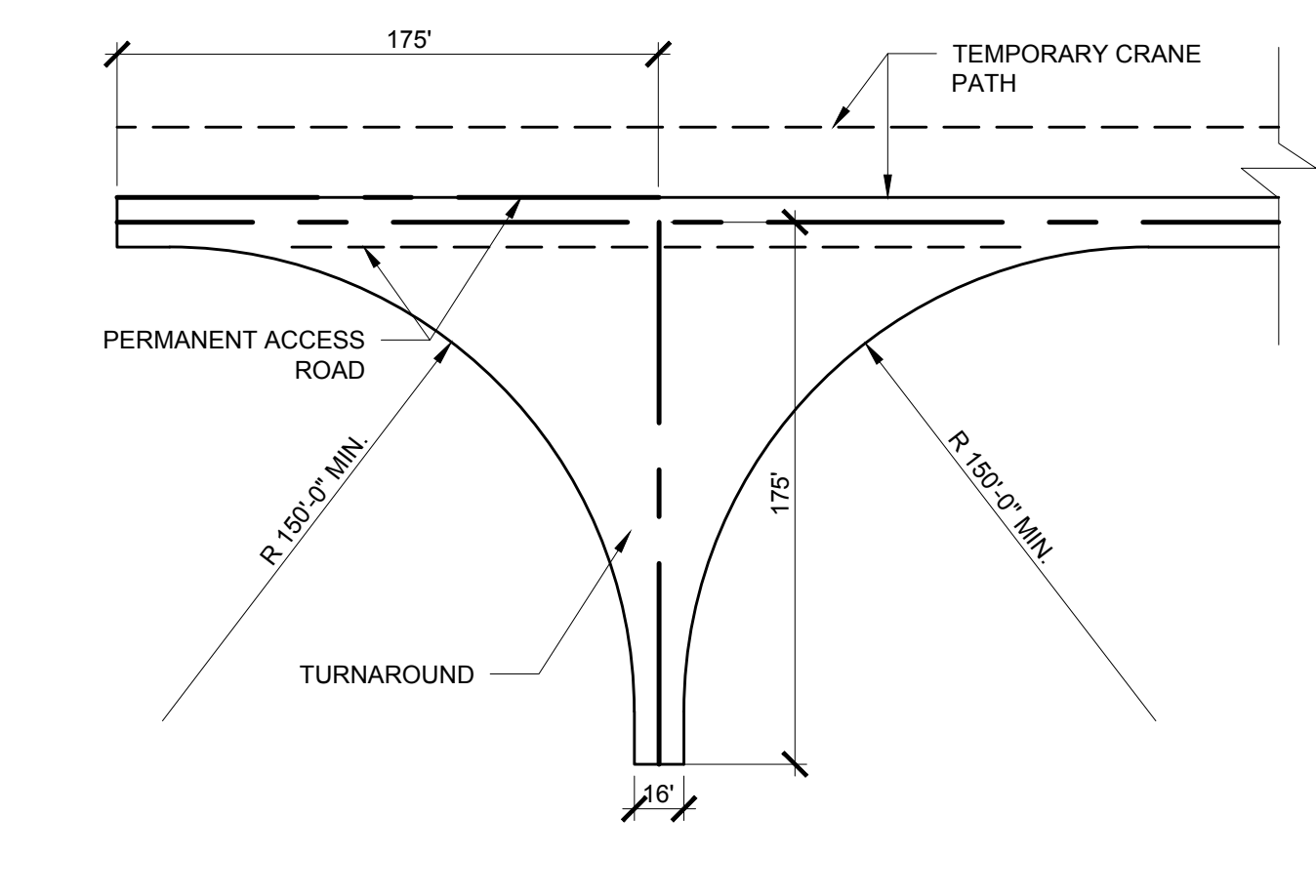
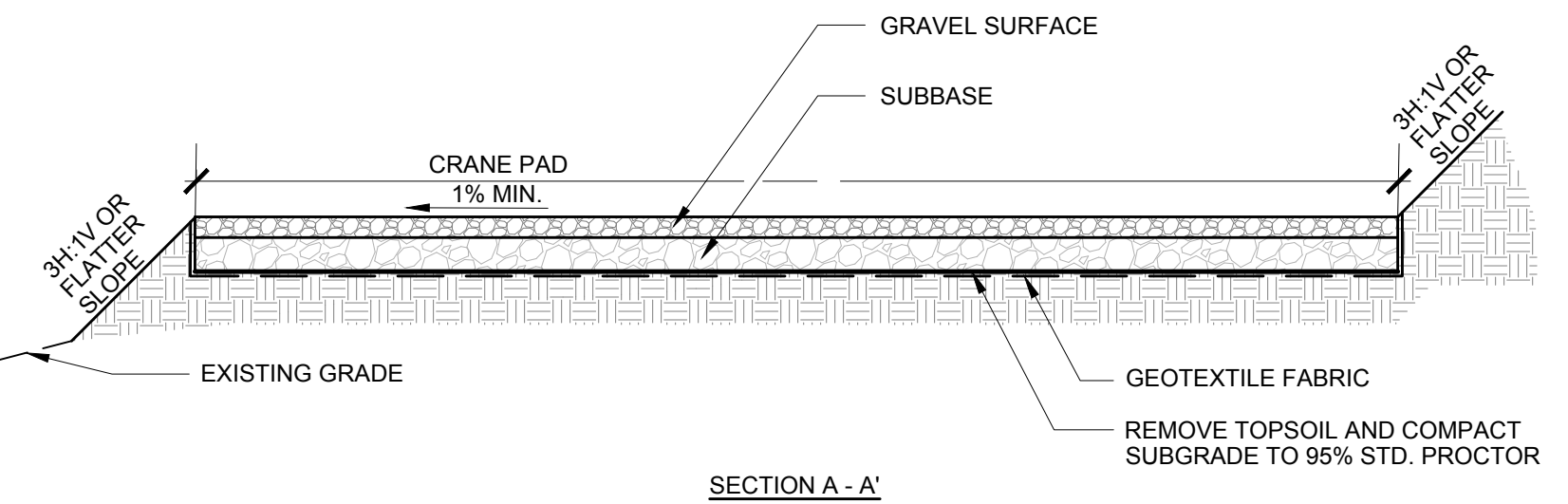
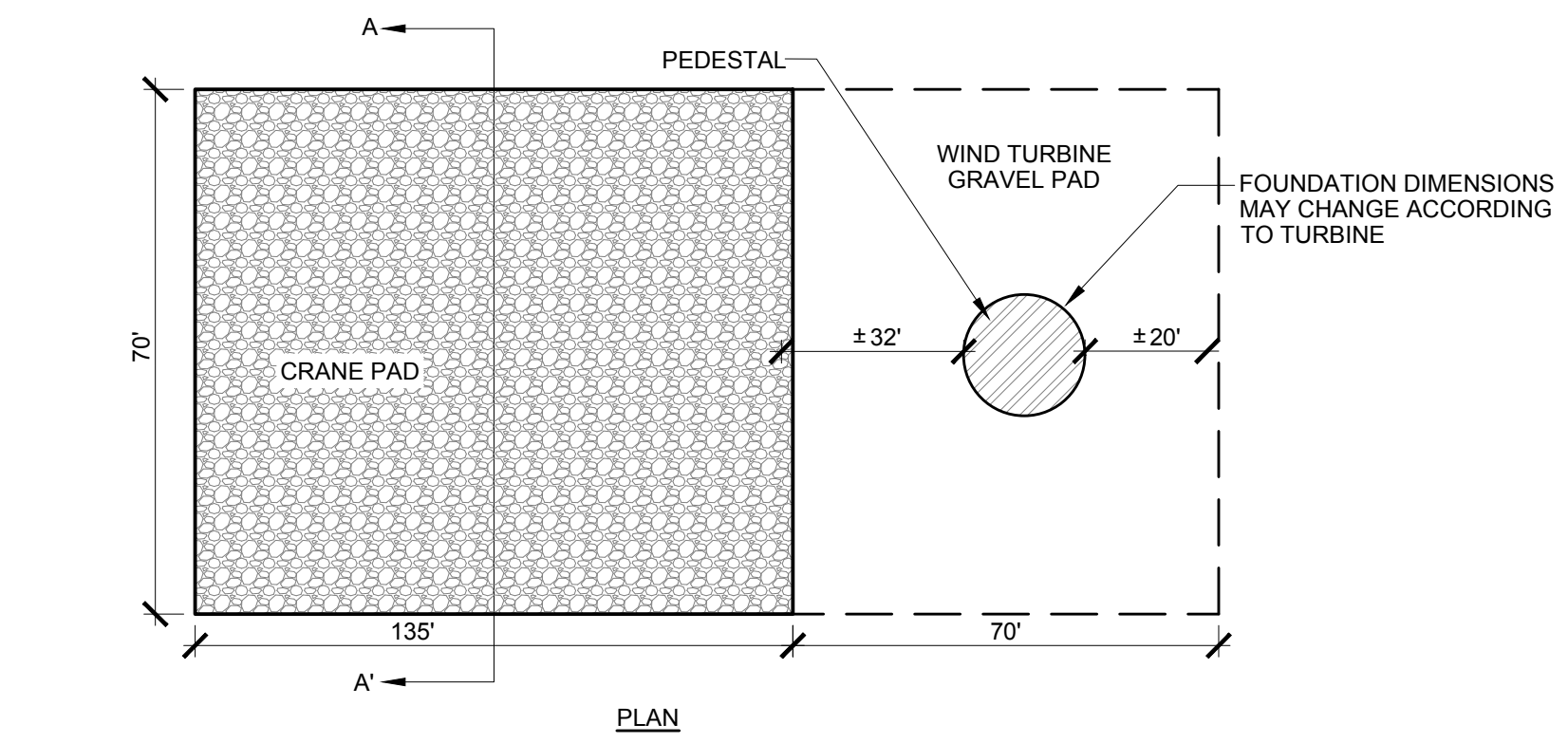


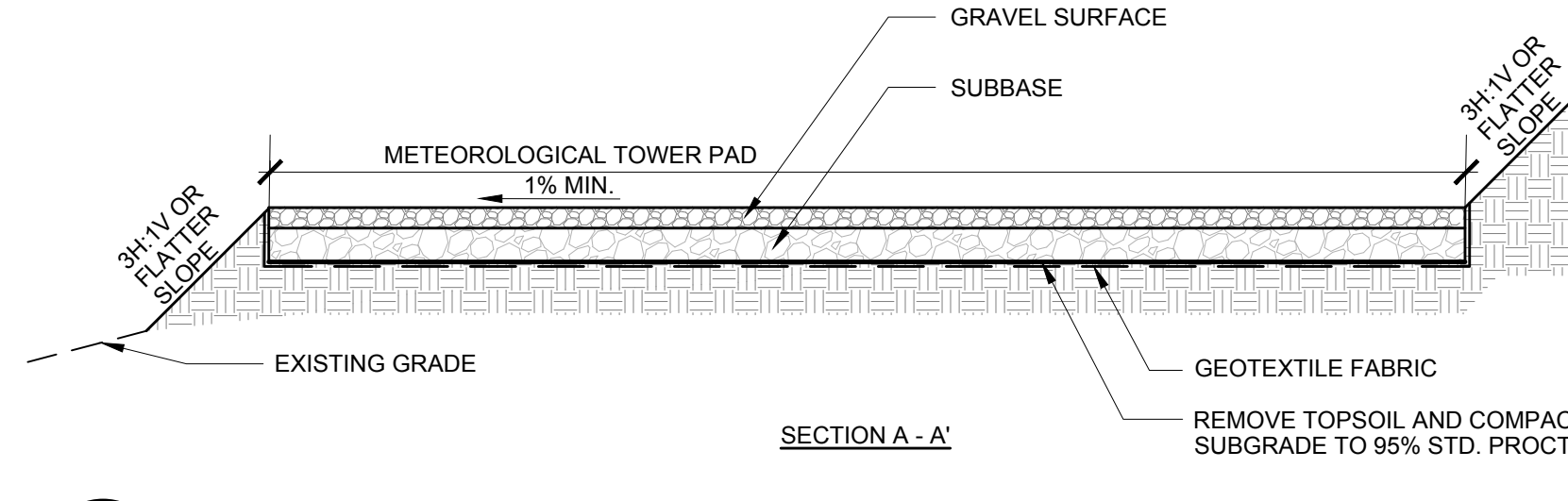
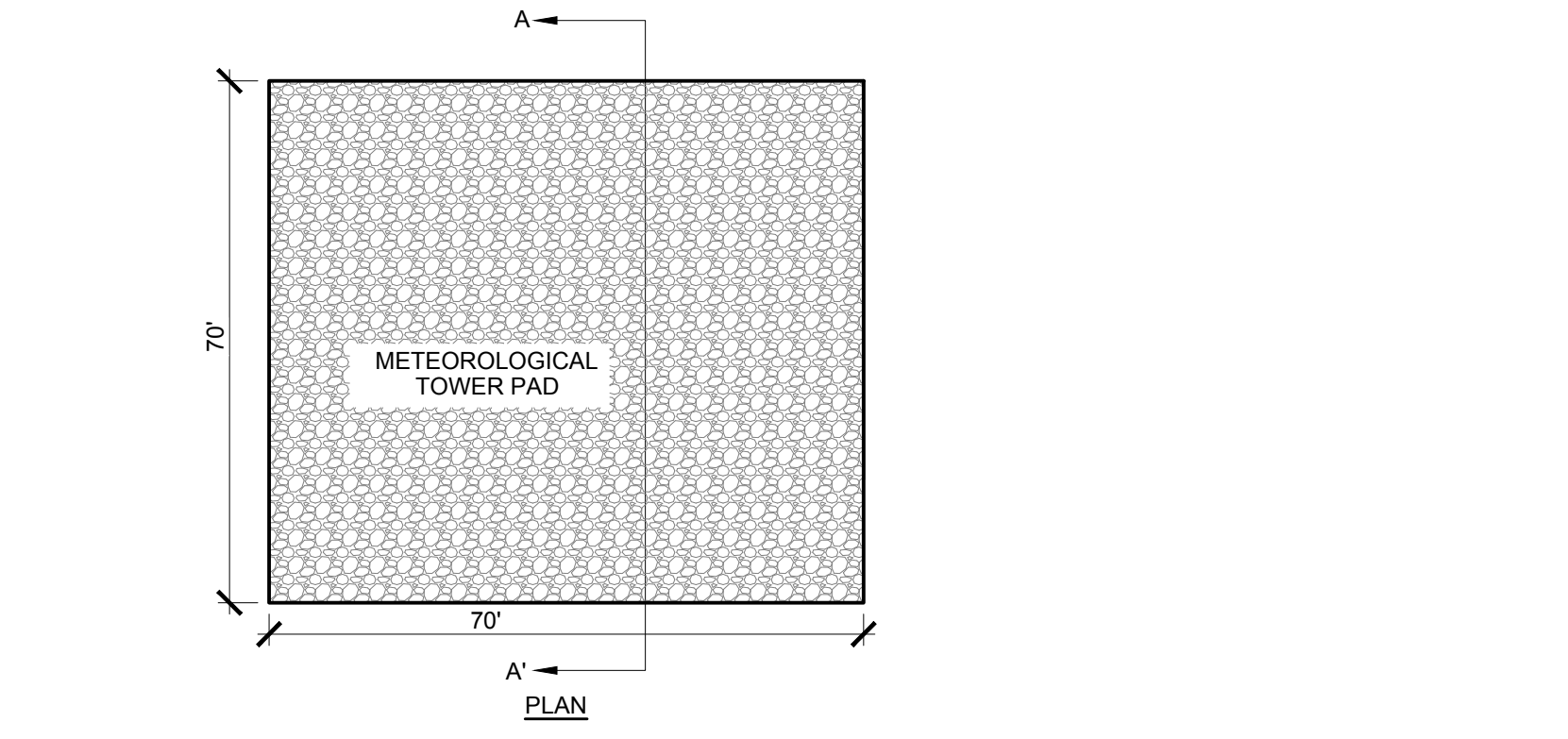
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C-601 Scale: NTS



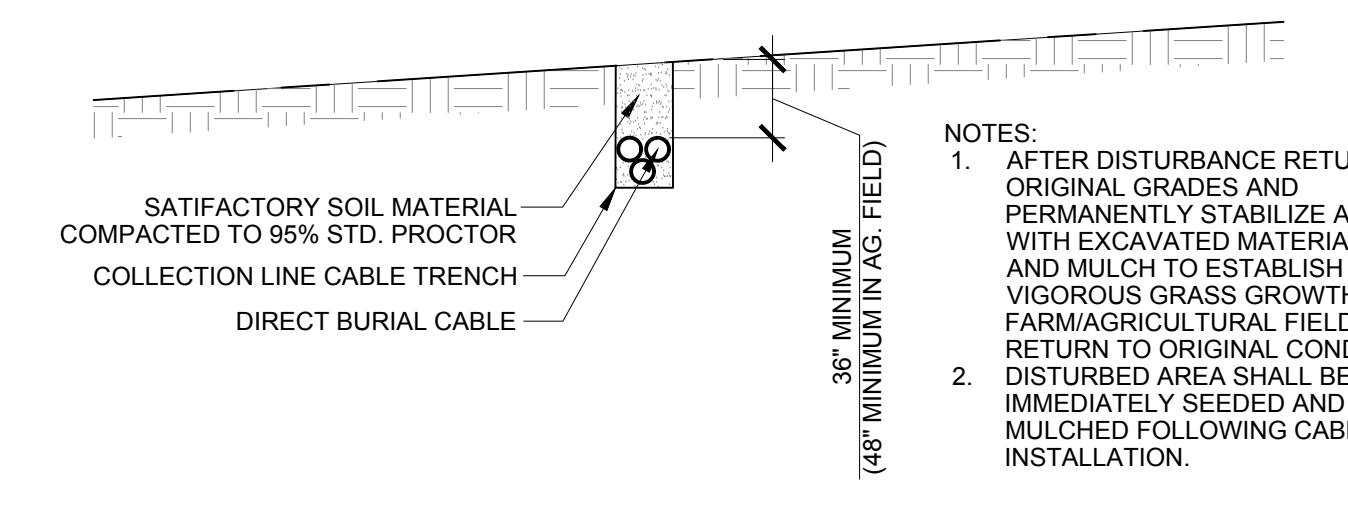
**2 ACCESS ROAD TURNAROUND**  
C-601 N.T.S.



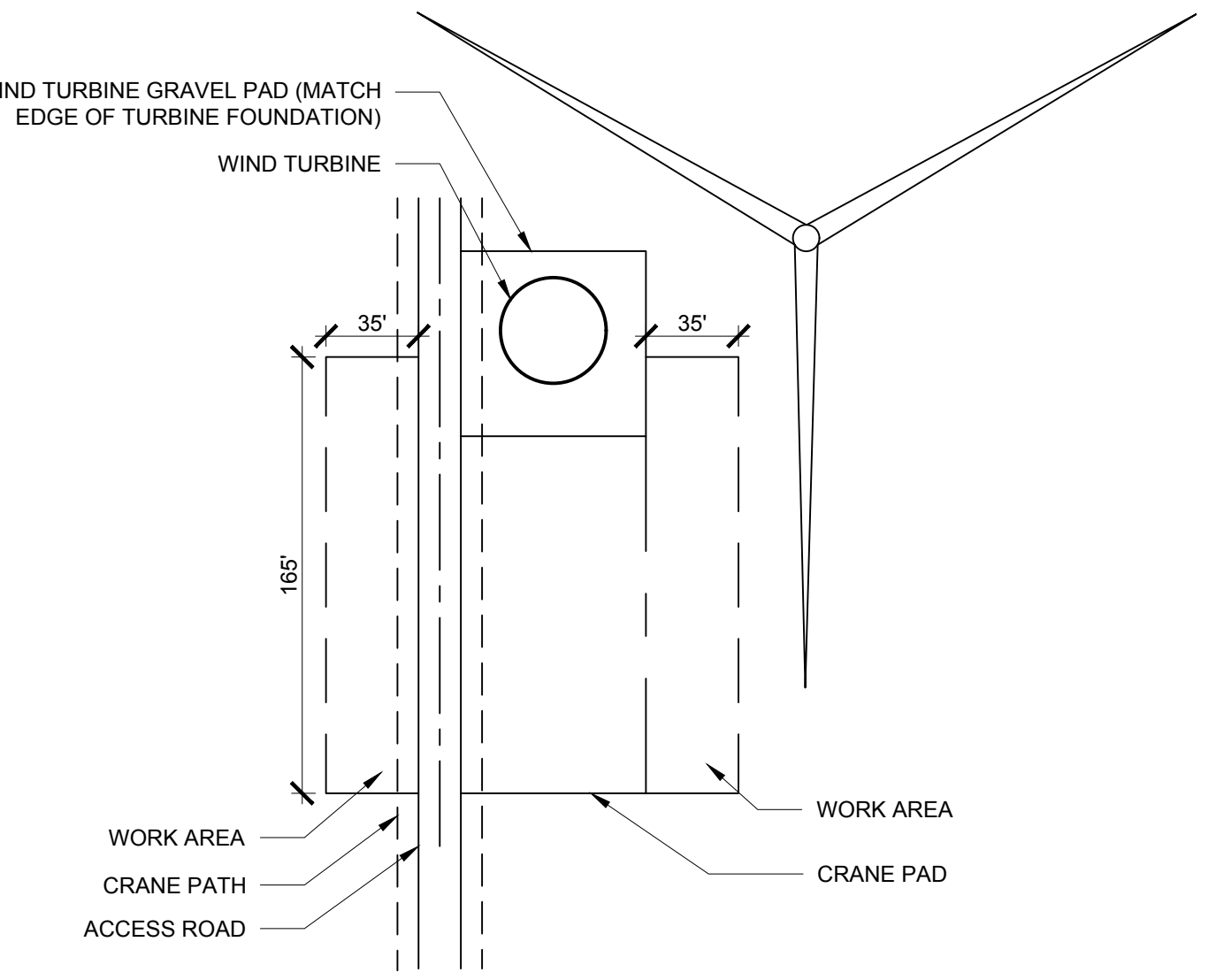
**3 CRANE PAD**  
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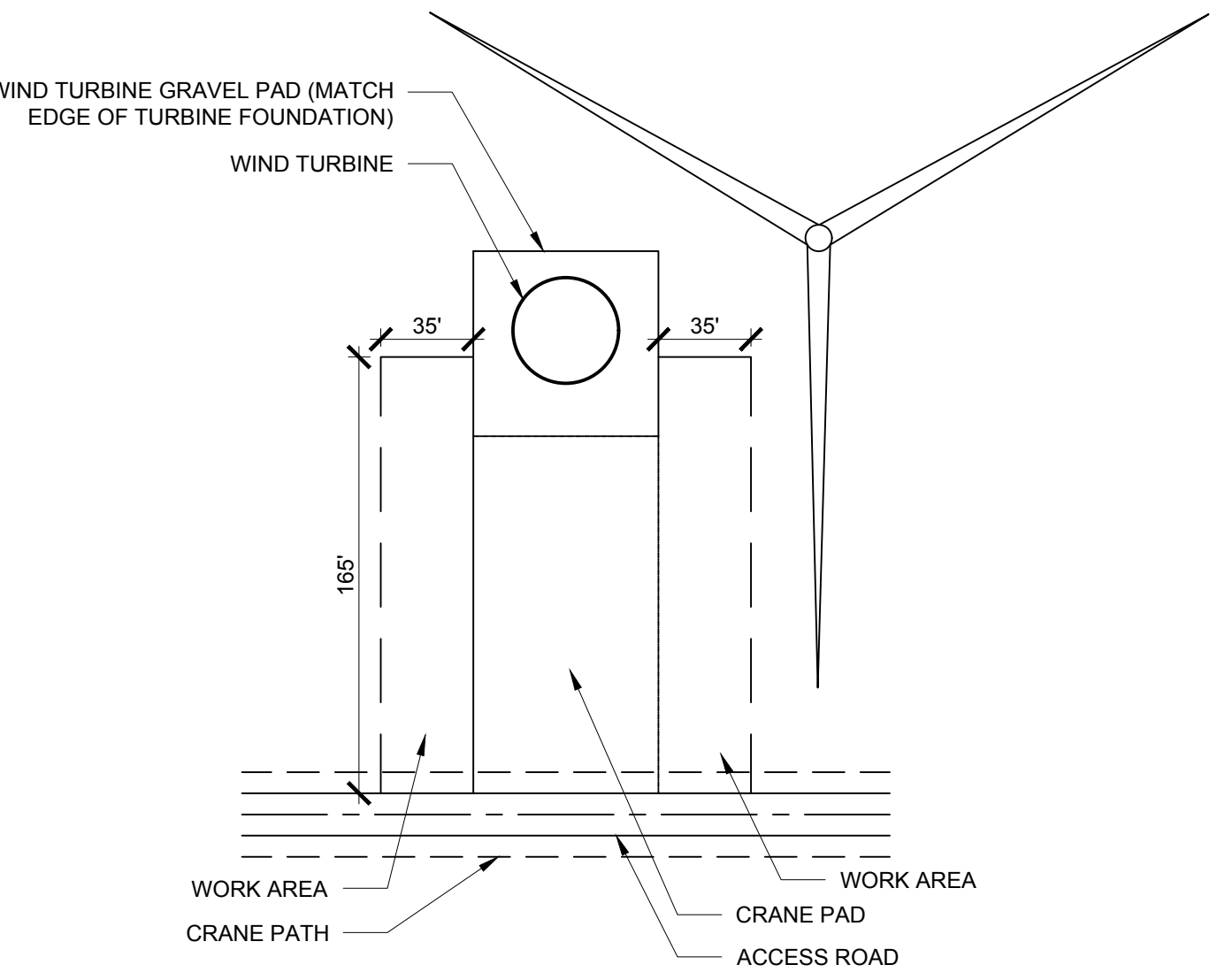
**4 METEOROLOGICAL TOWER PAD**  
C-601 Scale: NTS



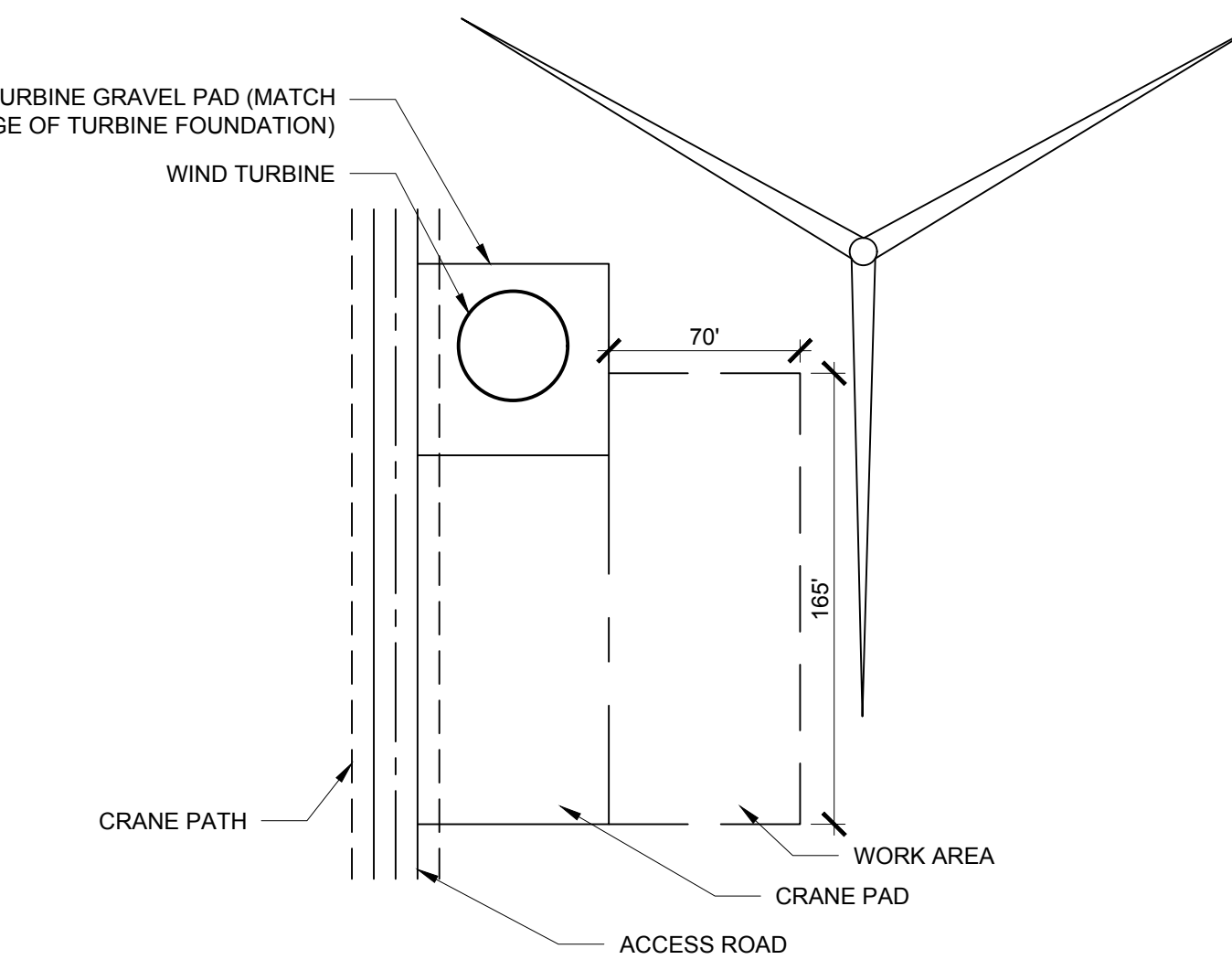
**5 COLLECTION LINE CABLE TRENCH**  
C-601 Scale: NTS



**6 CONSTRUCTION SITE LAYOUT TYPE A**  
C-601 N.T.S.



**7 CONSTRUCTION SITE LAYOUT TYPE B**  
C-601 N.T.S.



**8 CONSTRUCTION SITE LAYOUT TYPE C**  
C-601 N.T.S.

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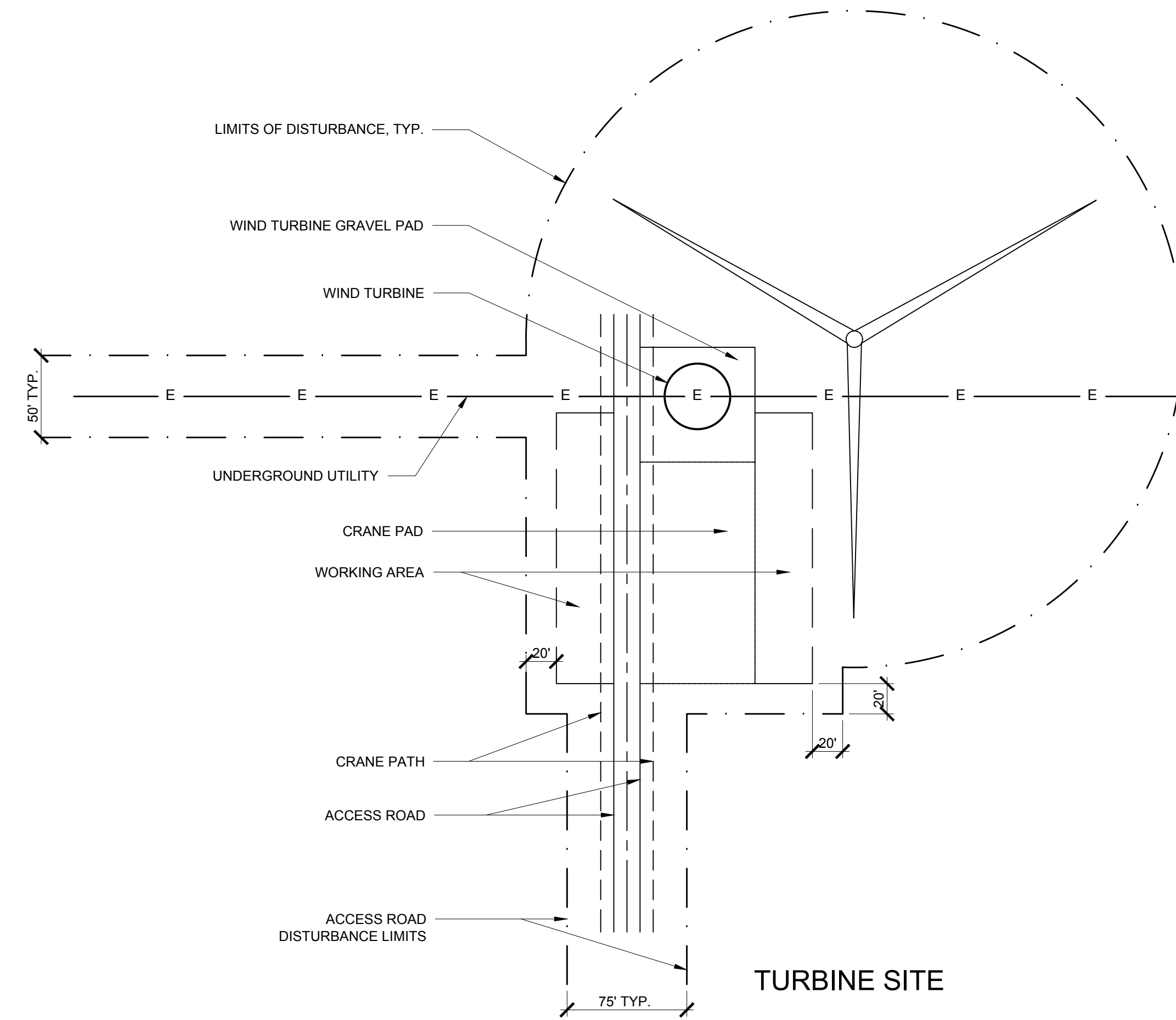
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**PROJECT TITLE: CASSADAGA WIND PROJECT**  
TOWNS OF CHARLOTTE, CHERRY CREEK, ARKWRIGHT, AND STOCKTON,  
CHAUTAQUA COUNTY, NEW YORK  
CLIENT: EVERPOWER WIND HOLDINGS  
DRAWING TITLE: TYPICAL CIVIL DETAILS

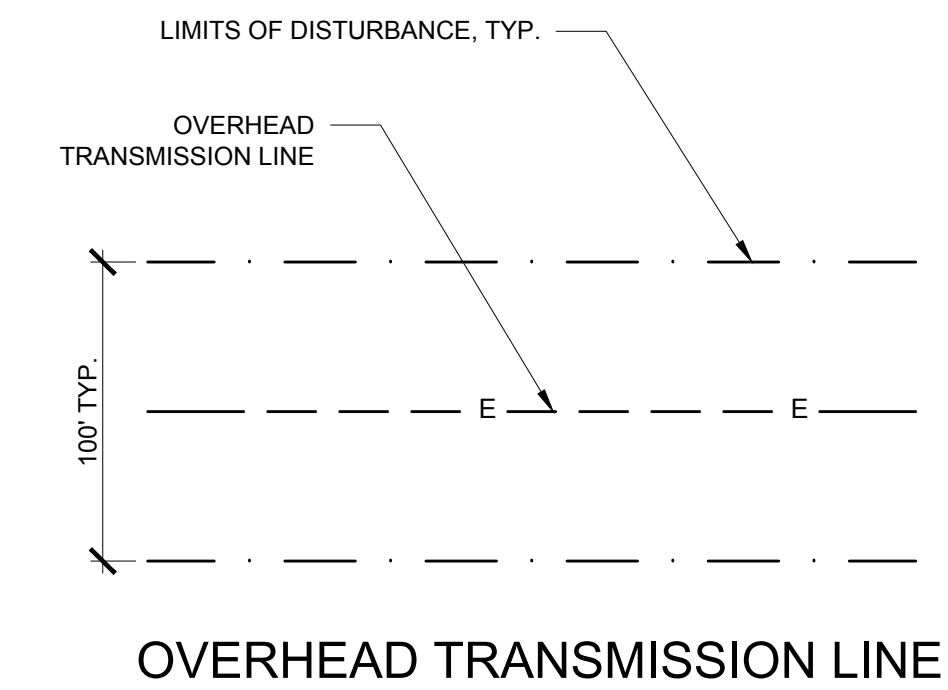
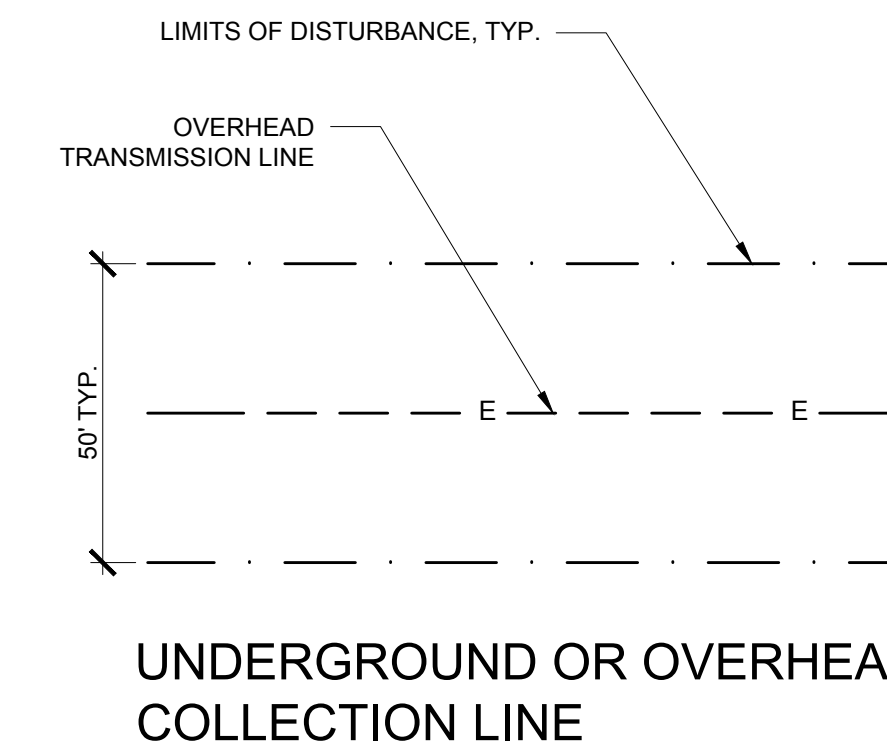
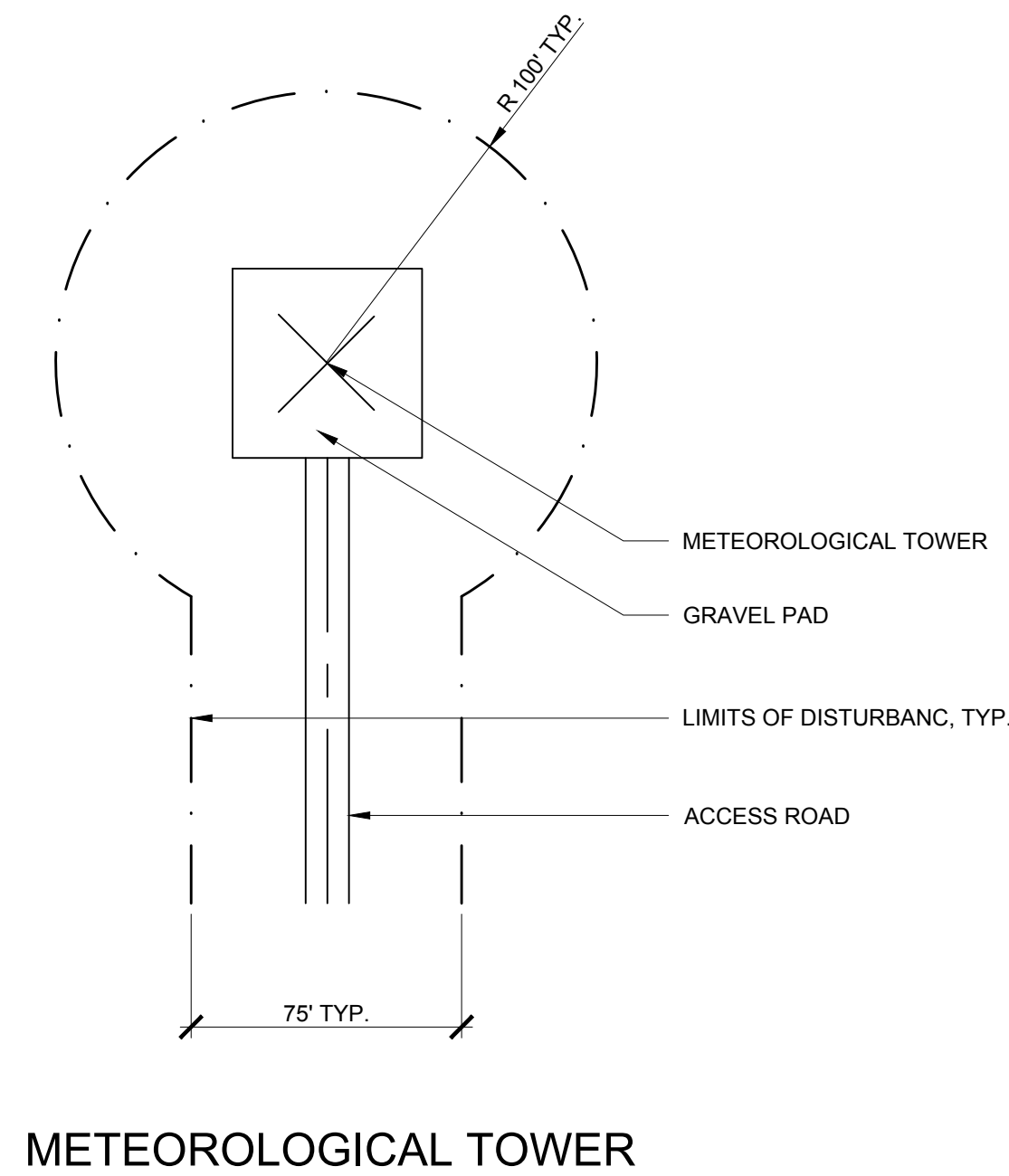
DATE: MAY 2016  
SCALE: AS NOTED  
JOB NO: 14048  
DRAWN BY: AW, CB, ZR, DG, JT  
FILE NAME: 14048\_Details.dwg  
DRAWING NUMBER: C-601

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DISTURBANCE LIMIT NOTES:  
1. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS OUTSIDE OF PERMANENT GRADING TO PRE-CONSTRUCTION CONDITION.  
2. CLEARING SHALL BE LIMITED TO DISTURBANCE LIMIT.



1 **DISTURBANCE LIMITS**  
C-602 N.T.S.

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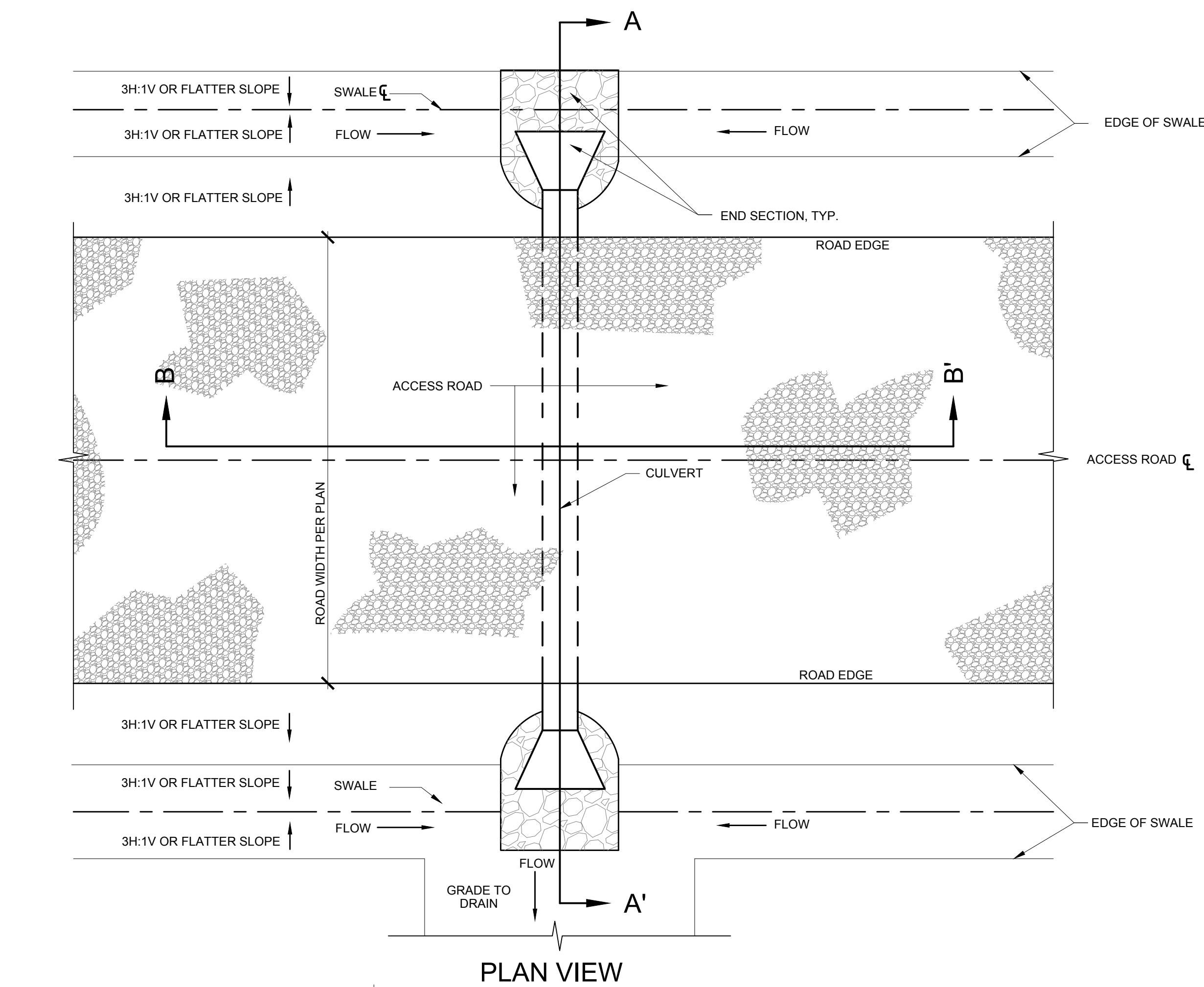
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<b>PROJECT TITLE:</b> CASSADAGA WIND PROJECT
TOWNS OF CHARLOTTE, CHERRY CREEK, ARKWRIGHT, AND STOCKTON, CHAUTAUGUA COUNTY, NEW YORK
<b>CLIENT:</b> EVERPOWER WIND HOLDINGS
<b>DRAWING TITLE:</b> TYPICAL CIVIL DETAILS

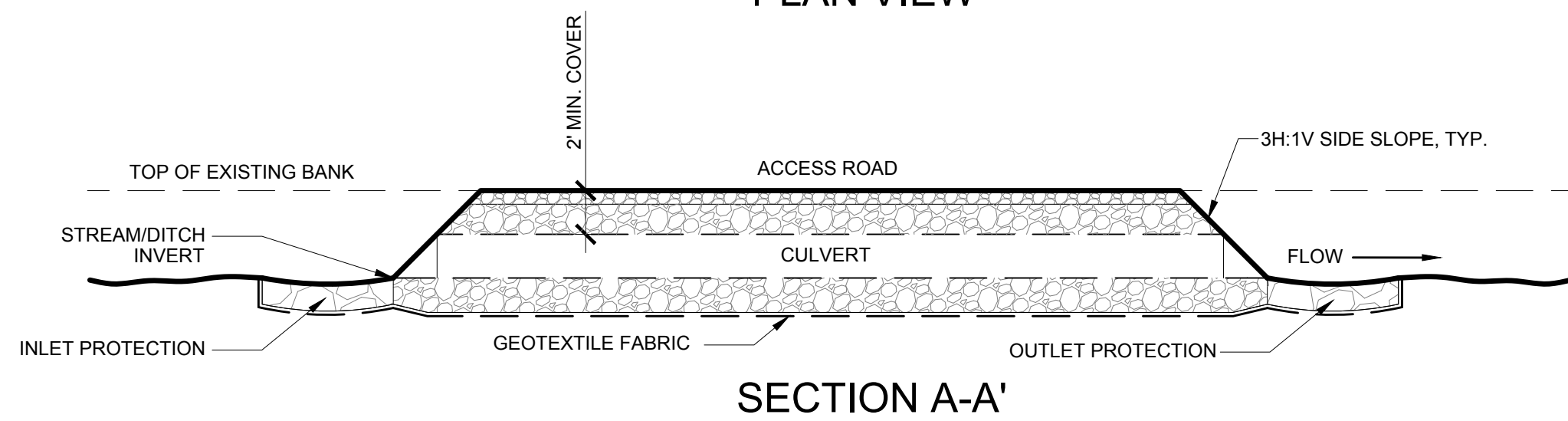
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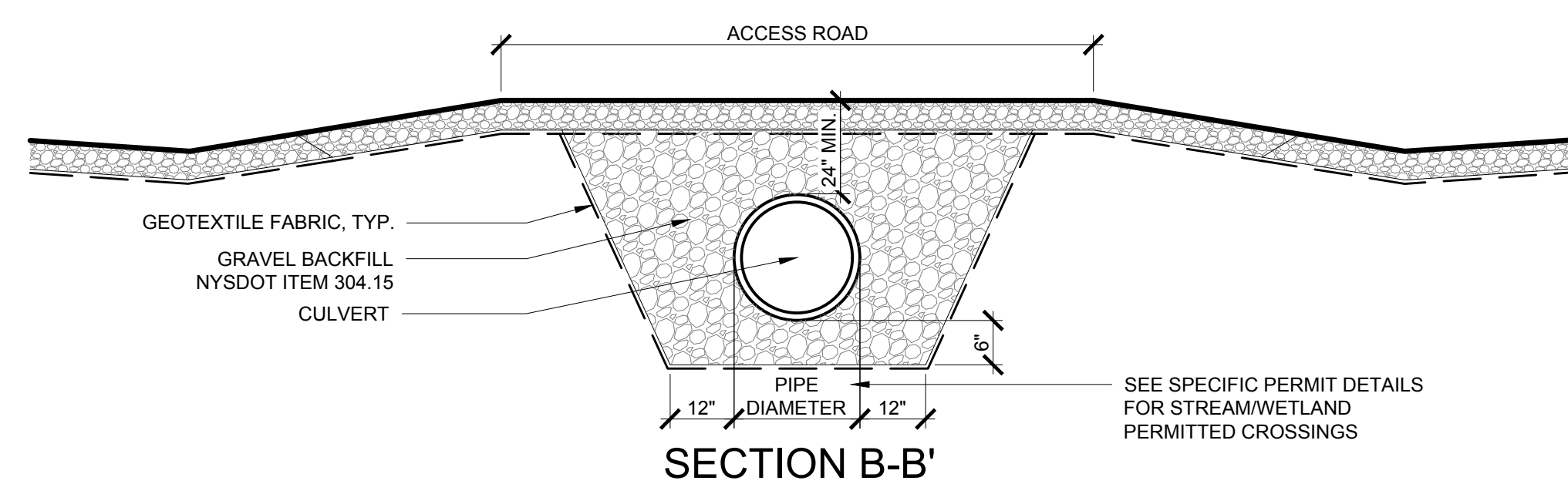
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**C-602**



PLAN VIEW



SECTION A-A'

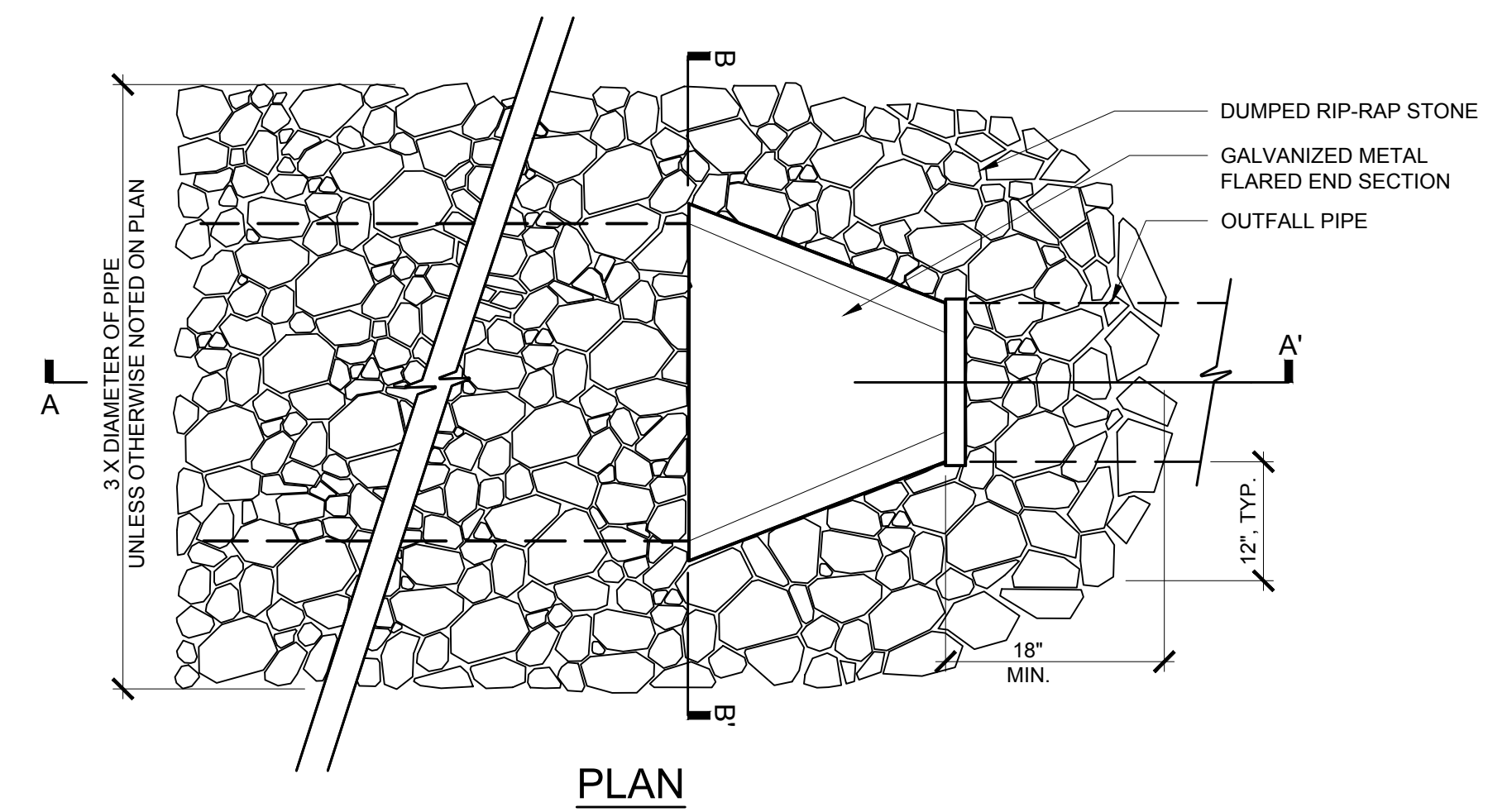


SECTION B-B'

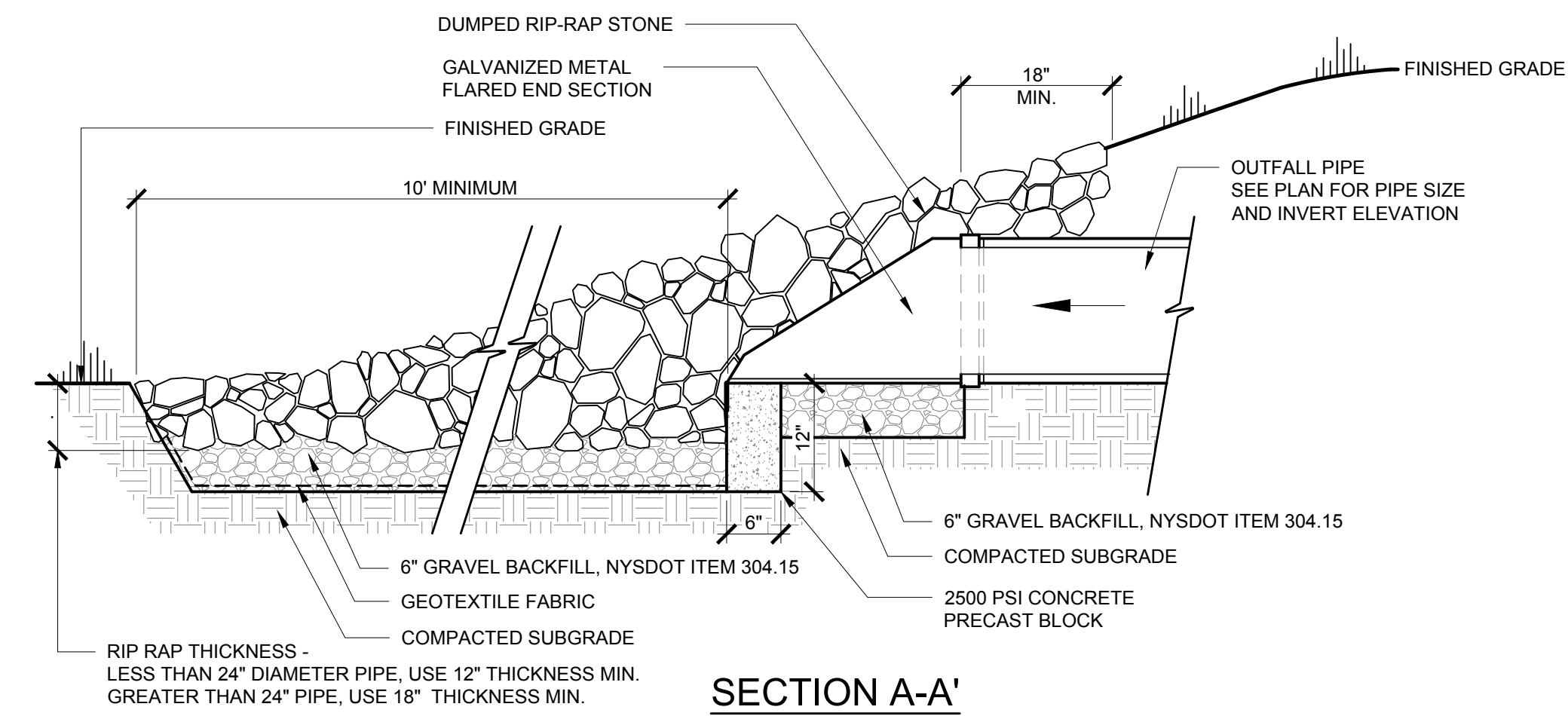
**CULVERT NOTES:**

- ALL BACKFILL SHALL BE COMPACTED TO 95% STD. PROCTOR.
- CULVERT SIZE: THE CROSS SECTIONAL AREA OF THE CULVERT PIPE SHALL BE THE LARGEST PIPE DIAMETER EQUAL TO THE UNDISTURBED CROSS SECTIONAL AREA OF THE BANK FULL CONDITION OF THE STREAM. IT SHOULD FIT INTO THE EXISTING CHANNEL WITHOUT EXCAVATION OF THE WATERWAY CHANNEL OR MAJOR APPROACH FILLS. IF A CHANNEL WIDTH EXCEEDS 3 FEET, ADDITIONAL PIPES MAY BE USED UNTIL THE CROSS SECTIONAL AREA OF THE PIPES APPROACHES THE EXISTING CHANNEL. THE MINIMUM CULVERT SIZE SHALL BE AN 18" DIAMETER PIPE.
- TEMPORARY INLET AND OUTLET PROTECTION SHALL BE INSTALLED AS DETAILED
- MULTIPLE PIPE INLETS:
  - CULVERT LENGTH: THE CULVERTS SHALL EXTEND TO THE UPSTREAM AND DOWNSTREAM TOE OF SLOPE.
  - MULTIPLE CULVERTS SHALL BE SET SO THEY HAVE A MINIMUM OF 12" SEPARATION FROM OUTSIDE PIPE TO OUTSIDE PIPE.
  - THE INVERT ELEVATIONS OF THE CULVERT SHALL BE INSTALLED AT OR BELOW THE NATURAL STREAMBED GRADE TO MINIMIZE INTERFERENCE WITH FISH MIGRATION.
  - THE CULVERT SHALL BE COVERED WITH A MINIMUM OF TWO FEET AGGREGATE.

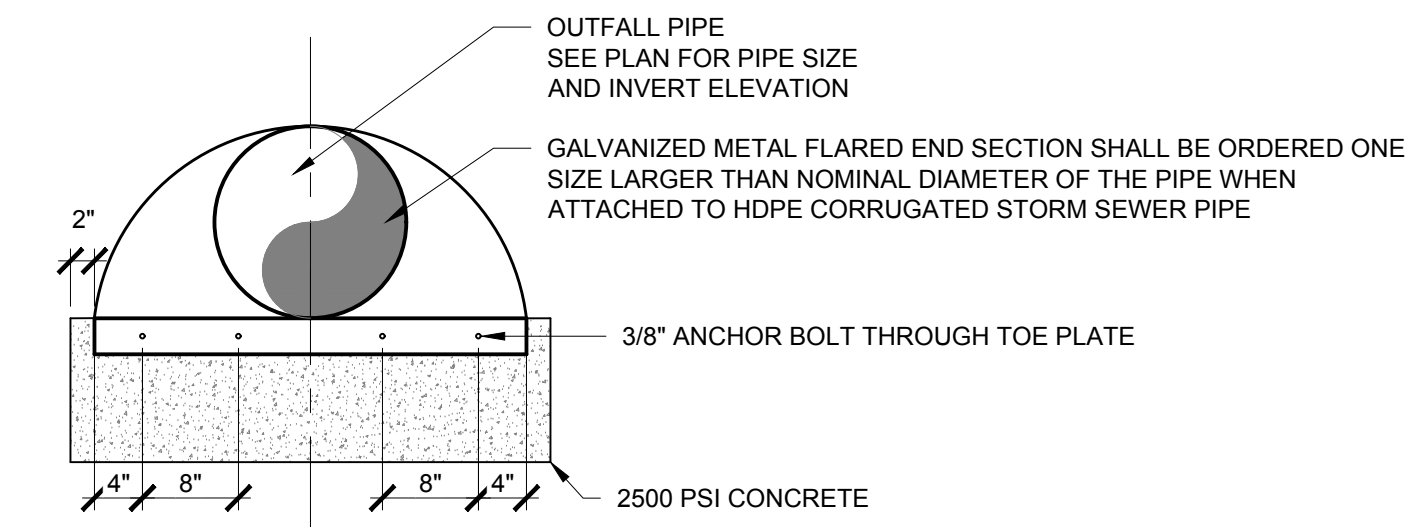
**1 CULVERT**  
Scale: NTS



PLAN

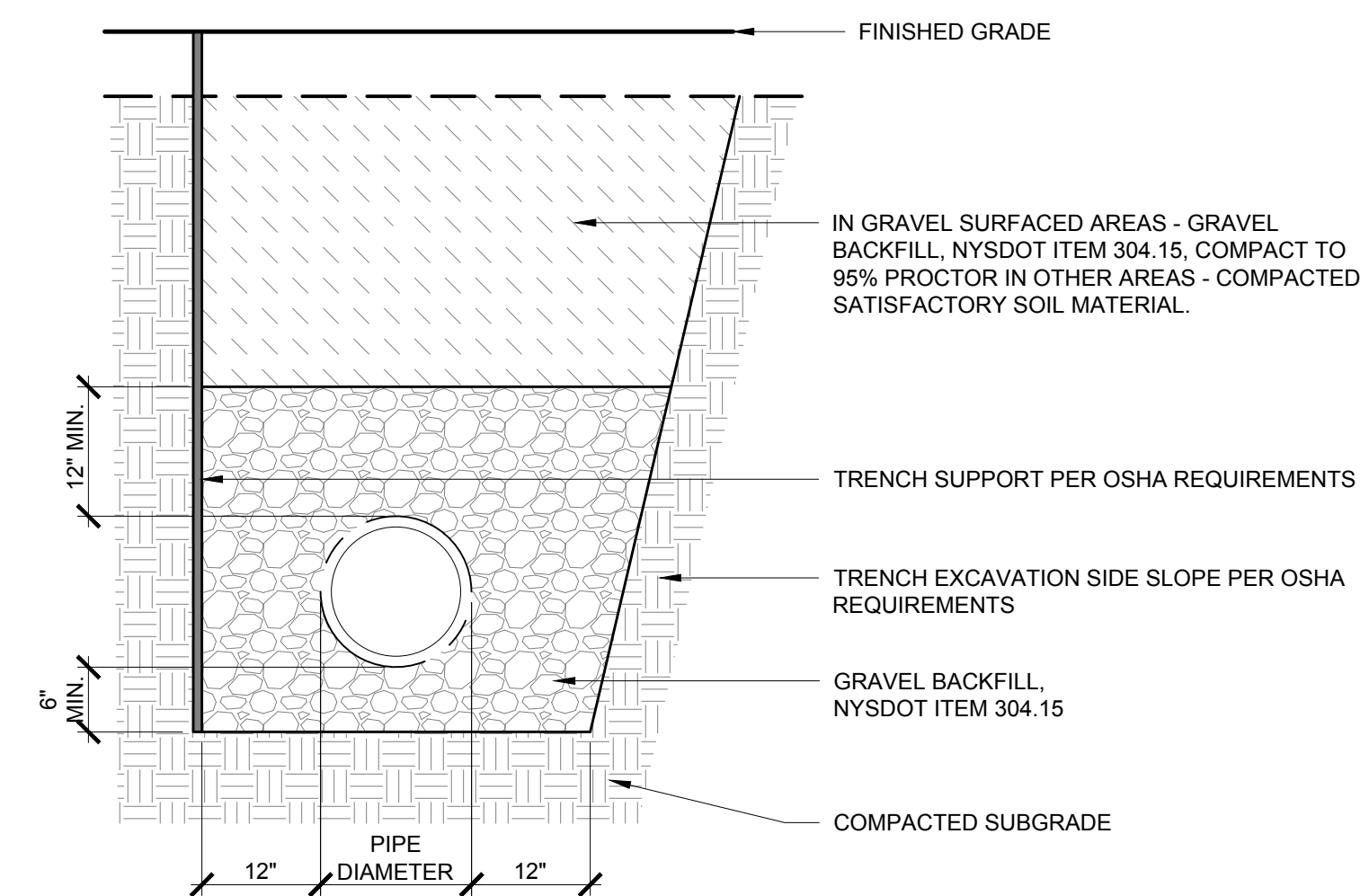


SECTION A-A'



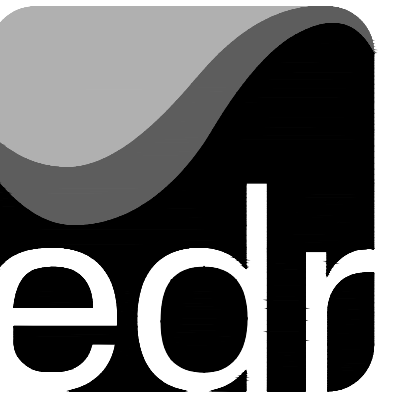
SECTION B-B'

**2 END SECTION**  
Scale: 3/4" = 1'-0"



**3 PIPE TRENCH**  
Scale: 3/4" = 1'-0"

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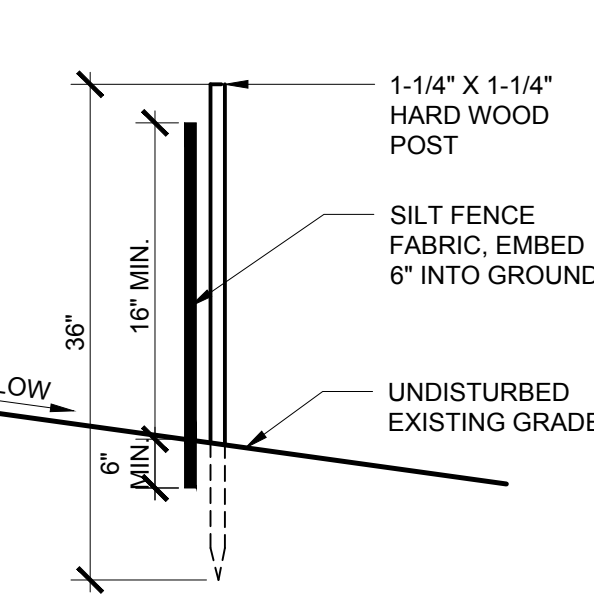
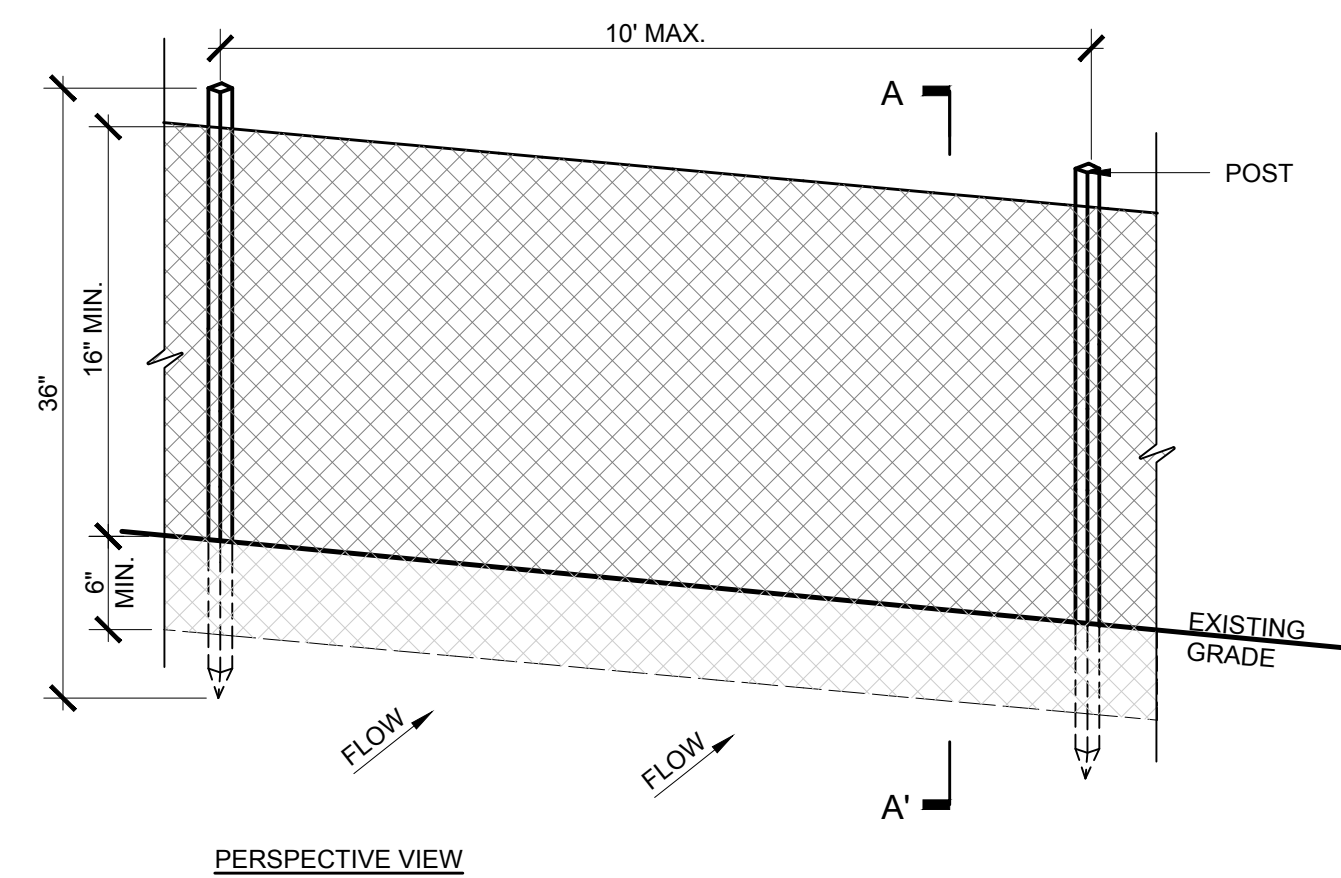
**everpower**

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<b>PROJECT TITLE: CASSADAGA WIND PROJECT</b>	
TOWNS OF CHARLOTTE, CHERRY CREEK, ARKWRIGHT, AND STOCKTON,	
PROJECT LOCATION: CHAUTAUGUA COUNTY, NEW YORK	
CLIENT: EVERPOWER WIND HOLDINGS	DRAWING TITLE: TYPICAL CIVIL DETAILS

DATE: MAY 2016
SCALE: AS NOTED
ISSUE NO: 14048
DRAWN BY: AW, CB, ZR, DG, JT
FILE NAME: 14048_Details.dwg
DRAWING NUMBER: C-603

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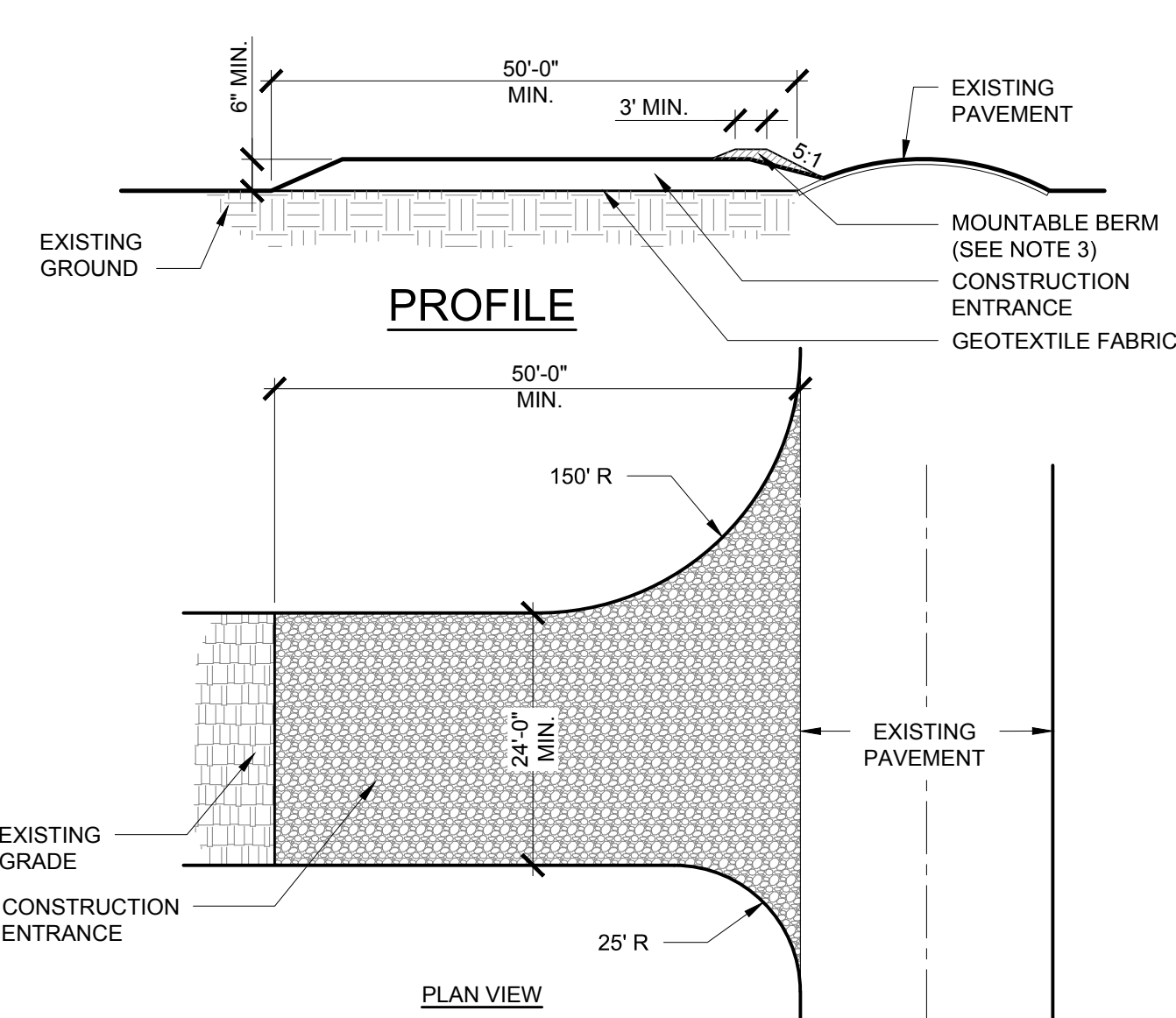


SECTION A-A'

**1 SILT FENCE**  
C-604 Scale: NTS

NOTES:

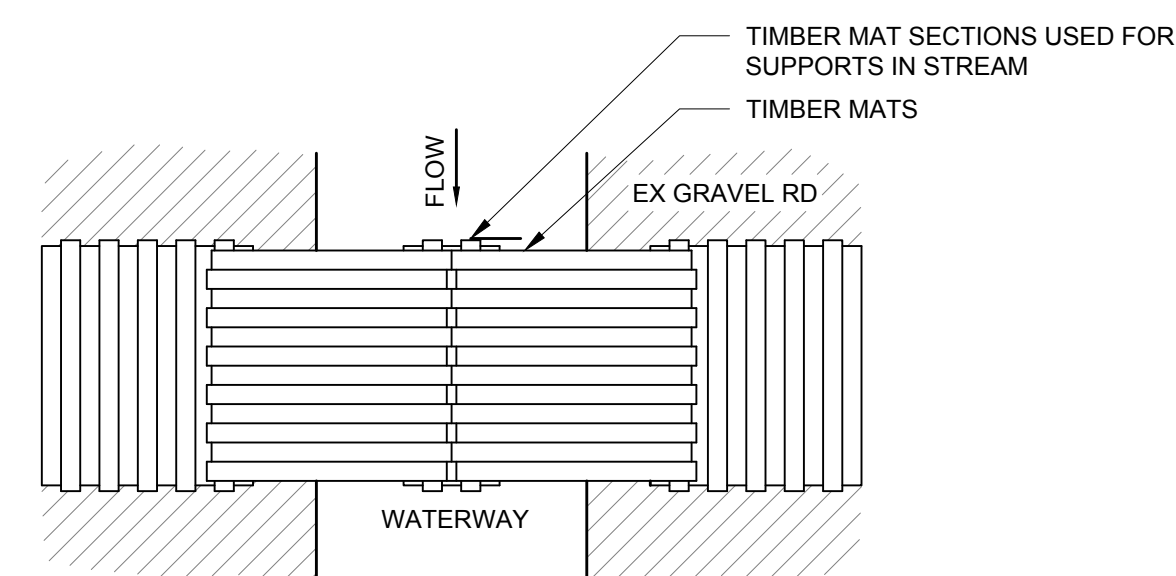
- SILT FENCE SHALL BE PREFABRICATED UNITS PRODUCED BY TENGATE MIRAFI, EAST COAST NETTING, ACF ENVIRONMENTAL, OR EQUAL.
- WHEN TWO SECTIONS OF FILTER FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY A MINIMUM 6", FOLDED AROUND THE END STAKE AND SECURED AS NECESSARY TO CREATED A CONTINUOUS BARRIER.
- ACCUMULATED SEDIMENT SHALL BE REMOVED FROM SILT FENCING WHEN IT HAS REACHED 1/3 THE HEIGHT OF THE FENCE, OR WHEN BULGES DEVELOP.
- SILT FENCE SHALL BE INSPECTED REGULARLY AND MAINTAINED IN WORKING ORDER FOR THE DURATION OF CONSTRUCTION.



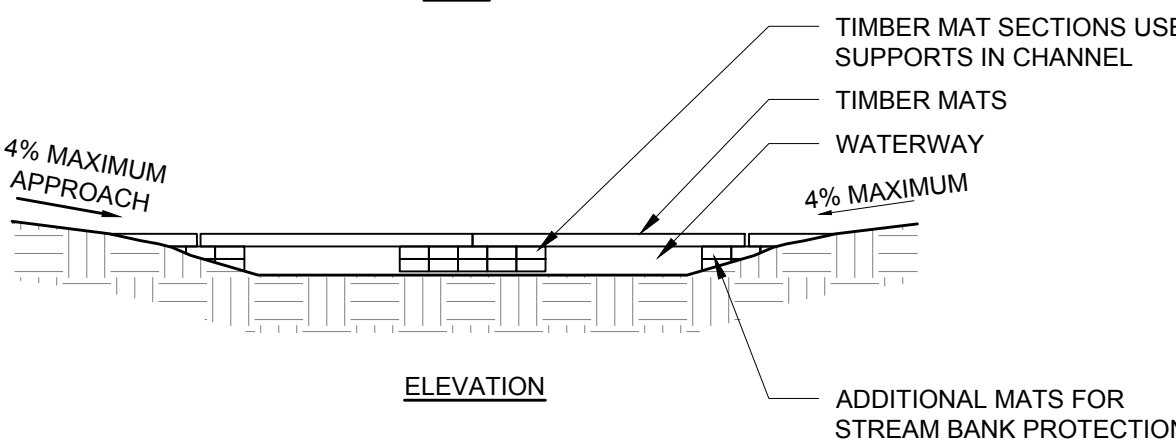
INSTALLATION NOTES

- CONSTRUCTION ENTRANCE STONE SIZE - USE 3" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- GEOTEXTILE FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- 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.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO THE PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- IF THE STABILIZED ENTRANCE IS NO ADEQUATE TO REMOVE SEDIMENT FROM THE WHEELS OF THE CONSTRUCTION VEHICLES, WASHING IS REQUIRED BY THE OWNER. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

**3 STABILIZED CONSTRUCTION ENTRANCE**  
C-604 Scale: NTS



PLAN



ELEVATION

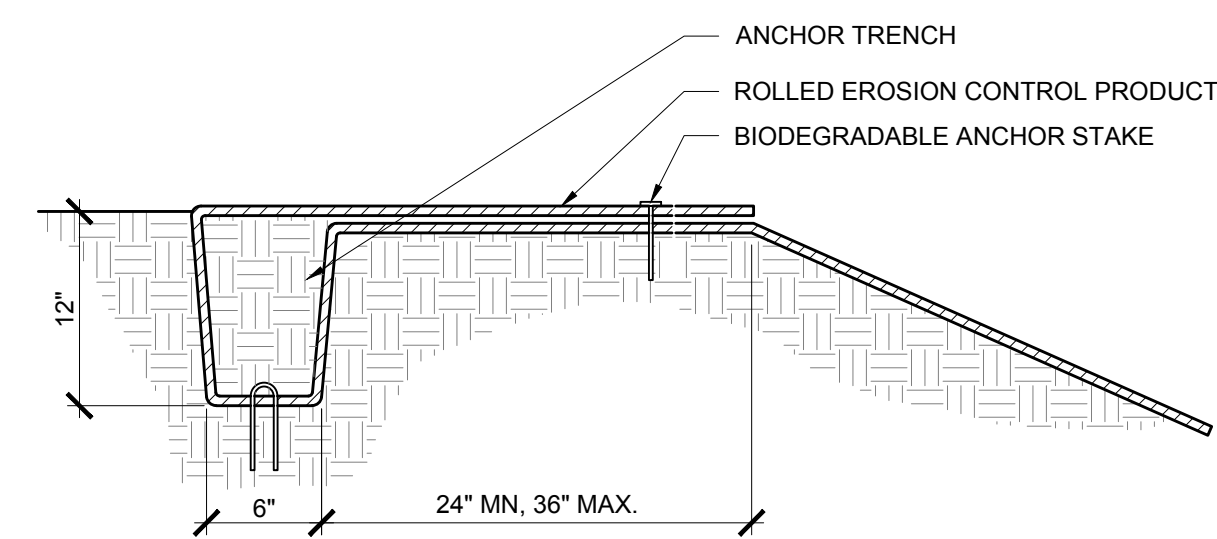
**2 TEMPORARY WETLAND/STREAM CROSSING**  
C-604 Scale: NTS

**4 SURFACE ROUGHENING**  
C-604 Scale: NTS

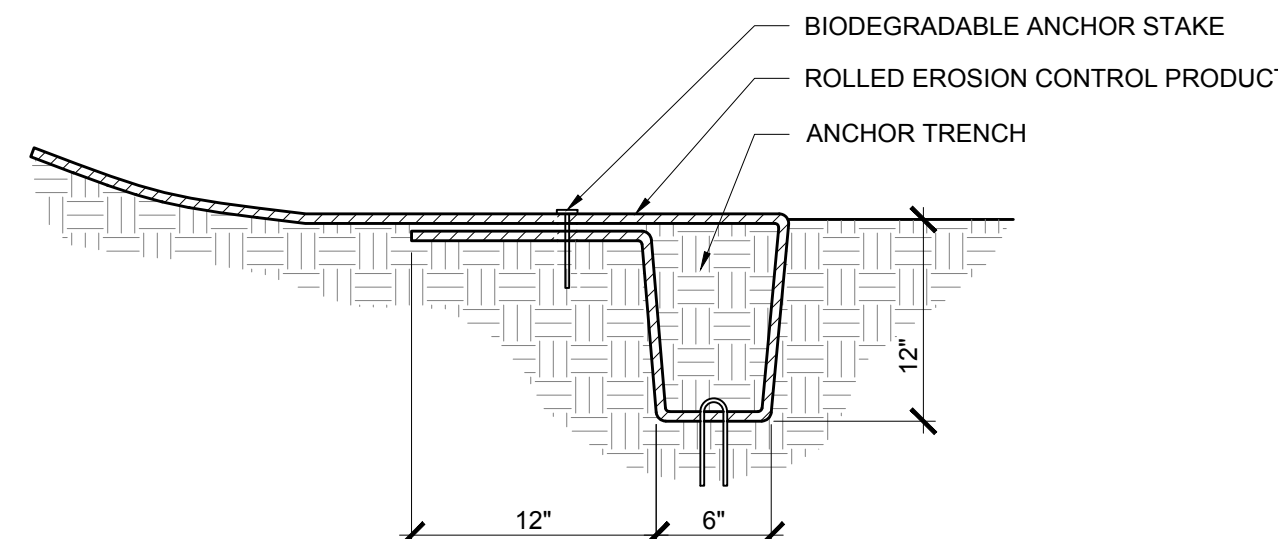
NOTES:

- FOR USE ON FILL SLOPES THAT WILL NOT BE MOWED IN THE FUTURE.
  - CREATE GROOVES PERPENDICULAR TO THE SLOPE USING DISKS, TILLERS, SPRING HARROWS, OR THE TEETH OF A FRONT END LOADER BUCKET.
  - GROOVES SHALL BE A MINIMUM OF 3 INCHES DEEP AND NOT MORE THAN 15 INCHES APART.
  - DO NOT BLADE OR SCRAPE FINAL SLOPE SURFACE.
- FOR USE ON CUT OR FILL SLOPES THAT WILL BE MOWED IN THE FUTURE.
  - MAKE SLOPES 3H:1V OR FLATTER.
  - ROUGHEN BY CREATING SHALLOW GROOVES BY NORMAL TILLING, DISKING, HARROWING, OR USE OF CULTIPAKER-SEEDER.
  - GROOVES SHALL BE A MINIMUM OF 1 INCH DEEP AND A MAXIMUM OF 10 INCHES APART.

GROOVING SLOPES - CUT OR FILL SLOPES



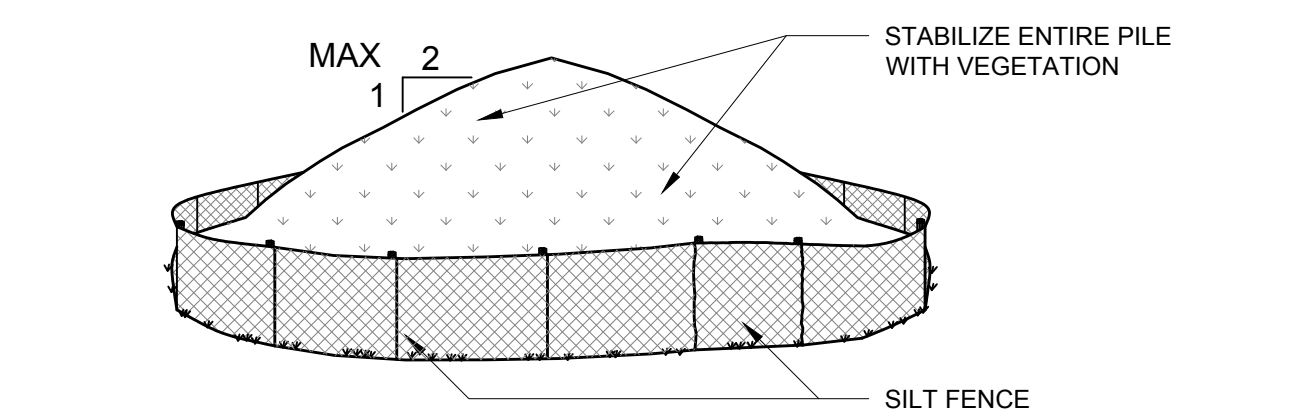
INITIAL ANCHOR TRENCH - UPHILL



TERMINAL ANCHOR TRENCH - DOWNHILL

**5 ANCHOR TRENCH FOR ROLLED EROSION CONTROL PRODUCTS**  
C-604 Scale: N.T.S.

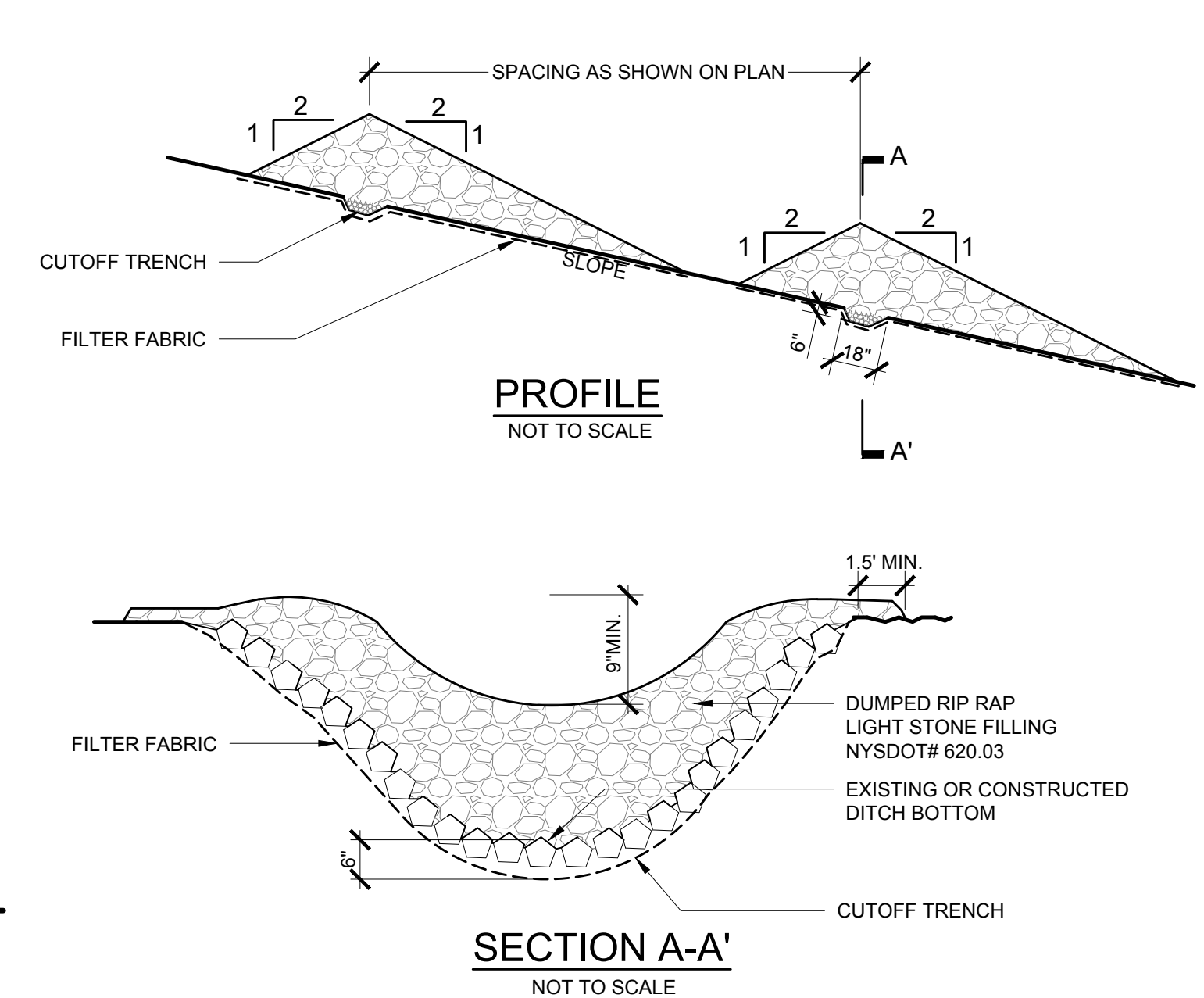
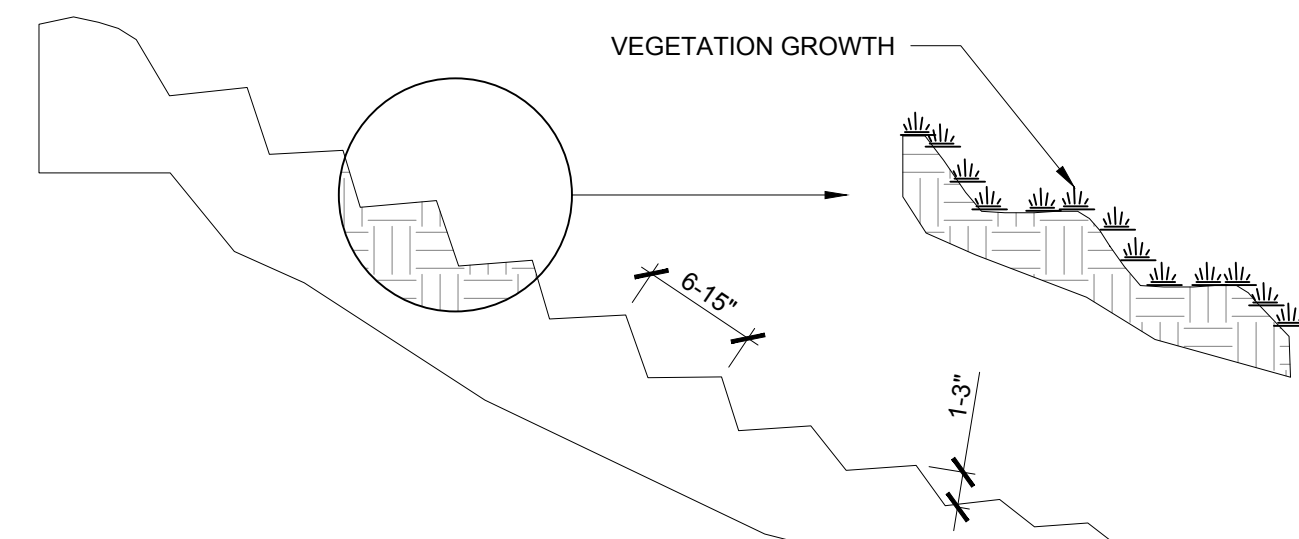
**6 VEGETATION PROTECTION**  
C-604 Scale: 1/4" = 1'-0"



INSTALLATION NOTES:

- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V. MAXIMUM HEIGHT SHALL BE 12 FEET.
- EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, INSTALLED PER CORRESPONDING DETAIL, THEN STABILIZED WITH ANNUAL GRASS WITHIN 3 DAYS.
- A PERIMETER DIKE/SWALE SHALL BE LOCATED UP-SLOPE OF THE TOPSOIL STOCKPILE.

**7 STABILIZED TEMPORARY SOIL STOCKPILE**  
C-604 Scale: NTS

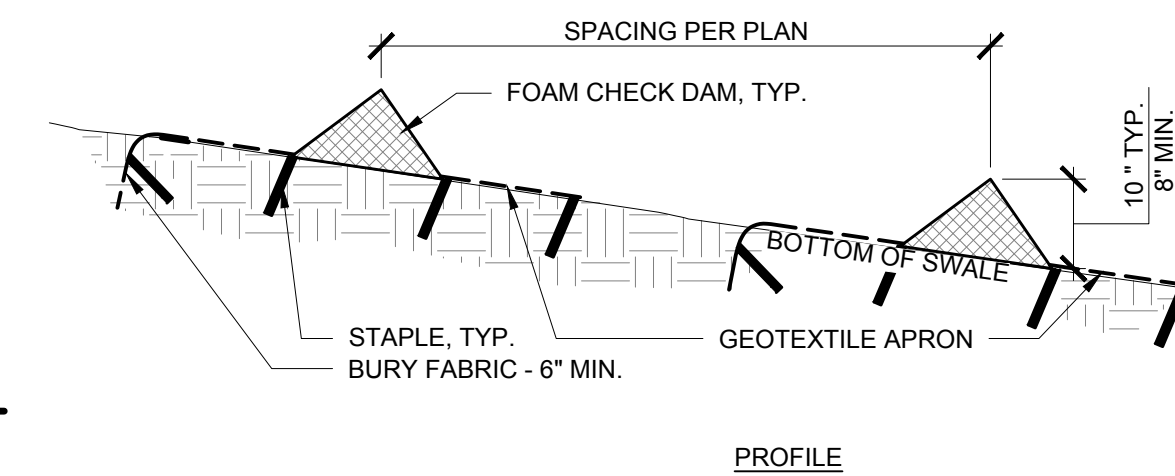


SECTION A-A'

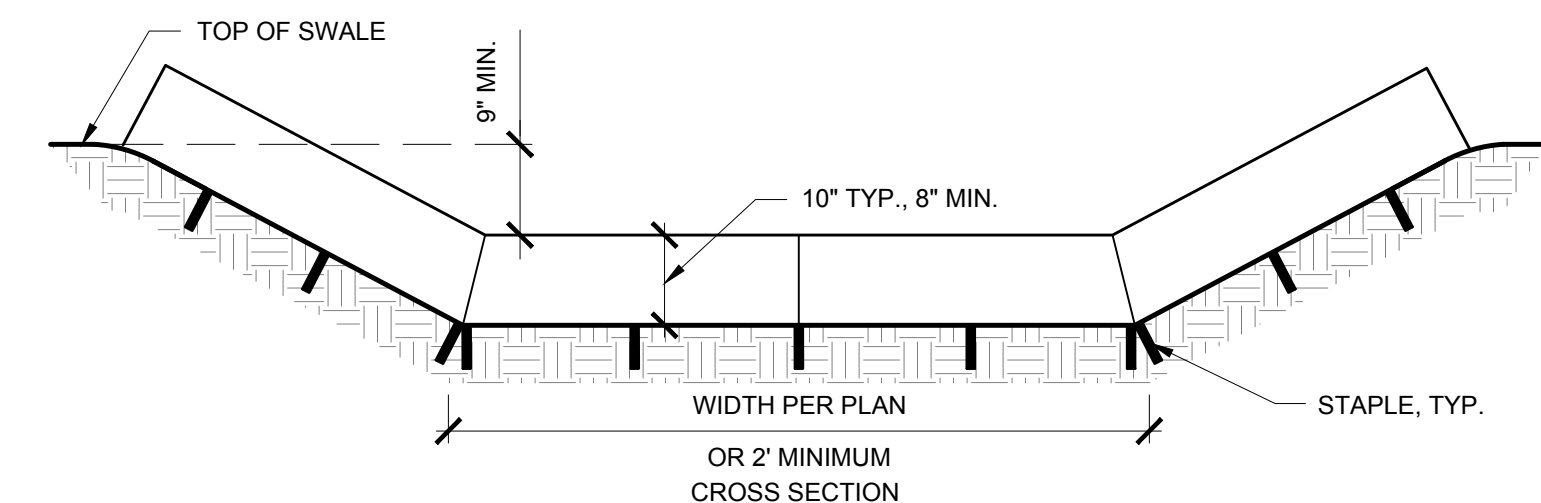
CONSTRUCTION SPECIFICATIONS

- STONE SHALL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE PLAN.
- EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
- MAXIMUM DRAINAGE AREA 2 ACRES

**8 STONE CHECK DAM**  
C-604 Scale: NTS



PROFILE



NOTE:

- PREFABRICATED TEMPORARY CHECK DAMS SHALL BE EITHER URETHANE FOAM (CFC FREE) COVERED WITH GEOTEXTILE FABRIC, TRIANGULAR SILT DIKE BY ACF OR EQUAL.
- ALTERNATELY, HDPE TEMPORARY CHECK DAMS, GEORIDGE BY NILEX OR EQUAL, MAY BE USED. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- STAPLES SHALL BE PLACED WHERE UNITS OVERLAP AND A DIRECTED BY MANUFACTURERS INSTRUCTIONS.

**9 PREFABRICATED TEMPORARY CHECK DAM**  
C-604 Scale: NTS

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**CASSADAGA WIND PROJECT**  
TOWNS OF CHARLOTTE, CHERRY CREEK, ARKWRIGHT, AND STOCKTON,  
CHAUTAQUA COUNTY, NEW YORK  
CLIENT: EVERPOWER WIND HOLDINGS  
DRAWING TITLE: TYPICAL CIVIL DETAILS

DATE:	MAY 2016
SCALE:	AS NOTED
ISSUE NO.:	14048
DRAWN BY:	AW, CB, ZR, DG, JT
FILE NAME:	14048_Details.dwg
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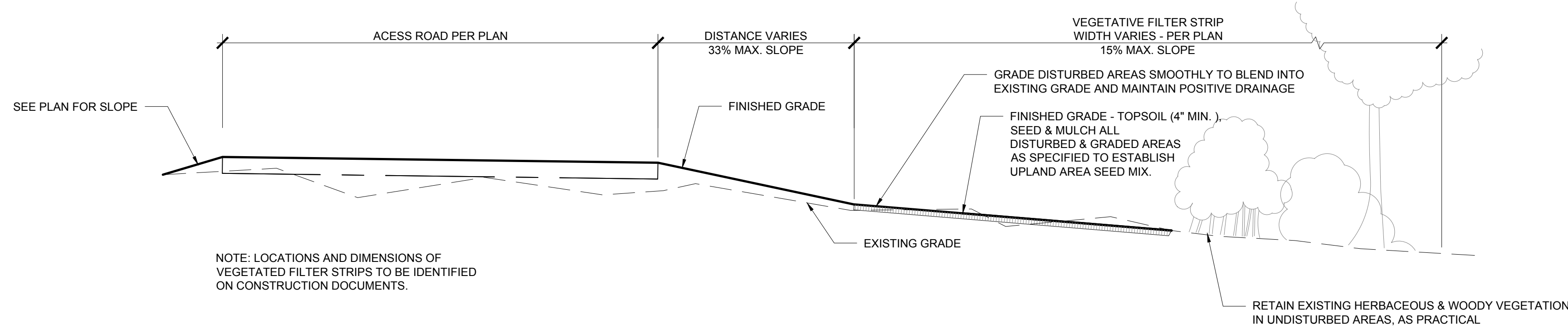
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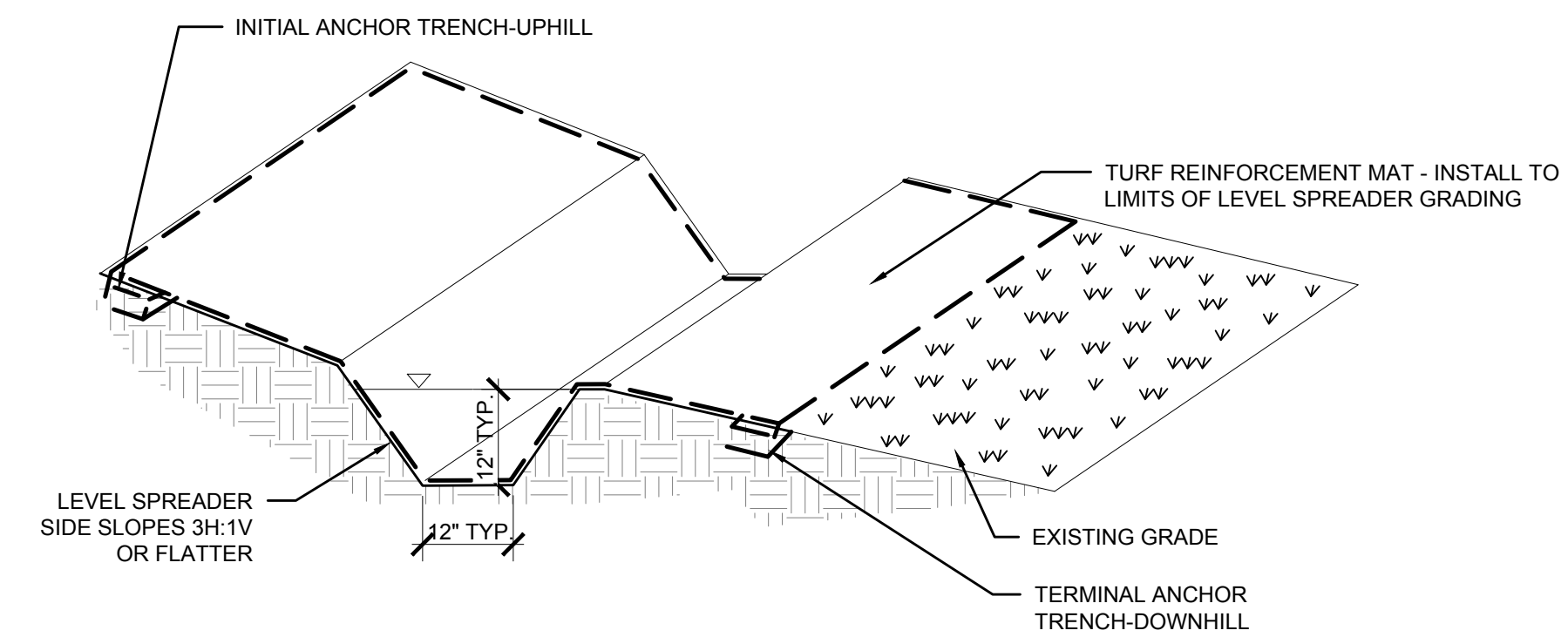
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PROJECT TITLE:	<b>CASSADAGA WIND PROJECT</b>
PROJECT LOCATION:	TOWNS OF CHARLOTTE, CHERRY CREEK, ARKWRIGHT, AND STOCKTON, CHAUTAUGUA COUNTY, NEW YORK
CLIENT:	EVERPOWER WIND HOLDINGS
DRAWING TITLE:	TYPICAL CIVIL DETAILS

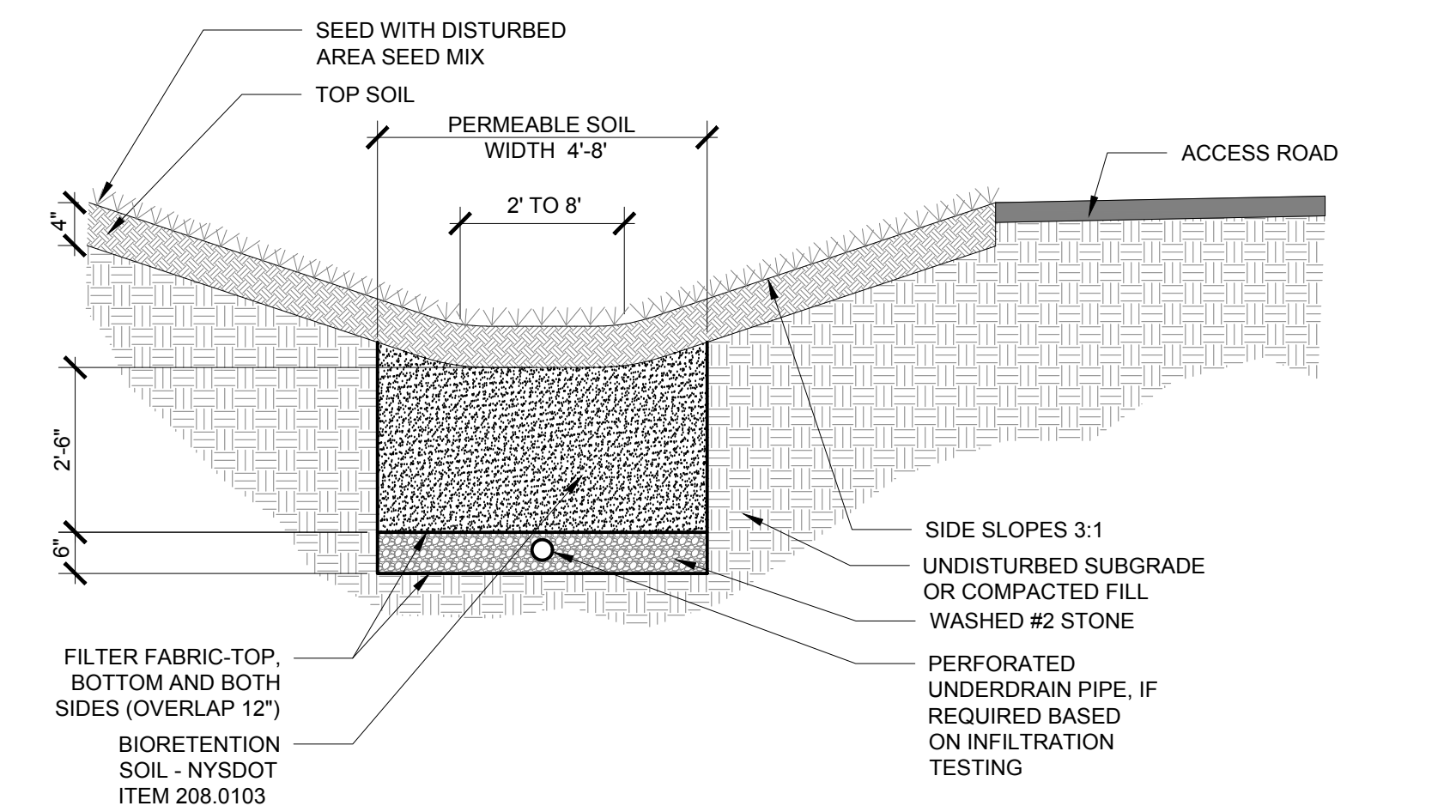
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ISSUE NO.:	14048
DRAWN BY:	AW, CB, ZR, DG, JT
FILE NAME:	14048_Details.dwg
DRAWING NUMBER:	<b>C-605</b>



**1 TYPICAL VEGETATIVE FILTER STRIP**  
Scale: NTS



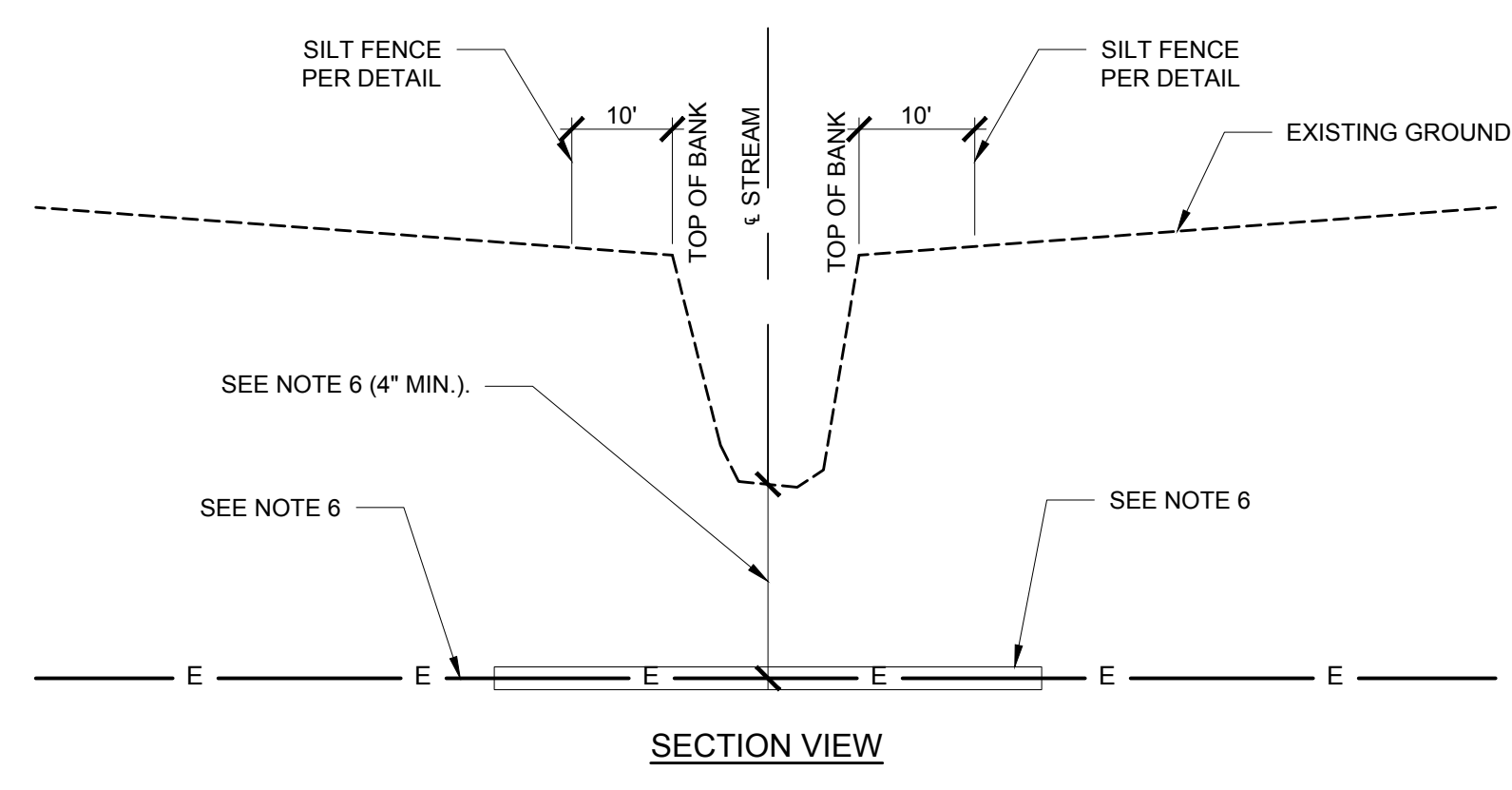
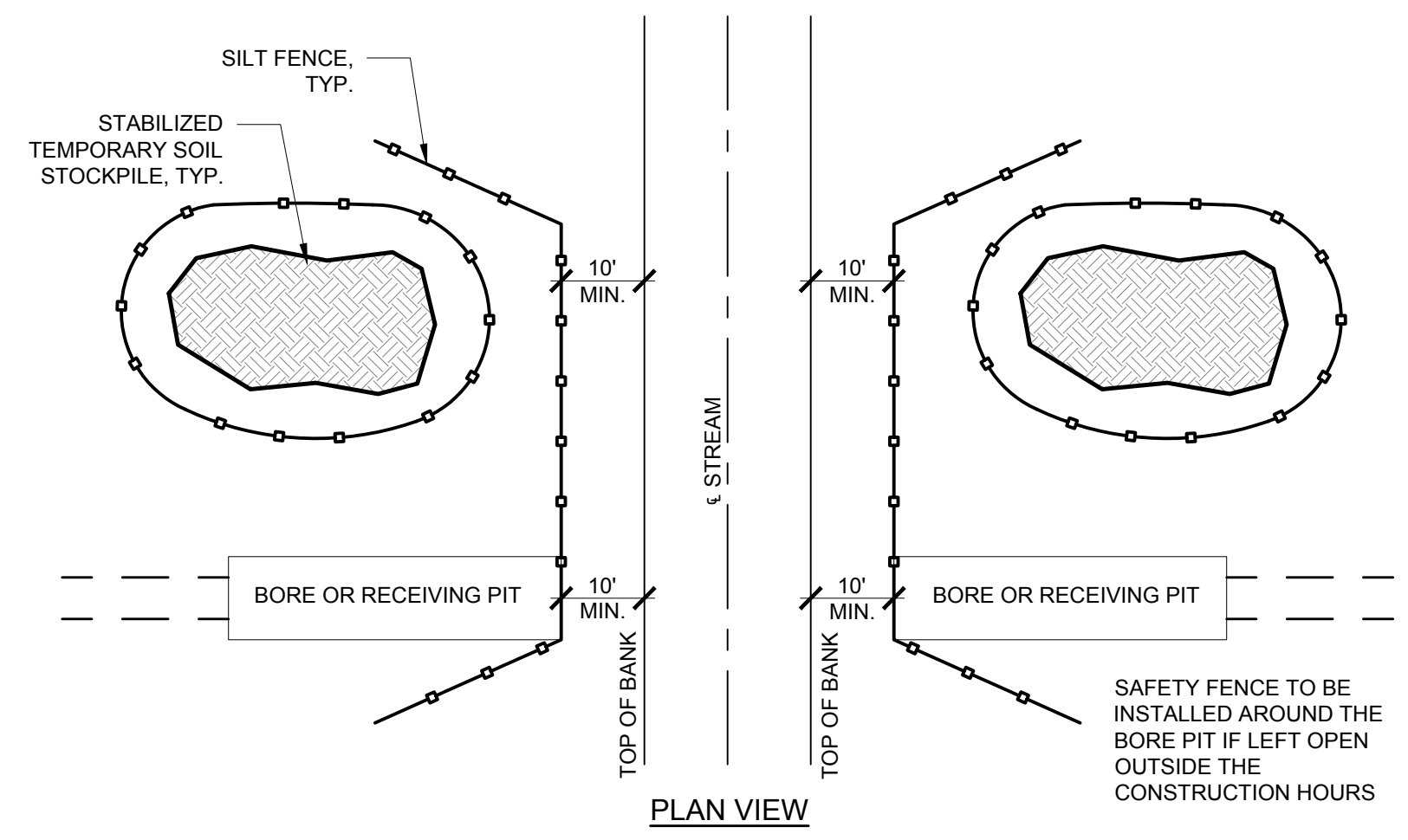
**2 LEVEL SPREADER TYPICAL SECTION**  
Scale: NTS



**3 TYPICAL DRY SWALE**  
Scale: NTS

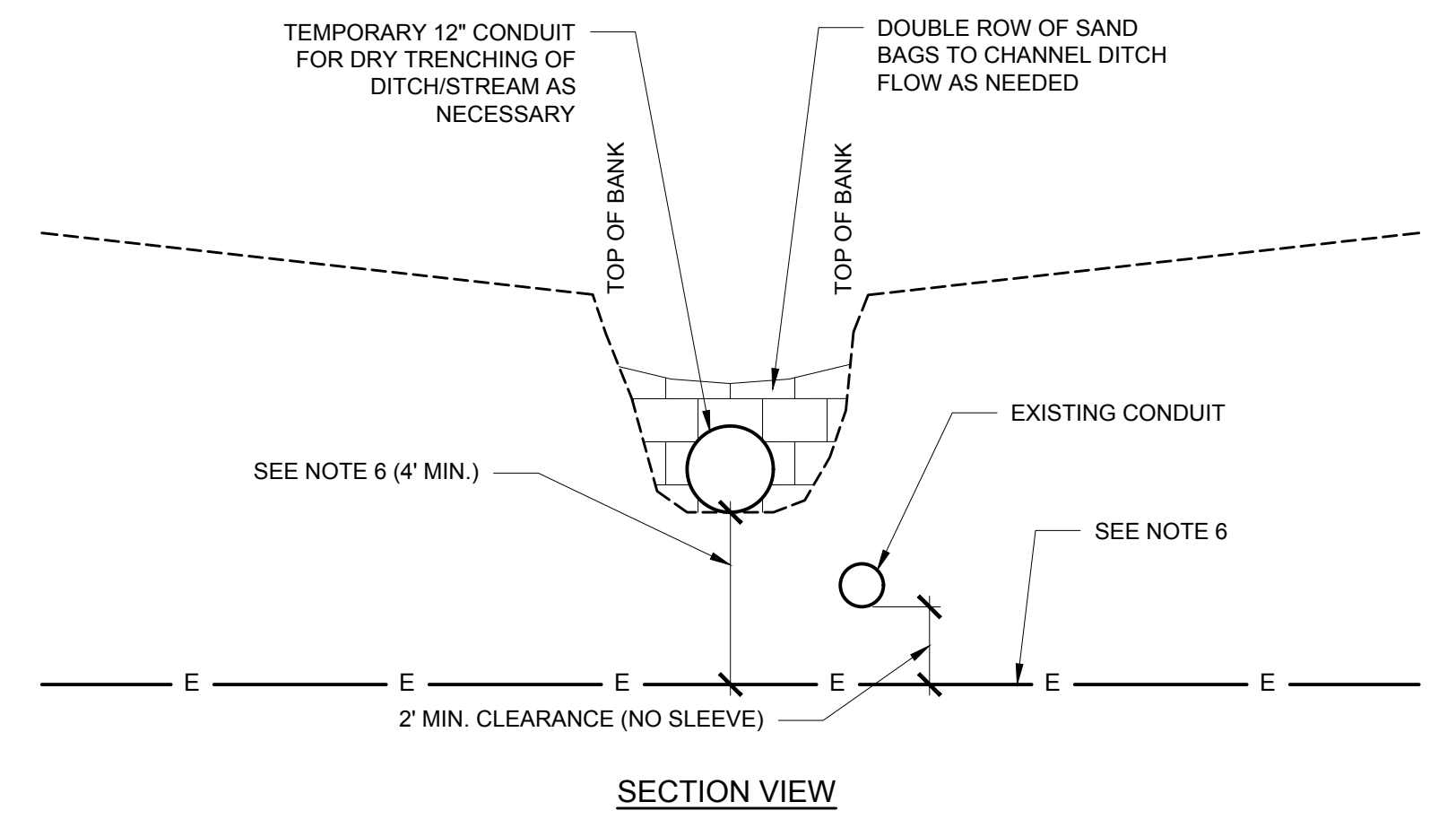
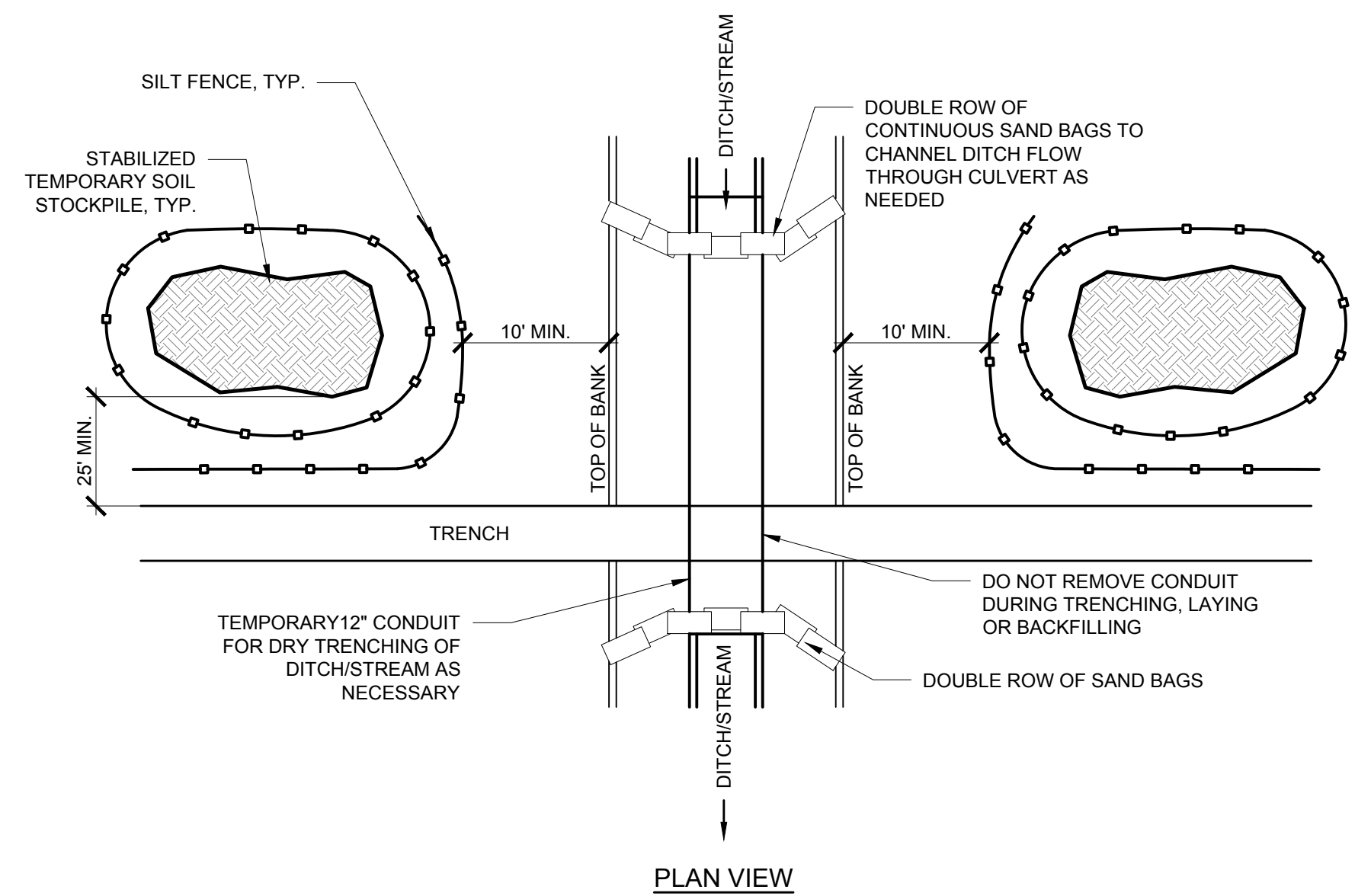
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- NOTES:**
- EXCAVATED TRENCH AND BORE/RECEIVING PIT MATERIAL SHALL BE STOCKPILED ADJACENT TO THE TRENCH, NO CLOSER THAN 10' FROM THE TOP OF THE DITCH.
  - SILT FENCE SHALL BE INSTALLED BETWEEN THE STOCKPILED MATERIAL AND BORE/RECEIVING PIT AND THE TOP OF BANK ON BOTH SIDES OF THE STREAM.
  - IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE, PERMANENT STABILIZATION MEASURES SHALL BE APPLIED.
  - THERE SHALL BE NO DISTURBANCE TO THE STREAM DURING CONSTRUCTION.
  - REFER TO ELECTRICAL DESIGN FOR CONDUIT DEPTH, TRENCH DETAILS AND BORING DETAILS.
  - REFER TO ELECTRICAL ENGINEERING DRAWINGS AND SPECIFICATIONS BY OTHERS.

**1**  
C-605 **COLLECTION LINE HORIZONTAL DIRECTIONAL DRILLING (HDD) DETAIL FOR STREAM OR WETLAND CROSSINGS**  
N.T.S.



- NOTES:**
- TEMPORARY SAND BAGS AND CONDUIT ARE TO BE INSTALLED PRIOR TO ANY CONSTRUCTION WITHIN THE LIMITS OF THE DITCH OR STREAM. IN THE EVENT THAT THE DITCH/STREAM IS DRY DURING CONSTRUCTION AND NO RAIN IN FORECAST, SAND BAGS AND CONDUIT ARE NOT NECESSARY.
  - EXCAVATED TRENCH MATERIAL SHALL BE STOCKPILED ADJACENT TO THE TRENCH, NO CLOSER THAN 25' FROM THE TOP OF BANK OF THE DITCH/STREAM.
  - SILT FENCE SHALL BE INSTALLED BETWEEN THE STOCKPILED MATERIAL AND THE TOP OF BANK OF THE DITCH/STREAM.
  - IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE, PERMANENT STABILIZATION MEASURES SHALL BE APPLIED.
  - REFER TO ELECTRICAL DESIGN FOR CONDUIT DEPTH AND TRENCH DETAILS.
  - REFER TO ELECTRICAL ENGINEERING DRAWINGS AND SPECIFICATIONS BY OTHERS.

**2**  
C-605 **COLLECTION LINE CABLE TRENCHING FOR CUT DITCH/TILE OR SELECT STREAM CROSSING**  
N.T.S.

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DRAWING REVISIONS	
NO.	REVISION

PROJECT TITLE: <b>CASSADAGA WIND PROJECT</b>
TOWNS OF CHARLOTTE, CHERRY CREEK, ARKWRIGHT, AND STOCKTON, CHAUTAUGUA COUNTY, NEW YORK
CLIENT: <b>EVERPOWER WIND HOLDINGS</b>
DRAWING TITLE: <b>TYPICAL CIVIL DETAILS</b>

DATE: <b>MAY 2016</b>
SCALE: <b>AS NOTED</b>
ISS: <b>14048</b>
DRAWN BY: <b>AW, CB, ZR, DG, JT</b>
FILE NAME: <b>14048_Details.dwg</b>
DRAWING NUMBER: <b>C-606</b>

**FOR PERMITTING ONLY  
NOT FOR CONSTRUCTION**

J:\14048\_Cassadaga Wind Farm\Civil\Cable Trenching Details\14048\_Details.dwg