

NEW YORK BEST MANAGEMENT PRACTICES

CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE



NEW YORK BEST MANAGEMENT PRACTICES

**ISSUED FOR BID
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NO.	DATE	BY	REVISION DESCRIPTION	I.D. NO.	CHK.	APP.	DRAWN BY:	E.Z.	DATE:	12/12/2013	ISSUED FOR BID:	SCALE:
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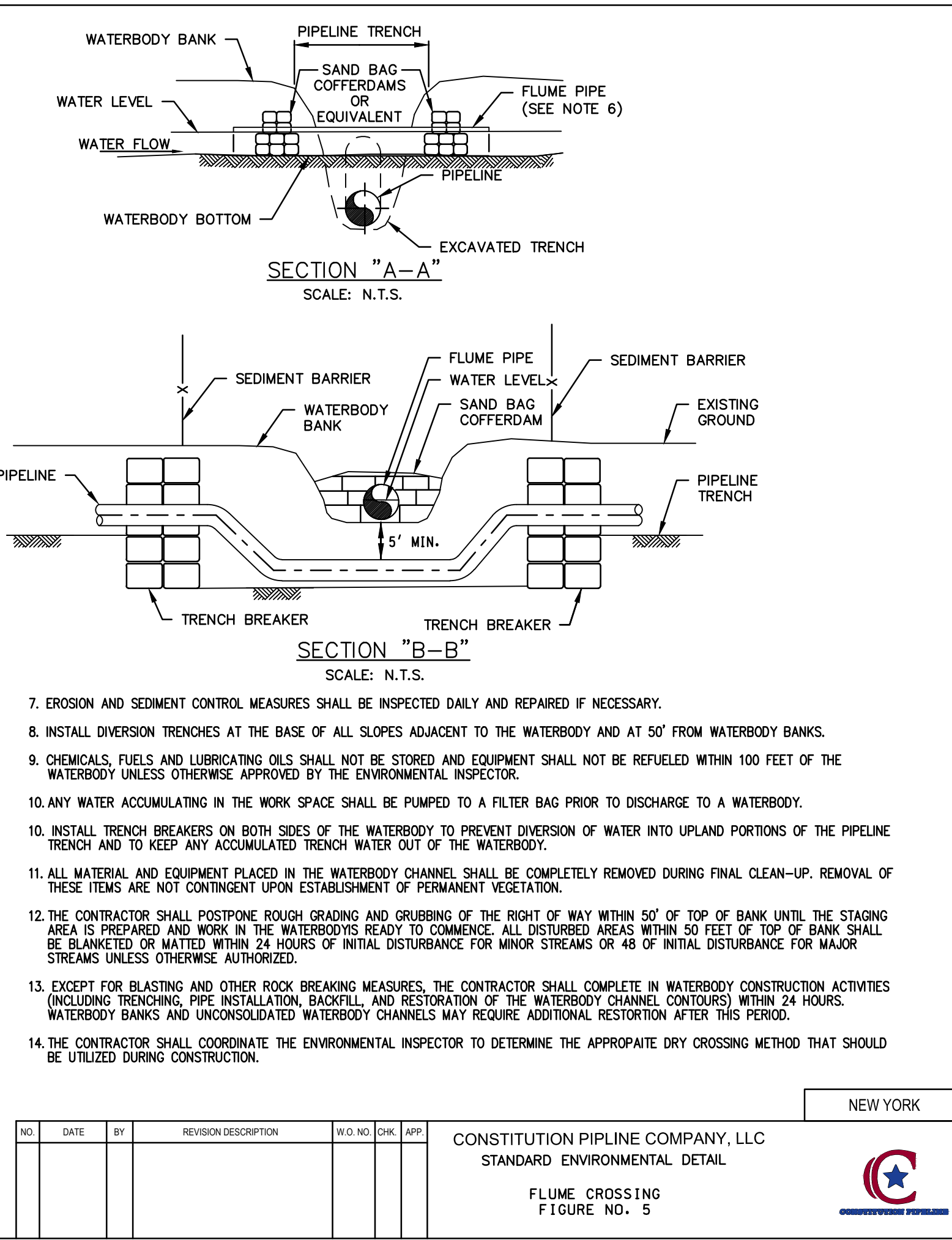
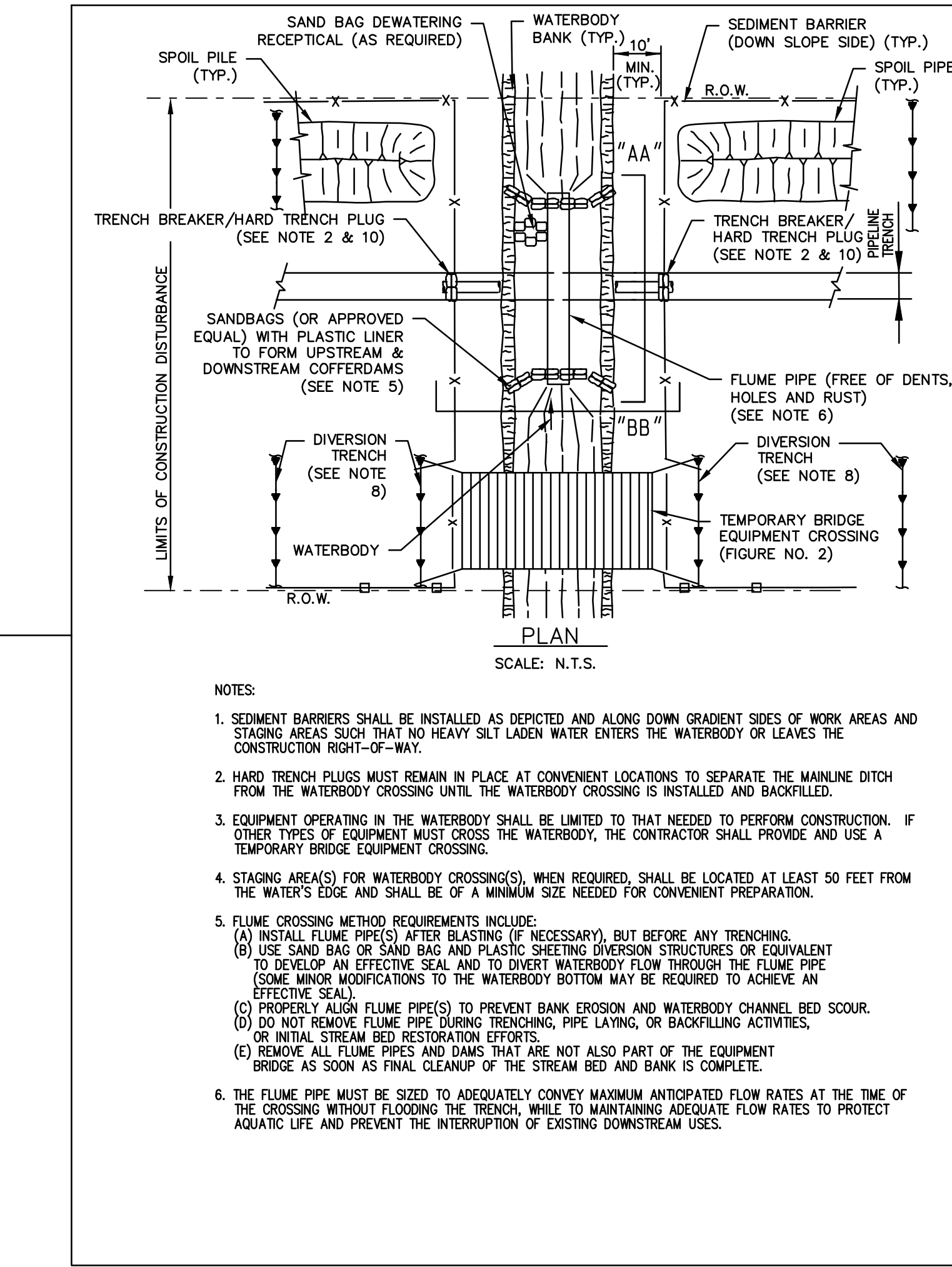
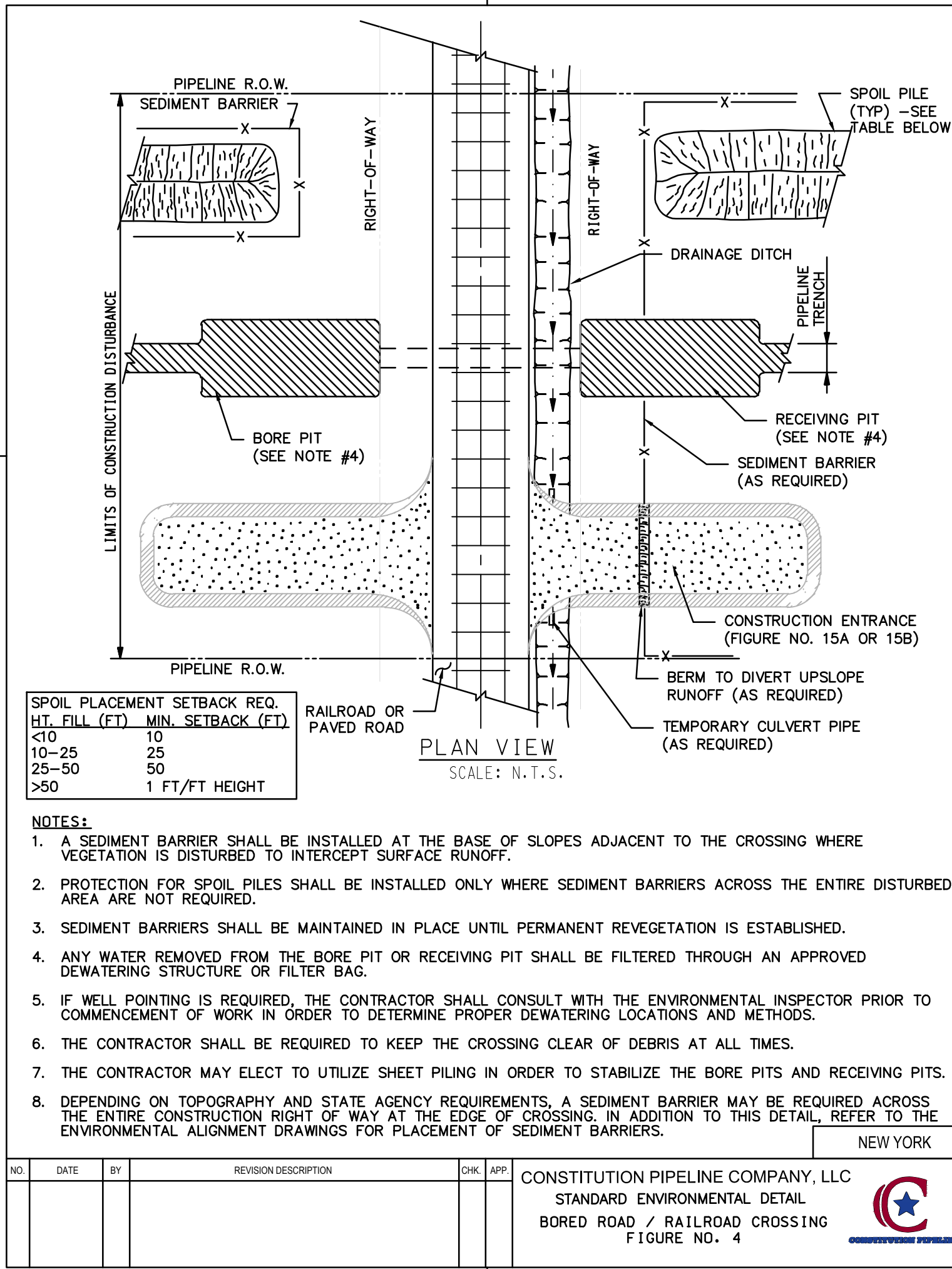
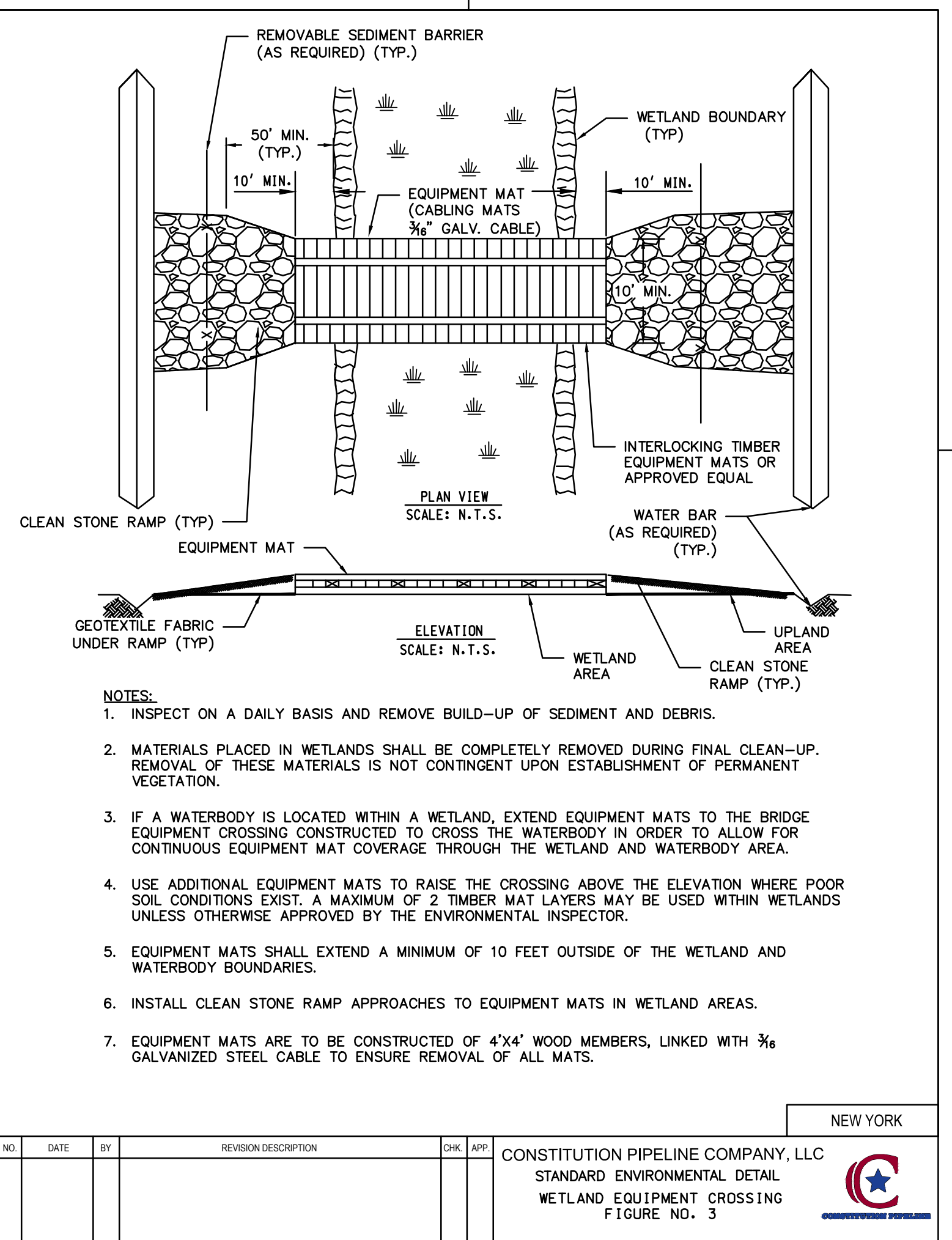
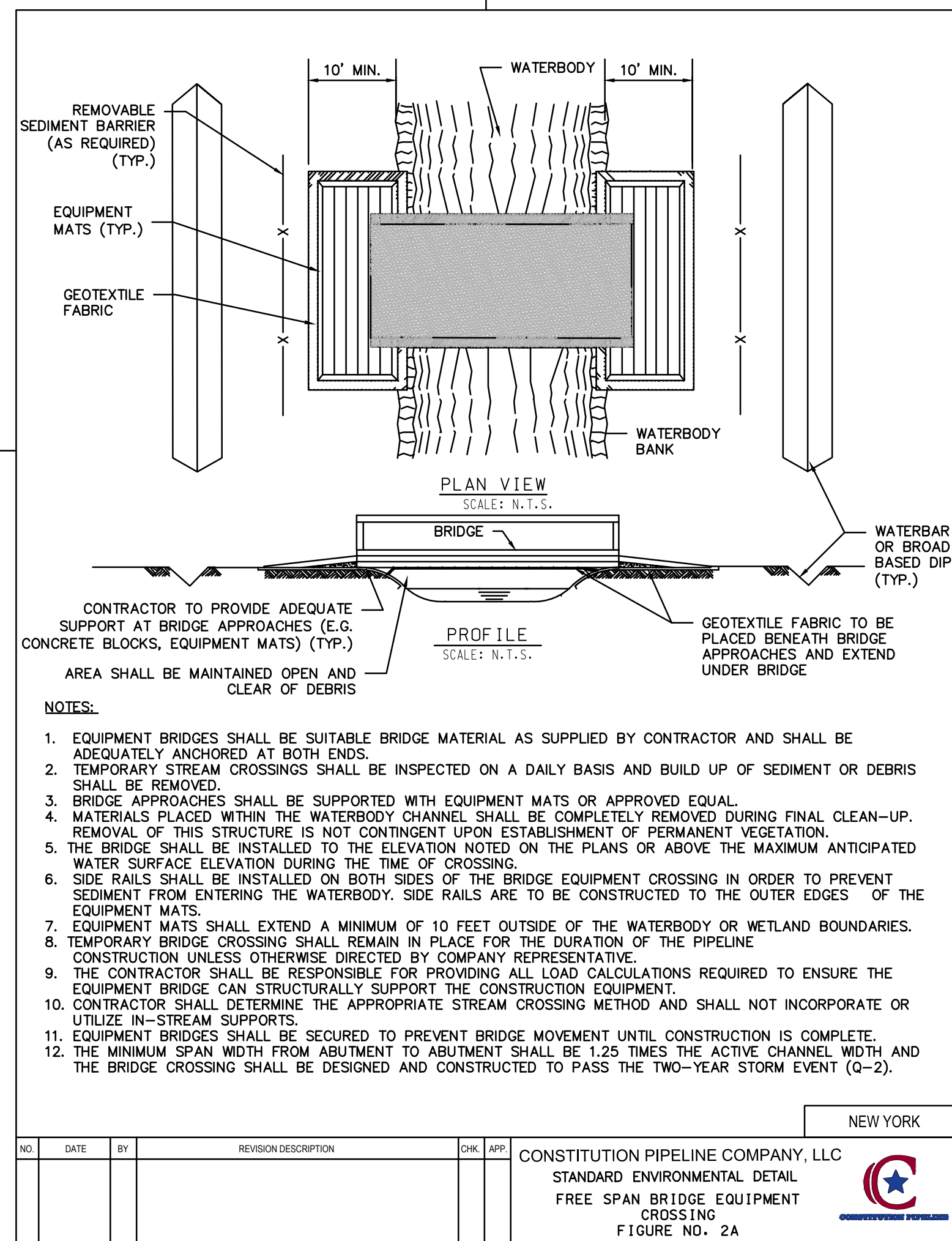
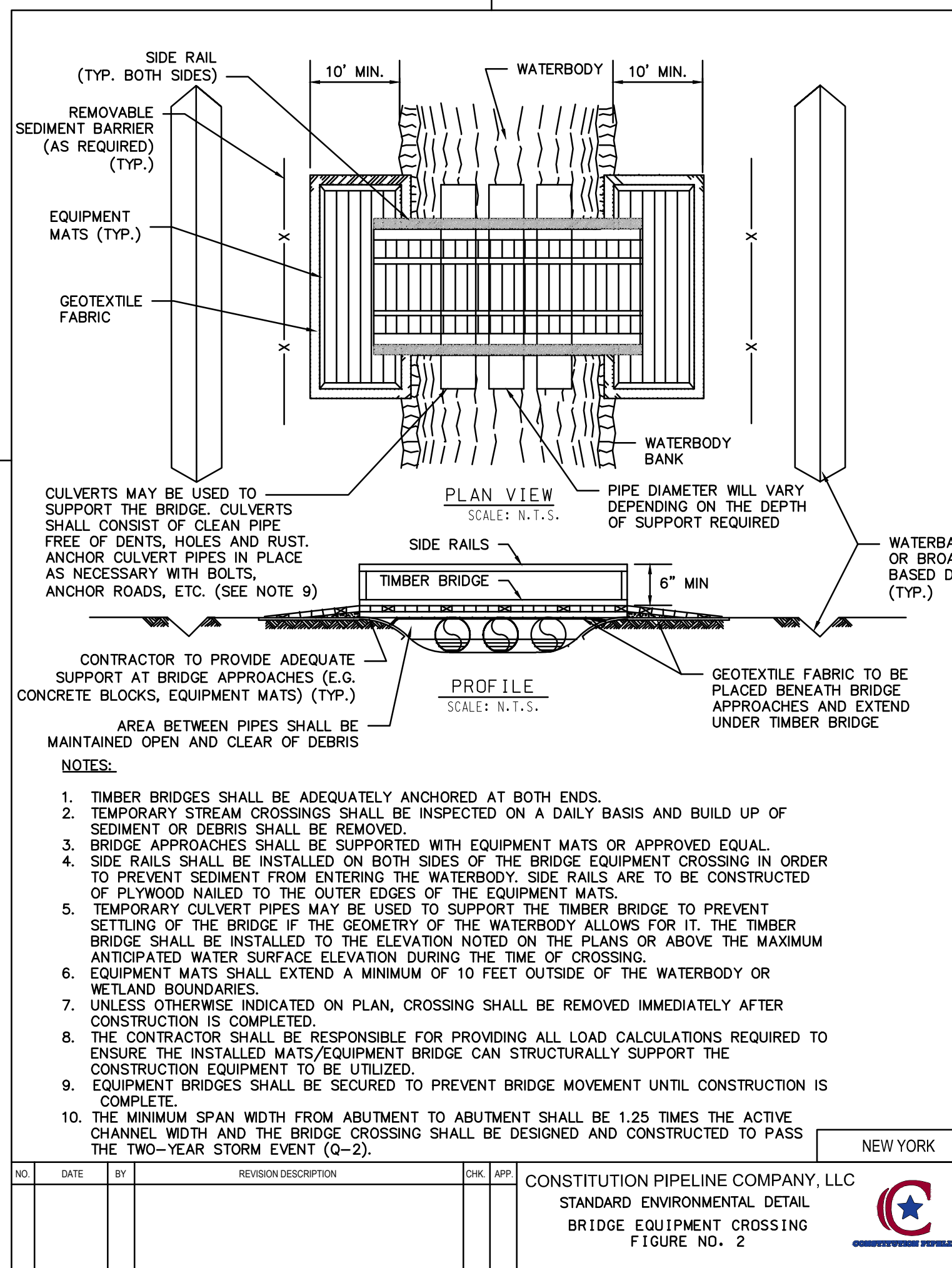
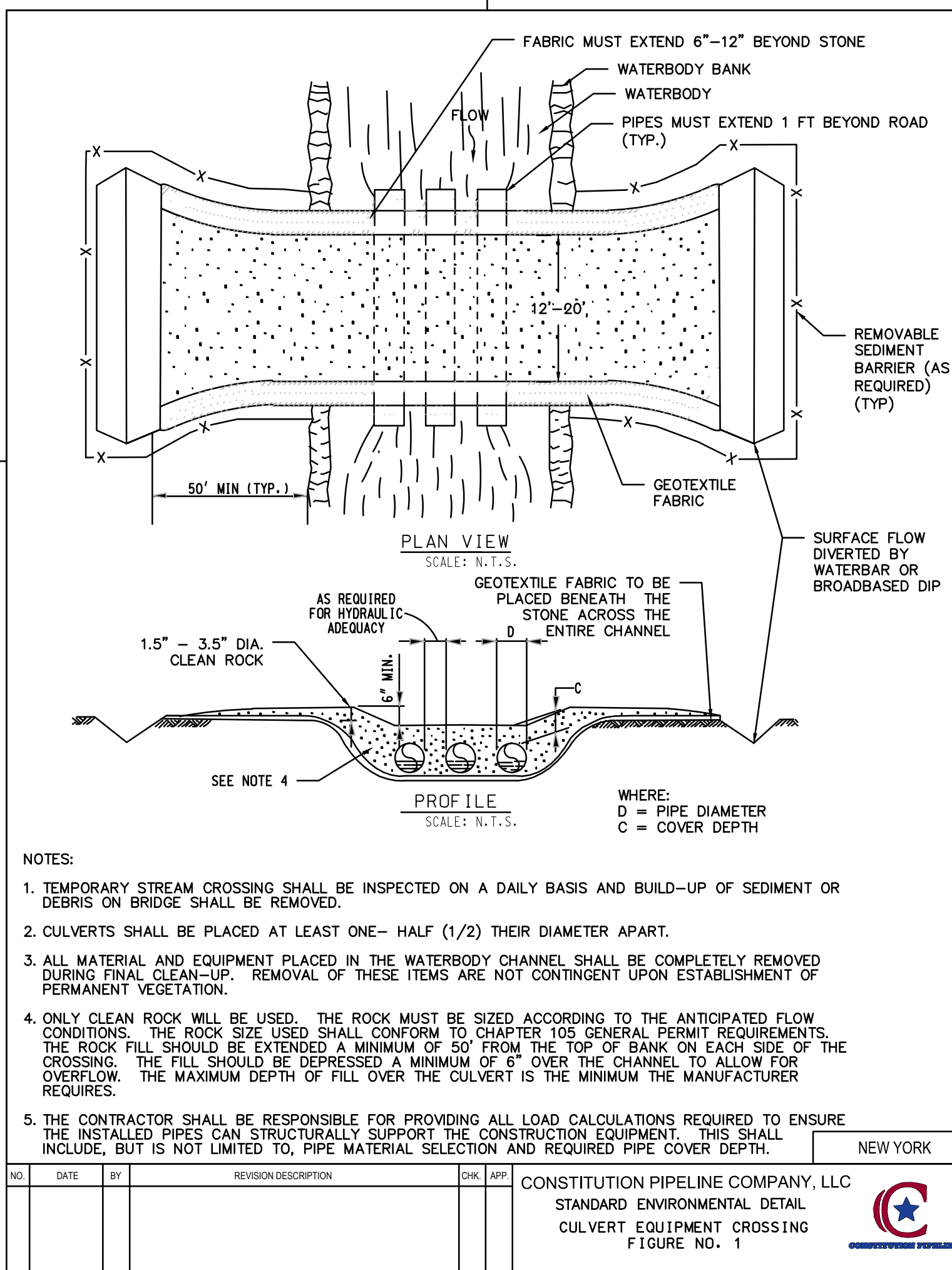
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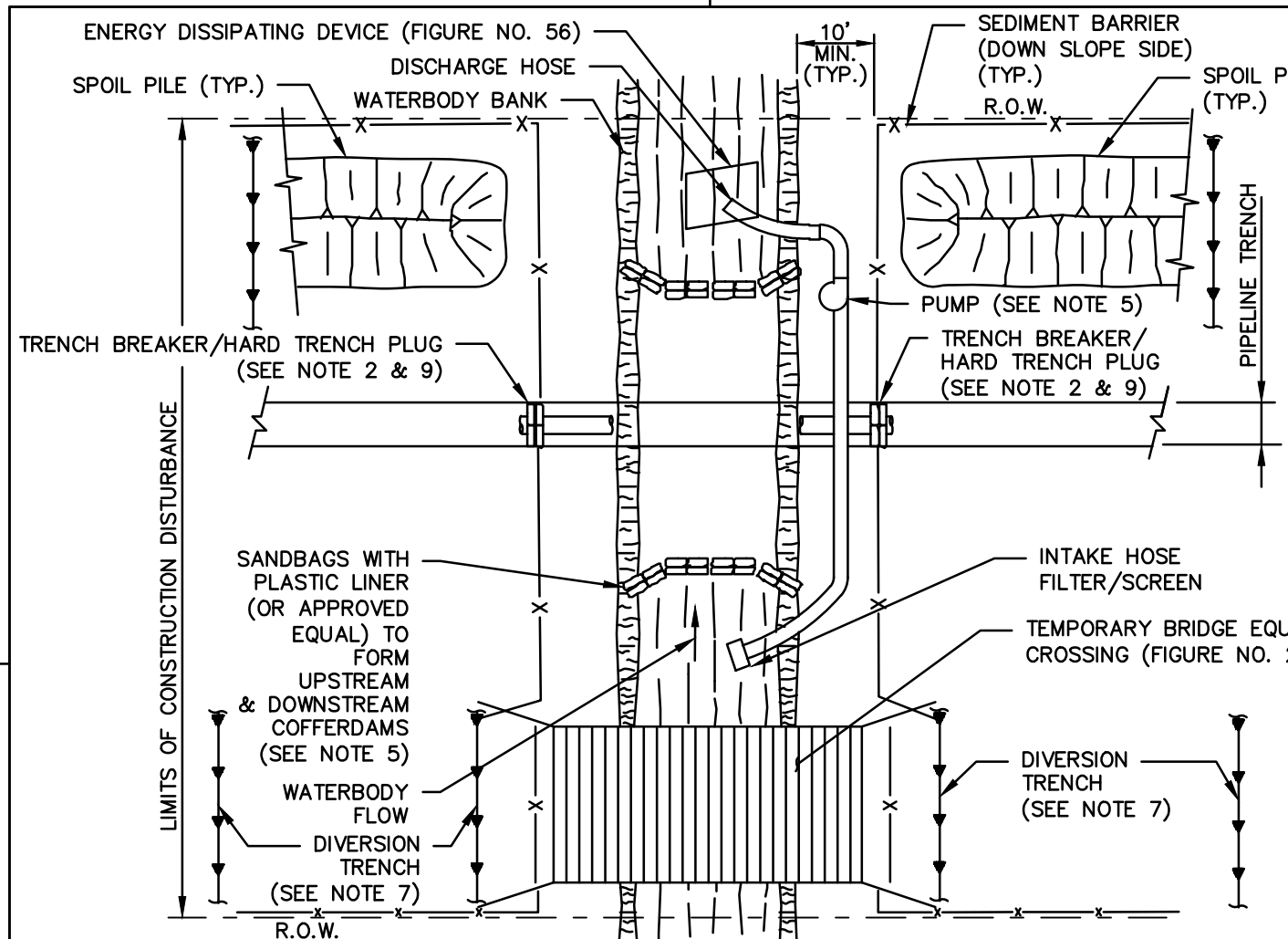
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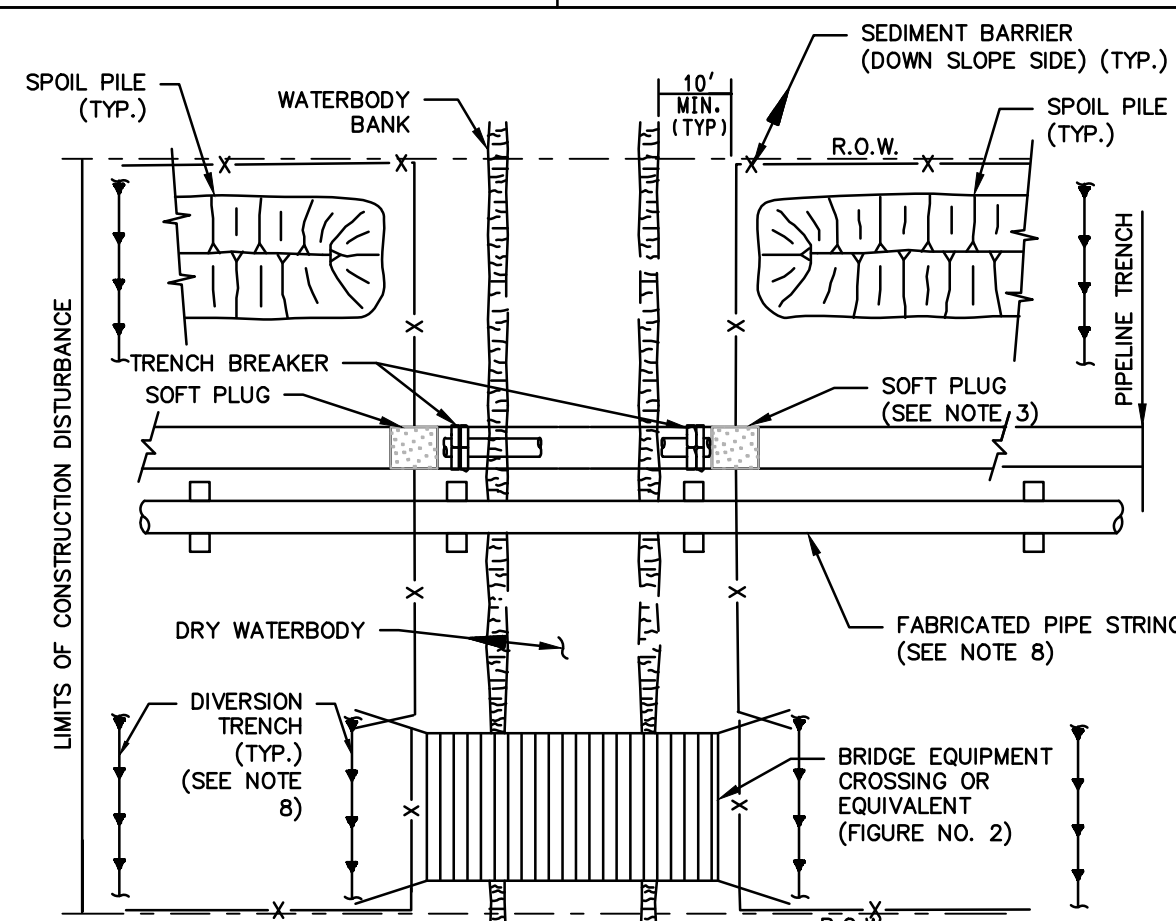
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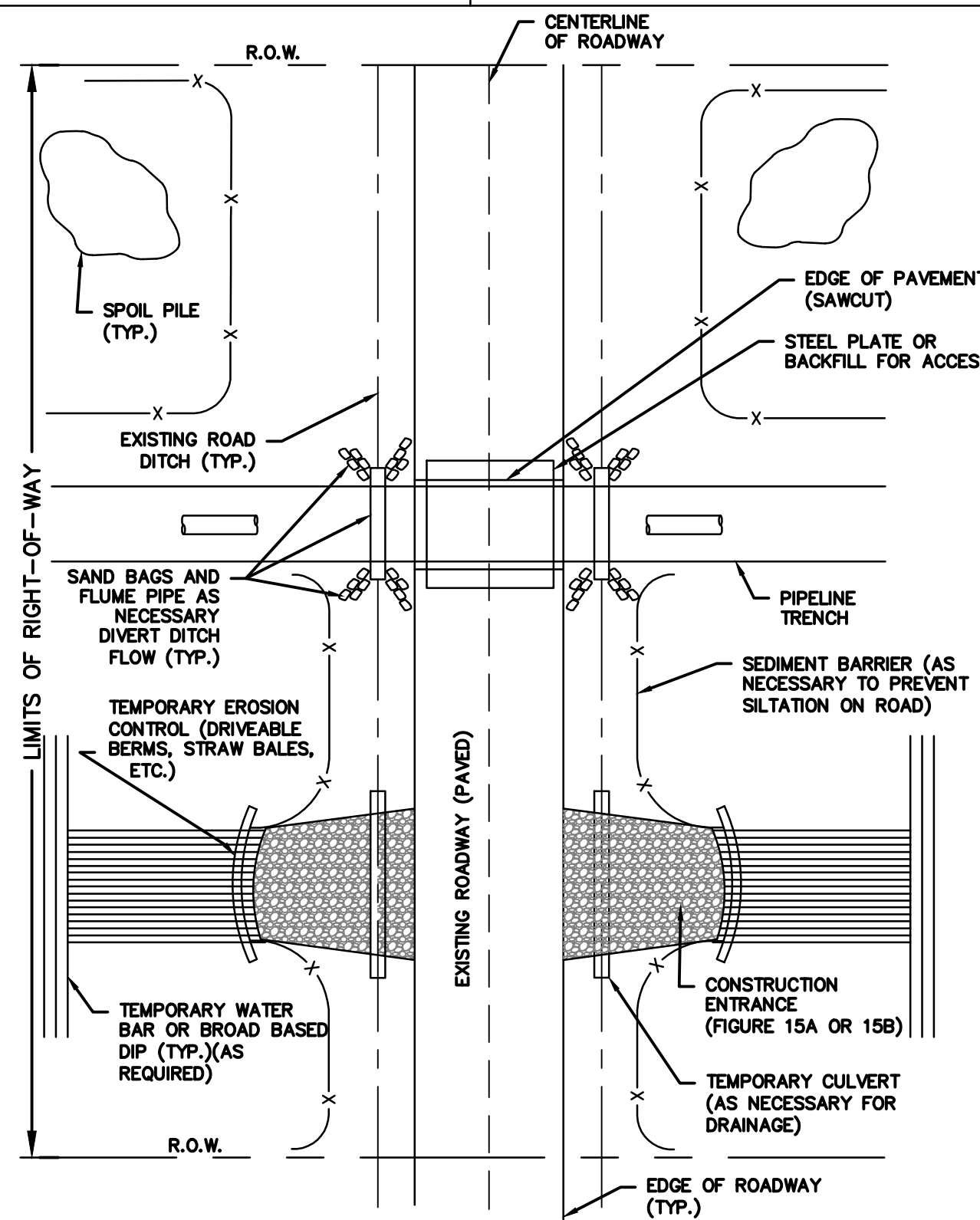
- NOTES:
- SEDIMENT BARRIERS SHALL BE INSTALLED AS DEPICTED AND ALONG DOWN GRADIENT SIDES OF WORK AREAS AND STAGING AREAS SUCH THAT NO HEAVY SILT LADEN WATER ENTERS THE WATERBODY OR LEAVES THE CONSTRUCTION RIGHT-OF-WAY.
 - HARD TRENCH PLUGS MUST REMAIN IN PLACE AT CONVENIENT LOCATIONS TO SEPARATE THE MAINLINE DITCH FROM THE WATERBODY CROSSING UNTIL THE WATERBODY CROSSING IS INSTALLED AND BACKFILLED.
 - EQUIPMENT OPERATING IN THE WATERBODY SHALL BE LIMITED TO THAT NEEDED TO PERFORM CONSTRUCTION. IF OTHER TYPES OF EQUIPMENT MUST CROSS THE WATERBODY, THE CONTRACTOR SHALL PROVIDE AND USE A TEMPORARY BRIDGE EQUIPMENT CROSSING.
 - STAGING AREA(S) FOR WATERBODY CROSSING(S), WHEN REQUIRED, SHALL BE LOCATED AT LEAST 50 FEET FROM WATER'S EDGE AND SHALL BE OF A MINIMUM SIZE NEEDED FOR PREPARATION TO SAFELY AND EFFICIENTLY CONSTRUCT THE CROSSING.
 - IMPLEMENTATION OF THE DAM-AND-PUMP CROSSING METHOD MUST MEET THE FOLLOWING PERFORMANCE CRITERIA:
 - USE SUFFICIENT PUMPS, INCLUDING ON-SITE BACKUP PUMPS, TO MAINTAIN DOWNSTREAM FLOWS.
 - CONSTRUCT DAMS WITH MATERIALS THAT PREVENT SEDIMENT AND OTHER POLLUTANTS FROM ENTERING THE WATERBODY (E.G., SANDBAGS OR CLEAN GRAVEL WITH PLASTIC LINER).
 - SCREEN PUMP INTAKES.
 - PREVENT STREAM BED SCOUR AT PUMP DISCHARGE WITH AN ENERGY DISSIPATING DEVICE (SEE FIGURE NO. 56).
 - MONITOR THE DAM AND PUMPS TO ENSURE PROPER OPERATION THROUGHOUT THE WATERBODY CROSSING. INTAKE SHALL BE MAINTAINED A SUFFICIENT DISTANCE FROM THE BOTTOM TO PREVENT PUMPING OF SUBSTRATE MATERIALS.
 - INTAKE SHALL BE MAINTAINED AT A SUFFICIENT DISTANCE FROM THE CHANNEL BOTTOM TO PREVENT PUMPING OF SUBSTRATE MATERIALS.
 - EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY AND REPAIRED IF NECESSARY.
 - INSTALL DIVERSION TRENCHES AT THE BASE OF ALL SLOPES ADJACENT TO THE WATERBODY AND AT MINIMUM 50' FROM WATERBODY BANK.
 - CHEMICALS, FUELS AND LUBRICATING OILS SHALL NOT BE STORED AND EQUIPMENT SHALL NOT BE REFUELED WITHIN 100 FEET OF THE WATERBODY, UNLESS OTHERWISE APPROVED BY THE ENVIRONMENTAL INSPECTOR. ANY WATER ACCUMULATING IN THE WORK SPACE SHALL BE PUMPED TO A FILTER BAG PRIOR TO DISCHARGE TO WATERBODY.
 - INSTALL TRENCH BREAKERS ON BOTH SIDES OF THE WATERBODY TO PREVENT DIVERSION OF WATER INTO UPLAND PORTIONS OF THE PIPELINE TRENCH AND TO KEEP ANY ACCUMULATED TRENCH WATER OUT OF THE WATERBODY.
 - THE CONTRACTOR SHALL POSTPONE GRUBBING AND ROUGH GRADING OF THE RIGHT-OF-WAY WITHIN 50' OF TOP OF BANK UNTIL ALL MATERIALS REQUIRED TO COMPLETE CROSSING ARE ON SITE. THE STAGING AREA IS PREPARED AND WORK IN THE WATERBODY IS READY TO COMMENCE. ALL DISTURBED AREAS WITHIN 50' OF TOP OF BANK SHALL BE STABILIZED WITHIN 24 HOURS OF INITIAL DISTURBANCE FOR MINOR STREAMS OR 48 HOURS OF INITIAL DISTURBANCE FOR INTERMEDIATE WATERBODIES UNLESS OTHERWISE AUTHORIZED. APPROPRIATE STREAMBANK PROTECTION SHALL BE PROVIDED WITHIN THE CHANNEL.
 - ANY WATER ACCUMULATING IN THE WORKSPACE SHALL BE PUMPED TO A FILTER BAG PRIOR TO DISCHARGE.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	NEW YORK
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL DAM AND PUMP CROSSING FIGURE NO. 6			



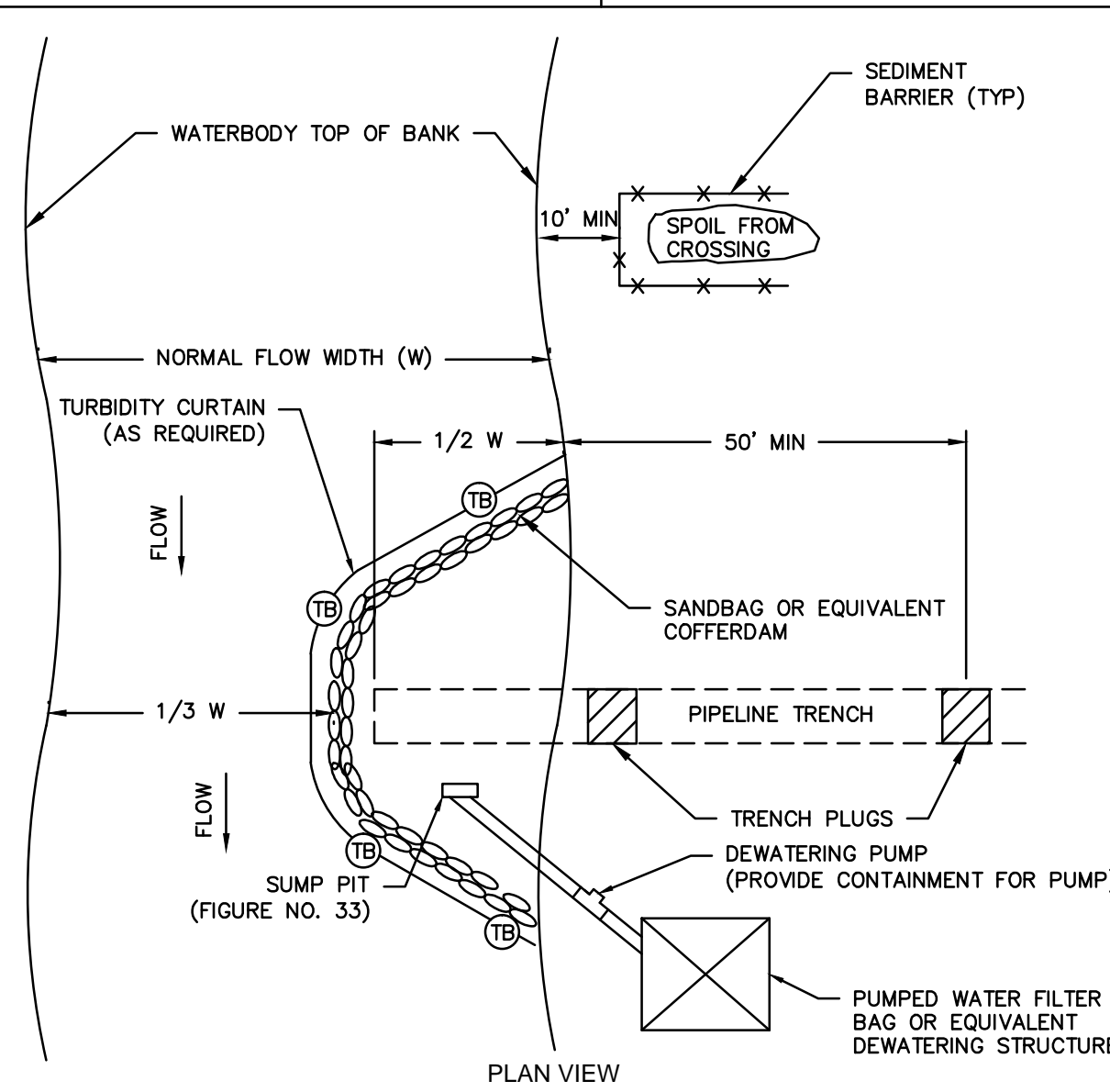
- NOTES:
- THIS METHOD APPLIES TO WATERBODIES THAT ARE DRY AT THE TIME OF CROSSING.
 - SEDIMENT BARRIERS SHALL BE INSTALLED AS DEPICTED AND ALONG DOWN GRADIENT SIDES OF WORK AREAS SUCH THAT NO HEAVY SILT LADEN WATER ENTERS THE WATERBODY OR LEAVES THE CONSTRUCTION RIGHT OF WAY.
 - SOFT PLUGS SHALL BE INSTALLED FOLLOWING EXCAVATION OF THE MAINLINE TRENCH THROUGH THE WATERBODY.
 - INSTALL TRENCH BREAKERS ON BOTH SIDES OF THE WATERBODY TO PREVENT DIVERSION OF WATER INTO UPLAND PORTIONS OF THE PIPELINE TRENCH AND TO KEEP ANY ACCUMULATED TRENCH WATER OUT OF THE WATERBODY.
 - EQUIPMENT OPERATING IN THE WATERBODY SHALL BE LIMITED TO THAT NEEDED TO PERFORM CONSTRUCTION. IF OTHER TYPES OF EQUIPMENT MUST CROSS THE WATERBODY, THE CONTRACTOR SHALL PROVIDE AND USE A TEMPORARY BRIDGE EQUIPMENT CROSSING OR EQUIVALENT AS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
 - EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED DAILY AND REPAIRED IF NECESSARY.
 - CHEMICALS, FUELS AND LUBRICATING OILS SHALL NOT BE STORED AND EQUIPMENT SHALL NOT BE REFUELED WITHIN 100 FEET OF WATERBODY, UNLESS OTHERWISE APPROVED BY THE REGULATORY AUTHORITY. ANY WATER ACCUMULATING IN THE WORKSPACE SHALL BE PUMPED TO A FILTER BAG PRIOR TO DISCHARGE TO A WATERBODY.
 - INSTALL DIVERSION TRENCHES AT THE BASE OF ALL SLOPES ADJACENT TO THE WATERBODY AND AT MINIMUM 50' FROM WATERBODY BANK.
 - THE FABRICATED PIPE STRING MAY SPAN THE DRY WATERBODY CROSSING IN PREPARATION FOR THE LOWERING-IN PHASE OF CONSTRUCTION.
 - THE DRY WATERBODY MAY BE TRENCHED IN SEQUENCE WITH NORMAL TRENCHING OPERATIONS AND THE PIPE INSTALLED THROUGH THE DRY WATERBODY CROSSING IN CONJUNCTION WITH UPSTREAM AND DOWN STREAM PIPE.
 - THE CONTRACTOR SHALL POSTPONE GRUBBING AND ROUGH GRADING OF THE RIGHT-OF-WAY WITHIN 50' OF TOP OF BANK UNTIL ALL MATERIALS REQUIRED TO COMPLETE CROSSING ARE ON SITE. THE STAGING AREA IS PREPARED AND WORK IN THE WATERBODY IS READY TO COMMENCE. ALL DISTURBED AREAS WITHIN 50 FEET OF TOP OF BANK SHALL BE BLANKETED OR MATTED WITHIN 24 HOURS OF INITIAL DISTURBANCE OR MINOR STREAMS OR 48 HOURS OF INITIAL DISTURBANCE FOR MAJOR STREAMS UNLESS OTHERWISE AUTHORIZED. APPROPRIATE STREAMBANK PROTECTION SHALL BE PROVIDED WITHIN THE CHANNEL.
 - ANY WATER ACCUMULATING IN THE WORKSPACE SHALL BE PUMPED TO A FILTER BAG PRIOR TO DISCHARGE.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	NEW YORK
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL DRY WATERBODY CROSSING FIGURE NO. 7			



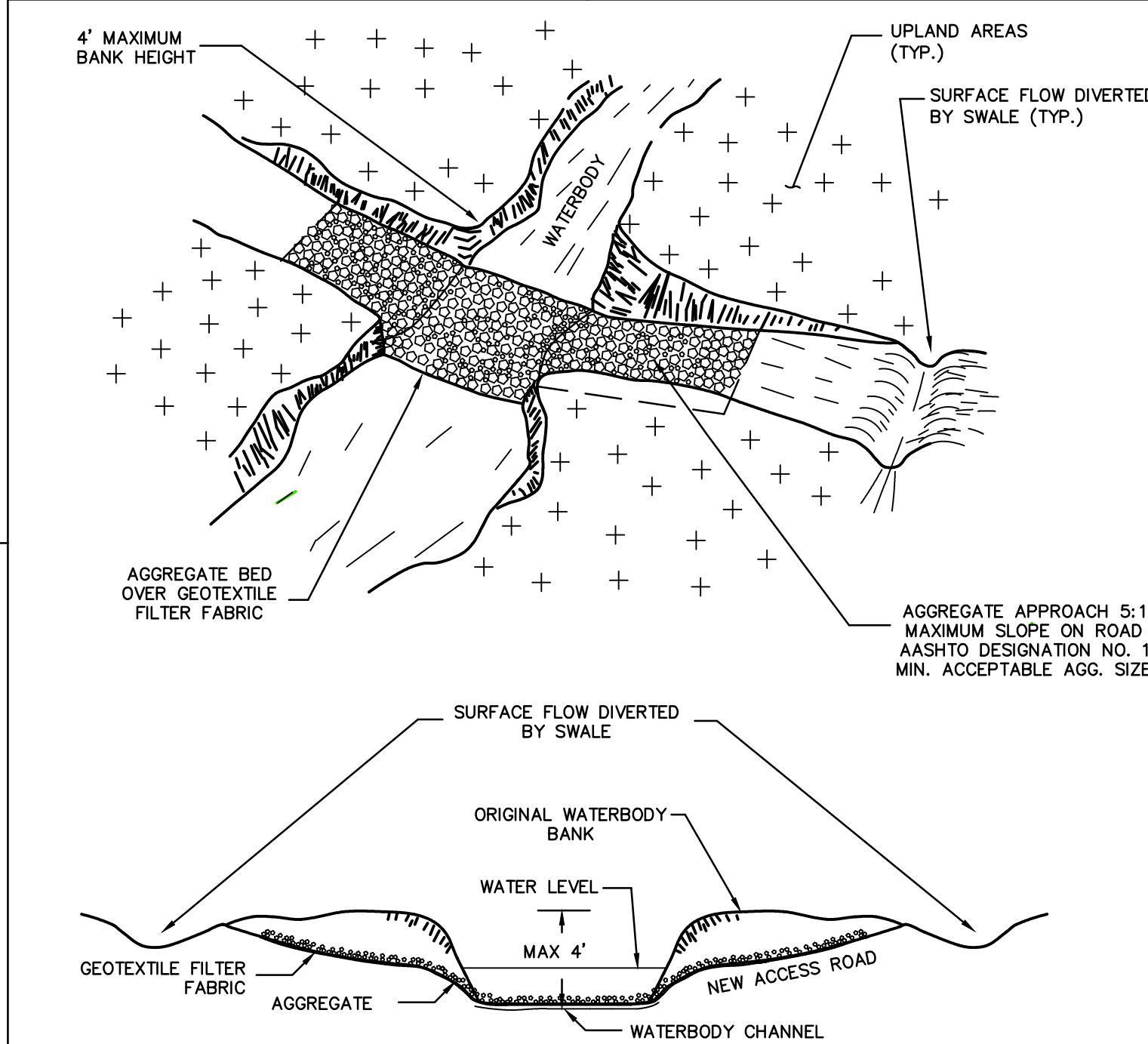
- NOTES:
- THE CONTRACTOR SHALL MAINTAIN ACCESS FOR ALL EMERGENCY VEHICLES.
 - THE CONTRACTOR SHALL COORDINATE ACCESS RESTRICTIONS WITH ALL IMPACTED PARTIES PRIOR TO CROSSING THE ROAD.
 - THE CONTRACTOR SHALL MAINTAIN ON-SITE ADEQUATELY SIZED STEEL PLATES TO COVER THE OPEN TRENCH AND ALLOW FOR EMERGENCY OR GENERAL ACCESS IN THE EVENT THAT CONSTRUCTION ACTIVITIES HAVE TO BE HALTED.
 - FILL PLACEMENT WILL COMPLY WITH PA E&SOPM GUIDELINES. SEE FIGURE 4 - TABLE SPOIL PLACEMENT SETBACK REQUIREMENTS

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	NEW YORK
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPICAL OPEN CUT PAVED ROAD CROSSING FIGURE NO. 8			



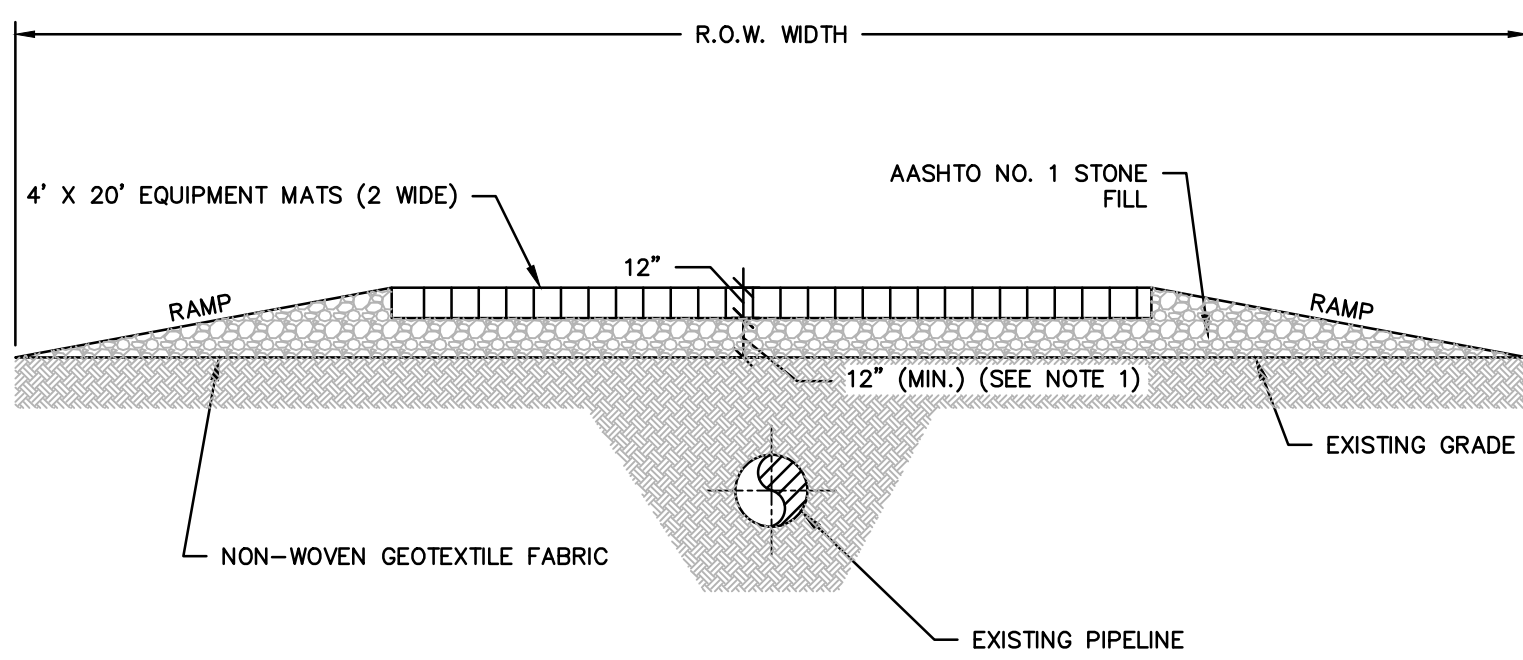
- NOTES:
- GRUBBING SHALL NOT TAKE PLACE WITHIN 50 FEET OF TOP-OF-BANK UNTIL ALL MATERIALS REQUIRED TO COMPLETE CROSSING ARE ON SITE AND PIPE IS READY FOR INSTALLATION.
 - TRENCH BREAKER SHALL BE INSTALLED WITHIN THE TRENCH ON BOTH SIDES OF THE WATERBODY CHANNEL (FIGURE NO. 20).
 - WATER ACCUMULATING WITHIN THE WORK AREA SHALL BE PUMPED TO A PUMPED WATER FILTER BAG OR SEDIMENT TRAP PRIOR TO DISCHARGING INTO ANY SURFACE WATER.
 - HAZARDOUS OR POLLUTANT MATERIAL STORAGE AREAS SHALL BE LOCATED AT LEAST 100 FEET BACK FROM THE TOP OF WATERBODY BANK.
 - ALL EXCESS EXCAVATED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE WATERBODY CROSSING AREA.
 - ALL DISTURBED AREAS WITHIN 50 FEET OF TOP-OF-BANK SHALL BE BLANKETED OR MATTED WITHIN 24 HOURS OF INITIAL DISTURBANCE FOR MINOR WATERBODIES OR 48 HOURS OF INITIAL DISTURBANCE FOR INTERMEDIATE WATERBODIES UNLESS OTHERWISE AUTHORIZED.
 - APPROPRIATE WATERBODY BANK PROTECTION SHALL BE PROVIDED WITHIN THE CHANNEL.
 - THE WATERBODY CROSSING WILL GENERALLY BE COMPLETED IN 2 STAGES. THE DETAIL DEPICTS STAGE 1. STAGE 2 WILL GENERALLY BE COMPLETED USING THE SAME CONFIGURATION FROM THE OPPOSITE BANK.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	NEW YORK
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPICAL UTILITY LINE CROSSING WITH COFFERDAM FIGURE NO. 9			



- NOTES:
- THIS METHOD IS INTENDED FOR USE BY CLEARING EQUIPMENT AND CONSTRUCTION EQUIPMENT REQUIRED TO CONSTRUCT A TEMPORARY BRIDGE CROSSING PRIOR TO PIPE INSTALLATION (E.G. TRENCHING), UNLESS OTHERWISE APPROVED BY THE APPLICABLE REGULATORY AGENCY. UNLESS OTHERWISE APPROVED, THE CONTRACTOR SHALL LIMIT THE NUMBER OF CROSSINGS TO ONE PER PIECE OF EQUIPMENT.
 - THIS METHOD SHALL ONLY BE USED IF IT WILL NOT AFFECT AQUATIC LIFE SUCH AS FISH MIGRATION OR SPawning. COORDINATION WITH THE APPLICABLE PERMITTING AGENCY WILL BE REQUIRED PRIOR TO INSTALLATION.
 - THE ACCESS FORD SHALL BE CONSTRUCTED PERPENDICULAR TO THE WATERBODY BANKS TO MINIMIZE IMPACTS.
 - A SWALE SHALL BE CONSTRUCTED AT BOTH APPROACHES A MAXIMUM OF 50' FROM THE EDGE OF THE WATERBODY BANK TO DIVERT RUNOFF AND PREVENT IT FROM DIRECTLY ENTERING THE WATERBODY.
 - THE MAXIMUM HEIGHT BETWEEN THE INVERT OF THE WATERBODY AND THE WATERBODY TOP OF BANK IS 4'. THIS METHOD SHALL NOT BE USED IF THE BANK HEIGHT EXCEEDS 4'.
 - ALL AREAS DISTURBED BY THE ACCESS FORD SHALL BE STABILIZED AS SOON AS PRACTICAL, BUT NO LATER THAN 14 CALENDAR DAYS AFTER REMOVAL.

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			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TEMPORARY ACCESS FORD FIGURE NO. 10			



- NOTES:
- ADDITIONAL STONE DEPTH MAY BE REQUIRED DEPENDING ON THE DEPTH OF COVER OVER THE EXISTING PIPE. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR THE REQUIRED DEPTH OF STONE.
 - INSTALL 1 (ONE) LAYER OF NON-WOVEN GEOTEXTILE FABRIC PRIOR TO INSTALLING THE STONE.
 - THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO DETERMINE THE NUMBER OF EQUIPMENT MATS REQUIRED.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	NEW YORK
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TEMPORARY WOODEN MAT PIPELINE CROSSING FIGURE NO. 11			

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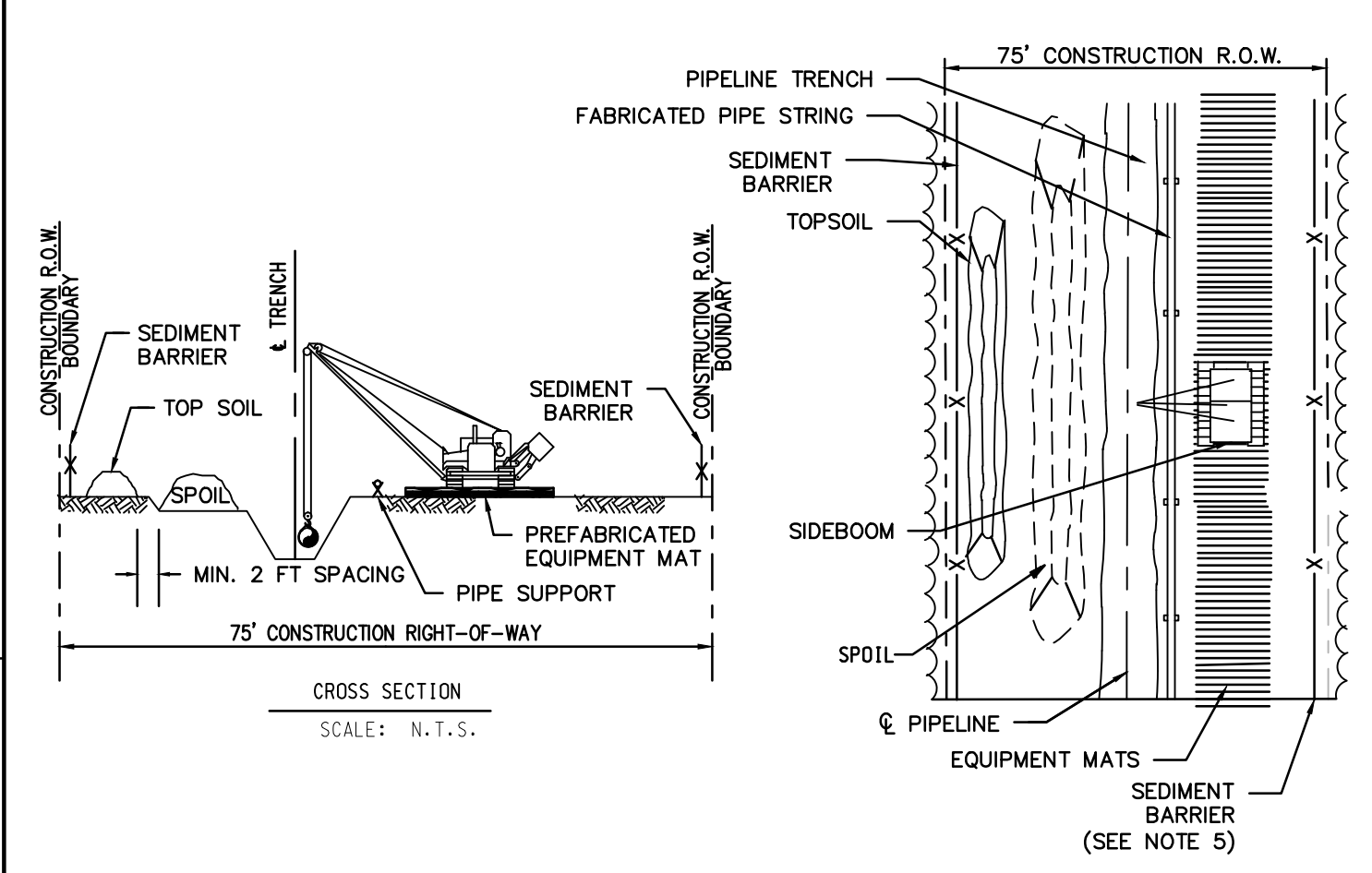
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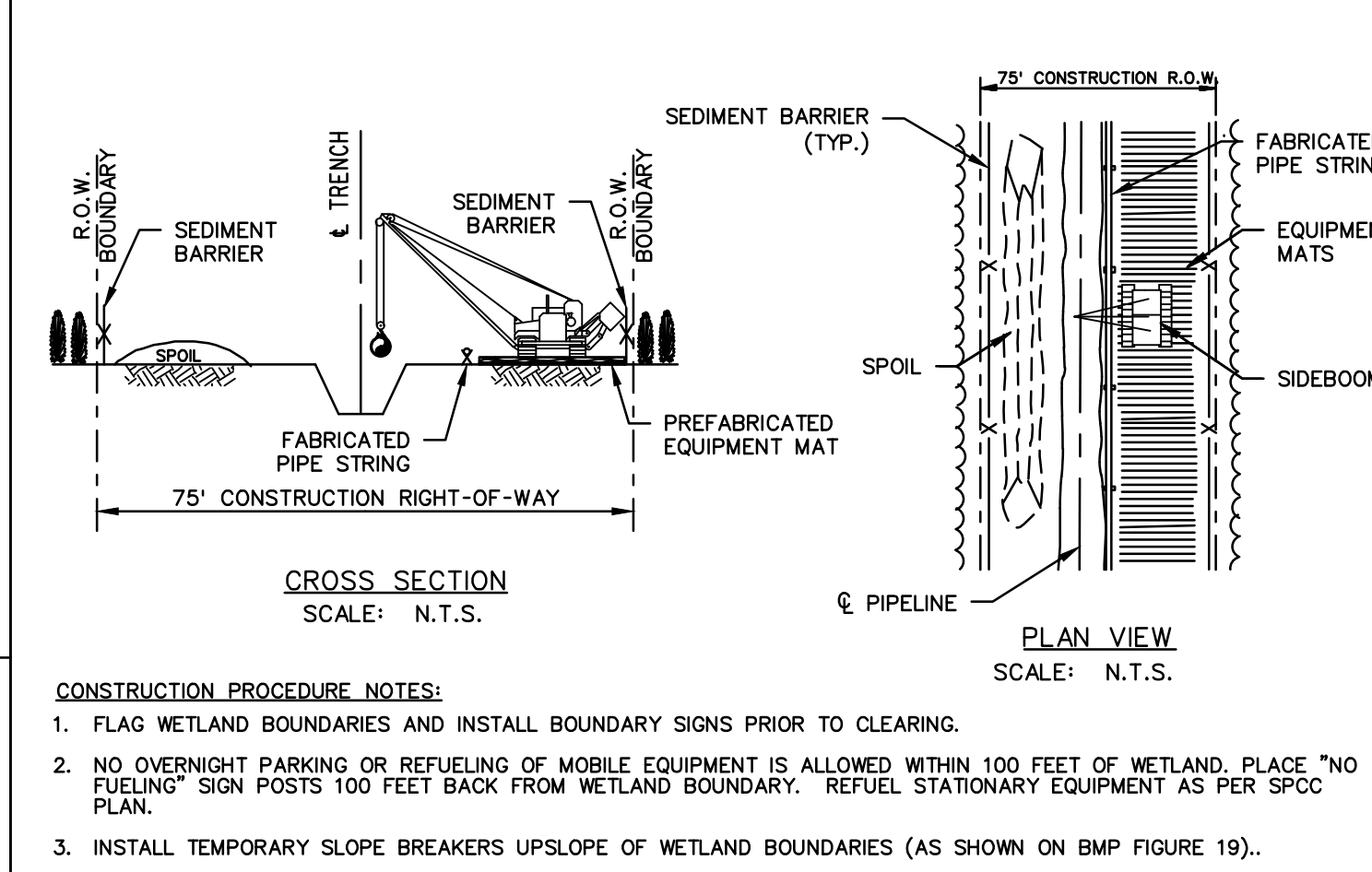
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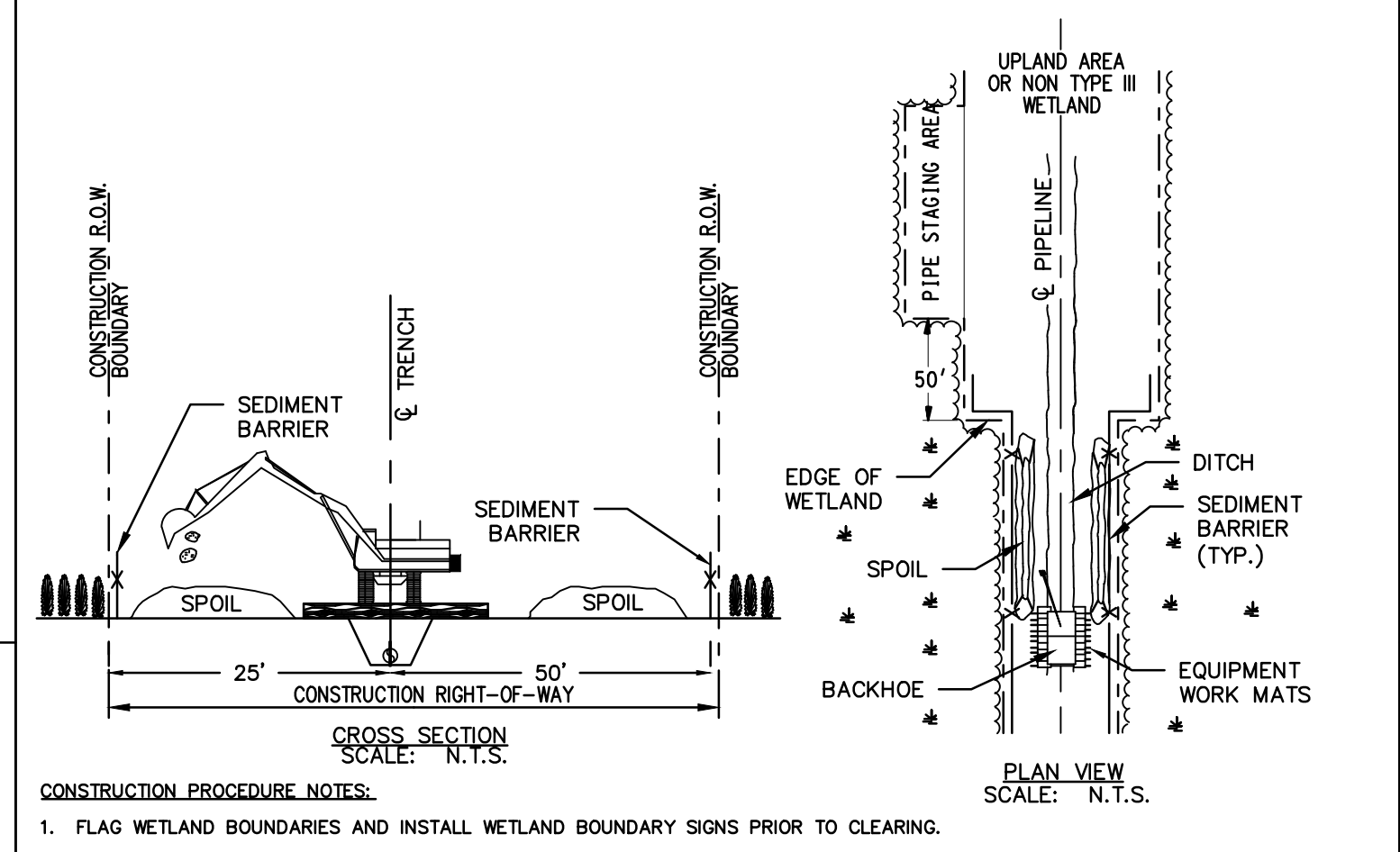
- CONSTRUCTION PROCEDURE NOTES:**
1. FLAG WETLAND BOUNDARIES AND INSTALL BOUNDARY SIGNS PRIOR TO CLEARING.
 2. NO OVERNIGHT PARKING OR REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPOC PLAN.
 3. INSTALL TEMPORARY SLOPE BREAKERS UPSLOPE OF WETLAND BOUNDARIES (AS SHOWN IN BMP FIG. 19).
 4. INSTALL PREFABRICATED EQUIPMENT MATS THROUGH THE ENTIRE WETLAND AREA ON THE WORKING SIDE OF THE CONSTRUCTION CORRIDOR.
 5. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS AT THE OUTER BOUNDARIES OF THE WETLAND. INSTALL SEDIMENT BARRIERS ALONG THE EDGE OF THE SPOIL SIDE OF THE CONSTRUCTION CORRIDOR THROUGH THE WETLAND AND ALONG THE DOWN SLOPE EDGE OF THE WETLAND. IF THE DOWN SLOPE EDGE OF THE WETLAND IS THE SPOIL SIDE, THEN SEDIMENT BARRIERS ARE NOT REQUIRED ON THE WORKING SIDE OF THE CORRIDOR UNLESS EQUIPMENT TRAVELING THROUGH THE WETLAND CAUSES SPOIL AND SEDIMENT TO EXIT THE CONSTRUCTION CORRIDOR.
 6. LIMIT PULLING OF TREE STUMPS AND GRADING ACTIVITIES TO DIRECTLY OVER THE TRENCH LINE. DO NOT GRADE OR REMOVE STUMPS OR ROOT SYSTEMS FROM THE REST OF THE RIGHT-OF-WAY IN WETLANDS UNLESS THE CHIEF INSPECTOR AND COMPANY ENVIRONMENTAL INSPECTOR DETERMINE THAT SAFETY RELATED CONSTRUCTION CONSTRAINTS REQUIRE REMOVAL OF TREE STUMPS FROM UNDER THE WORKING SIDE OF THE RIGHT-OF-WAY.
 7. CONDUCT TRENCH LINE TOPSOIL STRIPPING (IF TOPSOIL IS NOT SATURATED OR FROZEN). SALVAGE TOPSOIL TO ACTUAL DEPTH OR A MAXIMUM DEPTH OF 12 INCHES, AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR. SEGREGATED TOPSOIL FILE MAY BE LOCATED ON SPOIL SIDE, AS REQUIRED.
 8. LEAVE HARD PLUGS AT THE EDGES OF WETLAND UNTIL JUST PRIOR TO TRENCHING.
 9. TRENCHING THROUGH WETLANDS MAY PROCEED WHEN THE PIPE SECTION IS FABRICATED AND READY TO LAY. ONCE TRENCHING COMMENCES, CONSTRUCTION THROUGH THE WETLAND IS TO PROCEED CONTINUOUSLY UNTIL THE CROSSING IS COMPLETED, BACK FILLED AND RESTORED IN ORDER TO MINIMIZE THE LENGTH OF TIME THE TRENCH IS OPEN.
 10. PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND ADJACENT TO PIPE TRENCH, OR IN STAGING AREA OUTSIDE THE WETLAND AND WALKED IN. NO CONCRETE COATING ACTIVITY SHALL OCCUR WITHIN 100 FEET OF WETLAND BOUNDARY UNLESS APPROVED BY ENVIRONMENTAL INSPECTOR.
 11. LOWER-IN PIPE. PRIOR TO BACK FILLING TRENCH, INSTALL TRENCH BREAKERS IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
 12. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT EROSION CONTROL MEASURES.
 13. REMOVE PREFABRICATED MATS FROM WETLANDS UPON COMPLETION.
 14. SEED DISTURBED WETLAND AREAS (UNLESS STANDING WATER IS PRESENT) AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR AND AS SHOWN ON DRAWINGS AND EOP. 48 LB PLS/ACRE ANNUAL RYE GRASS AND STRAW MULCH AT 3T/ACRE OR AS APPROVED BY THE APPLICABLE PERMITTING AGENCY.
 15. NO FERTILIZER OR LIME IS PERMITTED.
 16. DO NOT USE LIQUID MULCH BINDERS WITHIN 100 FT OF WETLANDS OR WATERBODIES.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPE I "NON-SATURATED WETLAND" INSTALLATION PROCEDURE FIGURE NO. 12



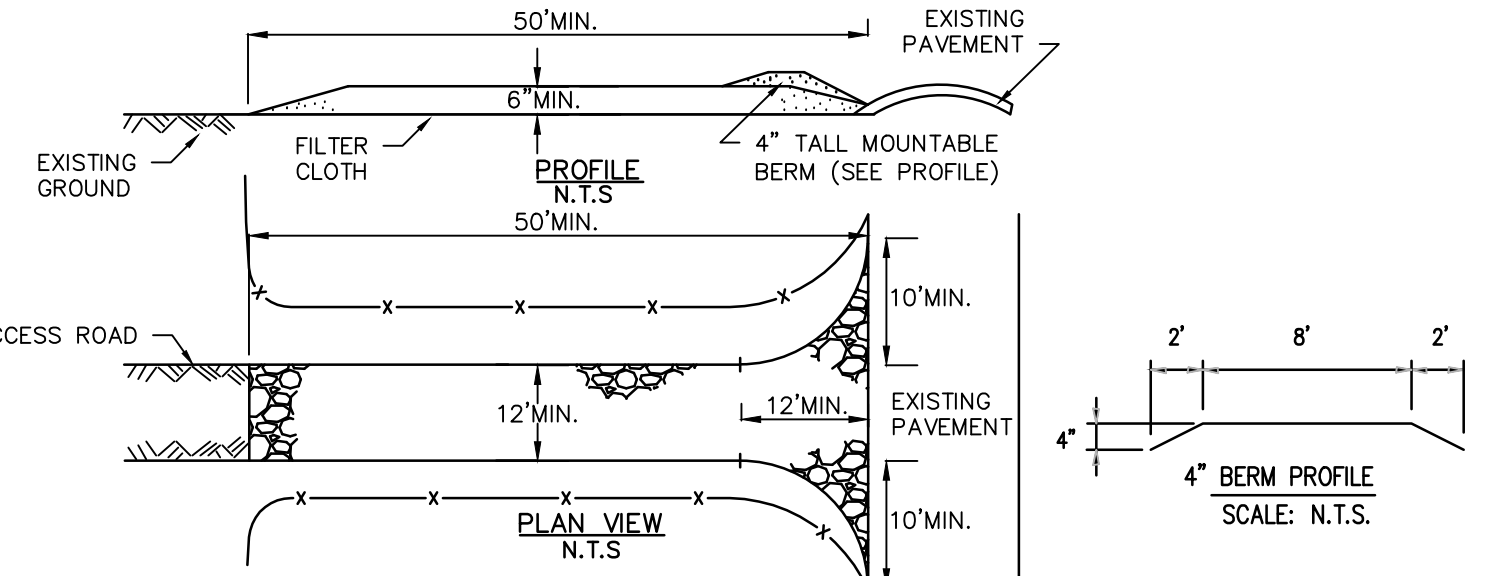
- CONSTRUCTION PROCEDURE NOTES:**
1. FLAG WETLAND BOUNDARIES AND INSTALL BOUNDARY SIGNS PRIOR TO CLEARING.
 2. NO OVERNIGHT PARKING OR REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPOC PLAN.
 3. INSTALL TEMPORARY SLOPE BREAKERS UPSLOPE OF WETLAND BOUNDARIES (AS SHOWN ON BMP FIGURE 19).
 4. INSTALL PREFABRICATED EQUIPMENT MATS THROUGH ENTIRE WETLAND AREA ON THE WORKING SIDE OF THE CONSTRUCTION CORRIDOR.
 5. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS AT OUTER BOUNDARIES OF WETLAND AND ALONG BOTH WETLAND EDGES.
 6. LIMIT PULLING OF TREE STUMPS AND GRADING ACTIVITIES TO DIRECTLY OVER THE TRENCHLINE. DO NOT GRADE OR REMOVE STUMPS OR ROOT SYSTEMS FROM THE REST OF THE RIGHT-OF-WAY IN WETLANDS UNLESS THE CHIEF INSPECTOR AND COMPANY ENVIRONMENTAL INSPECTOR DETERMINE THAT SAFETY RELATED CONSTRUCTION CONSTRAINTS REQUIRE REMOVAL OF TREE STUMPS FROM UNDER THE WORKING SIDE OF THE RIGHT-OF-WAY.
 7. TOPSOIL STRIPPING SHALL NOT BE REQUIRED IN SATURATED SOIL CONDITIONS.
 8. LEAVE HARD PLUGS AT THE EDGES OF WETLAND UNTIL JUST PRIOR TO TRENCHING.
 9. TRENCHING THROUGH WETLANDS MAY PROCEED WHEN THE PIPE SECTION IS FABRICATED AND READY TO LAY. ONCE TRENCHING COMMENCES, CONSTRUCTION THROUGH THE WETLAND IS TO PROCEED CONTINUOUSLY UNTIL THE CROSSING IS COMPLETED, BACK FILLED AND RESTORED IN ORDER TO MINIMIZE THE LENGTH OF TIME THE TRENCH IS OPEN.
 10. PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND ADJACENT TO PIPE TRENCH, OR IN STAGING AREA OUTSIDE THE WETLAND AND WALKED IN. NO CONCRETE COATING ACTIVITY WITHIN 100 FEET OF WETLAND BOUNDARY, UNLESS APPROVED BY COMPANY ENVIRONMENTAL INSPECTOR.
 11. LOWER-IN PIPE PRIOR TO BACKFILLING, INSTALL TRENCH PLUGS IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS.
 12. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY AND INSTALL PERMANENT EROSION CONTROL MEASURES.
 13. REMOVE PREFABRICATED MATS FROM WETLANDS UPON COMPLETION.
 14. SEED DISTURBED WETLAND AREA (UNLESS STANDING WATER IS PRESENT) AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR AND AS SHOWN ON DRAWINGS AND EOP. 48 LB PLS/ACRE ANNUAL RYE GRASS AND STRAW MULCH AT 3T/ACRE OR AS APPROVED BY THE APPLICABLE PERMITTING AGENCY.
 15. NO FERTILIZER OR LIME IS PERMITTED.
 16. DO NOT USE LIQUID MULCH BINDERS WITHIN 100 FT OF WETLANDS OR WATERBODIES.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPE II "SATURATED WETLAND" INSTALLATION PROCEDURE FIGURE NO. 13



- CONSTRUCTION PROCEDURE NOTES:**
1. FLAG WETLAND BOUNDARIES AND INSTALL WETLAND BOUNDARY SIGNS PRIOR TO CLEARING.
 2. NO OVERNIGHT PARKING OR REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPOC PLAN.
 3. INSTALL TEMPORARY SLOPE BREAKERS WITHIN 50' UPSLOPE OF WETLAND BOUNDARIES (AS SHOWN ON BMPs - FIG. 19).
 4. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS AT OUTER BOUNDARIES OF WETLAND AND ALONG BOTH WETLAND EDGES.
 5. LIMIT PULLING OF TREE STUMPS AND GRADING ACTIVITIES TO DIRECTLY OVER TRENCH LINE. DO NOT REMOVE STUMPS OR ROOT SYSTEMS FROM THE REST OF THE RIGHT-OF-WAY IN WETLANDS UNLESS THE CHIEF INSPECTOR AND COMPANY ENVIRONMENTAL INSPECTOR DETERMINE THAT SAFETY RELATED CONSTRUCTION CONSTRAINTS REQUIRE REMOVAL OF TREE STUMPS FROM UNDER THE WORKING SIDE OF THE RIGHT-OF-WAY.
 6. TOPSOIL STRIPPING SHALL NOT BE REQUIRED IN SATURATED SOIL CONDITIONS.
 7. UTILIZE AMPHIBIOUS EXCAVATORS (PONTON MOUNTED BACKHOES) OR TRACKED BACKHOES SUPPORTED BY PREFABRICATED EQUIPMENT MATS OR FLOATS, TO EXCAVATE TRENCH. IF PREFABRICATED EQUIPMENT MATS ARE USED FOR STABILIZATION, THE BACKHOE SHALL GRADUALLY MOVE ACROSS THE WETLAND BY MOVING THE MATS FROM IMMEDIATELY BEHIND TO IMMEDIATELY IN FRONT OF THE BACKHOE'S PATH.
 8. FABRICATE PIPE IN A STAGING AREA OUTSIDE THE TYPE III WETLAND AS INDICATED ON THE CONSTRUCTION DRAWINGS. NO CONCRETE COATING ACTIVITY SHALL OCCUR WITHIN 100 FEET OF THE WETLAND BOUNDARY, UNLESS APPROVED BY THE ENVIRONMENTAL INSPECTOR.
 9. LEAVE HARD PLUGS AT THE EDGE OF TYPE III WETLAND UNTIL JUST PRIOR TO PIPE PLACEMENT.
 10. FLOAT PIPE IN PLACE, LOWER-IN, INSTALL TRENCH PLUGS IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS, AND BACKFILL.
 11. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY AND INSTALL PERMANENT EROSION CONTROL.
 12. REMOVE ANY MATS UTILIZED TO SUPPORT AMPHIBIOUS EQUIPMENT FROM WETLANDS UPON COMPLETION.
 13. WETLANDS CROSSED USING PUSH/PULL METHOD TEND TO BE TOO WET FOR EFFECTIVE SEEDING AND WILL NOT BE SEEDED IF STANDING WATER IS PRESENT.
 14. NO FERTILIZER OR LIME IS PERMITTED.
 15. DO NOT USE LIQUID MULCH BINDERS WITHIN 100 FT OF WETLANDS OR WATERBODIES.

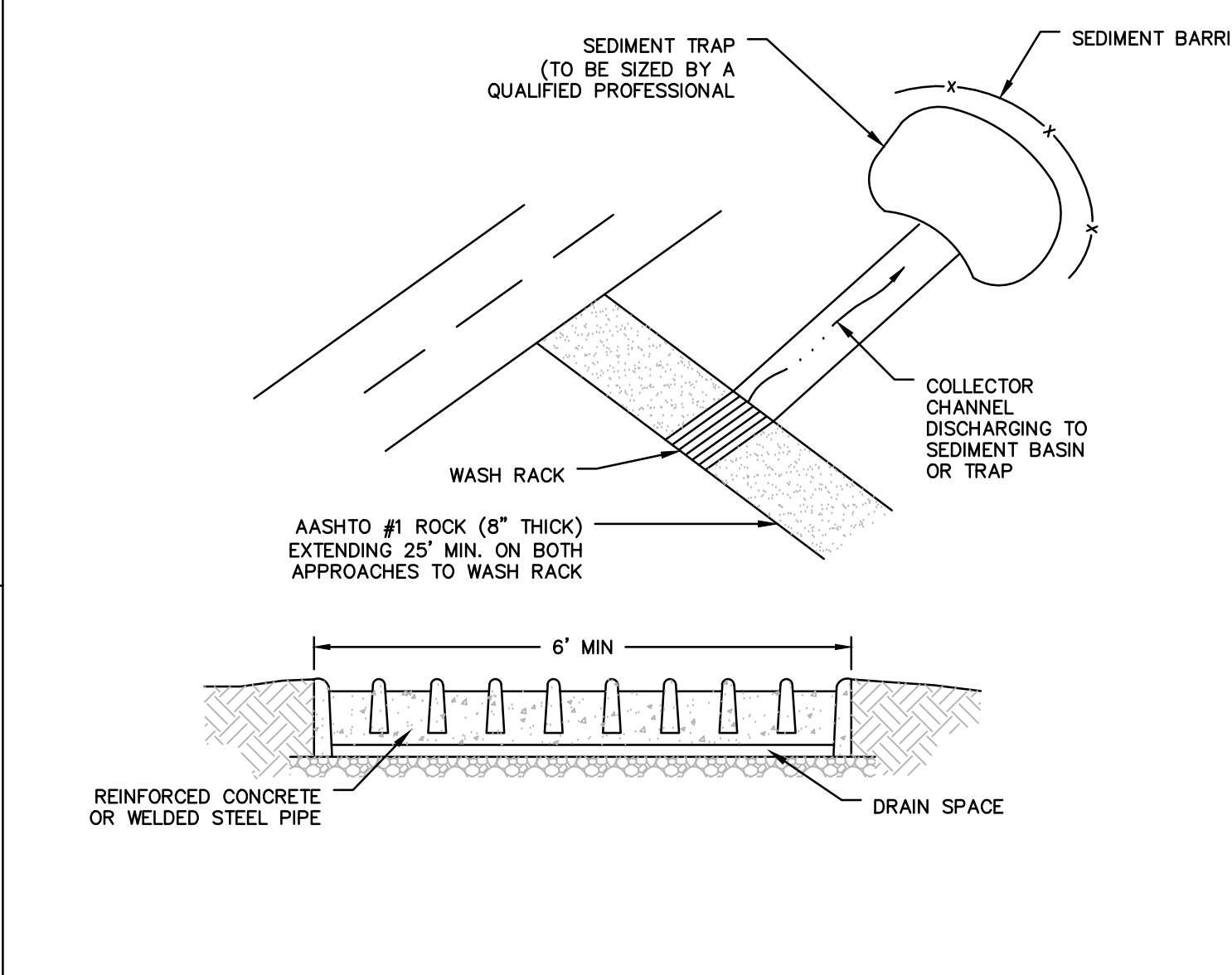
NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPE III "INUNDATED WETLAND" INSTALLATION PROCEDURE FIGURE NO. 14



- CONSTRUCTION SPECIFICATIONS**
1. STONE SIZE - 1-4" STONE PERMITTED FOR USE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
 3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
 4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
 5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. GEOTEXTILE MUST MEET CRITERIA IN TABLE BELOW.
 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 AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN EVENT.

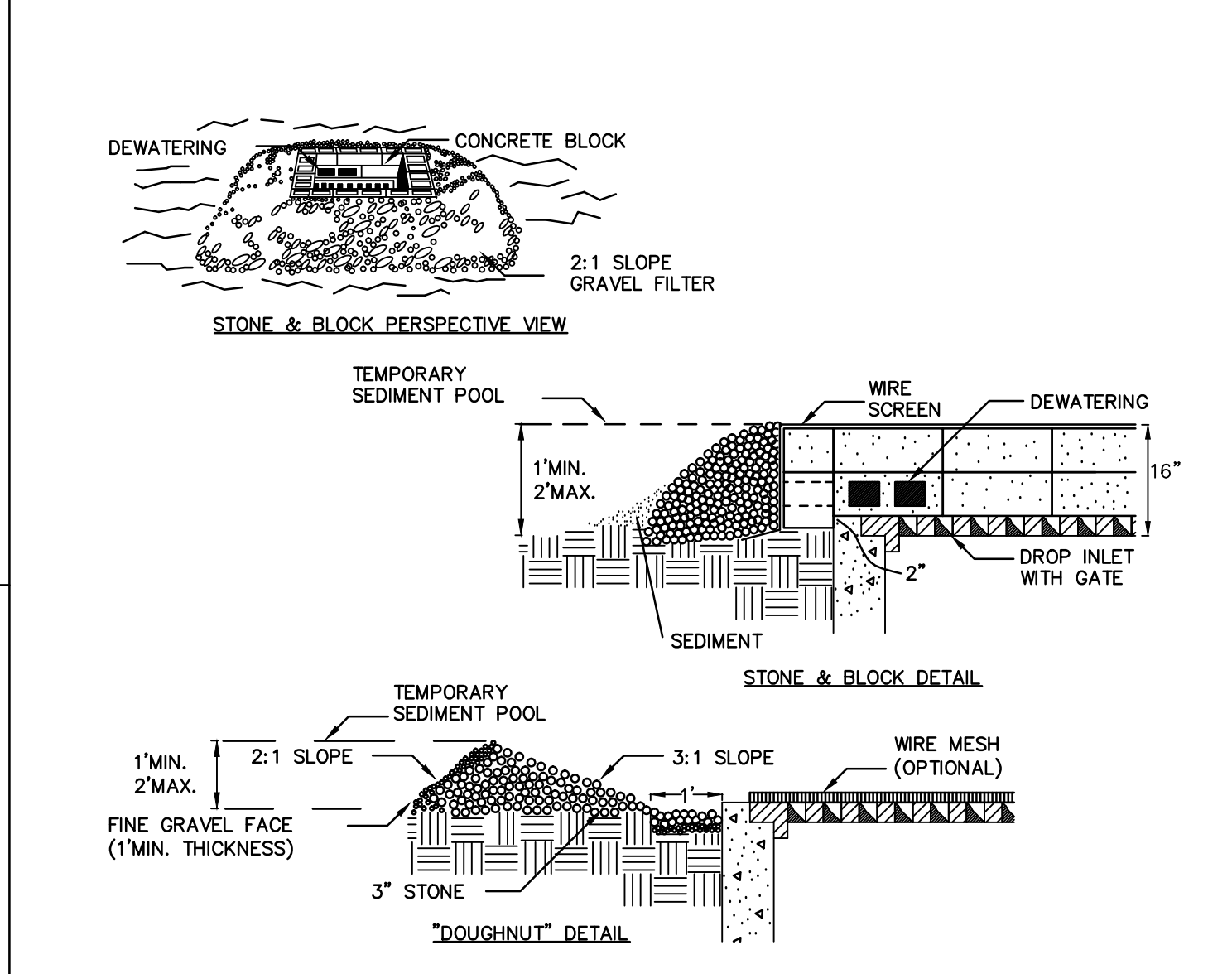
TABLE: CRITERIA FOR GEOTEXTILE		LIGHT DUTY ROADS GRADE	HEAVY DUTY HAUL ROADS ROUGH GRADED	TEST METHOD
FABRIC PROPERTIES		<u>SUBGRADE</u>	<u>GRADED</u>	<u>METHOD</u>
GRAB TENSILE STRENGTH (LBS)	200		220	ASTM D1682
ELONGATION AT FAILURE (%)	50		60	ASTM D1682
MULLEN BRUST STRENGTH (LBS)	190		430	ASTM D3786
PUNCTURE STRENGTH (LBS)	40		125	ASTM D3786 MODIFIED
EQUIVALENT	40-80		40-80	US STD SIEVE
OPENING SIZE				CW-02215
AGGREGATE DEPTH	6		10	
				NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL STABILIZED CONSTRUCTION ENTRANCE FIGURE NO. 15A



- NOTES:**
1. WASH RACK SHALL BE 20 FEET (MIN.) WIDE OR TOTAL WIDTH OF ACCESS.
 2. WASH RACK SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE ANTICIPATED CONSTRUCTION VEHICULAR TRAFFIC.
 3. A WATER SUPPLY SHALL BE MADE AVAILABLE TO WASH THE WHEELS OF ALL VEHICLES EXITING THE SITE.
 4. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. DRAIN SPACE UNDER WASH RACK SHALL BE KEPT OPEN AT ALL TIMES. DAMAGE TO THE WASH RACK SHALL BE REPAIRED PRIOR TO FURTHER USE OF THE RACK. ALL SEDIMENT DEPOSITED ON ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

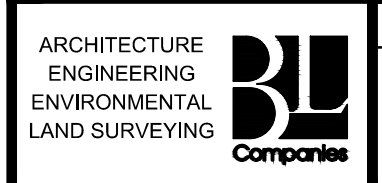
NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL STABILIZED CONSTRUCTION ENTRANCE WITH WASHRACK FIGURE NO. 15B



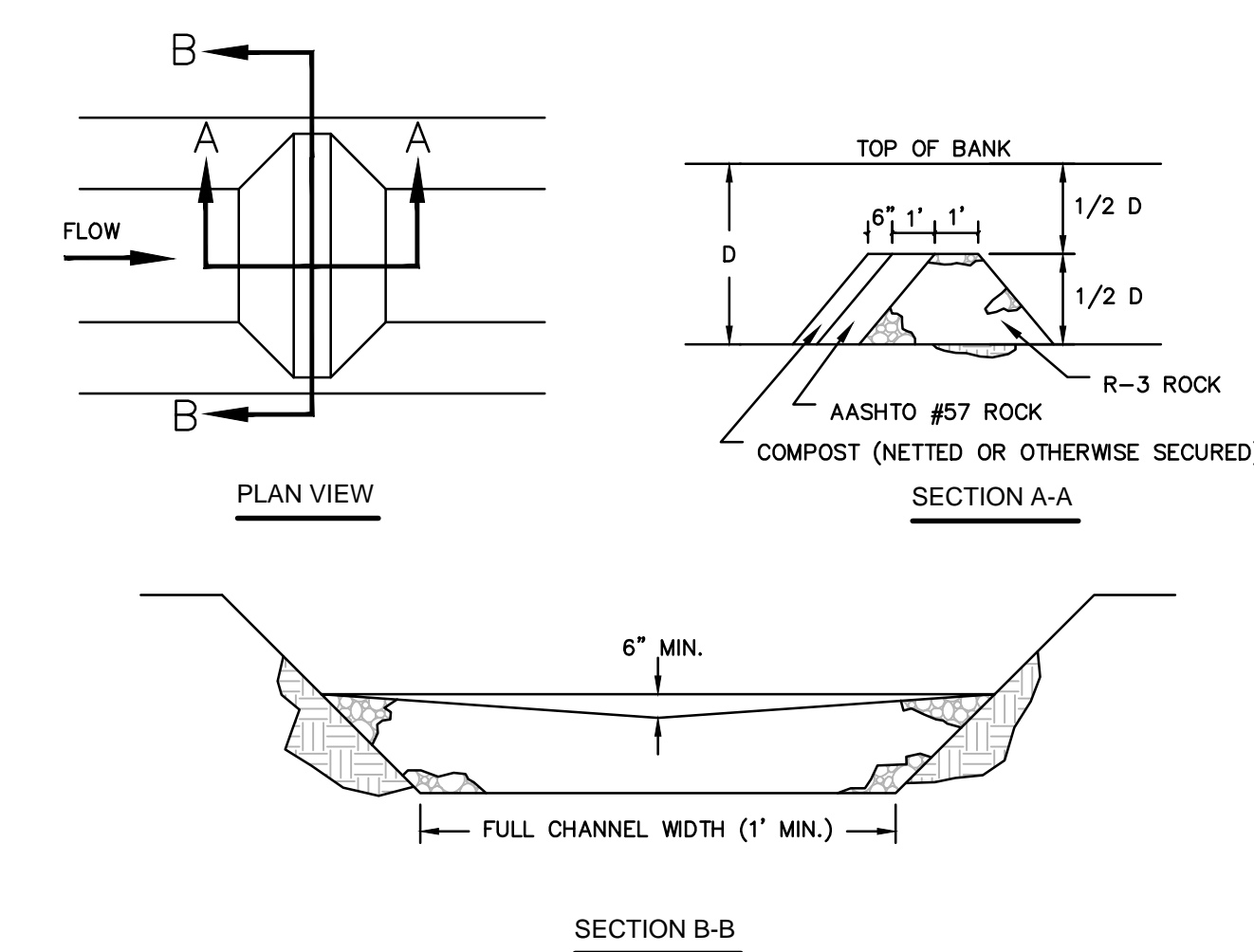
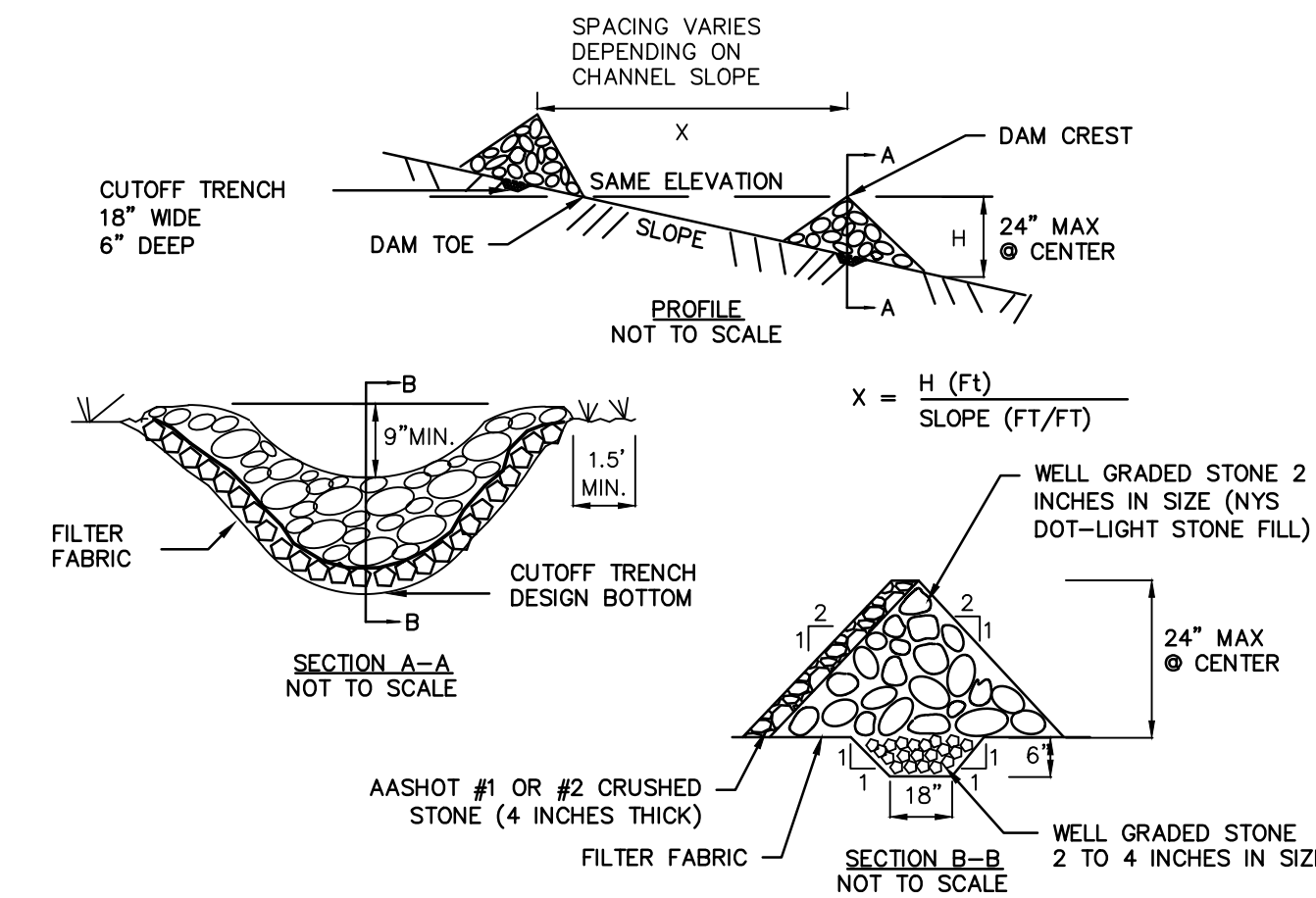
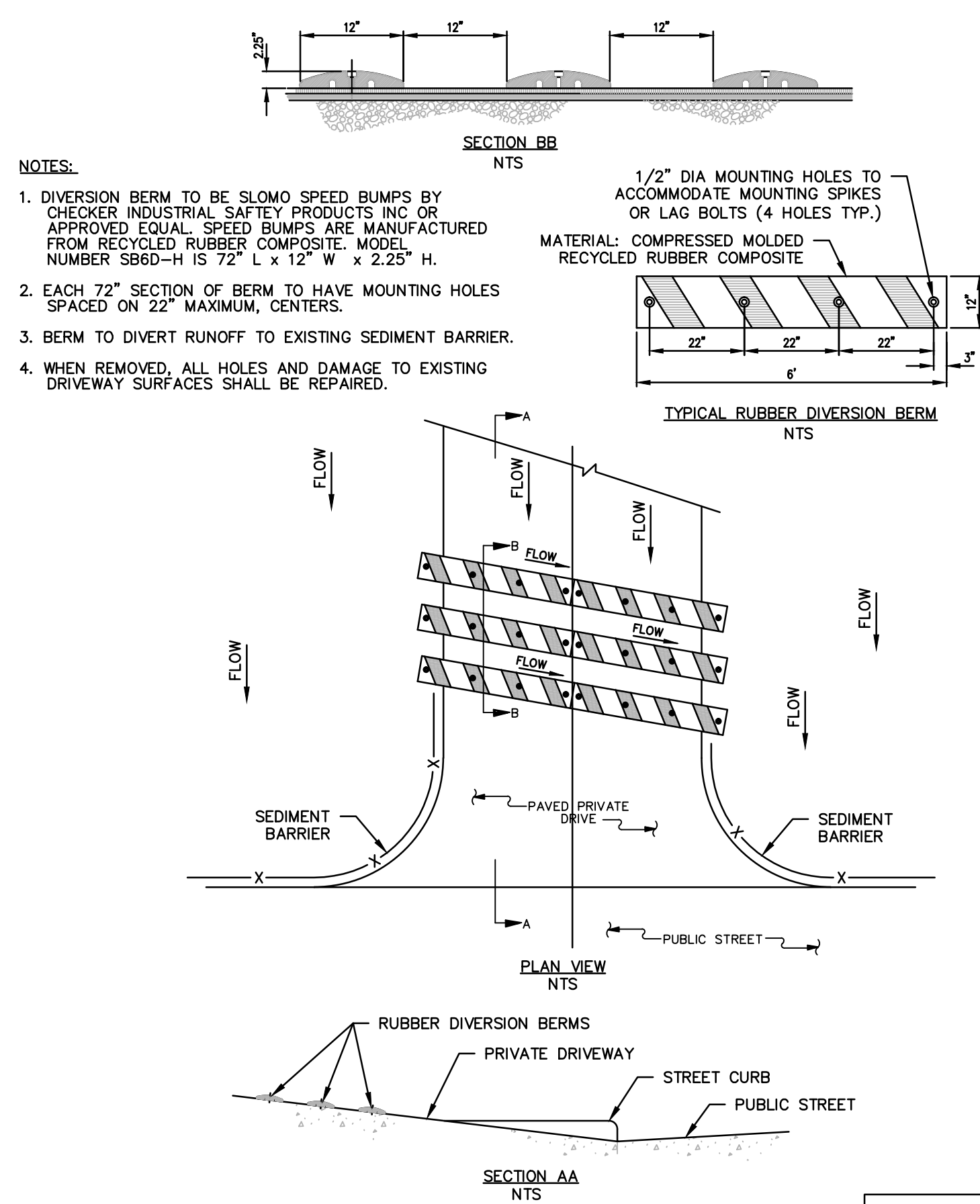
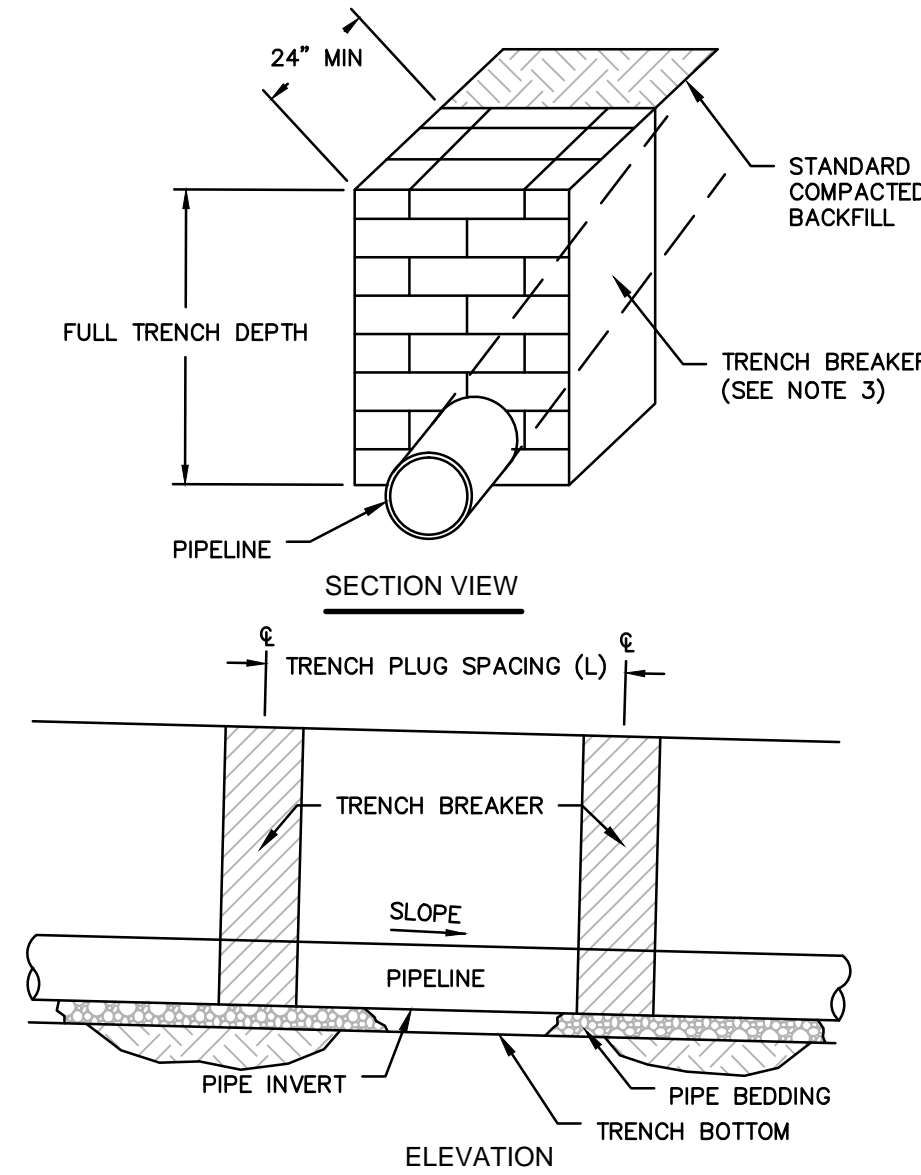
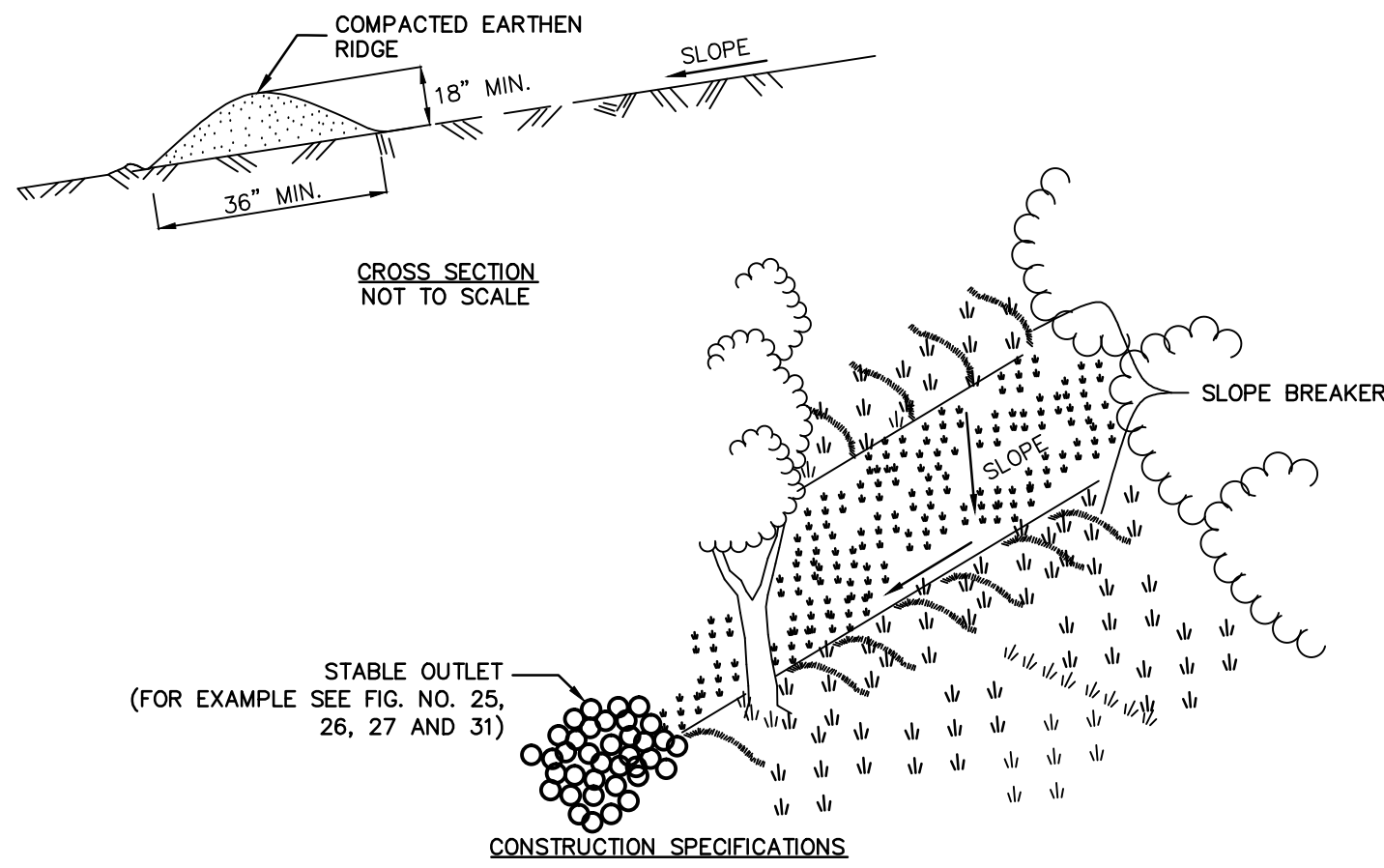
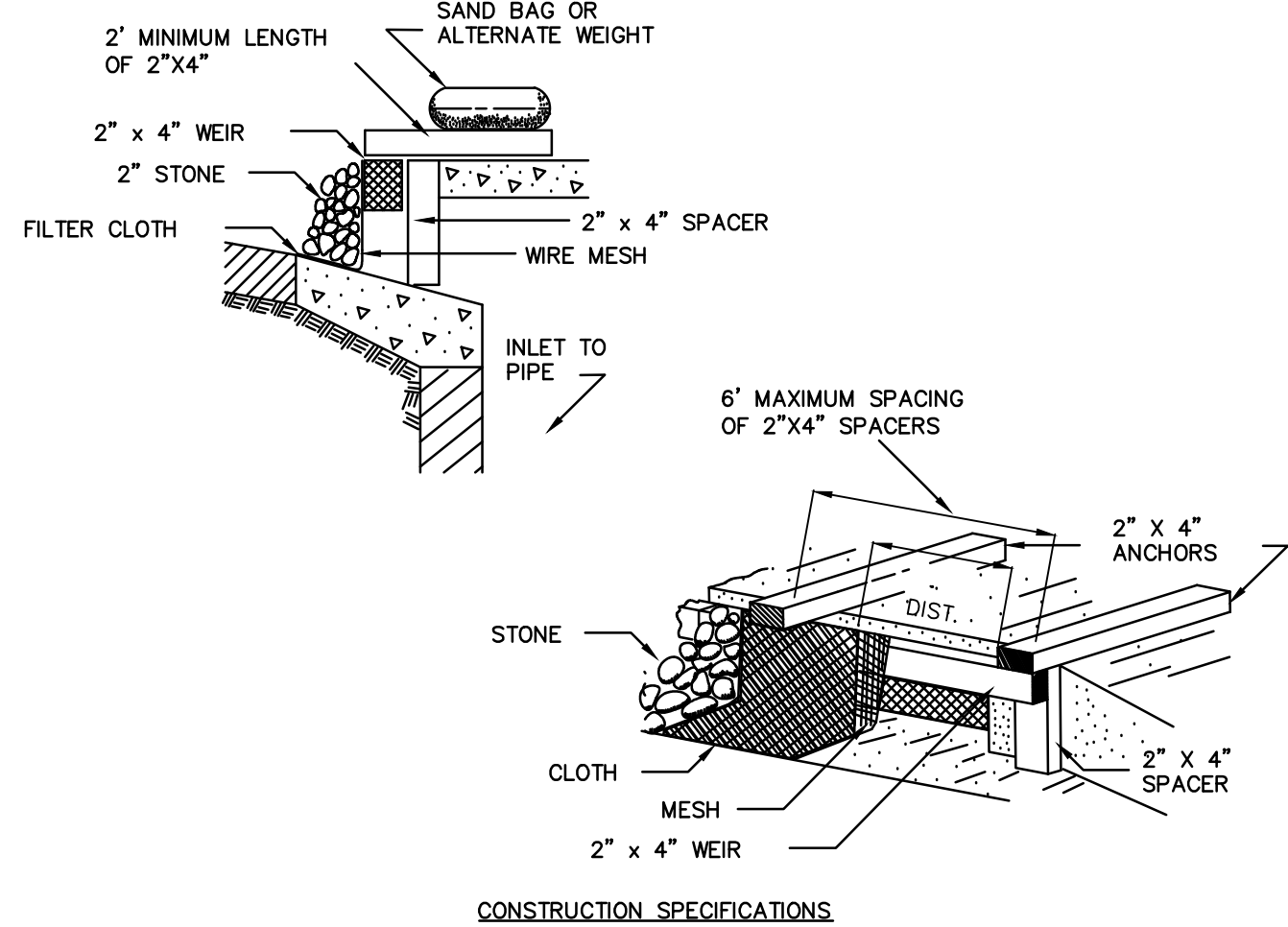
- CONSTRUCTION SPECIFICATIONS**
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
 2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
 3. USE CLEAN STONE OR GRAVEL 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
 4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS.
 5. MAXIMUM DRAINAGE AREA 1 ACRE.
 6. THIS SHALL BE USED IN ADDITION TO A SEDIMENT TRAPPING DEVICE (E.G. SEDIMENT BASIN, FILTER SACK, ETC.).

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL STONE & BLOCK DROP INLET PROTECTION STRUCTURE FIGURE NO. 16

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ENGINEERING
ENVIRONMENTAL
LAND SURVEYING

NO. 1
DATE 07/21/14
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DATE: 12/12/2013
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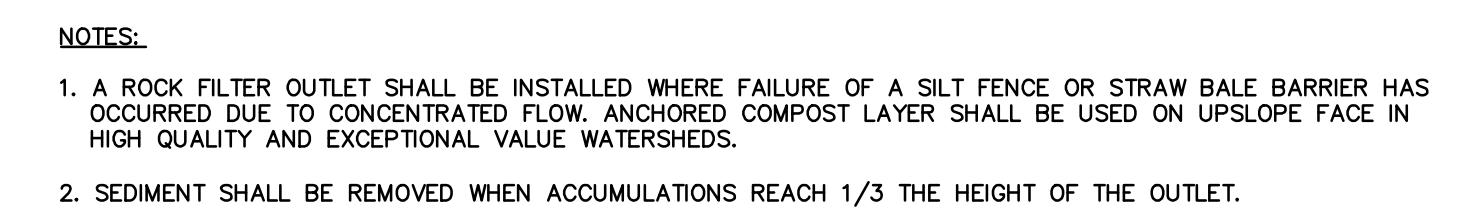
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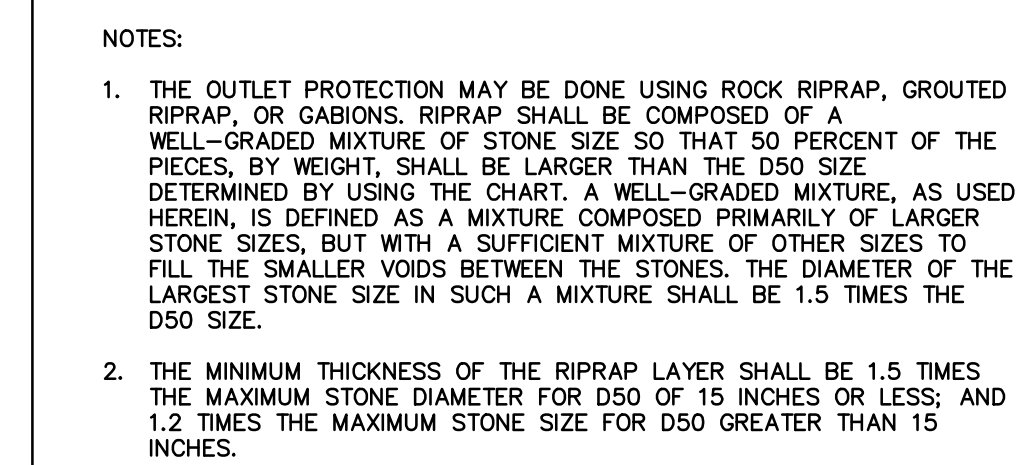
CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE




NEW YORK BEST MANAGEMENT PRACTICES




						NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.		
						CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL ROCK FILTER OUTLET FIGURE NO. 23	

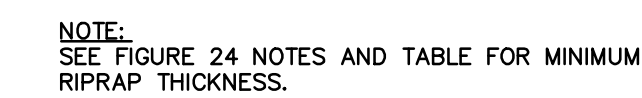



D 50 (IN)	d max (in)	MIN. BLANKET THICKNESS (IN)
4	6	9
6	9	14
9	14	20
12	18	27
15	22	32
18	27	32
21	32	38
24	36	43

					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	
						CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL RIPRAP INLET AND OUTLET PROTECTION FIGURE NO. 24
						 CONSTITUTION PIPELINE




					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP.	
						<p>CONSTITUTION PIPELINE COMPANY, LLC</p> <p>STANDARD ENVIRONMENTAL DETAIL</p> <p>RIPRAP OUTLET PROTECTION</p> <p>MINIMUM TAILWATER</p> <p>FIGURE NO. 25</p>
						

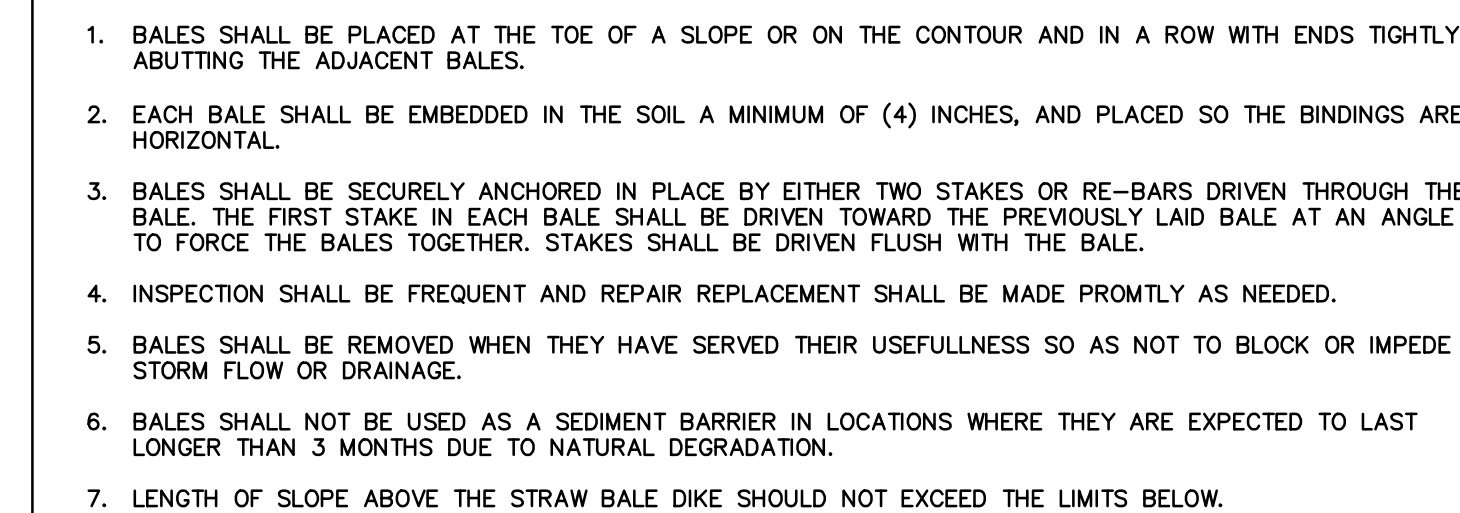



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NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL RIPRAP OUTLET PROTECTION MAXIMUM TAILWATER FIGURE NO. 26	
							



1. THE MATTING SHOULD BE A MINIMUM OF 4FT. WIDE EXTENDING 6 INCHES OVER THE LIP AND BURIED 6 INCHES DEEP IN A VERTICAL TRENCH ON THE LOWER EDGE. THE UPPER EDGE SHOULD BUTT AGAINST SMOOTHLY CUT SOD AND BE SECURELY HELD IN PLACE WITH CLOSELY SPACED HEAVY DUTY WIRE STAPLES AT LEAST 12 INCHES IN LENGTH.
2. ENSURE THAT THE LIP IS LEVEL TO UNIFORMLY SPREAD DISCHARGE.
3. THE LIP SHALL BE CONSTRUCTED ON UNDISTURBED SOIL NOT FILL.
4. A 20 FOOT TRANSITION SECTION WILL BE CONSTRUCTED FROM THE DIVERSION CHANNEL TO THE SPREADER TO SMOOTHLY BLEND THE DIFFERENT DIMENSION AND GRADES.
5. THE RUNOFF DISCHARGE WILL BE OUTLETED ONTO A STABILIZED VEGETATED SLOPE NOT EXCEEDING 10%.
6. SEED AND MULCH THE DISTURBED AREA IMMEDIATELY AFTER CONSTRUCTION.

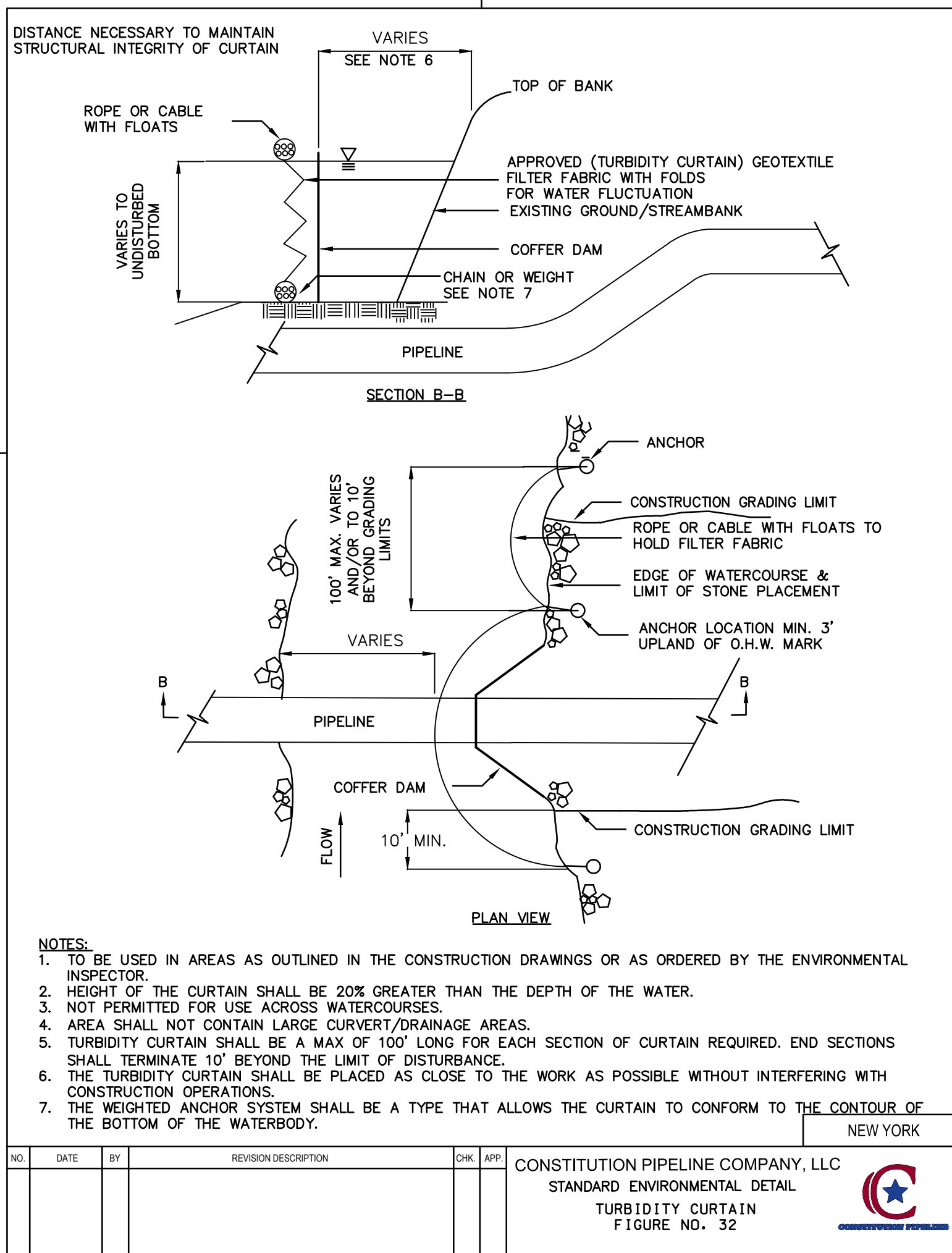
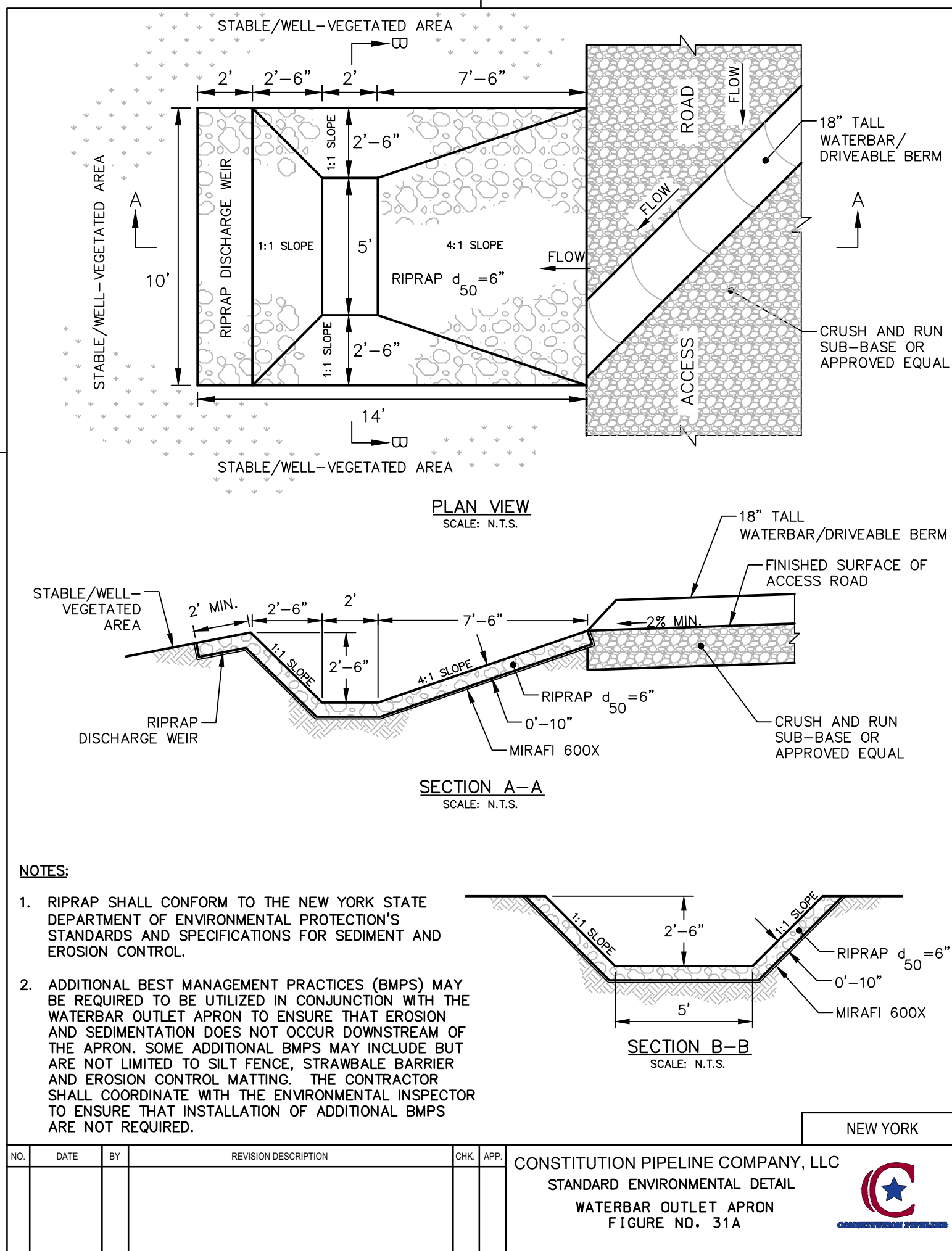
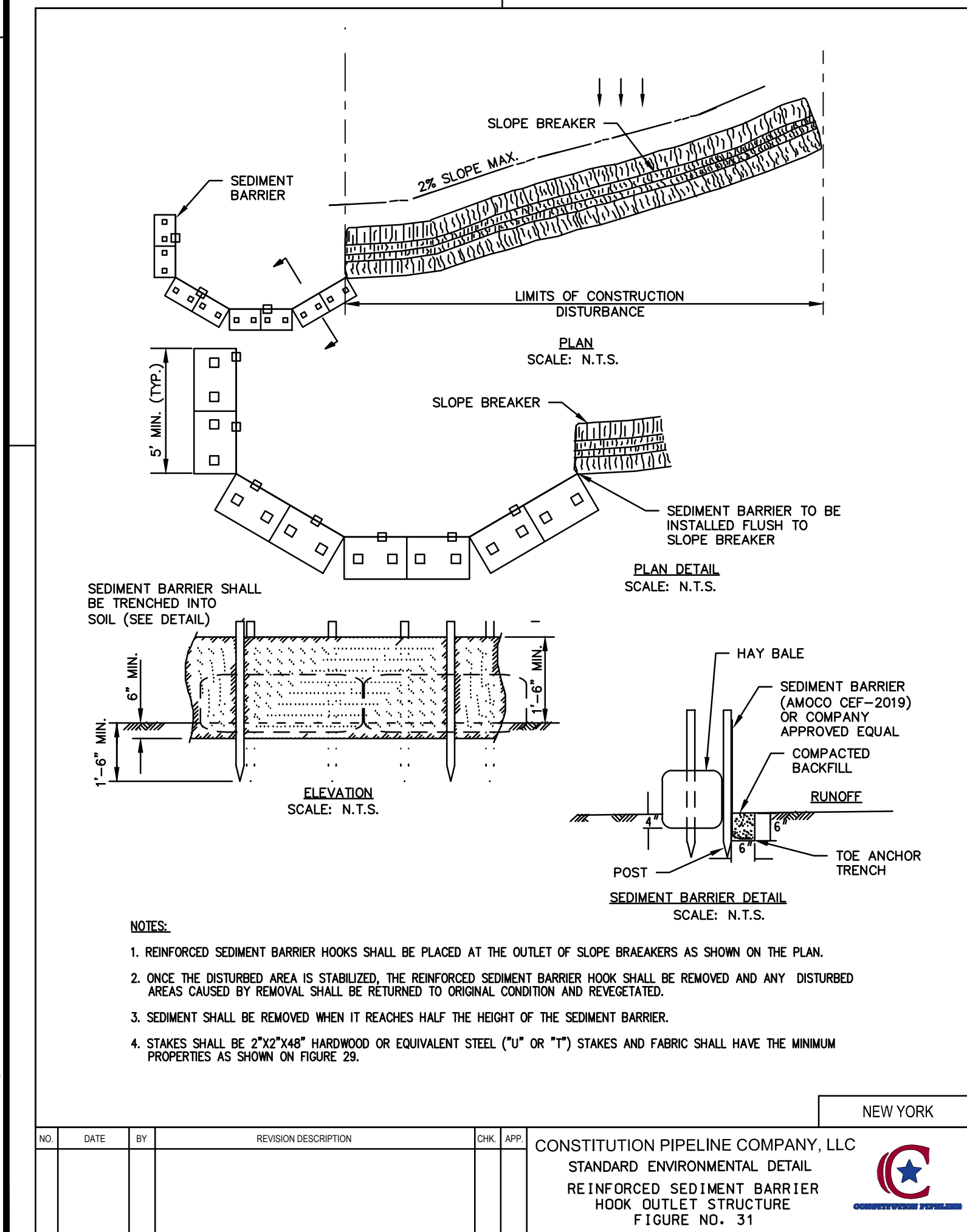
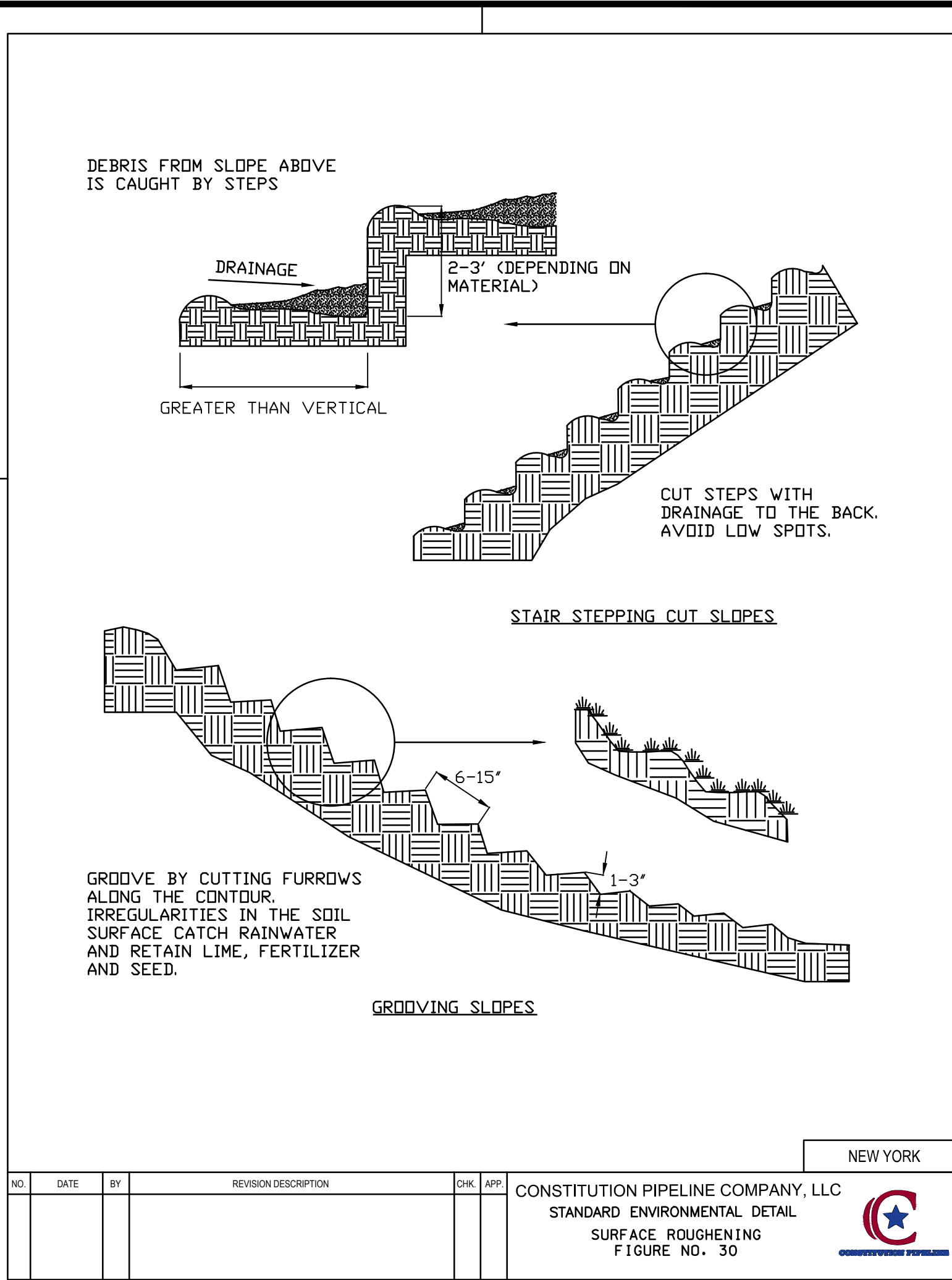
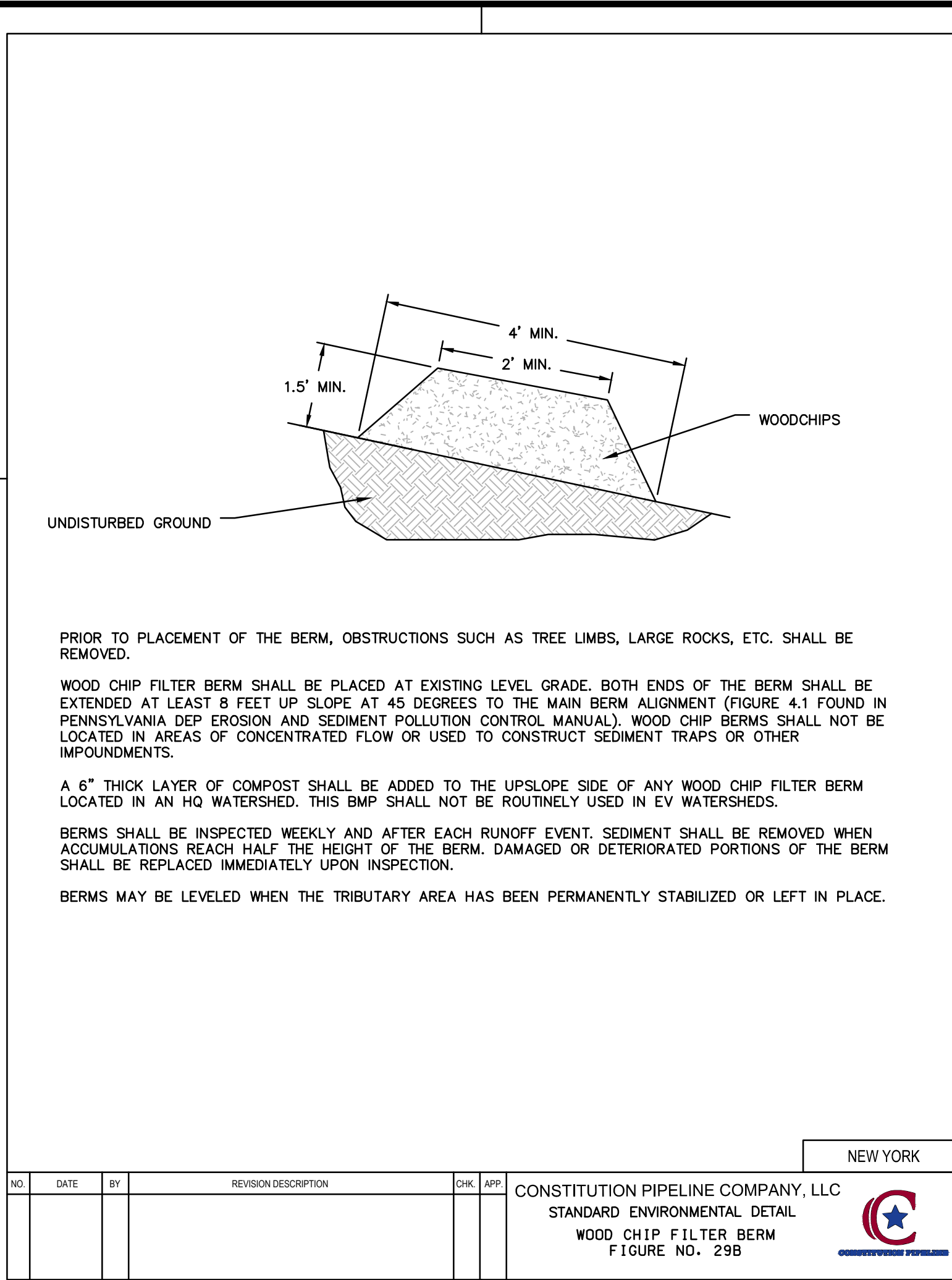
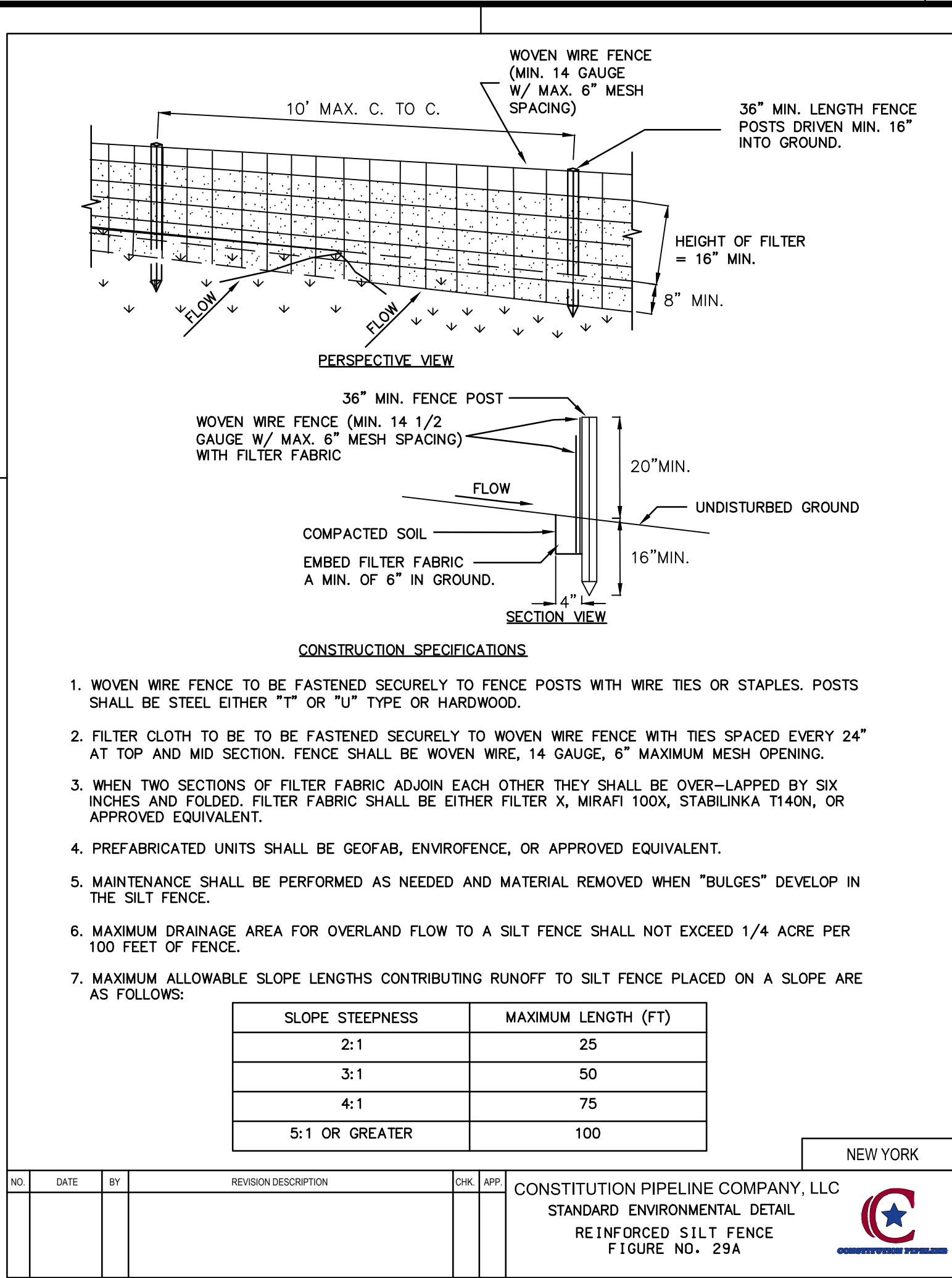
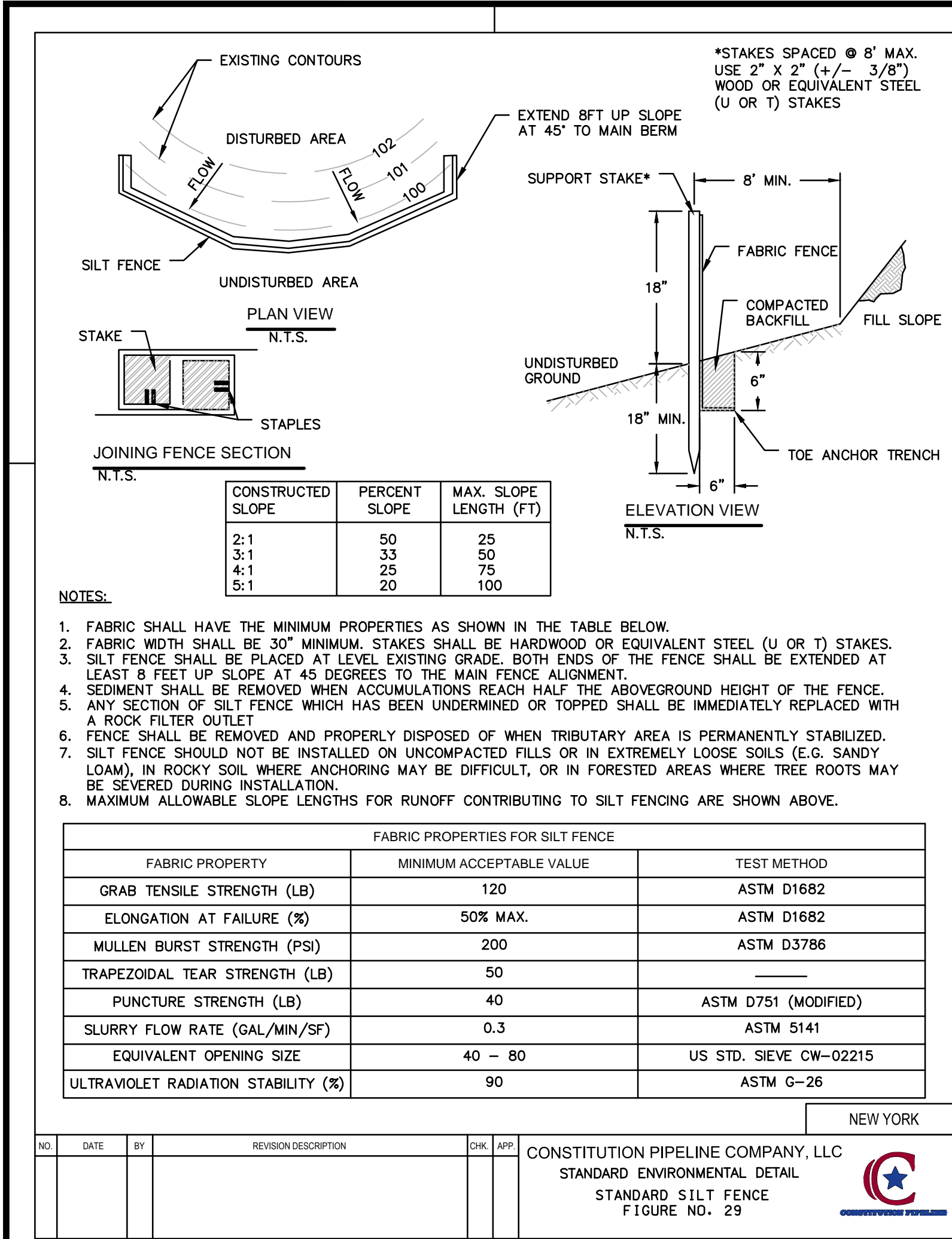
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NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL EARTHEN LEVEL SPREADER FIGURE NO. 27	
							



					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	
CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL STRAW BALE DIKE FIGURE NO. 28						

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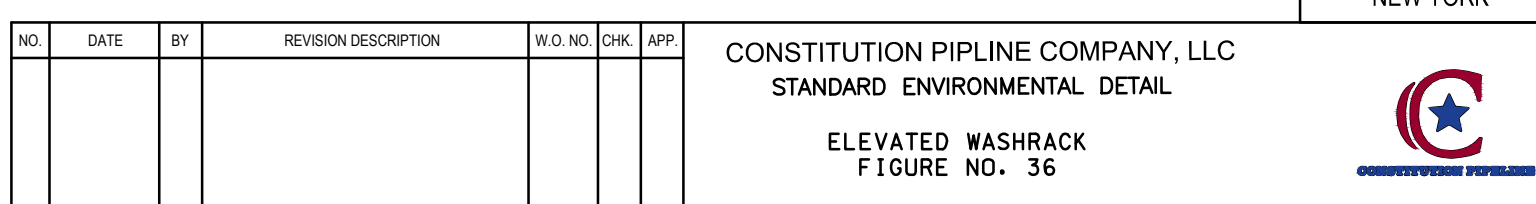
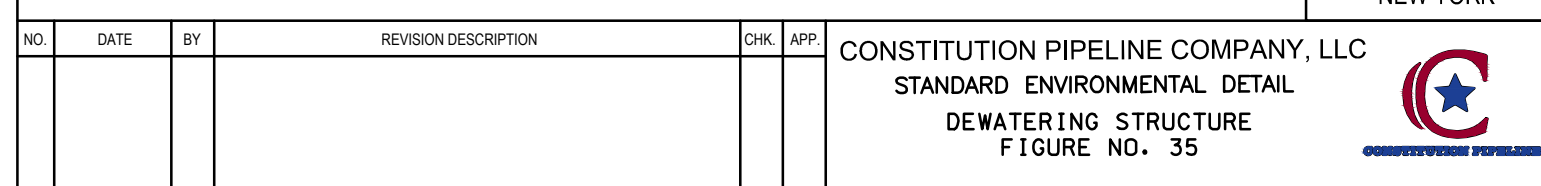
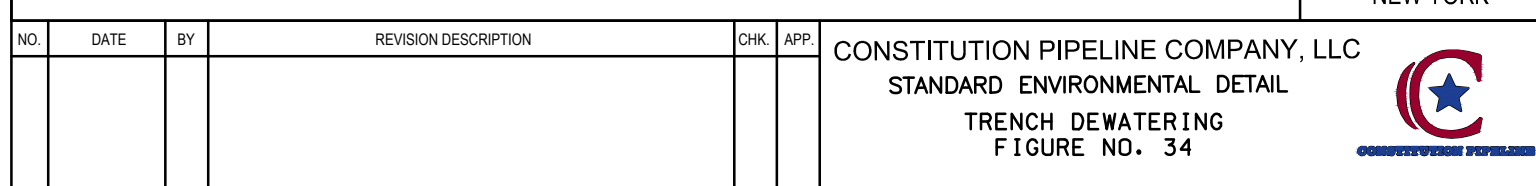
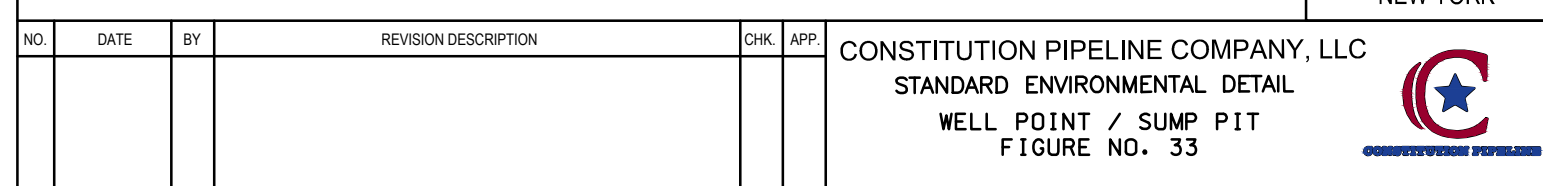
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			CHECKED BY:	C.L.	DATE:		ISSUED FOR CONSTRUCTION:	
			APPROVED BY:		DATE:		DRAWING NUMBER:	
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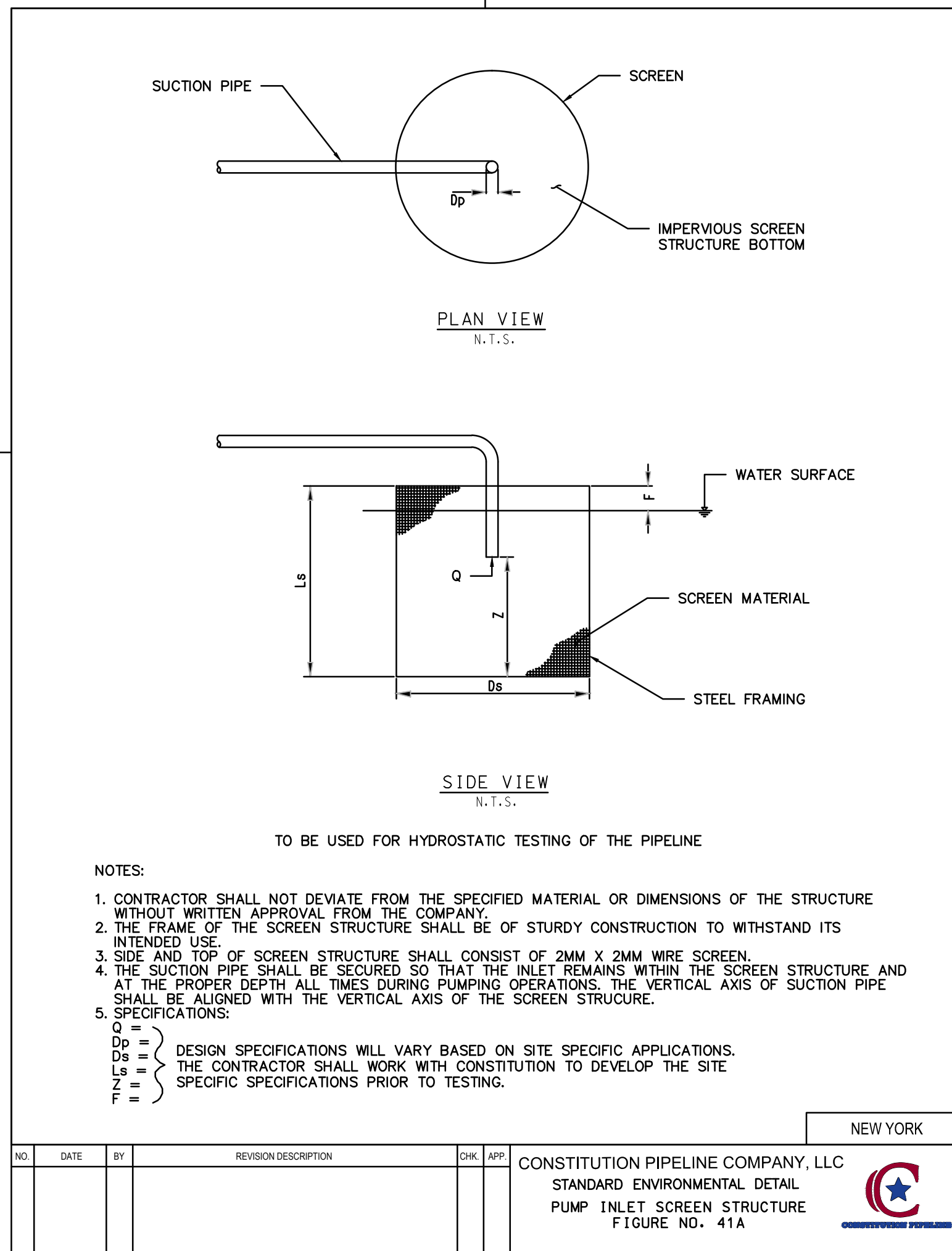
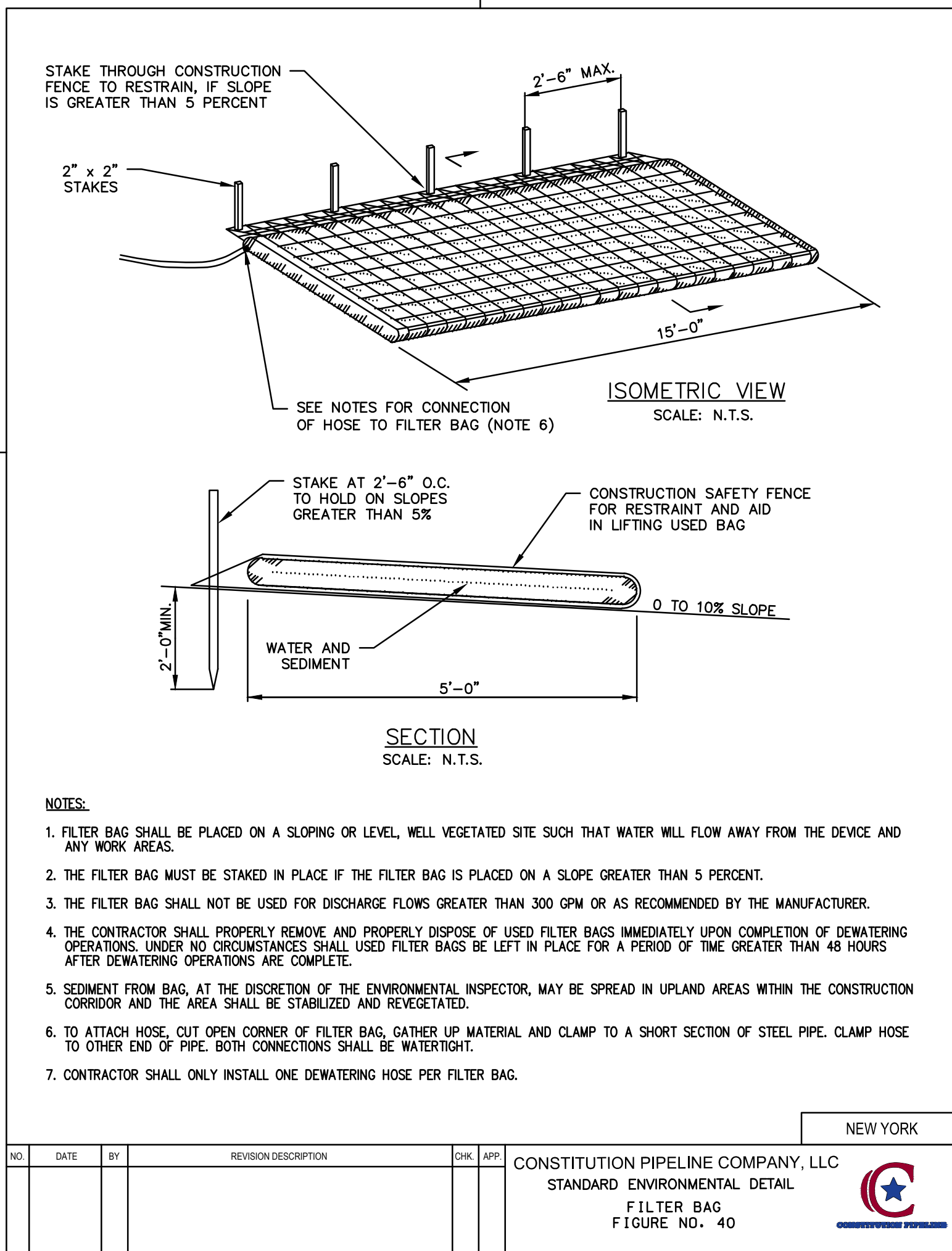
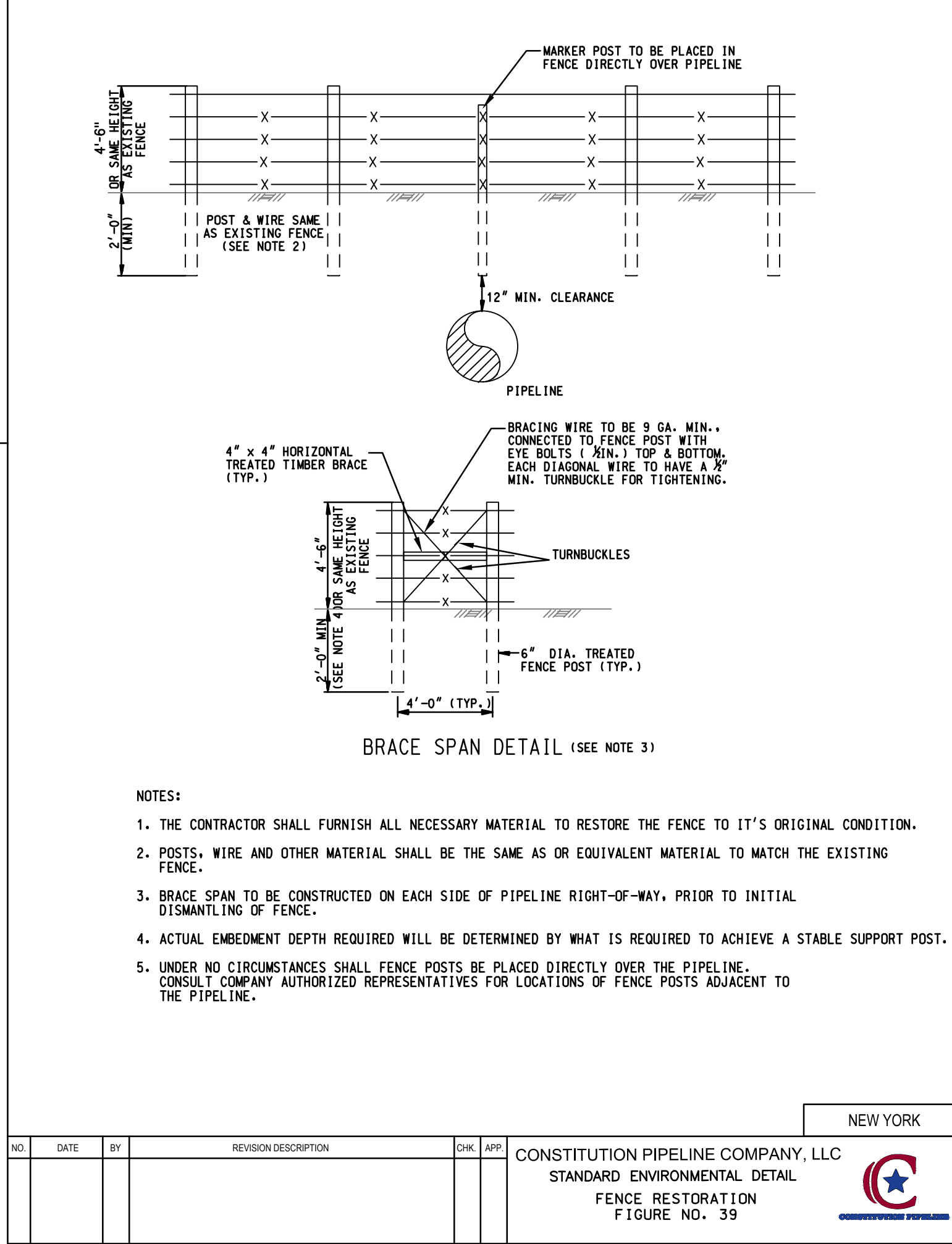
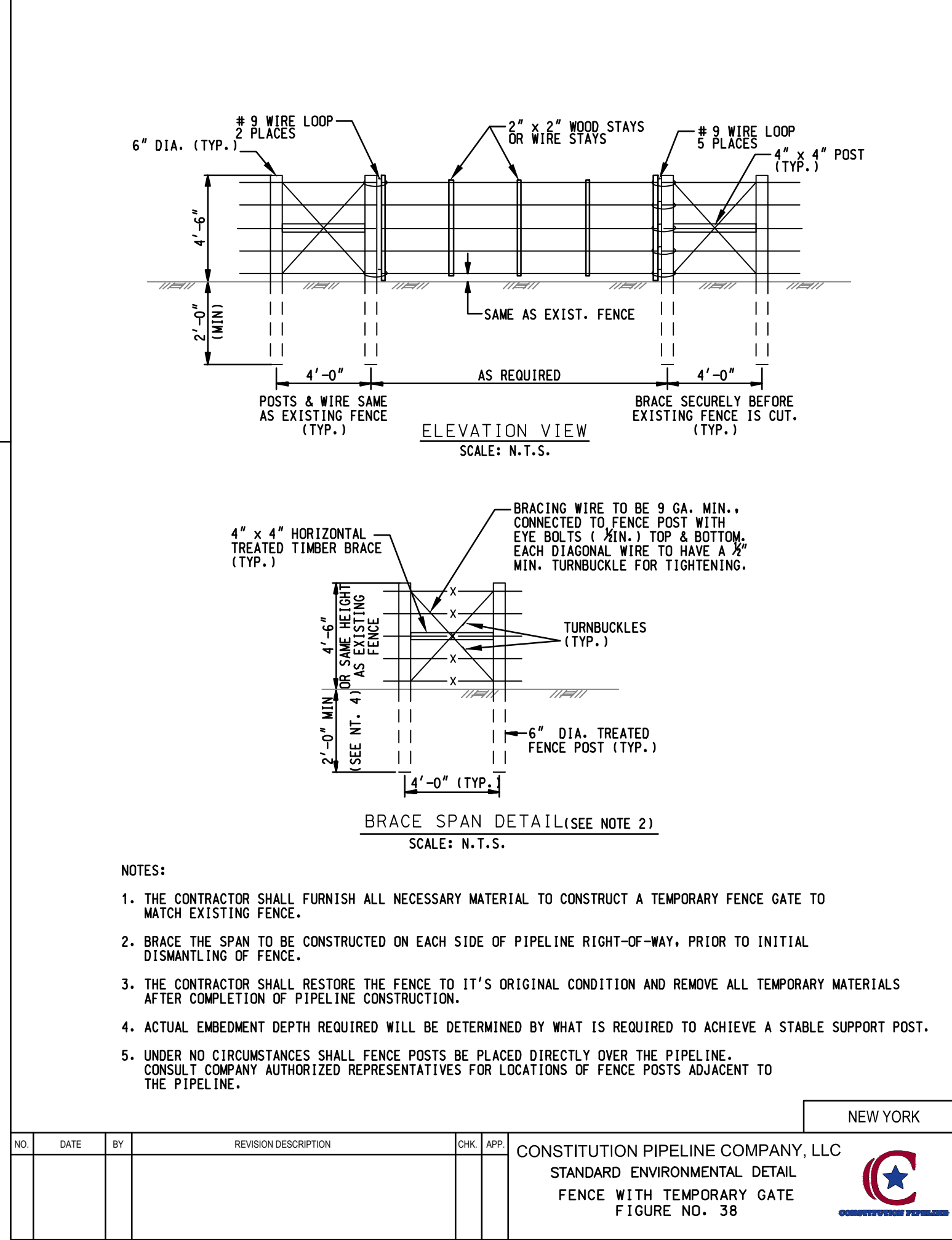
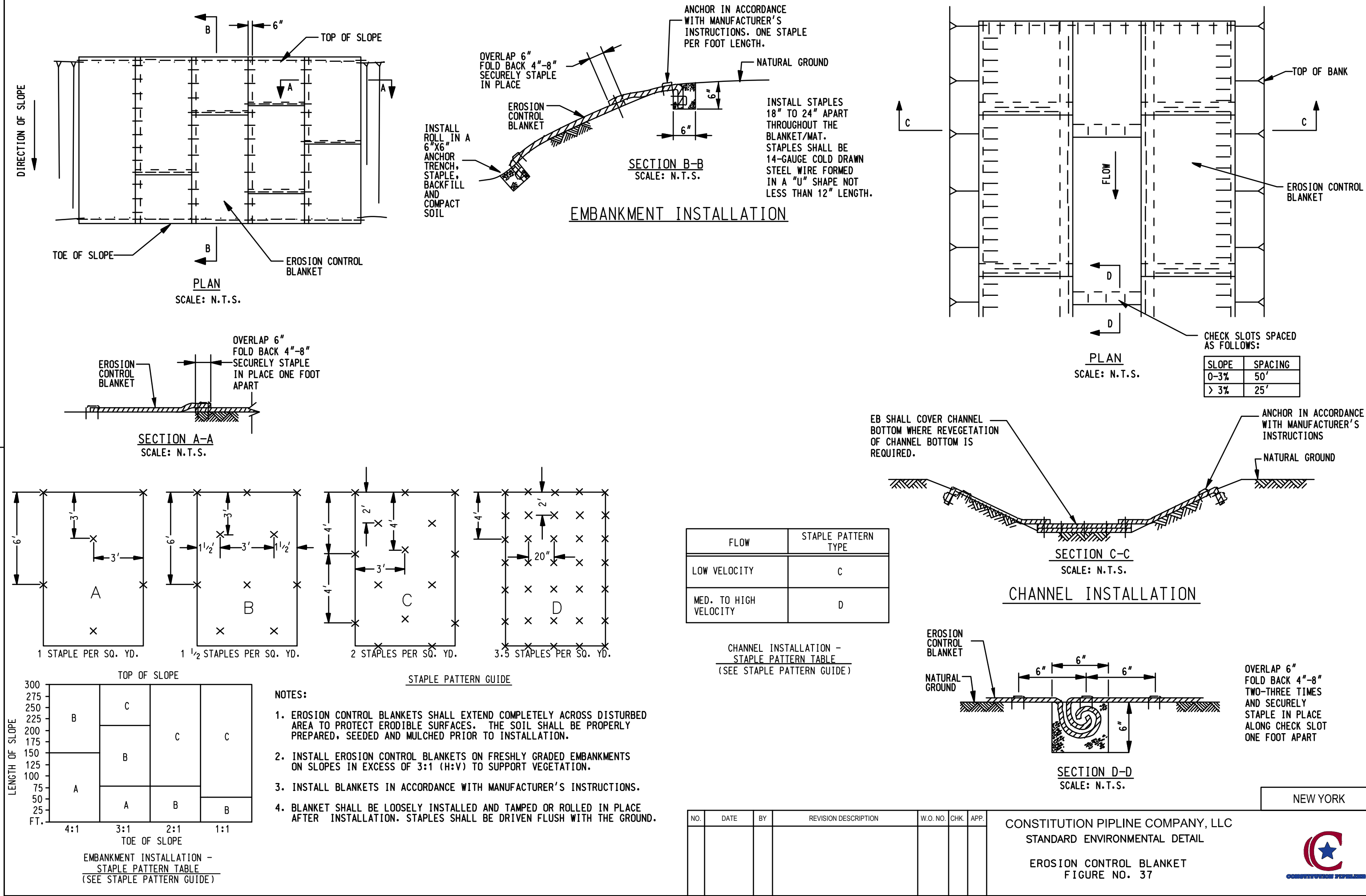


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NEW YORK BEST MANAGEMENT PRACTICES

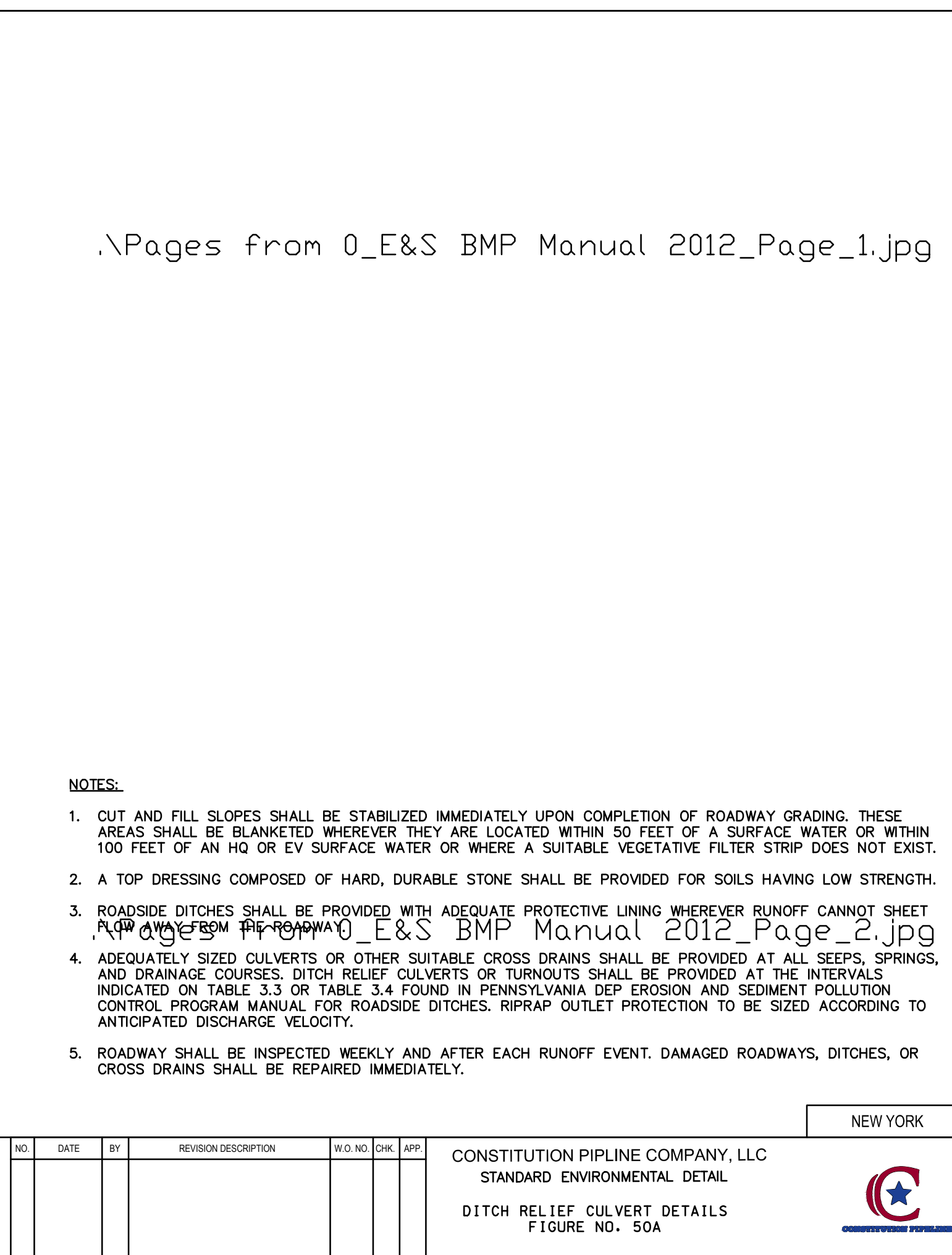
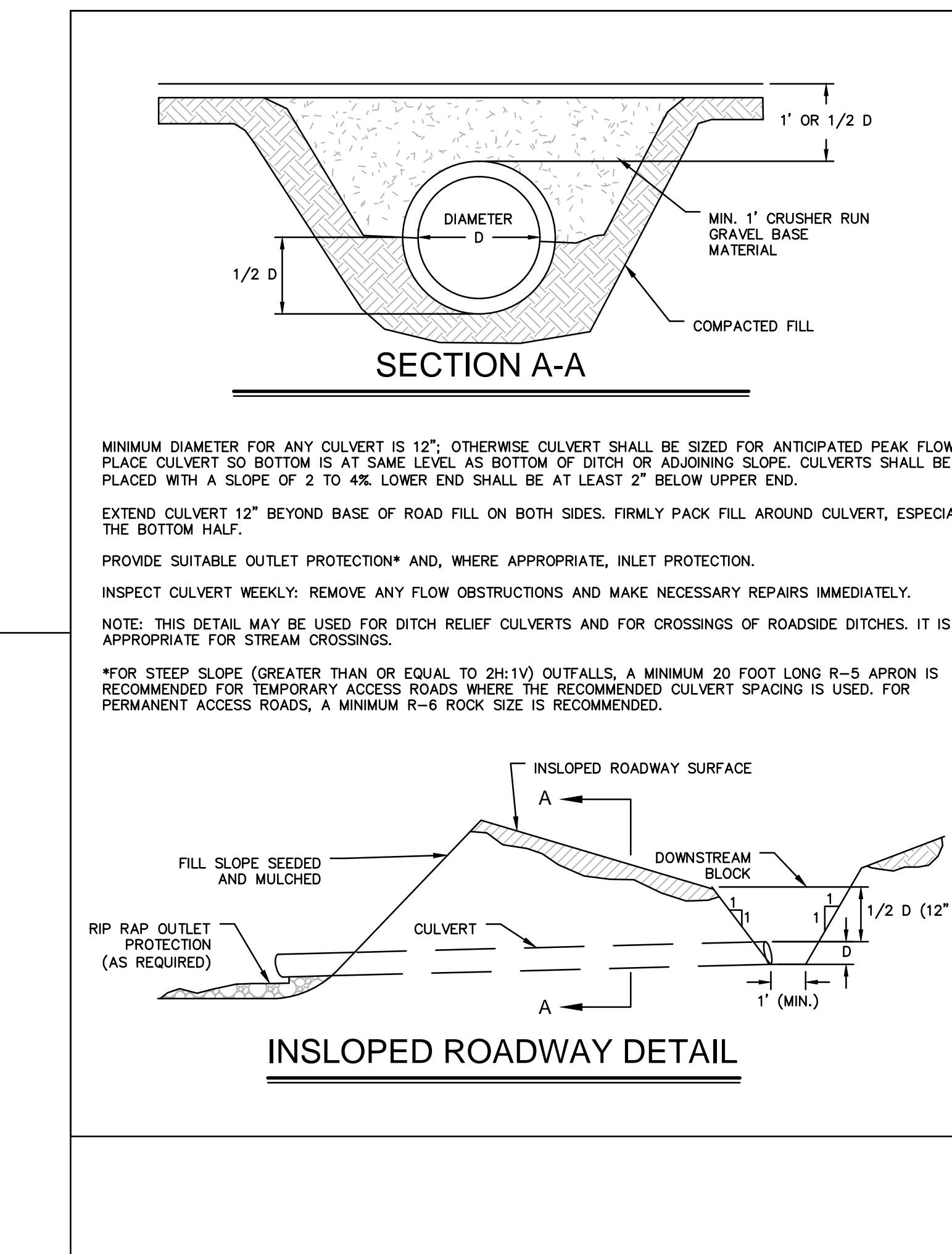
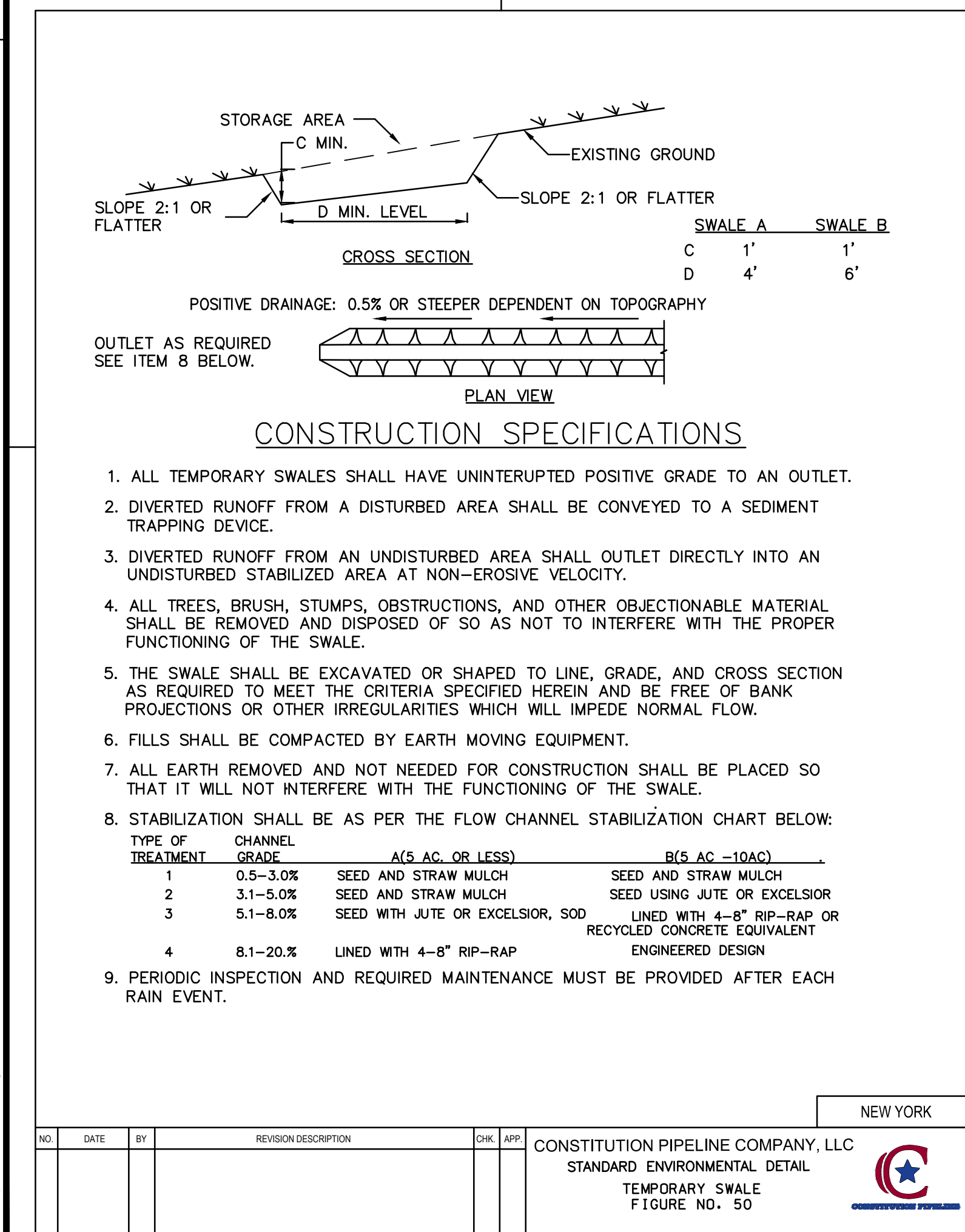
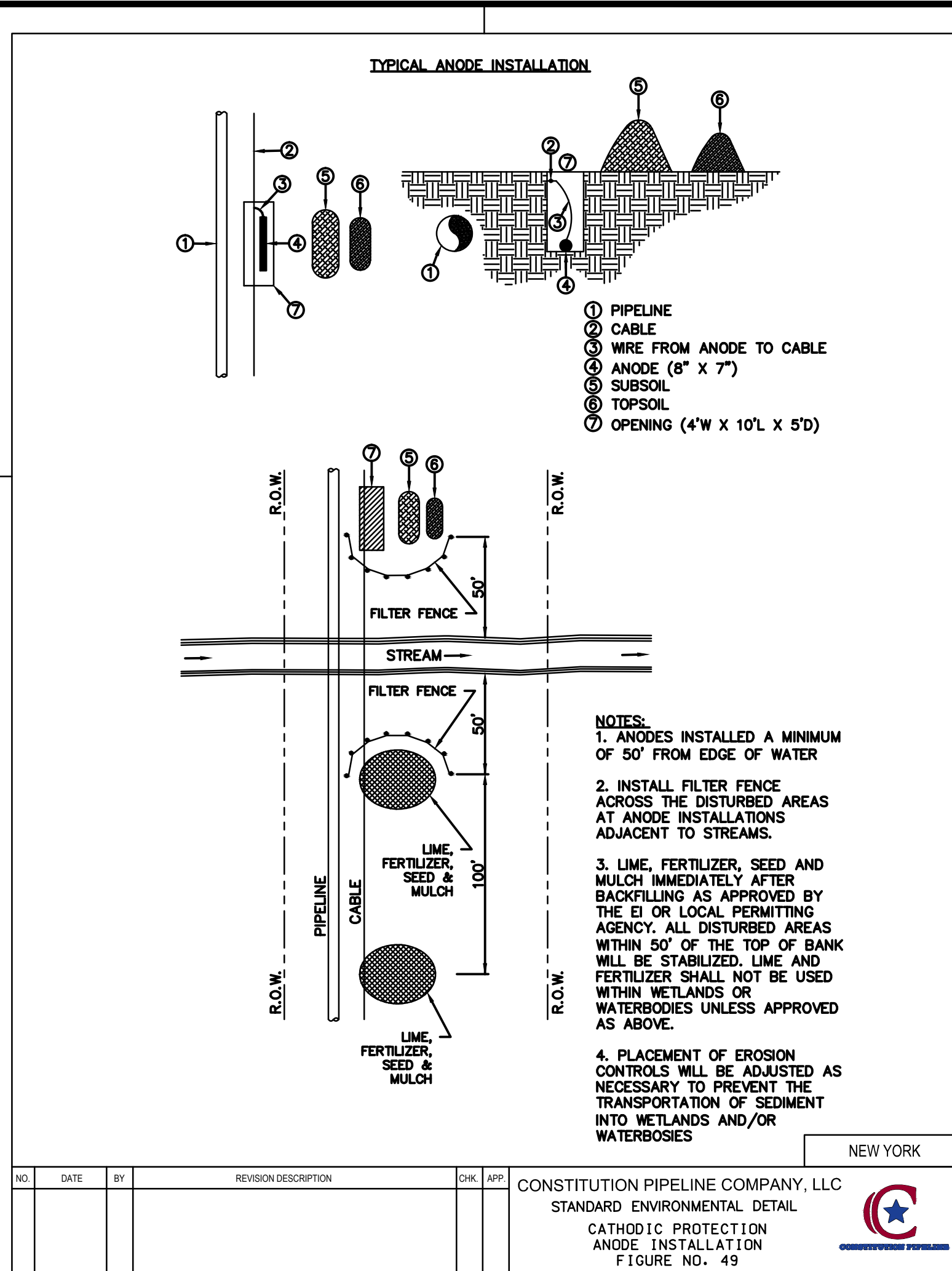
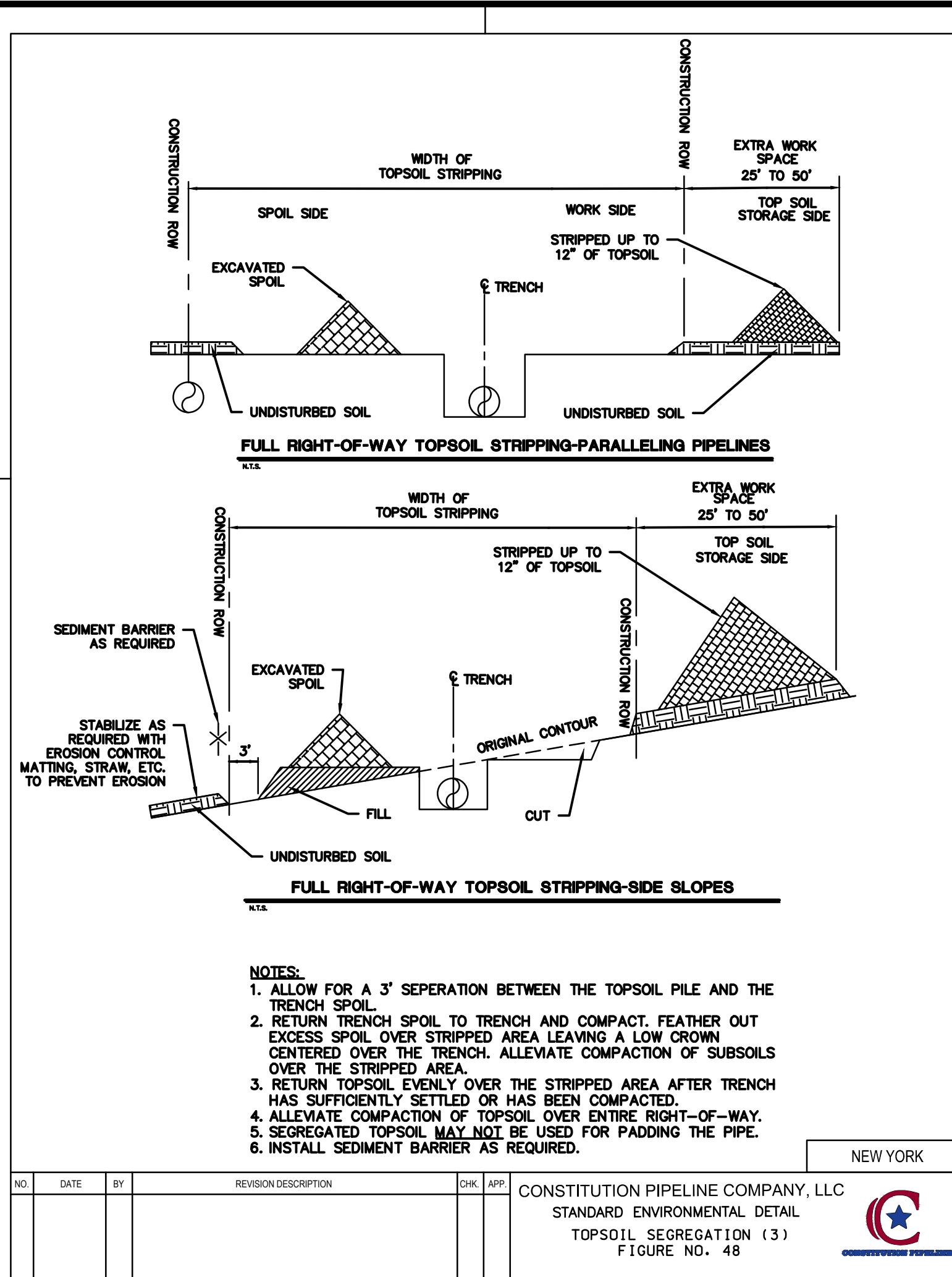
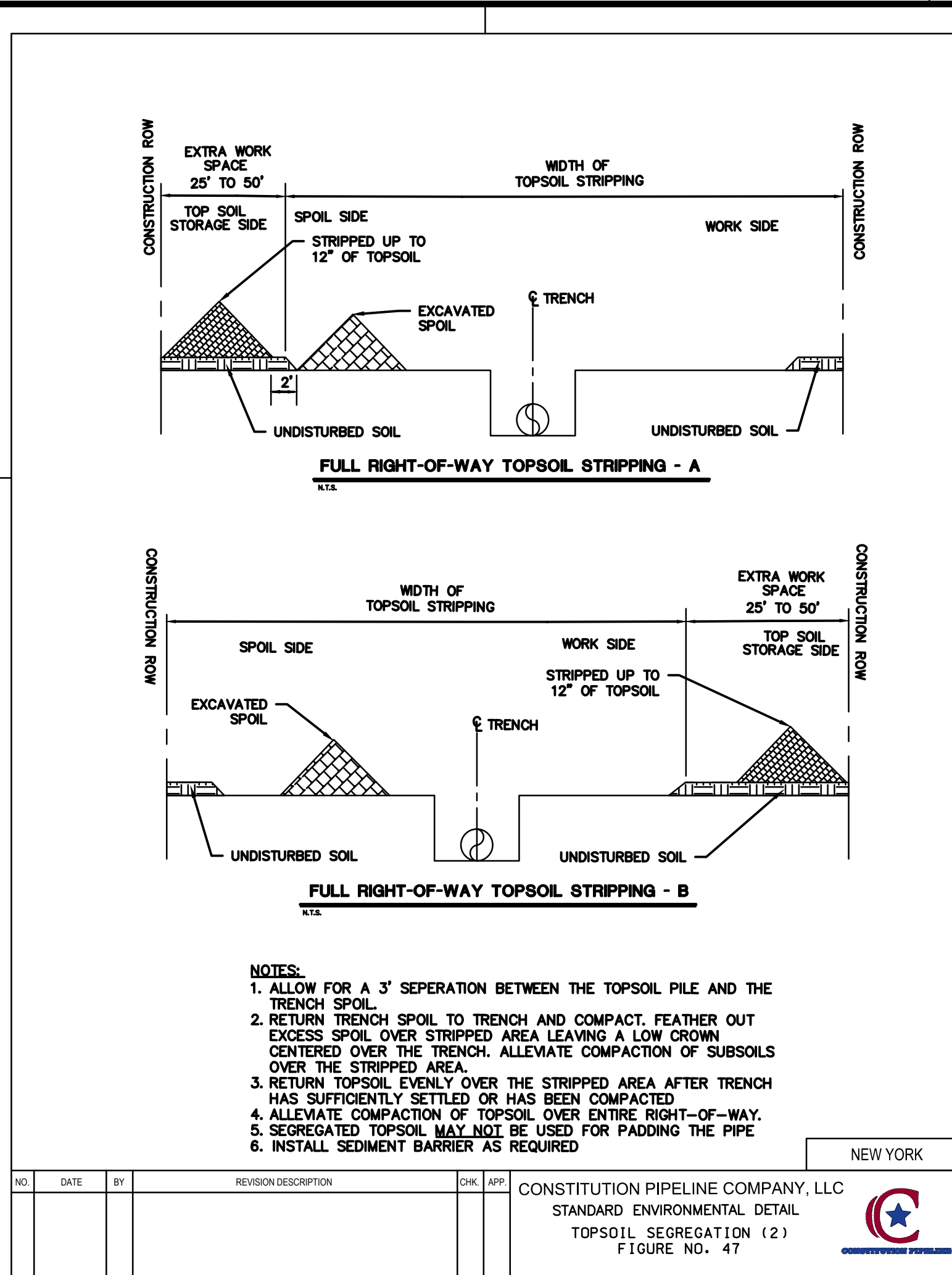
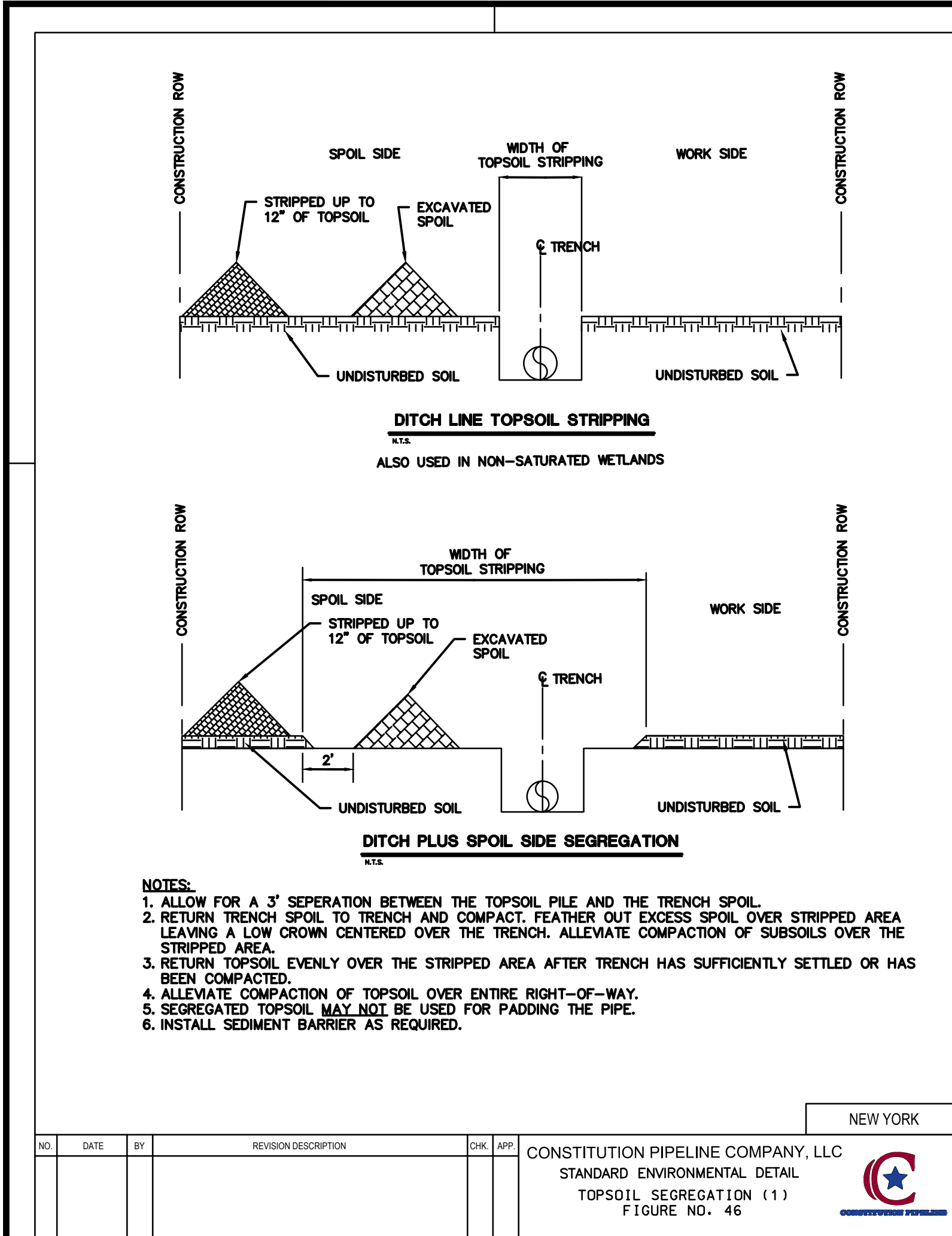


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DATE: 12/12/2013

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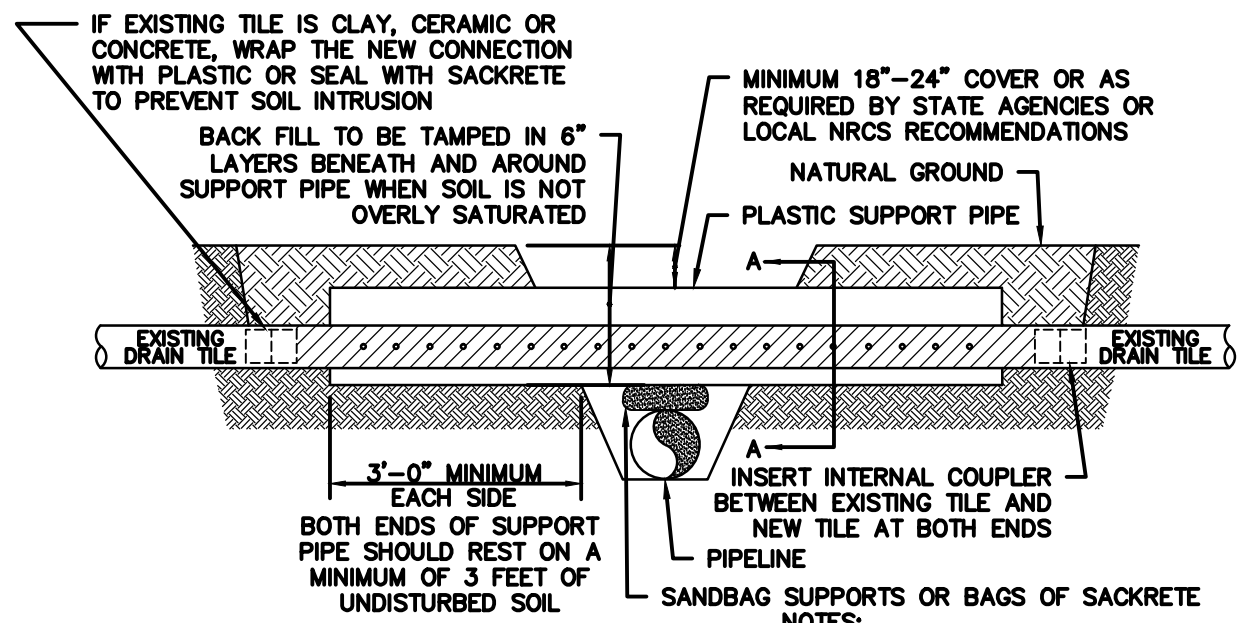
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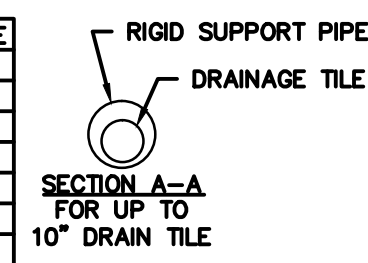
CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE



NEW YORK BEST MANAGEMENT PRACTICES



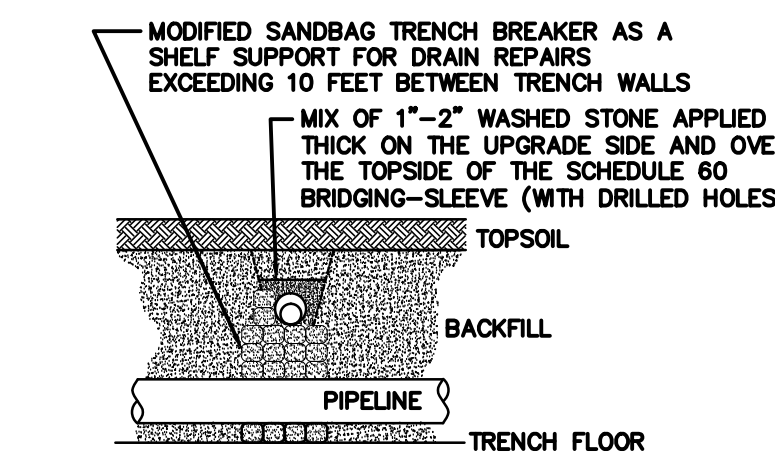
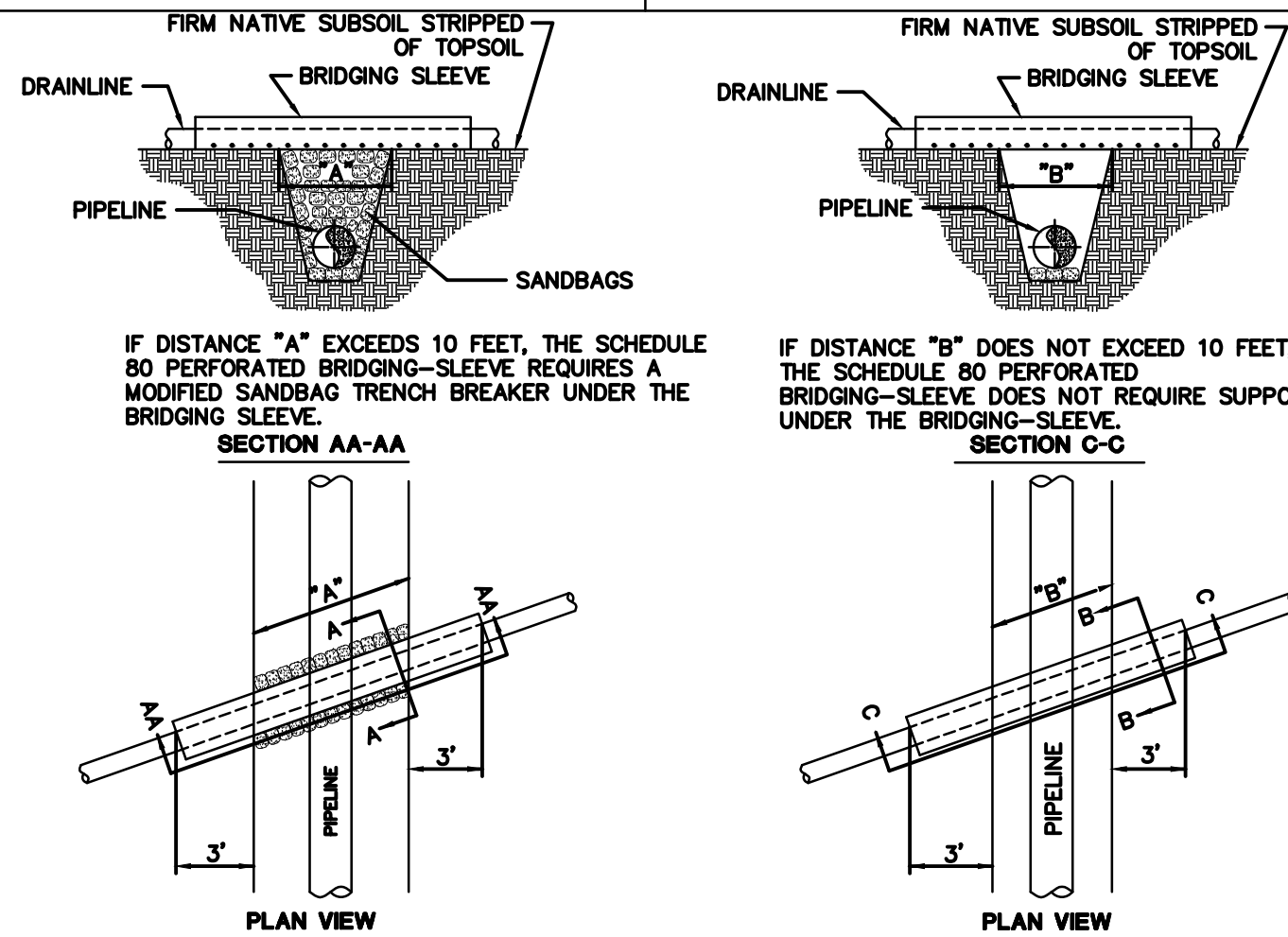
DRAINAGE TILE	SUPPORT SIZE
3" TO 5"	6" PIPE
6"	8" PIPE
7" TO 8"	10" PIPE
9" TO 10"	12" PIPE
12"	W12 X 14
15" TO 18"	W16 X 26
OVER 18"	W18 X 46



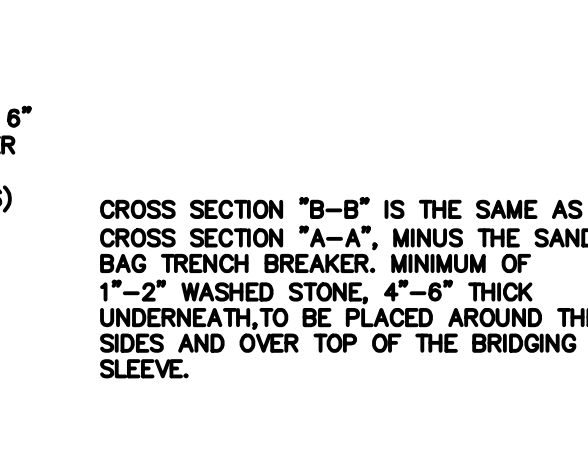
- NOTES:
1. SUPPORT PIPE TO BE OF 0.250" WALL THICKNESS OR HEAVIER. WHERE THE SUPPORT PIPE IS OVER 30' IN LENGTH OR IN SATURATED AREAS, PERFORATIONS TO THE SUPPORT PIPE MAY BE REQUESTED.
 2. REPLACEMENT TILE TO BE HEAVY DUTY HIGHWAY GRADE PERFORATED PLASTIC DRAIN TUBING (ADS TYPE N-12) CONFORMING TO THE AASHTO M.252 SPECIFICATION.
 3. IF THE TRENCH WIDTH EXCEEDS 10 FEET, SUFFICIENT STABILITY SHALL BE PROVIDED TO THE SUPPORT PIPE TO PREVENT SAGGING.

- NOTE:
1. CLEAN OUT DRAIN TILES TO THE PERMANENT R.O.W. LIMITS ON THE BACKFILL SIDE AND TO THE TEMPORARY R.O.W. LIMIT ON THE WORKING SIDE.
 2. REPLACE DAMAGED TILES AND REPAIR TILES AND JOINTS THAT REQUIRE WORK AND ARE WITHIN THE AREAS OF CONSTRUCTION ACTIVITIES.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPICAL DRAIN TILE REPAIR ACROSS TRENCH (1) FIGURE NO. 51		

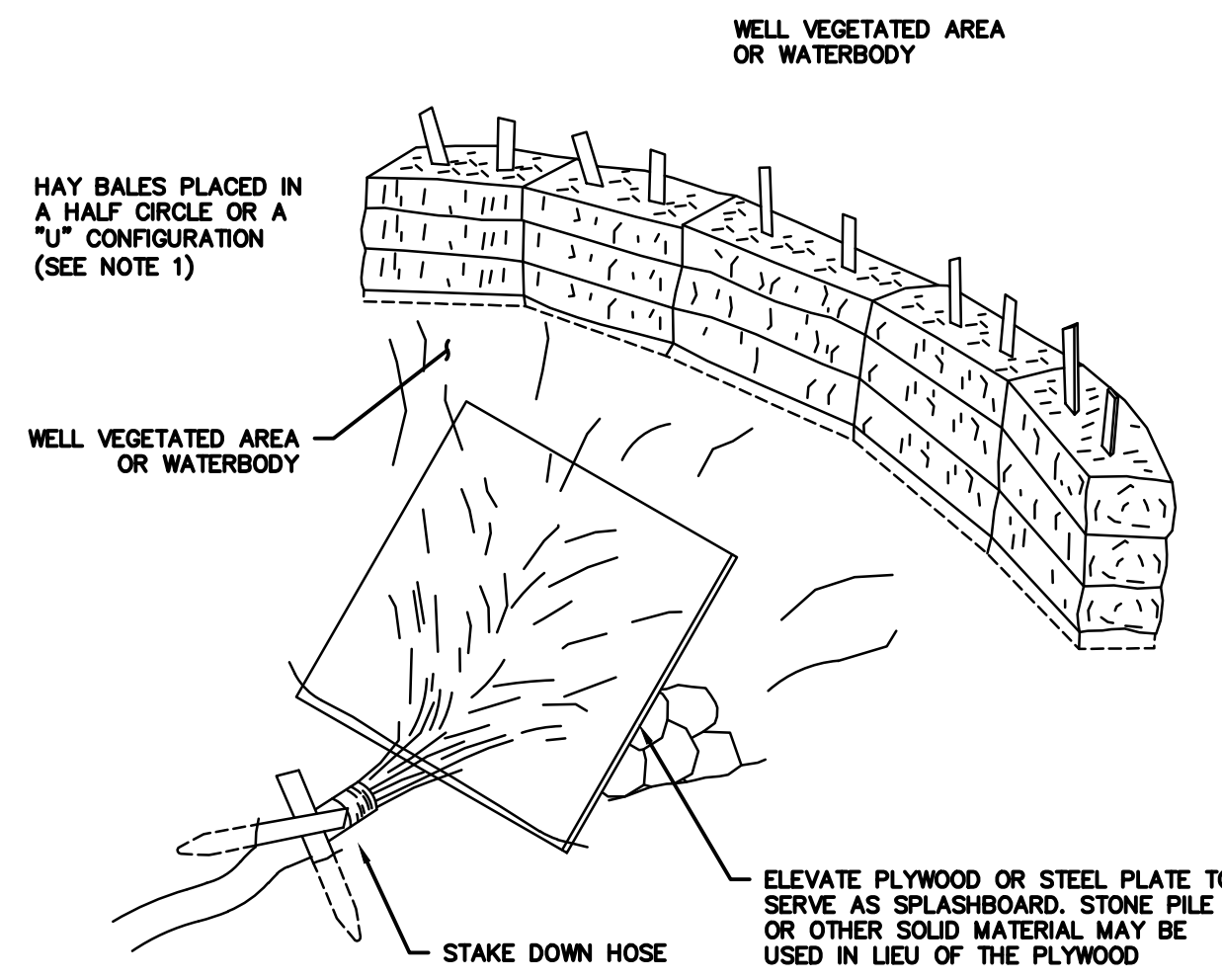


- NOTE: IF THE REPAIR OF THE SEVERED DRAINLINE CROSSES THE PIPELINE TRENCH AT AN ANGLE REQUIRING MORE THAN 20' OF BRIDGING-SLEEVE BETWEEN THE FARTHEST ENDS OF THE FIRM SHELVES, MODIFY THE CROSSING ANGLE TO SHORTEN THE TOTAL LENGTH OF THE CROSSING AND THEN TIE TO THE EXISTING DRAIN TILE.



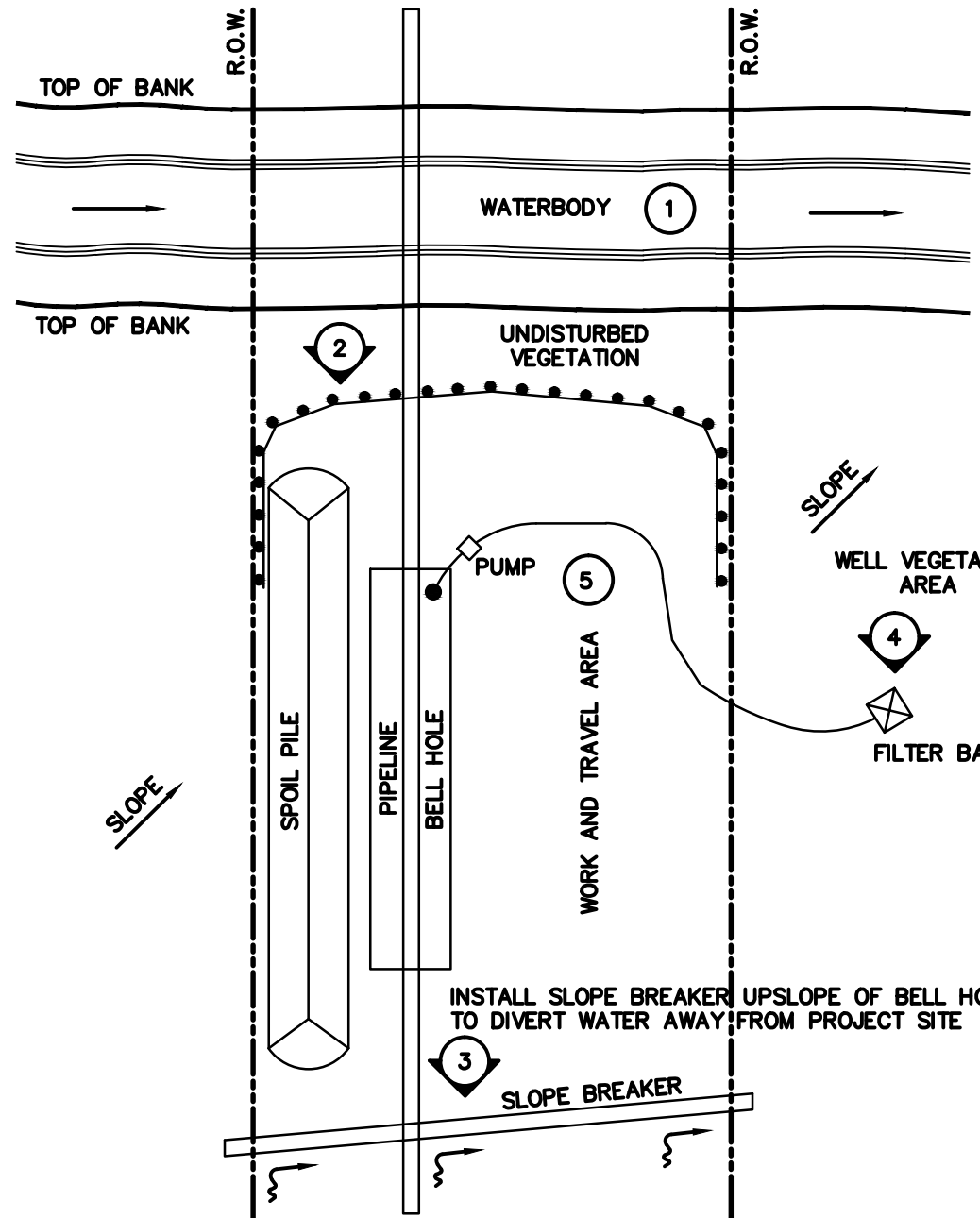
- NOTE: ALL DRAIN TILE REPAIRS CONSISTING OF PLASTIC PIPE SHALL CONFORM TO THE AASHTO M.252 SPECIFICATION.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPICAL DRAIN TILE REPAIR ACROSS TRENCH (2) FIGURE NO. 52		



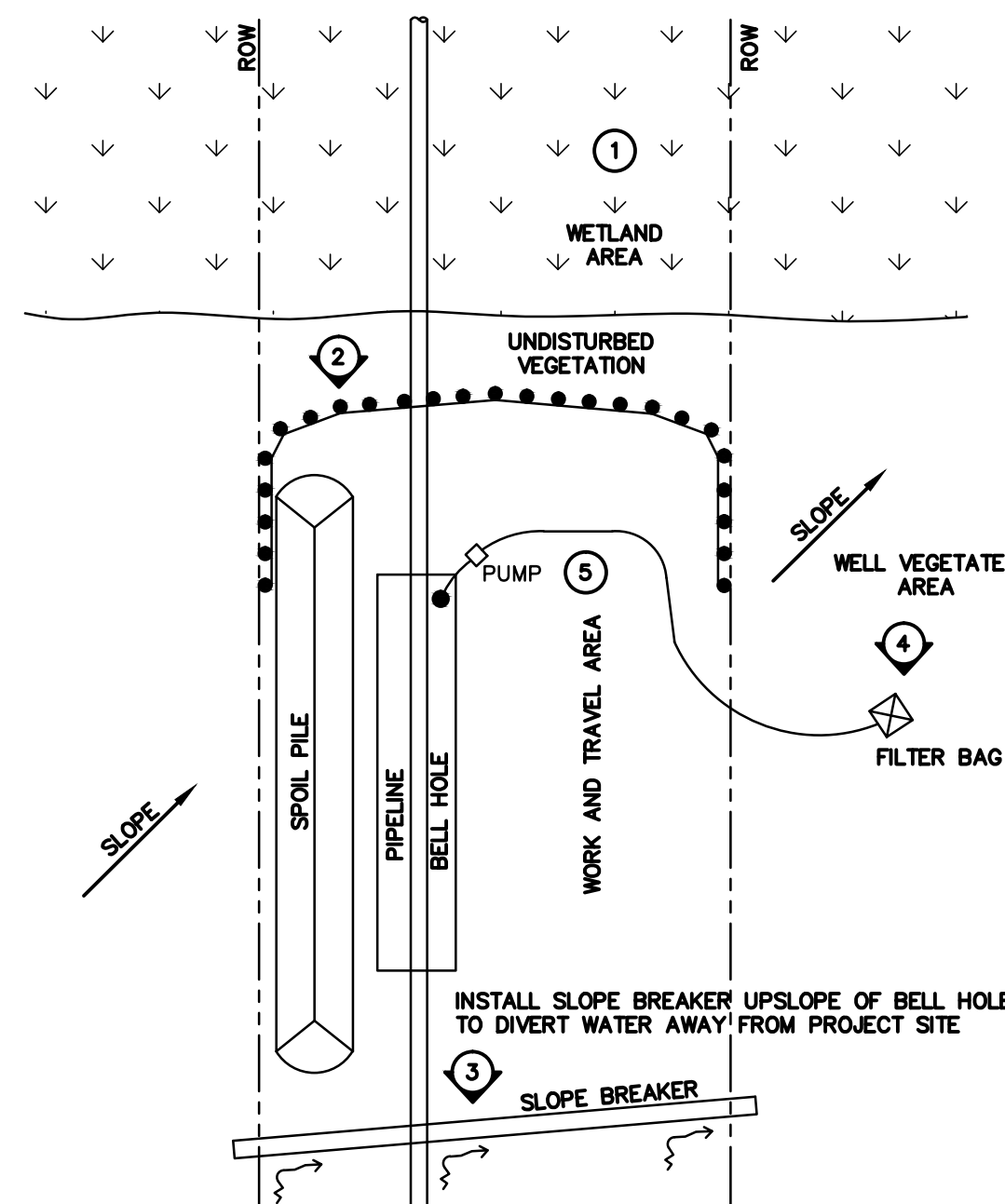
- NOTE:
1. THIS DISSIPATER MAY BE USED WITHIN A WATERBODY DURING A DAM AND PUMP DEWATERING OPERATION. THE HAYBALES WILL NOT BE INSTALLED IF UTILIZED IN A WATERBODY.
 2. THIS SHALL NOT BE USED WHEN TRENCH DEWATERING IS REQUIRED AND THERE IS SILT LADEN WATER THAT WILL DISCHARGE DIRECTLY INTO A WETLAND OR WATERBODY.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL ENERGY DISSIPATER FIGURE NO. 53		



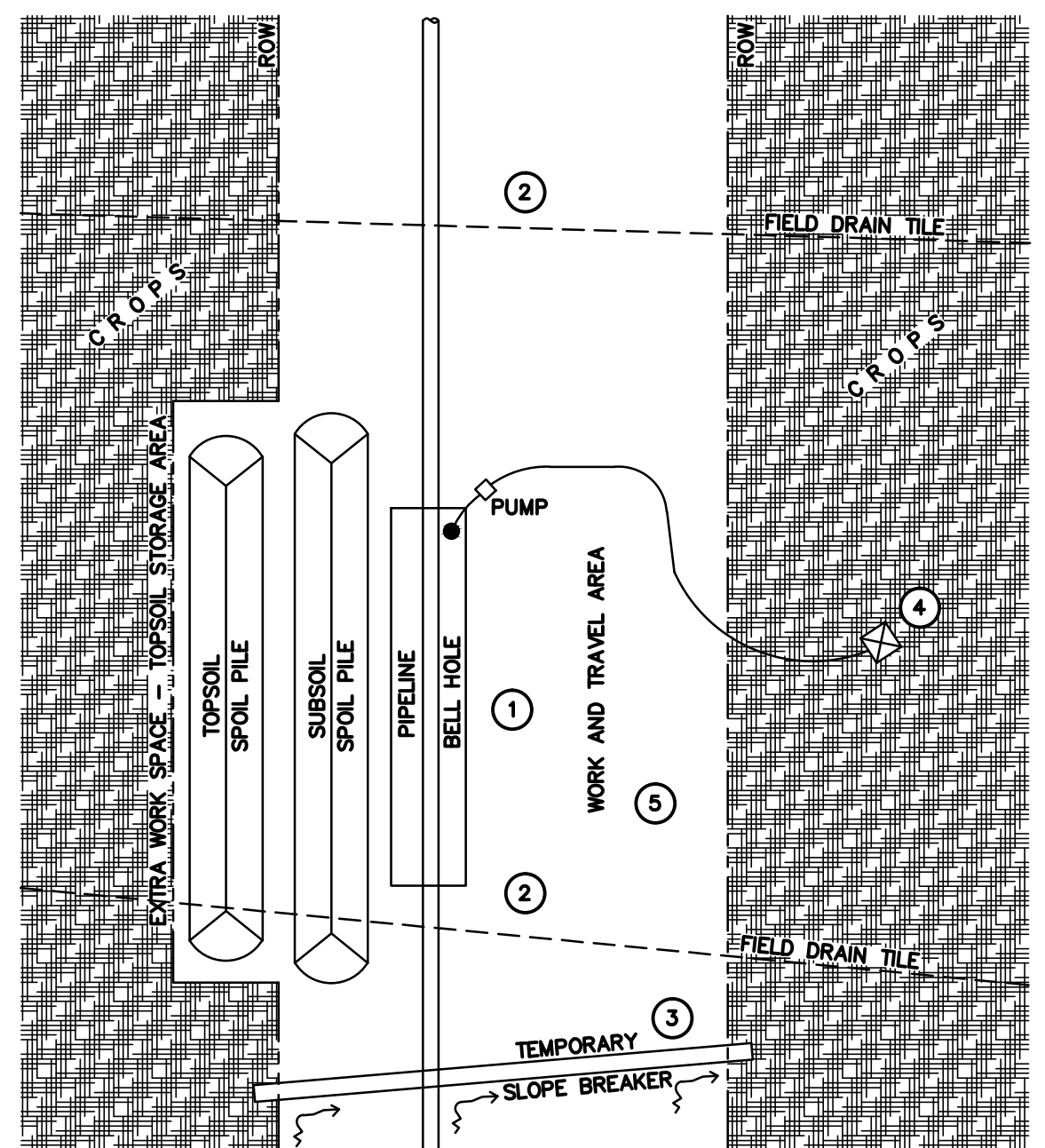
- NOTES:
1. (IF NEEDED) EQUIPMENT CROSSING, SEE CROSSING DETAILS FOR PROPER INSTALLATION
 2. SEDIMENT BARRIER
 3. SLOPE BREAKER
 4. BELL HOLE DEWATERING OUTLET, SEE TRENCH DEWATERING DETAILS FOR PROPER METHODOLOGY
 5. LIME, FERTILIZE, SEE AND MULCH ALL DISTURBED AREAS IMMEDIATELY AFTER BACKFILLING AS APPROVED BY THE EI OR LOCAL PERMITTING AGENCY. LIME AND FERTILIZER SHALL NOT BE USED WITHIN WETLANDS OR WATERBODIES UNLESS APPROVED AS NOTED ABOVE.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL BELL HOLE NEXT TO WATERBODY FIGURE NO. 54		



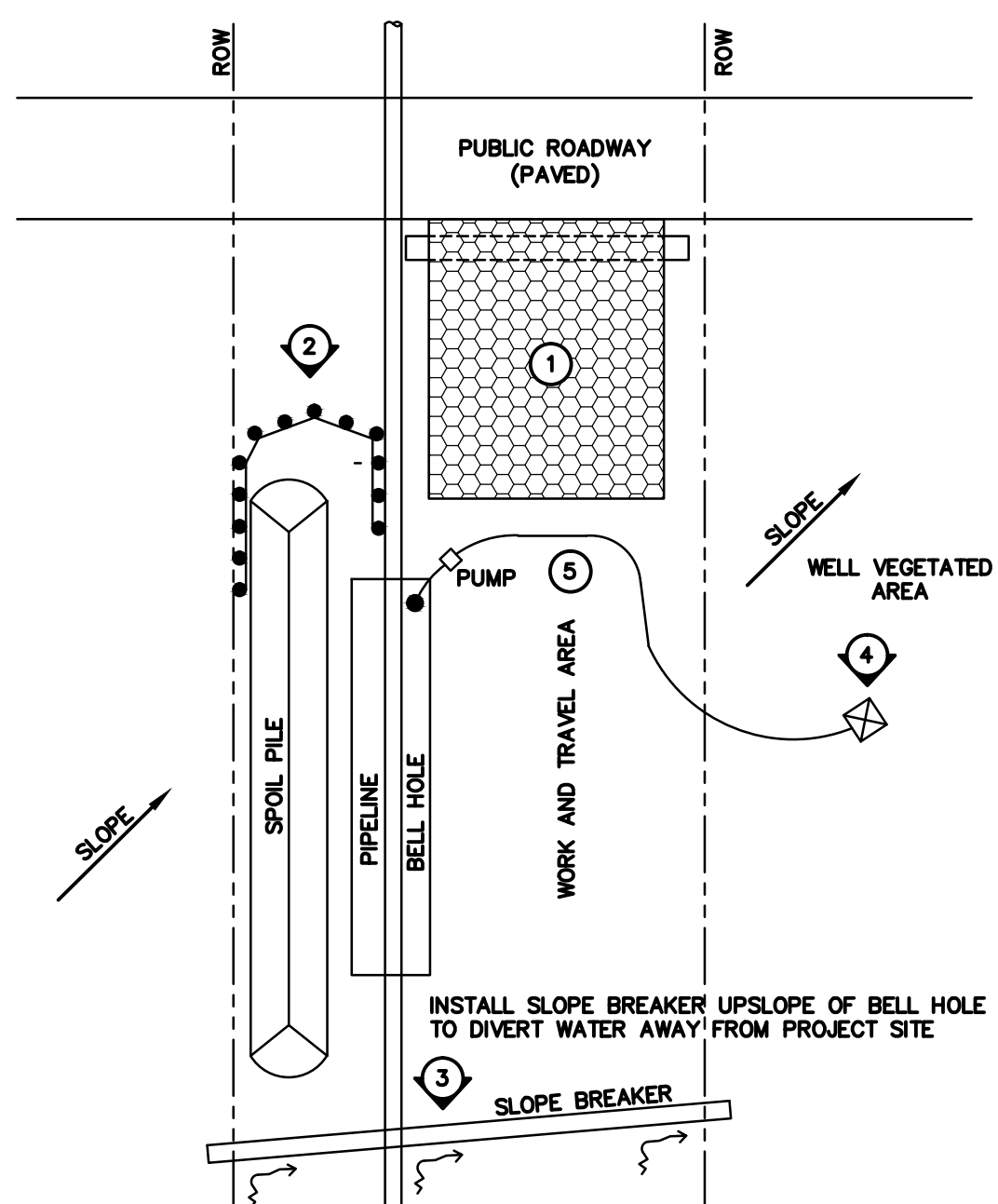
- NOTES:
1. (IF NEEDED) EQUIPMENT CROSSING, SEE CROSSING DETAILS FOR PROPER INSTALLATION
 2. SEDIMENT BARRIER
 3. SLOPE BREAKER
 4. BELL HOLE DEWATERING OUTLET, SEE TRENCH DEWATERING DETAILS FOR PROPER METHODOLOGY
 5. LIME, FERTILIZE, SEED AND MULCH ALL DISTURBED AREAS IMMEDIATELY AFTER BACKFILLING AS APPROVED BY RGE EI OR LOCAL PERMITTING AGENCY. LIME AND FERTILIZER SHALL NOT BE USED WITHIN WETLANDS OR WATERBODIES UNLESS APPROVED AS NOTED ABOVE.

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL BELL HOLE NEXT TO WETLAND FIGURE NO. 55		



- NOTES:
1. FULL RIGHT OF WAY TOPSOIL SEGREGATION
 2. DRAIN TILE, REPAIR AS REQUIRED.
 3. (IF NEEDED) TEMPORARY SLOPE BREAKER
 4. BELL HOLE DEWATERING OUTLET, SEE TRENCH DEWATERING DETAILS FOR PROPER METHODOLOGY
 5. SOIL COMPACTION MITIGATION, SEE DECOMPACTION PLAN FOR PROPER PROCEDURE

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL BELL HOLE NEXT TO AGRICULTURAL FIELD FIGURE NO. 56		



- NOTES:
1. CONSTRUCTION ENTRANCE
 2. SEDIMENT BARRIER
 3. SLOPE BREAKER
 4. BELL HOLE DEWATERING OUTLET, SEE TRENCH DEWATERING DETAILS FOR PROPER METHODOLOGY
 5. LIME, FERTILIZE, SEED AND MULCH ALL DISTURBED AREAS IMMEDIATELY AFTER BACKFILLING

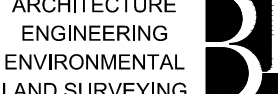
NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL BELL HOLE NEXT TO PAVED ROADWAY FIGURE NO. 57		

CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE

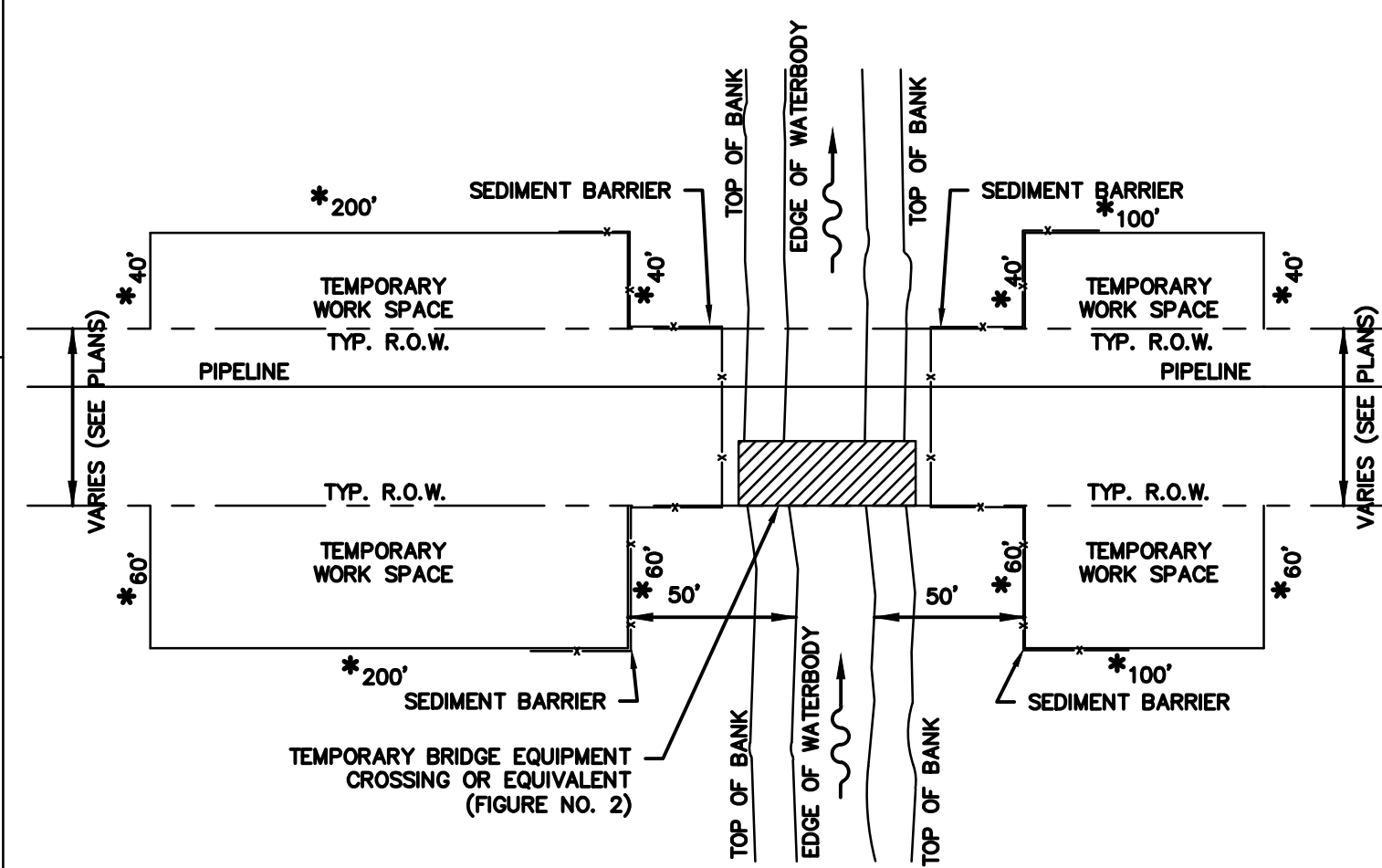


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							W.O.					

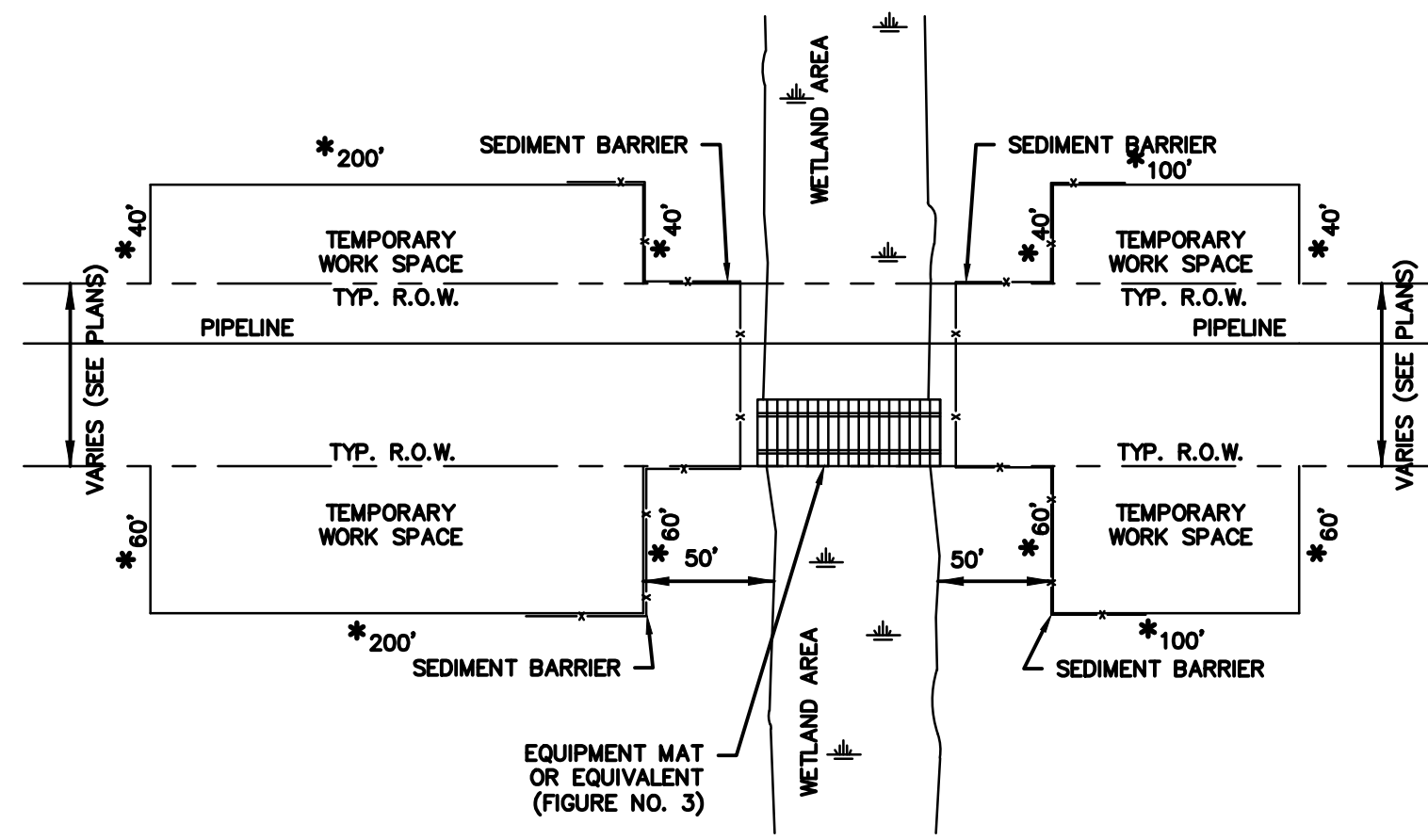


* FOOTAGES SHOWN ARE FOR EXAMPLE PURPOSES ONLY. ACTUAL EXTRA WORK SPACE AREAS WILL VARY DEPENDING ON INDIVIDUAL PROJECTS.

- NOTES:
- 1) ALL EXTRA WORK SPACES SHALL BE LOCATED AT LEAST 50 FEET FROM THE WATERS EDGE, EXCEPT WHERE THE ADJACENT UPLAND CONSISTS OF ACTIVELY CULTIVATED OR ROTATED CROPLAND OR OTHER DISTURBED LAND.
 - 2) THE CONSTRUCTION ROW SHALL BE LIMITED TO 75 FT WIDE WITHIN 50 FT FROM THE WATERS EDGE UNLESS APPROVED OTHERWISE ON THE CERTIFICATE.

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPICAL EXTRA WORK SPACES AT WATERBODY CROSSINGS FIGURE NO. 58		

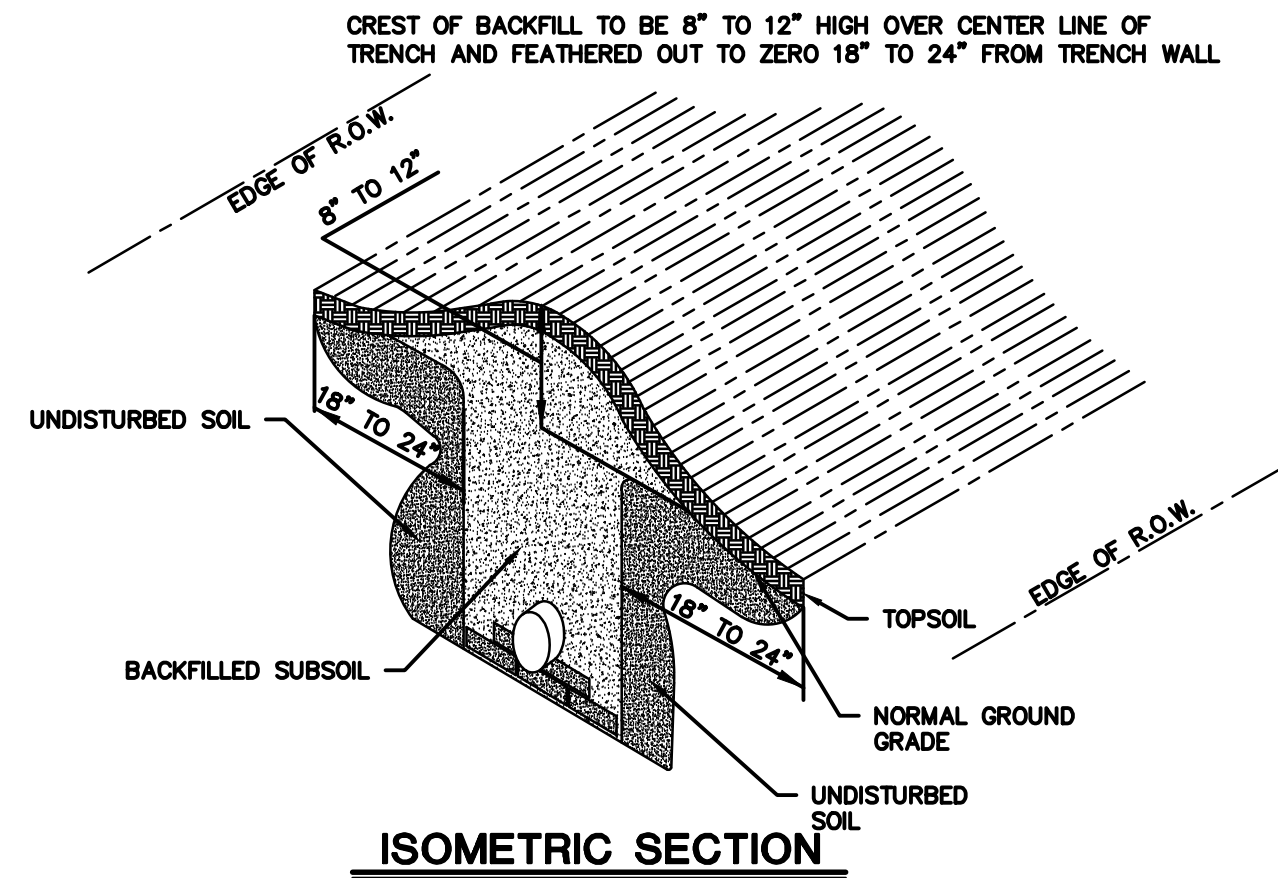


* FOOTAGES SHOWN ARE FOR EXAMPLE PURPOSES ONLY. ACTUAL EXTRA WORK SPACE AREAS WILL VARY DEPENDING ON INDIVIDUAL PROJECTS.

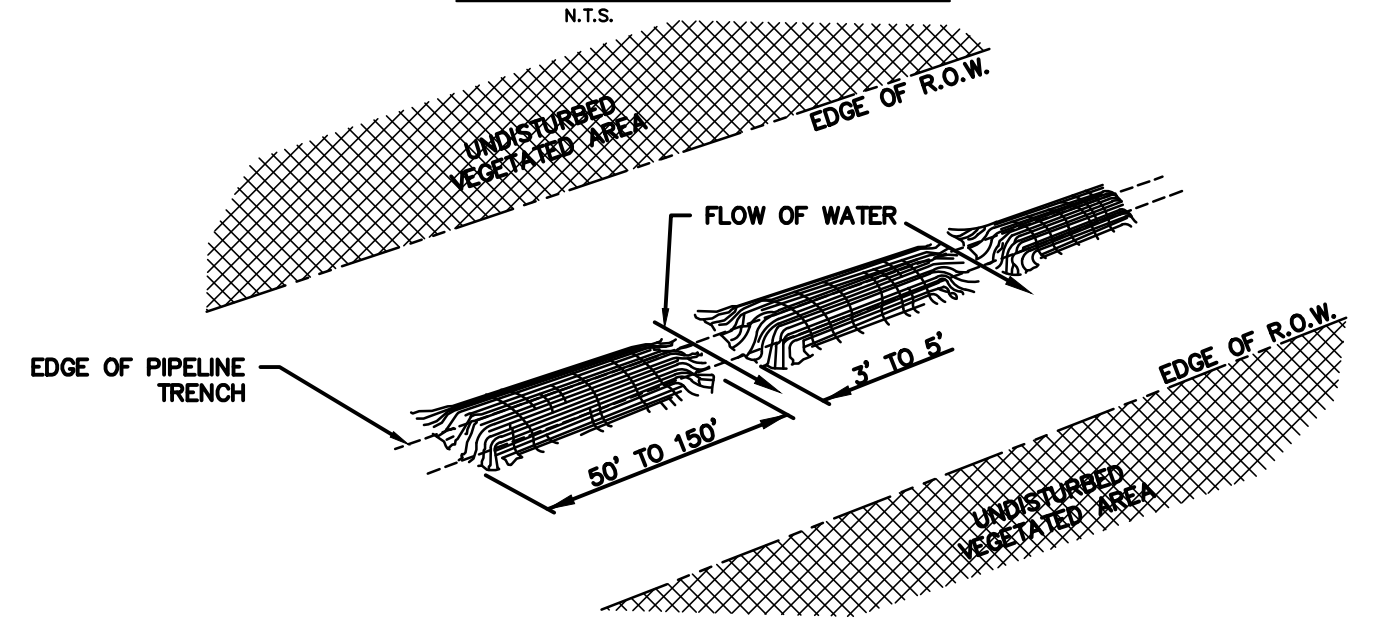
- NOTES:
- 1) ALL EXTRA WORK SPACES SHALL BE LOCATED AT LEAST 50 FEET FROM THE EDGE OF WETLAND, EXCEPT WHERE THE ADJACENT UPLAND CONSISTS OF ACTIVELY CULTIVATED OR ROTATED CROPLAND OR OTHER DISTURBED LAND.
 - 2) THE CONSTRUCTION ROW SHALL BE LIMITED TO 75 FT WIDE WITHIN 50 FT FROM THE EDGE OF WETLANDS UNLESS APPROVED OTHERWISE ON THE CERTIFICATE.

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPICAL EXTRA WORK SPACES AT WETLAND CROSSINGS FIGURE NO. 58A		



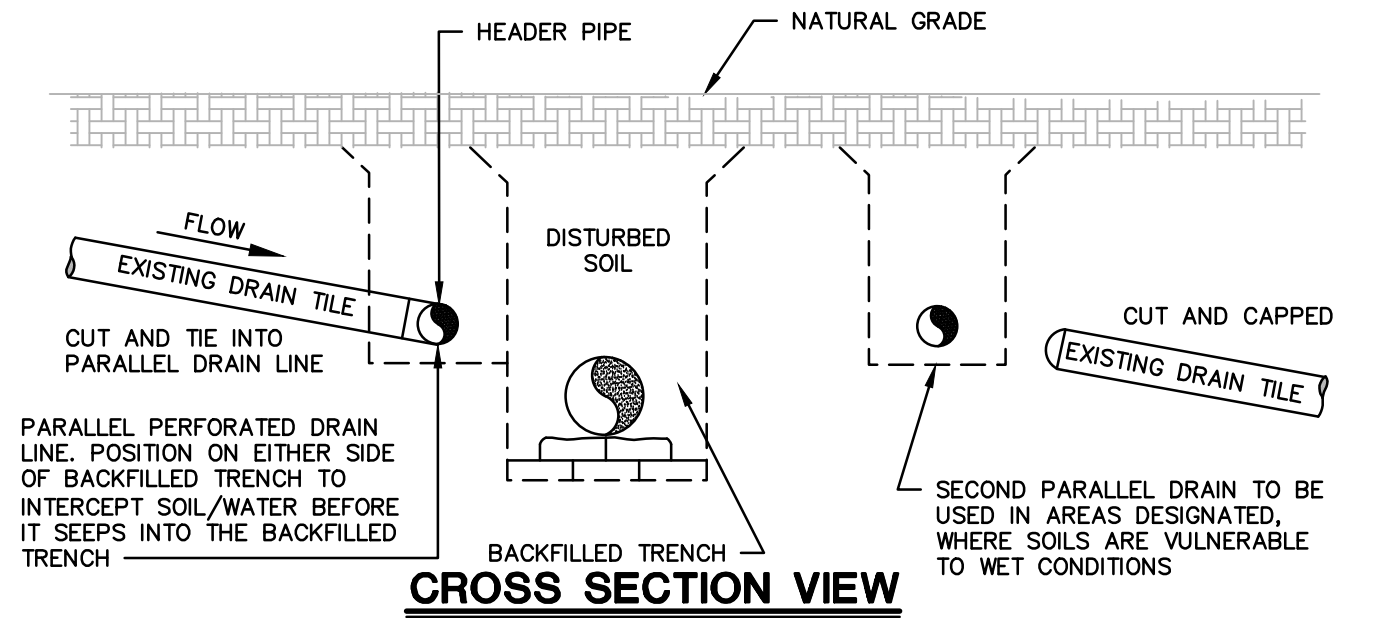
ISOMETRIC SECTION



ISOMETRIC VIEW

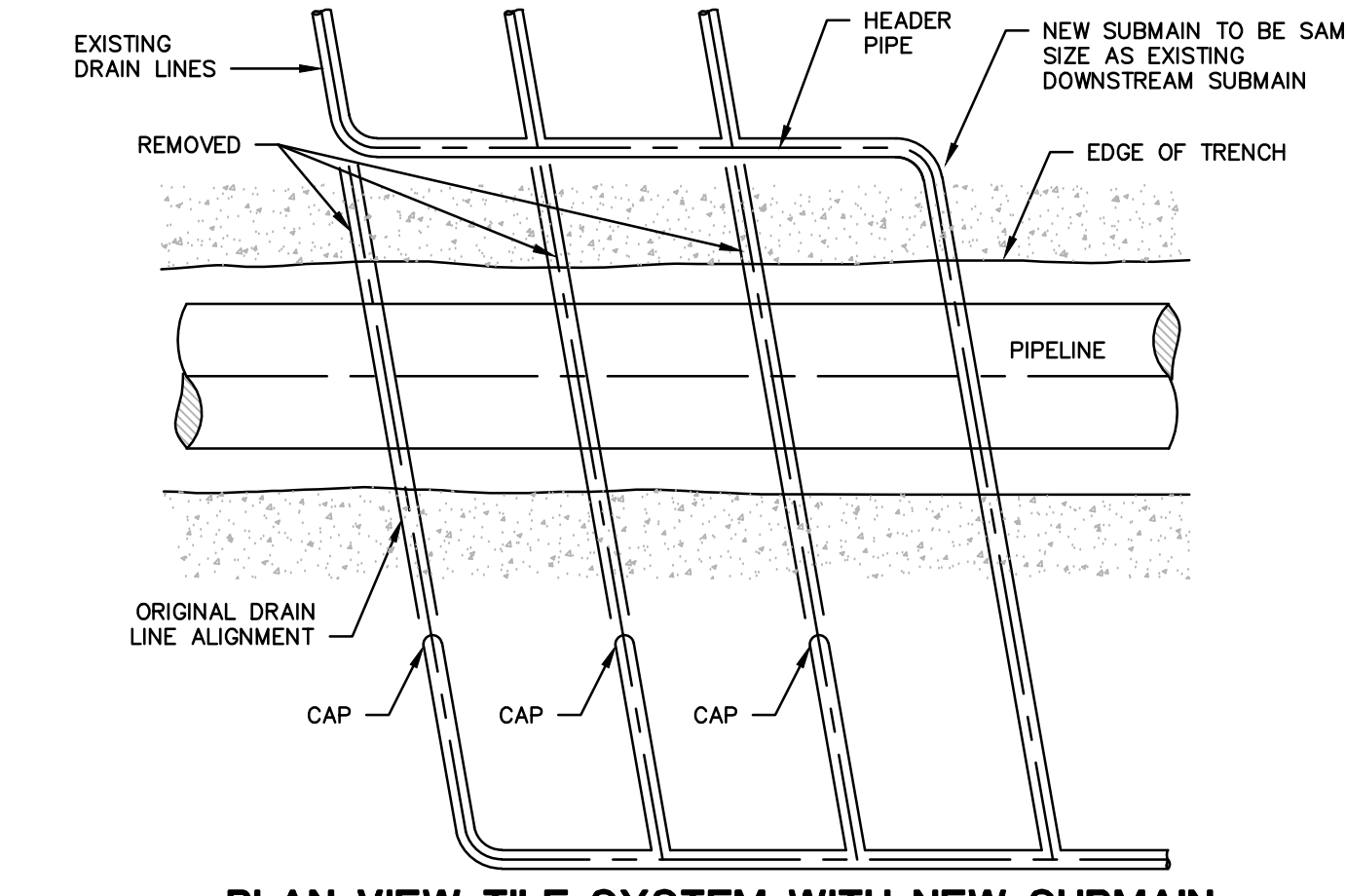
NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL RIGHT-OF-WAY CROWNING FIGURE NO. 59		



CROSS SECTION VIEW

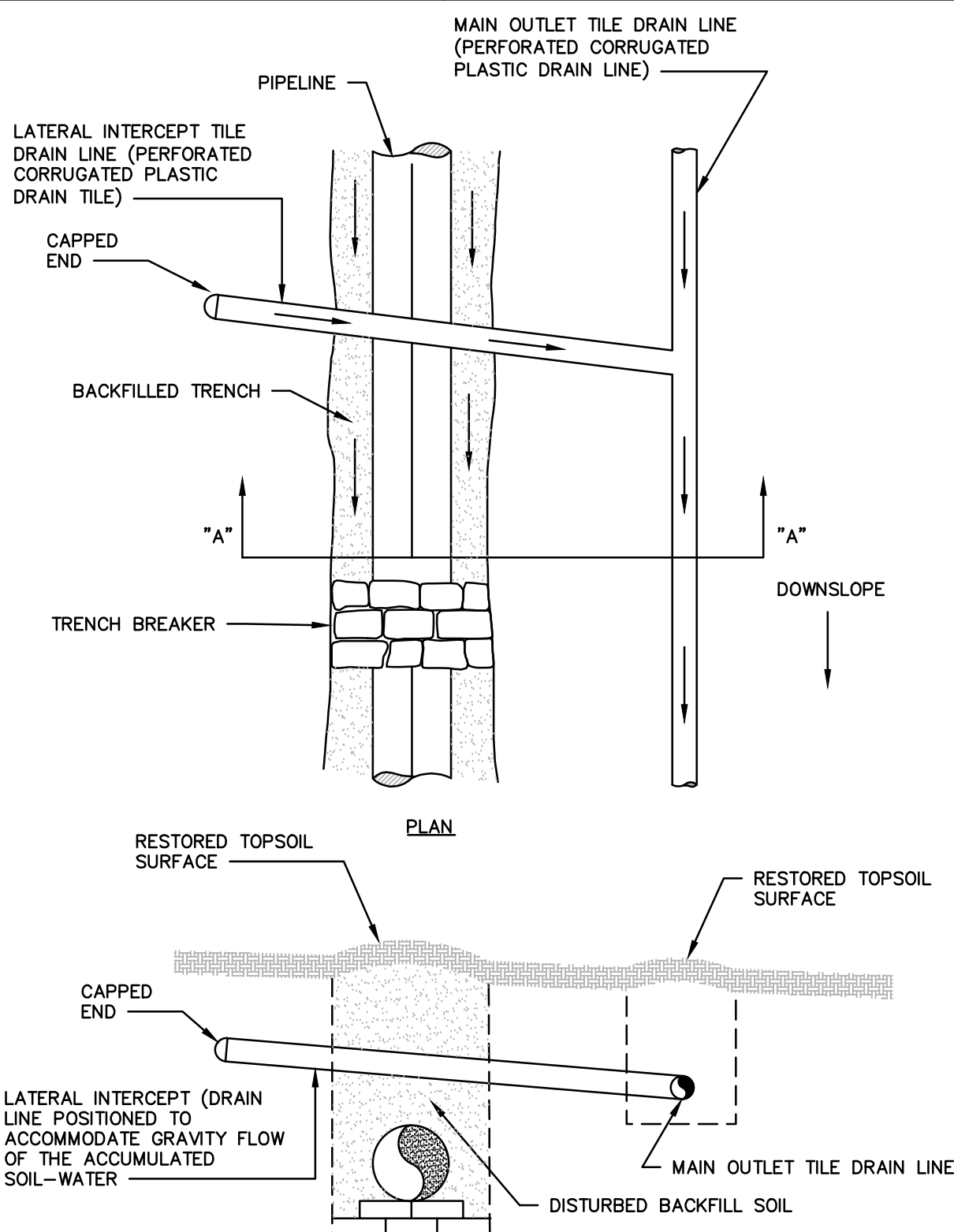
- NOTE:
1. PARALLEL DRAINAGE TILE INSTALLATION TO BE APPROVED FOR SITE SPECIFIC AGRICULTURAL SOILS WHERE REPAIR OF EXISTING CROSS TILES WOULD BE LESS EFFECTIVE FOR EXAMPLE:
 - A. SHALLOW BEDROCK.
 - B. INTERFERENCE BY OTHER UTILITY LINES.
 - C. HEADER TO CLOSELY SPACED, SHALLOW TILES AND FRENCH DRAINS.



PLAN VIEW TILE SYSTEM WITH NEW SUBMAIN

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL PARALLEL/NEW SUBMAIN TILE INSTALLATION FIGURE NO. 60		

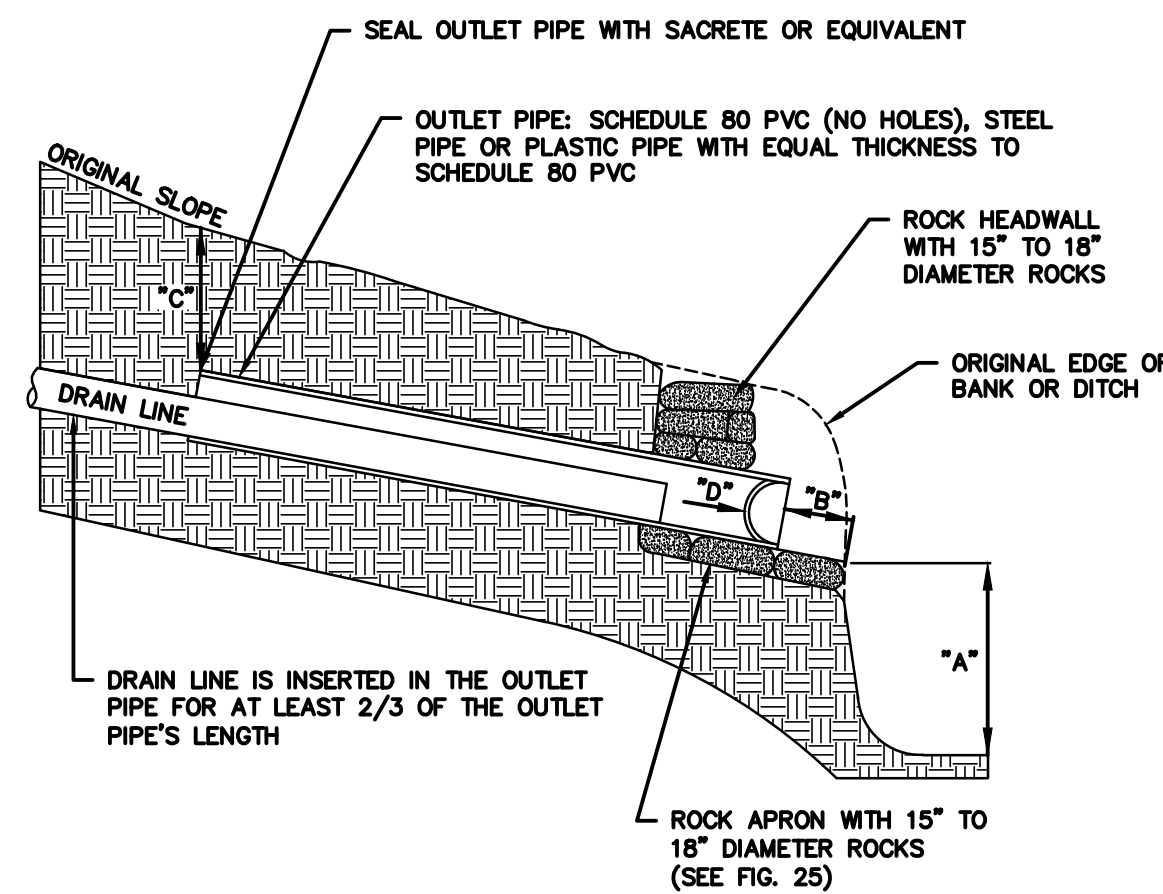


PROFILE - SECTION "A"- "A"

- NOTES:
1. TRENCH BREAKERS PREVENT GULLY EROSION WHILE THE TRENCH IS OPEN AND HELP INHIBIT WATER PIPING AND WATER BLOWOUTS DOWN THE COURSE OF THE PIPELINE AFTER BACKFILLING.
 2. INTERCEPT DRAIN LINES ABSORB THE WATER WHICH DRAIN NATURALLY FROM THE UNDISTURBED SOIL PROFILE INTO THE DISTURBED BACKFILL SOIL MATERIAL OF THE TRENCH. THE INTERCEPT DRAIN LINES HELP PREVENT SATURATED SOIL CONDITIONS.
 3. AGRICULTURAL CROPLAND MAY REQUIRE CROSS TRENCH DRAINAGE OR PARALLEL DRAINAGE.
 4. ALL DRAIN TILE REPAIRS CONSISTING OF PLASTIC PIPE SHALL CONFORM TO THE AASHTO M.252 SPECIFICATION.

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL LATERAL INTERCEPT DRAIN FIGURE NO. 61		

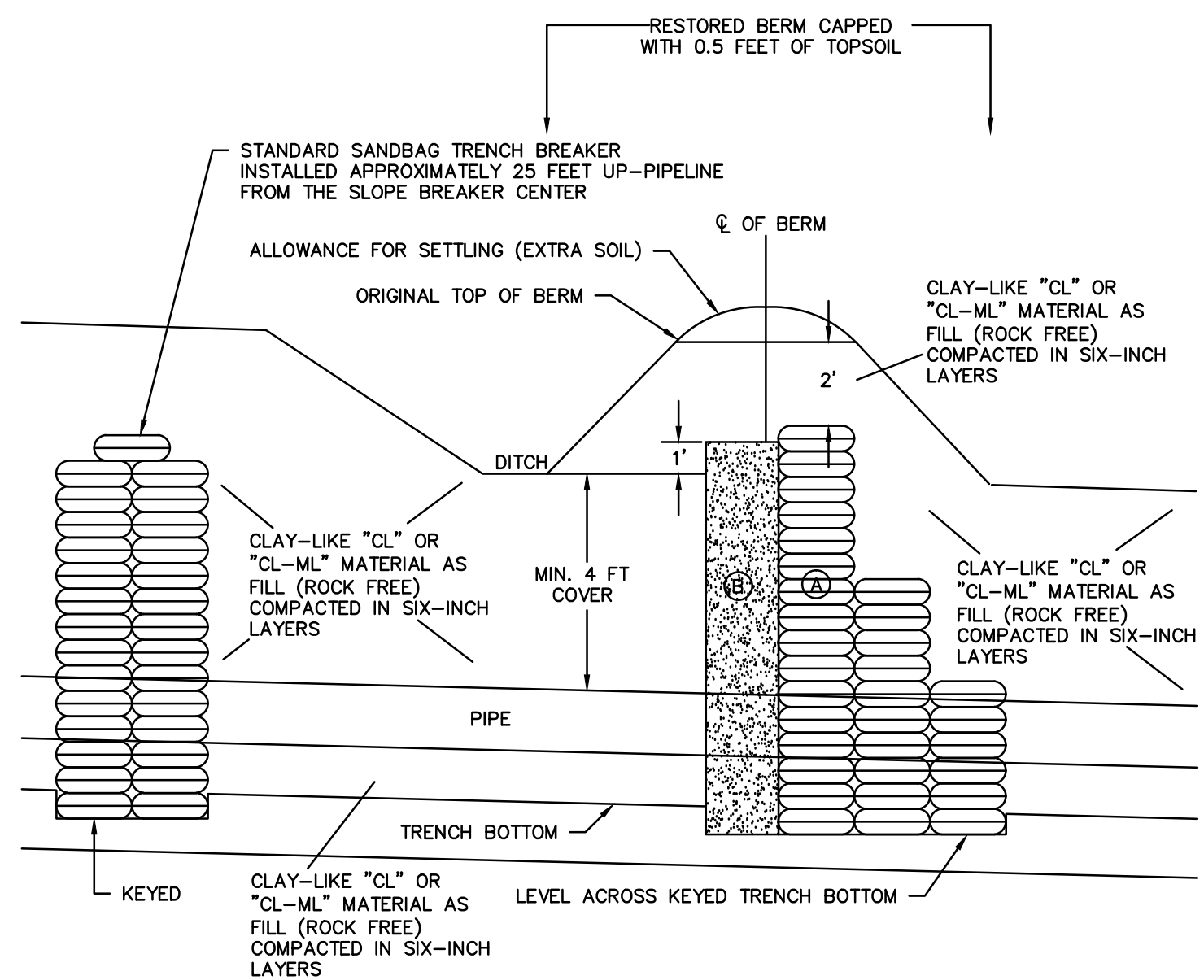


- "A" - THE FREE DROP OR OUTFALL DISTANCE OF THE DRAINAGE WATER TO ITS UNRESTRICTED (FREE) DAYLIGHT OUTLET. GUIDELINE IS 2 FEET BUT NOT LESS THAN 1 FOOT WITHOUT SPECIAL DESIGN APPROVAL.
- "B" - THE RECESS BACK FROM THE EDGE OF THE BANK OR DITCH OR OTHER POINT OF DAYLIGHT. GUIDELINE IS 2 FEET RECESSED BACK TO AVOID FUTURE DAMAGE.
- "C" - THE MINIMUM DEPTH OF COVER OVER THE DRAIN LINE AT WHICH THE OUTLET PIPE MUST BEGIN. THE MINIMUM IS 2 FEET.
- "D" - AN INTERNALLY HINGED ANIMAL (RODENT) GUARD. BOLTED FROM THE OUTSIDE. MOUNT THE GUARD 4"-6" BACK INSIDE THE OUTLET PIPE.

NOTE:
ALL DRAIN TILE REPAIRS CONSISTING OF PLASTIC PIPE SHALL CONFORM TO THE AASHTO M.252 SPECIFICATION.

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TYPICAL DRAIN TILE OUTLET FIGURE NO. 62		



NOTES:

1. ALL CLAY-LIKE "CL" OR "CL-ML" MATERIAL USED FOR SLOPE BREAKER RE-ENGINEERED REPAIR / RECONSTRUCTION WILL BE VERIFIED BY THE INSPECTOR TO ENSURE THE MATERIAL IS ROCK-FREE (NO STONES / ROCKS LARGER THAN 3-4 INCHES IN DIAMETER), AND DOES NOT CONTAIN ANY TOPSOIL NOR OTHER ORGANIC MATERIALS (E.G. CLUMPS OF SOD, TREE AND BRUSH ROOTS). THE CLAY-LIKE "CL" OR "CL-ML" MATERIAL SHALL BE COMPACTED AT ALL AREAS IN SIX-INCH LIFTS WHEN THE MATERIAL IS MOIST, NOT WET NOR DRY. THE MAJORITY OF COMPACTION SHALL BE ACHIEVED INSIDE THE TRENCH ZONE WITH A VIBRATORY JUMPER COMPACTION, AND MAY INCLUDE FINAL SURFACE COMPACTION OF BERM WITH A SHEEPSFOOT ROLLER.
- A. THE SANDBAG TRENCH BREAKER SHALL BE SNUGLY EMBLISHED WITH 3 BAGS ACROSS THE BOTTOM WIDTH AS WELL AS AROUND THE PIPE AND OTHER LOWER LAYERS TO MID-LEVEL, 2 BAGS WIDTH ABOVE MID-LEVEL, AND 1 BAG WIDTH ACROSS UPPER SECTION.
- B. CONCRETE-GRADE SAND APPLIED IN SIX-INCH LIFTS, EACH LIFT COMPACTIONED WITH A VIBRATORY JUMPER-COMPACTION (E.G. WACKER WITH AN 8" X 10" COMPACTIONER PAD). MINIMUM WIDTH OF THE SAND COLUMN IS TWO (2) FEET ACROSS FOR ENTIRE HEIGHT (BOTTOM TO TOP). THE SAND MATERIAL SHOULD BE COMPACTIONED WHEN MOIST BUT NOT WHEN DRY NOR WET.

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL SLOPE BREAKER (WATERBAR) REPAIR (1) FIGURE NO. 63		

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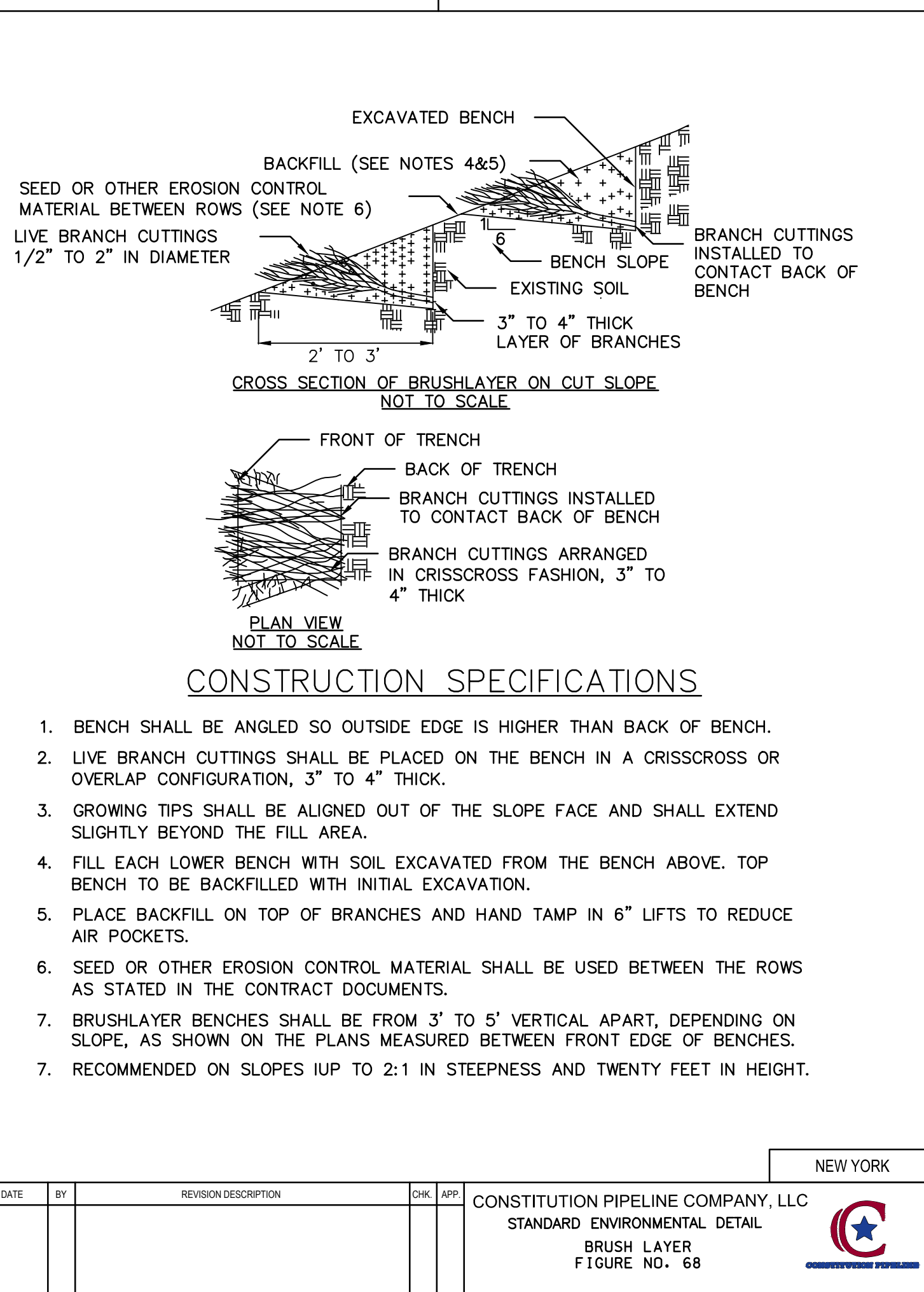
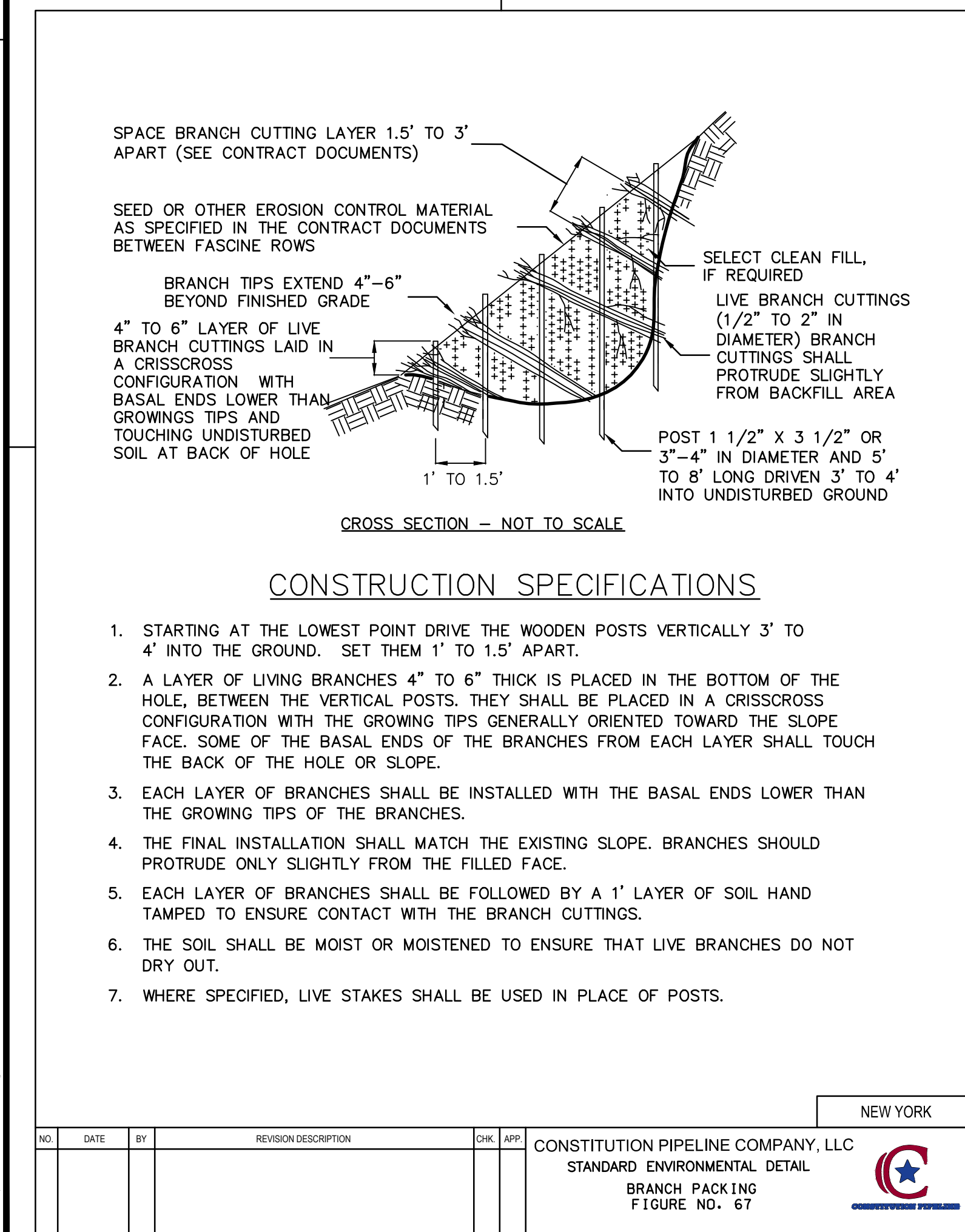
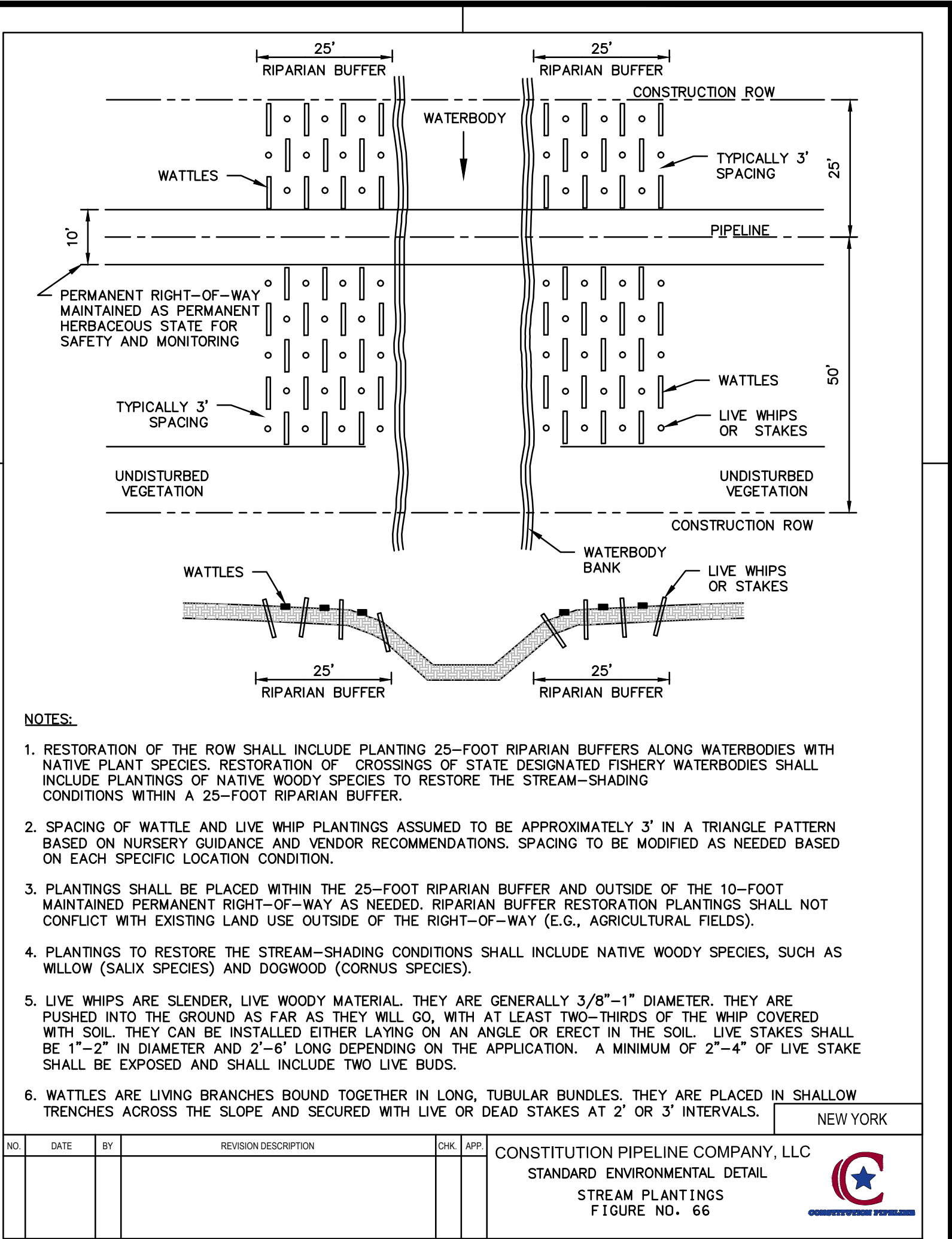
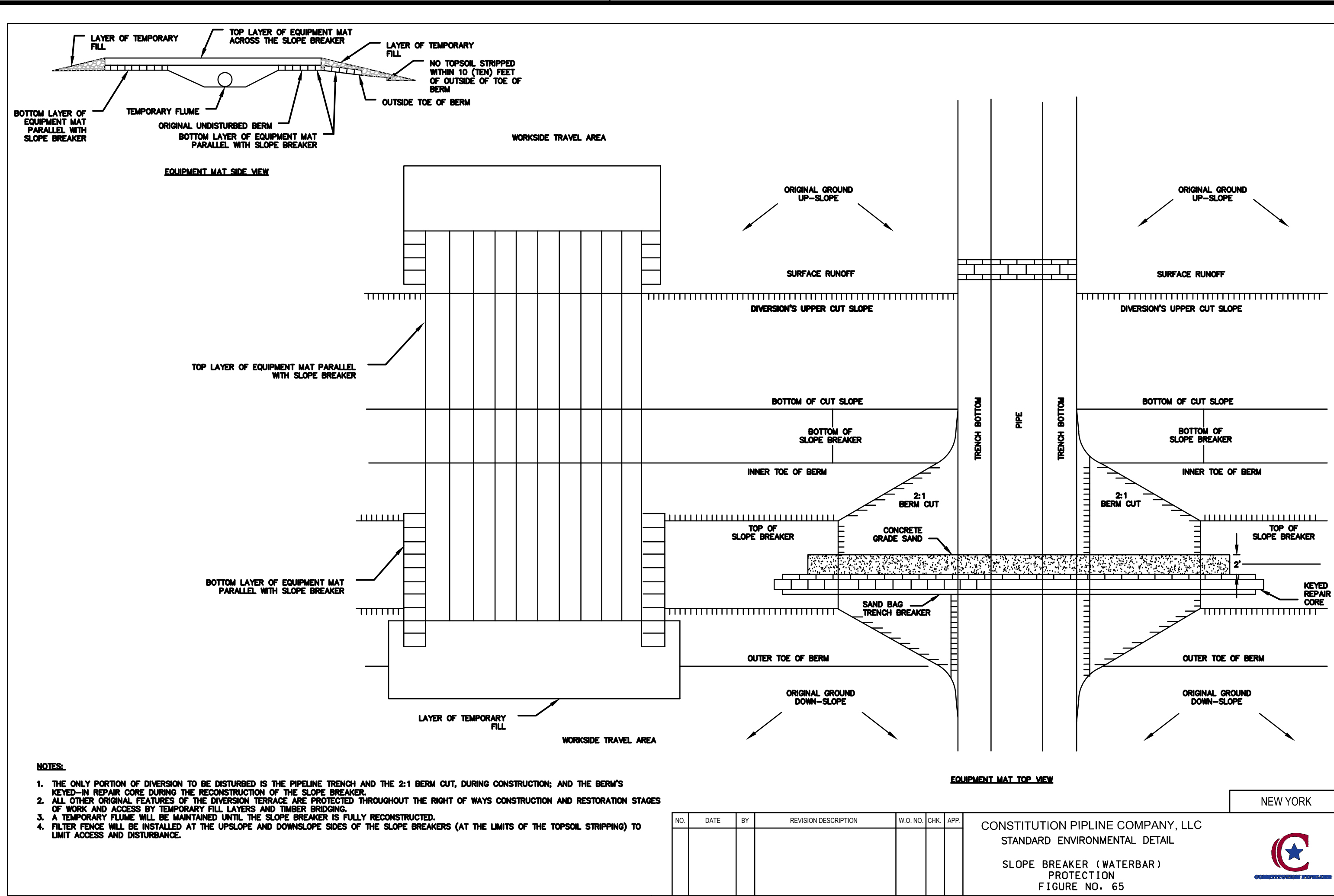
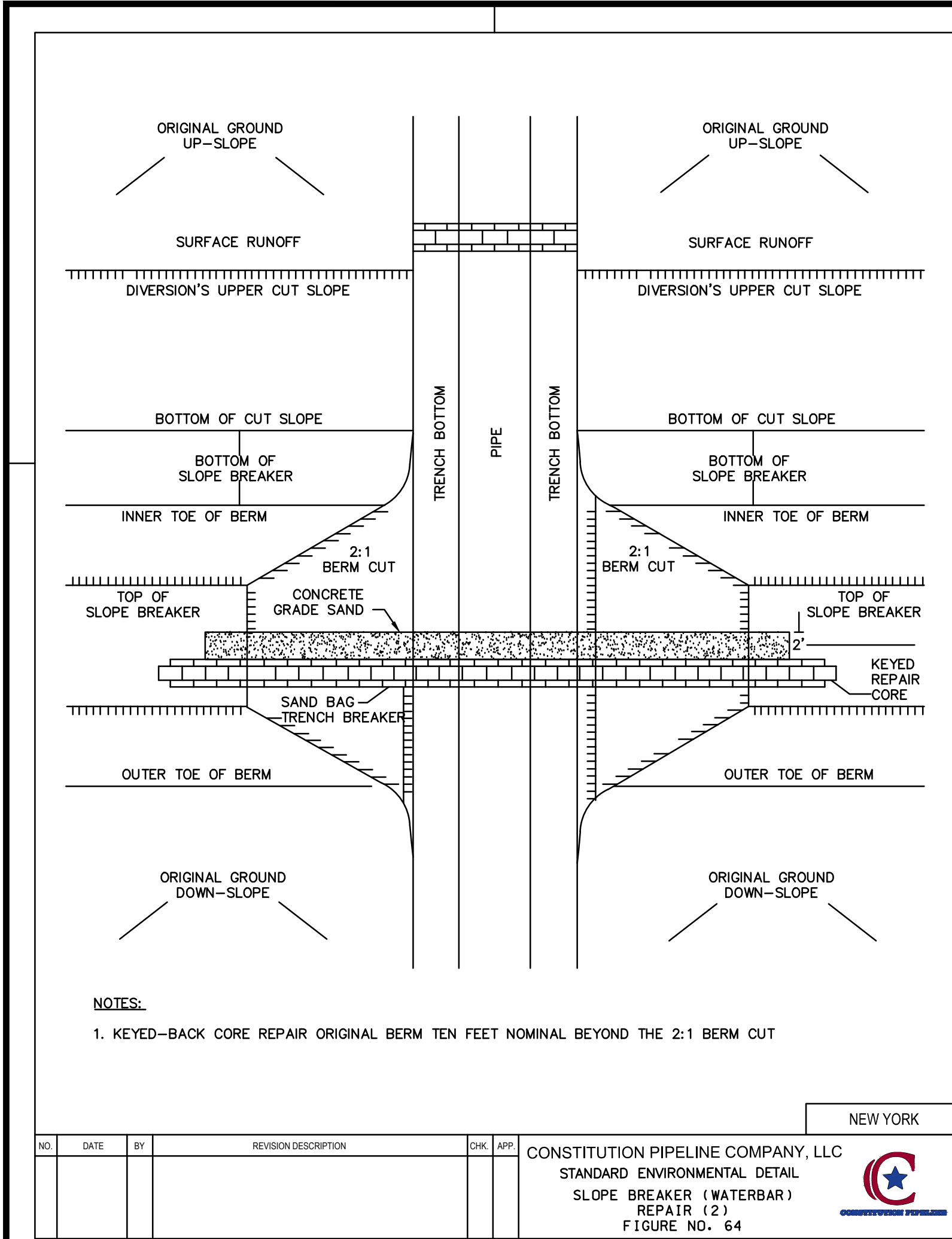
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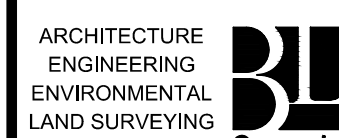
CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE



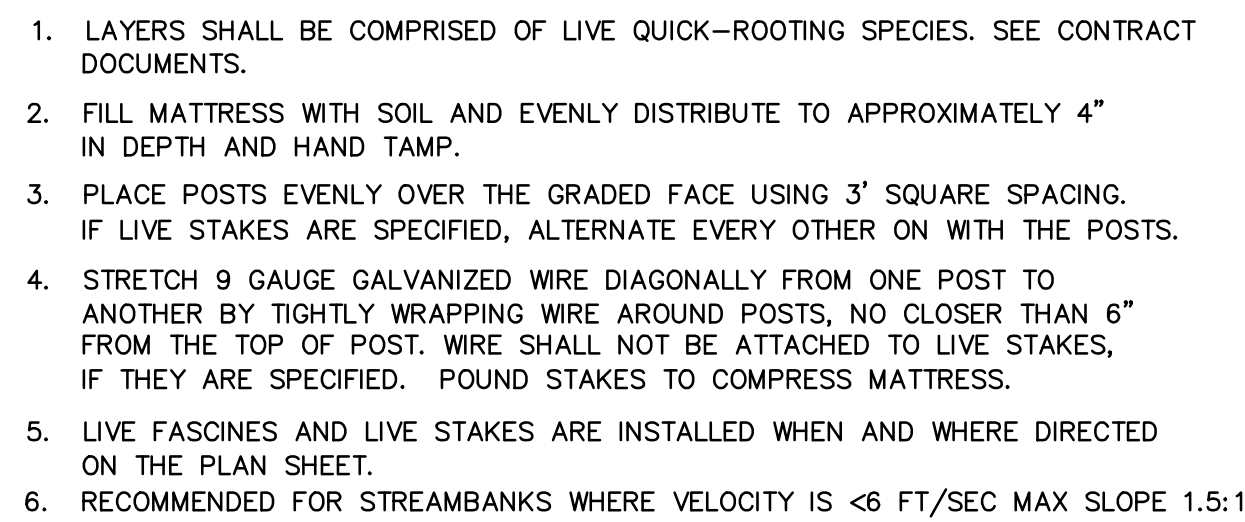
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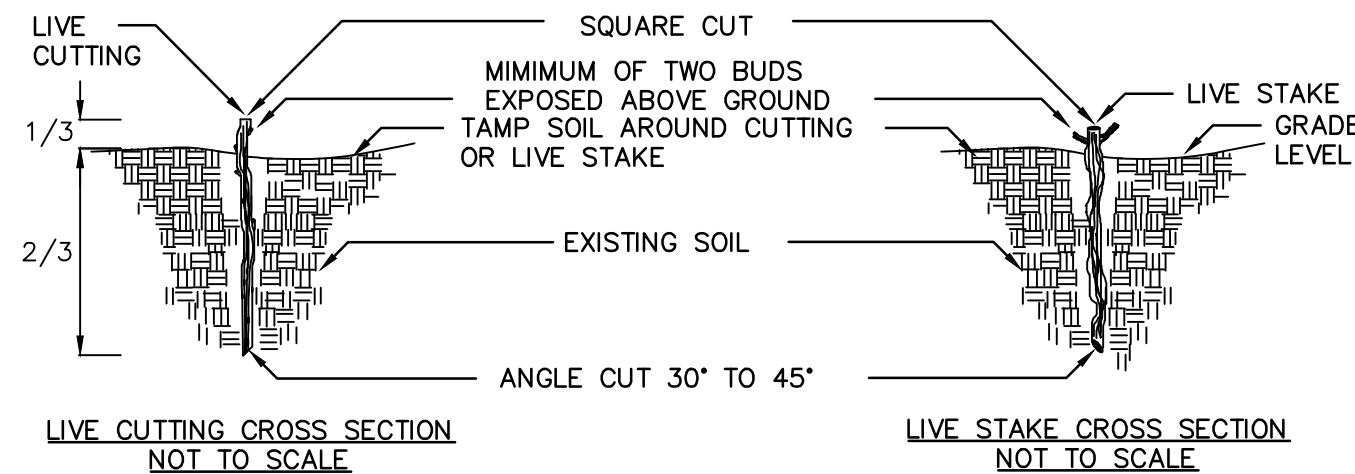
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							APPROVED BY:				DRAWING NUMBER:	
							W.O.					



					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	<p>CONSTITUTION PIPELINE COMPANY, LLC</p> <p>STANDARD ENVIRONMENTAL DETAIL</p> <p>BRUSH MATTRESS</p> <p>FIGURE NO. 69</p> 



NOTE:
1. NOT INTENDED FOR STRUCTURAL INTEGRITY NOR TO RESIST LARGE LATERAL EARTH PRESSURES

					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	
						CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL LIVE CUTTINGS LIVE STAKINGS PLANTINGS FIGURE NO. 70

1. CARE SHALL BE TAKEN NOT TO DAMAGE THE LIVE CUTTINGS/LIVE STAKES DURING INSTALLATION. THOSE DAMAGED SHALL BE LEFT IN PLACE AND SUPPLEMENTED WITH AN INTACT LIVE CUTTING/LIVE STAKE.
2. THE LENGTHS OF LIVE CUTTINGS/LIVE STAKES DEPENDS UPON THE APPLICATION. THE LENGTH SHALL EXTEND THROUGH THE SURFACE OF THE STONE FILL, AT LEAST HALF THE LENGTH SHALL BE INSERTED IN TO THE SOIL, BELOW THE STONE FILL.
3. A PILOT HOLE IS REQUIRED TO ENSURE THAT THE LIVE CUTTING/LIVE STAKE IS NOT DAMAGED WHEN DRIVEN THROUGH THE STONE FILLING. ACCESS SHALL BE MADE THROUGH THE USE OF A DIBBLE BAR, OR SIMILAR TOOL TO WORK AN OPENING THROUGH THE ROCK LAYER.
4. MINIMUM 2" TO 4" AND TWO LIVE BUDS OF THE LIVE CUTTING/LIVE STAKE SHALL BE EXPOSED ABOVE THE STONE FILLING.


1. LIVE CUTTINGS SHALL RANGE FROM 1/2" TO 1" IN DIAMETER AND BE FROM 1' TO 4' IN LENGTH.
2. LIVE STAKES SHALL RANGE FROM 1" TO 4" IN DIAMETER AND BE FROM 5' TO 6" IN LENGTH.
3. SEE CONTRACT DOCUMENTS FOR SPECIES, SIZE, SPACING, LOCATION, AND FINAL DETERMINATION ON USE OF CUTTINGS OR STAKES.
4. LIVE CUTTINGS/LIVE STAKES SHALL BE CUT TO A POINT ON THE BASAL END FOR INSERTION IN THE GROUND.
5. USE A DEAD BLOW HAMMER TO DRIVE STAKES INTO THE GROUND. (HAMMER HEAD FILLED WITH SHOT OR SAND.) A DIBBLE, IRON BAR, OR SIMILAR TOOL SHALL BE USED TO MAKE A PILOT HOLE TO PREVENT DAMAGING THE MATERIAL DURING INSTALLATION.
6. LIVE CUTTINGS SHALL BE INSERTED BY HAND INTO PILOT HOLES.
7. WHEN POSSIBLE, TAMP SOIL AROUND LIVE CUTTING/LIVE STAKES.
8. ANY LIVE CUTTING/LIVE STAKE THAT IS DAMAGED SHALL BE LEFT IN PLACE AND SUPPLEMENTED WITH AN INTACT LIVE CUTTING/LIVE STAKE.
9. NO LEAF BUDS SHALL HAVE INITIATED GROWTH BEYOND 1/4" AND CAMBIUM LAYER SHALL BE MOIST, GREEN AND HEALTHY.

1. FREQUENT INSPECTION IS RECOMMENDED DURING FIRST 1-2 YEARS DUE TO PHYSICAL CONSTRAINTS, CLIMATE CONDITIONS AND ANIMAL POPULATION.

					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	
						CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL LIVE CUTTINGS LIVE STAKINGS PLANTINGS SPECIFICATIONS FIGURE NO. 70A



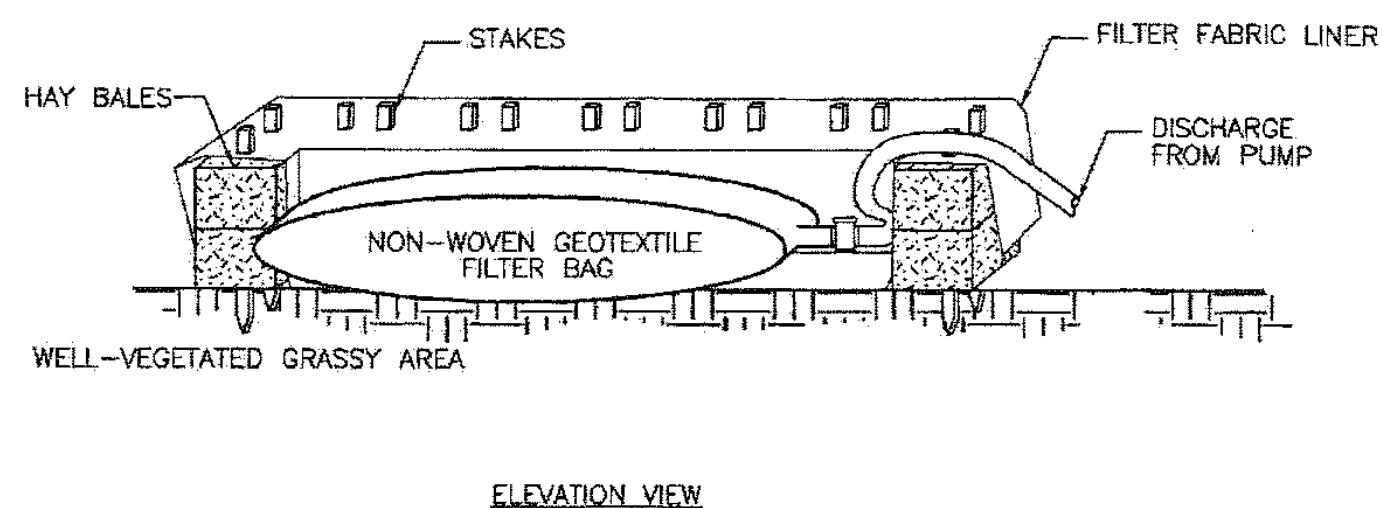
1. LIVE FASCINES SHALL BE PREPARED FROM FRESHLY CUT DORMANT PLANTS AND INSTALLED WITHIN 8 HOURS OF THE TIME THE MATERIAL IS HARVESTED, UNLESS PROPERLY STORED.
2. LIVE FASCINE SHALL BE OBTAINED FROM SOURCES APPROVED BY THE ENGINEER.
3. LIVE FASCINES SHALL BE 4" TO 8" IN DIAMETER, LENGTHS MAY VARY TO SUIT CONDITIONS. A MINIMUM LENGTH OF 8' IS REQUIRED.
4. THE TIPS OF THE BRANCHES WITHIN THE LIVE FASCINE SHALL BE STAGGERED.
5. LIVE FASCINES SHALL BE PLACED AS INDICATED IN THE CONTRACT DOCUMENTS.
6. BEGINNING AT THE BASE OF THE SLOPE, A TRENCH SHALL BE DUG LARGE ENOUGH TO CONTAIN THE LIVE FASCINES. THE LIVE FASCINES SHALL BE PLACED IN THE TRENCH, WHERE ENDS MEET IN THE TRENCH, THE FASCINES SHALL OVERLAP BY 16".
7. WOOD POSTS SHALL BE INSTALLED FLUSH TO THE TOP OF THE FASCINE EVERY 18" ALONG THE TRENCH. THE BUNDS OF FASCINE SHALL BE STAGGERED ON THE CROSS SECTION, WHERE SPECIFIED LIVE STAKES MAY BE USED IN PLACE OF POSTS.
8. THE TRENCH SHALL BE BACKFILLED WITH MOIST SOIL AND HAND TAMPED. THE TOP OF THE FASCINE SHALL BE SLIGHTLY EXPOSED WHEN THE INSTALLATION IS COMPLETE AS SHOWN ON THE CROSS SECTION.
9. SEED OR OTHER EROSION CONTROL MATERIAL SHALL BE USED BETWEEN THE FASCINE ROWS, AS SPECIFIED IN THE CONTRACT DOCUMENTS.
10. LIVE FASCINE TRENCHES SHALL BE FROM 3' TO 8' APART, ACCORDING TO SLOPE AND/OR THE CONTRACT DOCUMENTS.
11. SLOPES MUST BE 1:1 OR FLATTER.

					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	
						<p>CONSTITUTION PIPELINE COMPANY, LLC</p> <p>STANDARD ENVIRONMENTAL DETAIL</p> <p>LIVE FACINE</p> <p>FIGURE NO. 71</p> 



1. EXCAVATE A SHALLOW TRENCH AT THE TOE OF SLOPE TO SLIGHTLY BELOW BASEFLOW.
2. PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2" x 2" x 3' POSTS PLACED ON BOTH SIDES OF THE ROLL AND SPACED Laterally ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IF NECESSARY.
3. NOTCH THE POSTS AND tie TOGETHER, ACROSS THE ROLL, WITH 9 GAUGE GALVANIZED WIRE OR 1/8" DIAMETER BRAIDED NYLON ROPE.
4. PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANT WITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS. VEGETATION SHALL BE PLANTED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION, IF SPECIFIED, SHALL BE PLANTED INTO THE FIBER ROLL.


					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL FIBER ROLL FIGURE NO. 72



NOTES:

1. RECTANGULAR Dewatering DISCHARGE AREA CONSTRUCTED OUT OF HAY BALES STACKED ONE OR TWO ROWS HIGH AND SECURED WITH WOODEN STAKES.
2. FILTER FABRIC LINER INSTALLED COVERING ENTIRE INTERIOR OF STRUCTURE AND SECURED ON TOP OF THE HAY BALES WITH WOODEN STAKES.
3. THE Dewatering DEVICE SHALL BE LOCATED IN A WELL-VEGETATED (GRASSY) AREA AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. A DISCHARGE CHANNEL SHALL NOT BE PLACED ON SLOPES GREATER THAN 3%.
4. FOR LESS TURBID WATER DISCHARGE, THE GEOTEXTILE FILTER BAG IS OPTIONAL, AND THE STRUCTURE MAY UTILIZE JUST FILTER FABRIC LINER WITH NO FILTER BAG.

					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	
						CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL TRENCH DEWATERING SEDIMENT CORRAL FIGURE NO. 73



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NO.	DATE	BY	REVISION DESCRIPTION	W.D. NO.	CHK.	APP.	DRAWN BY: E.Z.	DATE: 12/12/2013	ISSUED FOR BID:	SCALE:
1.	07/21/14		ISSUED FOR BID				CHECKED BY: C.L.	DATE:	ISSUED FOR CONSTRUCTION:	
							APPROVED BY:	DATE:	DRAWING NUMBER:	
							W.D.			16 OF 39

NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP.
					CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL INTERCEPTOR SLOPE BREAKER INSTALLATION FIGURE NO. 74


NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP.
					CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL CHEVRON INTERCEPTOR SLOPE BREAKER INSTALLATION AND MAINTENANCE FIGURE NO. 75

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL ALONG THE SITE. THE CONTRACTOR SHALL COORDINATE WITH THE ENVIRONMENTAL INSPECTOR TO DETERMINE WHICH PRACTICES ACCOMMODATE THEIR NEEDS BASED ON SPECIFIC SITE AND WEATHER CONDITIONS. SOME OF THE TYPICAL PRACTICES INCLUDE THE FOLLOWING:
 - SPRINKLING/IRRIGATION. SPRINKLING THE GROUND SURFACE WITH WATER UNTIL IT MOIST IS AN EFFECTIVE DUST CONTROL METHOD FOR HAUL ROADS AND OTHER TRAFFIC ROUTES (SMOLEN ET AL., 1988). THIS PRACTICE CAN BE APPLIED TO ALMOST ANY SITE.
 - VEGETATIVE COVER. IN AREAS NOT EXPECTED TO HANDLE VEHICLE TRAFFIC, VEGETATIVE STABILIZATION OF DISTURBED SOIL IS OFTEN DESIRABLE. VEGETATIVE COVER PROVIDES COVERAGE TO SURFACE SOILS AND SLOWS WIND VELOCITY AT THE GROUND SURFACE, THUS REDUCING THE POTENTIAL FOR DUST TO BECOME AIRBORNE.
 - MULCH. MULCHING CAN BE A QUICK AND EFFECTIVE MEANS OF DUST CONTROL FOR A RECENTLY DISTURBED AREA (SMOLEN ET AL., 1988).
 - WIND BREAKS. WIND BREAKS ARE BARRIERS (EITHER NATURAL OR CONSTRUCTED) THAT REDUCE WIND VELOCITY THROUGH A SITE AND THEREFORE REDUCE THE POSSIBILITY OF SUSPENDED PARTICLES. WIND BREAKS CAN BE TREES OR SHRUBS LEFT IN PLACE DURING SITE CLEARING OR CONSTRUCTED BARRIERS SUCH AS A WIND FENCE, SNOW FENCE, TARP CURTAIN, HAY BALE, CRATE WALL, OR SEDIMENT WALL (USEPA, 1992).
 - TILLAGE. DEEP TILLAGE IN LARGE OPEN AREAS BRINGS SOIL CLODS TO THE SURFACE WHERE THEY REST ON TOP OF DUST, PREVENTING IT FROM BECOMING AIRBORNE.
 - STONE. STONE MAY BE AN EFFECTIVE DUST DETERRENT FOR CONSTRUCTION ROADS AND ENTRANCES OR AS A MULCH IN AREAS WHERE VEGETATION CANNOT BE ESTABLISHED.
 - SPRAY-ON CHEMICAL SOIL TREATMENTS. THE PENNSYLVANIA DIRT AND GRAVEL ROAD PROGRAM HAS PLACED STRICT LIMITATIONS ON THE USE OF PRODUCTS THAT MAY CAUSE DAMAGE TO THE ENVIRONMENT. WITH THIS IN MIND, IT HAS APPROVED A NUMBER OF CHEMICAL DUST SUPPRESSANTS. WHEN CONSIDERING CHEMICAL APPLICATION TO A ROAD, THE APPLICATION SHOULD BE TAKEN AS TO WHETHER THE CHEMICAL IS BIODEGRADABLE OR WATER-SOLUBLE AND WHAT EFFECT ITS APPLICATION COULD HAVE ON THE SURROUNDING ENVIRONMENT, INCLUDING WATERBODIES AND WILDLIFE (AS SUBJECT TO APPROVAL BY THE NYSDEC).
2. TABLE H-1 SHOWS APPLICATION RATES FOR SOME COMMON DUST SUPPRESSANTS, AS RECOMMENDED BY THE PENNSYLVANIA DIRT AND GRAVEL ROAD PROGRAM. (AS SUBJECT TO APPROVAL BY THE NYSDEC).

TABLE H.1. APPLICATION RATES FOR DUST SUPPRESSANTS

PRODUCT	WATER DILUTION	TYPE
PENN SUPPRESS "D"	1:4 EMULSION TO WATER (MINIMUM)	PETROLEUM EMULSION
ULTRABOND 2000	1:4 EMULSION TO WATER (MINIMUM)	PETROLEUM EMULSION
COHEREX	1:10 EMULSION TO WATER (MINIMUM)	PETROLEUM EMULSION
DUST BOND	1:10 EMULSION TO WATER (MINIMUM)	PETROLEUM EMULSION
EK 35	100% ACTIVE, NOT WATER REQUIRED FOR APPLICATION	SYNTHETIC FLUID
ENVROKLEEN	100% ACTIVE, NOT WATER REQUIRED FOR APPLICATION	SYNTHETIC FLUID
PAVE-CYRL SUPPRESS	AS RECEIVED (51% SOLIDS)	ACRYLIC POLYMER (PVA)
PAVE-CYRL SUPPRESS PLUS	AS RECEIVED (51% SOLIDS)	ACRYLIC POLYMER (PVA)
DIRT GLUE	AS RECEIVED (51% SOLIDS)	ACRYLIC POLYMER (PVA)


NO	DATE	BY	REVISION DESCRIPTION	CHK	APP.	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL DUST CONTROL FIGURE NO. 76	

NOTES:


1. WATER-SOLUBLE ANIONIC POLYACRYLAMIDE (PAM) MAY BE APPLIED TO A DISTURBED AREA AS A TEMPORARY SOIL-BINDING AGENT TO REDUCE EROSION DUE TO WIND AND WATER. THIS PRACTICE IS RECOMMENDED FOR AREAS WHERE TIMELY ESTABLISHMENT OF A VEGETATIVE COVER IS NOT FEASIBLE (E.G. NON-GERMINATING SEASON), WHEREVER SOILS HAVE HIGH CLAY CONTENT, OR WHERE THE VEGETATIVE COVER IS INADEQUATE TO PROVIDE PROTECTION FROM EROSION. WHEREVER USED, THE APPLICATION MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS GOVERNING ANIONIC PAM.
2. PAM SPECIFICATIONS
 - ANIONIC PAM MIXTURES MUST BE ENVIRONMENTALLY SAFE AND NON-TOXIC TO FISH AND OTHER AQUATIC SPECIES, WILDLIFE, AND PLANTS. IT SHOULD ALSO BE NON-COMBUSTIBLE.
 - CATIONIC PAM MAY NOT BE USED DUE TO ITS TOXICITY TO AQUATIC SPECIES.
 - ANIONIC PAM MIXTURES MUST HAVE < 0.05% FREE ACRYLAMIDE MONOMER BY WEIGHT AS ESTABLISHED BY THE FOOD AND DRUG ADMINISTRATION (FDA) AND THE ENVIRONMENTAL PROTECTION AGENCY (EPA).
 - ACUTE TOXICITY TEST DATA SHOULD BE PROVIDED FROM EACH MANUFACTURER OR SUPPLIER.
 - THE MANUFACTURER SHOULD PROVIDE A PRODUCT EXPIRATION DATE FOR ANIONIC PAM BASED UPON EXPIRATION OF PAM IN THE PURE FORM.
3. APPLICATION
 - ANIONIC PAM SHOULD BE APPLIED IN ACCORDANCE WITH THE RECOMMENDED METHODS PROVIDED BY THE MANUFACTURER OR SUPPLIER FOR THE SPECIFIC SITE CONDITIONS (E.G. SLOPE AND SOIL TYPE). A RECORD OF THE APPLICATION, INCLUDING THE DATE OF APPLICATION, PRODUCT TYPE, WEATHER CONDITIONS, METHOD OF APPLICATION, AND THE NAME OF THE APPLICATOR, SHOULD BE KEPT ON SITE.
 - APPLICATION RATES SHOULD NOT EXCEED THE MANUFACTURER'S RECOMMENDATIONS. REPEATED APPLICATION MAY BE MADE IF NECESSARY TO ENSURE ADEQUATE COVERAGE.
 - THE APPLICATION METHOD USED SHOULD PROVIDE UNIFORM COVERAGE TO THE TARGET AREA WHILE AVOIDING DRIFT TO NON-TARGET AREAS, ESPECIALLY PAVED AREAS.
 - MANUFACTURER'S RECOMMENDATIONS FOR SAFE STORAGE, MIXING, AND USE OF THE PRODUCT SHOULD BE FOLLOWED.
 - USE OF ANIONIC PAM SHOULD BE IN CONJUNCTION WITH THE OTHER BMPs SPECIFIED IN THE APPROVED E&S PLAN.
 - ANIONIC PAM MAY NOT BE USED INSTEAD OF A PROTECTIVE LINER IN A CHANNEL OR IN PLACE OF MULCH ON A SEEDED AREA. HOWEVER, SEED MAY BE ADDED TO THE MIXTURE AT THE TIME OF APPLICATION.
 - DISPOSAL OF EXCESS MATERIAL MUST BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AS WELL AS FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
 - ANIONIC PAM MAY NOT BE APPLIED WITHIN THE FLOODWAY OF A RECEIVING STREAM CHANNEL OR WITHIN 25 FEET OF OTHER WATER BODIES.
 - ANIONIC PAM MAY BE USED TO TEMPORARILY STABILIZE TOPSOIL STOCKPILES. HOWEVER, ANIONIC PAM MAY LOSE ITS EFFECTIVENESS IN AS LITTLE AS TWO MONTHS. THEREFORE, IT MIGHT BECOME NECESSARY TO REAPPLY THE MIXTURE.
 - ANIONIC PAM IS NOT RECOMMENDED FOR APPLICATION ON SURFACES OF PURE SAND OR GRAVELS WITH NO FINES OR ON SNOW-COVERED SURFACES.
 - A VISIBLE TRACER OR COLORANT MAY BE ADDED TO THE MIXTURE TO VISUALLY TRACK ITS APPLICATION.

NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP.
					CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL POLYACRYLAMIDE (PAM) SOIL BINDER FIGURE NO. 77

- CONSTRUCTION PROCEDURE NOTES:**
1. TWO-TONE THE RIGHT-OF-WAY TO LIMIT THE NEED FOR DEEP CUTS AND ADDITIONAL RIGHT-OF-WAY ON STEEP SLOPES. THE MINIMUM WORKSPACE WITH ALONG STEEP SIDE SLOPES SHALL BE 150'. ADDITIONAL TEMPORARY WORKSPACE MAY BE REQUIRED FOR WORKER SAFETY DEPENDING ON THE SEVERITY OF THE GRADE.
 2. EMPLOY EROSION CONTROL MEASURES SUCH AS BREAKERS, CROSS DITCHES AND BERMS. TEMPORARY DRAINAGE PITS, TEMPORARY EROSION CONTROL TEMPORARY OUTLET PROTECTION, ETC. AS REQUIRED TO PREVENT EROSION AND SEDIMENTATION OUTSIDE OF THE CONSTRUCTION RIGHT-OF-WAY. CLARE AND STAKE ADDITIONAL RIGHT-OF-WAY TO ALLOW FOR EXTRA STAKE.
 3. ENSURE SIDE BOOM TRACTORS ARE EQUIPPED WITH BOOM EXTENDERS AND COUNTERWEIGHTS IF REQUIRED.
 4. USE BACKHOE TO ASSIST BULDOZERS WITH REPLACING CUTS.
 5. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT EROSION CONTROL MEASURES AS REQUIRED.
 6. REVEGETATE / SEED DISTURBED AREAS AS NOTED IN THE CONSTRUCTION DOCUMENTS OR AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR.

						NEW YORK
NO	DATE	BY	REVISION DESCRIPTION	CHK	APP	<p>CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL</p> <p>SIDE SLOPE (TWO-TONE) CONSTRUCTION PROCEDURES FIGURE NO. 78</p> 

- CONSTRUCTION PROCEDURE NOTES:
1. EMPLY EROSION CONTROL MEASURES SUCH AS BREAKERS, CROSS DITCHES AND BERMS, TEMPORARY DRAINAGE PIPES, TEMPORARY SWALES, TEMPORARY OUTLET PROTECTION, ETC. AS REQUIRED TO PREVENT EROSION AND SEDIMENTATION OUTSIDE OF THE CONSTRUCTION RIGHT-OF-WAY. CLEAR AND STAKE ADDITIONAL RIGHT-OF-WAY FOR EXTRA EROSION CONTROL MEASURES IF REQUIRED.
 2. ENSURE SIDE BOOM TRACTORS ARE EQUIPPED WITH BOOM EXTENDERS AND COUNTERWEIGHTS IF REQUIRED.
 3. USE BACKHOE TO ASSIST BULLDOZERS WITH REPLACING CUTS.
 4. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT EROSION CONTROL MEASURES IF REQUIRED.
 5. VEGETATE ALL SEED DISTURBED AREAS AS NOTED IN THE CONSTRUCTION DOCUMENTS OR AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR.

						NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL RIDGE-TOP CONSTRUCTION PROCEDURE FIGURE NO. 78A	
							

NOTE: THE ELEVATIONS AND DIMENSIONS WILL BE COMPLETED AS REQUIRED FOR THE FINAL SUBMISSION.

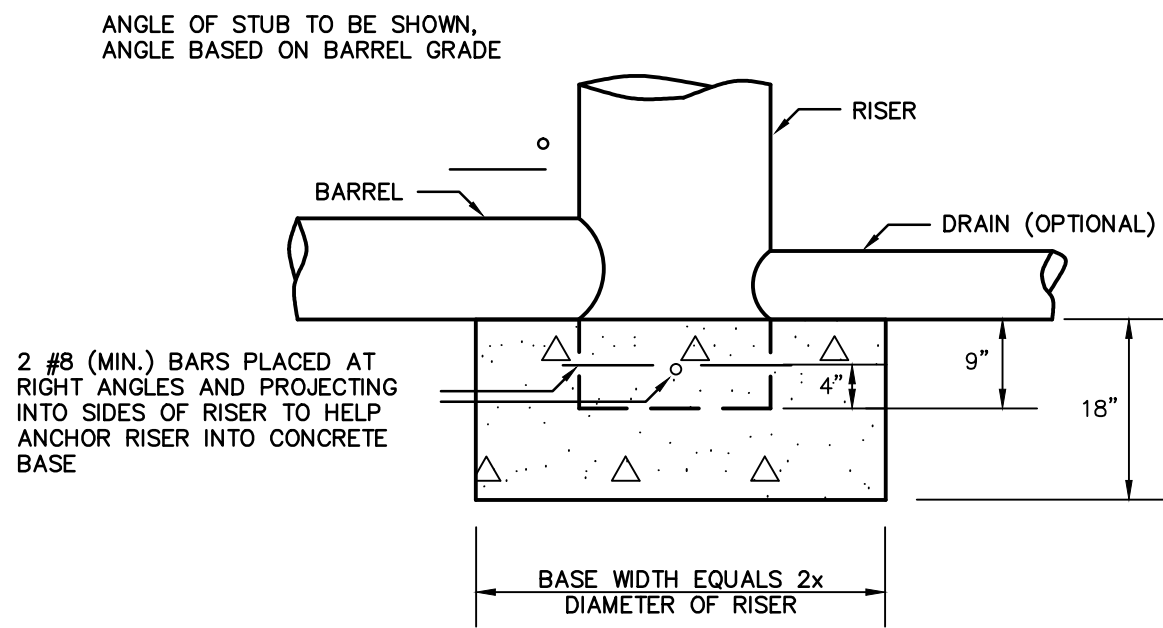
DETAIL CREATED BY THE U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

					NEW YORK	
NO.	DATE	BY	REVISION DESCRIPTION	CHK	APP	CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL SEDIMENT BASIN DETAILS FIGURE NO. 79

CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE

NEW YORK BEST MANAGEMENT PRACTICES

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CONSTRUCTION SPECIFICATIONS

NOTES:

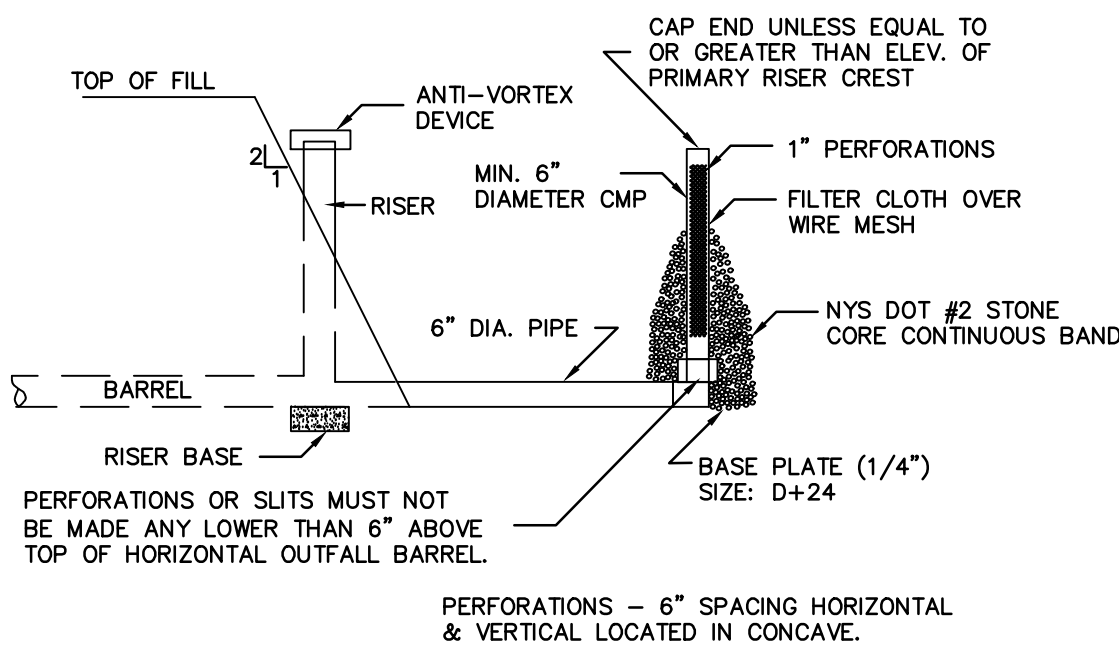
1. THE CONCRETE BASE SHALL BE POURED IN SUCH A MANNER TO INSURE THAT THE CONCRETE FILLS THE BOTTOM OF THE RISER TO THE INVERT OF THE OUTLET PIPE TO PREVENT THE RISER FROM BREAKING AWAY FROM THE BASE.
2. WITH ALUMINUM OR ALUMINIZED PIPE, THE EMBEDDED SECTION MUST BE PAINTED WITH CHROMATE OR EQUIVALENT.
3. RISER BASE MAY BE SIZED AS COMPUTED USING FLOATATION WITH A FACTOR OF SAFETY OF 1.2.

NOTE: THE ELEVATIONS AND DIMENSIONS WILL BE COMPLETED AS REQUIRED FOR THE FINAL SUBMISSION.

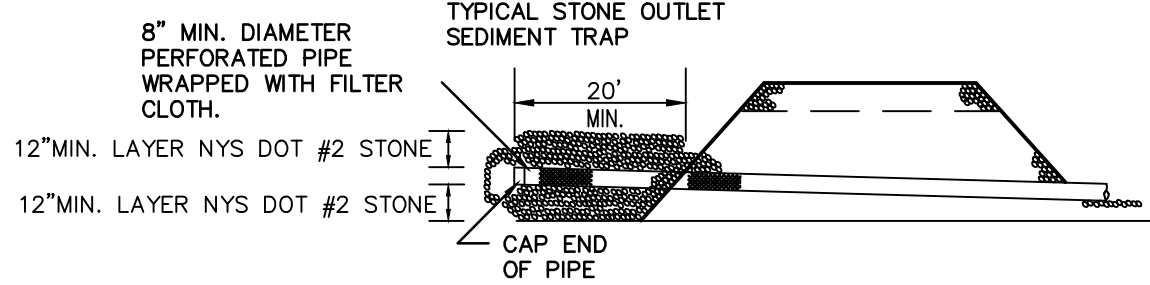
DETAIL CREATED BY THE U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL SEDIMENT BASIN RISER BASE DETAIL FIGURE NO. 80		



OPTIONAL SEDIMENT TRAP DEWATERING
DEVICE - I WITH 6" PERFORATED RISER



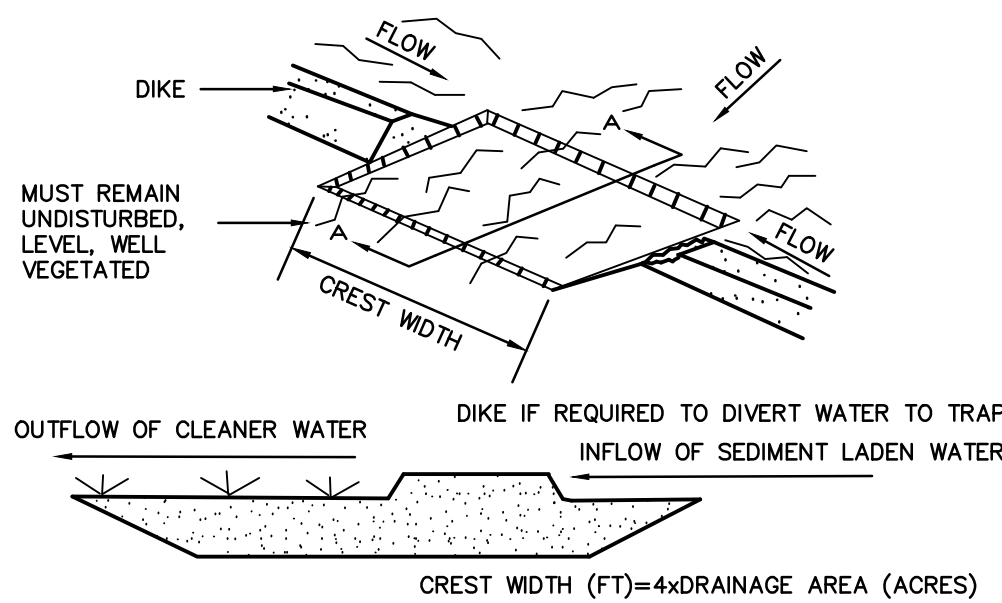
OPTIONAL SEDIMENT TRAP DEWATERING
DEVICE - II

NOTE: THE ELEVATIONS AND DIMENSIONS WILL BE COMPLETED AS REQUIRED FOR THE FINAL SUBMISSION.

DETAIL CREATED BY THE U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL OPTIONAL SEDIMENT TRAP DEWATERING DEVICES FIGURE NO. 81		



CONSTRUCTION SPECIFICATIONS

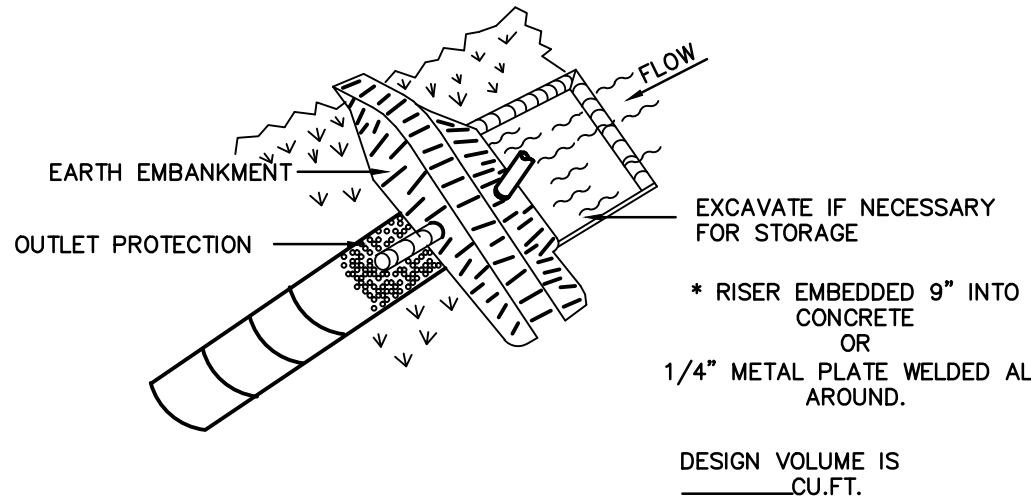
1. VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE AREA.
 2. MINIMUM CREST WIDTH SHALL BE 4 x DRAINAGE AREA.
 3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
 4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
 6. THE SEDIMENT TRAP SHALL BE REMOVED AND AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
 7. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.
- MAXIMUM DRAINAGE AREA: 5 ACRES

NOTE: THE ELEVATIONS AND DIMENSIONS WILL BE COMPLETED AS REQUIRED FOR THE FINAL SUBMISSION.

DETAIL CREATED BY THE U.S. DEPARTMENT OF AGRICULTURE
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NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL GRASS OUTLET SEDIMENT TRAP FIGURE NO. 82		



EMBANKMENT SECTION THRU RISER

SIZES OF PIPE NEEDED:

BARREL DIAMETER: _____
RISER DIAMETER: _____

NOTE: CONSTRUCTION SPECIFICATION SHOULD BE ATTACHED TO THIS DETAIL TO COMPLETE DESIGN.

MAXIMUM DRAINAGE AREA: 5 ACRES

NOTE: THE ELEVATIONS AND DIMENSIONS WILL BE COMPLETED AS REQUIRED FOR THE FINAL SUBMISSION.

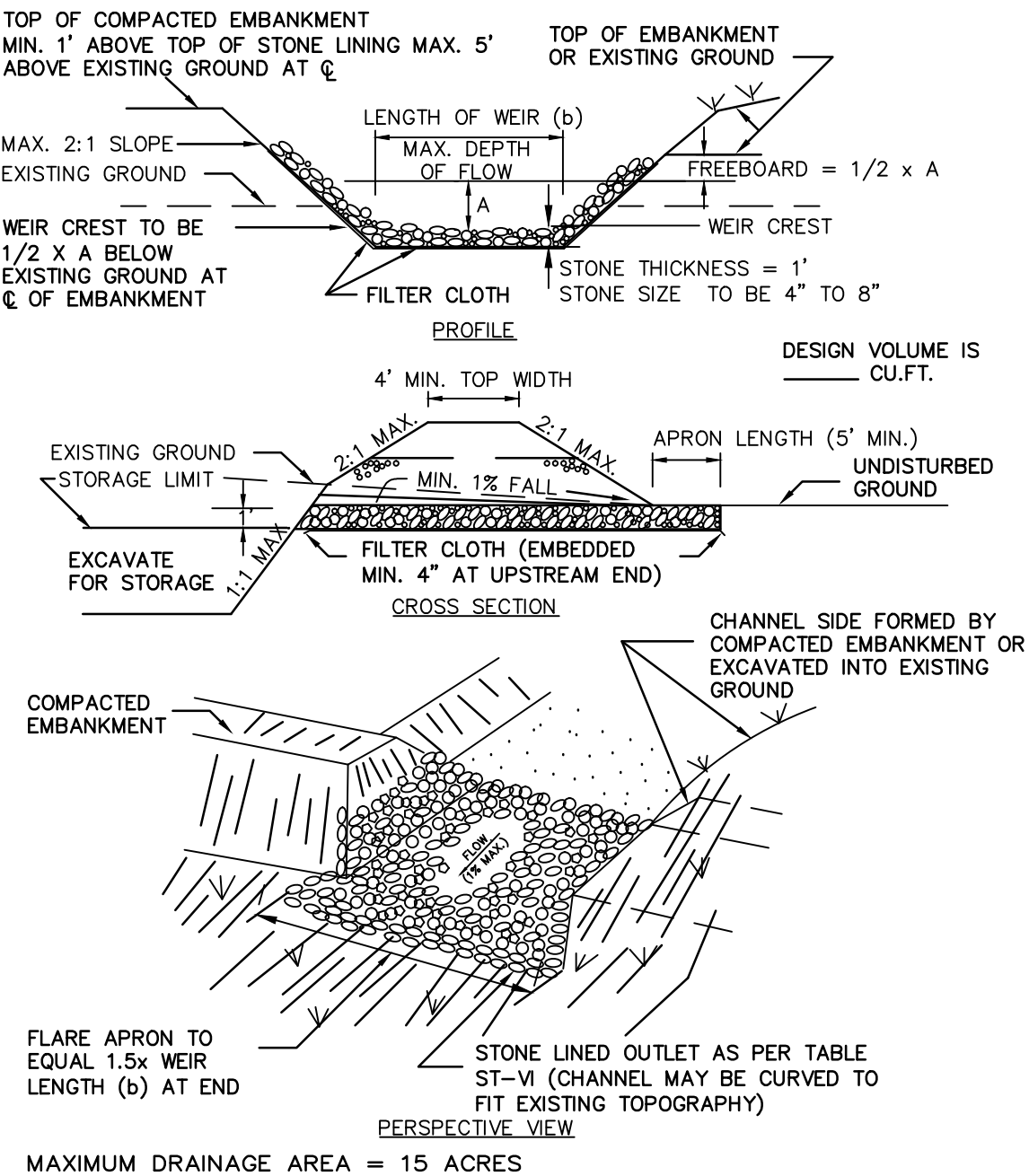
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NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL SEDIMENT TRAP PIPE OUTLET FIGURE NO. 83A		

CONSTRUCTION SPECIFICATIONS

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
4. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
5. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
7. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
8. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER; CUT SLOPES 1:1 OR FLATTER.
9. ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
10. THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONCAVE PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.
11. THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH (HAVING AN EQUIVALENT SIEVE SIZE OF 40-80). THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF THE FILTER CLOTH COME TOGETHER, THEY SHALL BE OVER-LAPPED, FOLDED AND STAPLED TO PREVENT BYPASS.
12. STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
13. FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN FOUR (4) INCH LAYERS. A MINIMUM OF TWO (2) FEET OF HAND COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
14. THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOATATION. FOR CONCRETE BASE THE DEPTH SHALL BE TWELVE (12) INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY A CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL, OR TAMPED EARTH ON THE PLATE.



NOTE: THE ELEVATIONS AND DIMENSIONS WILL BE COMPLETED AS REQUIRED FOR THE FINAL SUBMISSION.

DETAIL CREATED BY THE U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

NEW YORK

NO.	DATE	BY	REVISION DESCRIPTION	CHK.	APP.
			CONSTITUTION PIPELINE COMPANY, LLC STANDARD ENVIRONMENTAL DETAIL SEDIMENT TRAP PIPE OUTLET SPECIFICATIONS FIGURE NO. 84A		

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NOT FOR CONSTRUCTION

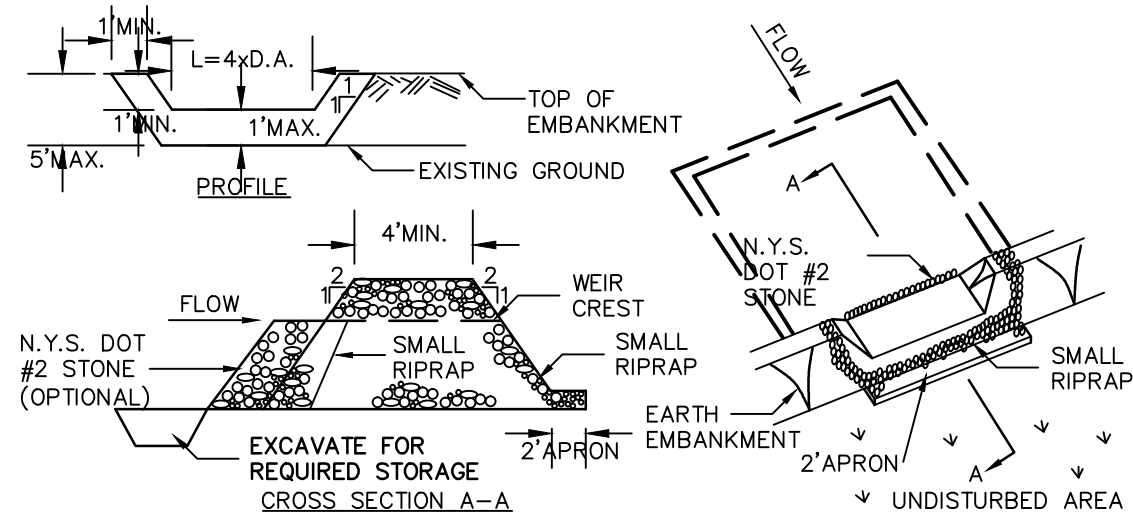
ARCHITECTURE
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ENVIRONMENTAL
LAND SURVEYING



NO.	DATE	BY	REVISION DESCRIPTION	W.D. NO.	CHK.	APP.	DRAWN BY:	E.Z.	DATE:	12/12/2013	ISSUED FOR BID:	SCALE:
1.	07/21/14		ISSUED FOR BID				CHECKED BY:	C.L.	DATE:		ISSUED FOR CONSTRUCTION:	
							APPROVED BY:		DATE:		DRAWING NUMBER:	
							W.D.					

CONSTRUCTION SPECIFICATIONS

1. THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. MAXIMUM HEIGHT OF OF EMBANKMENT SHALL BE FIVE (5) FEET, MEASURED AT CENTERLINE OF EMBANKMENT.
3. ALL FILL SLOPES SHALL BE 2:1 OR FLATTER, CUT SLOPES 1:1 OR FLATTER.
4. ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST EQUAL OR EXCEED THE HEIGHT OF EMBANKMENT.
5. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME AVAILABLE BEHIND THE OUTLET CHANNEL UP TO AN ELEVATION OF ONE (1) FOOT BELOW THE LEVEL WEIR CREST.
6. FILTER CLOTH SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO PLACEMENT OF STONE. SECTIONS OF FABRIC MUST OVERLAP AT LEAST ONE (1) FOOT WITH SECTION NEAREST THE ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST SIX (6) INCHES INTO EXISTING GROUND AT ENTRANCE OUTLET CHANNEL.
7. STONE USED IN THE OUTLET CHANNEL SHALL BE FOUR (4) TO EIGHT (8) INCH RIPRAP. TO PROVIDE A FILTERING EFFECT, A LAYER OF FILTER CLOTH SHALL BE EMBEDDED ONE (1) FOOT WITH SECTION NEAREST ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST SIX (6) INCHES INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL.
8. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
9. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRED AS NEEDED.
10. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
11. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
12. DRAINAGE AREA FOR THIS PRACTICE IS LIMITED TO 15 ACRES OR LESS.



OPTION: A ONE FOOT LAYER OF N.Y.S. DOT #2 STONE MAY BE PLACED ON THE UPSTREAM SIDE OF THE RIPRAP IN PLACE OF THE EMBEDDED FILTER CLOTH.

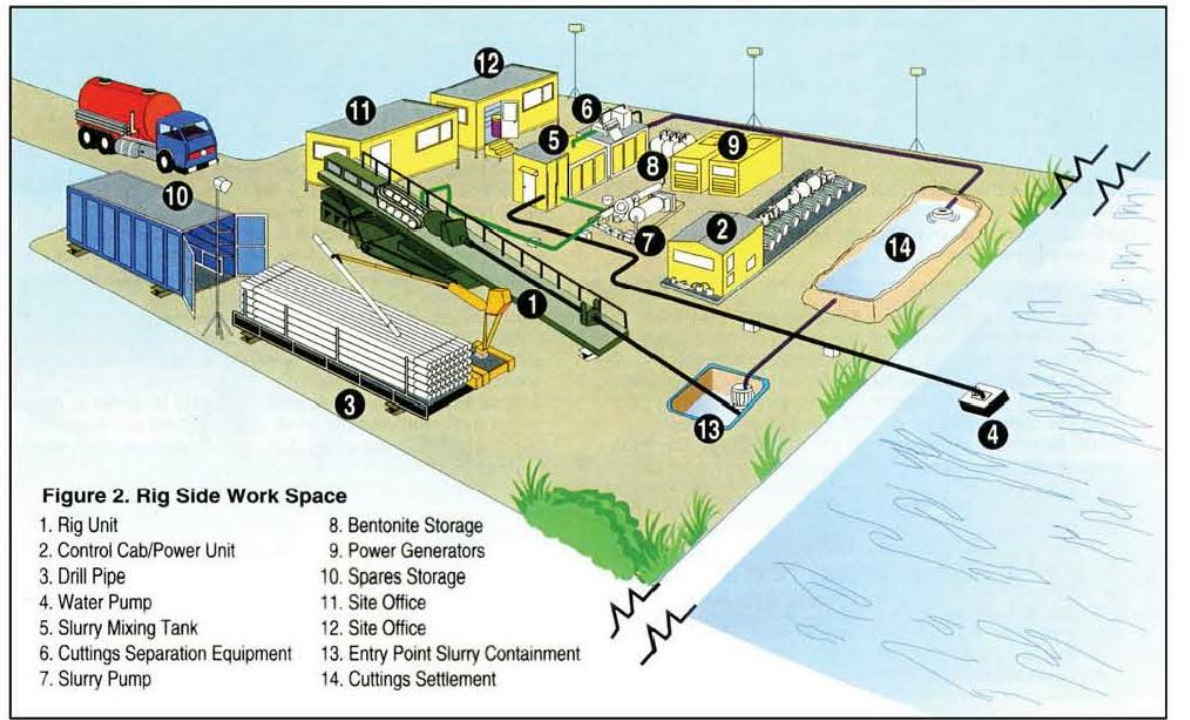
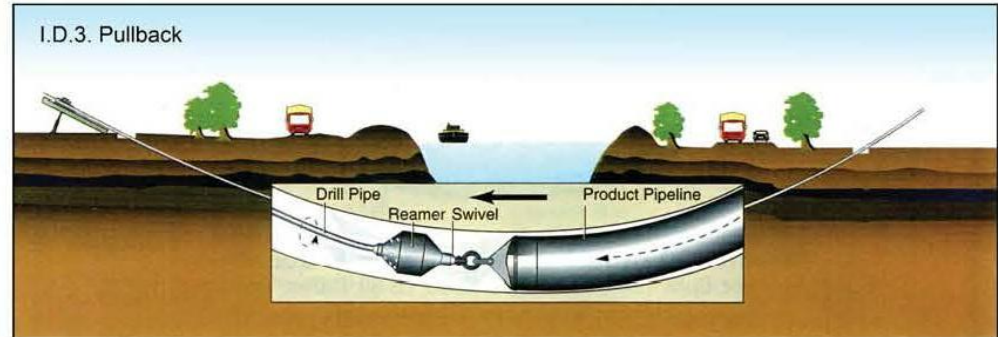
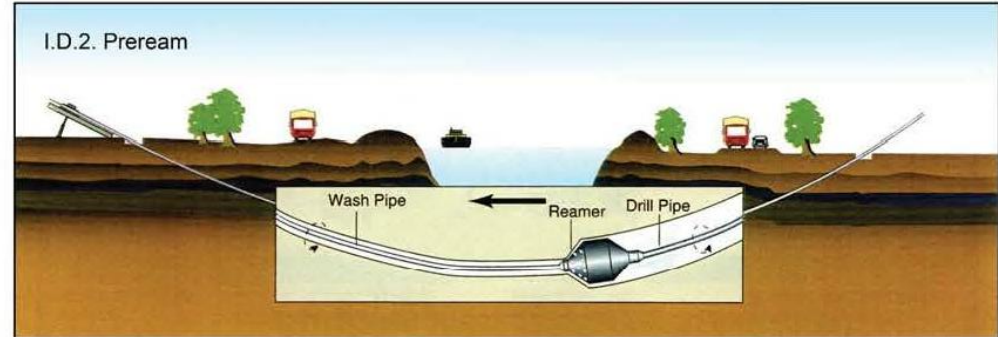
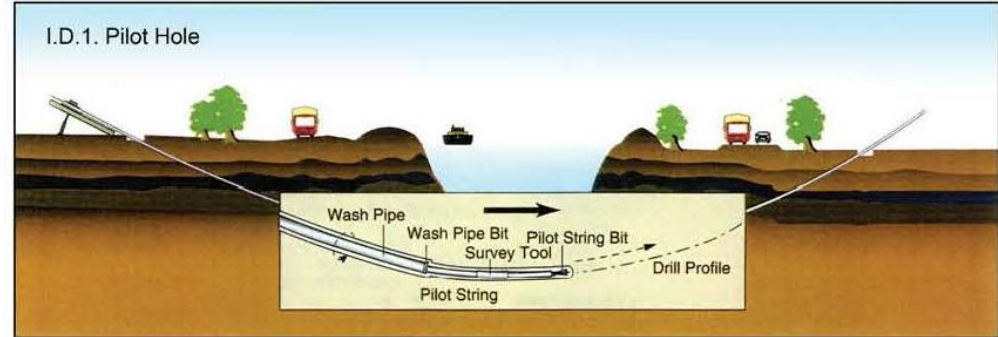
CONSTRUCTION SPECIFICATIONS

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
 2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
 3. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
 4. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP-GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.
 5. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP.
 6. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
 7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
 8. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- MAXIMUM DRAINAGE AREA 5 ACRES

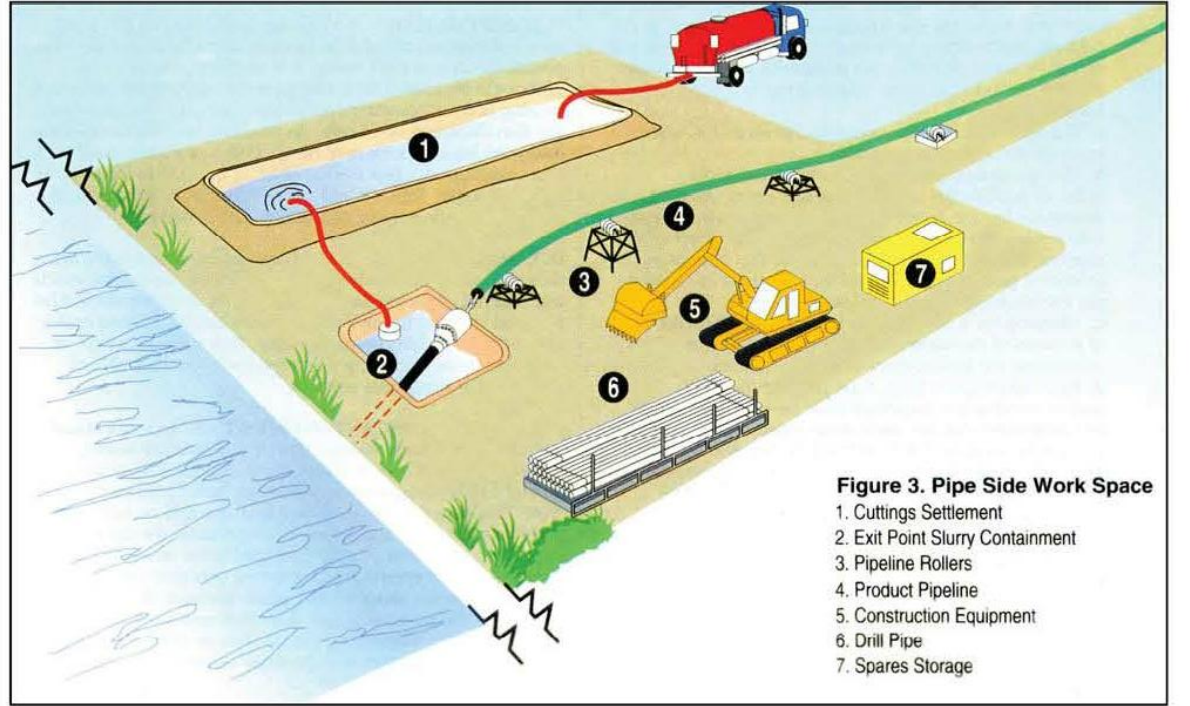
NOTE: THE ELEVATIONS AND DIMENSIONS WILL BE COMPLETED AS REQUIRED FOR THE FINAL SUBMISSION.

DETAIL CREATED BY THE U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE

Figure 1. Technique



DCGM AUGUST 1995 PIPELINE DIGEST AUGUST 1995

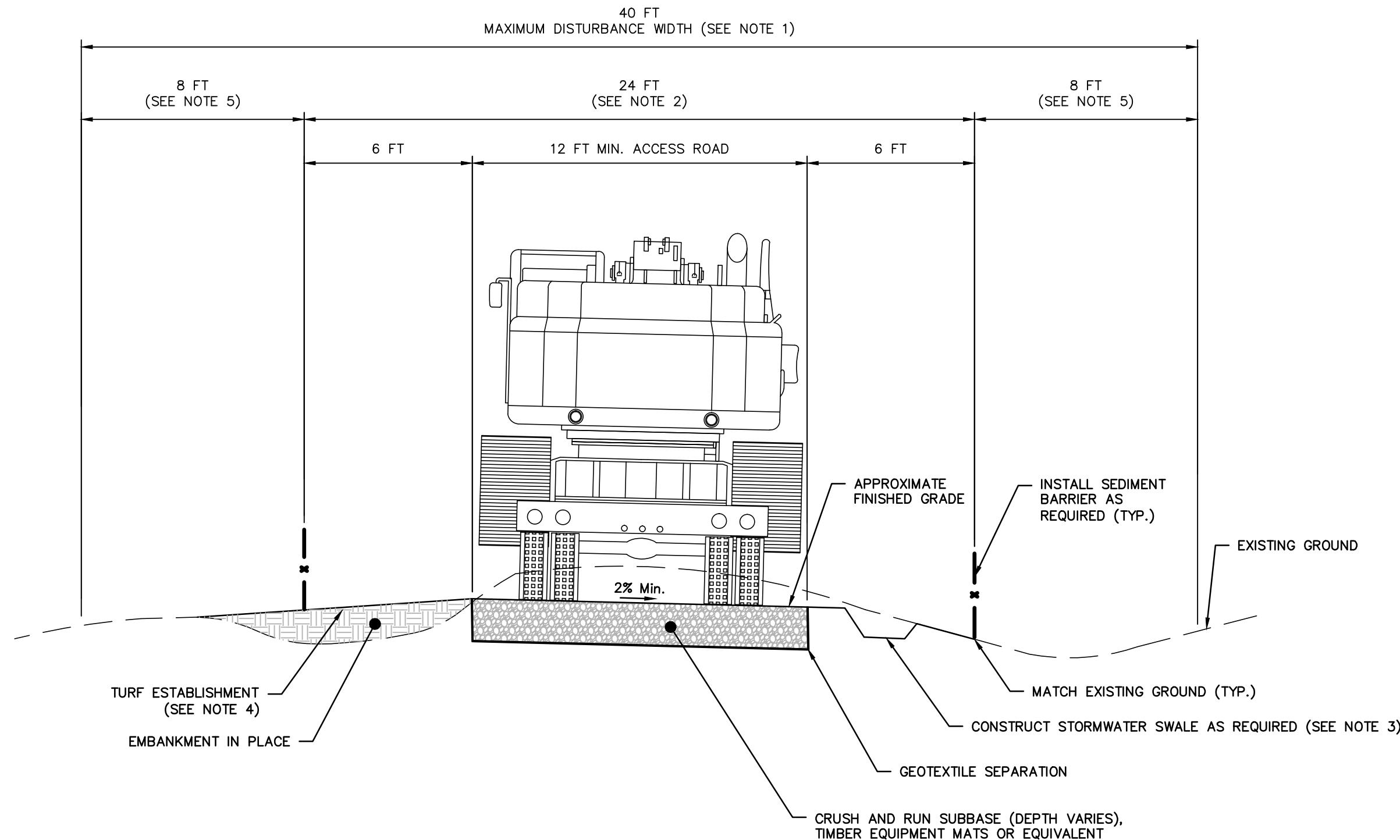


AUGUST 1995 PIPELINE DIGEST DCCAS

TYPICAL CONSTRUCTION
HORIZONTAL DIRECTIONAL DRILL
(HDD)

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.

CONSTITUTION PIPELINE COMPANY, LLC
STANDARD ENVIRONMENTAL DETAIL
TYPICAL CONSTRUCTION
HORIZONTAL DIRECTIONAL DRILL (HDD)
FIGURE NO. 86



NOTES:

1. THE MAXIMUM DISTURBANCE WIDTH ASSOCIATED WITH THE CONSTRUCTION OF ACCESS ROADS WILL BE 40FT.
2. ACCESS ROADS WILL TYPICALLY INCLUDE A 12 FT TRAVEL LANE AND 12 FT OF GRADING DISTURBANCE. THE GRADING DISTURBANCE WILL BE REQUIRED TO MATCH INTO EXISTING GROUND AND CONSTRUCT REQUIRED EROSION CONTROL MEASURES (E.G. SILT FENCE) AND SEDIMENT CONTROL DEVICES (E.G. STORMWATER SWALE). ADDITIONAL CONSTRUCTION WIDTH MAY BE REQUIRED IN AREAS THAT REQUIRED TRUCK PULL-OFFS, TRUCK TURNAROUNDS, AND AROUND SHARP CURVES WHERE EQUIPMENT TRAILERS HAVE LARGE TURNING RADII.
3. REFER TO THE STORMWATER SWALE TABLES FOR LOCATIONS AND SIZES OF ALL SWALES REQUIRED ALONG ACCESS ROADS.
4. SEED MIXES TO BE UTILIZED FOR TURF ESTABLISHMENT ALONG ACCESS ROADS SHALL CONFORM TO THE SEED MIXES OUTLINED IN THE ENVIRONMENTAL CONSTRUCTION PLANS (ECPs).
5. THE ADDITIONAL 16 FT OF DISTURBANCE MAY BE REQUIRED TO ACCOMMODATE TRUCK PULL-OFFS, TRUCK TURNAROUNDS, AND INCREASED TRAVEL LANE WIDTHS AROUND CURVES DUE TO THE LARGE TRUCK TURNING RADII.

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CONSTITUTION PIPELINE COMPANY, LLC
STANDARD ENVIRONMENTAL DETAIL
TYPICAL ACCESS ROAD CROSS SECTION
FIGURE NO. 87

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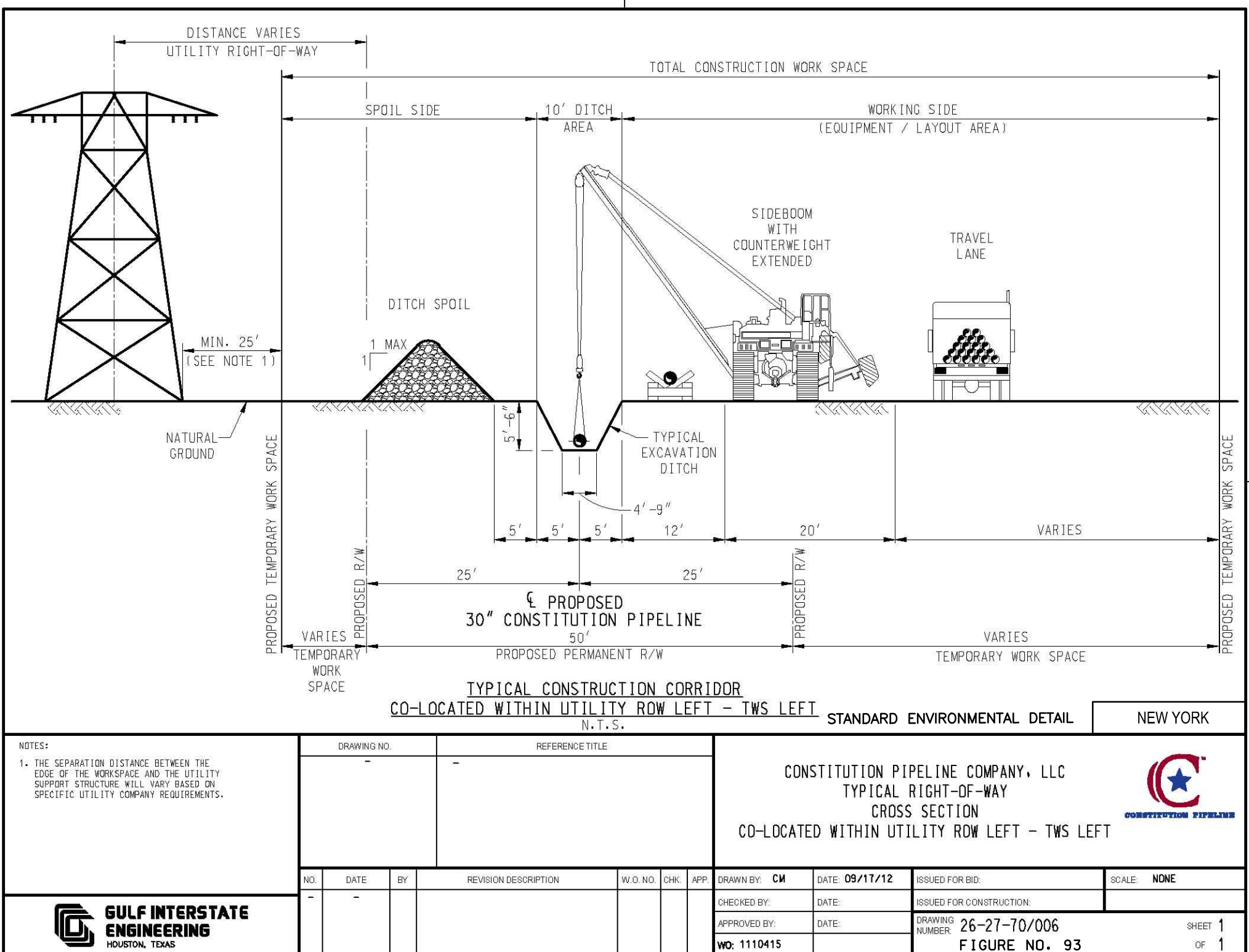
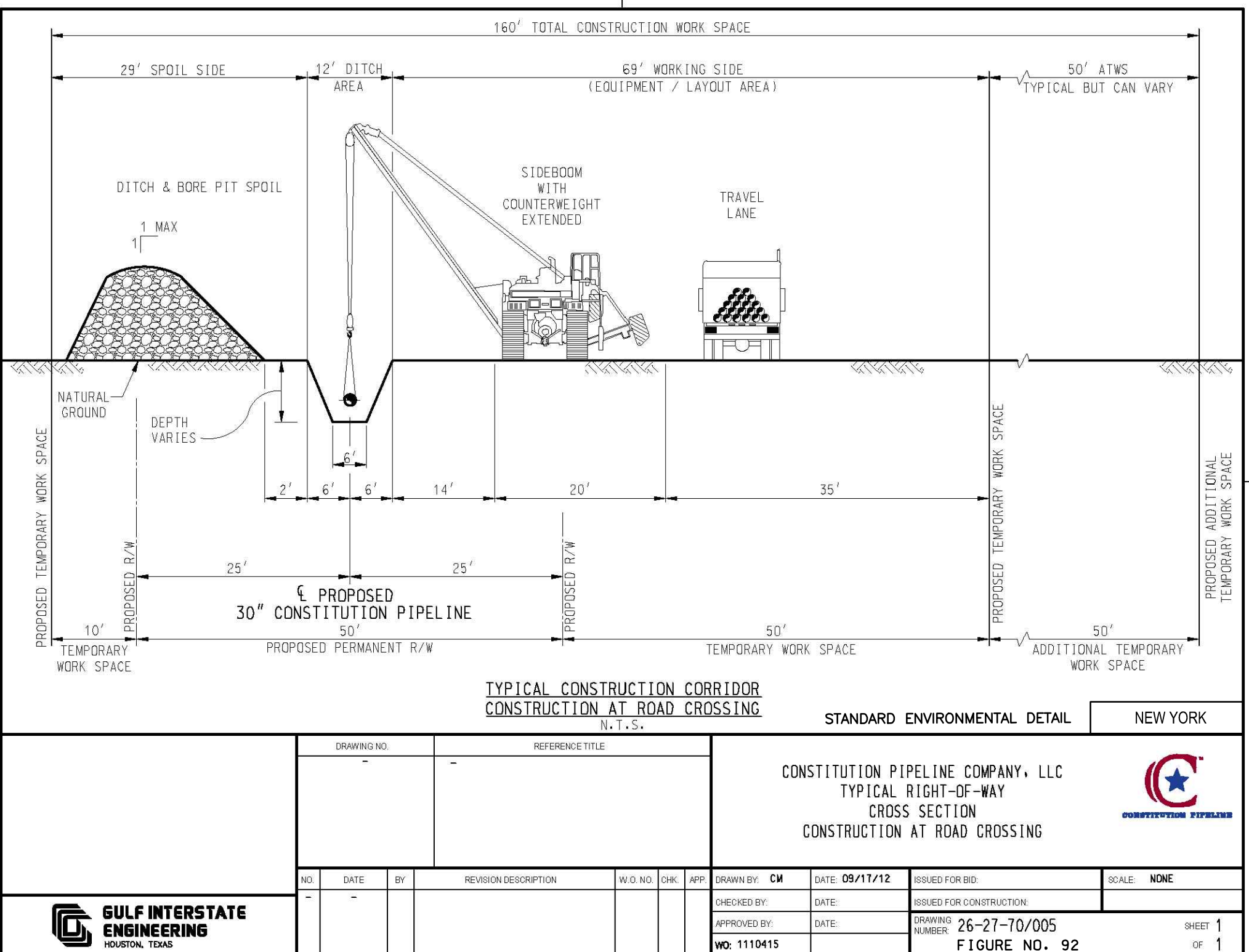
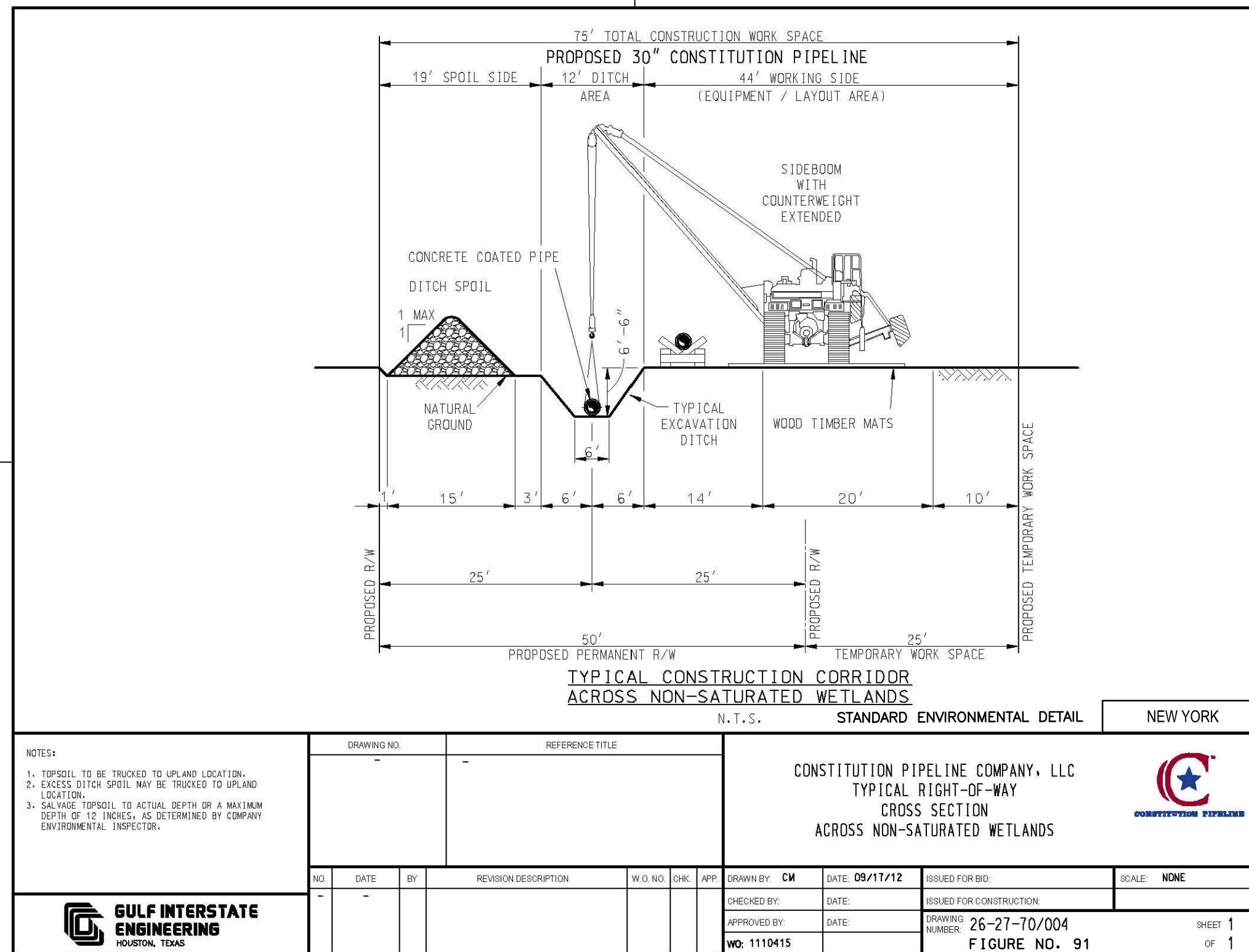
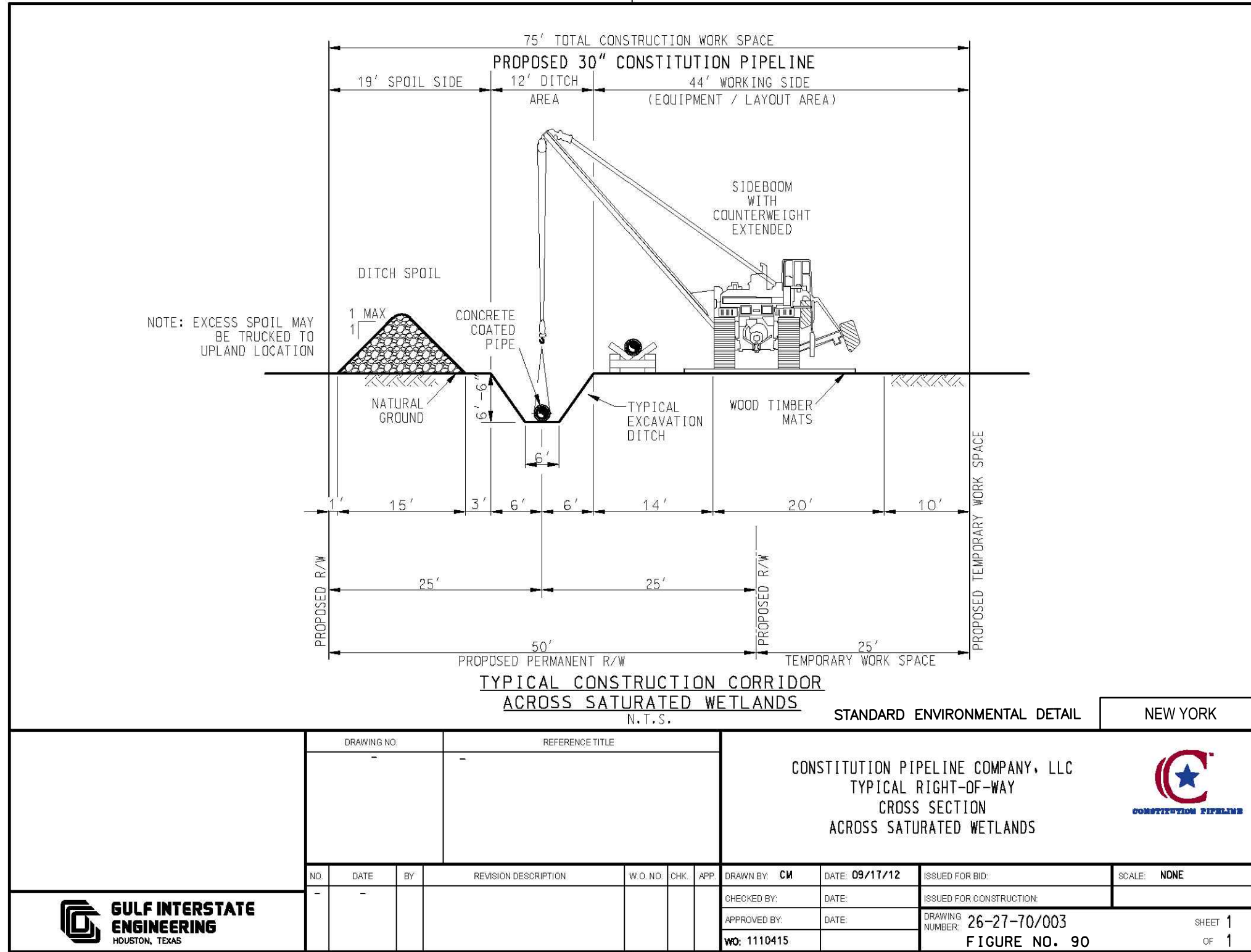
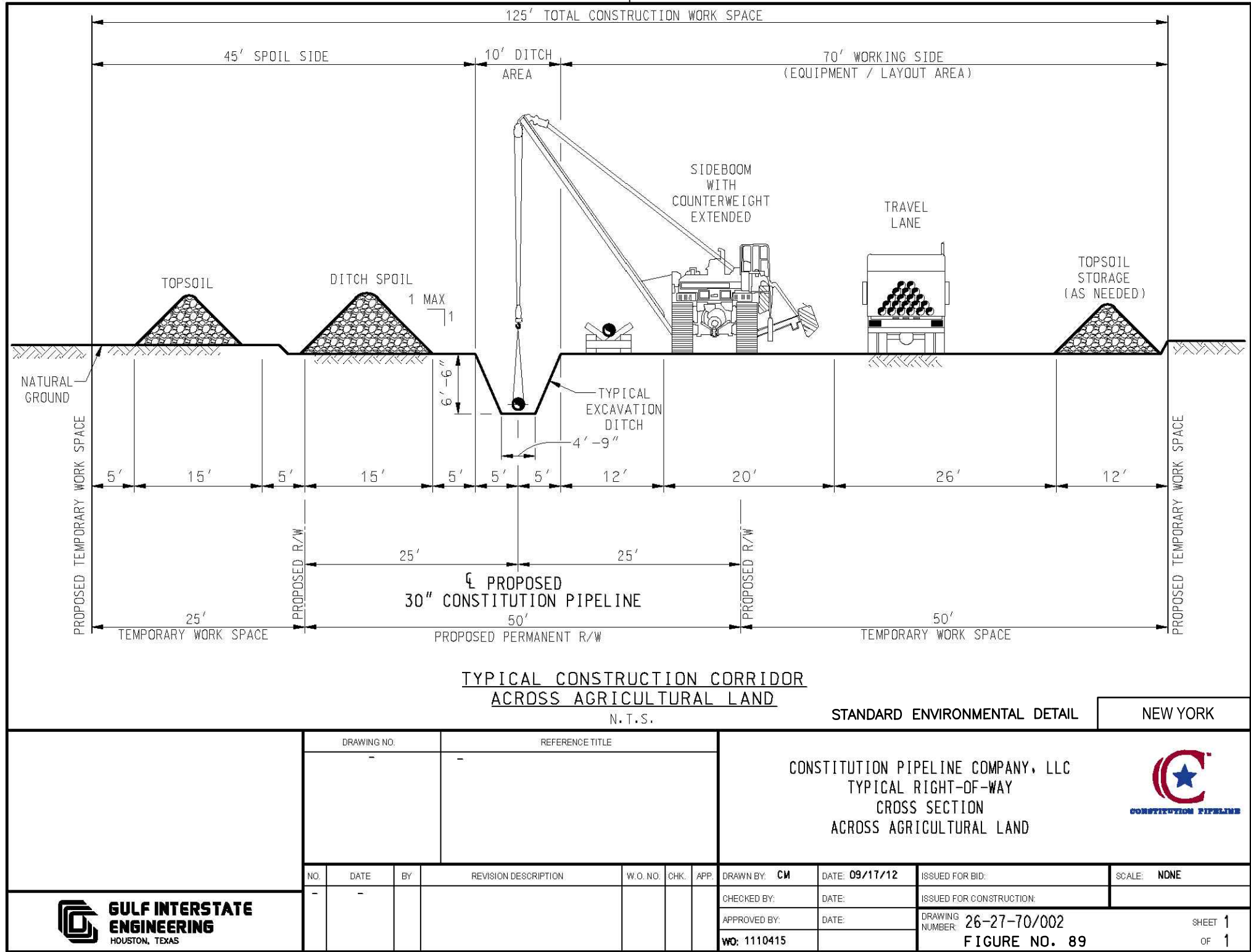
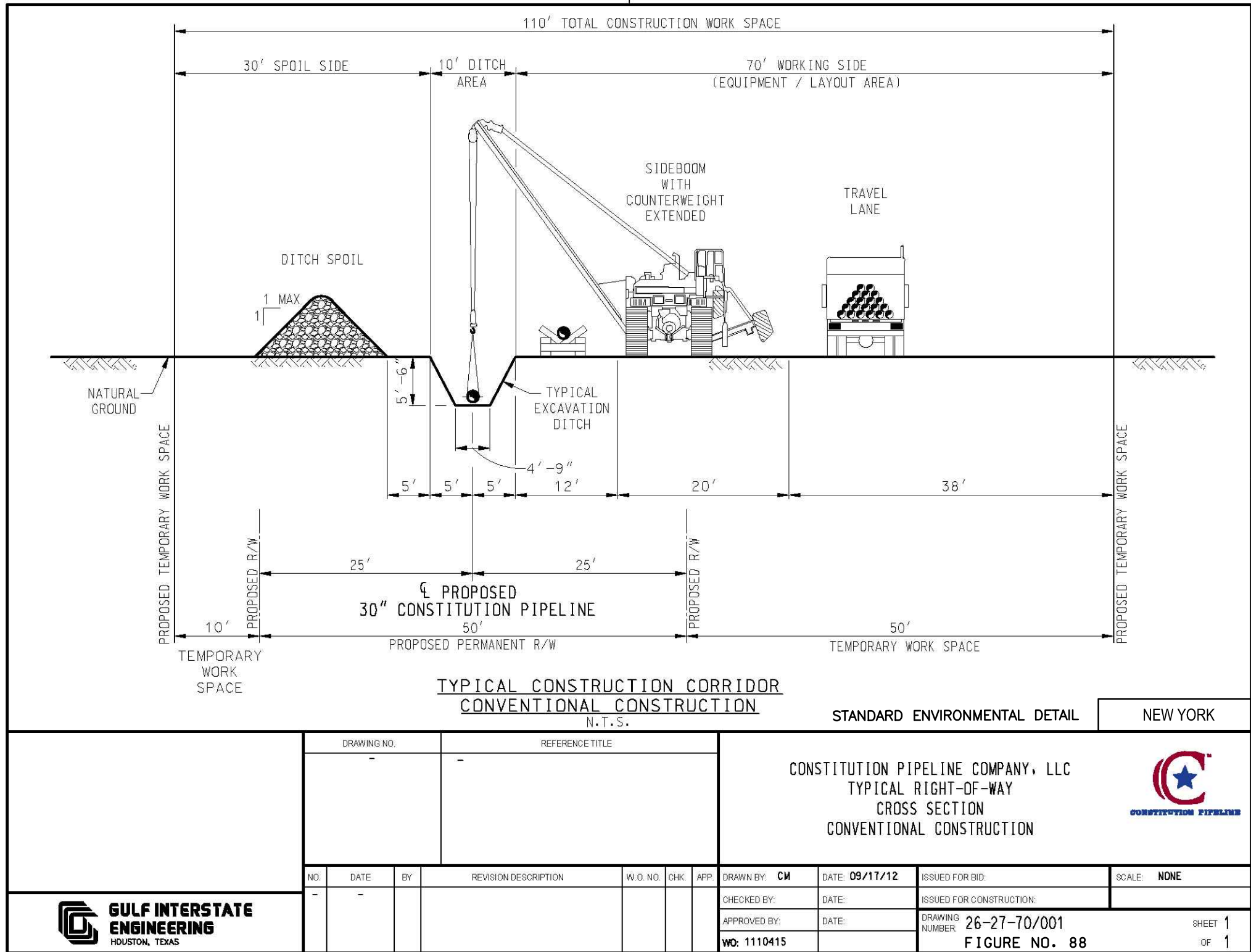
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W.O.:			

CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE



NEW YORK BEST MANAGEMENT PRACTICES



CONSTITUTION PIPELINE COMPANY, LLC
PROPOSED 30" NATURAL GAS PIPELINE



NEW YORK BEST MANAGEMENT PRACTICES

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