZATION PROVIDE PERIODIC APPLICATION OF WATER OR CALCIUM CHLORIDE AS NEEDED TO CONTROL EXCESSIVE DUST.
- REMOVE TEMPORARY EROSION CONTROL MEASURES ONCE AN AREA OF THE SITE IS PERMANENTLY STABILIZED.
- MONITOR PUBLIC ROADS FOR SIGNS OF MUD TRACKING OR SPILLAGE OF SOIL MATERIAL. CLEAN ROADWAYS AS NEEDED.



- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-0- SEED DO NOT SEED PREPARED AREA. CELL-0-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 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.
- 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.
- 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.
- CONSECUTIVE BLANKETS SPICED 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.

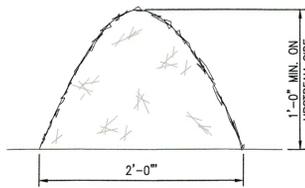
NOTE:

\*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

### EROSION CONTROL BLANKET INSTALLATION

NOT TO SCALE

PERMANENT SEEDING SHALL BE USED ON ALL EXPOSED SOIL THAT IS NOT PERMANENTLY STABILIZED BY ROCK, GRAVEL OR ECM. THE FOLLOWING PERMANENT SEEDING MIX SPECIFICATIONS BETWEEN APRIL 16 AND OCTOBER 31, HOWEVER WINTER RYE WILL BE ADDED TO THE PERMANENT SEED MIX AFTER OCTOBER 1. PERMANENT SEEDING IS NOT REQUIRED DURING THE WINTER CONSTRUCTION SEASON, ALTHOUGH DORMANT SEEDING MAY BE PERFORMED (SEE WINTER CONSTRUCTION NOTES).

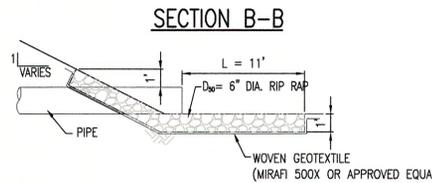
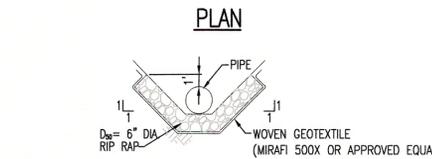
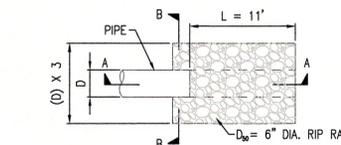


- EROSION CONTROL MIX SHALL CONSIST OF SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, FRAGMENTED WOOD AND SOIL GENERATED FROM ONSITE CLEARING, STUMPING GRUBBING AND STUMP GRINDING OPERATIONS. THE MIX SHALL CONFORM TO THE FOLLOWING:
  - EROSION CONTROL MIX SHOULD CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES, AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. ECM MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIALS TOXIC TO PLANT GROWTH.
  - ECM SHALL CONTAIN 25% - 65% ORGANIC MATTER CONTENT (DRY WEIGHT BASIS).
  - ORGANIC PORTION MUST BE FIBROUS AND ELONGATED.
  - SCREEN SIZE: 3" - 100% PASSING  
 1" - 90% TO 100% PASSING  
 3/4" - 70% TO 100% PASSING  
 1/4" - 30% TO 75% PASSING
- MIX SHALL NOT CONTAIN LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS.
- SOLUBLE SALT CONTENT SHALL BE < 4.0 mmhos/cm
- pH - 5.0 TO 8.0

- INSTALL AND MAINTAIN EROSION CONTROL BERM AND OTHER EROSION CONTROL BARRIERS ALONG THE DOWNHILL LIMIT OF WORK, AS SHOWN ON THE DRAWINGS. BARRIER LOCATIONS MAY BE ADJUSTED IN THE FIELD BASED ON SITE CONDITIONS AS DETERMINED BY THE ENGINEER.

### EROSION CONTROL BERM

NOT TO SCALE

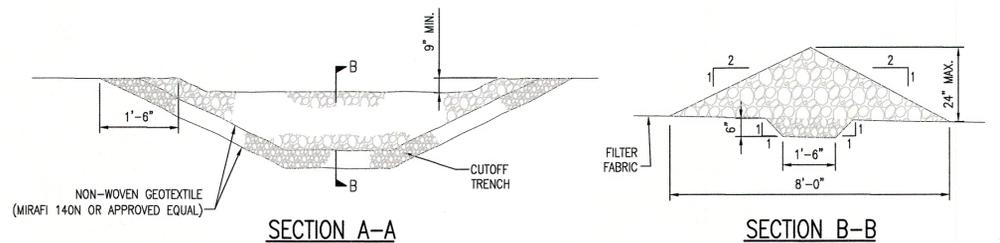
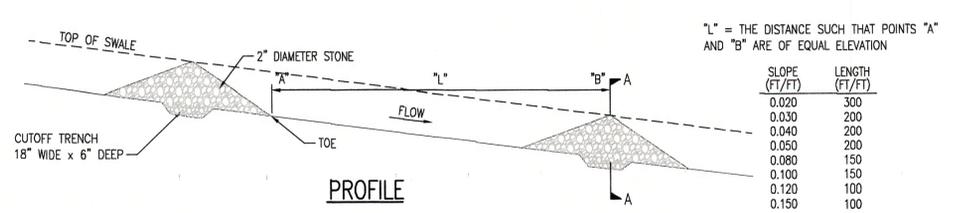


### CULVERT INLET/OUTLET PROTECTION

NOT TO SCALE

NOTES:

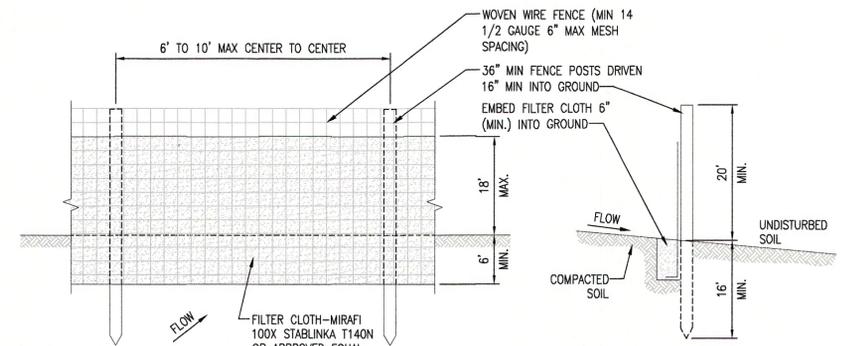
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
- SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
- SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.



NOTE: INSTALL WHERE INDICATED ON SITE GRADING PLAN AND AS NEEDED BY SPACING REQUIREMENTS.

### CHECK DAM DETAILS

NOT TO SCALE



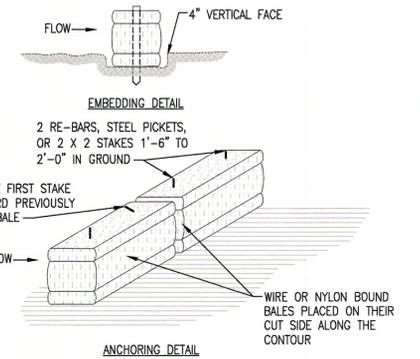
### ELEVATION

- WOVEN WIRE FENCE TO BE FASTENED TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MIDSECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BUILD-UP REACHES 1/2 THE HEIGHT OF THE FENCE.

- POSTS: STEEL "I" OR "U" TYPE OR 2" HARDWOOD.
- FENCE: WOVEN WIRE. 14 1/2 GA 6" MAX MESH OPENING.
- FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
- PREFABRICATED UNIT: ENVIROFENCE OR APPROVED EQUAL.

### SILT FENCE DETAIL

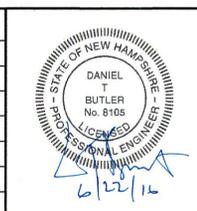
NOT TO SCALE



### STRAW BALE BARRIER DETAIL

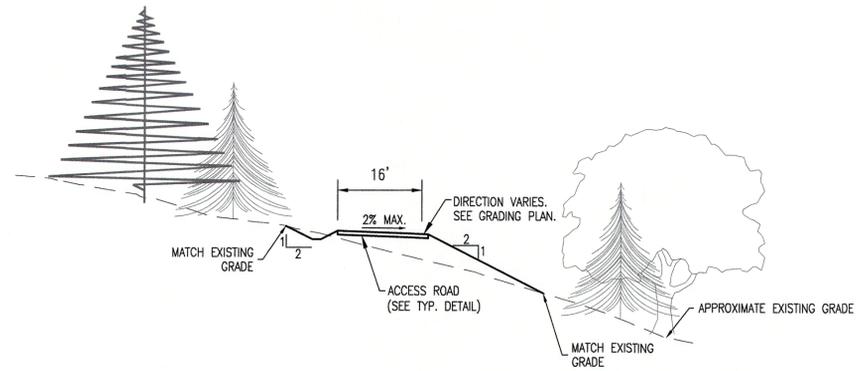
NOT TO SCALE

NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
C	REVISED PER NHDES REVIEW COMMENTS	6/17/16	PM	DTB	DTB	8105
B	ISSUED FOR PERMITTING	5/1/15	PM	DTB	DTB	8105
A	ISSUED FOR CLIENT REVIEW	4/6/15	PM	DTB		

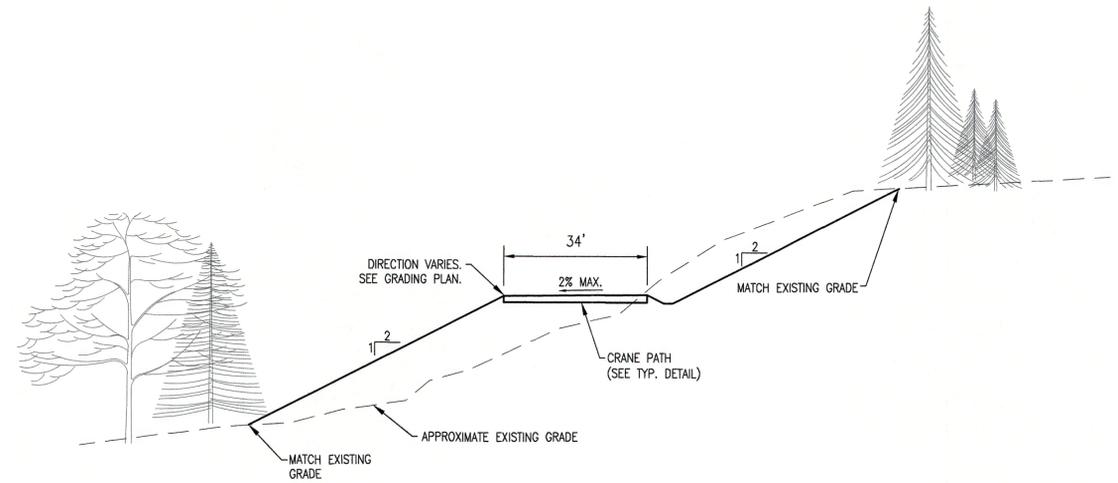


CLIENT APPROVAL	TRC/PMI DESIGNED	TRC/KAV DRAWN	TRC/DTB CHECKED	APPROVED BY	COMPANY	REVIEWED	SCALE: AS NOTED	PROJECT NO: 182878	DATE: 11-8-11	REV. C
					ANTRIM			249 WESTERN AVENUE AUGUSTA, ME 04330		

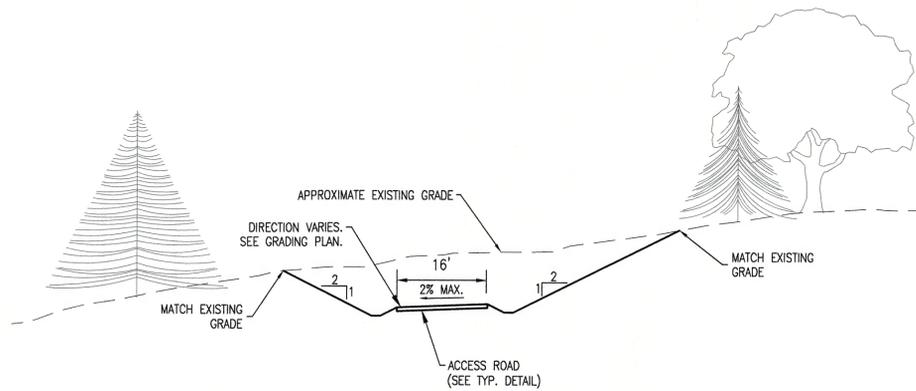
NOT FOR CONSTRUCTION



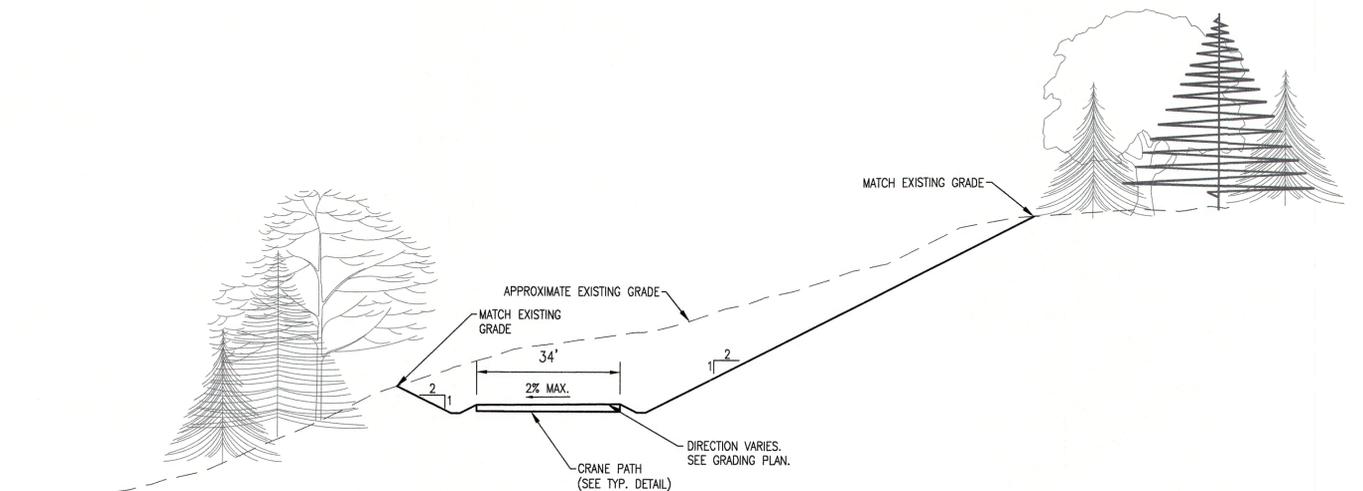
**A** TYPICAL ACCESS ROAD SECTION (CUT/FILL)  
NOT TO SCALE



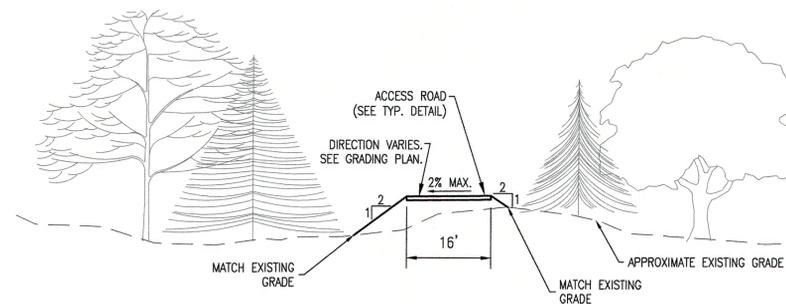
**D** TYPICAL CRANE PATH SECTION (CUT/FILL)  
NOT TO SCALE



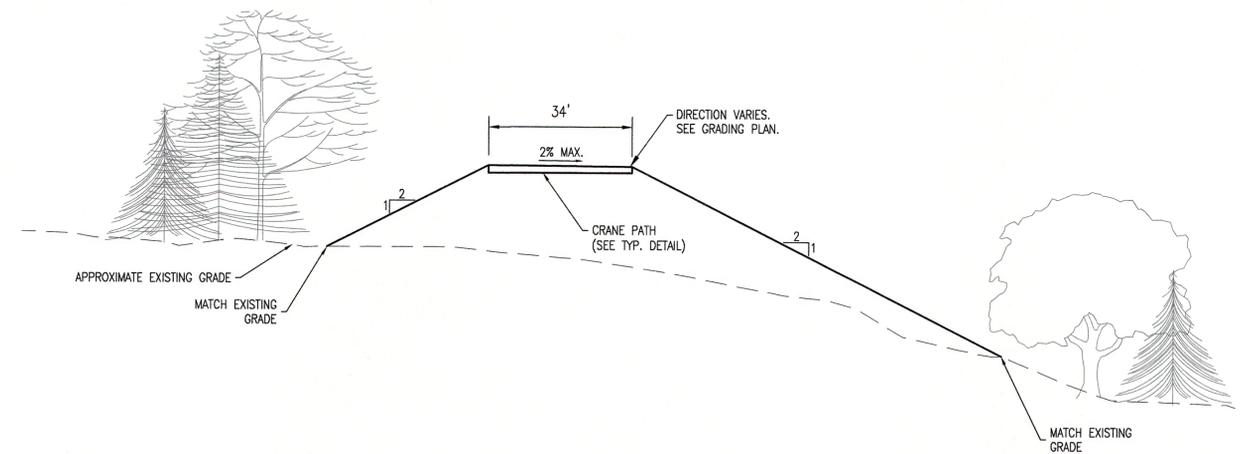
**B** TYPICAL ACCESS ROAD SECTION (CUT)  
NOT TO SCALE



**E** TYPICAL CRANE PATH SECTION (CUT)  
NOT TO SCALE



**C** TYPICAL ACCESS ROAD SECTION (FILL)  
NOT TO SCALE



**F** TYPICAL CRANE PATH SECTION (FILL)  
NOT TO SCALE

**NOTES:**

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- SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

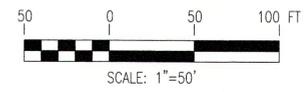
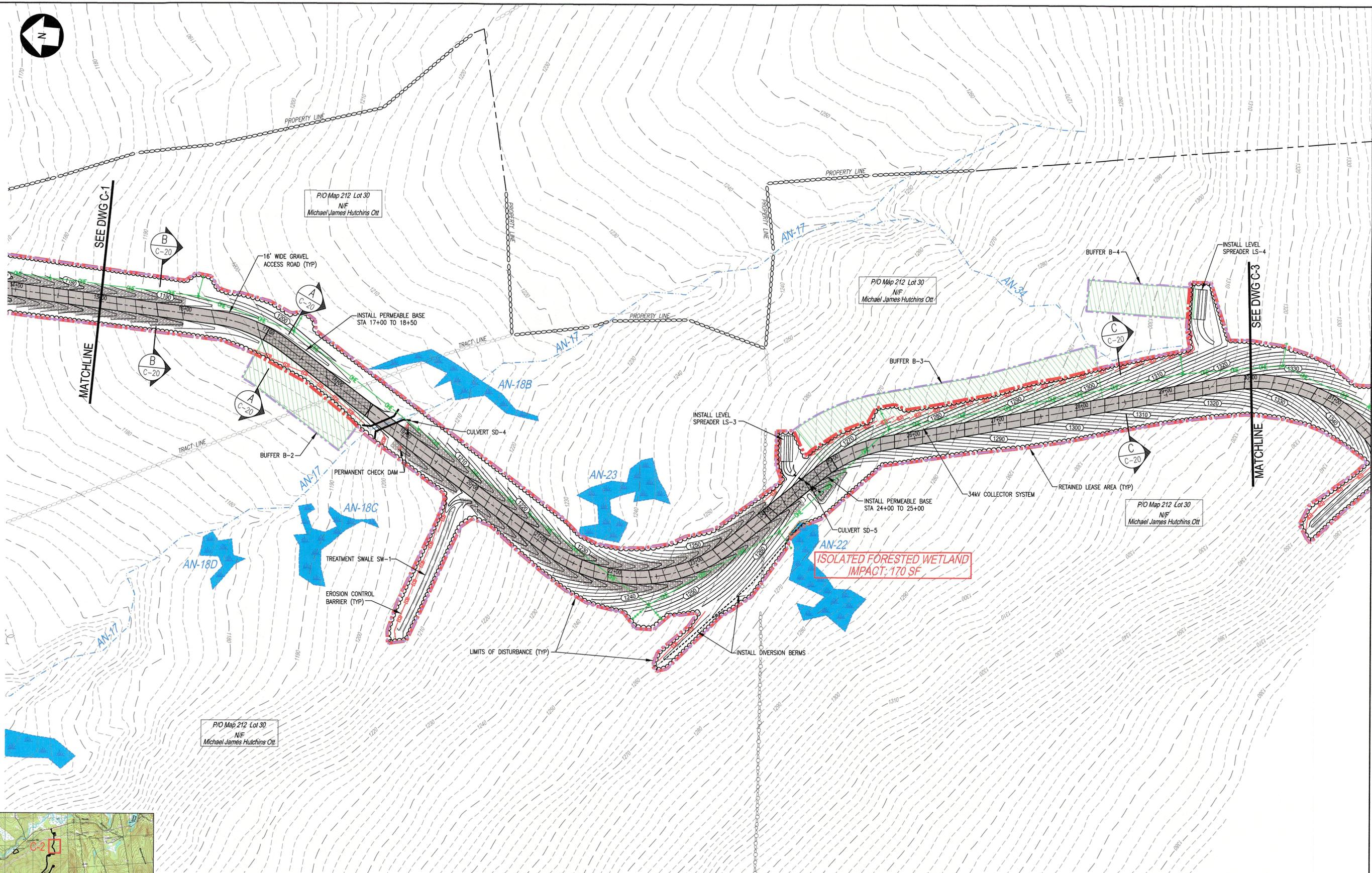
NOT FOR CONSTRUCTION

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A	ISSUED FOR CLIENT REVIEW	4/6/15	PMM	DTB		



CLIENT APPROVAL	
APPROVED BY	DATE
COMPANY	
REVIEWED	

TRC/PMI DESIGNED		TRC/KAV DRAWN		TRC/DTB CHECKED		APPROVED		REVIEWED	
ANTRIM		ANTRIM		ANTRIM		ANTRIM		ANTRIM	
CIVIL DETAILS III		ANTRIM WIND ENERGY, LLC		ANTRIM WINDPARK		NEW HAMPSHIRE		SCALE: AS NOTED	
249 WESTERN AVENUE AUGUSTA, ME 04330 PROJECT NO: 182878 DATE: 11-8-11		C-20		REV. C					



- NOTES:**
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  - SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

**PLAN VIEW**  
SCALE: 1"=50'

**NOT FOR CONSTRUCTION**

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A	ISSUED FOR CLIENT REVIEW	12/19/14	PMM	DTB		



<b>CLIENT APPROVAL</b>	
APPROVED BY	TRC/PMI DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PLAN: MAIN ACCESS ROAD  
STA 15+00 TO 30+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**CTRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
SCALE: AS NOTED  
DATE: 11-8-11

C-2

REV. C

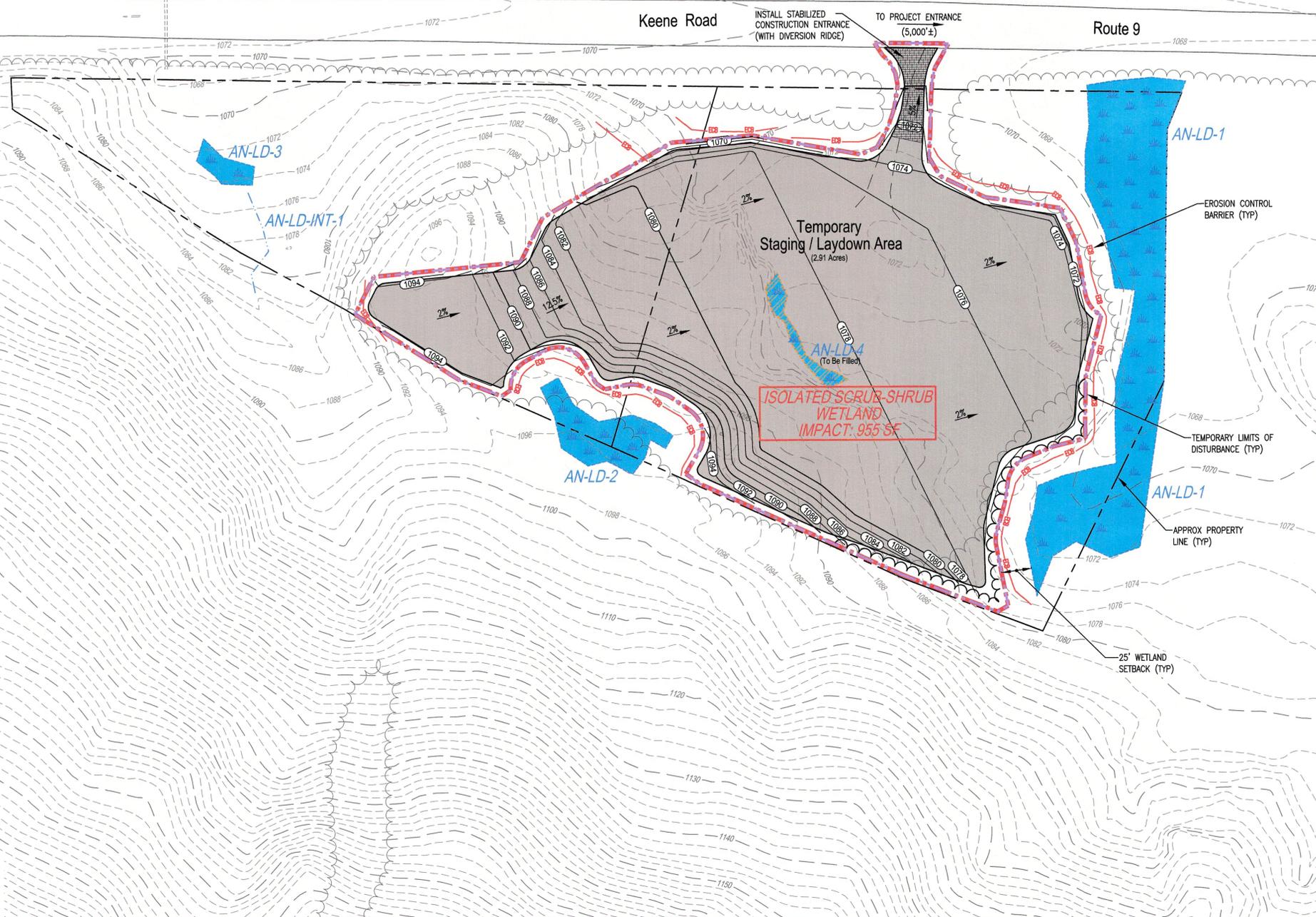


North Branch River

Keene Road

Route 9

INSTALL STABILIZED CONSTRUCTION ENTRANCE (WITH DIVERSION RIDGE) TO PROJECT ENTRANCE (5,000'±)



Temporary Staging / Laydown Area (2.91 Acres)

ISOLATED SCRUB-SHRUB WETLAND IMPACT: 955 SF

AN-LD-1

AN-LD-3

AN-LD-INT-1

AN-LD-2

AN-LD-4 (To Be Filled)

EROSION CONTROL BARRIER (TYP)

TEMPORARY LIMITS OF DISTURBANCE (TYP)

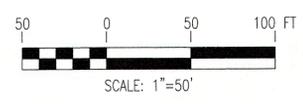
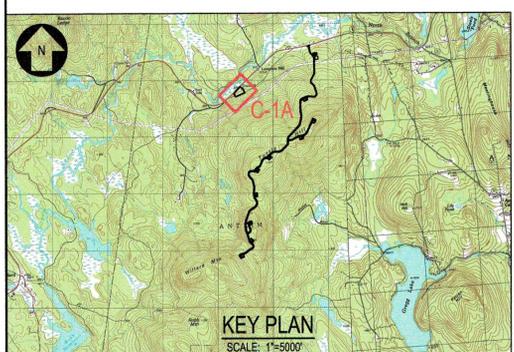
APPROX PROPERTY LINE (TYP)

25' WETLAND SETBACK (TYP)

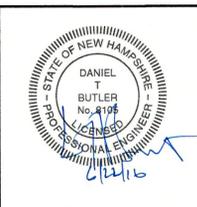
PLAN VIEW  
SCALE: 1"=50'

- NOTES:**
- SEE DRAWING G-2 FOR PROJECT NOTES, LEGEND, AND ABBREVIATIONS.
  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
  - SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

NOT FOR CONSTRUCTION



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CLIENT APPROVAL	
APPROVED BY	TRC/PMI DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PLAN: TEMPORARY STAGING/LAYDOWN AREA

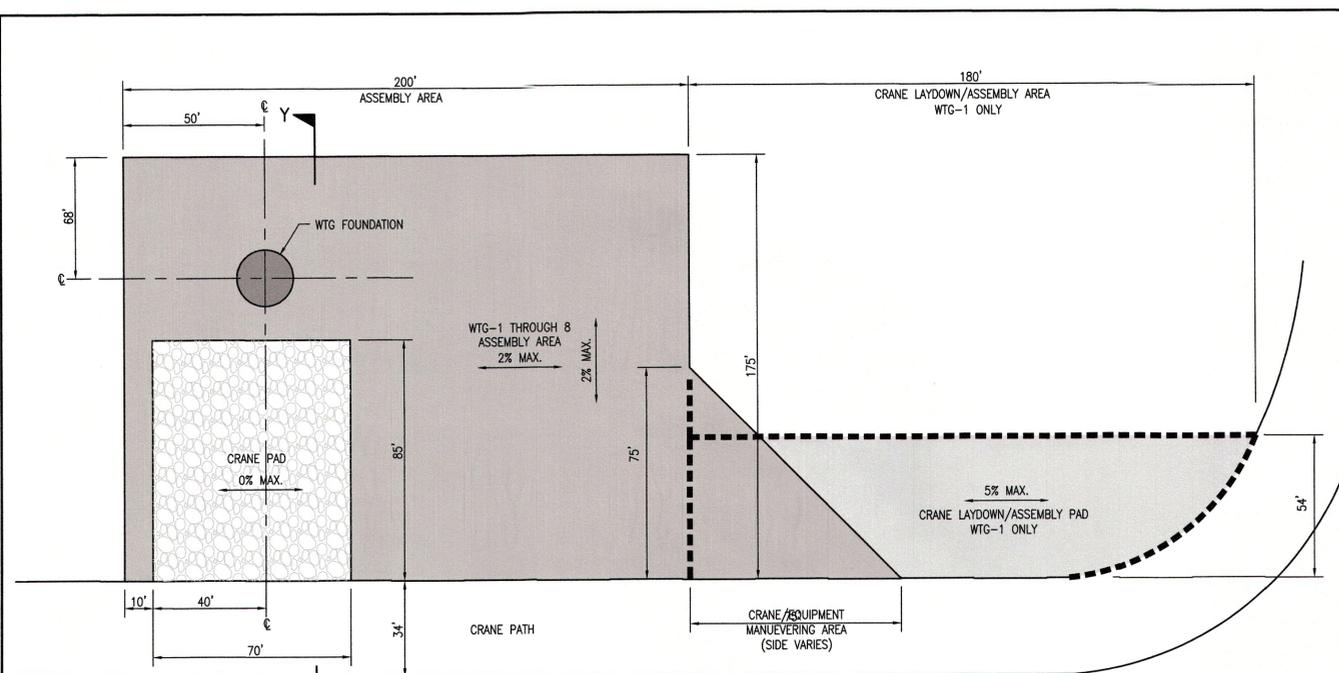
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
ANTRIM NEW HAMPSHIRE

SCALE: AS NOTED

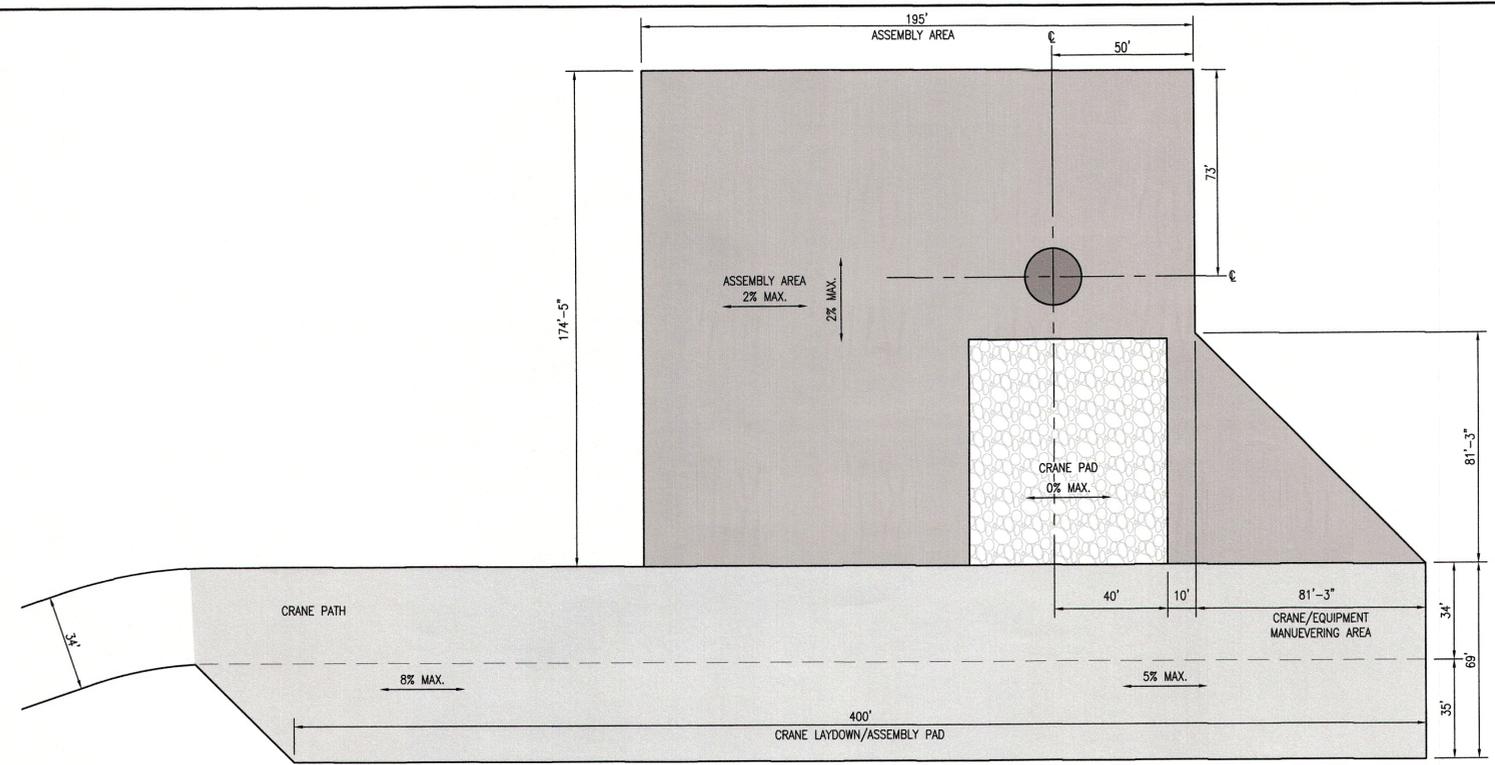
249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

C-1A

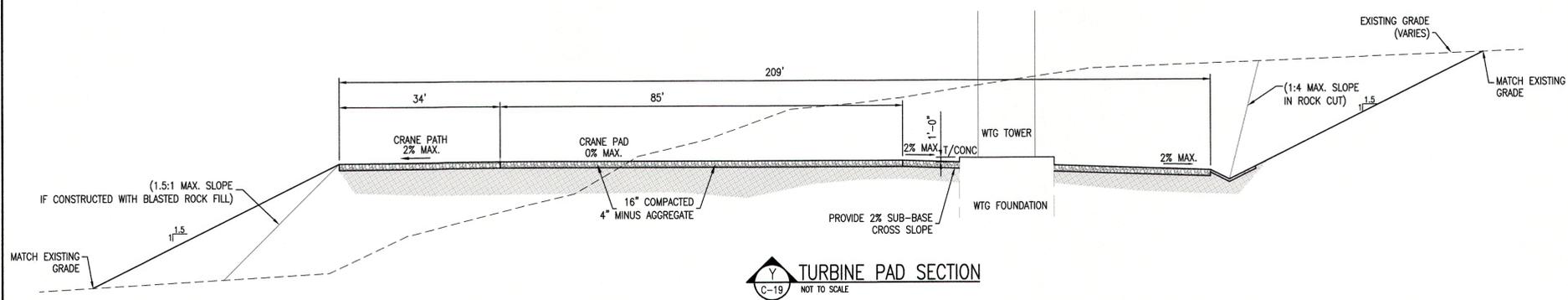
REV. C



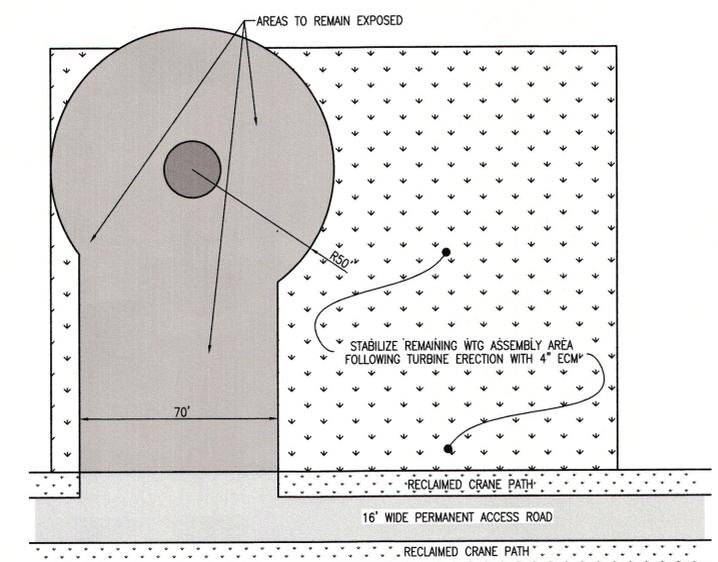
TYPICAL WIND TURBINE GENERATOR (WTG)  
TURBINE PAD ASSEMBLY AREA  
NOT TO SCALE



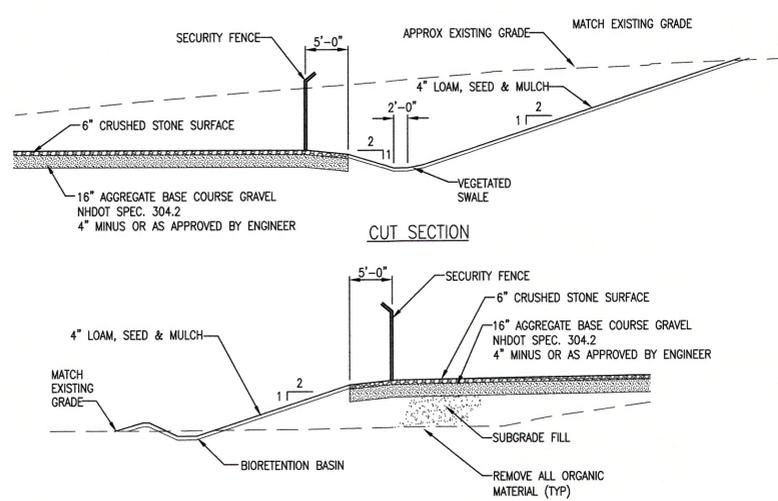
WTG-9 TURBINE PAD & CRANE ASSEMBLY AREA  
NOT TO SCALE



TURBINE PAD SECTION  
NOT TO SCALE



NOTE  
CRANE LAYDOWN/ASSEMBLY PAD AT WTG-1 AND WTG-9  
SHALL ALSO BE RECLAIMED WITH 4" ECM.  
TYPICAL RECLAIMED ASSEMBLY AREA  
NOT TO SCALE



TYPICAL SUBSTATION SECTIONS  
NOT TO SCALE

**NOTES**  
1. INSTALL BOULDER GUARDRAILS AT INTERVALS NECESSARY TO ACCOMMODATE SAFE TURBINE INSTALLATIONS AS DETERMINED BY THE CONTRACTOR.  
2. INSTALL ALONG SECTIONS WITH FILL SLOPES EXCEEDING 6 FEET IN HEIGHT.

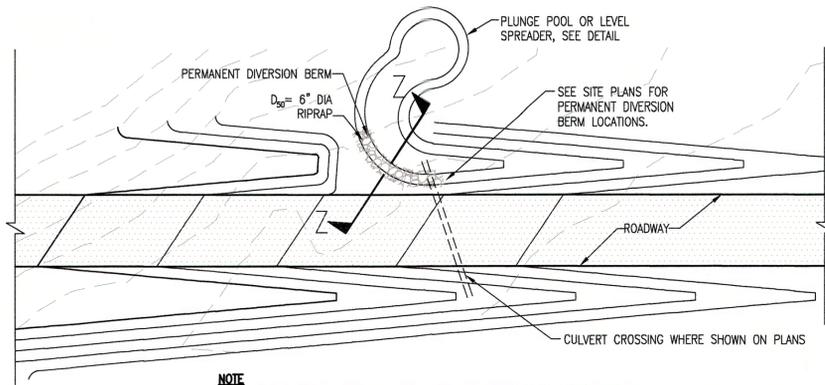
**BOULDER GUARDRAIL**  
NOT TO SCALE

- NOTES:**
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NOT FOR CONSTRUCTION

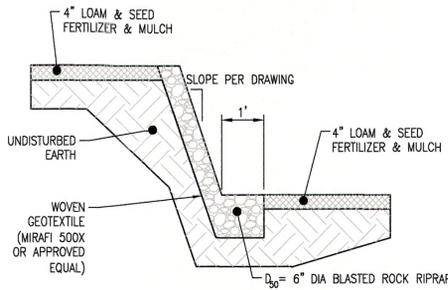
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	CLIENT APPROVAL	TRC/PMM DESIGNED	CIVIL DETAILS II  ANTRIM WIND ENERGY, LLC ANTRIM WINDPARK NEW HAMPSHIRE
	APPROVED BY	TRC/KAV DRAWN	
	COMPANY	TRC/DTB CHECKED	
	DATE	APPROVED	
	REVIEWED	SCALE: AS NOTED DATE: 11-8-11	ANTRIM 249 WESTERN AVENUE AUGUSTA, ME 04330 PROJECT NO: 182878 DATE: 11-8-11
			REV. C C-19



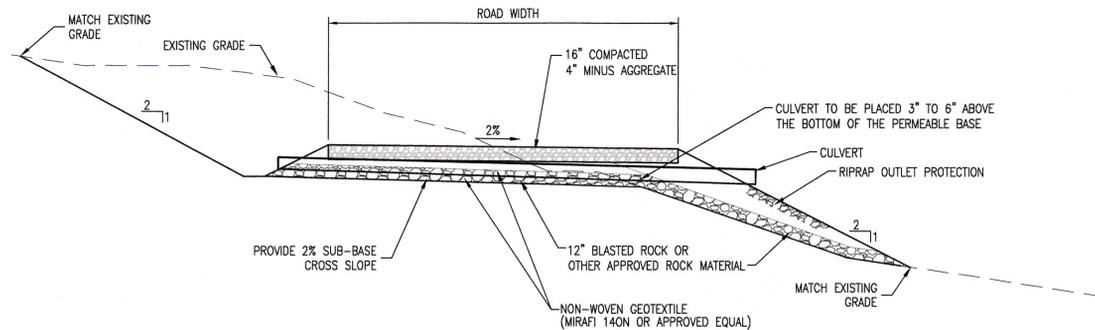
NOTE:  
PERMANENT DIVERSION BERM MAY BE ON THE OPPOSITE SIDE OF THE ROAD TO DIRECT FLOWS TOWARD A CROSS CULVERT

**DITCH TURNOUT DETAIL**  
NOT TO SCALE

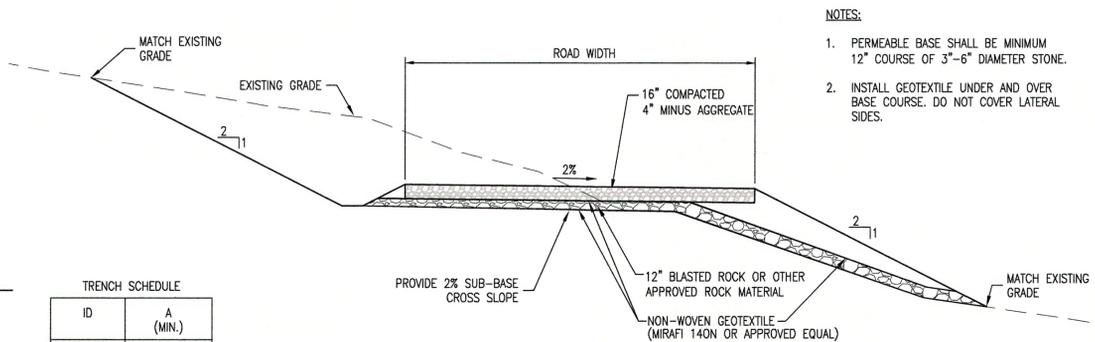


**SECTION Z-Z**

**DIVERSION BERM SECTION DETAIL**  
NOT TO SCALE



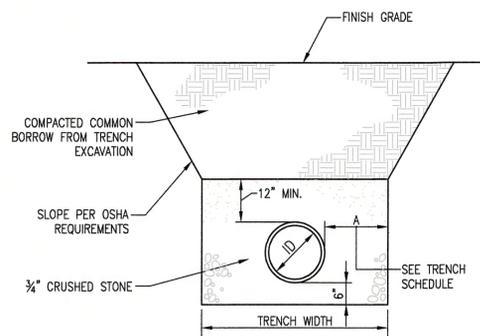
**TYPICAL PERMEABLE BASE W/ CULVERT SECTION**  
NOT TO SCALE



NOTES:

- PERMEABLE BASE SHALL BE MINIMUM 12" COURSE OF 3"-6" DIAMETER STONE.
- INSTALL GEOTEXTILE UNDER AND OVER BASE COURSE. DO NOT COVER LATERAL SIDES.

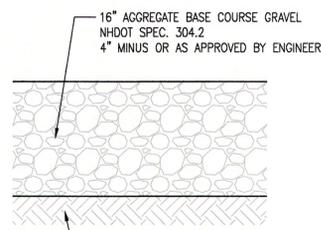
**TYPICAL PERMEABLE BASE SECTION**  
NOT TO SCALE



TRENCH SCHEDULE	
ID	A (MIN.)
4"-12"	0'-10"
15"	0'-10"
18"	0'-10"
24"	0'-6"
30"	0'-6"
36"	0'-6"

NOTE:  
SHORE TRENCH EXCAVATION AS REQUIRED TO MINIMIZE EXCAVATION AND IMPACTS TO ADJACENT UTILITIES STRUCTURES OR PAVEMENT. TRENCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA REQUIREMENTS.

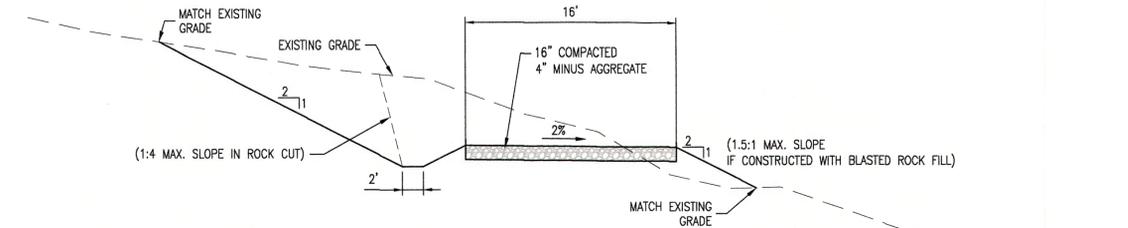
**CULVERT TRENCH DETAIL**  
NOT TO SCALE



NOTE:  
1. COMPACT GRAVEL BASE COURSE TO 95% OF MAXIMUM DENSITY USING HEAVY ROLLER COMPACTION.

**TYPICAL GRAVEL CRANE PAD SECTION**  
NOT TO SCALE

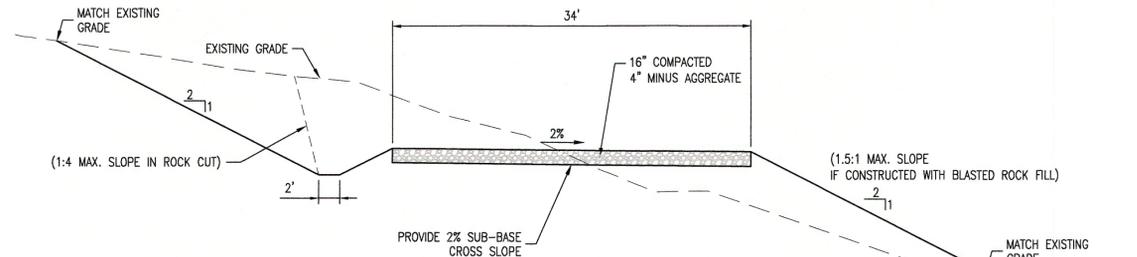
NOT FOR CONSTRUCTION



NOTES:

- DITCHES SHALL BE CONSTRUCTED TO NOT INTERCEPT THE GROUND WATER TABLE. DITCH DEPTH SHALL BE 24" MEASURED FROM EDGE OF ROADWAY, EXCEPT AS APPROVED BY THE ENGINEER.
- STEEPER ROCK CUT FACES ARE PERMITTED IN AREAS OF ROCK EXCAVATION. SEE TYPICAL CUT SLOPE STABILIZATION DETAIL, SHEET C-20.

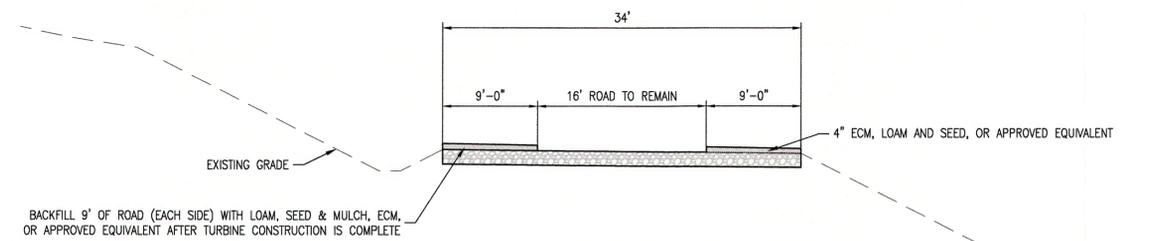
**TYPICAL ACCESS ROAD SECTION**  
NOT TO SCALE



NOTES:

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- STEEPER ROCK CUT FACES ARE PERMITTED IN AREAS OF ROCK EXCAVATION. SEE TYPICAL CUT SLOPE STABILIZATION DETAIL, SHEET C-20.

**TYPICAL CRANE PATH SECTION**  
NOT TO SCALE



**CRANE PATH RESTORATION DETAIL**  
NOT TO SCALE

NOTES:

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CLIENT APPROVAL	
APPROVED BY	TRC/PM
COMPANY	DESIGNED
DATE	TRC/KAV
	DRAWN
	TRC/DTB
	CHECKED
	APPROVED
	REVIEWED

CIVIL DETAILS I

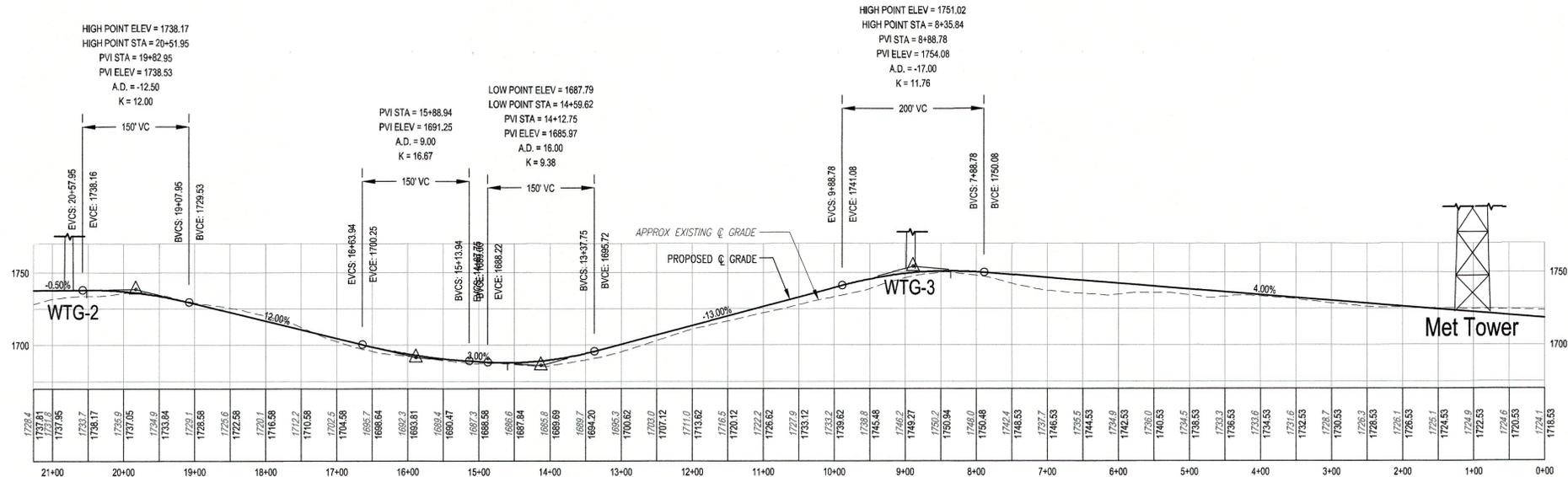
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

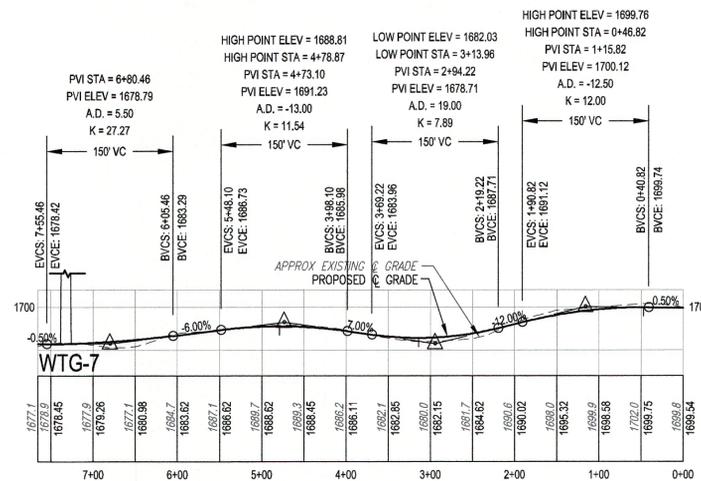
TRC 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

C-18

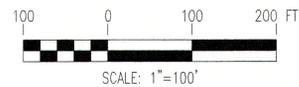
REV. C



PROFILE: WTG-2 & 3 SPUR ROAD STA 0+00 TO 21+30  
 SCALE: HORIZ: 1"=100'  
 VERT: 1"=50'



PROFILE: WTG-7 SPUR ROAD STA 0+00 TO 7+65  
 SCALE: HORIZ: 1"=100'  
 VERT: 1"=50'



NOTES:

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NOT FOR CONSTRUCTION

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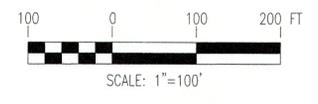
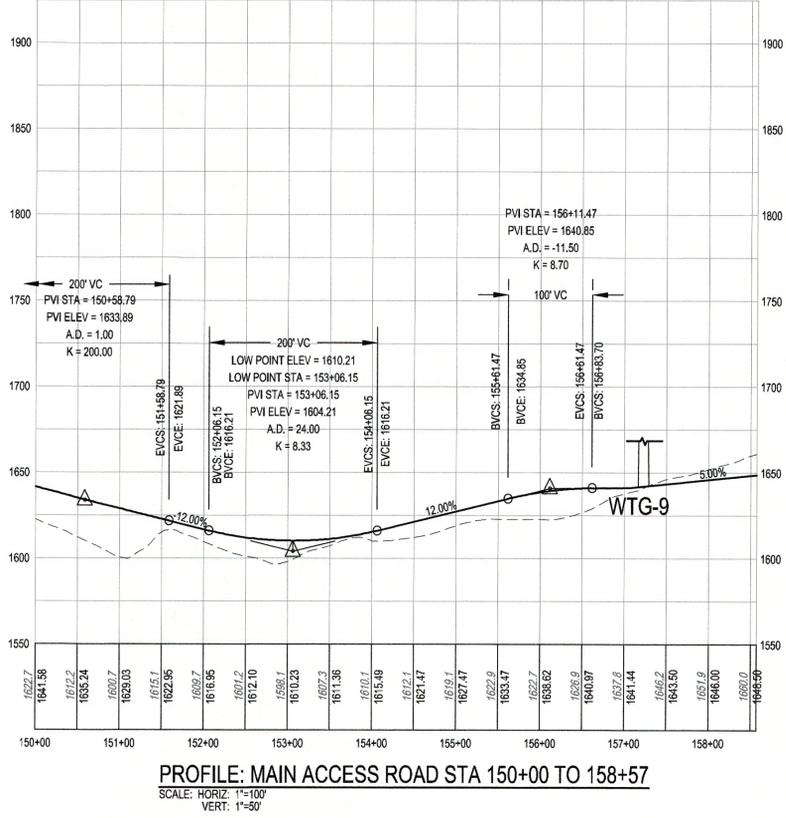
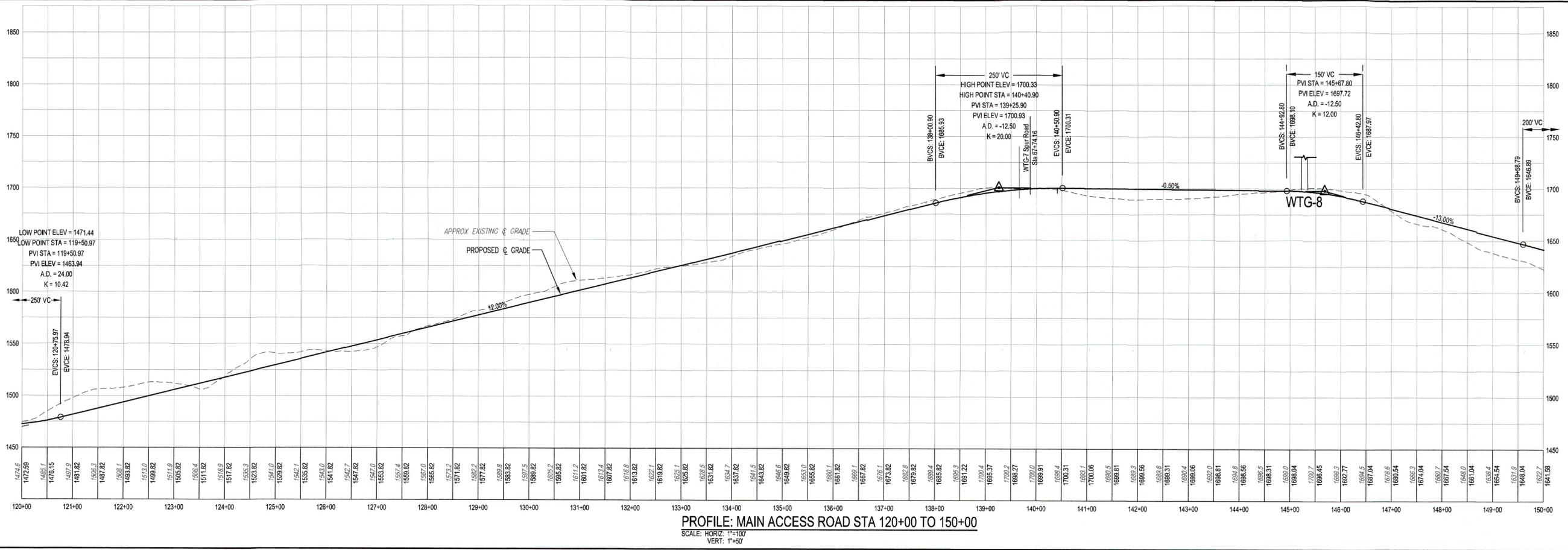


CLIENT APPROVAL	
DESIGNED	TRC/PMM
DRAWN	TRC/KAV
CHECKED	TRC/DTB
APPROVED BY	
COMPANY	
DATE	

PROFILES: WTG-2 & 3 AND WTG-7 SPUR ROADS  
 STA 0+00 TO 21+30 AND STA 0+00 TO 7+65  
 ANTRIM WIND ENERGY, LLC  
 ANTRIM WINDPARK  
 ANTRIM NEW HAMPSHIRE

SCALE: AS NOTED DATE: 11-8-11

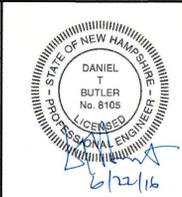
REV. C



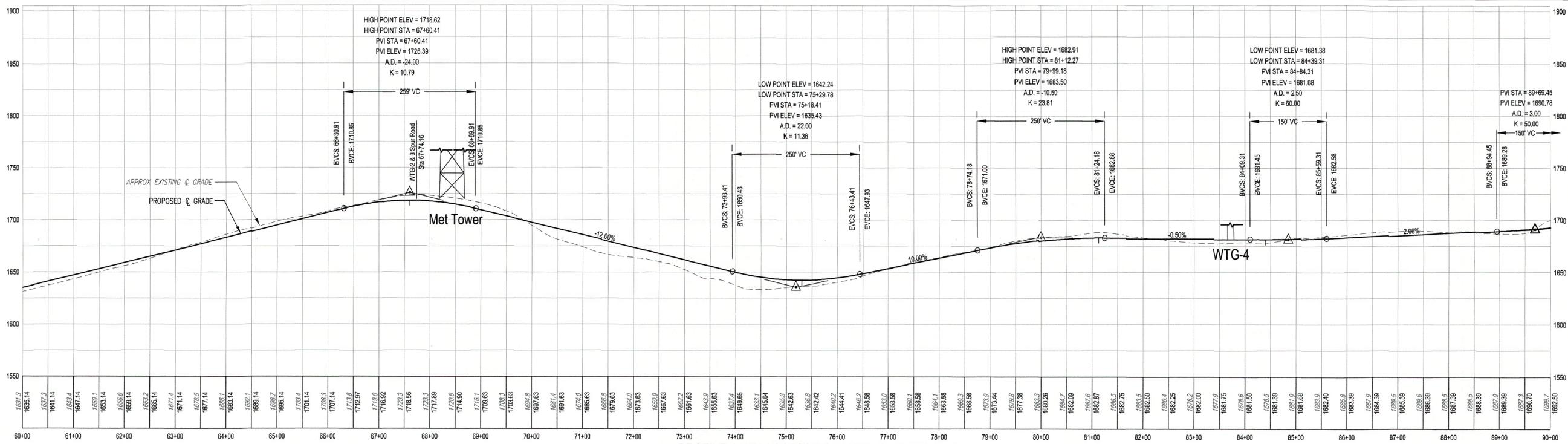
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  - SEE DRAWING G-3 FOR OVERALL PROJECT MAP AND OVERALL PROJECT DRAWING INDEX.
  - SEE DRAWING C-23 FOR CULVERT, BUFFER, TREATMENT SWALE, LEVEL SPREADER AND PLUNGE POOL SCHEDULES.

**NOT FOR CONSTRUCTION**

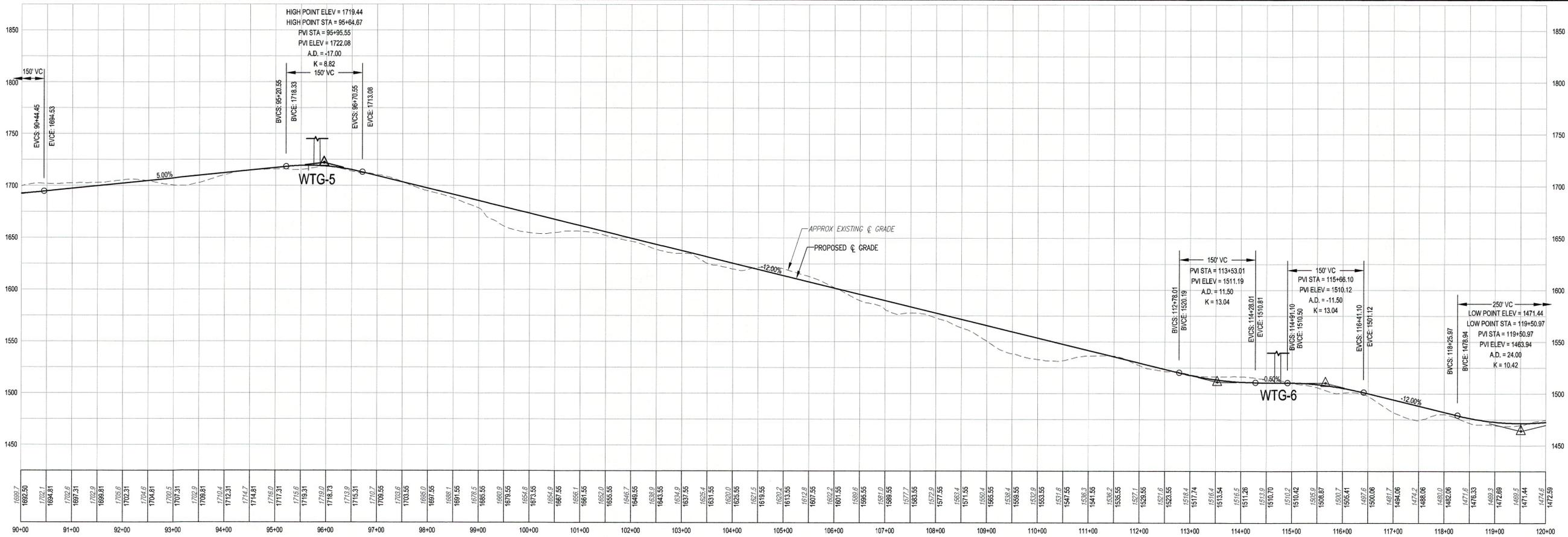
NO.	REVISION	DATE	BY	CK	P.E. STAMPED BY	P.E. No.
C	REVISED PER NHDES REVIEW COMMENTS	6/17/16	PMM	DTB	DTB	8105
B	ISSUED FOR PERMITTING	5/1/15	PMM	DTB	DTB	8105
A	ISSUED FOR CLIENT REVIEW	12/19/14	PMM	DTB		



CLIENT APPROVAL	TRC/PMM DESIGNED	APPROVED BY	COMPANY	DATE	ANTRIM	PROFILE: MAIN ACCESS ROAD STA 120+00 TO 158+57 ANTRIM WIND ENERGY, LLC ANTRIM WINDPARK NEW HAMPSHIRE
	TRC/KAV DRAWN					
APPROVED	REVIEWED					ANTRIM
		249 WESTERN AVENUE AUGUSTA, ME 04330 PROJECT NO: 182878 DATE: 11-8-11		C-16	REV. C	



PROFILE: MAIN ACCESS ROAD STA 60+00 TO 90+00  
SCALE: HORIZ: 1"=100'  
VERT: 1"=50'



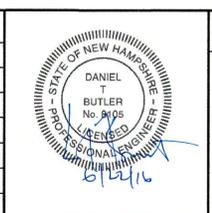
PROFILE: MAIN ACCESS ROAD STA 90+00 TO 120+00  
SCALE: HORIZ: 1"=100'  
VERT: 1"=50'



- NOTES:**
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**NOT FOR CONSTRUCTION**

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A	ISSUED FOR CLIENT REVIEW	12/19/14	PM	DTB		



CLIENT APPROVAL	
APPROVED BY	DATE
COMPANY	
REVIEWED	

PROFILE: MAIN ACCESS ROAD  
STA 60+00 TO 120+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

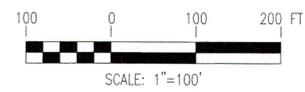
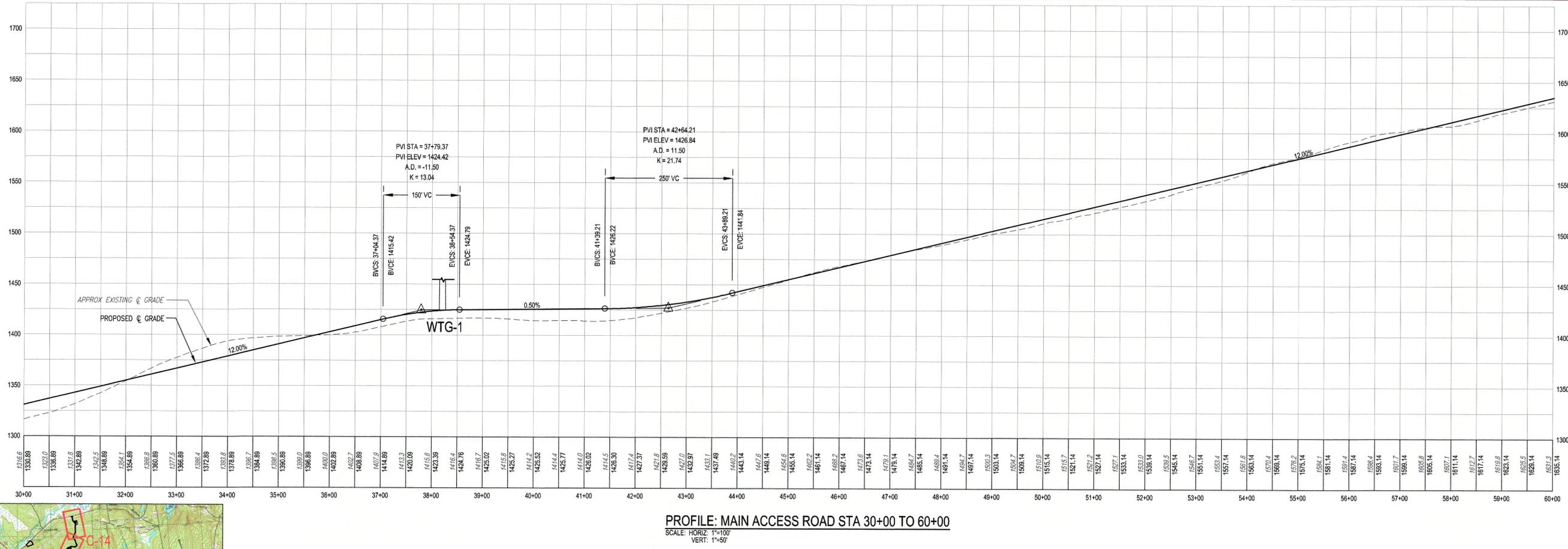
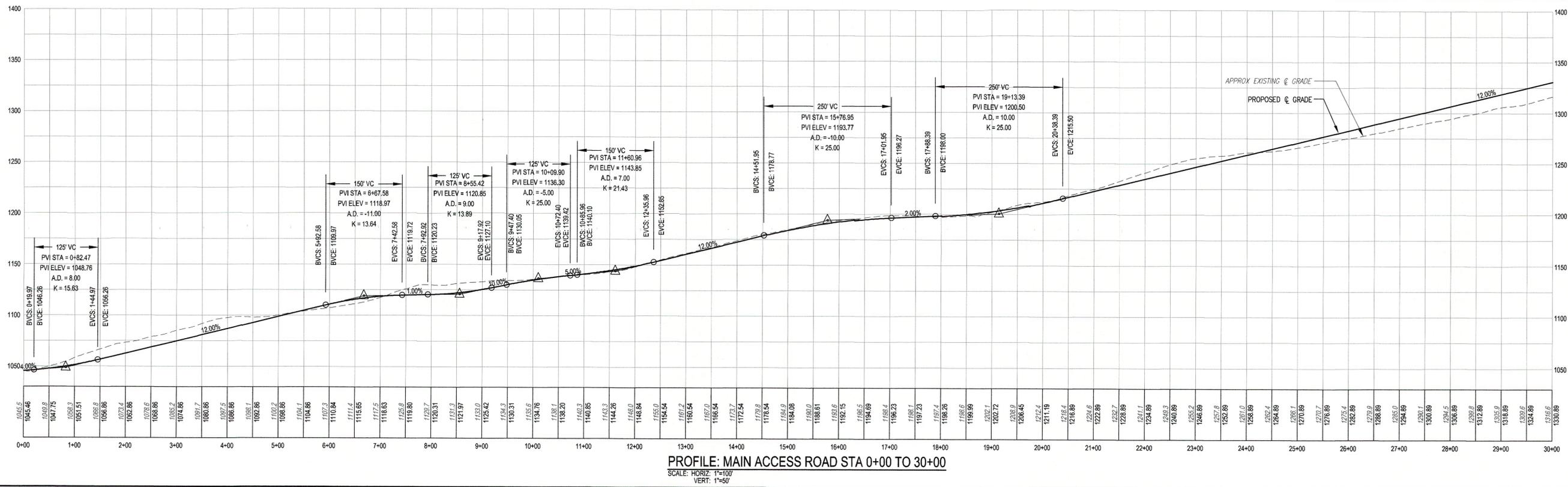
ANTRIM

**TRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

SCALE: AS NOTED

C-15

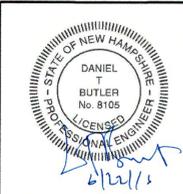
REV. C



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CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PROFILE: MAIN ACCESS ROAD  
 STA 0+00 TO 60+00  
 ANTRIM WIND ENERGY, LLC  
 ANTRIM WINDPARK  
 NEW HAMPSHIRE

ANTRIM

**TRC**  
 SCALE: AS NOTED

249 WESTERN AVENUE  
 AUGUSTA, ME 04330  
 PROJECT NO: 182878  
 DATE: 11-8-11

C-14

REV. C



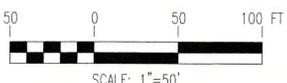
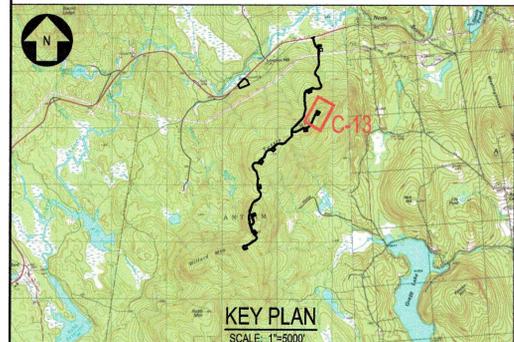
P/O Map 235 Lot 14  
N/F  
Antrim Realty Trust

P/O Map 235 Lot 14  
N/F  
Antrim Realty Trust

P/O Map 212 Lot 30  
N/F  
Michael James Hutchins Ott

P/O Map 212 Lot 30  
N/F  
Michael James Hutchins Ott

P/O Map 212 Lot 30  
N/F  
Michael James Hutchins Ott

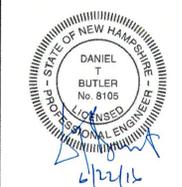


**PLAN VIEW**  
SCALE: 1"=50'

- NOTES:**
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CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PLAN: WTG-2 & 3 SPUR ROAD  
STA 15+00 TO 21+30  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

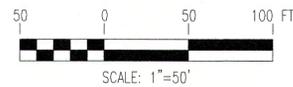
ANTRIM

**TRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

SCALE: AS NOTED

C-13

REV. C

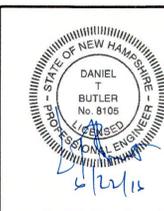


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A	ISSUED FOR CLIENT REVIEW	12/19/14	PMM	DTB		



CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
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	APPROVED
	REVIEWED

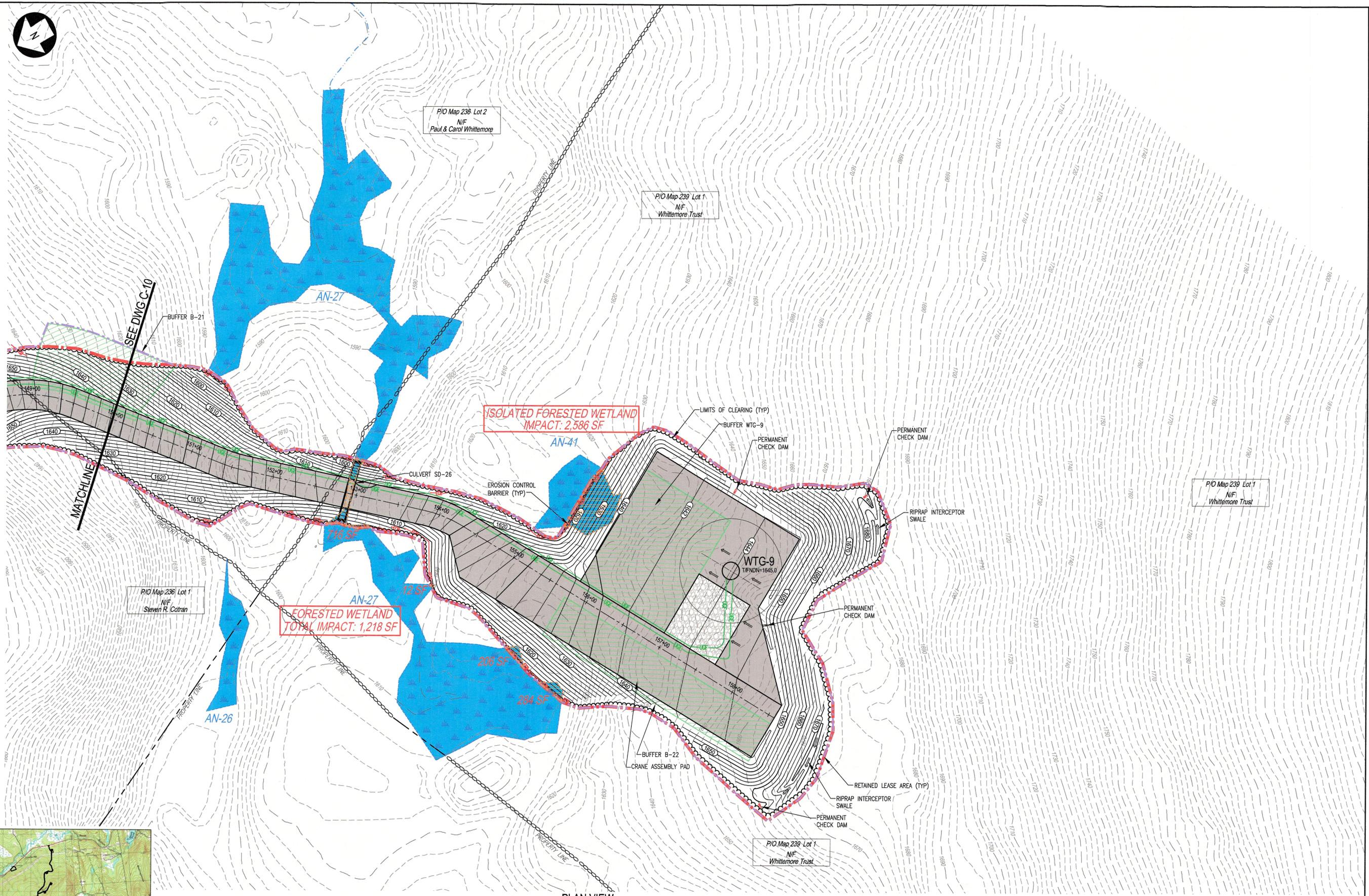
PLAN: WTG-2 & 3 SPUR ROAD  
STA 0+00 TO 15+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**TRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
SCALE: AS NOTED DATE: 11-8-11

C-12

REV. C

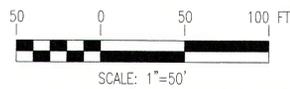


SEE DWG C-10  
MATCHLINE

FORESTED WETLAND  
TOTAL IMPACT: 1,218 SF

ISOLATED FORESTED WETLAND  
IMPACT: 2,586 SF

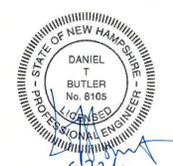
PLAN VIEW  
SCALE: 1"=50'



- NOTES:**
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CLIENT APPROVAL	
DESIGNED	TRC/PMM
DRAWN	TRC/KAV
CHECKED	TRC/DTB
APPROVED BY	
COMPANY	
DATE	
REVIEWED	

PLAN: MAIN ACCESS ROAD  
STA 150+00 TO 158+57  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

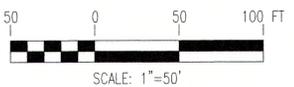
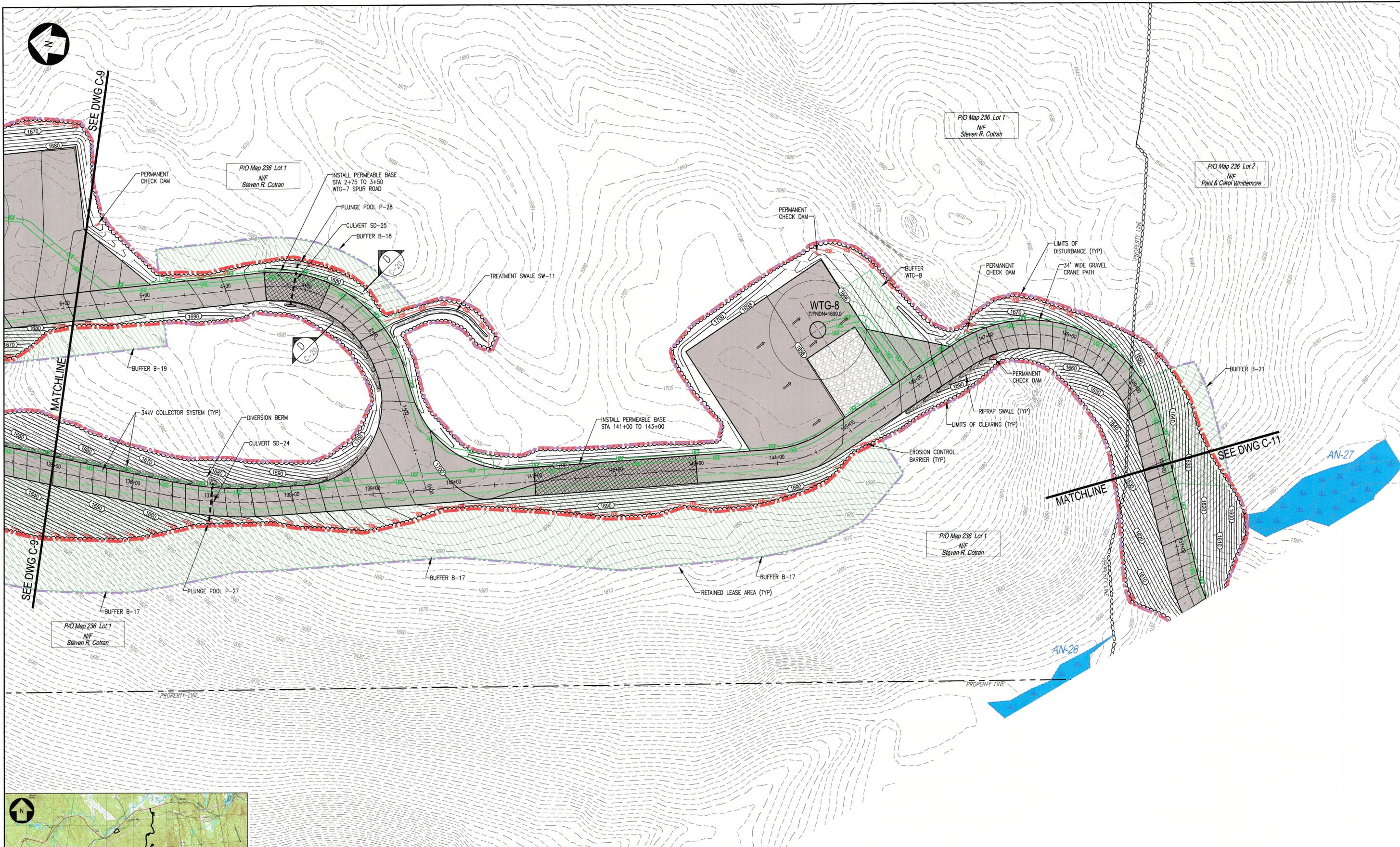
ANTRIM

**CTRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
PROJECT NO: 182878  
DATE: 11-8-11

SCALE: AS NOTED

C-11

REV. C



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**PLAN VIEW**  
SCALE: 1"=50'

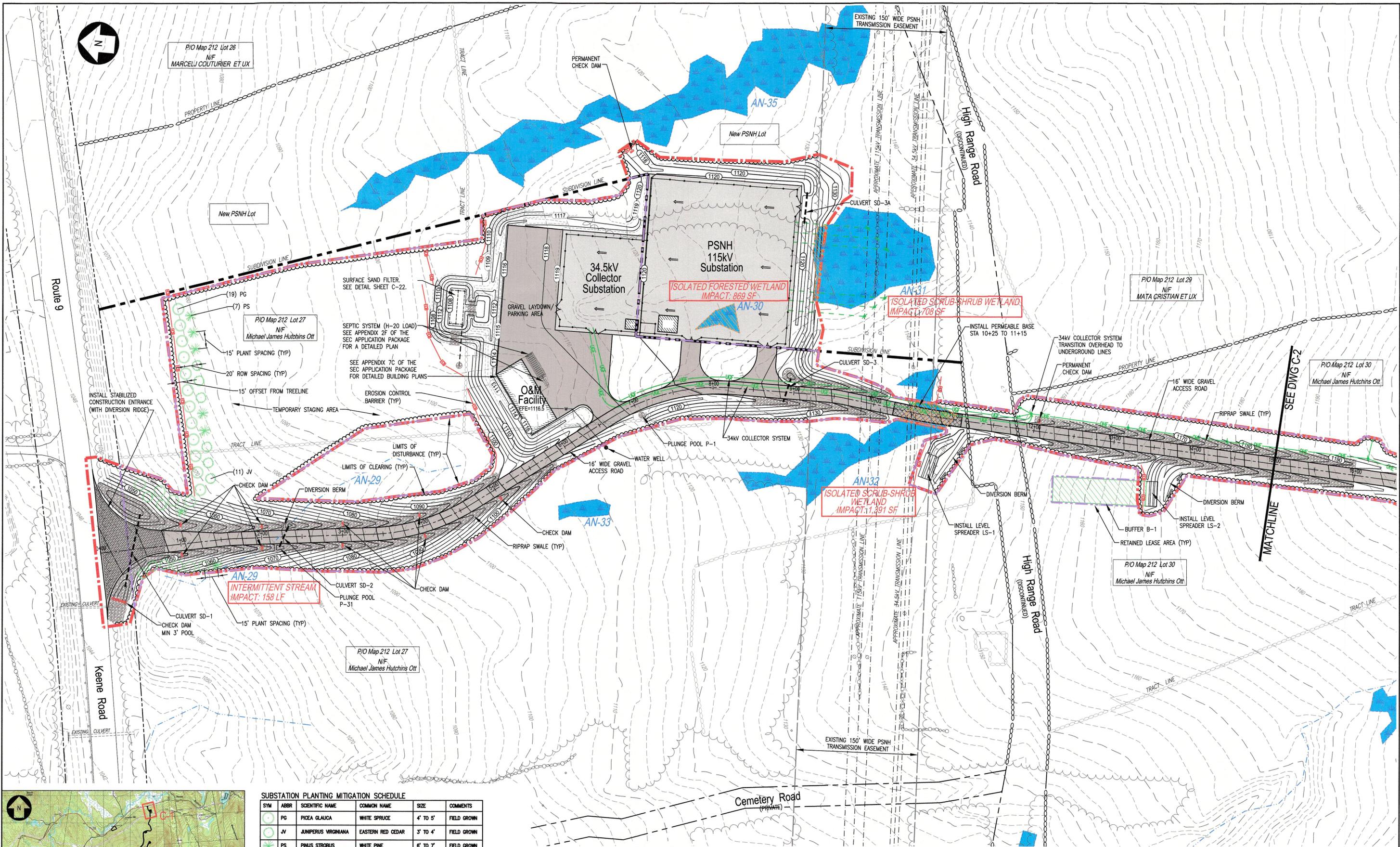
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CLIENT APPROVAL	
APPROVED BY	TRC/PLM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PLAN: MAIN ACCESS ROAD STA 135+00 TO 150+00 ANTRIM WIND ENERGY, LLC ANTRIM WINDPARK		ANTRIM NEW HAMPSHIRE
	249 WESTERN AVENUE AUGUSTA, ME 04330 PROJECT NO: 182878 SCALE: AS NOTED DATE: 11-8-11	C-10 REV. C



**SUBSTATION PLANTING MITIGATION SCHEDULE**

SYM	ABBR	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
PG	PG	PICEA GLAUCA	WHITE SPRUCE	4' TO 5'	FIELD GROWN
JV	JV	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR	3' TO 4'	FIELD GROWN
PS	PS	PINUS STROBUS	WHITE PINE	6' TO 7'	FIELD GROWN

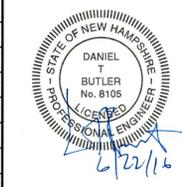


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**PLAN VIEW**  
SCALE: 1"=50'

**NOT FOR CONSTRUCTION**

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CLIENT APPROVAL	
APPROVED BY	TRC/PMM DESIGNED
COMPANY	TRC/KAV DRAWN
DATE	TRC/DTB CHECKED
	APPROVED
	REVIEWED

PLAN: MAIN ACCESS ROAD  
STA 0+00 TO 15+00  
ANTRIM WIND ENERGY, LLC  
ANTRIM WINDPARK  
NEW HAMPSHIRE

ANTRIM

**TRC** 249 WESTERN AVENUE  
AUGUSTA, ME 04330  
SCALE: AS NOTED DATE: 11-8-11

C-1

REV. C

**Requirements per 1508.19:**

- a) If diversion swales are incorporated to keep upstream drainage off the constructed slope, a bench shall be provided whenever the vertical height exceeds 40 feet.
- b) If diversion swales are not incorporated, benches shall be provided whenever the vertical height of any 2:1 slope exceeds 20 feet; any 3:1 slope exceeds 30 feet; or any 4:1 slope exceeds 40 feet.
- e) Benches shall be a minimum of 6 feet wide, with a reverse slope of 6:1 or flatter.

STA - Begin	STA - End	Side of Road	Slope Height (ft)	Slope Type	Comments:
32+00	35+00	Left	40	Cut	Diversion swale will work here
51+00	53+00	Right	25	Fill	Upstream run-on managed by permeable base. Need sheet flow to roadside buffer. No bench.
56+25	57+25	Left	20+	Cut	Diversion swale will work here
58+25	62+50	Right	20+	Fill	No upstream run-on except road. Need sheet flow to buffer. No bench.
62+50	64+50	Left	20+	Cut	Diversion swale will work here
WTG-2			45	Fill	Existing ground at toe appr. 2:1. Stabilize with riprap?
70+50		Left	20+	Fill	No upstream run-on except road. Need sheet flow to buffer. No bench.
99+00	104+25	Right	20 - 35	Fill	No upstream run-on except road. Need sheet flow to buffer. No bench.
104+75	106+50	Left	20 - 30	Cut	Diversion swale will work here
108+50	110+75	Right	20 - 30	Fill	No upstream run-on except road. No bench to avoid wetland impacts.
109+25	110+25	Left	20+	Fill	No upstream run-on except road.
121+25	122+25	Left	20+	Cut	Ridgetop. No upstream run-on.
123+50		Right	24	Fill	No upstream run-on except road
124+25		Left	20+	Cut	Ridgetop. No upstream run-on.
128+50	132+50	Left	20 - 45	Cut	Diversion swale will work here
133+75	136+25	Right	20 - 30	Fill	No upstream run-on except road. Need sheet flow to buffer. No bench.
WTG-7			24	Fill	No upstream run-on except road.
148+50	151+50	Right	20 - 25	Fill	No upstream run-on.
149+25	151+25	Left	20 - 40	Fill	No upstream run-on except road. No bench to avoid wetland impacts and for buffer.
155+75	156+75	Right	20 - 30	Fill	No upstream run-on except road. No bench to avoid wetland impacts.
WTG-9			20	Fill	No bench to minimize wetland impacts.