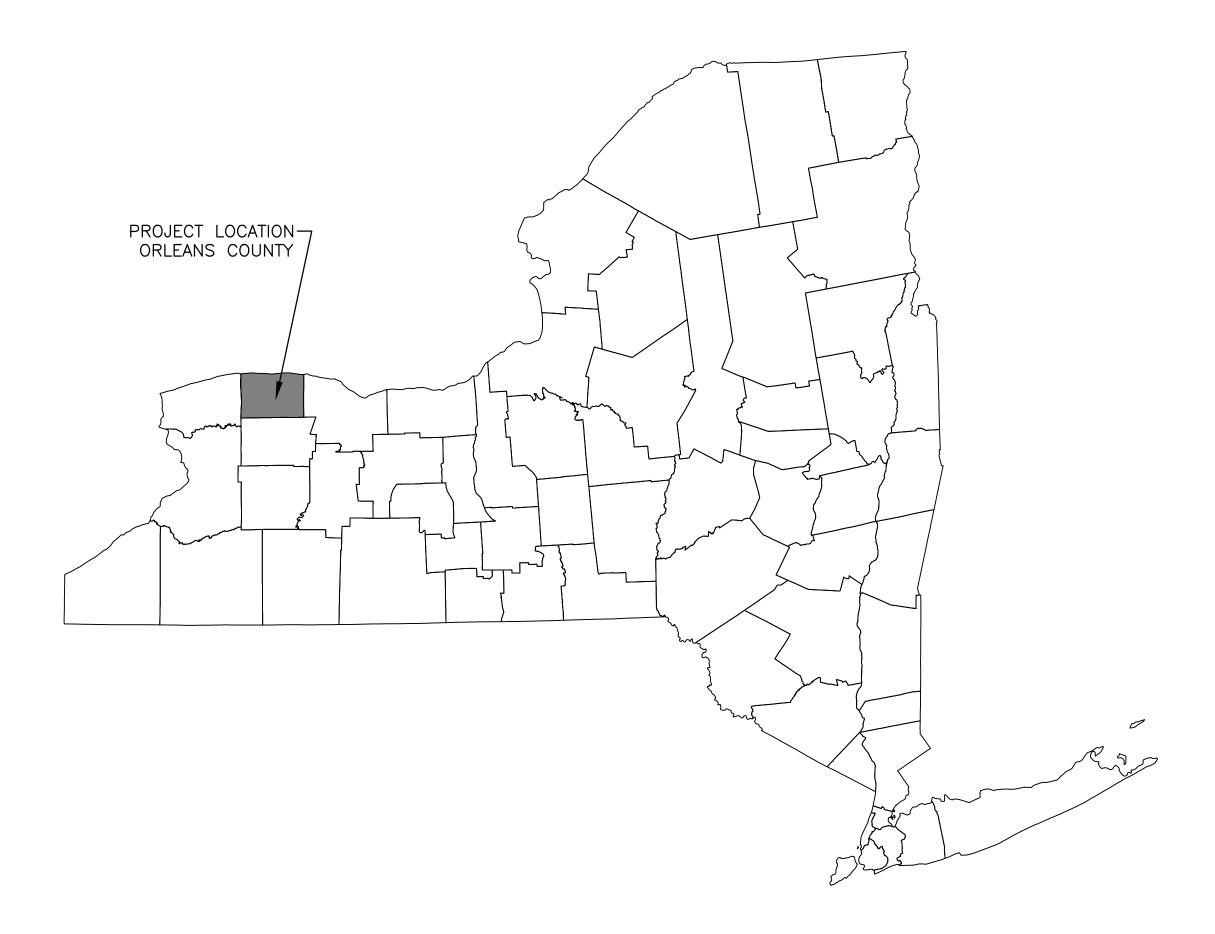
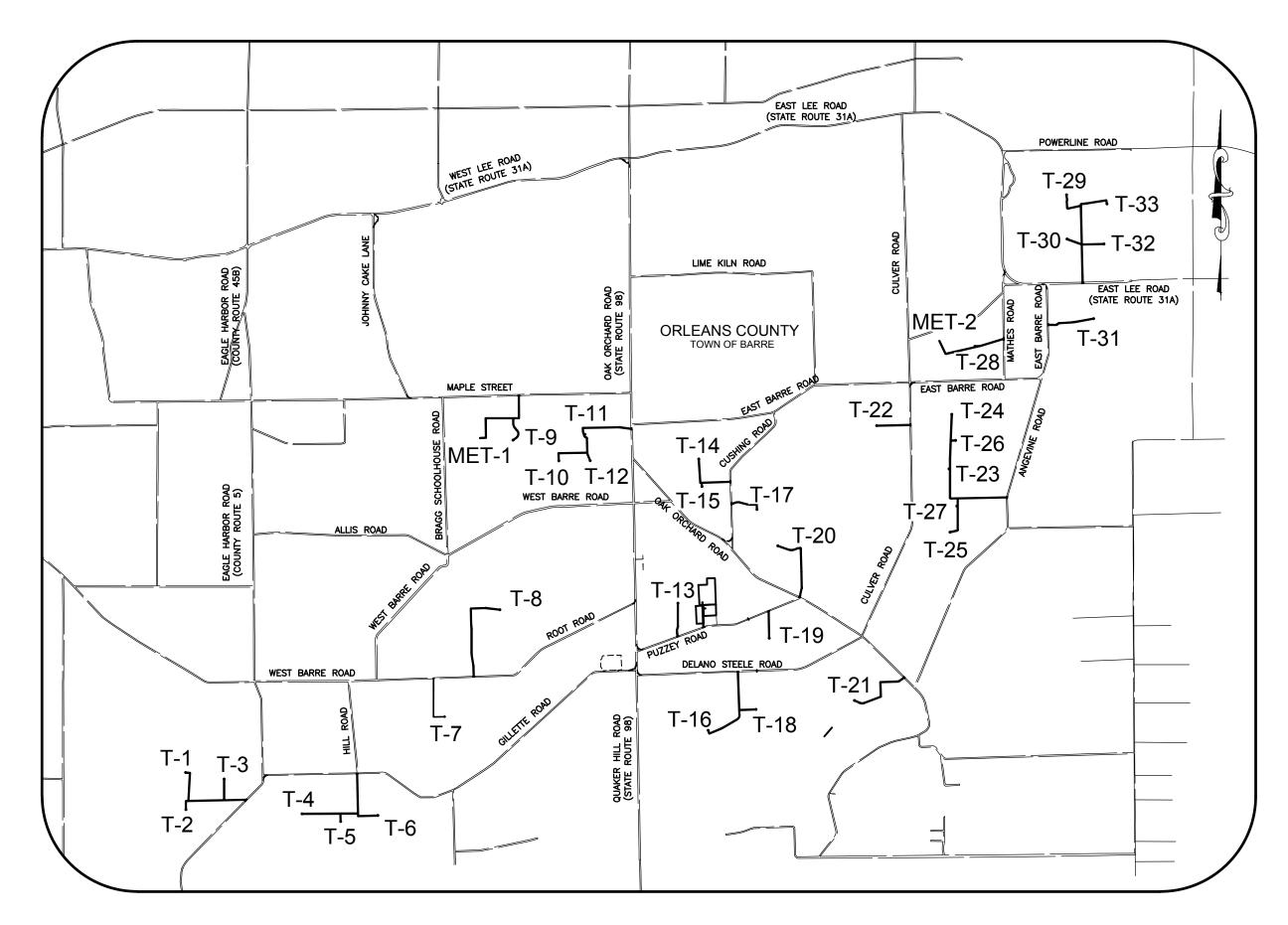
HERITAGE WIND PROJECT PRELIMINARY PLANS

TOWN OF BARRE ORLEANS COUNTY, NEW YORK



NEW YORK STATE MAP N.T.S.



LOCATION MAP N.T.S.

INDEX OF DRAWINGS:

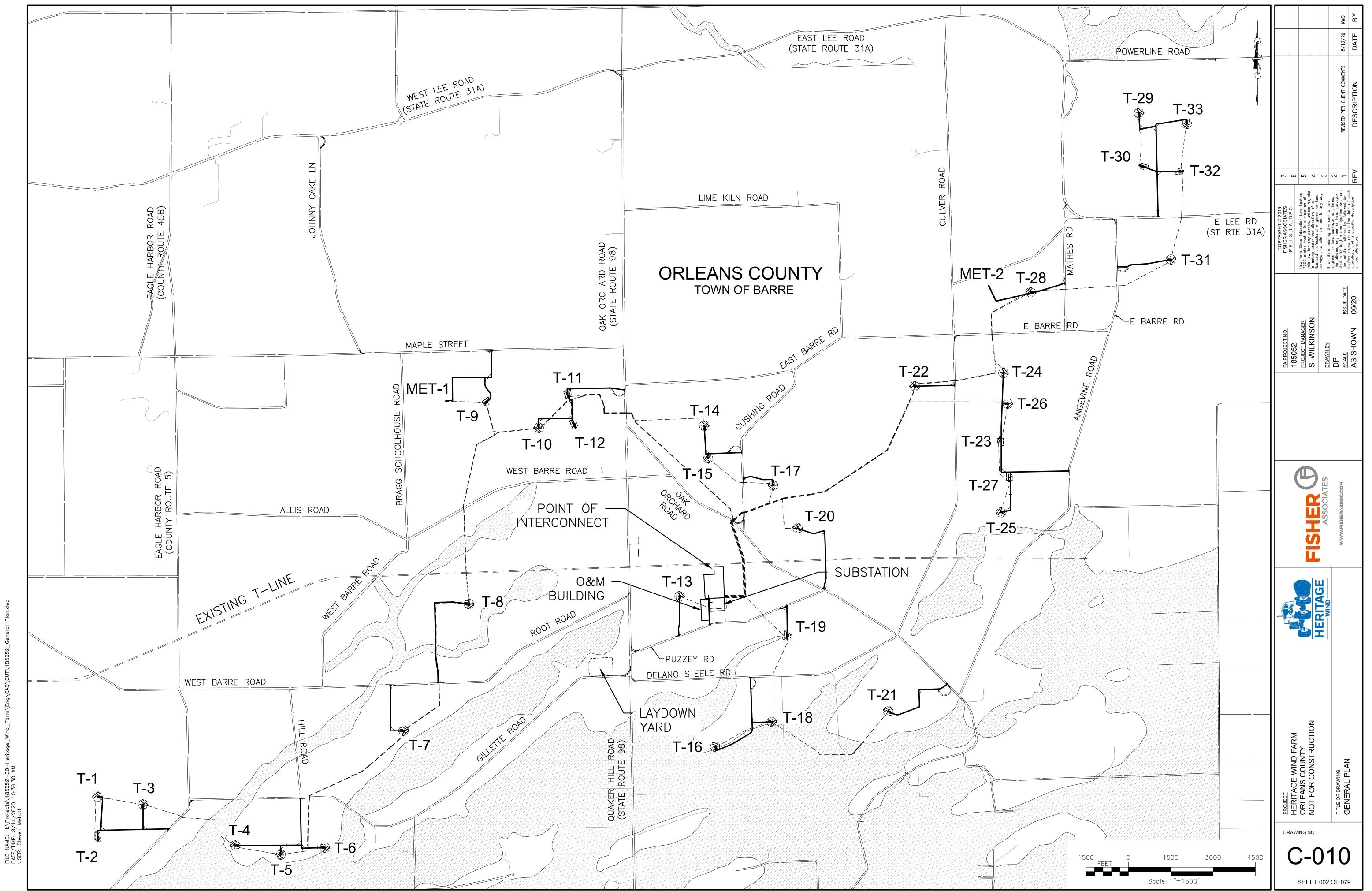
DRAWING NO. DESCRIPTION
C-001 COVER
C-010 GENERAL PLAN
C-020 TRANSPORTATION PLAN
C-030 TURBINE COORDINATES
C-040 GENERAL NOTES
C-050,060,070,090 DETAILS

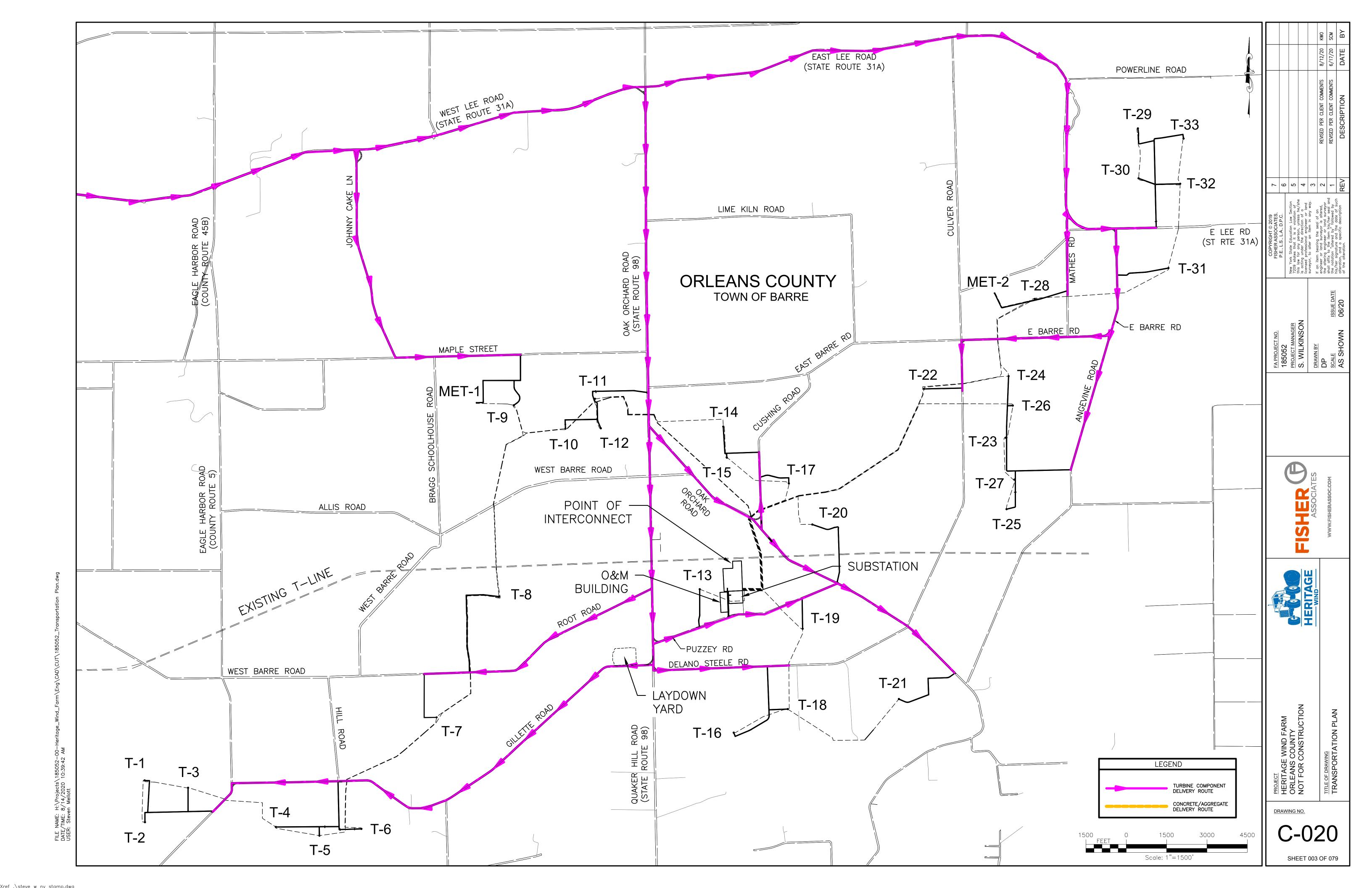
C-100'S PUBLIC ROAD IMPROVEMENT PLANS

C-200'S ACCESS ROAD PLANS C-300'S COLLECTION LINE PLANS

FILE NAME: H:\Projects\185052-00-Heritage_Wind_Farm\Eng\CAD\CUT\18505 DATE/TIME: 8/14/2020 10:39:17 AM USER: Steven Mellott

SHEET 001 OF 079





Turbine Number	Easting*	Northing*	Ground Elevation	Top of Pedestal Elevation	
		Northing*	(AMSL FEET)	(AGL FEET)	
T1	1233357.93	1145174.35	633.11	635.50	
T2	1233369.63	1143623.26	640.19	645.00	
T3	1234972.93	1144900.46	657.40	659.00	
T4	1238235.32	1143445.61	634.54	636.50	
T5	1239854.57	1143124.27	644.68	649.50	
T6	1241413.98	1143375.01	631.61	637.00	
T7	1244212.69	1147518.99	639.81	641.50	
T8	1246530.00	1152006.27	643.97	646.00	
T9	1247083.05	1159117.66	659.79	663.00	
T10	1249002.86	1158249.17	661.62	664.00	
T11	1250095.53	1159356.01	655.68	659.00	
T12	1250315.60	1158258.99	654.04	656.50	
T13	1253993.41	1152280.03	649.91	655.50	
T14	1254866.89	1158323.62	665.84	670.00	
T15	1255000.70	1157169.71	653.58	657.00	
T16	1255256.16	1146949.87	646.31	649.00	
T17	1257305.76	1156211.99	649.34	651.00	
T18	1257262.58	1147825.77	643.08	645.00	
T19	1257818.26	1150812.12	642.08	645.00	
T20	1258177.85	1154685.69	651.23	653.00	
T21	1261394.18	1148199.77	671.10	675.00	
T22	1262326.93	1159723.81	670.95	674.50	
T23	1265359.67	1157908.65	653.36	657.50	
T24	1265473.95	1160195.92	652.04	654.00	
T25	1265396.77	1155254.88	644.93	646.50	
T26	1265629.22	1159103.66	655.00	656.50	
T27	1265685.30	1156353.20	680.90	682.50	
T28	1266442.59	1163054.14	666.56	668.50	
T29	1270280.98	1169403.46	668.86	670.50	
T30	1270305.11	1167549.05	664.29	667.00	
T31	1271416.40	1164214.29	652.24	654.00	
T32	1271852.15	1167345.89	660.00	664.00	
T33	1271977.56	1169026.33	669.49	671.00	
MET-1	1245698.07	1159207.63	662.51	663.50	

2	2 22	4	3	2					
COPYRIGHT © 2019 FISHER ASSOCIATES, P.E., L.S., L.A., D.P.C.	New York State Education Law Section 7209 states that it is a violation of	ins law for any person, unless he/she is acting under the direction of a licensed professional engineer or land	surveyor, to alter an item in any way.	engineer or land surveyor is altered, the altering engineer or land surveyor	shall affix to the item his/her seal and the notation "altered by" followed by the notation altered by a followed by the notation altered by the notation altered by the notation altered by the notation altered by the notation are not	I his/her signature and the date of such			
FA PROJECT NO.	PROJECT MANAGER	S. WILKINSON	DRAWN BY	DP	SCALE ISSUE DATE				
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FISHER (F) ASSOCIATES					WWW.FISHERASSOC.COM				
HERITAGE									
PROJECT HERITAGE WIND FARM	TITLE OF DRAWING	TITLE OF DRAWING TURBINE COORDINATES							
DRAV	SHE	-(004		079	,			

- 2. THE PLANIMETRIC FEATURES AND CONTOURS ARE FROM THE NYS GIS DATA CLEARINGHOUSE.
- 3. THE ELEVATIONS SHOWN ON THESE DRAWINGS ARE TO BE CONSIDERED GUIDANCE AND SHOULD BE ADJUSTED TO FIT ACTUAL FIELD CONDITIONS DURING CONSTRUCTION. THE CONTRACTOR SHALL USE JUDGEMENT WHEN ESTABLISHING CONSTRUCTION GRADES AND ELEVATIONS.
- 4. SURVEYED BOUNDARY LINES FOR PROPERTIES AND RIGHT-OF-WAY INFORMATION WERE GATHERED FROM ORLEANS COUNTY.
- 5. FROM THE CONTROL POINTS AND BENCHMARKS PROVIDED BY THE OWNER'S ENGINEER, THE CONTRACTOR SHALL SUPPLY ALL CONSTRUCTION SURVEYING AND STAKING REQUIRED TO BUILD THE PROJECT IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR EXTRACTING STAKING COORDINATES FROM THE CONSTRUCTION DRAWINGS PROVIDED BY THE OWNER'S ENGINEER. ELECTRONIC COPIES OF THE CONSTRUCTION DRAWINGS WILL BE PROVIDED TO THE CONTRACTOR IF REQUESTED. ALL STAKEOUT SHALL BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
- 6. ALL MATERIALS AND SOILS SHALL BE DISPOSED OF IN PERMITTED DISPOSAL SITES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ADDITIONAL NYSDEC PERMITTED DISPOSAL SITES.
- 7. THE CONTRACTOR SHALL APPLY FOR AND SECURE PERMITS FROM THE STATE AS NECESSARY BEFORE DRIVING CONSTRUCTION EQUIPMENT OVER AND ACROSS THE STATE HIGHWAYS AND ROADS.
- 8. MATERIALS USED SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION (NYSDOT) "STANDARD SPECIFICATIONS AND DETAILS".
- 9. WORK WITHIN A STATE RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NEW YORK DEPARTMENT OF TRANSPORTATION (NYSDOT) "STANDARD SPECIFICATIONS AND DETAILS" AND "NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- 10. ALL WORK PERFORMED WITHIN A STATE RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE PERMIT ISSUED BY THE NEW YORK DEPARTMENT OF TRANSPORTATION ON FILE WITH THE OWNER'S ENGINEER AND PROVIDED TO THE CONTRACTOR. THE CONTRACTOR SHALL OBTAIN AND PROVIDE AN INDIVIDUAL HIGHWAY PERMIT BOND BEFORE BEGINNING WORK ON STATE RIGHT-OF-WAY.
- 11. SOIL DISTURBANCE LIMITS ARE SHOWN ON THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL KEEP ALL EARTHWORK ACTIVITY BETWEEN THESE LIMITS. OTHER CONSTRUCTION ACTIVITY INCLUDING TRAVELING BETWEEN TURBINE SITES, MATERIAL STORAGE, EROSION CONTROL MEASURES, AND TREE TRIMMING ARE RESTRICTED TO WITHIN THE CONSTRUCTION EASEMENTS ON LEASED PROPERTIES ONLY.
- 12. THE CONTRACTOR SHALL DISPOSE OF ALL EXCESS SOIL RESULTING FROM THE CONSTRUCTION OF THE ROADS OR TURBINE FOUNDATIONS IN AN APPROVED MANNER. NO TOPSOIL WILL BE ALLOWED TO LEAVE THE PROPERTY FROM WHICH IT WAS DUG. EXCESS TOPSOIL SHALL BE DISTRIBUTED INTO A THIN LAYER ON LAND IMMEDIATELY ADJACENT TO WHERE THE TOPSOIL ORIGINATED. WHILE DOING SO THE CONTRACTOR SHALL AVOID CAUSING RIDGES OR MOUNDS THAT WOULD MAKE IT DIFFICULT TO CULTIVATE THE PROPERTY OR THAT WOULD CAUSE RAINWATER TO POND. THE FINAL SURFACE OF THE DISTRIBUTED TOPSOIL SHALL BE SMOOTH AND FOLLOW THE NATURAL CONTOUR OF THE LAND. ALL OTHER SOIL THAT WOULD NOT BE CLASSIFIED AS TOPSOIL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT A DISPOSAL SITE ARRANGED FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL OBSERVE ALL APPLICABLE EPA AND NYSDEC RULES AND REGULATIONS DURING THE HANDLING AND DISPOSAL OPERATION.
- 13. THE FINISHED SURFACE OF CRANE PAD SHALL NOT SLOPE MORE THAN 1% IN ANY DIRECTION THE CRANE PAD SHALL BE CONSTRUCTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- 14. THE CONTRACTOR SHALL PROOF ROLL THE SUBGRADE PRIOR TO ANY AGGREGATE MATERIALS BEING PLACED. THE PROOF ROLL OPERATIONS SHOULD COMPLY WITH THE GEOTECHNICAL ENGINEER RECOMMENDATIONS. IF IT RAINS BETWEEN THE TIME THE FINISHED CRANE PAD SURFACE IS PROOF ROLLED AND THE WTG ERECTION CRANE IS TO BE USED ON THE CRANE PAD, THE CRANE PAD SURFACE SHALL BE PROOF ROLLED AGAIN TO SHOW THAT RAIN HAS NOT WEAKENED IT.
- 15. OVER LEGAL WEIGHT VEHICLES SHALL FOLLOW THE DESIGNATED DELIVERY ROUTE ONLY.
- 16. PERMANENT PIPE CULVERTS SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE. TEMPORARY PIPE CULVERT EXTENSION MATERIALS SHALL BE DETERMINED BY THE CONTRACTOR. TEMPORARY CULVERTS SHALL BE CHOSEN BASED ON ANTICIPATED EXPOSURE TO OVERWEIGHT CONSTRUCTION TRAFFIC.
- 17. CONTRACTOR SHALL FIELD VERIFY THE LENGTHS OF ALL PIPE CULVERTS TO BE REMOVED AND INSTALLED PRIOR TO ORDERING THE PIPE.
- 18. CULVERT INVERTS SHALL BE DETERMINED DURING INSTALLATION TO PROVIDE POSITIVE FLOW IN THE DIRECTION OF EXISTING SLOPES. CONTRACTOR TO INSTALL AT ADEQUATE DEPTHS AND DAYLIGHT
- 19. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY BEFORE ANY CONSTRUCTION WORK HAS BEGUN, OF OBTAINING FROM ALL UTILITIES THE EXACT LOCATION OF ANY UNDERGROUND FACILITIES IN THE AREA OF CONSTRUCTION, WHETHER INDICATED ON THE PLANS OR NOT. WHENEVER A QUESTION ARISES REGARDING THE EXISTENCE OR LOCATION OF A BURIED UTILITY, CALL THE TOLL FREE TELEPHONE NUMBER, 1-800-632-4949, BEFORE STARTING EXCAVATION. ALLOW 48 HOURS FOR OTHER THAN EMERGENCY ASSISTANCE
- 20. ANY FACILITIES DISTURBED BY THE CONTRACTOR SHALL BE RESTORED AT CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL COORDINATE WITH THE PROPER LITILITY FOR THE RELOCATION OF ANY FACILITY DESIGNATED ON THE PLANS OR DEEMED NECESSARY TO BE RELOCATED IN ORDER TO COMPLETE CONSTRUCTION OF THE PROJECT.
- 21. RESIDENTS SHALL BE NOTIFIED OF IMPENDING SERVICE OUTAGES AND NO RESIDENCE SHALL BE WITHOUT SERVICE OVERNIGHT DUE TO CONSTRUCTION ACTIVITIES.
- 22. ALL ROADS SHALL REMAIN OPEN TO THROUGH TRAFFIC DURING CONSTRUCTION ON THE PRIVATE
- 23. THE CONTRACTOR SHALL BE REQUIRED TO RELOCATE OR TO REMOVE AND RE-INSTALL ALL ROAD SIGNS WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND TO TEMPORARILY RESET ALL SUCH SIGNS DURING CONSTRUCTION.
- 24. ALL WORK INVOLVING SIGNS SHALL BE GOVERNED BY THE FOLLOWING REQUIREMENTS: * SIGNS SHALL NOT BE MOVED UNTIL PROGRESS OF WORK DEMANDS. * EVERY SIGN REMOVED MUST BE RE-ERECTED AT A TEMPORARY LOCATION IN A WORKMANLIKE MANNER AND BE VISIBLE TO HIGHWAY TRAFFIC. * ALL SUCH SIGNS MUST BE MAINTAINED STRAIGHT AND NEAT FOR THE DURATION OF THE TEMPORARY SETTING. * THE LATEST EDITION OF THE NATIONAL "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- 25. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. ALL OTHER EXISTING ROW MARKERS AND/OR PROPERTY PINS SHALL BE MAINTAINED OR REPLACED BY THE CONTRACTOR IN ACCORDANCE WITH NEW YORK
- 26. A CONCRETE WASH OUT AREA SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS AT EACH TURBINE LOCATION.
- 27. ALL DEBRIS SHALL BE DISPOSED OF OFF-SITE AT LOCATIONS PROVIDED BY THE CONTRACTOR.
- 28. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE FROM ACCESS ROADS, EXCAVATIONS AND STAGING AREAS AROUND THE TURBINE SITES.
- 29. THE INTENT OF THE PLANS IS TO LOCATE THE ACCESS ROADS ALONG THE EDGE OF FIELDS AND TOP OF BANKS.
- 30. CONTRACTOR IS RESPONSIBLE FOR ALL TURNAROUNDS AND CRANE BUILD AREAS. THEIR LOCATIONS ON THE PLANS ARE APPROVED LOCATIONS, SHOULD THE CONTRACTOR DESIRE TO
- 31. DEWATERING OPERATIONS ARE EXPECTED THROUGHOUT CONSTRUCTION AND SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAILS.
- 32. REFER TO ELECTRICAL PLANS FOR ELECTRICAL SYSTEM SPECIFIC DETAILS. ANY CONFLICTS BETWEEN PLAN SETS SHOULD BE RESOLVED BY THE OWNER.

33. THIS PROJECT IS SUBJECT TO THE NEW YORK STATE POLLUTANT DISCHARGE ELIMINATION SYSTEM

- (SPDES) GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES. ALL CONSTRUCTION SHALL COMPLY TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) STORMWATER MANAGEMENT DESIGN MANUAL.
- 34. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NYSDEC "STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL". UPON COMPLETION OF THE PROJECT, ALL MATERIALS USED FOR TEMPORARY EROSION CONTROL SHALL BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR.
- 35. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT AND SHALL NOT BLOCK NATURAL OR MANMADE CREEKS OR DRAINAGE SWALES CAUSING RAINWATER TO POND. ALL DRAINAGE PATTERNS MUST BE CONTAINED TO THE EXISTING

- PARCELS, CONTRACTOR CANNOT SHIFT DRAINAGE PATTERNS ONTO OTHER PARCELS. ALL ROADSIDE DITCHES WITHIN THE CONSTRUCTION LIMITS ARE TO BE CLEANED, HAVE SILT REMOVED AND BE GRADED TO DRAIN AS NEEDED.
- 36. THE CONTRACTOR SHALL KEEP ALL PERSONNEL AND EQUIPMENT ON THE ROADS DESIGNATED FOR USE DURING CONSTRUCTION SHOWN IN THE TRANSPORTATION ROUTE PLAN. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE POSTING OF ANY ROADS AND/OR BRIDGES OVER WHICH
- 37. ALL OPEN EXCAVATIONS LEFT OVERNIGHT THROUGHOUT THE PROJECT SHALL BE PROTECTED BY FENCES AND BARRICADES 4 FEET OR TALLER.
- 38. ALL DISTRIBUTION AND GAS WELL LINE CROSSING SHALL BE MATTED. GAS TRANSMISSION LINES SHALL REQUIRE A TIMBER AIR BRIDGE.
- 39. ALL ELECTRIC COLLECTION LINES SHALL MAINTAIN A MINIMUM 24 INCH VERTICAL SEPARATION BETWEEN EXISTING DISTRIBUTION AND GAS WELL LINES.
- 40. INVASIVE PLANT SPECIES ARE FOUND THROUGHOUT THE PROJECT LIMITS. REFER TO THE INVASIVE SPECIES CONTROL PLAN PREPARED BY ENVIRONMENTAL DESIGN & RESEARCH (EDR).

STORM WATER POLLUTION PREVENTION PLAN (SWPPP) CONSTRUCTION NOTES:

- PRIOR TO ANY DISTURBANCE, THE CONTRACTOR SHALL ENSURE THAT THE NOTICE OF INTENT (NOI) PREPARED BY THE OWNER HAS BEEN SUBMITTED TO THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) AND THAT THE APPROPRIATE LETTER OF ACKNOWLEDGMENT CONTAINING A SPDES PERMIT IDENTIFICATION NUMBER HAS BEEN OBTAINED. COPIES OF ALL DOCUMENTS ARE TO BE MAINTAINED AT THE PROJECT SITE PRIOR TO ANY DISTURBANCE INCLUDING A COPY OF THE SWPPP, THE CONTRACTOR SHALL ENSURE THAT A PRE-CONSTRUCTION MEETING IS HELD TO ESTABLISH AN APPROVED SEQUENCE OF ACTIVITIES IN ACCORDANCE WITH THE SWPPP AND SUPPORTING DOCUMENTATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE IDENTIFIED SEQUENCE OF ACTIVITIES IS FOLLOWED
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL CERTIFY THAT THEY UNDERSTAND AND AGREE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE SWPPP PRIOR TO COMMENCEMENT OF ANY DISTURBANCE. THE SWPPP REPORT CONTAINS THE CONTRACTOR AND SUBCONTRACTOR CERTIFICATION FORM THAT SHALL BE USED.
- 3. STORM WATER DISCHARGES AUTHORIZED BY THE PERMIT SHALL NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS INCLUDING BUT NOT LIMITED TO THESE PROVISIONS:
- A. THERE SHALL BE NO INCREASE IN TURBIDITY THAT WILL CAUSE A SUBSTANTIAL VISIBLE CONTRAST TO NATURAL CONDITIONS.
- B. THERE SHALL BE NO SUSPENDED OR SETTLEABLE SOLIDS THAT WILL CAUSE DEPOSITION OR IMPAIR THE RECEIVING WATERS FOR THEIR BEST USES.
- C. THERE SHALL BE NO DISCHARGE OF RESIDUES FROM PETROLEUM PRODUCTS, CHEMICAL PRODUCTS, OR FLOATING SUBSTANCES.
- 4. THE CONTRACTOR SHALL INSTALL A RAIN GAUGE ON-SITE, ACCURATELY RECORD ITS MEASUREMENT EVERY MORNING DURING CONSTRUCTION AND MAINTAIN A LOG ONSITE.
- EARTH WORK SHALL BE PERFORMED ONLY WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE EXISTING WEATHER CONDITIONS AND THE WEATHER FORECAST TO DETERMINE IF THE CONDITIONS AT HAND ARE SUITABLE PRIOR TO THE COMMENCEMENT OF WORK EACH DAY. NO EARTHWORK SHALL BE PERMITTED DURING PERIODS OF HEAVY PRECIPITATION.
- CLEARING AND GRADING SHALL BE PERFORMED TO MINIMIZE DISTURBANCE OF GROUND COVER, ONLY THE SMALLEST AREA THAT IS PRACTICAL SHALL BE DISTURBED AT ANY ONE TIME. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM THE NYSDEC IF MORE THAN 5 ACRES OF DISTURBANCE AT ANY GIVEN TIME IS REQUIRED
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROLLING DUST ORIGINATING FROM ITS CONSTRUCTION OPERATIONS TO THE SATISFACTION OF THE OWNER AND SWPPP PROFESSIONAL. THE CONTRACTOR SHALL SUPPLY THE NECESSARY EQUIPMENT AND MATERIALS TO ACCOMPLISH ADEQUATE DUST CONTROL.
- 8. THESE PLANS, THE SWPPP NOI AND SUPPORTING DOCUMENTS PREPARED BY THE OWNER AND INCORPORATED HEREIN, THE SPDES PERMIT, AND THE "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" ARE THE MINIMUM ANTICIPATED EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR THE DEVELOPMENT AS PROPOSED. ADDITIONAL MEASURES DEEMED NECESSARY DURING CONSTRUCTION BY THE NYSDEC, MUNICIPALITIES, OR THE QUALIFIED PROFESSIONAL, SHALL BE CONSTRUCTED AND MAINTAINED BY THE CONTRACTOR.
- IN AREAS WHERE FINAL GRADING CREATES RUN-OFF CONCENTRATIONS THAT RETARD SLOPE STABILIZATION, "JUTE-MESH", SOD, OR ENERGY DISSIPATION, AS APPROVED BY THE QUALIFIED PROFESSIONAL, SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR TO ACHIEVE FINAL STABILIZATION.
- 10. ALL DISTURBED AREAS SHALL BE STABILIZED WITH EITHER TEMPORARY OR PERMANENT SEED MIXES AND MULCHED, AS SOON AS CONSTRUCTION PRACTICES AND WEATHER PERMITS. DISTURBED AREAS, INCLUDING TOPSOIL STOCKPILES. SHALL NOT REMAIN UNSTABLE FOR MORE THAN 14 CONSECUTIVE DAYS AFTER CONSTRUCTION DISTURBANCE ACTIVITIES IN THE AREA HAVE TEMPORARILY OR
- 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE STORM WATER CONTROL DEVICES REMAIN IN PLACE AND FUNCTIONAL BY CLEANING, REPAIRING, AND, OR REPLACING THEM WHENEVER NECESSARY OR AS DIRECTED BY THE QUALIFIED PROFESSIONAL, UNTIL FINAL STABILIZATION IS ACHIEVED.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL EROSION AND SEDIMENT CONTROL DEVICES WHEN SPECIFIED BY THE QUALIFIED PROFESSIONAL.
- 13. FINAL STABILIZATION SHALL MEAN THAT ALL SOIL-DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED, A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 80 PERCENT HAS BEEN ESTABLISHED OR EQUIVALENT STABILIZATION MEASURES HAVE BEEN EMPLOYED ON ALL PERVIOUS AREAS, AND ALL IMPERVIOUS COVERS HAVE BEEN INSTALLED.
- 14. THE CONTRACTOR SHALL NOTIFY THE OWNER WHEN CONSTRUCTION IS COMPLETE AND WHEN FINAL STABILIZATION OF THE AREAS TO BE DISTURBED IS COMPLETE. UPON RECEIPT OF SUCH NOTIFICATION, THE QUALIFIED PROFESSIONAL SHALL PREPARE A NOTICE OF TERMINATION (NOT), APPROVED BY THE OWNER/OPERATOR, FOR SUBMITTAL TO THE NYSDEC.

N.Y.S.D.O.T. STANDARD GENERAL PLAN NOTES

- 1. ROAD TO BE KEPT CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- 2. ROADSIDE DRAINAGE TO BE MAINTAINED AT ALL TIMES.
- 3. MATERIALS, EQUIPMENT, AND VEHICLES ARE NOT TO BE STORED OR PARKED WITHIN THE NEW YORK STATE RIGHT-OF-WAY.
- 4. WORK ZONE TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE MOST RECENT NYSDOT STANDARD SPECIFICATIONS - SECTION 619 WORK ZONE TRAFFIC CONTROL, THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS 2009 EDITION AND THE NEW YORK STATE SUPPLEMENT.
- 5. NOTIFY NEW YORK STATE DEPARTMENT OF TRANSPORTATION RESIDENT ENGINEER, ERIC MEKA, ONE (1) WEEK PRIOR TO WORKING IN THE RIGHT-OF-WAY (TELEPHONE NUMBER: (716) 753-2821).
- 6. NOTIFY DIG SAFELY NEW YORK TWO (2) WORKING DAYS PRIOR TO DIGGING, DRILLING, OR BLASTING AT 1-800-962-7962 FOR UTILITY STAKE-OUT.
- 7. ALL MATERIALS USED WITHIN THE STATE RIGHT-OF-WAY MUST COMPLY WITH THE LATEST NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND THE CURRENT ADDENDA, ALONG WITH ANY APPROPRIATE CURRENT NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SHEETS.
- 8. ALL TRAFFIC CONTROL DEVICES MUST CONFORM TO THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (NMUTCD) FOR STREETS AND HIGHWAYS AND THE NEW YORK STATE

NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS GUIDELINES FOR AGRICULTURAL MITIGATION FOR WIND POWER PROJECTS

THE FOLLOWING GUIDELINES SHALL APPLY TO CONSTRUCTION AREAS FOR WIND POWER CONSTRUCTION PROJECTS IMPACTING AGRICULTURAL LAND. THE PROJECT SPONSOR SHALL COORDINATE WITH THE NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS (AG. AND MARKETS) TO DEVELOP AN APPROPRIATE SCHEDULE FOR INSPECTIONS TO ASSURE THAT THE GOALS OF THESE GUIDELINES ARE BEING MET. THE PROJECT SPONSOR SHALL HIRE AN ENVIRONMENTAL MONITOR TO OVERSEE THE CONSTRUCTION AND RESTORATION IN AGRICULTURAL FIELDS. THE ENVIRONMENTAL MONITOR SHALL BE ON SITE WHENEVER CONSTRUCTION OR RESTORATION WORK IS OCCURRING ON AGRICULTURAL LAND. THE ENVIRONMENTAL MONITOR SHALL MAINTAIN REGULAR CONTACT WITH THE AFFECTED FARMERS AND AG. AND MARKETS CONCERNING FARM RESOURCES AND MANAGEMENT MATTERS PERTINENT TO THE AGRICULTURAL OPERATIONS AND THE SITE-SPECIFIC IMPLEMENTATION OF THE CONSTRUCTION AND RESTORATION GUIDELINES.

SITING GOALS

MINIMIZE IMPACTS TO NORMAL FARMING OPERATIONS BY LOCATING STRUCTURES ALONG FIELD EDGES AND IN NONAGRICULTURAL AREAS WHERE POSSIBLE. AVOID DIVIDING LARGER FIELDS INTO SMALLER FIELDS, WHICH ARE MORE DIFFICULT TO FARM, BY LOCATING ACCESS ROADS ALONG THE EDGE OF AGRICULTURAL FIELDS (HEDGEROWS AND FIELD BOUNDARIES) AND IN NONAGRICULTURAL AREAS WHERE POSSIBLE. LOCATE ACCESS ROADS, WHICH CROSS AGRICULTURAL FIELDS, ALONG RIDGE TOPS AND FOLLOWING FIELD CONTOURS, WHERE POSSIBLE, TO ELIMINATE THE NEED FOR CUT AND FILL AND REDUCE THE RISK OF CREATING DRAINAGE PROBLEMS. THE PERMANENT WIDTH OF ACCESS ROADS IN AGRICULTURAL FIELDS SHOULD BE NO MORE THAN 20 FEET TO MINIMIZE THE LOSS OF AGRICULTURAL LAND. ALL EXISTING DRAINAGE AND EROSION CONTROL STRUCTURES SUCH AS DIVERSIONS, DITCHES, AND TILE LINES SHALL BE AVOIDED OR APPROPRIATE MEASURES TAKEN TO MAINTAIN THE DESIGN AND EFFECTIVENESS OF THE EXISTING STRUCTURES. ANY STRUCTURES DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED TO AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE, AS SOON AS POSSIBLE, UNLESS SUCH STRUCTURES ARE TO BE ELIMINATED BASED ON A NEW DESIGN.

CONSTRUCTION REQUIREMENTS

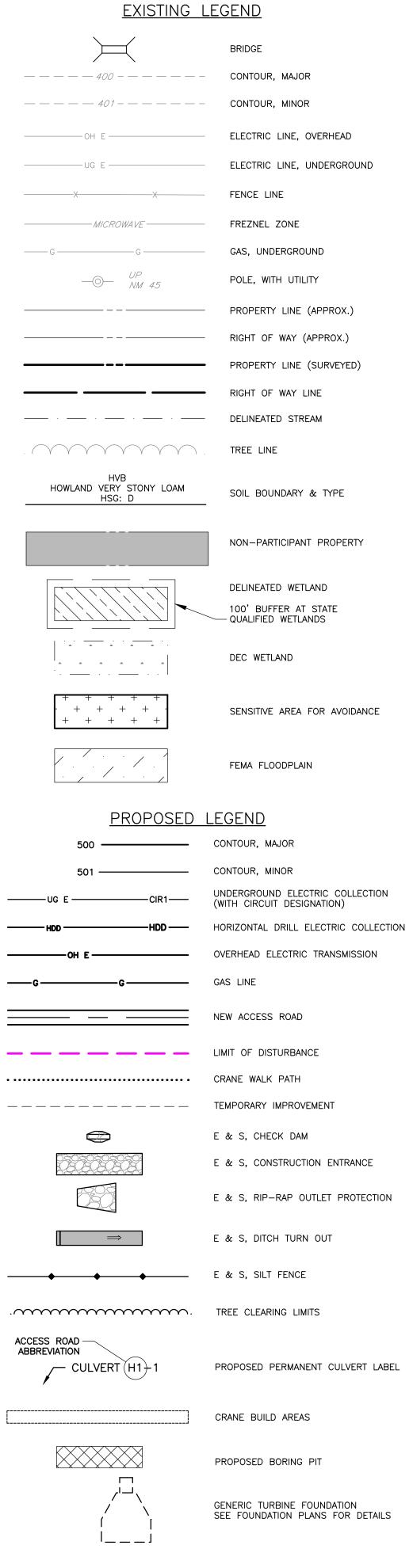
THE SURFACE OF ACCESS ROADS CONSTRUCTED THROUGH AGRICULTURAL FIELDS SHALL BE LEVEL WITH THE ADJACENT FIELD SURFACE. CULVERTS AND WATERBARS SHALL BE INSTALLED TO MAINTAIN NATURAL DRAINAGE PATTERNS. ALL TOPSOIL MUST BE STRIPPED FROM AGRICULTURAL AREAS USED FOR VEHICLE AND EQUIPMENT TRAFFIC AND PARKING. ALL VEHICLE AND EQUIPMENT TRAFFIC AND PARKING SHALL BE LIMITED TO THE ACCESS ROAD AND/OR DESIGNATED WORK AREAS SUCH AS TOWER SITES AND LAYDOWN AREAS. NO VEHICLES OR EQUIPMENT WILL BE ALLOWED OUTSIDE THE WORK AREA WITHOUT PRIOR APPROVAL FROM THE LANDOWNER AND, WHEN APPLICABLE. THE ENVIRONMENTAL MONITOR. THE AREA OF IMPACT FROM THE INSTALLATION OF ELECTRIC CABLES CAN VARY DEPENDING ON THE INSTALLATION METHOD AND NUMBER OF CABLES. WHEN 3 OR MORE CABLES ARE INSTALLED IN THE SAME AREA OR IF AN OPEN TRENCH IS REQUIRED FOR INSTALLATION, TOPSOIL STRIPPING FROM THE ENTIRE WORK AREA WILL BE NECESSARY. AS A RESULT, ADDITIONAL WORK SPACE MAY BE REQUIRED. TOPSOIL STRIPPED FROM WORK AREAS (TOWER SITES, PARKING AREAS, ELECTRIC CABLE TRENCHES, ALONG ACCESS ROADS) SHALL BE STOCKPILED SEPARATE FROM OTHER EXCAVATED MATERIAL (ROCK AND/OR SUBSOIL). AT LEAST 50 FEET OF TEMPORARY WORKSPACE IS NEEDED ALONG "OPEN-CUT" ELECTRIC CABLE TRENCHES FOR PROPER TOPSOIL SEGREGATION. ALL TOPSOIL WILL BE STOCKPILED IMMEDIATELY ADJACENT TO THE AREA WHERE STRIPPED/REMOVED AND SHALL BE USED FOR RESTORATION ON THAT PARTICULAR SITE. TOPSOIL STOCKPILE AREAS SHALL BE CLEARLY DESIGNATED IN THE FIELD AND ON THE ON-SITE "WORKING SET" OF CONSTRUCTION DRAWINGS. ELECTRIC INTERCONNECT CABLES AND TRANSMISSION LINES INSTALLED ABOVE GROUND CAN CREATE LONG TERM INTERFERENCE WITH AGRICULTURAL LAND USE. AS A RESULT, INTERCONNECT CABLES SHALL BE BURIED IN AGRICULTURAL FIELDS WHEREVER PRACTICABLE. INTERCONNECT CABLES AND TRANSMISSION LINES INSTALLED ABOVE GROUND SHOULD BE LOCATED OUTSIDE FIELD BOUNDARIES WHEREVER POSSIBLE. WHEN ABOVE GROUND CABLES AND TRANSMISSION LINES MUST CROSS FARMLAND. THE PROJECT SPONSOR SHALL MINIMIZE AGRICULTURAL IMPACTS BY USING TALLER STRUCTURES THAT PROVIDE LONGER SPANNING DISTANCES AND SHALL LOCATE POLES ON FIELD EDGES TO THE GREATEST EXTENT PRACTICABLE. THE LINE LOCATION AND POLE PLACEMENTS SHALL BE REVIEWED WITH THE DEPARTMENT AND THE ENVIRONMENTAL MONITOR PRIOR TO FINAL DESIGN. IN CROPLAND, HAYLAND AND IMPROVED PASTURE A MINIMUM DEPTH OF FORTY—EIGHT INCHES OF COVER WILL BE REQUIRED FOR ALL BURIED ELECTRIC CABLES. UNIMPROVED GRAZING AREAS AND LAND PERMANENTLY DEVOTED TO PASTURE, A MINIMUM DEPTH OF THIRTY-SIX INCHES OF COVER WILL BE REQUIRED. IN AREAS WHERE THE DEPTH OF SOIL OVER BEDROCK RANGES FROM ZERO TO FORTY-EIGHT INCHES. THE ELECTRIC CABLES SHALL BE BURIED ENTIRELY BELOW THE TOP OF THE BEDROCK OR AT THE DEPTH SPECIFIED FOR THE PARTICULAR LAND USE WHICHEVER IS LESS. AT NO TIME WILL THE DEPTH OF COVER BE LESS THAN TWENTY-FOUR INCHES BELOW THE SOIL SURFACE. FOR LANDS DISTURBED WITHIN OR ADJOINED TO AGRICULTURAL AREAS WHERE THE INSTALLATION OF THE BURIED ELECTRIC CABLES ALTERS THE NATURAL STRATIFICATION OF SOIL HORIZONS AND NATURAL SOIL DRAINAGE PATTERNS, THE PROJECT SPONSOR SHALL RECTIFY THE EFFECTS WITH MEASURES SUCH AS SUBSURFACE INTERCEPT DRAIN LINES. THE ENVIRONMENTAL MONITOR, IN CONSULTATION WITH AG. AND MARKETS STAFF, SHALL SELECT THE TYPE OF INTERCEPT DRAIN LINES TO INSTALL TO PREVENT SURFACE SEEPS AND THE SEASONALLY PROLONGED SATURATION OF THE CABLE INSTALLATION ZONE AND ADJACENT AREAS. DRAWINGS OF SUCH DRAIN LOCATIONS SHALL BE PROVIDED BY THE PROJECT SPONSOR DURING MONITORING AND FOLLOW-UP REMEDIATION. ALL DRAIN LINES SHALL BE INSTALLED ACCORDING TO NATURAL RESOURCE CONSERVATION SERVICE STANDARDS AND SPECIFICATIONS AND SHALL MEET OR EXCEED THE AASHTO M252 SPECIFICATIONS. ALL EXCESS SUBSOIL AND ROCK SHALL BE REMOVED FROM THE SITE. ON SITE DISPOSAL OF SUCH MATERIAL MAY BE ALLOWED IF APPROVED BY THE LANDOWNER AND THE ENVIRONMENTAL MONITOR, WITH APPROPRIATE CONSIDERATION GIVEN TO ANY POSSIBLE AGRICULTURAL OR ENVIRONMENTAL IMPACTS.* IN PASTURE AREAS, WORK AREAS WILL BE FENCED TO PREVENT LIVESTOCK ACCESS, CONSISTENT WITH LANDOWNER AGREEMENTS. ALL PIECES OF WIRE, BOLTS, AND OTHER UNUSED METAL OBJECTS WILL BE PICKED UP AND PROPERLY DISPOSED OF AS SOON AS PRACTICAL AFTER THE UNLOADING AND PACKING OF TURBINE COMPONENTS SO THAT THESE OBJECTS WILL NOT BE MIXED WITH ANY TOPSOIL.* EXCESS CONCRETE WILL NOT BE BURIED OR LEFT ON THE SURFACE IN ACTIVE AGRICULTURAL AREAS. CONCRETE TRUCKS WILL BE WASHED OUTSIDE OF ACTIVE AGRICULTURAL AREAS.* (*ANY PERMITS NECESSARY FOR DISPOSAL UNDER LOCAL, STATE AND/OR FEDERAL LAWS AND REGULATIONS MUST BE OBTAINED BY THE CONTRACTOR, WITH THE COOPERATION OF THE LANDOWNER WHEN REQUIRED.)

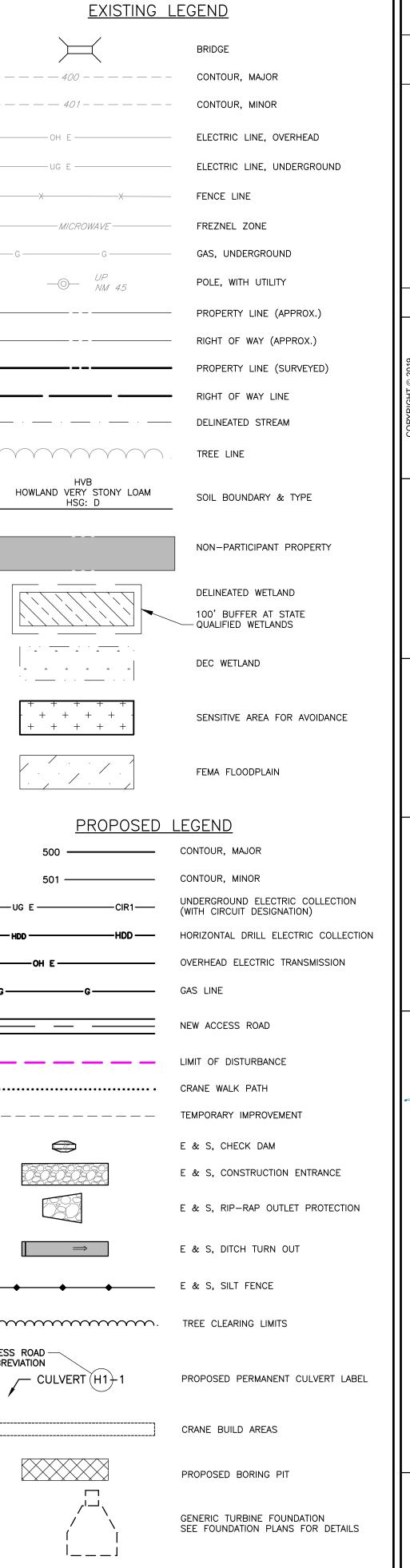
RESTORATION REQUIREMENTS

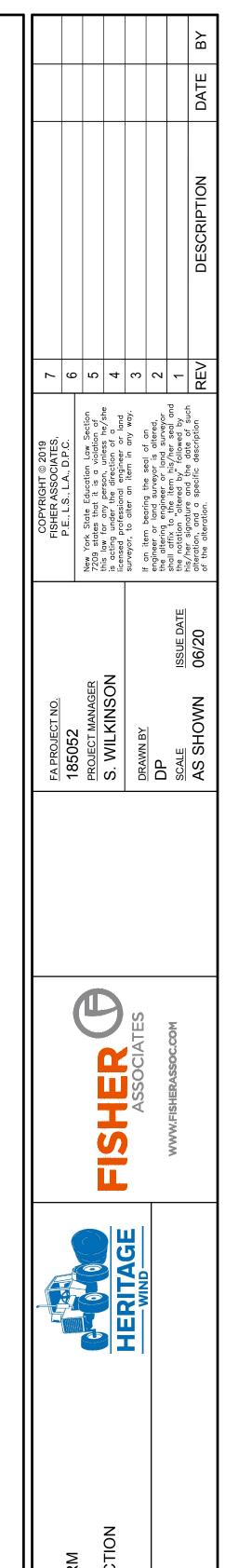
FOLLOWING CONSTRUCTION, ALL DISTURBED AGRICULTURAL AREAS WILL BE DECOMPACTED TO A DEPTH OF 18 INCHES WITH A DEEP RIPPER OR HEAVY-DUTY CHISEL PLOW. SOIL COMPACTION RESULTS SHALL BE NO MORE THAN 250 POUNDS PER SQUARE INCH (PSI) AS MEASURED WITH A SOIL PENETROMETER. IN AREAS WHERE THE TOPSOIL WAS STRIPPED, SOIL DECOMPACTION SHALL BE CONDUCTED PRIOR TO TOPSOIL REPLACEMENT. FOLLOWING DECOMPACTION, ALL ROCKS 4 INCHES AND LARGER IN SIZE WILL BE REMOVED FROM THE SURFACE OF THE SUBSOIL PRIOR TO REPLACEMENT OF THE TOPSOIL. THE TOPSOIL WILL BE REPLACED TO ORIGINAL DEPTH AND THE ORIGINAL CONTOURS WILL BE REESTABLISHED WHERE POSSIBLE. ALL ROCKS 4 INCHES AND LARGER SHALL BE REMOVED FROM THE SURFACE OF THE TOPSOIL. SUBSOIL DECOMPACTION AND TOPSOIL REPLACEMENT SHOULD BE AVOIDED AFTER OCTOBER 1, UNLESS APPROVED ON A SITE-SPECIFIC BASIS BY THE LANDOWNER IN CONSULTATION WITH AG. AND MARKETS. ALL PARTIES INVOLVED SHOULD BE COGNIZANT THAT AREAS RESTORED AFTER OCTOBER 1ST MAY NOT OBTAIN SUFFICIENT GROWTH TO PREVENT EROSION OVER THE WINTER MONTHS. IF AREAS ARE TO BE RESTORED AFTER OCTOBER 1ST, NECESSARY PROVISION SHOULD BE MADE TO RESTORE ANY ERODED AREAS IN THE SPRINGTIME, TO ESTABLISH PROPER GROWTH. ALL ACCESS ROADS WILL BE REGRADED TO ALLOW FOR FARM EQUIPMENT CROSSING AND TO RESTORE ORIGINAL SURFACE DRAINAGE PATTERNS, OR OTHER DRAINAGE PATTERN INCORPORATED INTO THE DESIGN. ALL RESTORED AGRICULTURAL AREAS SHALL BE SEEDED WITH THE SEED MIX SPECIFIED BY THE LANDOWNER, IN ORDER TO MAINTAIN CONSISTENCY WITH THE SURROUNDING AREAS. ALL SURFACE OR SUBSURFACE DRAINAGE STRUCTURES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO AS CLOSE TO PRECONSTRUCTION CONDITIONS AS POSSIBLE, UNLESS SAID STRUCTURES ARE TO BE REMOVED AS PART OF THE PROJECT DESIGN. ANY SURFACE OR SUBSURFACE DRAINAGE PROBLEMS RESULTING FROM CONSTRUCTION OF THE WIND ENERGY PROJECT WILL BE CORRECTED WITH THE APPROPRIATE MITIGATION AS DETERMINED BY THE ENVIRONMENTAL MONITOR, THE DEPARTMENT AND THE LANDOWNER. ON AFFECTED FARMLAND, ANY RESTORATION PRACTICES SHALL BE POSTPONED UNTIL FAVORABLE (WORKABLE, RELATIVELY DRY) TOPSOIL/SUBSOIL CONDITIONS EXIST. RESTORATION SHALL NOT BE CONDUCTED WHILE SOILS ARE IN A WET OR PLASTIC STATE. STOCKPILED TOPSOIL SHALL NOT BE REGRADED AND SUBSOIL SHALL NOT BE DECOMPACTED UNTIL PLASTICITY, AS DETERMINED BY THE ATTERBERG FIELD TEST IS SIGNIFICANTLY REDUCED. NO PROJECT RESTORATION ACTIVITIES SHALL OCCUR IN AGRICULTURAL FIELDS BETWEEN THE MONTHS OF OCTOBER THROUGH MAY UNLESS FAVORABLE SOIL MOISTURE CONDITIONS EXIST. THE ENVIRONMENTAL MONITOR SHALL ADVISE AG & MARKETS REGARDING TENTATIVE RESTORATION PLANNING. POTENTIAL SCHEDULES WILL BE DETERMINED BY CONDUCTING THE ATTERBERG FIELD TEST AT APPROPRIATE DEPTHS INTO TOPSOIL STOCKPILES, AND BELOW THE SUBSOIL SURFACE FOR A MUTUAL DETERMINATION OF ADEQUATE FIELD CONDITIONS FOR THE RESTORATION PHASE OF THE PROJECT. FOLLOWING RESTORATION, ALL CONSTRUCTION DEBRIS WILL BE REMOVED FROM THE SITE.

TWO YEAR MONITORING AND REMEDIATION

THE PROJECT SPONSOR WILL PROVIDE A MONITORING AND REMEDIATION PERIOD OF NO LESS THAN TWO YEARS IMMEDIATELY FOLLOWING THE COMPLETION OF INITIAL RESTORATION. THE TWO YEAR PERIOD ALLOWS FOR THE EFFECTS OF CLIMATIC CYCLES SUCH AS FROST ACTION, PRECIPITATION AND GROWING SEASONS TO OCCUR, FROM WHICH VARIOUS MONITORING DETERMINATIONS CAN BE MADE. THE MONITORING AND REMEDIATION PHASE WILL BE USED TO IDENTIFY ANY REMAINING AGRICULTURAL IMPACTS ASSOCIATED WITH CONSTRUCTION THAT ARE IN NEED OF MITIGATION AND TO IMPLEMENT THE FOLLOW-UP RESTORATION. GENERAL CONDITIONS TO BE MONITORED INCLUDE TOPSOIL THICKNESS, RELATIVE CONTENT OF ROCK AND LARGE STONES, TRENCH SETTLING, CROP PRODUCTION, DRAINAGE AND REPAIR OF SEVERED FENCES. ETC. IMPACTS WILL BE IDENTIFIED BY THE ENVIRONMENTAL MONITOR THROUGH ON SITE MONITORING OF ALL AGRICULTURAL AREAS IMPACTED BY CONSTRUCTION AND THROUGH CONTACT WITH RESPECTIVE FARMLAND OPERATORS AND THE DEPARTMENT OF AGRICULTURE AND MARKETS. TOPSOIL DEFICIENCY AND TRENCH SETTLING SHALL BE MITIGATED WITH IMPORTED TOPSOIL THAT IS CONSISTENT WITH THE QUALITY OF TOPSOIL ON THE AFFECTED SITE. EXCESSIVE AMOUNTS OF ROCK AND OVERSIZED STONE MATERIAL WILL BE DETERMINED BY A VISUAL INSPECTION OF DISTURBED AREAS AS COMPARED TO PORTIONS OF THE SAME FIELD LOCATED OUTSIDE THE CONSTRUCTION AREA. ALL EXCESS ROCKS AND LARGE STONES WILL BE REMOVED AND DISPOSED OF BY THE PROJECT SPONSOR. WHEN THE SUBSEQUENT CROP PRODUCTIVITY WITHIN AFFECTED AREAS IS LESS THAN THAT OF THE ADJACENT UNAFFECTED AGRICULTURAL LAND, THE PROJECT SPONSOR AS WELL AS OTHER APPROPRIATE PARTIES, WILL HELP TO DETERMINE THE APPROPRIATE REHABILITATION MEASURES TO BE IMPLEMENTED. BECAUSE CONDITIONS WHICH REQUIRE REMEDIATION MAY NOT BE NOTICEABLE AT OR SHORTLY AFTER THE COMPLETION OF CONSTRUCTION, THE SIGNING OF A RELEASE FORM PRIOR TO THE END OF THE REMEDIATION PERIOD WILL NOT OBVIATE THE PROJECT SPONSOR'S RESPONSIBILITY TO FULLY REDRESS ALL PROJECT IMPACTS. SUBSOIL COMPACTION SHALL BE TESTED USING AN APPROPRIATE SOIL PENETROMETER OR OTHER SOIL COMPACTION MEASURING DEVICE. COMPACTION TESTS WILL BE MADE FOR EACH SOIL TYPE IDENTIFIED ON THE AFFECTED AGRICULTURAL FIELDS. THE SUBSOIL COMPACTION TEST RESULTS WITHIN THE AFFECTED AREA WILL BE COMPARED WITH THOSE OF THE ADJACENT UNAFFECTED PORTION OF THE FARM FIELD/SOIL UNIT. WHERE REPRESENTATIVE SUBSOIL DENSITY OF THE AFFECTED AREA EXCEEDS THE REPRESENTATIVE SUBSOIL DENSITY OF THE UNAFFECTED AREAS, ADDITIONAL SHATTERING OF THE SOIL PROFILE WILL BE PERFORMED USING THE APPROPRIATE EQUIPMENT. DEEP SHATTERING WILL BE APPLIED DURING PERIODS OF RELATIVELY LOW SOIL MOISTURE TO ENSURE THE DESIRED MITIGATION AND TO PREVENT ADDITIONAL SUBSOIL COMPACTION. OVERSIZED STONE/ROCK MATERIAL WHICH IS UPLIFTED TO THE SURFACE AS A RESULT OF THE DEEP SHATTERING WILL BE REMOVED.

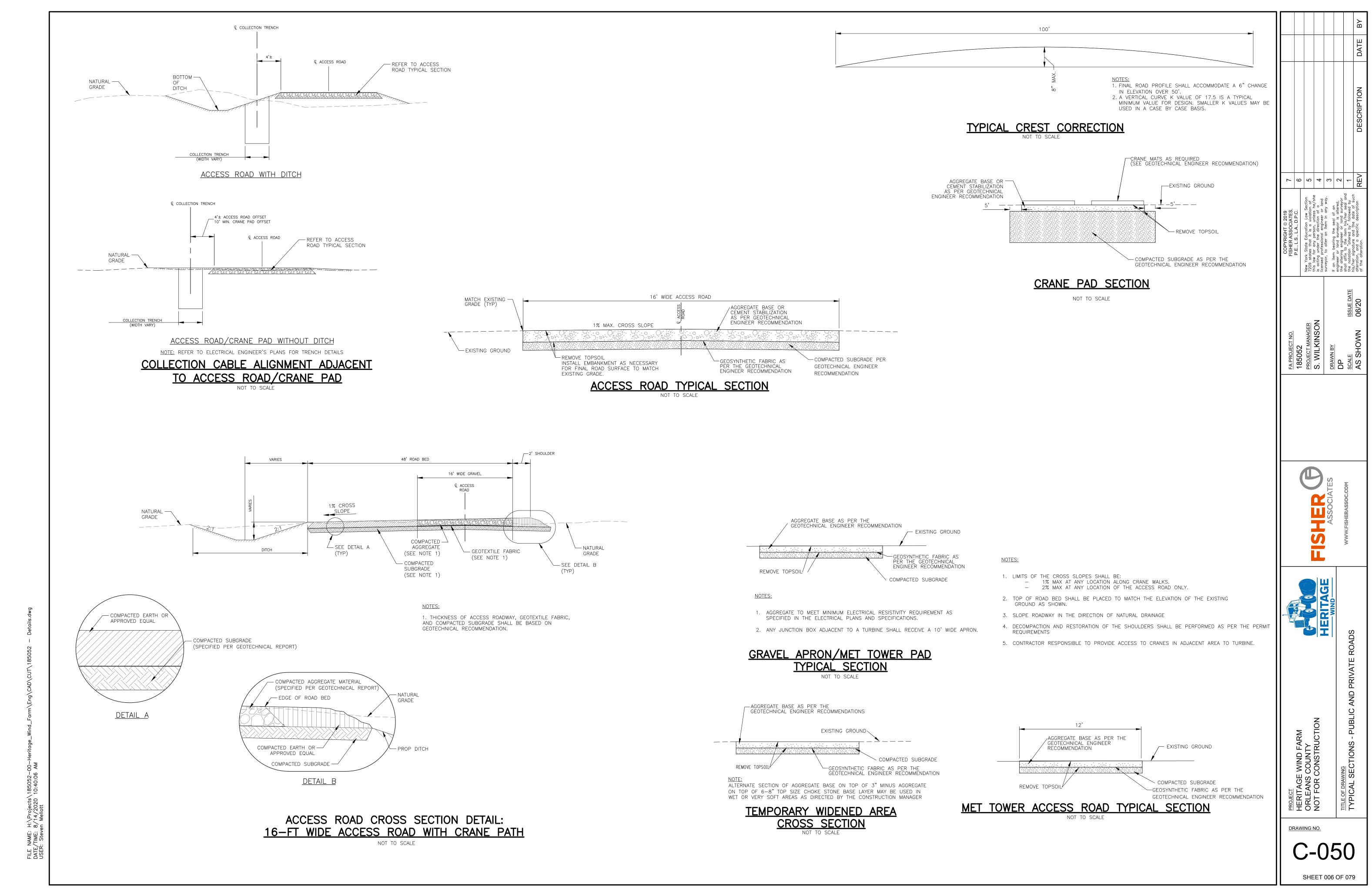




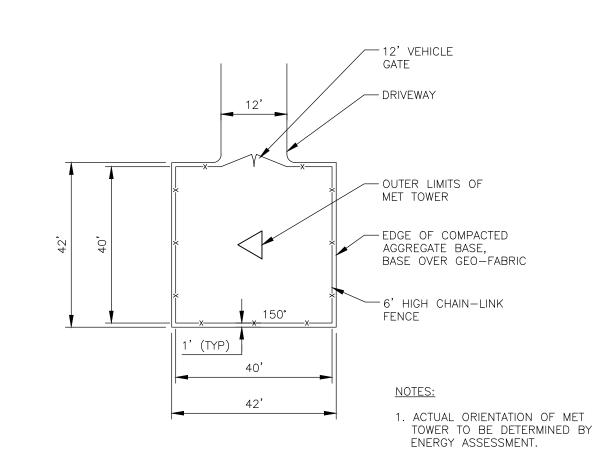


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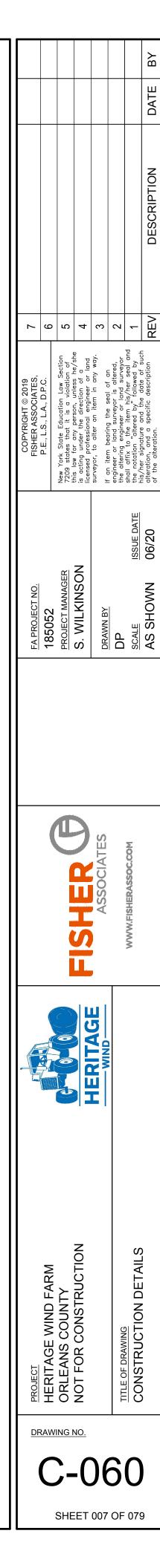


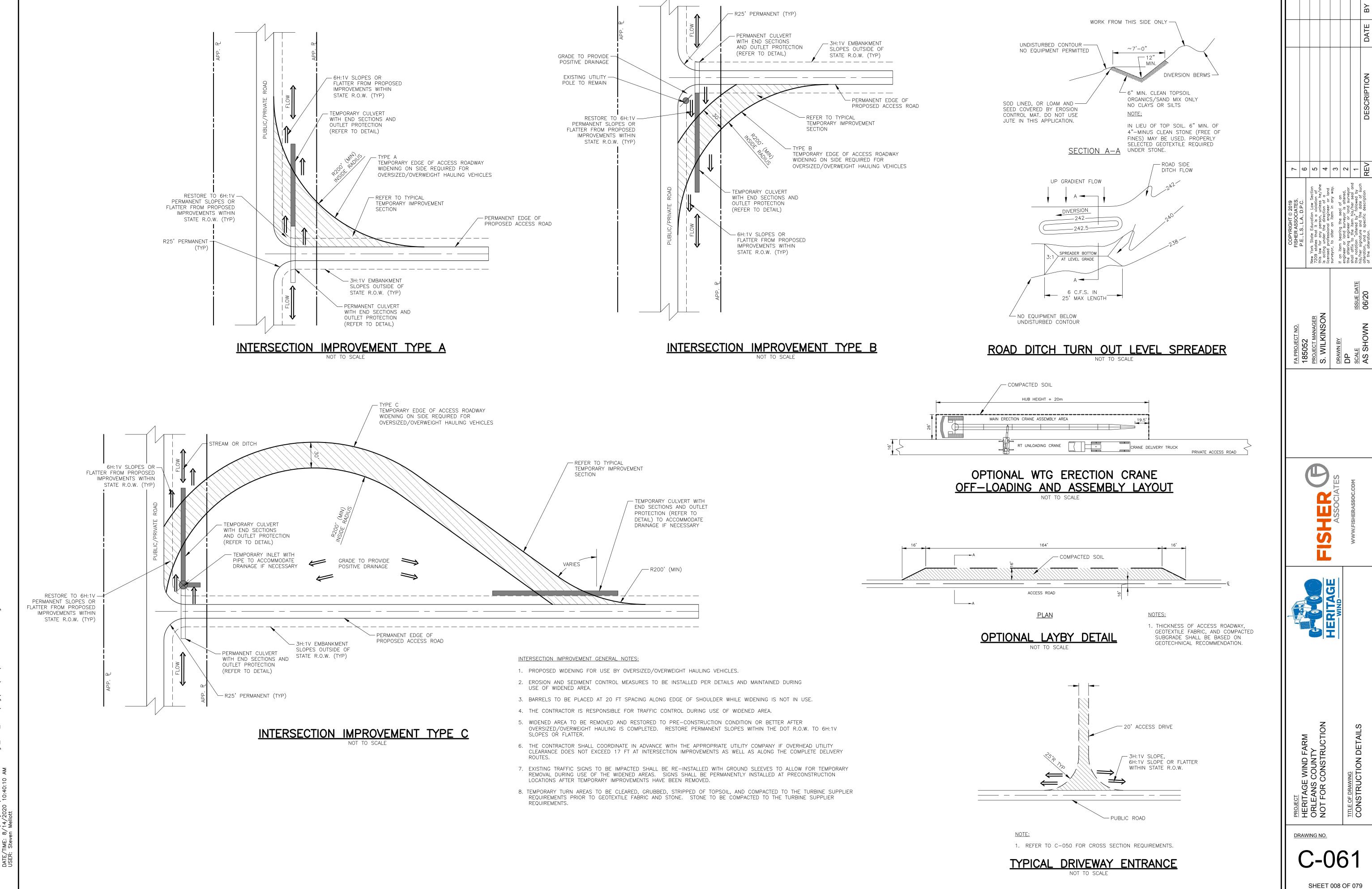




PERMANENT MET TOWER PAD DETAIL

NOT TO SCALE



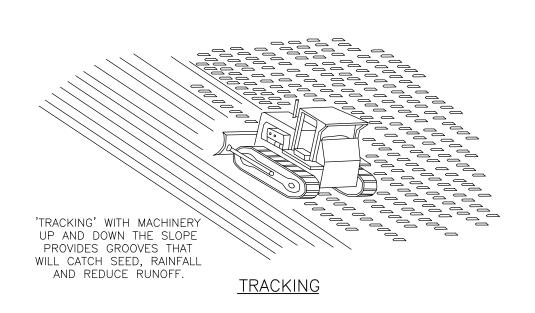


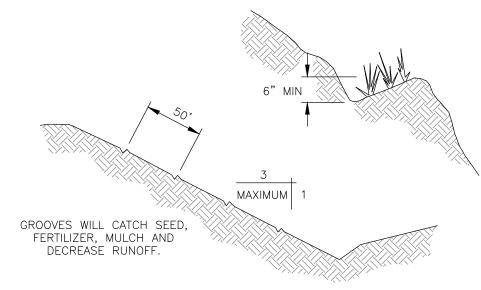
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- 1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
- 2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
- 3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT

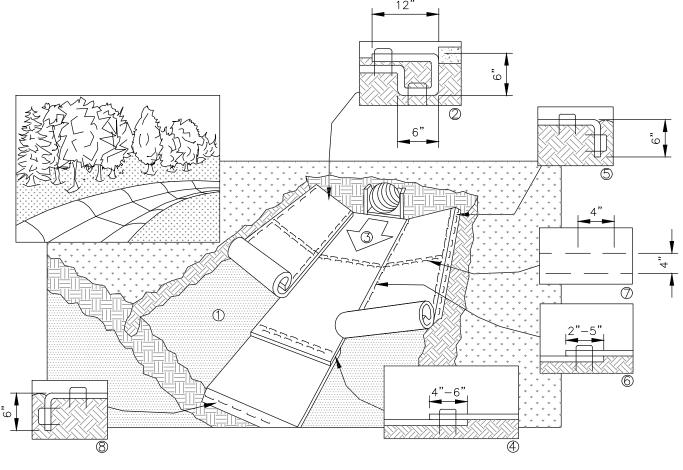
EROSION BLANKETS SLOPE INSTALLATION

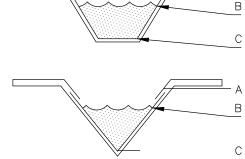




CONTOUR FURROWS

SURFACE ROUGHENING





CRITICAL POINTS

- A. OVERLAPS AND SEAMS B. PROJECTED WATER LINE C. CHANNEL BOTTOM/SIDE
- SLOPE VERTICES * HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE

CRITICAL POINTS ALONG THE CHANNEL SURFACE.

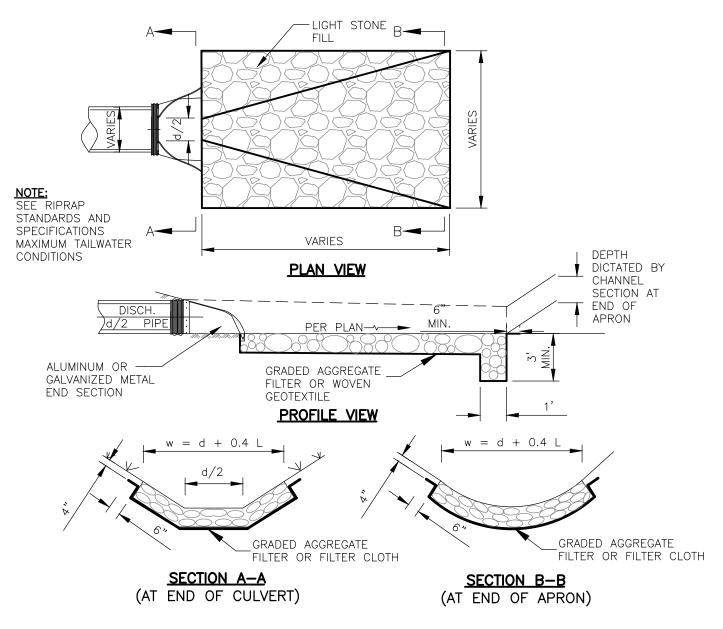
** IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. 2. DO NOT SCALE DRAWINGS.

CHANNEL INSTALLATION SPECIFICATIONS

- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL—O—SEED, DO NOT SEED PREPARED AREA. CELL—O—SEED MUST BE INSTALLED WITH THE PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE CHANNEL 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 OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 4. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE BLANKETS.
- 5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 6. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (DEPENDING ON BLANKET TYPE) AND STAPLED. 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 BLANKET BEING OVERLAPPED.
- 7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30' TO 40' INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF CHANNEL.
- 8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 9. EROSION CONTROL BLANKETS INSTALLED WITHIN CHANNELS/SWALES/DITCHES SHALL BE NORTH AMERICAN GREEN SC-250 OR APPROVED EQUAL.

EROSION CONTROL BLANKET - CHANNEL INSTALLATION



APPLICATION NOTES:

1. ROCK OUTLET PROTECTION SHALL BE PROVIDED AT THE INLETS AND OUTLET OF ALL CULVERT PIPES TO REDUCE THE DEPTH, VELOCITY, AND ENERGY OF WATER, SUCH THAT THE FLOW WILL NOT ERODE THE RECEIVING DOWNSTREAM REACH.

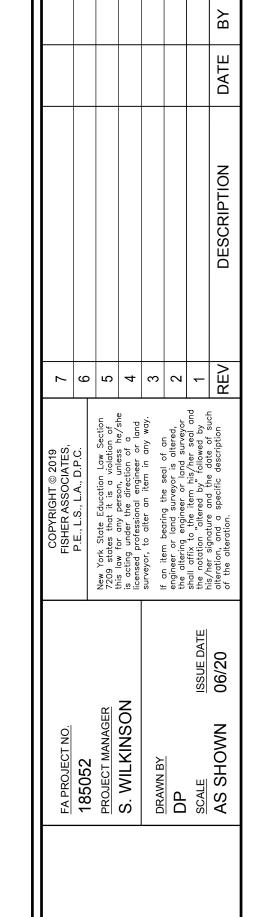
CONSTRUCTION SPECIFICATIONS:

- 1. SEE GRADING AND STORMWATER POLLUTION PREVENTION PLAN FOR OUTFALL INVERTS AND SURROUNDING GRADES.
- 2. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- 3. SEE DRAINAGE TABLE FOR PIPE AND OUTFALL LOCATIONS AND PIPE SIZES.
- 4. FILTER CLOTH SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE OTHER THAN THE OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF CLOTH OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE CLOTH. ALL OVERLAPS, WHETHER FOR REPAIRS OR JOINING TWO PIECES OF CLOTH SHALL BE A MINIMUM OF 1-FT.

MAINTENANCE NOTES:

1. INSPECT STRUCTURE AFTER HIGH FLOWS FOR EVIDENCE OF SCOUR BENEATH RIPRAP OR FOR DISLODGED STONES. REPAIRS SHOULD BE MADE IMMEDIATELY.

TYPICAL CULVERT ROCK OUTLET PROTECTION NOT TO SCALE







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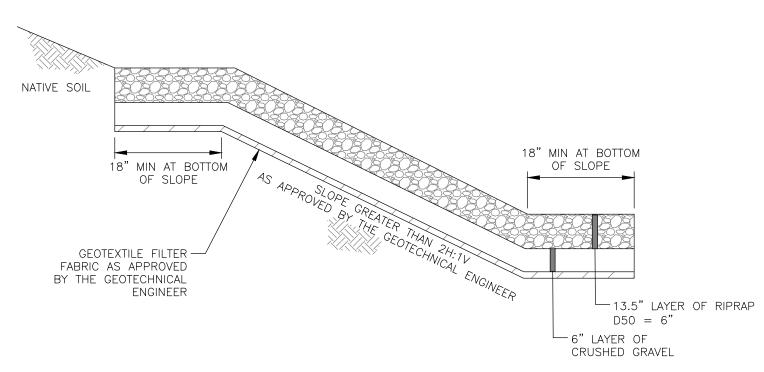
APPLICATION NOTES:

- 1. CHECK DAMS SHALL BE USED TO REDUCE EROSION IN DRAINAGE CHANNEL BY RESTRICTING THE VELOCITY OF FLOW IN THE CHANNEL.
- 2. MAXIMUM DRAINAGE AREA ABOVE THE CHECK DAM SHALL NOT EXCEED 2-ACRES. CONSTRUCTION SPECIFICATIONS:
- 1. STONE SHALL BE PLACED ON FILTER FABRIC FOUNDATION.
- 2. EXTEND THE STONE A MINIMUM OF 1.5-FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING
- 3. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- 4. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

MAINTENANCE NOTES:

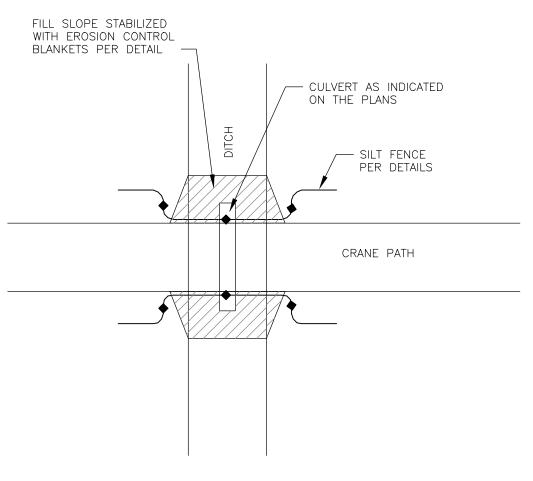
- 1. INSPECT CHECK DAMS ONCE A WEEK AND AFTER RAINFALLS. REMOVE SILT FROM BEHIND DAM AS NEEDED TO PERMIT FLOW THROUGH THE DAM AND PREVENT LARGE FLOWS FROM CARRYING SEDIMENT
- 2. INSTALL STONE LINER IN CHANNEL UPSTREAM OF CHECK DAM IF SIGNIFICANT EROSION OCCURS.
- 3. REPLACE STONES AS NEEDED TO MAINTAIN THE DESIGN CROSS SECTION OF THE STRUCTURES.
- 4. UPON STABILIZATION OF THE SITE REMOVE CHECK DAMS SO AS NOT TO BLOCK STORM FLOW OR DRAINAGE.

CHECK DAM DETAIL



RIP-RAP SLOPE STABILIZATION DETAIL

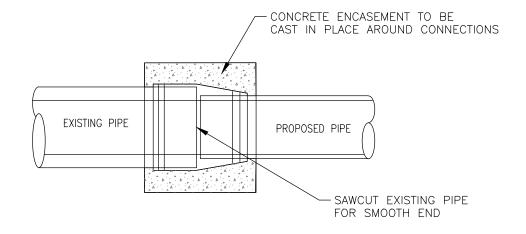
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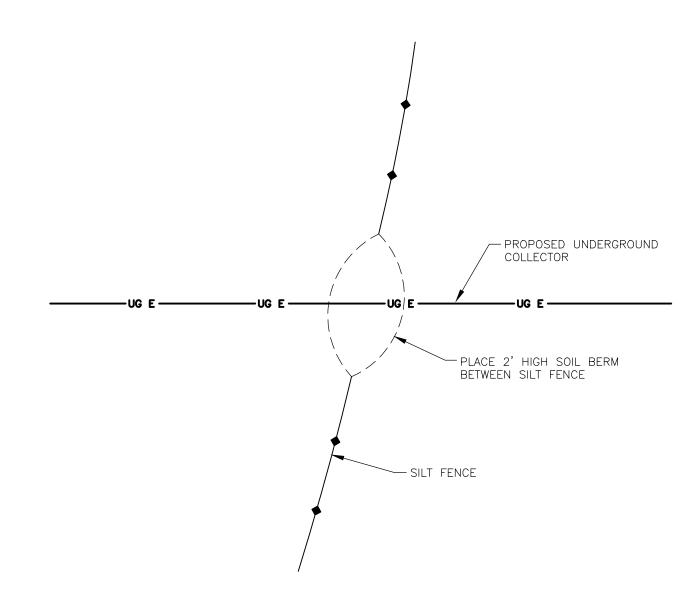
NOTES:

- 1. CULVERT INSTALLATION SHALL CONFORM WITH THE MANUFACTURERS RECOMMENDATION FOR THE INSTALLATION.
- 2. MINIMIZE DISTURBANCE TO THE STREAM/DITCH DURING CULVERT INSTALLATION.
- 3. RIP-RAP WITH GEOTEXTILE FABRIC MAY BE SUBSTITUTED FOR EROSION CONTROL BLANKETS WHERE NEEDED. IN STREAMS/DITCHES WITH HIGH EROSIVE VELOCITIES, RIP-RAP WITH GEOTEXTÍLE FABRIC SHALL BE SUBSTITUTED FOR ÉROSION CONTROL BLANKETS.
- 4. ALL DISTURBED AREAS SHALL BE PERMANENTLY RESTORED.

PERMANENT ACCESS ROAD AND TEMPORARY CRANE WALK DITCH CROSSING



CONNECT PROPOSED STORM PIPE TO EXISTING STORM PIPE

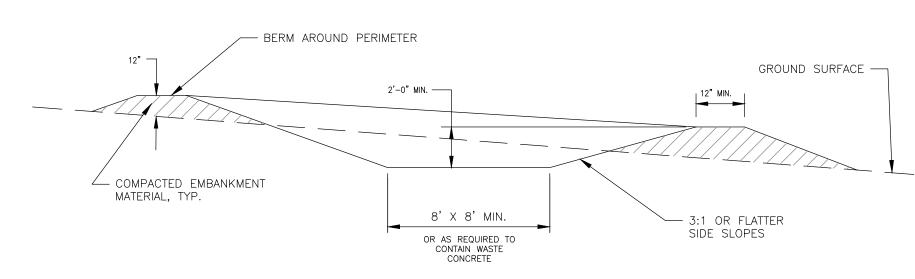


EROSION CONTROL CROSSING UNDERGROUND COLLECTION NOT TO SCALE



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SECTION A

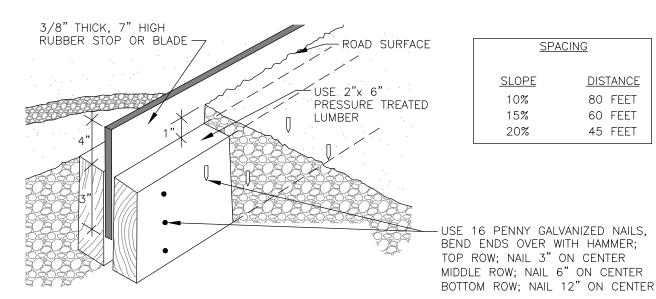
CONCRETE WASHOUT AREA INSTALLATION NOTES:

- 1. CONCRETE WASHOUT AREAS ARE TO BE INSTALLED AT EACH WTG PAD LOCATION, O & M BUILDING SITE, SUBSTATION SITE, LAYDOWN AREA AND WHEREVER ELSE CONCRETE IS USED FOR
- 2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON THE SITE.
- 3. VEHICLE TRACKING CONTROL IS REQUIRED AT THE ACCESS POINT.
- 4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- 5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.

CONCRETE WASHOUT AREA MAINTENANCE NOTES:

- 1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
- 2. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
- 3. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, COVER THE DISTURBED AREA WITH TOPSOIL, DRILL SEED AND CRIMP MULCH OR OTHERWISE STABILIZE IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

CONCRETE WASHOUT AREA



APPLICATION NOTES:

- 1. THE PRIMARY PURPOSE OF WATER BARS IS TO LIMIT THE ACCUMULATION OF EROSIVE VELOCITY OF WATER BY DIVERTING SURFACE RUNOFF AT PRE-DESIGNED INTERVALS.
- 2. WATER BARS SHALL BE PLACED ALONG LONG NARROW SLOPING AREAS THAT ARE LESS THAN 100-FT IN WIDTH AND SHALL BE SPACED IN ACCORDANCE WITH THE CHART SHOWN ABOVE.

CONSTRUCTION SPECIFICATIONS:

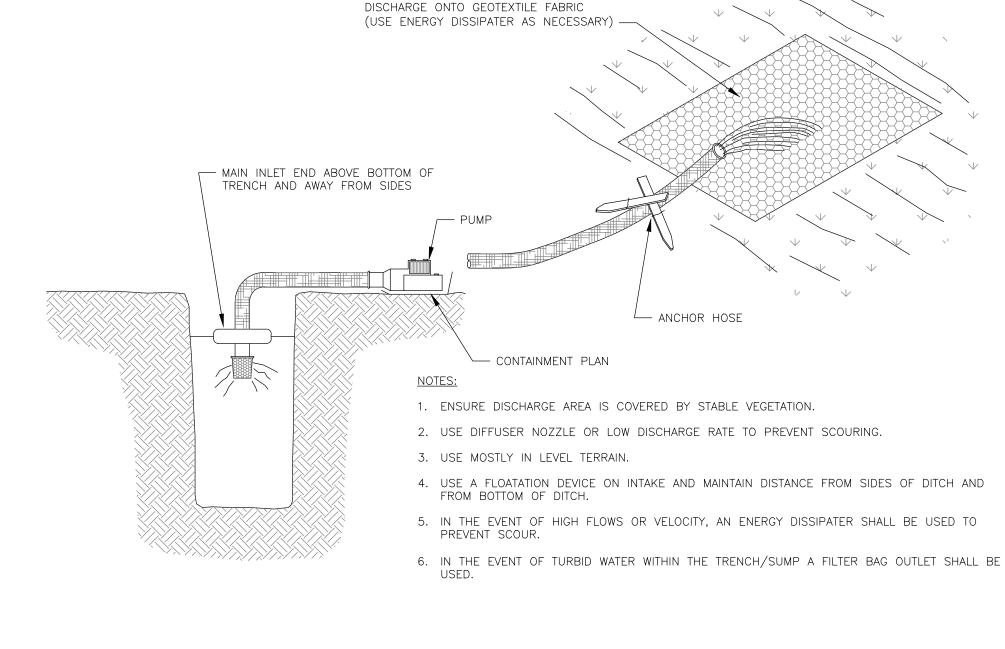
- 1. DISK OR STRIP THE SOD FROM THE BASE FOR THE CONSTRUCTED RIDGE BEFORE PLACING FILL.
- 2. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
- 3. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL AREAS ARE NOT ADEQUATE.

MAINTENANCE NOTES:

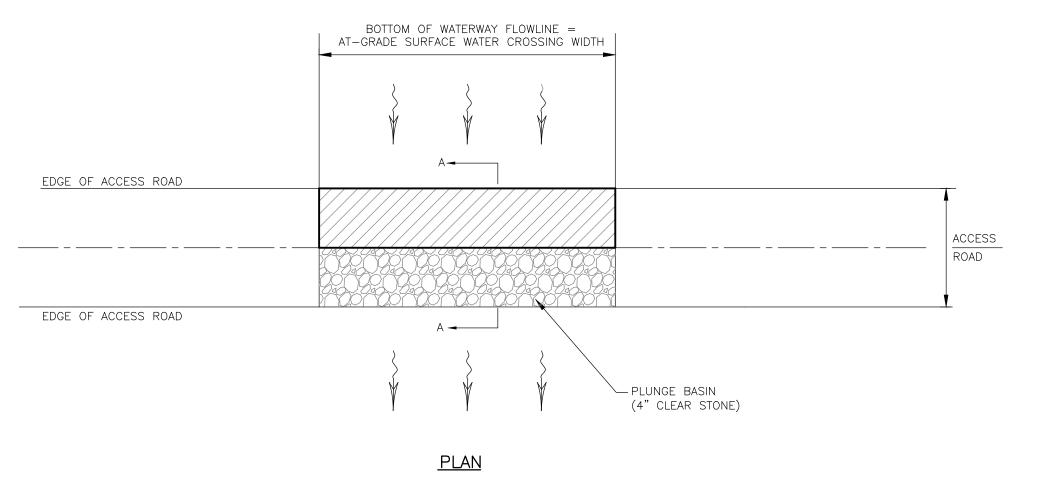
1. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.

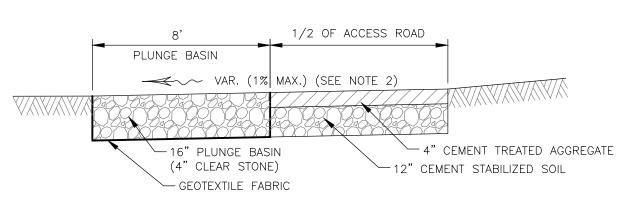
WATER BAR DETAIL

NOT TO SCALE



DEWATERING OPERATION WITH SURFACE STABILIZED OUTLET OPTION





NOTES:

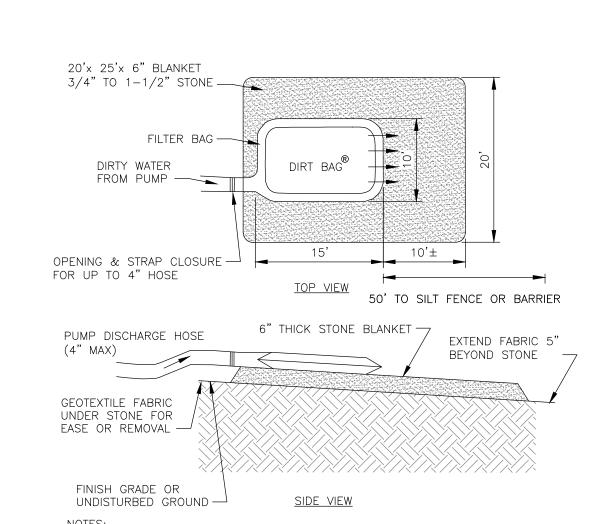
- 1. EACH WATERWAY WILL NEED TO BE FIELD VERIFIED TO DETERMINE APPROPRIATE
- 2. CROSS SLOPE SHALL BE LESS THAN DITCH FLOWLINE SLOPE TO REDUCE WATER
- 3. INSTALL PLUNGE BASIN DURING ROAD STABILIZATION OF ACCESS ROAD AND ADJACENT DISTURBED SOILS.
- 4. INSTALL DRAIN TILE INLET UPSTREAM OF CROSSING, IF REQUIRED.

USE OF AT GRADE OR CULVERT INSTALLATION.

- 5. SURFACE WATER CROSSINGS TO BE SET AT GRADE WITH EXISTING GROUND.

AT-GRADE SURFACE WATER CROSSING DETAIL

NOT TO SCALE



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. LOCATE DISCHARGE SITE ON FLAT UPLAND AREAS AS FAR AWAY AS POSSIBLE FROM STREAMS, WETLANDS, OTHER RESOURCES AND POINTS OF CONCENTRATED FLOW.

4. DOWN GRADIENT RECEIVING AREA MUST BE WELL VEGETATED OR OTHERWISE STABLE FROM EROSION. E.G. FOREST FLOOR OR COARSE GRAVEL/STONE.

5. DISCHARGE NOT PERMITTED WITHIN 25' OF A STREAM OR WETLAND. CONSULT DEP IF STRUCTURE MUST BE WITHIN 75' OF STREAM OR WATER BODY. SECONDARY CONTAINMENT MAY BE NECESSARY.

> PUMPED DISCHARGE SEDIMENT CONTROL DEVICE ("DIRT BAG")





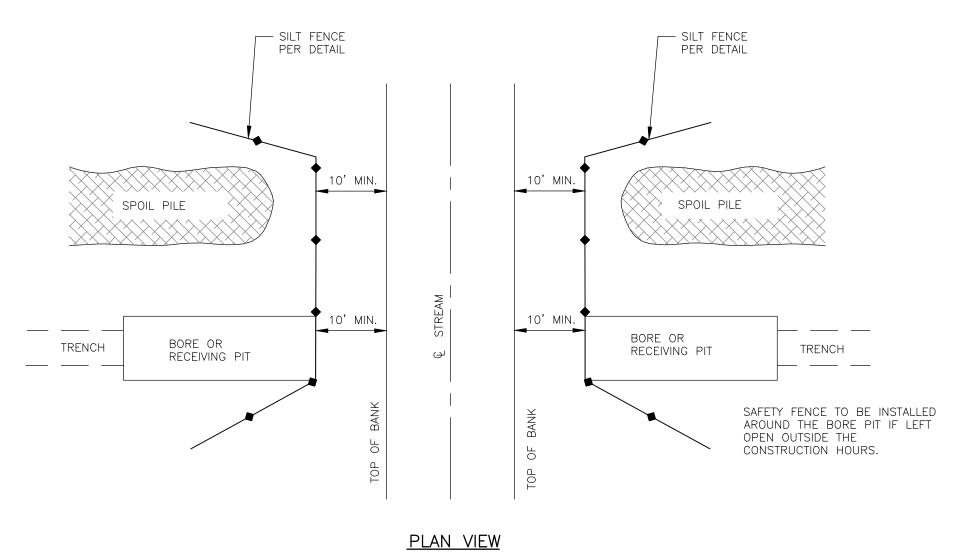
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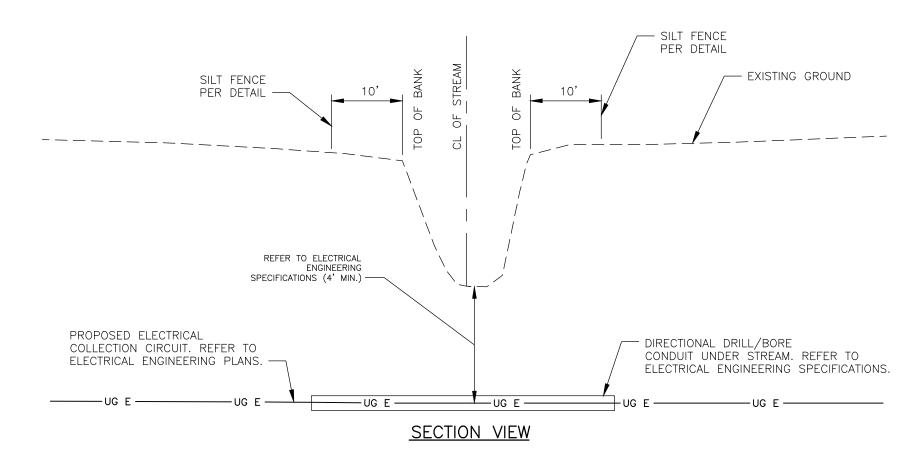
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- 4. IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE, PERMANENT STABILIZATION MEASURES SHALL
- 5. REFER TO ELECTRICAL DESIGN FOR CONDUIT DEPTH AND TRENCH DETAILS.

TYPICAL EROSION CONTROL & CLEARANCE DETAIL FOR COLLECTION LINE OPEN CUT DITCH/TILE CROSSING

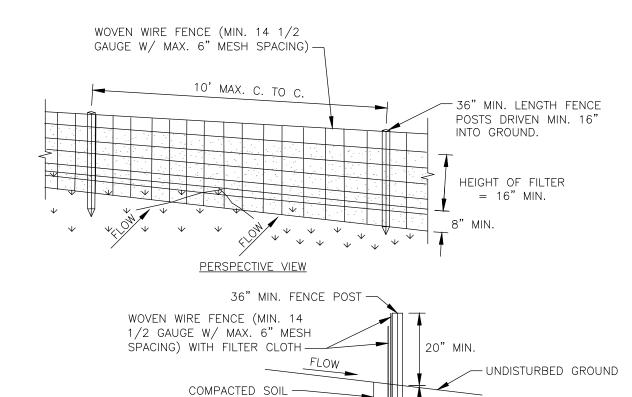




NOTES:

- 1. EXCAVATED TRENCH AND BORE/RECEIVING PIT MATERIAL SHALL BE STOCKPILED ADJACENT TO THE TRENCH, NO CLOSER THAN 10' FROM THE TOP OF BANK OF THE DITCH.
- 2. SILT FENCE SHALL BE INSTALLED BETWEEN THE STOCKPILED MATERIAL AND BORE/RECEIVING PIT AND THE TOP OF BANK ON BOTH SIDES OF THE STREAM.
- 3. IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE, PERMANENT STABILIZATION MEASURES SHALL BE APPLIED.
- 4. THERE SHALL BE NO DISTURBANCE TO THE STREAM DURING CONSTRUCTION.
- 5. REFER TO ELECTRICAL DESIGN FOR CONDUIT DEPTH AND TRENCH

TYPICAL EROSION CONTROL & CLEARANCE DETAIL FOR COLLECTION LINE TRENCHLESS STREAM CROSSING



SECTION VIEW CONSTRUCTION SPECIFICATIONS

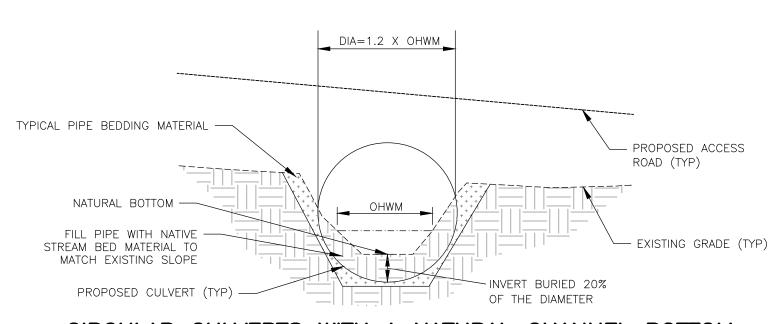
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL EITHER "T" OR "U" TYPE OR HARDWOOD.

EMBED FILTER CLOTH A MIN. OF 6" IN GROUND.-

- 2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 12 1/2 GAUGE, 6" MAXIMUM MESH OPENING.
- 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
- 4. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED

"BULGES" DEVELOP IN THE SILT FENCE.

5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN



CIRCULAR CULVERTS WITH A NATURAL CHANNEL BOTTOM

NOTES:

EQUIVALENT.

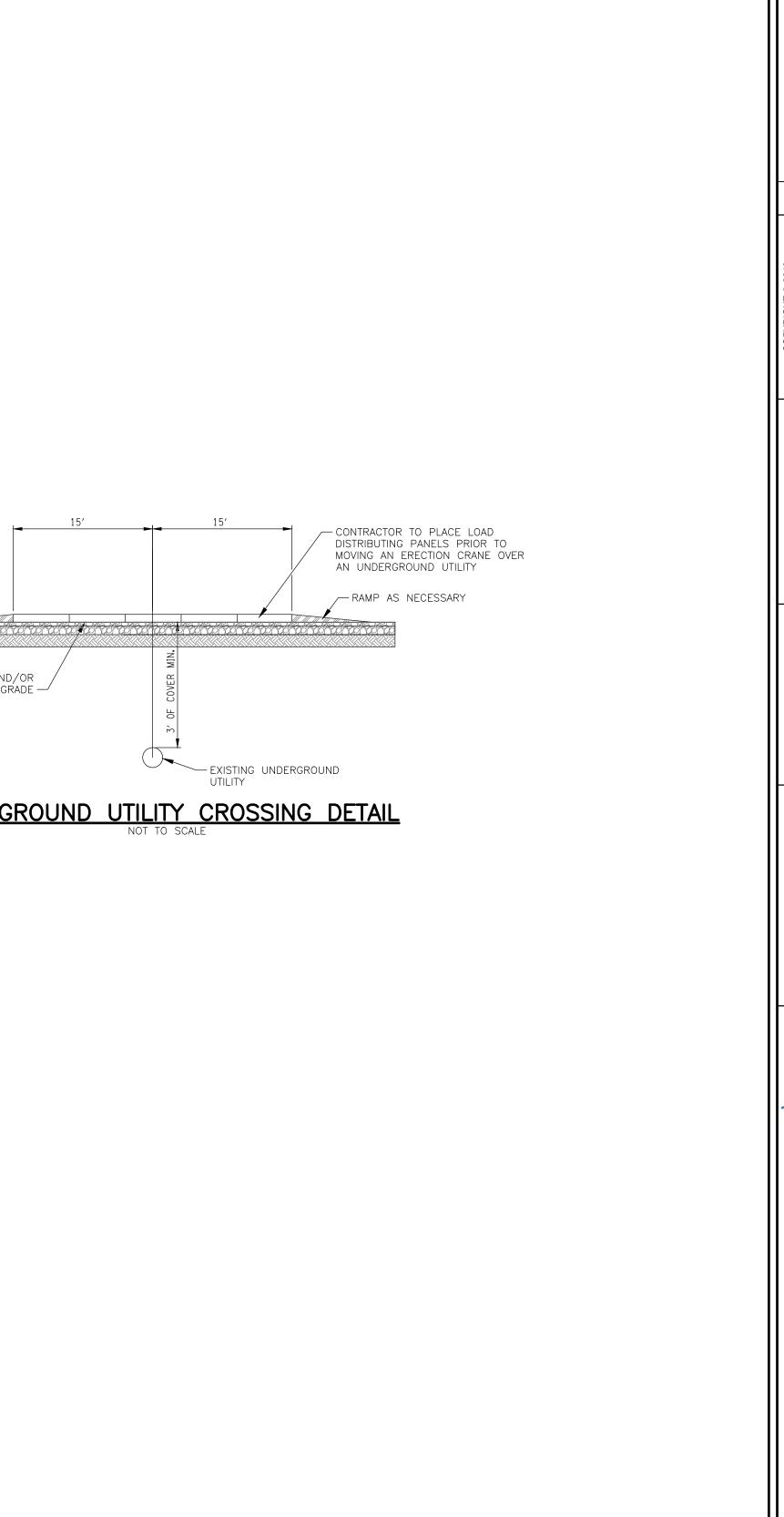
- 1. RIP RAP OUTLET PROTECTION NOT REQUIRED.
- 2. STREAM FLOW SHALL BE BYPASSED SO THAT WORK IS COMPLETED IN DRY CONDITIONS.

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