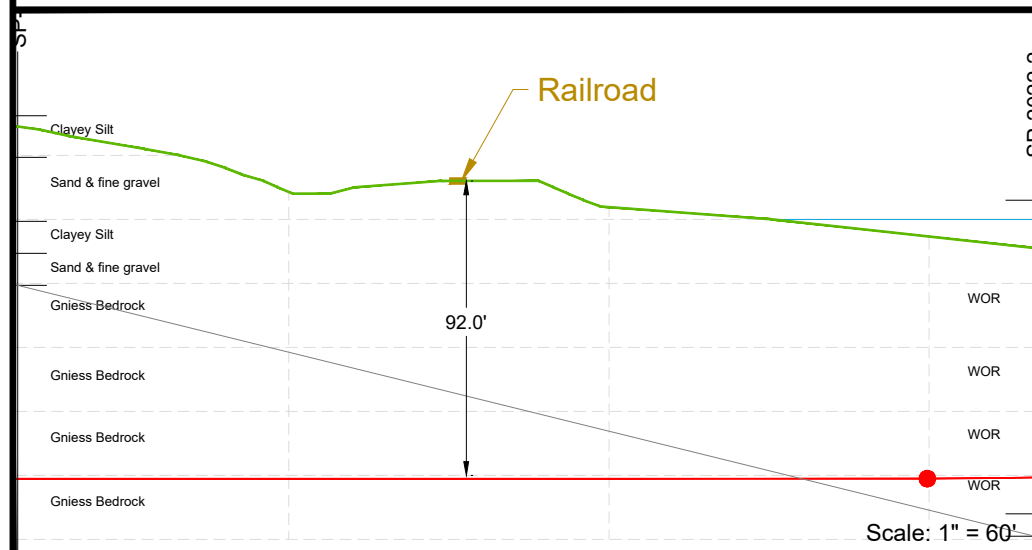
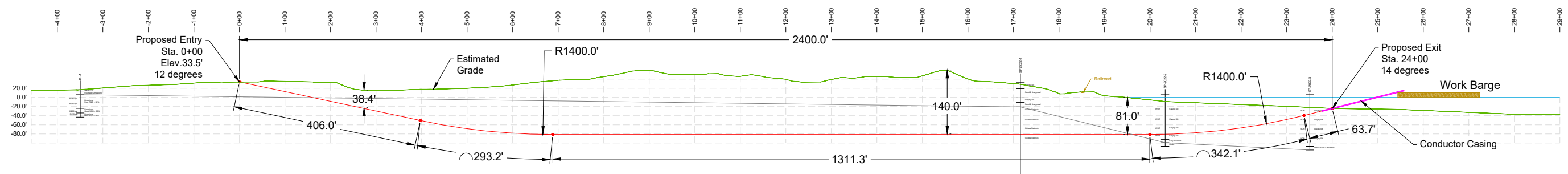
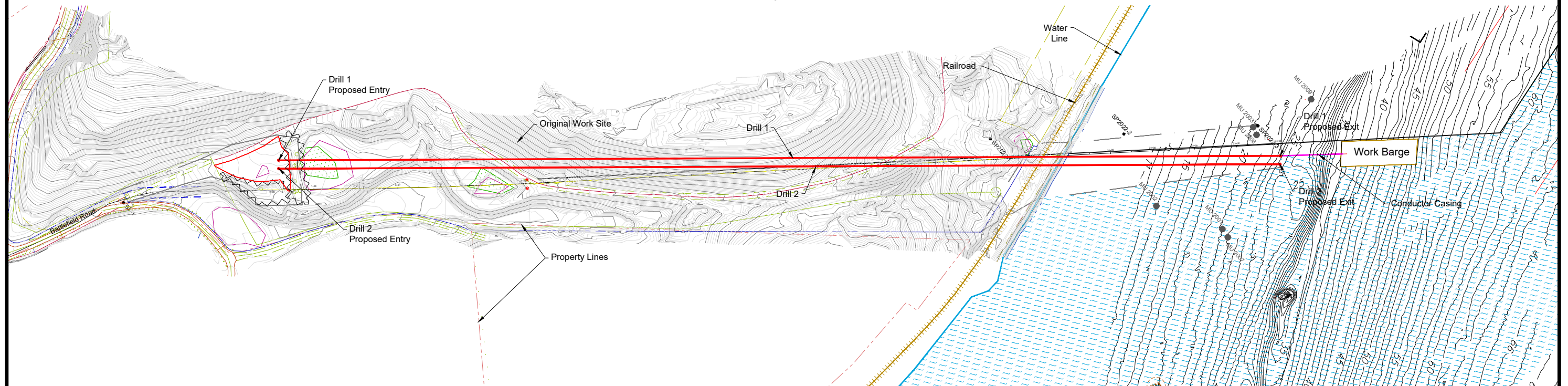


## **Appendix O – HDD Plan and Profile/Site Access Plans**

# Transmission Developers, Inc. Champlain Hudson Power Express Drill 3 - Stony Point, New York



Notes:  
1. All existing grade elevations are based on  
Rockland County GIS and NOAA Bathymetry.

HD = 2,400'  
MD = 2,417'  
Scale: 1" = 240'



1306 N. FM 3083 Road  
Conroe, Texas 77303  
PH: (936) 441-9080  
FAX: (936) 441-9082

DATE: 08-30-22	JOB No.: E20-034	DRAWN BY: GJH
CLIENT: Champlain Hudson Power Express	PROFILE DIRECTION: SW to NE	
LOCATION: Hudson River Stony Point, New York	DRAWING No.: Drill 3R12	

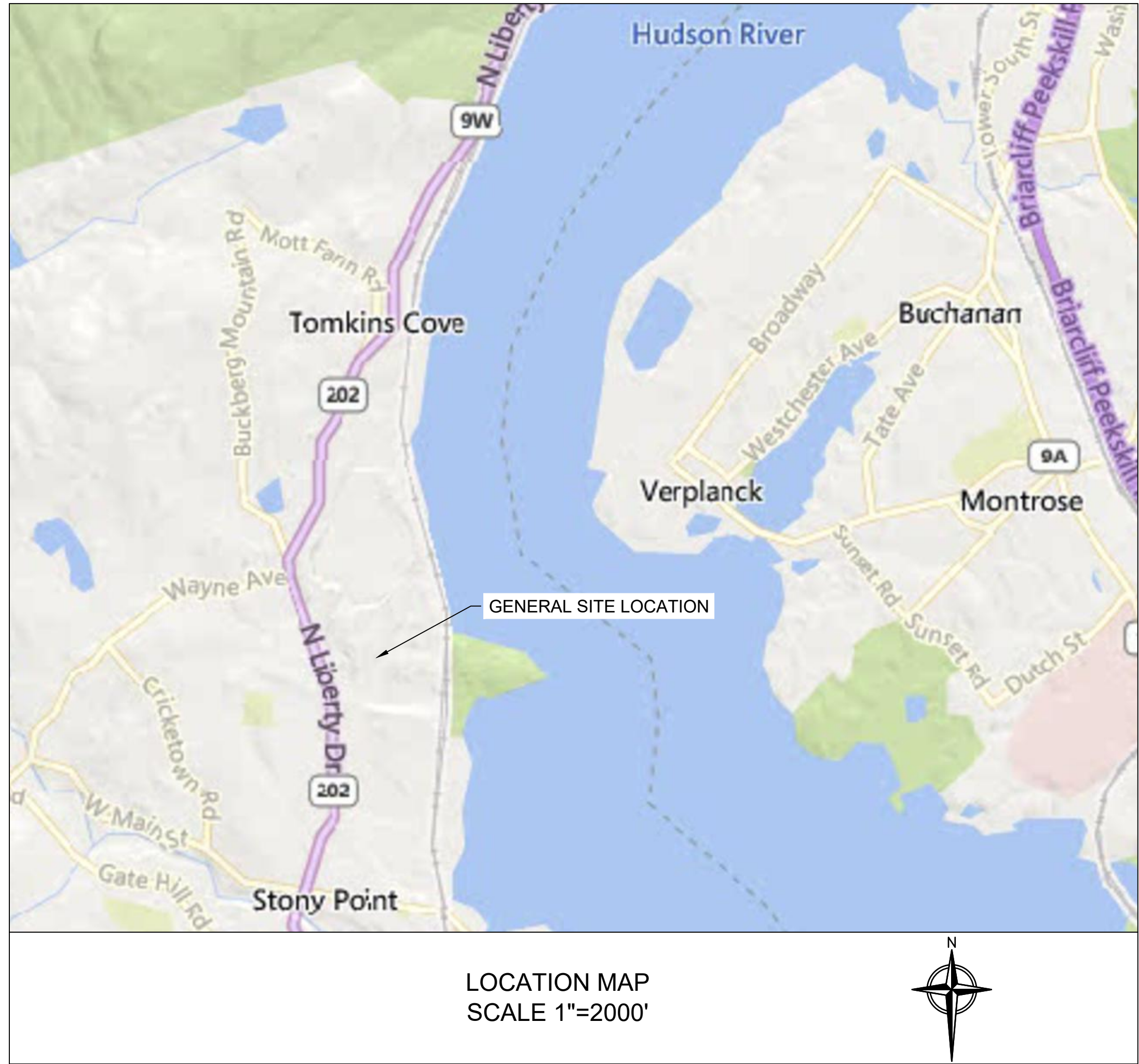
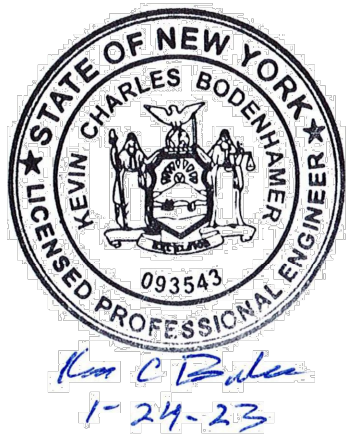
# CHAMPLAIN HUDSON POWER EXPRESS STONY POINT HDD PLAN & PROFILE DRAWINGS

## PROPERTY OWNER TABLE

LANDS NOW OR FORMERLY OF	BOOK, PAGE NO.	TAX MAP ID NO.
TILCON NEW YORK, INC.	1061, 797	15.02-4-59
CSX TRANSPORTATION, INC.	NA	7.00-1-3

**PREPARED FOR:**  
HUXTED TRENCHLESS  
1306 N. FM 3083 ROAD  
CONROE, TEXAS 77303

SEPTEMBER 19, 2022  
REVISED: JANUARY 24, 2023



PREPARED BY:



## DRAWING INDEX

SHEET NUMBER	DRAWING NUMBER	SHEET TITLE
1	-	COVER
2	N-1	NOTES
3	HDD-001	12" HDPE CONDUIT (1)
4	HDD-002	12" HDPE CONDUIT (2)
5	HDD-003	LAYOUT PLAN
6	HDD-004	HDD EQUIPMENT LAYOUT PLAN
7	HDD-005	CSX RAILROAD CROSSING PLAN
8	HDD-006	CONDUCTOR PIPE/ GOAL POST/ GRAVITY CELL INSTALLATION
9	HDD-007	DETAILS
10	HDD-008	ACCESS PLAN
11	HDD-009	TOMKINS COVE LAYDOWN AREA PLAN

## ATTACHMENTS

BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY C.T. MALE ASSOCIATES, DATED JUNE 2, 2022

NY 0010187

GENERAL NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL NECESSARY CONSTRUCTION NOTIFICATIONS, PERMITS AND ACTIVITIES WITH THE CERTIFICATE HOLDERS PRIOR TO AND DURING CONSTRUCTION.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE NECESSARY ARRANGEMENTS IF TRAFFIC CONTROL PLANS AND/OR RAILROAD REPRESENTATION ARE REQUIRED.
3. CONTRACTOR TO LOCATE, MARK AND POTHOLE FOREIGN LINES AS NECESSARY PRIOR TO EXCAVATION (AND MONITOR DURING DRILLING).
4. CONTRACTOR TO DEVELOP A CROSSING PLAN WITH THE OWNER OF ANY FOREIGN PIPELINE CROSSED WITH DRILLING EQUIPMENT.
5. LOCATIONS OF EXISTING FACILITIES SHOWN ARE APPROXIMATE. CONTRACTOR TO LOCATE AND/OR CONFIRM THE LOCATIONS AND DEPTH OF ALL UTILITIES, PIPELINES OR OTHER OBSTACLES PRIOR TO EXCAVATION. CONTRACTOR TO INFORM ENGINEER OF ANY UTILITY FOUND THAT MAY AFFECT HDD DESIGN.
6. CONTRACTOR TO SUPPORT EXISTING UTILITIES, PIPELINES AND/OR OTHER FEATURES.
7. CONTRACTOR TO GRADE EXCAVATION AREA AND RESTORE TO ORIGINAL CONDITIONS.
8. CONTRACTOR TO CONTACT STATE ONE CALL SYSTEM AT LEAST 72 HOURS PRIOR TO DRILLING.

REFERENCE NOTES

1. BASE PLAN REFERENCES A BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY C.T. MALE ASSOCIATES.
2. EXISTING TREE LINE WAS APPROXIMATED BY TRC FROM NEW YORK STATE GIS CLEARINGHOUSE FOR ROCKLAND COUNTY EARLY SPRING (MARCH OR APRIL) 2021 ORTHOIMAGERY.
3. WETLANDS WERE DELINEATED AND FLAGGED BY TRC IN MAY OF 2022.

PROJECTION SYSTEM

1. NAD83 / NEW YORK EAST (U.S. SURVEY FEET).

INSTALLATION NOTES:

1. ACCESS: ALL EQUIPMENT MUST ACCESS THE LIMITS OF DISTURBANCE FROM PREVIOUSLY IMPROVED PUBLIC OR APPROVED PRIVATE ROADS.
2. WORK SPACE: LIMITS OF DISTURBANCE ARE DEPICTED HEREIN. VEGETATION REMOVAL IS ANTICIPATED TO BE LIMITED TO PRUNING OF LIMBS AND TRIMMING OF UNDERGROWTH ALONG THE PERIMETER OF THE HDD WORKSPACE. NO HERBICIDE USE IS PERMITTED. CLEARING BETWEEN THE ENTRY AND EXIT POINTS IS NOT ANTICIPATED. THE DEBRIS GENERATED FROM THE LIMITED PRUNING OF TREES AND THE TRIMMING OF UNDERGROWTH WILL BE COLLECTED IN A ROLL OFF DUMPSTER AND DISPOSED OF BY A LOCAL LICENSED WASTE DISPOSAL COMPANY.
3. WATER SOURCE: DRILL WATER SHALL BE OBTAINED FROM AN APPROVED SOURCE. THE CONTRACTOR WILL MAKE ARRANGEMENTS TO OBTAIN WATER FROM A LOCAL FIRE HYDRANT. WATER USAGE SHALL BE METERED AND OBTAINED THROUGH AN APPROVED BACK FLOW PREVENTER.
4. SPILL-PREVENTION: THE MOST RECENT VERSION OF THE SPILL PREVENTION PLAN (SPP) IS INCLUDED AS APPENDIX E OF THE CALDWELL MARINE HDD INSTALLATION MANUAL. THE CALDWELL MARINE HDD INSTALLATION MANUAL IS INCLUDED AS APPENDIX F OF THE ENVIRONMENTAL MANAGEMENT AND CONTROL PLAN (EM&CP). ALL REFUELING AND STORAGE IS ADDRESSED IN THE SPP. ALL PUMPS SHALL BE SET IN SECONDARY CONTAINMENT AND IN ACCORDANCE WITH THE SPP. EQUIPMENT AND PUMPS OPERATING WITHIN 100 FEET OF ANY WATER BODY OR WETLAND SHALL BE OPERATED AND REFUELED IN ACCORDANCE WITH THE SPP. EQUIPMENT REFUELING AND STORAGE OF HAZARDOUS MATERIALS, FUELS, ETC. SHALL BE CONDUCTED AT LEAST 100 FEET FROM WATER BODIES AND WETLAND WHERE PRACTICAL. EACH CONSTRUCTION CREW SHALL HAVE ON HAND SUFFICIENT TOOLS AND MATERIALS TO STOP LEAKS AND HAVE SUPPLIES OF ABSORBENT AND BARRIER MATERIALS TO ALLOW RAPID CONTAINMENT AND RECOVERY OF SPILLED MATERIALS.
5. EROSION AND SEDIMENT CONTROL: CONTRACTOR SHALL SUPPLY, INSTALL AND MAINTAIN SEDIMENT CONTROL STRUCTURES IN ACCORDANCE WITH CONTRACT DOCUMENTS. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL STRUCTURES AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR OR AS NEEDED TO ENSURE SEDIMENT-LADEN RUNOFF FROM NEWLY DISTURBED AREAS IS PREVENTED FROM FLOWING OUTSIDE THE LIMITS OF DISTURBANCE.
6. MUD DISPOSAL: CONTRACTOR SHALL DISPOSE OF EXCESS DRILLING MUD AS DIRECTED BY THE COMPANY REPRESENTATIVE IN ACCORDANCE WITH PERMIT CONDITIONS. UNDER NO CIRCUMSTANCES SHALL DRILLING FLUID BE DISPOSED OF IN WATER BODIES OR WETLANDS. ANY DRILLING MUD WHICH INADVERTENTLY EXITS AT POINTS OTHER THAN THE ENTRY AND EXIT POINTS SHALL BE CONTAINED AND COLLECTED TO THE EXTENT PRACTICAL AND DISPOSED OF AS DIRECTED BY THE COMPANY REPRESENTATIVE IN ACCORDANCE WITH PERMIT CONDITIONS. DRILLING MUD WILL BE DISPOSED OF AT CLEAN EARTH NEW JERSEY, IN KEARNY, NJ OR AT AN ALTERNATE APPROVED FACILITY.
7. HDD CUTTINGS WILL BE DISPOSED OF AT CLEAN EARTH NEW JERSEY, IN KEARNY, NJ OR AT AN ALTERNATE APPROVED FACILITY.
8. CLEANUP/STABILIZATION/RESTORATION: ALL DISTURBED AREAS SHALL BE RETURNED TO THE ORIGINAL CONDITIONS. DISTURBED AREAS SHALL BE SEEDED AND TEMPORARY EROSION/SEDIMENT CONTROL DEVICES SHALL BE REMOVED ONCE THE CONTRIBUTING DISTURBED AREAS ARE STABILIZED AND APPROVED BY THE QUALIFIED INSPECTOR. REFER TO THE SEED MIXTURES LISTED IN TABLE 4.4 OF APPENDIX G OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP IS INCLUDED AS APPENDIX H OF THE EM&CP.
9. CONTRACTOR SHALL USE A GYROSCOPIC DRILL HEAD ON THE PILOT DRILL TO ENSURE ACCURATE EXIT LOCATION WITHIN THE TEMPORARY MODULAR GRAVITY CELLS.

PROPOSED LEGEND

LOD

LOD

LIMITS OF DISTURBANCE

SF

SILT FENCE

LAYDOWN AREA

PERMITTED DEVIATION ZONE

SUGGESTED DEVIATION ZONE

HDD CONDUIT

HDD ENTRY/EXIT POINTS

GEOTECH BORE HOLE LOCATIONS

EXISTING LEGEND

EXISTING TREE LINE

RAILROAD TRACKS

P

P

OVERHEAD WIRES

UU

UU

UNDERGROUND UTILITY

X

X

EXISTING FENCE

30

MAJOR CONTOUR

MINOR CONTOUR

WETLAND



100-FOOT WETLAND ADJACENT AREA

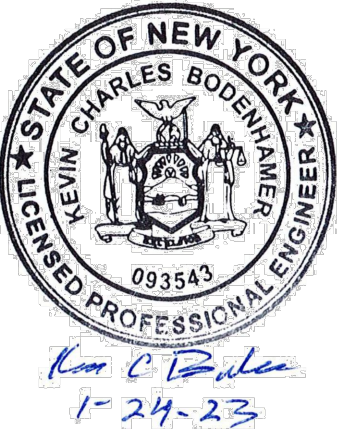
PARCEL BOUNDARIES

EXISTING NATURAL VEGETATION

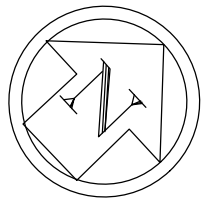
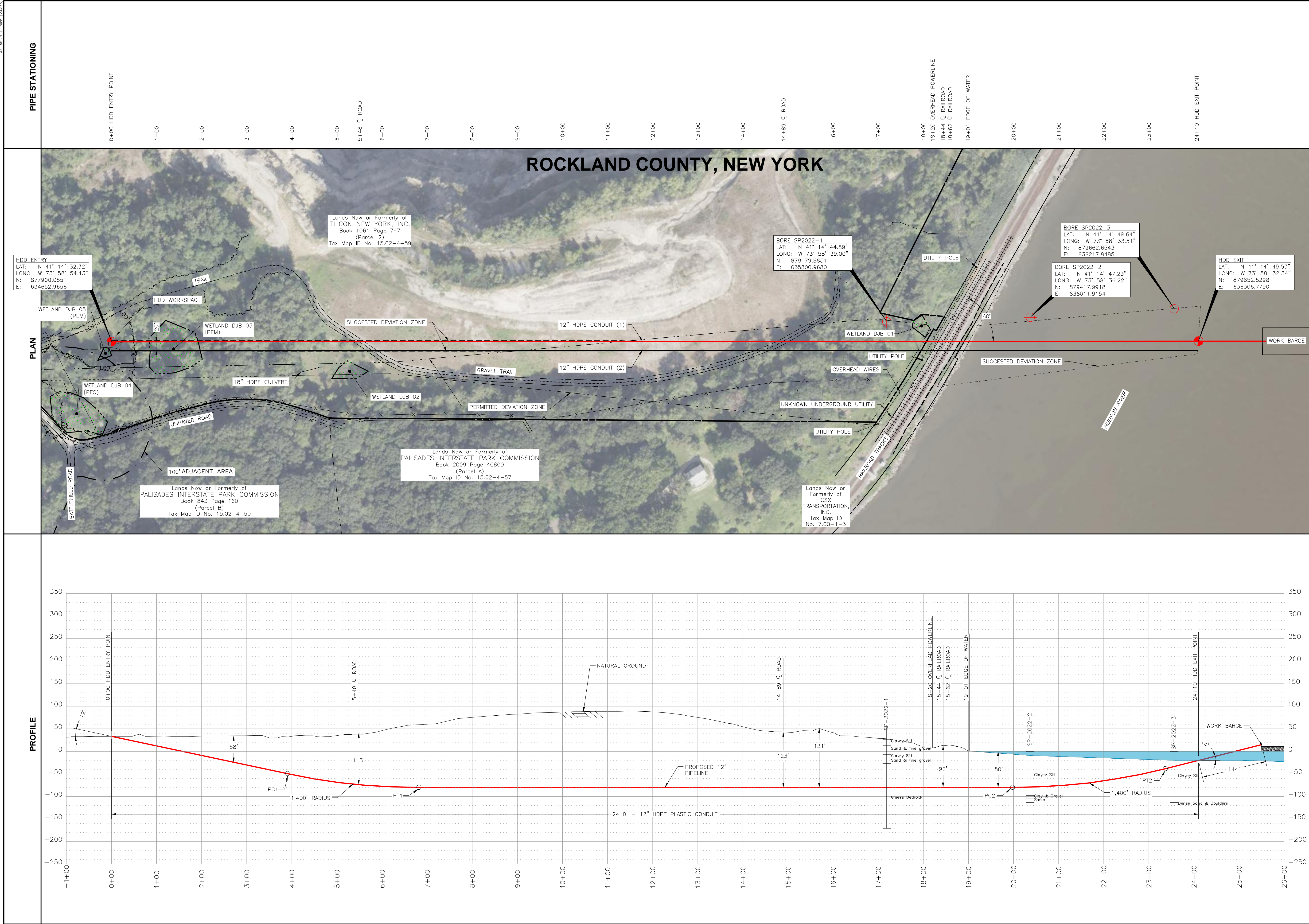
UP

EXISTING UTILITY POLE

						REFERENCE DRAWINGS		REVISIONS							DRAWING APPROVALS		 <div>TRC FIRM REGISTRATION NO.: NY 0010187</div>	STONY POINT HDD NOTES & LEGEND			
						DWG. NO.	TITLE	NO.	DESCRIPTION	DATE	DRAWN	CHK	APPR	DRAWN	DATE						
								1	RESPONSE TO NYS COMMENTS	1/24/2023	MMO	GJR	KCB								

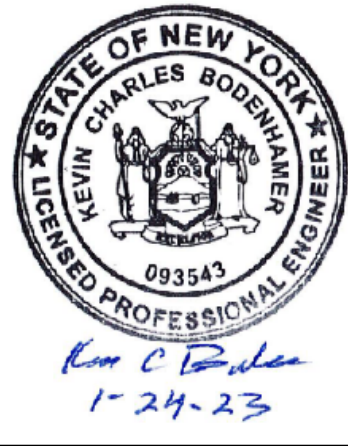


NY 2022-12-2022 (10/13/23)



HORIZONTAL DIRECTIONAL DRILL DATA		
DESCRIPTION	STA.	ELEV.
ENTRY ANGLE @ 12°	0+00	33.5'
POINT OF CURVATURE (1,400 FT. RADIUS) (PC1)	3+90	-49.4'
POINT OF TANGENCY (PT1)	6+81	-80.0'
POINT OF CURVATURE (1,400 FT. RADIUS) (PC2)	19+97	-80.0'
POINT OF TANGENCY (PT2)	23+36	-38.5'
EXIT ANGLE @ 14°	24+10	-20.0'

HORIZONTAL DIRECTIONAL DRILL PARAMETERS		
1.) PIPE: 12.75" O.D. x 1.417" W.T. DESIGN FACTOR:	HDPE DR9 IPS 0.63	
2.) LENGTH OF CROSSING:	2,410' HORIZONTAL DISTANCE	
3.) TYPE OF PIPE JOINT: LENGTH OF PIPE:	BUTT FUSION 2,426 L.F.	
4.) ESTIMATED PULL FORCE: ALLOWABLE PULL FORCE:	22,921 LBS. 54,395 LBS.	



REFERENCE DRAWINGS	
DWG. NO.	TITLE
HDD-002	12" HDPE CONDUIT (2)
HDD-006	CONDUCTOR PIPE/GOAL POST/GRAVITY CELL INSTALLATION

REVISIONS					
NO.	DESCRIPTION	DATE	DRAWN	CHK	APPR
1	RESPONSE TO NYS COMMENTS	1/13/2023	AWF	GJR	KCB

DRAWING APPROVALS	
DRAWN	DATE
AWF	06/28/22
CHECKED	DATE
GJR	09/19/22
ENGINEER	DATE
KCB	09/19/22

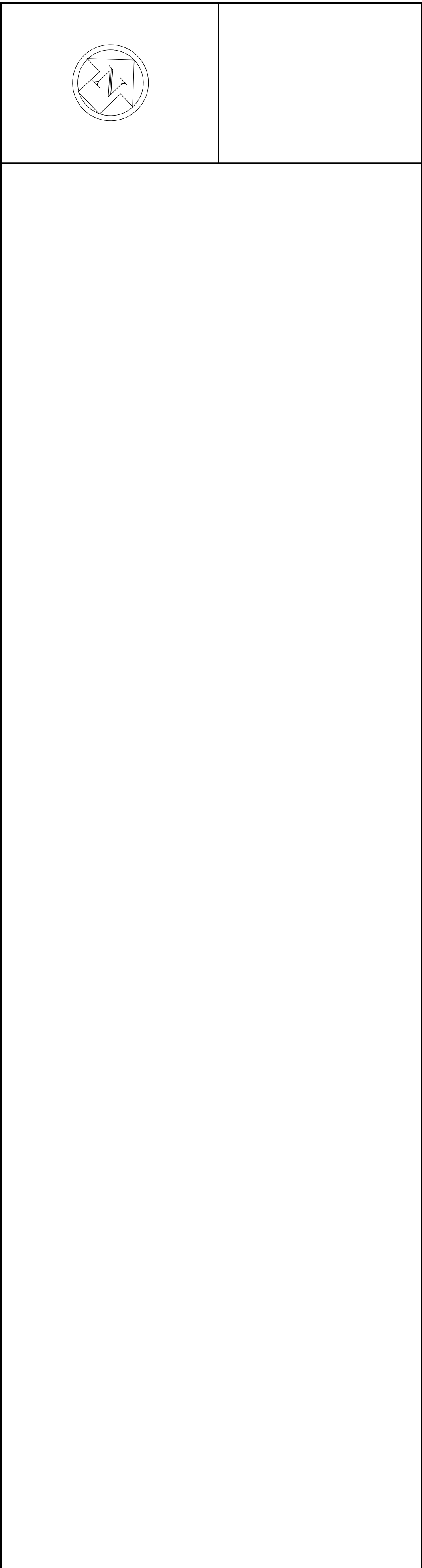
**TRC** THE TRC GROUP, INC.

SCALE PLAN: 0 1"=100'

SCALE PROFILE H: 0 1"=100'

SCALE PROFILE V: 0 1"=100'

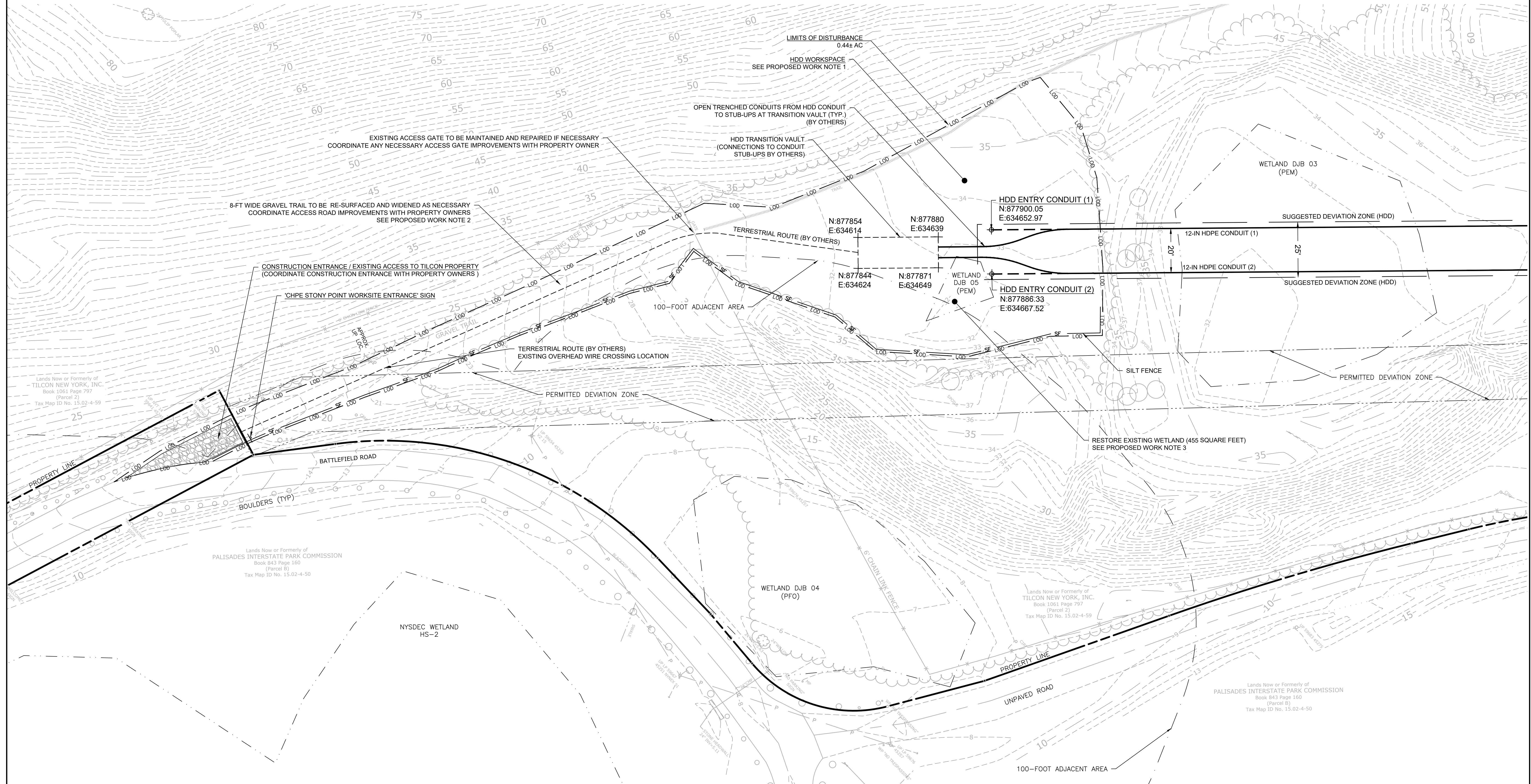
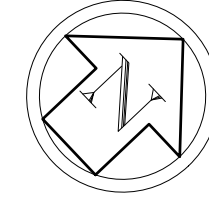
STONY POINT HDD 12" HDPE CONDUIT (1)			
SCALE	PROJECT NO.	DRAWING NO.	SHT. NO.
1"=100'	496182	HDD-001	3



<p align="center"><b>STONY POINT HDD</b>  <b>12" HDPE CONDUIT (2)</b></p>			
SCALE	PROJECT NO.	DRAWING NO.	SHT. NO.
1"=100'	496182	HDD-002	4

1. ALL HDD CONSTRUCTION OPERATIONS, LAYDOWN, AND PARKING WILL BE CONTAINED WITHIN THE LIMITS OF DISTURBANCE. TREE CLEARING AND SIGNIFICANT LAND GRADING IS NOT ANTICIPATED. ALL DISTURBED AREAS SHALL BE RESTORED AND RE-VEGETATED AFTER CONSTRUCTION. REFER TO THE SEED MIXTURES LISTED IN TABLE 4.4 OF APPENDIX G OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP IS INCLUDED AS APPENDIX H OF THE EM&CP.
2. THE EXISTING ACCESS TO TILCON PROPERTY SHALL BE RE-SURFACED AND WIDENED AS NECESSARY TO SUPPORT HDD CONSTRUCTION OPERATIONS AND PREVENT SEDIMENT-LADEN RUNOFF FROM FLOWING OUTSIDE OF THE LIMITS OF DISTURBANCE. SECTIONS OF EXISTING ACCESS TO BE IMPROVED SHALL BE A MAXIMUM OF 12-FOOT IN WIDTH AND SHALL BE CONSTRUCTED WITH 3" CLEAN STONE, 6 INCHES THICK PLACED OVER A BED OF FILTER FABRIC.
3. THE 455 SQUARE FEET OF WETLAND RESTORATION WORK SHALL BE SUPERVISED BY A QUALIFIED WETLAND SCIENTIST, RETAINED BY THE CERTIFICATE HOLDERS, AND EXPERIENCED IN WETLAND MITIGATION CONSTRUCTION. EXISTING WETLAND SOILS SHALL BE STRIPPED, STOCKPILED AND RE-USED FOR WETLAND RESTORATION TO THE EXTENT PRACTICAL. PRIOR TO WETLAND RESTORATION ALL DEPOSITED SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF AND THE STOCKPILED WETLAND SOIL SHALL BE TESTED TO ENSURE THAT IT CONTAINS 12-PERCENT ORGANIC CARBON CONTENT BY WEIGHT. WETLAND SOILS SHALL BE SUPPLEMENTED AS NECESSARY TO RESTORE EXISTING CONDITIONS ELEVATIONS. "FINE SANDY LOAM" OR "SANDY LOAM" SHALL BE USED TO SUPPLEMENT EXISTING WETLAND SOIL AND SHALL BE OF A UNIFORM MIXTURE FREE OF SUBSOIL, STONES, LUMPS, PLANTS, ROOTS, DEBRIS, OTHER EXTRANEEOUS MATTER OVER 1-1/2 INCH IN DIAMETER AND TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH. THE WETLAND RESTORATION AREA SHALL BE SEEDED WITH FACW WETLAND MEADOW MIX (ERNMX-122).
4. REFER TO APPENDIX J OF THE ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION DOCUMENT FOR THE INVASIVE SPECIES CONTROL PLAN.

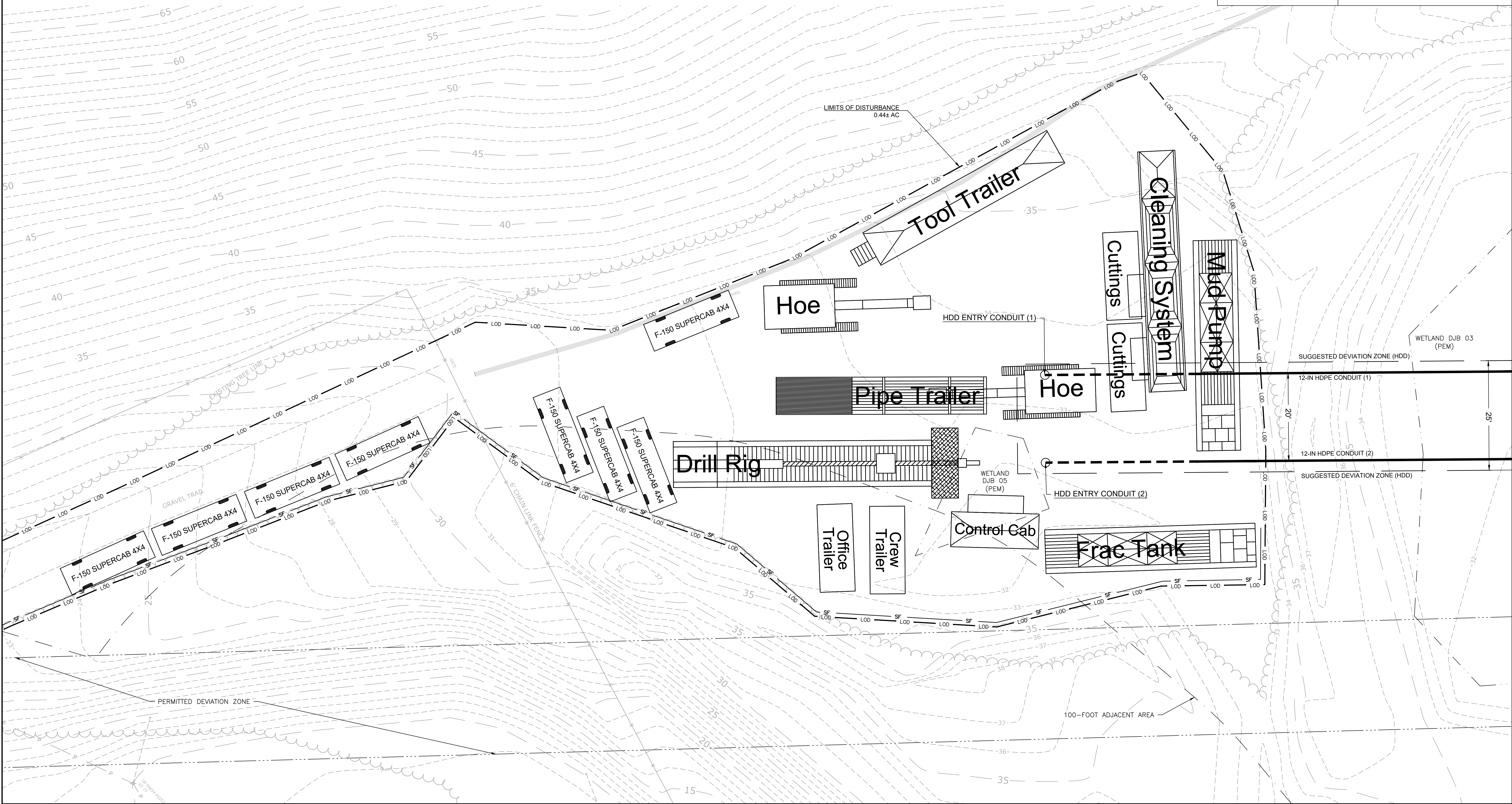
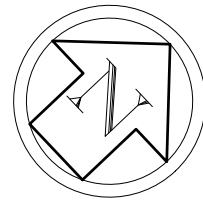
1. BASE PLAN REFERENCES BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY C.T. MALE ASSOCIATES.
2. WETLANDS WERE DELINEATED AND FLAGGED BY TRC IN MAY OF 2022.
3. EXISTING TREE LINE WAS APPROXIMATED BY TRC FROM NEW YORK STATE GIS CLEARINGHOUSE FOR ROCKLAND COUNTY EARLY SPRING (MARCH OR APRIL) 2021 ORTHOIMAGERY.



[illegible]

SEE SHEET 0-212 FOR LAYOUT

REFERENCE NOTES:

1. BASE PLAN REFERENCES BOUNDARY AND TOPOGRAPHIC SURVEY PREPARED BY C.T. MALE ASSOCIATES.
2. WETLANDS WERE DELINEATED AND FLAGGED BY TRC IN MAY OF 2022.
3. EXISTING TREE LINE WAS APPROXIMATED BY TRC FROM NEW YORK STATE GIS CLEARINGHOUSE FOR ROCKLAND COUNTY EARLY SPRING (MARCH OR APRIL) 2021 ORTHOIMAGERY.
4. HDD EQUIPMENT LAYOUT PROVIDED BY HUXTED TRENCHLESS IN AUGUST 2022.



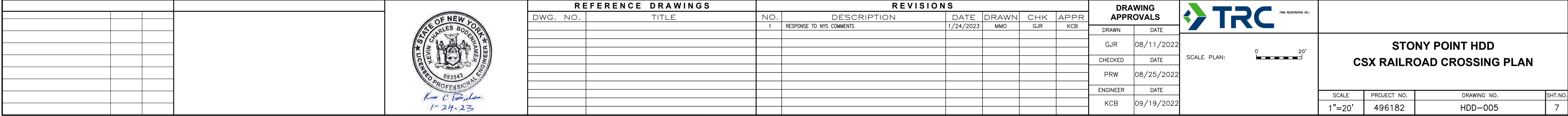
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			DWG. NO.	TITLE	NO.	DESCRIPTION	DATE	DRAWN	CHK	APPR	DRAWN	DATE				
					1	RESPONSE TO NYS COMMENTS	1/24/2023	MMO	GJR	KCB	GJR	08/24/2022				
											CHECKED	DATE	<div>STONY POINT HDD EQUIPMENT LAYOUT PLAN</div>			
											PRW	08/25/2022				
											ENGINEER	DATE				
											KCB	09/19/2022	SCALE	PROJECT NO.	DRAWING NO.	SHT. NO.
													1"=10'	496182	HDD-004	6



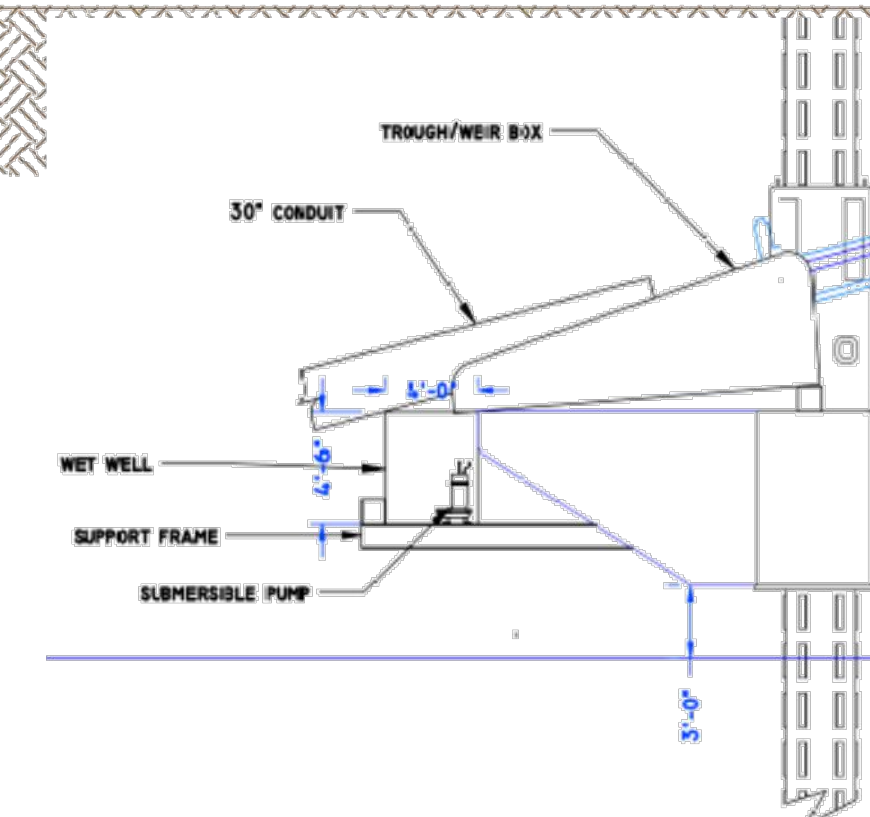
Kevin C. Bodnar  
1-24-23

USER\_DWGNAME  
6

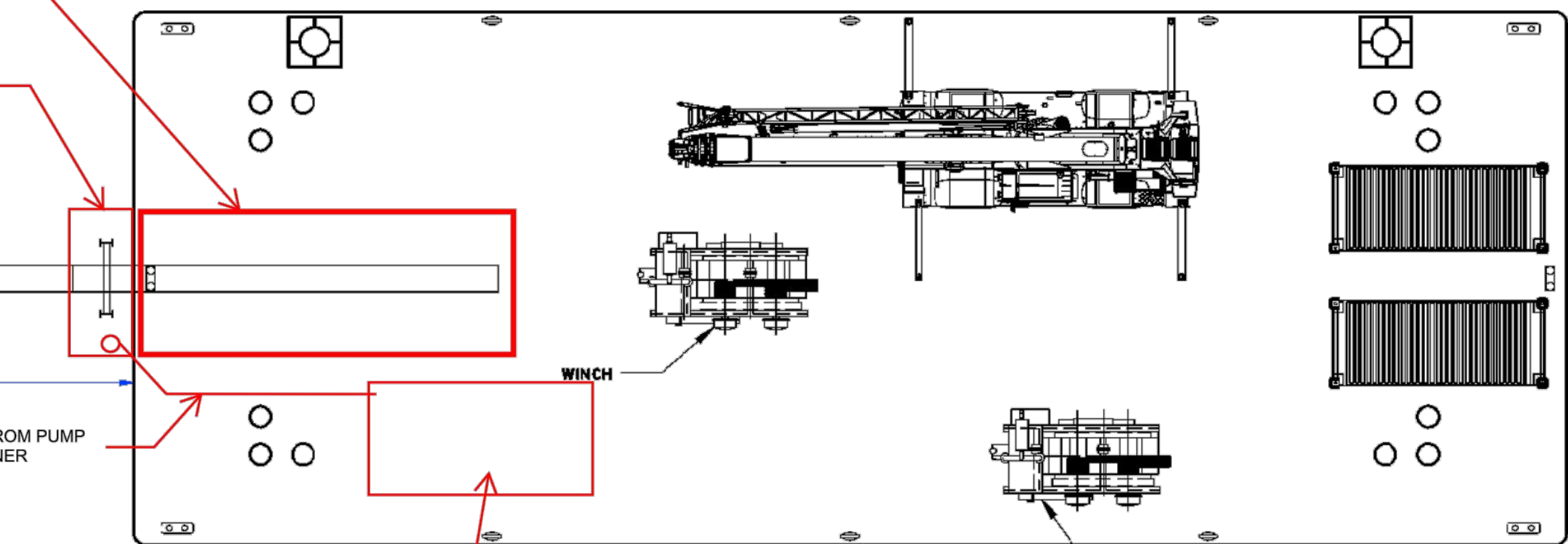
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1. GRAVITY CELL TO BE PLACED AT MUD LINE TO ENCOMPASS PILOT HOLE PUNCH-OUT LOCATION.
2. PILOT HOLE TO BE DRILLED FROM SHORE TO IN-RIVER PUNCH-OUT LOCATION.
3. PIN PILES TO BE DRIVEN SIMULTANEOUSLY TO PILOT HOLE DRILLING OPERATION.
4. CONDUIT CROSS SUPPORTS TO BE INSTALLED AT EACH PILE BENT AT CORRESPONDING ELEVATIONS TO ENSURE 14-DEGREE VERTICAL ANGLE.
5. UPON PILOT DRILL PUNCH-OUT, A TAG LINE WILL BE ATTACHED TO THE DRILL STRING AND THREADED THROUGH THE FIRST CONDUIT PIPE.
6. FIRST CONDUIT PIPE TO BE POSITIONED UPON THE UPPER GOAL POST CROSS MEMBERS, SLID DOWN AND SECURED IN PLACE.
7. SECOND CONDUIT PIPE TO BE POSITIONED WITHIN THE GOAL POSTS UPON THE CROSS MEMBERS TO MEET THE FIRST CONDUIT PIPE.
8. PIPE TWO IS WELDED TO PIPE ONE AND THE WELDED ASSEMBLY SLID DOWN THROUGH THE GOAL POSTS TO ACCOMMODATE THE NEXT CONDUIT SECTION.
9. SUBSEQUENT CONDUIT PIPE SECTIONS TO BE INSTALLED AND WELDED SIMILARLY UNTIL THE LOWER END OF THE CONDUIT PENETRATES THE MUD LINE, SURROUNDING THE DRILL STRING.
10. FIRST (R) PIPE IS WELDED TO CONDUIT AT DIAGONALLY DRIVEN SHAG THAT THE ASSEMBLY PENETRATES THE MUD LINE AS SHOWN.
11. DRILL STRING, WITH ITS TAG LINE IS FED UP TO DECK LEVEL AND READY FOR SUBSEQUENT REAMING PASSES.
12. THE "TEMPORARY GOAL POSTS" WILL BE LAID OUT BY SURVEY. THE WIDE FLANGE BEAM OR H-PILE GOAL POSTS WILL BE DRIVEN TO THE INDICATED DEPTH BELOW THE SEA BED UTILIZING VIBRATORY PILE HAMMER

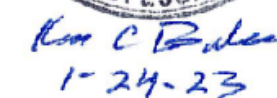


OPEN TOP, WELDED STEEL CONTAINMENT  
BOX, SIZE AS REQUIRED, PITCH TOWARD  
WET WELL



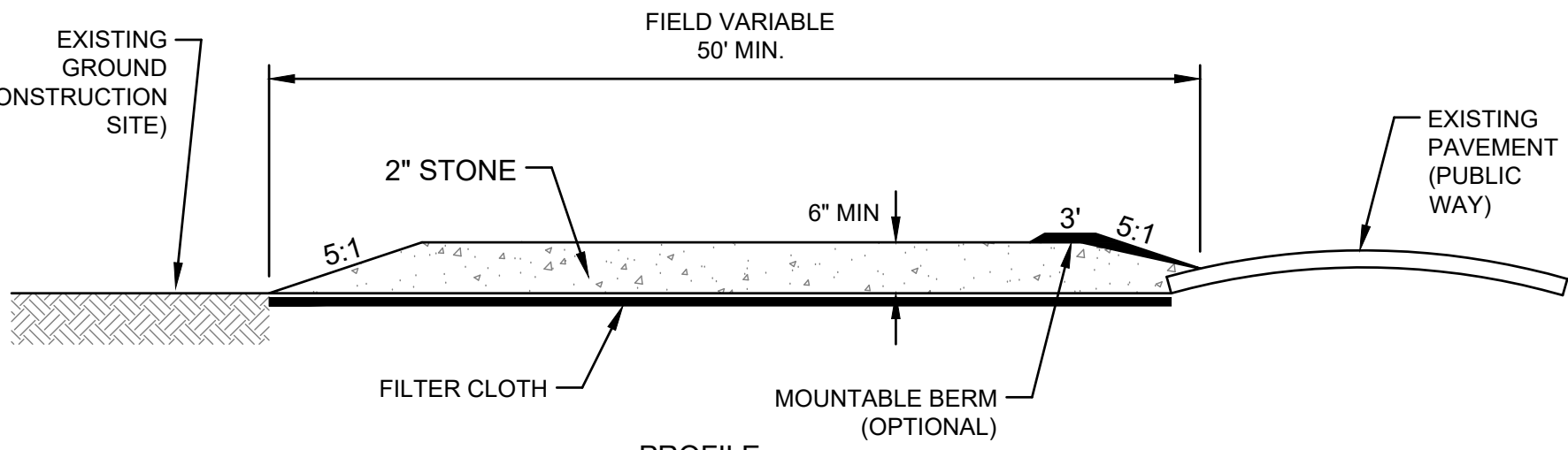
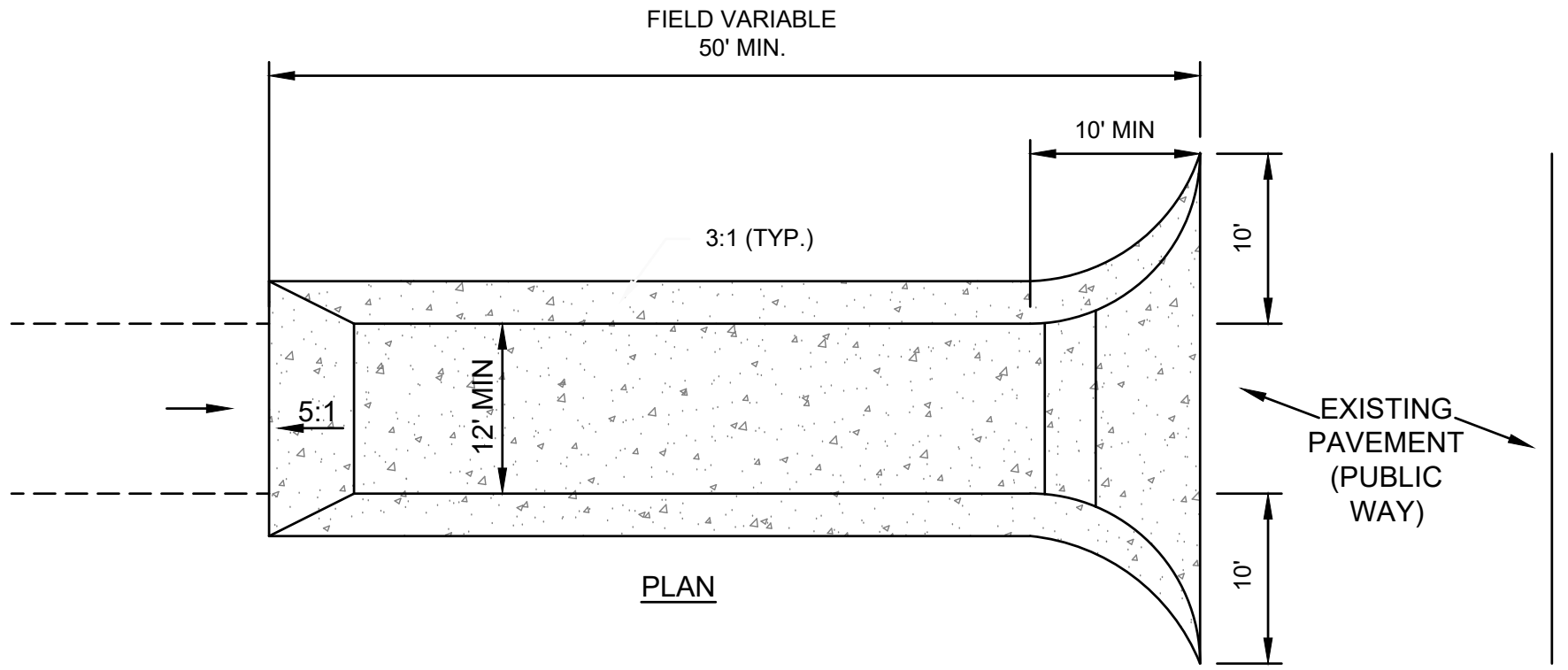
LINED 10 CY CONTAINER FOR STORAGE AND  
TRANSFER OF CONTAINED FLUIDS FOR  
PROPER DISPOSAL ON SHORE.

CONDUCTOR PIPE/GOAL POST/GRAVITY CELL INSTALLATION INFORMATION SHOWN HEREIN  
PROVIDED BY CALDWELL MARINE IN NOVEMBER 2022



SCALE	PROJECT NO.	DRAWING NO.	SHT. NO.
N.T.S.	496182	HDD-006	8

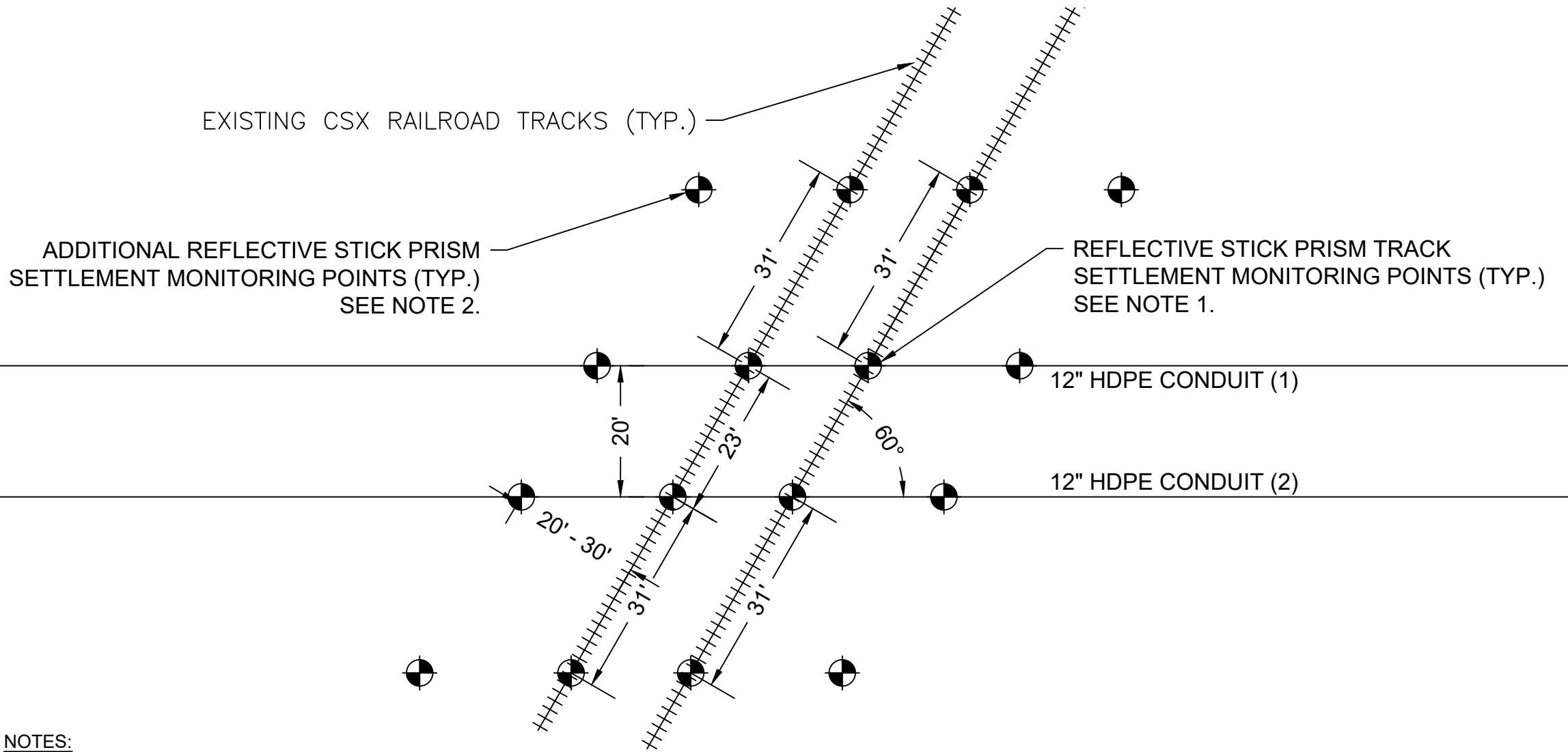
SEE AREA D-252 (2x5)



CONSTRUCTION SPECIFICATIONS:

- USE 2" DIAMETER STONE OR RECLAIMED/RECYCLED CONCRETE EQUIVALENT.
- RECOMMENDED LENGTH GREATER THAN 50 FEET WHERE PRACTICAL.
- THICKNESS NOT LESS THAN 6 INCHES.
- 12-FOOT MINIMUM WIDTH, BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCUR.
- FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- EGRESS SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO 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.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR.

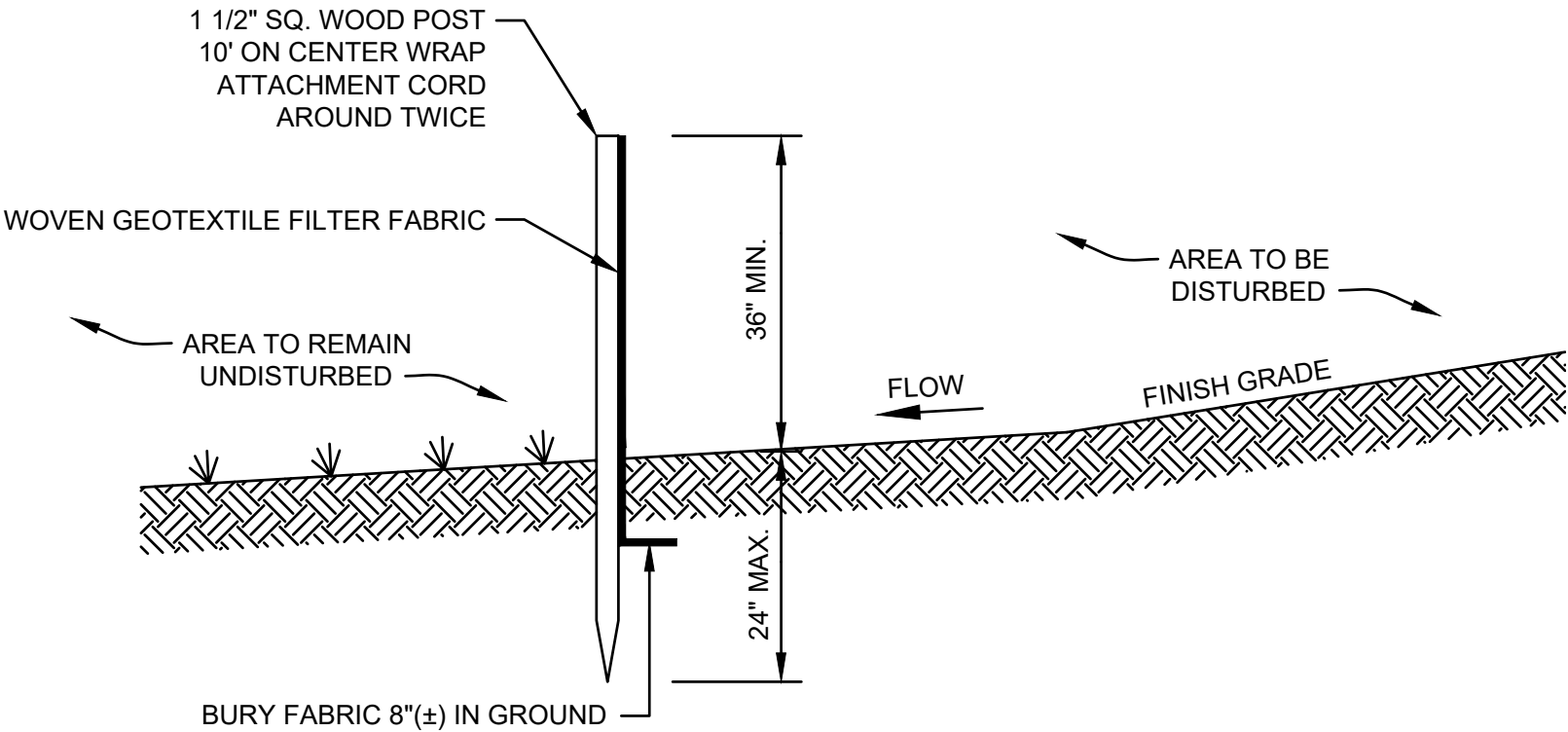
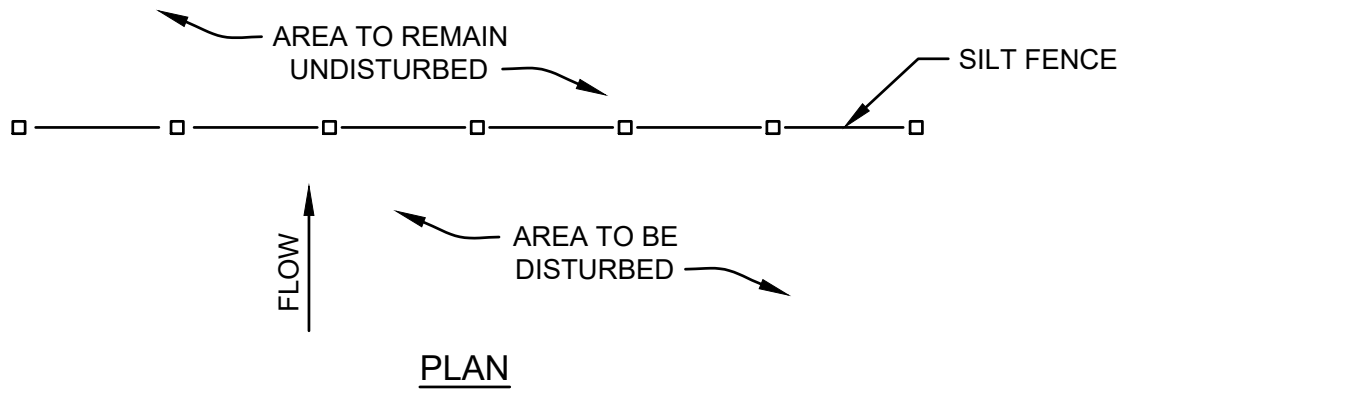
1  
9  
TYPICAL CONSTRUCTION ENTRANCE  
SCALE: NTS



NOTES:

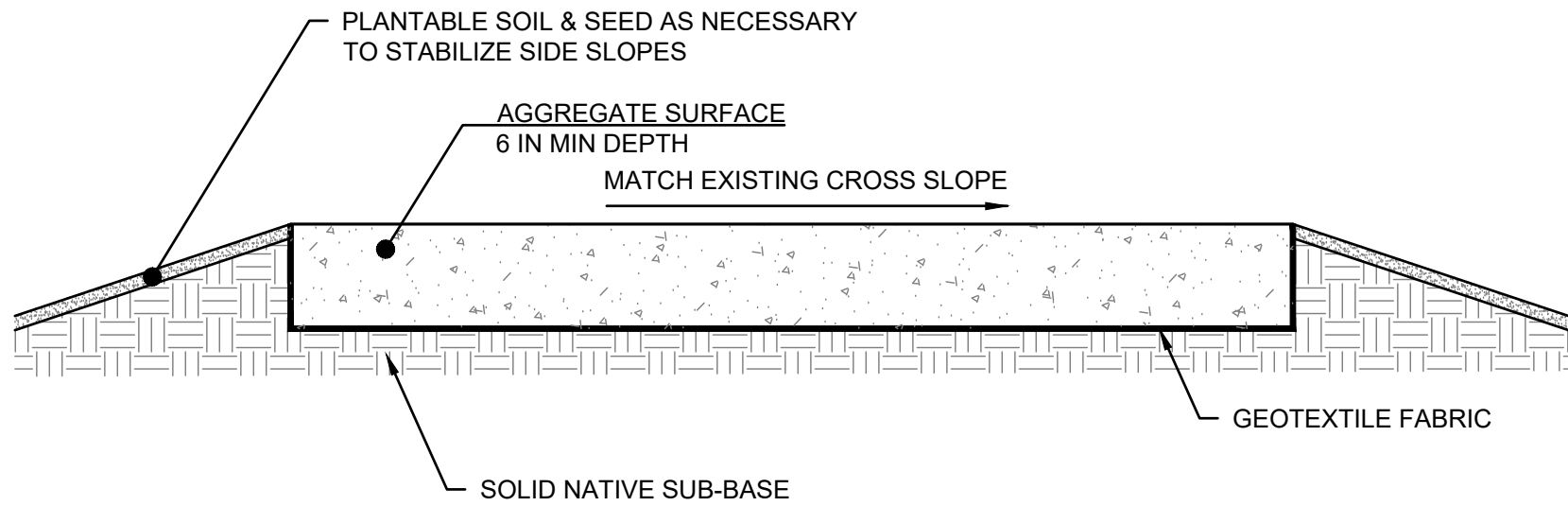
- SURVEY PRISMS USED FOR TRACK SETTLEMENT MONITORING POINTS SHALL BE INSTALLED ON THE FIELD SIDE WEB OF THE OUTSIDE RAIL OR ON THE TOP OF TIE. CONTRACTOR TO FIELD LOCATE AND MARKOUT TRACK SETTLEMENT MONITORING POINTS FOR CSX APPROVAL PRIOR TO INSTALLATION.
- SURVEY PRISMS USED FOR ADDITIONAL SETTLEMENT MONITORING POINTS SHALL BE ATTACHED TO SHORT (18 TO 24 INCH LENGTH) STEEL REBAR POSTS DRIVEN INTO THE EARTH TO PROTRUDE NO MORE THAN 4 INCHES ABOVE GRADE. PROTRUDING POSTS SHALL BE PAINTED IN HIGHLY VISIBLE NON-REFLECTIVE COVER. CONTRACTOR TO FIELD LOCATE AND MARK ADDITIONAL SETTLEMENT MONITORING POINTS FOR CSX APPROVAL PRIOR TO INSTALLATION.
- CSX SHALL MARKOUT OR CLEAR THE PROPOSED MONITORING LOCATIONS FOR THE PRESENCE OF BURIED UTILITIES PRIOR TO INSTALLATION OF THE MONITORING POINTS.
- THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF, AND ACCESS TO, ALL MONITORING POINTS WITH CSX.
- INSTALLATION OF MONITORING POINTS REQUIRES TRACK PROTECTION PROVIDED BY A CSXT FLAGGER.

4  
9  
CSX RAILROAD CROSSING MONITORING LOCATIONS SCHEMATIC  
SCALE: NTS



SECTION

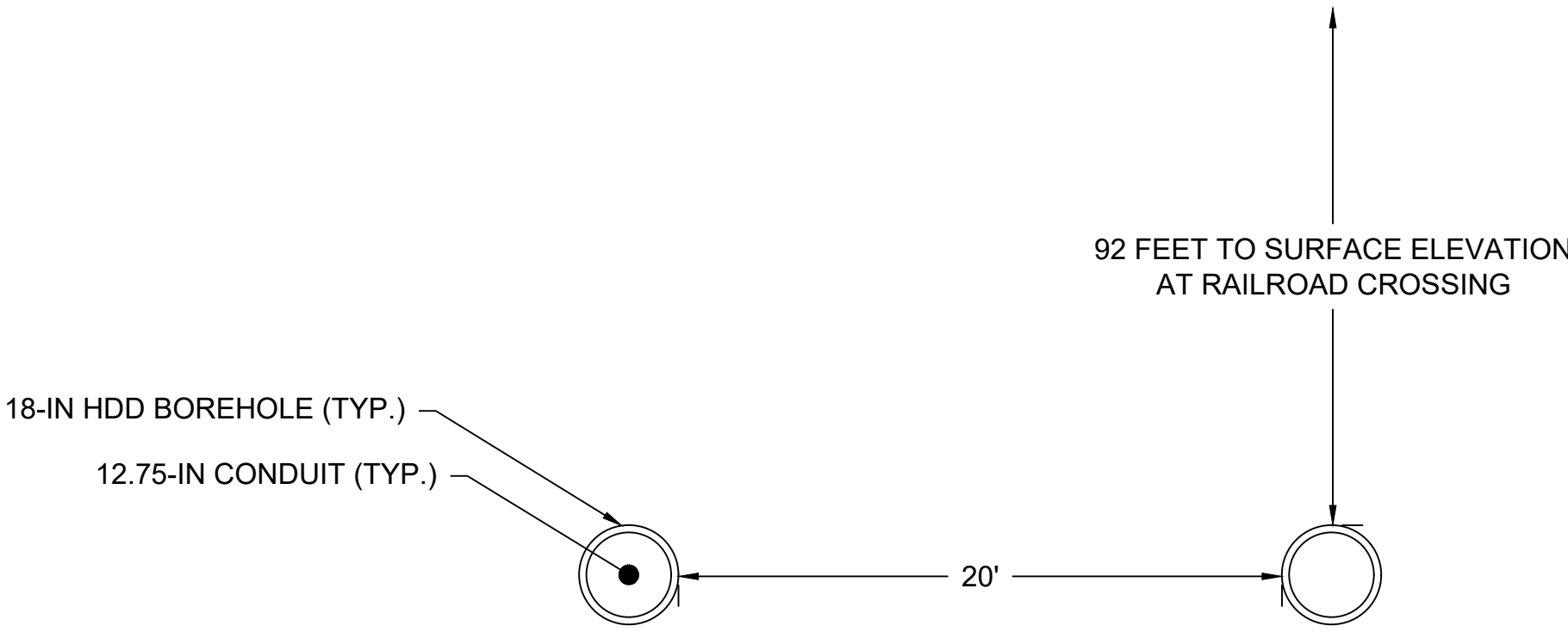
2  
9  
TYPICAL SILT FENCE  
SCALE: NTS



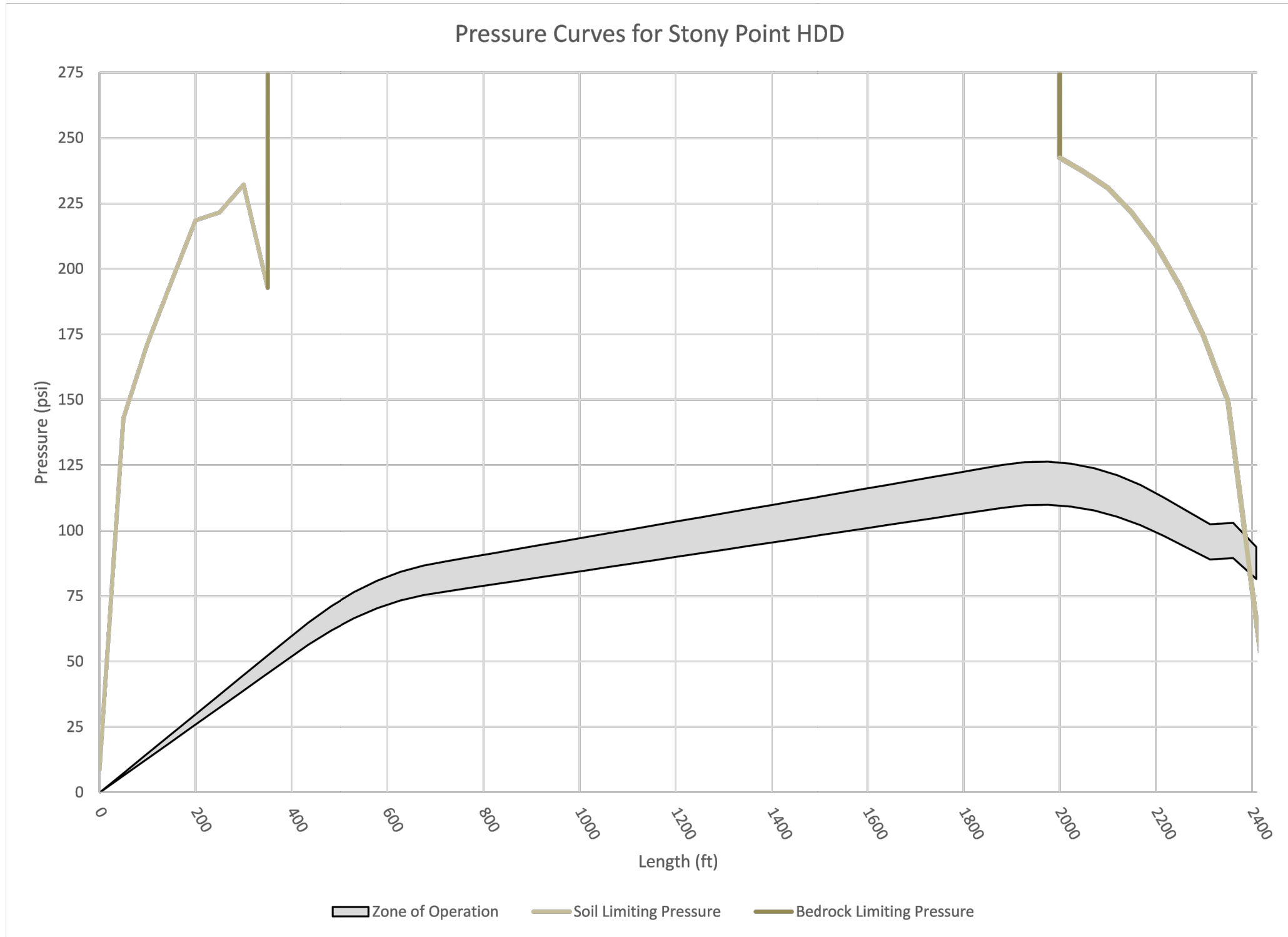
NOTES:

- WIDTH OF THE ACCESS ROAD WILL BE 12 FEET.
- EXISTING TOPSOIL WILL BE REMOVED AS NECESSARY UNTIL A SOLID NATIVE SUB-BASE HAS BEEN REACHED. SCARIFY SOLID NATIVE SUB-BASE AND EXISTING ROAD SURFACE AS NECESSARY TO PROMOTE INFILTRATION PRIOR TO RESURFACING AND WIDENING.
- A GEOTEXTILE FABRIC WILL BE INSTALLED ON TOP OF THE SOLID NATIVE SUB-BASE BEFORE THE AGGREGATE SURFACE IS INSTALLED.
- THE AGGREGATE SURFACE SHALL BE A MINIMUM OF 6 INCHES IN DEPTH AND CONSTRUCTED COMPLETELY OUT OF 3/4 INCH ANGULAR GRAVEL BORROW OR WELL-GRADED CRUSHED STONE.
- AGGREGATE COMPACTION SHALL BE A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY COMPACTED IN 6 INCH LIFTS.
- MAXIMUM GRADE SHALL BE NO STEEPER THAN 8%.



3  
9  
TYPICAL ACCESS ROAD  
SCALE: NTS



5  
9  
TYPICAL HDD CROSS SECTION  
SCALE: NTS




6  
9  
TYPICAL HDD PRESSURE CURVE  
SCALE: NTS

						 <i>Kevin C. Bodeman</i> 1-24-23	REFERENCE DRAWINGS		REVISIONS							DRAWING APPROVALS		 <div>FILE REGISTRATION NO.: NY 0010187</div>	STONY POINT HDD DETAILS			
			DWG. NO.	TITLE	NO.		DESCRIPTION	DATE	DRAWN	CHK	APPR	DRAWN	DATE									
					1		RESPONSE TO NYS COMMENTS	1/24/2023	MMO	GJR	KCB											
													MMO	08/24/2022								
													CHECKED	DATE								
													GJR	1/17/2023								
													ENGINEER	DATE								
													KCB	1/17/2023								
SCALE		PROJECT NO.		DRAWING NO.		SHT.																
NTS		496182		HDD-007		9																



Kevin C. Bodwin  
1-24-23

- REFERENCE NOTES:

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USER\_DWGNAME