



FREDERICK COUNTY BOARD OF APPEALS

FEBRUARY 23, 2023

TITLE: QLoop Communications Services, LLC
Activity in the FEMA Floodplain

CASE NUMBER: B-23-04 (B274872)

REQUEST: Requesting approval of a Special Exception to allow *Activity within Floodplain District* under Sec.1-19-9.110 and Sec 1-19-9.120 *Procedures for Activities within the FEMA Floodplain*. There are five sites associated with this application. (Attachments 1 thru 5)

PROJECT INFORMATION:

ADDRESS/LOCATION: Multiple Sites
TAX MAP/PARCEL: Multiple Sites
ZONE: Agricultural/Resource Conservation
REGION: Brunswick
WATER/SEWER: N/A – N/A
COMP. PLAN/LAND USE: Agricultural and Resource Conservation

APPLICANT/REPRESENTATIVES:

APPLICANT: Jeff Schamber
OWNER: Primarily Potomac Edison Right of Way
ENGINEER: N/A
ARCHITECT: N/A
ATTORNEY: N/A

STAFF: Michael Paone, Zoning Planner

RECOMMENDATION: Staff has no objections to this request for a Special Exception seeking the approval of the proposed Activity within a Floodplain under Sections 1-19-9.110 and 1-19-9.120 of the Frederick County Zoning Code.

ATTACHMENTS:

- Exhibit #1: Area Plan**
- Exhibit #2: Site 1**
- Exhibit #3: Site 2&3**
- Exhibit #4: Site 4**
- Exhibit #5: Site 5**
- Exhibit #6: No Elevation Rise Letter**

Background:

Telcon Services, on behalf of QLoop Communications Services, LLC; is requesting permission to place conduit, fiber, and hand holes below grade within 5 sites through the Frederick County floodplain district as part of the construction of a 42-mile fiber ring from/to a campus in Frederick County. **(Exhibits #1 thru 5)** The project is underway and has passed the requirements of Maryland Department of the Environment (MDE) and the United States Army Corp of Engineers (USACE) for the five designated floodplain district areas. All material will be placed below ground, the the Applicant has submitted a professional engineer sign and stamp that the project will not permanently change soil/slope contours or result in any permanent net fill within the floodway or floodplain.

General Criteria – Special Exception § 1-19-3.210:

- (A) An application for a special exception may be made only by persons with a financial, contractual or proprietary interest in the property for which a special exception is requested.

This request is being made by QLoop which is the entity with financial, contractual, and proprietary interest in the affected property.

(B) A grant of a special exception is basically a matter of development policy, rather than an appeal based on administrative error or on hardship in a particular case. The Board of Appeals should consider the relation of the proposed use to the existing and future development patterns. A special exception shall be granted when the Board finds that.

- (1) The proposed use is consistent with the purpose and intent of the Comprehensive Development Plan and of Chapter 1-19 of the Frederick County Code; and

The Applicant states that the proposed use is consistent with the existing and future development patterns of this area, as the existing land use is a utility corridor, and it will continue to be used as a utility corridor in perpetuity.

- (2) The nature and intensity of the operations involved in or conducted in connection with it and the size of the site in relation to it are such that the proposed use will be in harmony with the appropriate and orderly development of the neighborhood in which it is located; and

The Applicant states that the nature and intensity of the operations involved with the proposed use will be in harmony with the appropriate and orderly development of the neighborhood. The proposed project places fiber optic cable within existing powerline utility rights of way, which pass through agricultural areas that are continuously disturbed by ground cultivation.

- (3) Operations in connection with the special exception at the proposed location shall not have an adverse effect such as noise, fumes, vibration or other characteristics on neighboring properties above and beyond those inherently associated with the special exception at any other location within the zoning district; and

The Applicant states that the operation of the fiber optic cable will have no adverse effect on neighboring properties as it is a subsurface and silent utility. Temporary construction impacts associated with installation of the cable will be of no greater or lesser magnitude than the existing operations required to maintain the power line infrastructure or cultivate and harvest the fields. (Exhibit #6: No Elevation Rise Letter)

- (4) Parking areas will comply with the off-street parking regulations of Chapter 1-19 of the Frederick County Code and will be screened from adjoining residential uses, and the entrance and exit drives shall be laid out so as to achieve maximum safety.

The Applicant states that this is not applicable, the proposed use and operation will not require parking areas. Entrance and exit drives have already been established by the power company and farmers.

- (5) The road system providing access to the proposed use is adequate to serve the site for the intended use.

The Applicant states that the operation of the proposed fiber optic cable will require negligible vehicular access. Only occasional service trucks will be required to access the line. The existing road system which currently provides adequate access and safety for the service of the power lines and farms will be sufficient for the operation of the fiber optic cable as well.

- (C) In addition to the general requirements listed above, uses requiring a special exception shall be subject to the specific requirements for each use outlined in §§ [1-19-.320](#) through [1-19-8.355](#) of this Code.

The Applicant states that that they understand this requirement.

- (D) A special exception approval may be granted in accordance with the general and specific requirements enumerated in this section. The Board of Appeals may, in addition to other requirements imposed under Chapter 1-19 of the Frederick County Code and is hereby authorized to add to the specific requirements any additional conditions that it may deem necessary to protect adjacent properties, the general neighborhood, and its residents or workers. Violation of such additional conditions, when made a part of the terms under which the special exception permit is granted, is a violation of Chapter 1-19 of the Frederick County Code and may be grounds for termination of the special exception.

The Applicant states that that they understand this requirement.

(E) The Board of Appeals shall not grant a special exception unless and until:

(1) A written application for a special exception is submitted indicating the section of Chapter 1-19 of the Frederick County Code under which the special exception is sought and stating the grounds on which it is requested; and

(2) A public hearing has been held; and the Board had made a finding of fact that the special exception requested meets the general and specific requirements outlined in this section.

(3) The grant of special exception may include approval of customary incidental accessory uses as reviewed and approved by the Zoning Administrator.

Staff notes that there are no accessory uses are proposed as part of this application.

(G) No use or activity permitted as a special exception shall be enlarged or extended beyond the limits authorized in the grant of special exception. All enlargements, extensions, and changes in use shall require grants of special exception, as in the case of an original petition.

(H) If a grant of special exception is denied, no new petition for the denied use on the same property shall be accepted by the Board of Appeals for 1 year after the date of denial of the petition.

(I) A decision of the Board of Appeals granting a special exception will be void 5 years from date of approval by the Board of Appeals unless the use is established, a building permit is issued, construction has begun, or final site development plan approval has been received in accordance with the terms of the decision. Upon written request submitted to the Zoning Administrator no later than 1 month prior to the expiration date and for good cause shown by the applicant, a 1-time extension may be granted by the Zoning Administrator for a period not to exceed 6 months.

The Applicant states that that they understand the requirements referenced in (E) through (I) above.

§ 1-19-9.120. PROCEDURES FOR ACTIVITIES WITHIN THE FEMA FLOODPLAIN.

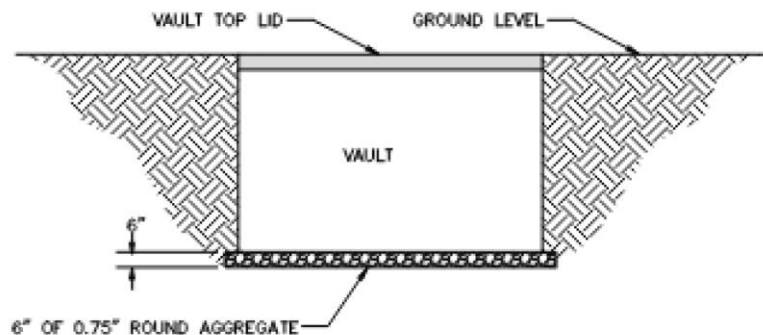
The Board of Appeals shall review the following activities within the FEMA floodplain: substantial improvements, substantial improvements due to existing structures substantial damage, replacement or relocated dwelling units (including manufactured homes), the addition of accessory buildings, the expansion or replacement of an existing nonconforming use, or development of an existing parcel of record lying totally within the FEMA floodplain. Applications to allow new structures or fill to be placed in the floodway shall not be considered. The Board of Appeals may grant an application for approval for activity within the FEMA floodplain when the Board specifically finds that:

(A) Failure to grant the application for approval would result in exceptional hardship to the applicant; and

The Applicant states that the scope of the project is a \$100 million build that traverses through Frederick County, Montgomery County, and Loudoun County in Virginia. These areas are pertinent to the build and continuity of the project.

- (B) The granting of an application for approval would not increase flood heights, add threats to public safety, result in extraordinary public expense, create nuisances, cause fraud or victimization of the public or conflict with existing local laws or ordinances; and

The Applicant states that a review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. All permanent structures will be below the ground surface and the floodplain/floodway. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project. It is the Applicant's Engineer of Record's assessment that this application will not increase flood heights, add threats to public safety, result in extraordinary public expense, create nuisances, cause fraud or victimization of the public or conflict with existing local laws or ordinances. Below is a profile of the proposed utility vaults.



NOTES:

1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS.
4. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION

NOT TO SCALE

- (C) The granting of an application for approval would not allow new structures or fill to be placed in the floodway; and

The Applicant states that the project involves no permanent cut or fill. The structures are all below ground and pass the FEMA ASCE 24-14 regulations, (See Exhibit #6).

- (1) The granting of an application for approval is the minimum necessary considering the flood hazard to provide relief and that public funds may not be available to mitigate the results of the approval; and

The Applicant states that the project will not result in the need to use public funds for mitigation or provide relief since all hand holes (structures) would be buried below ground and there will be no change in permanent net fill.

- (2) All new structures and substantial improvements to existing structures will have the lowest floor elevated to the greatest extent possible with respect to the 100-year flood elevation, but at least to the Flood Protection Elevation, and a FEMA elevation certificate filed. In addition, all structures, including manufactured homes, must be firmly anchored in accordance with acceptable engineering practices (i.e., FEMA publication 85 "Manufactured Home Installation in Flood Hazard Areas"); and

The Applicant states that no manufactured homes will be installed, and all structures are below ground level. There will be no substantial improvements to existing structures, and the Applicant has considered the 100-year flood elevation. There will be no change in elevation due to the placement of the below ground structures.

- (3) The granting of a permit by the Maryland Department of the Environment if located within a FEMA floodplain; and

The Applicant states that that they understand this requirement and has stated that they have received approval from MDE as well as the USACE.

MDE Permit 21-NT-3181/202161612 Granted on June 16, 2022.

- (4) The action is duly recorded with the deed of the property on which the application for approval is granted prior to the issuance of a building permit. Any expense incurred by the recording is the responsibility of the applicant.

The Applicant states that that they understand this requirement.

- (5) The Board of Appeals shall not grant approval of the above activities for lots containing floodplain created after June 6, 1989.

The Applicant states that that they understand this requirement. Staff notes that these easement areas appear on the 1967 Tax Maps and adhere to the above requirement.

- (D) The Board of Appeals will notify the applicant of approval in writing through the Zoning Administrator. The decision of approval and findings shall include the notification that:

- (1) The issuance of a decision to allow construction of a structure below the 100-year flood level will result in increased premium rates for flood insurance.

The Applicant states that that they understand this requirement.

- (2) Such construction below the 100-year flood level increases risks to life and property.

The Applicant states that that they understand this requirement.

- (3) The Board of Appeals will maintain a record of all decisions, including justification for their issuance, and the Zoning Administrator will report such decisions in the county biennial reports submitted to the Federal Emergency Management Agency.

The Applicant states that that they understand this requirement.

1-19-3. 210.I: A decision of the Board of Appeals granting a special exception will be void 5 years from the date of approval by the Board of Appeals unless the use is established, a building permit is issued, construction has begun, or final site development plan approval has been received in the accordance with the terms of the decision. Upon written request submitted to the Zoning Administrator no later than 1 month prior to the expiration date and for good cause shown by the Applicant, a time extension may be granted by the Zoning Administrator for a period not to exceed 6 months.

Exhibit #1 QLoop Area Plan-5 areas of Activity in the Floodplain District

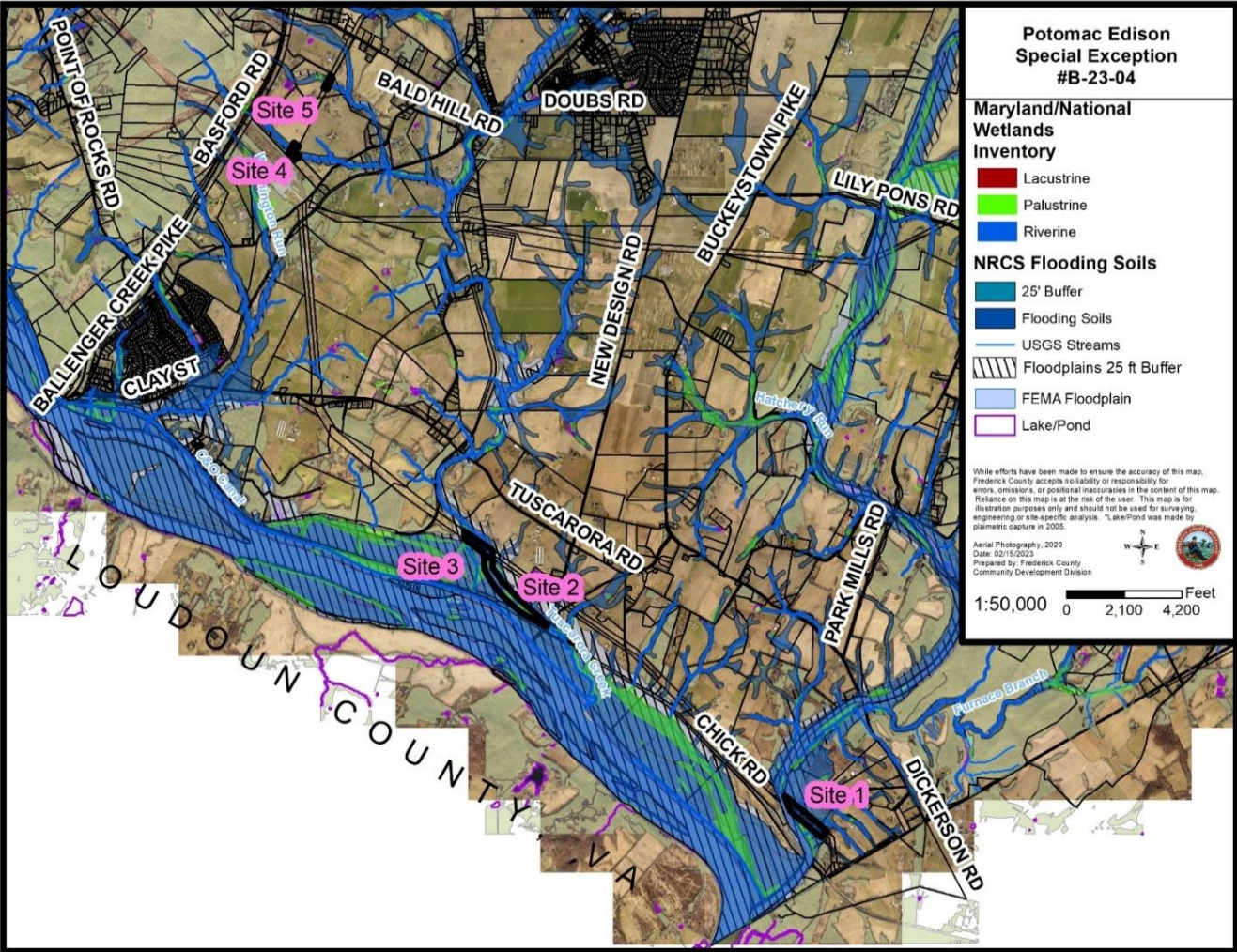


Exhibit #2: Site 1

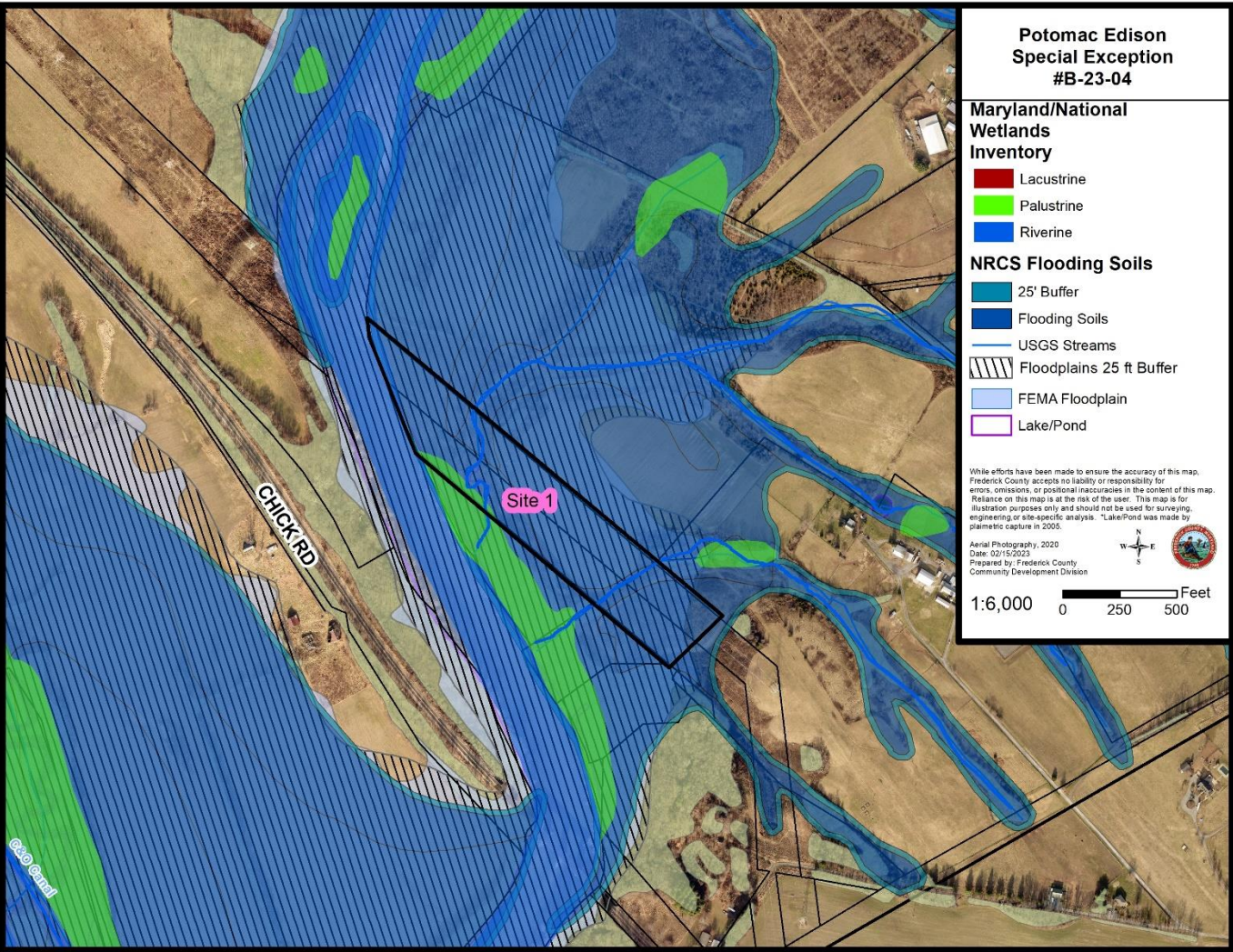


Exhibit #3: Sites 2 & 3

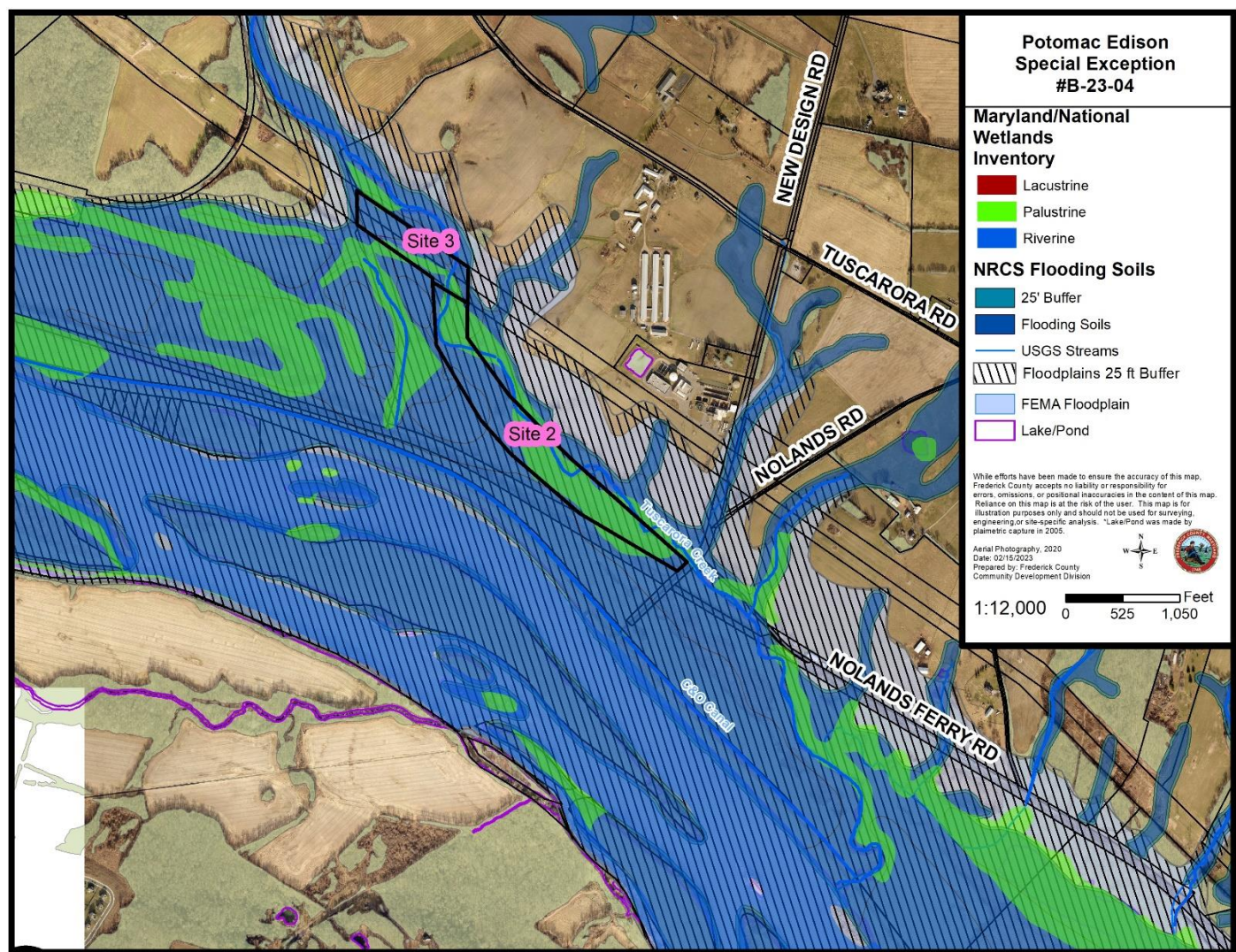


Exhibit #4: Site 4

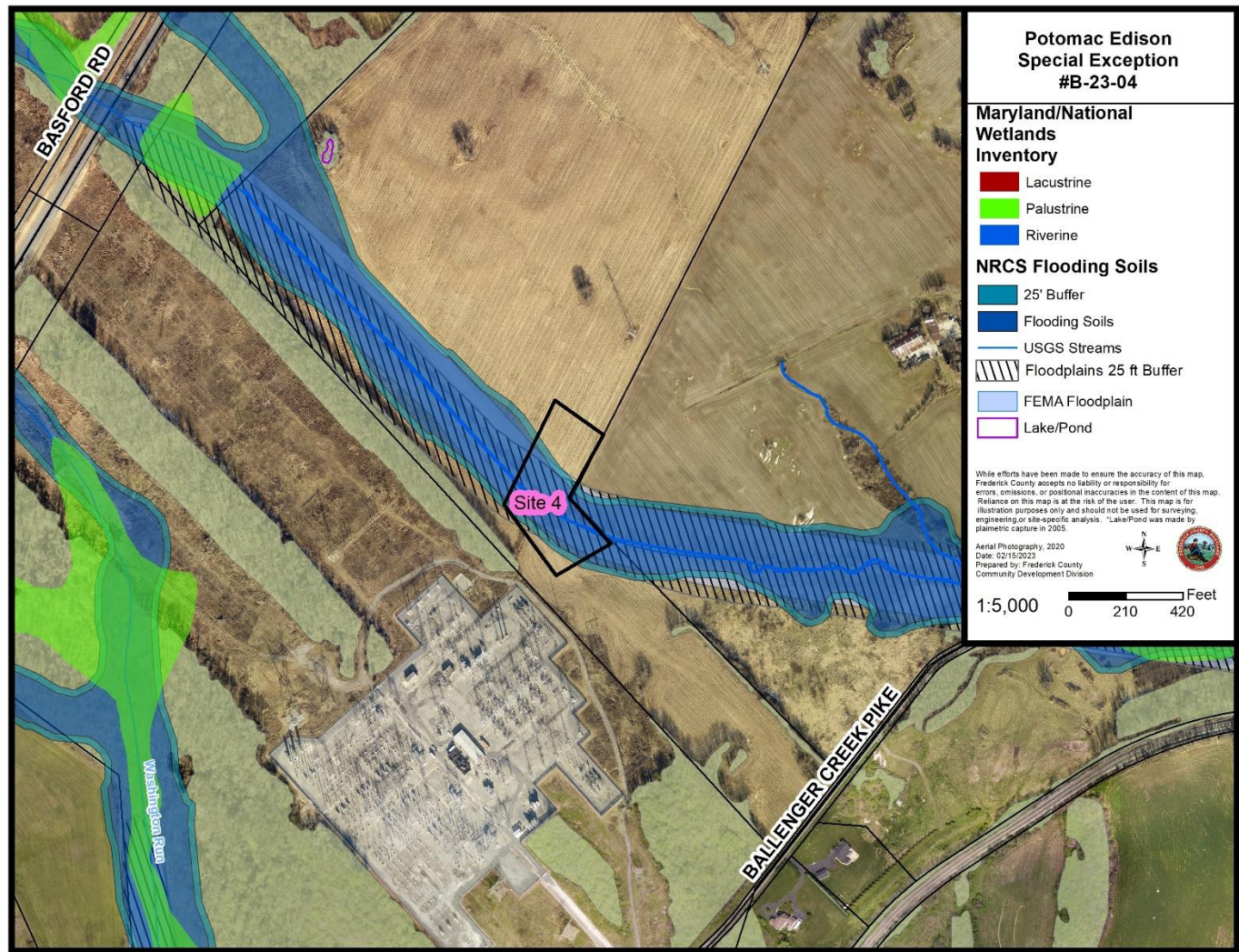


Exhibit #5: Site 5

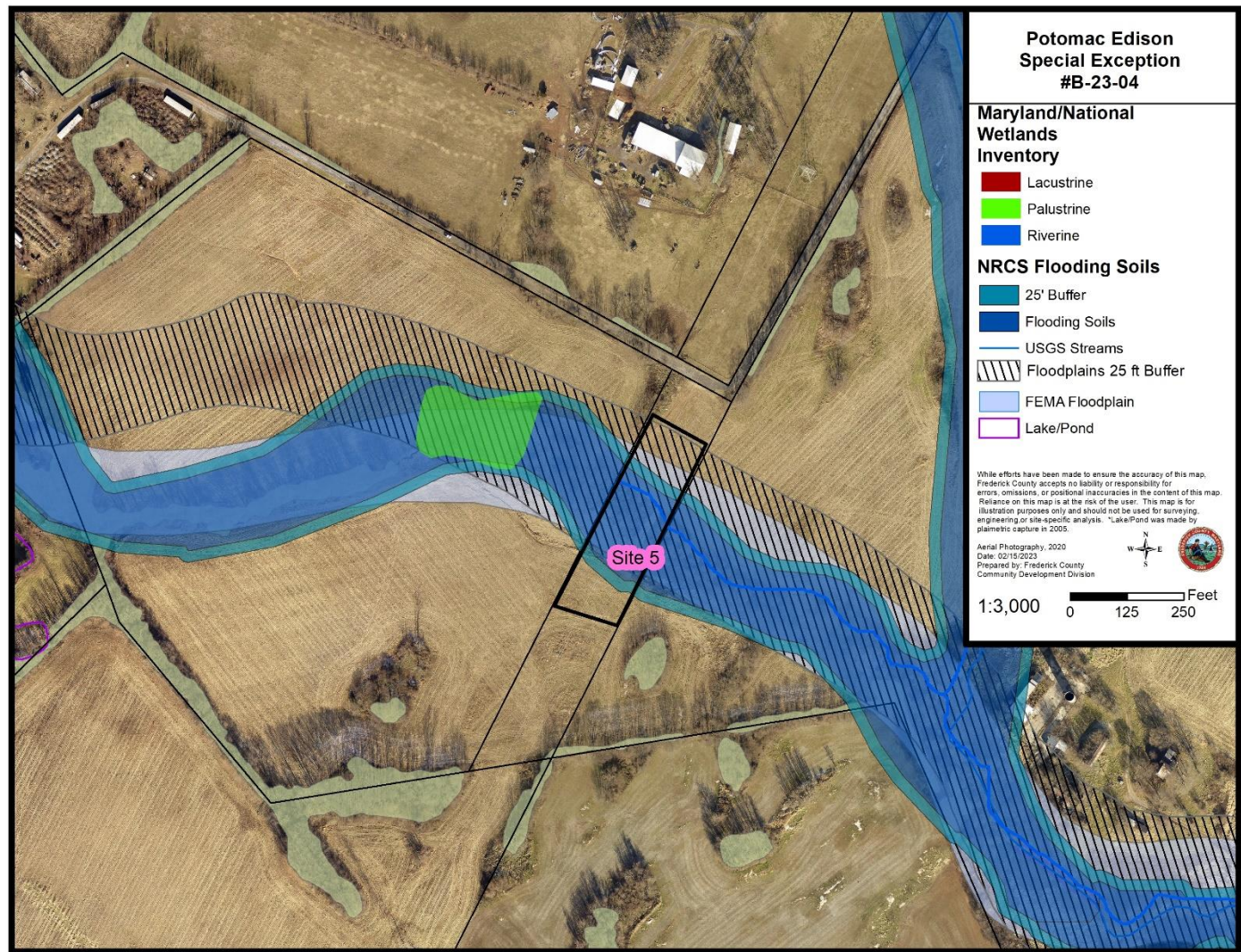


Exhibit #6: No Elevation Rise Letter



09/19/2022

Ashley M. Moore

Senior Planner
Frederick County Division of Planning and Permitting
Department of Development Review and Planning
30 North Market Street
Frederick, MD 21701

Telcon Services, LLC. Is submitting the following statement regarding the floodplain comments for Project Sage Phase 15.

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

Sincerely,

Jeff Schamber

Jeff Schamber
Project Manager
Telcon Services, LLC
208-870-4790
jschamber@telconservices.com

§ 1-19-9.120. PROCEDURES FOR ACTIVITIES WITHIN THE FEMA FLOODPLAIN.

(A) The Board of Appeals shall review the following activities within the FEMA floodplain: substantial improvements, substantial improvements due to existing structures substantial damage, replacement or relocated dwelling units (including manufactured homes), the addition of accessory buildings, the expansion or replacement of an existing nonconforming use, or development of an existing parcel of record lying totally within the FEMA floodplain. Applications to allow new structures or fill to be placed in the floodway shall not be considered. The Board of Appeals may grant an application for approval for activity within the FEMA floodplain when the Board specifically finds that:

- (1) Failure to grant the application for approval would result in exceptional hardship to the applicant; and

The overall scope of the project is a \$100 million build those traverses through Frederick County, Montgomery County, and Loudoun County in Virginia. These areas are pertinent to the build and continuity of the project.

(2) The granting of an application for approval would not increase flood heights, add threats to public safety, result in extraordinary public expense, create nuisances, cause fraud or victimization of the public or conflict with existing local laws or ordinances; and

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

(3) The granting of an application for approval would not allow new structures or fill to be placed in the floodway; and

Project Sage involves no permanent cut or fill. The structures are all below ground and pass the FEMA ASCE 24-14 regulations.

(4) The granting of an application for approval is the minimum necessary considering the flood hazard to provide relief and that public funds may not be available to mitigate the results of the approval; and

Project Sage will not result in the need to mitigate public funds or provide relief since all hand holes (structures) would be buried below ground and no change in permanent net fill.

(5) All new structures and substantial improvements to existing structures will have the lowest floor elevated to the greatest extent possible with respect to the 100 year

flood elevation, but at least to the Flood Protection Elevation, and a FEMA elevation certificate filed. In addition, all structures, including manufactured homes, must be firmly anchored in accordance with acceptable engineering practices (i.e., FEMA publication 85 "Manufactured Home Installation in Flood Hazard Areas"); and

No manufactured homes will be installed and all structures are below ground level. There will be no substantial improvements to existing structures and we have taken into account the 100-year flood elevation. There will be no change in elevation due to the placement of the below ground structures.

(6) The granting of a permit by the Maryland Department of the Environment if located within a FEMA floodplain; and

ACKNOWLEDGED

(7) The action is duly recorded with the deed of the property on which the application for approval is granted prior to the issuance of a building permit. Any expense incurred by the recording is the responsibility of the applicant.

ACKNOWLEDGED

(8) The Board of Appeals shall not grant approval of the above activities for lots containing floodplain created after June 6, 1989.

ACKNOWLEDGED

(B) The Board of Appeals will notify the applicant of approval in writing through the Zoning Administrator. The decision of approval and findings shall include the notification that:

(1) The issuance of a decision to allow construction of a structure below the 100 year flood level will result in increased premium rates for flood insurance;

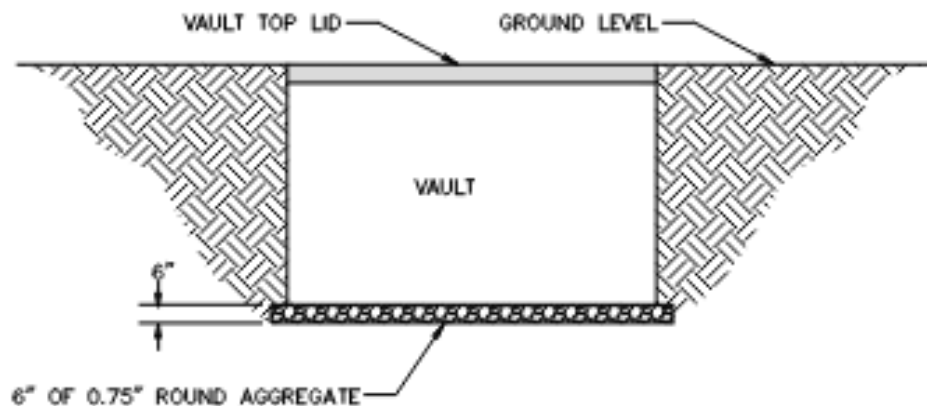
ACKNOWLEDGED

(2) Such construction below the 100 year flood level increases risks to life and property.

ACKNOWLEDGED

(C) The Board of Appeals will maintain a record of all decisions, including justification for their issuance, and the Zoning Administrator will report such decisions in the county biennial reports submitted to the Federal Emergency Management Agency.

ACKNOWLEDGED

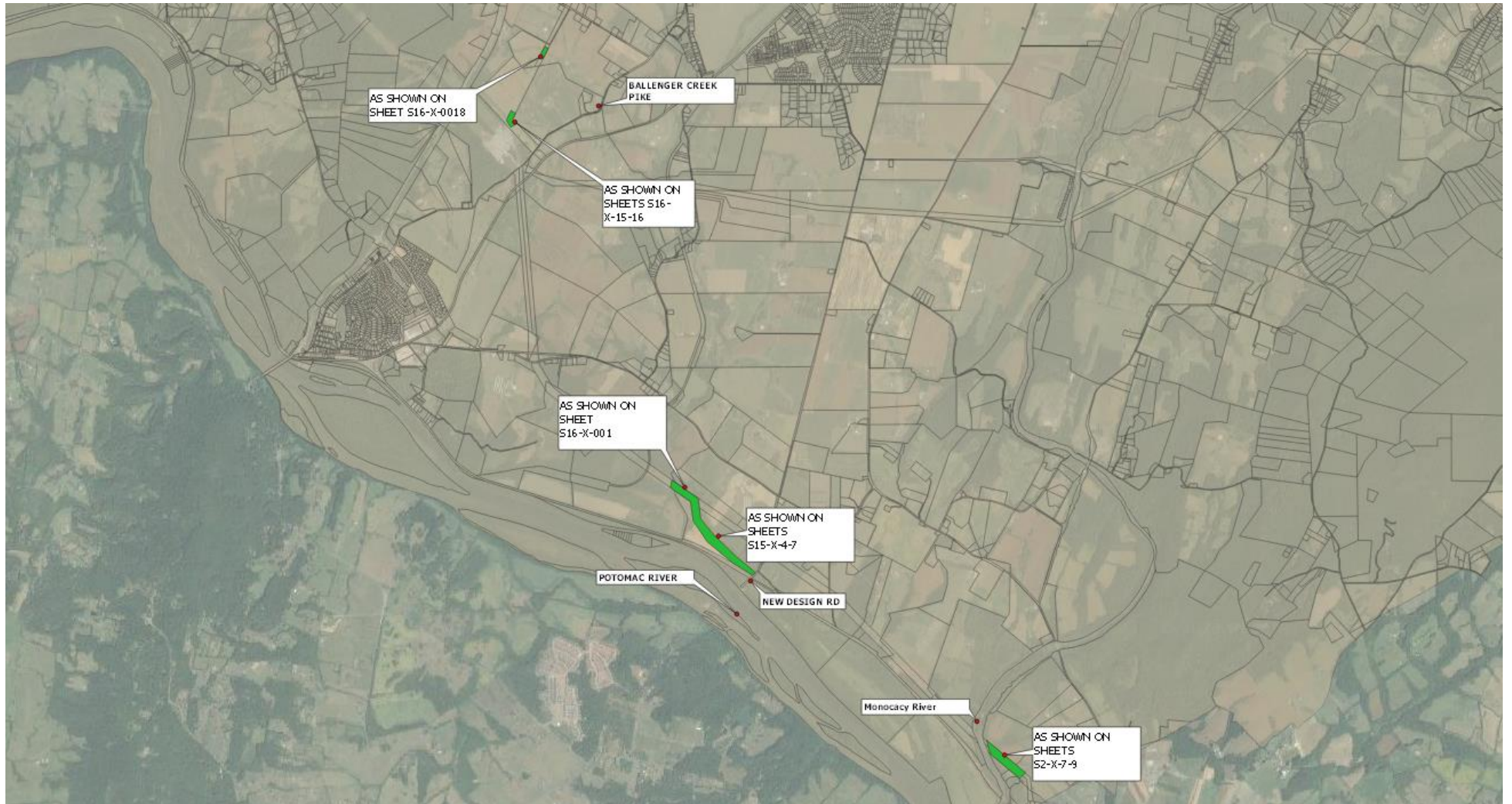


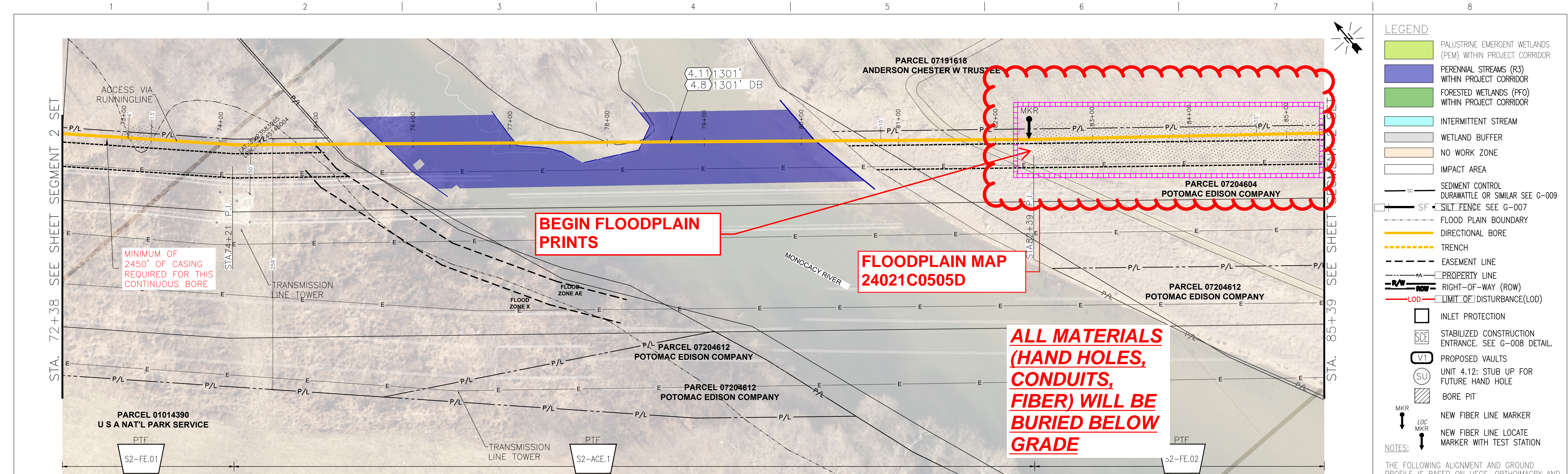
NOTES:

1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS.
4. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION

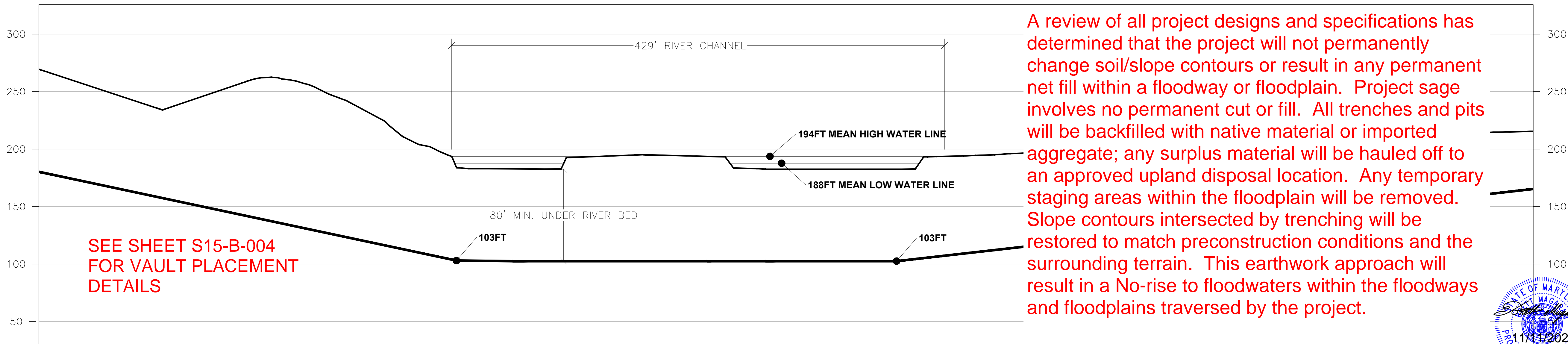
NOT TO SCALE



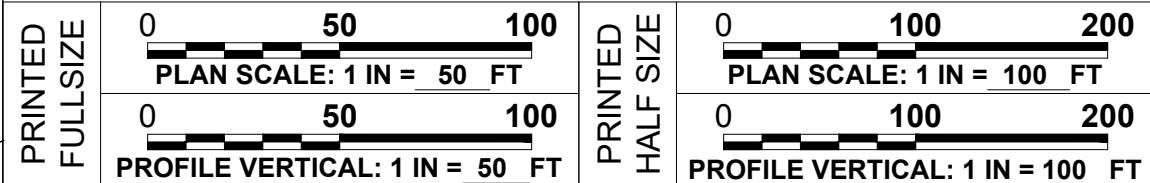


SEGMENT 2 MONOCACY BORE

SPECIAL NOTE: NO WORK BELOW MONOCACY (OHW-OHW) BETWEEN MARCH 1 - JUNE 15.



CONSTRUCTION UNITS				FIRST ENERGY CONSTRUCTION COORIDOR				IMPACT AREAS	
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	LIMIT OF DISTURBANCE*		DESCRIPTION	TOTAL SQFT
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1301 FT			FLOOD PLAIN	12,525
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C. LOC. WIRE & MULE TAPE 3' AGL	- EA			PALUSTRINE EMERGENT WETLANDS (PEM)	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA			PERENNIAL STREAMS (R3)	-
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	- FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	- EA			FORESTED WETLANDS (PFO)	-
4.6	SELECT BACKFILL	- SQFT	5.2	INSTALL 6" LOCATE MARKER POST	- EA			TEMPORARY WETLAND BUFFER IMPACTS	-
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	1 EA	* - LIMIT OF DISTURBANCE ONLY DURING TRENCHED PORTIONS		-	-
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	1301 FT	-	-	-	THE 15' EASEMENT IS BASED ON THE FIRST ENERGY PROPERTY LINE. THE RUNNING LINE WILL VARY WITHIN THE EASEMENT		-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-			-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-			-	-



QUANTUM LOOPHOLE

ACCEPTED BY: RICH PAUL-HUS DATE:



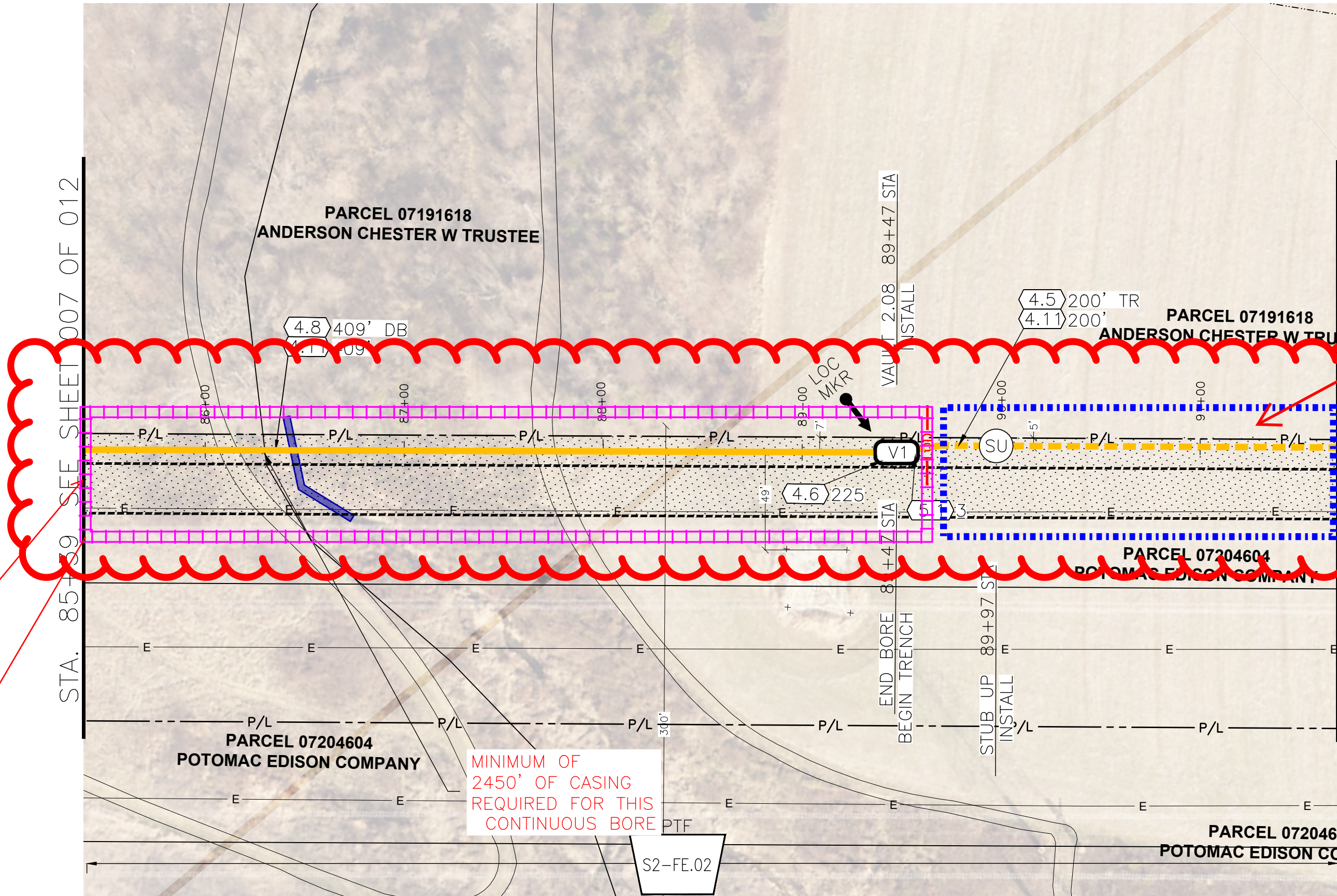
QUANTUM LOOPHOLE				JOB NUMBER		REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT PAGE 2		<div>1</div>	
BORE PLAN AND PROFILE SEGMENT 2 MONOCACY BORE				DRAWING NUMBER		X-007	
1	MODIFIED PTF	2/24/22	RPE	RB	RI		
1	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI		
0	ISSUED FOR PERMIT	11/28/21	RPE	RB	RI		
REV	REVISIONS		DATE	DRN	CKD	DSGN	APPD
DSGN	RI	7/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.				
DRN	RPE	11/21					
CKD	RB	11/21					
SCALE:		1" = 50'		FOR 22x34 CONSTRUCTION DWG ONLY			

P:\PROJECTS\SAGE 01-ENGINEERING\CADD\SEGMENTS\02\PROJECTS\SAGE_SEG_02_LANDBASE_092122A_BGE.DWG

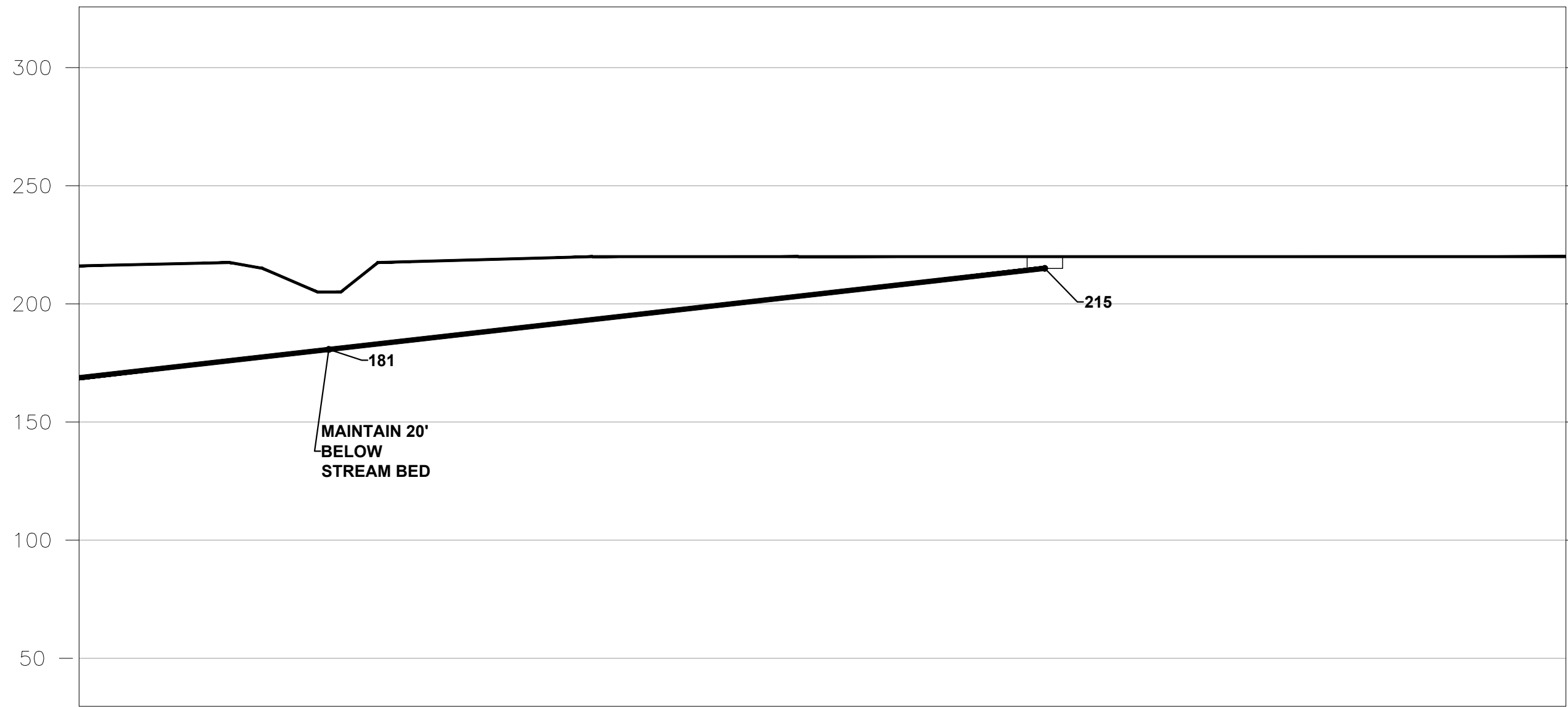
ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE

CONTINUED FROM
PREVIOUS PAGE
S02-X-007

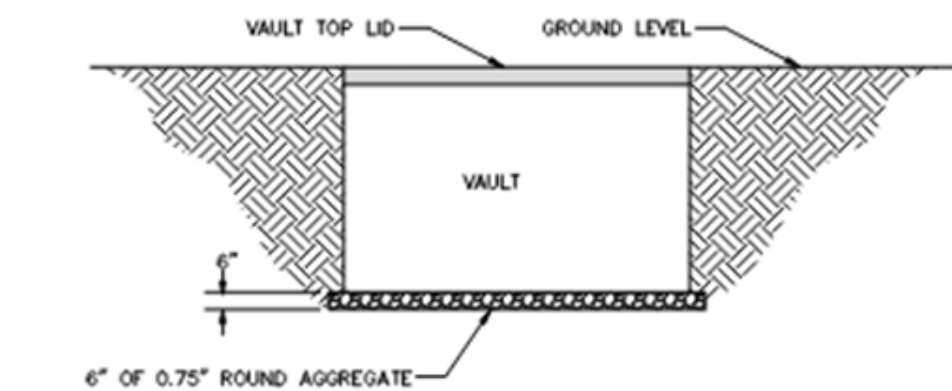
AREA
WILL BE
BORED



SEGMENT 2 PARTIAL PLAN



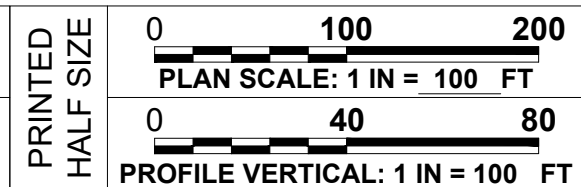
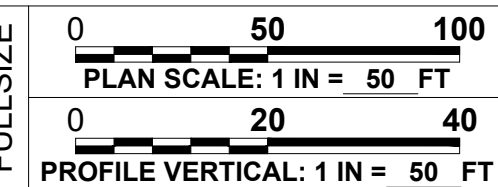
BORE PROFILE



- NOTES:
1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
 2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
 3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS.
 4. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
 5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
 6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION
NOT TO SCALE

CONSTRUCTION UNITS			MATERIAL			IMPACT AREAS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL	
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	609 FT	FLOOD PLAIN	17,219	
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA	PALUSTRINE EMERGENT WETLANDS (PEM)	-	
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	PERENNIAL STREAMS (R3)	-	
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	200 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	FORESTED WETLANDS (PFO)	-	
4.6	SELECT BACKFILL	225 SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA	TEMPORARY WETLAND BUFFER IMPACT	-	
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	- EA		-	
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	409 FT	-	-	-		-	
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-		-	
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-		-	



QUANTUM LOOPHOLE

ACCEPTED BY: RICH PAUL-HUS DATE:



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LIMIT OF DISTURBANCE (LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

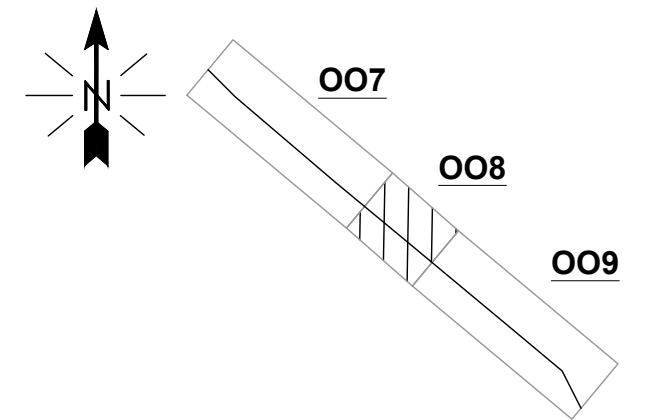
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

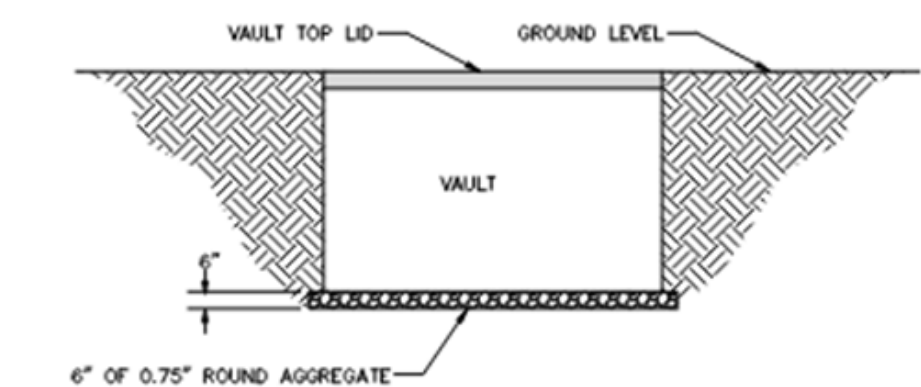
SEE EASEMENT SHEET FOR PLACEMENT DETAILS AS REQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



008
KEY PLAN

QUANTUM LOOPHOLE				JOB NUMBER		REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT PAGE 2		<div>1</div>	
SEGMENT 2 PLAN AND PROFILE PARCEL 07204604 920'				DRAWING NUMBER S02-X-008			
1	MODIFIED PTF	2/24/22	RPE	RI	RB		
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RI	RB		
0	ISSUED FOR PERMIT	11/28/21	RPE	RI	RB		
REV	REVISIONS		DATE	DRN	CKD	DSGN	APPD
DSGN	RI	9/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.				
DRN	RPE	11/21					
CKD	RB	11/21					
SCALE:		1" = 50'		FOR 22x34 CONSTRUCTION DWG ONLY			

P:\PROJECTS\01-ENGINEERING\CADD\SEGMENTS\02\PROJECTS\SEG_02_LANDBASE_092122A_BGED.DWG

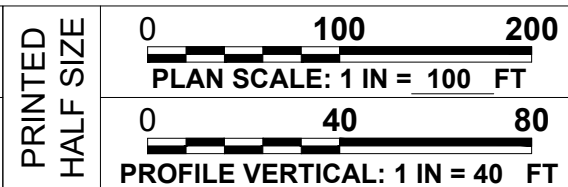
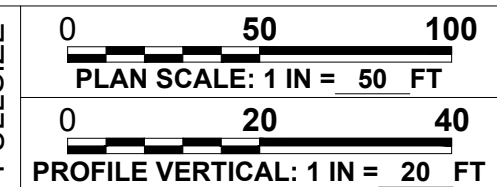


NOTES:

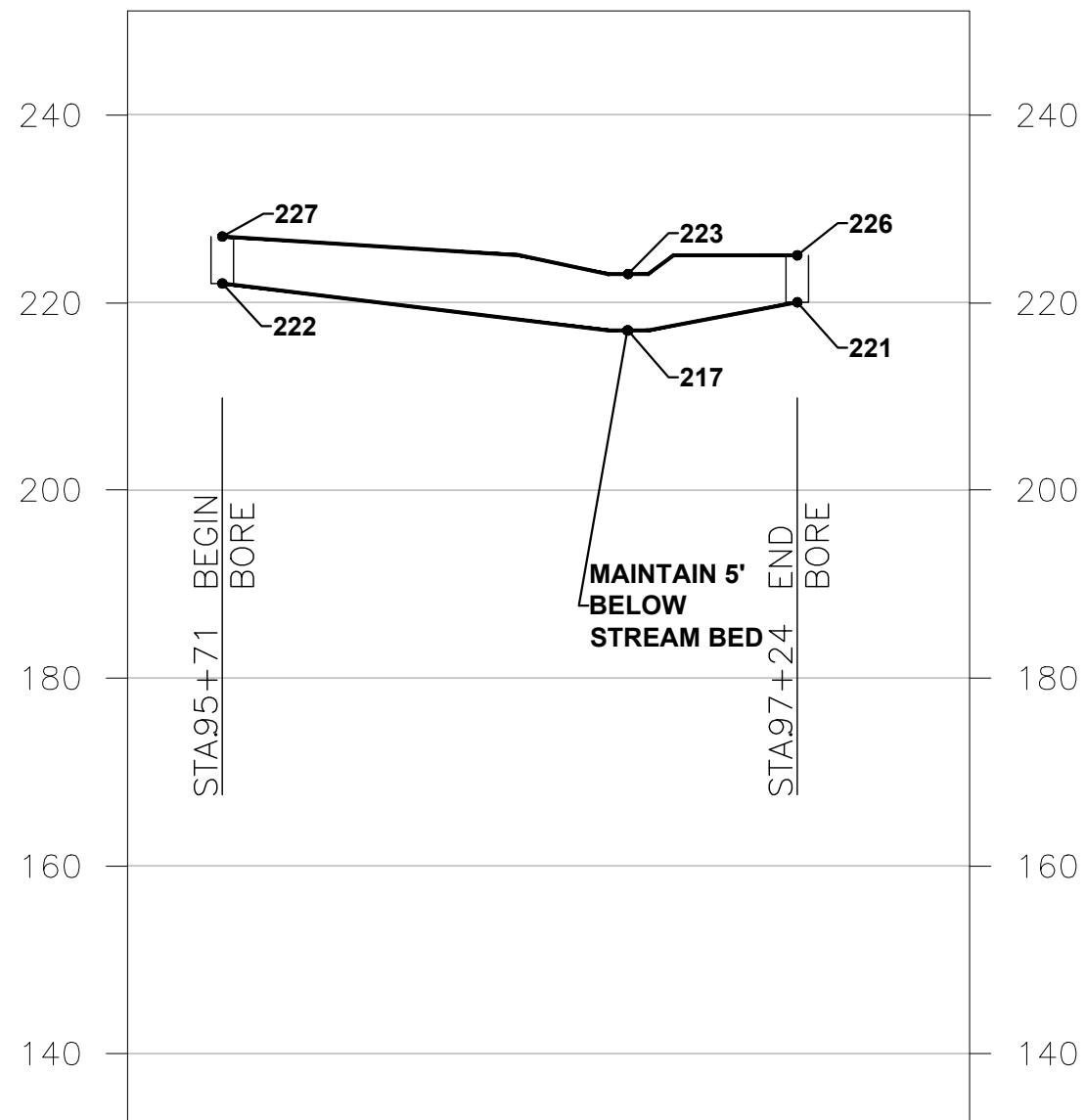
1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS.
4. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION
NOT TO SCALE

CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1101 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	948 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	450 SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	153 FT	5.3	INSTALL RUNNING LINE MARKER	- EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**



SEGMENT 2 PARTIAL PLAN

FIRST ENERGY CONSTRUCTION COORIDOR		IMPACT AREAS	
EASEMENT LINE, MAY BE SHOWN AS EXISTING PROPERTY LINE OR EXISTING UTILITY EASEMENT LINE FOR CLARITY.		DESCRIPTION	TOTAL SQFT
		FLOOD PLAIN	37,012
		PALUSTRINE EMERGENT WETLANDS (PEM)	-
		PERENNIAL STREAMS (R3)	-
		FORESTED WETLANDS (PFO)	-
		TEMPORARY WETLAND BUFFER IMPACT	-
		-	-
		-	-
		-	-
		-	-
		-	-

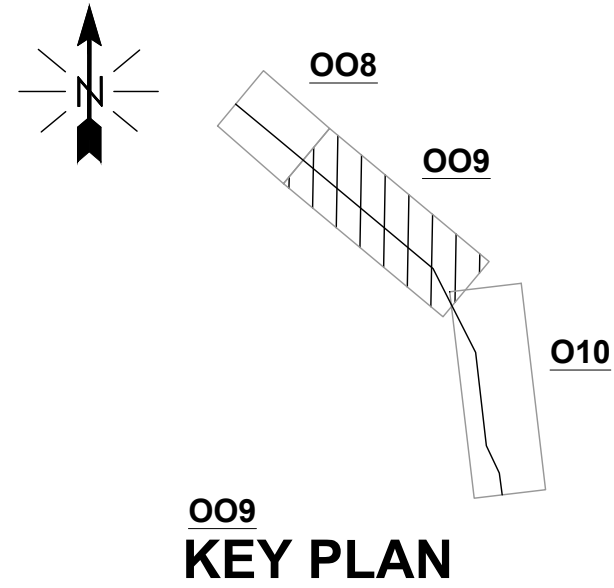


QUANTUM LOOPHOLE

ACCEPTED BY:

RICH PAUL-HUS

DATE



**009
KEY PLAN**

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LIMIT OF DISTURBANCE(LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.

CONTINUED
FROM
SHEET
S02-X-008

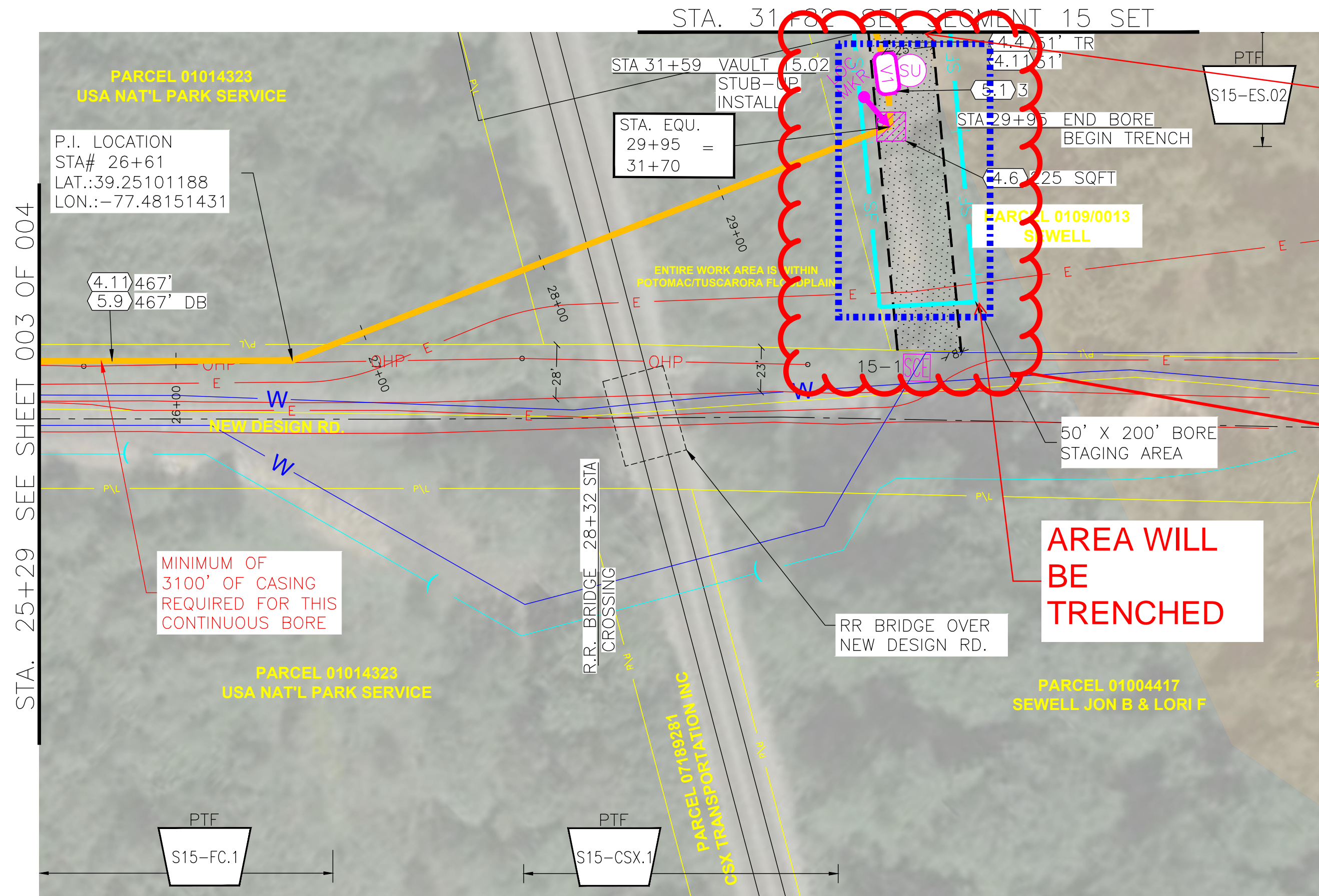
THIS AREA
WILL BE
TRENCHED

FLOODPLAIN
MAP
24021C0505D

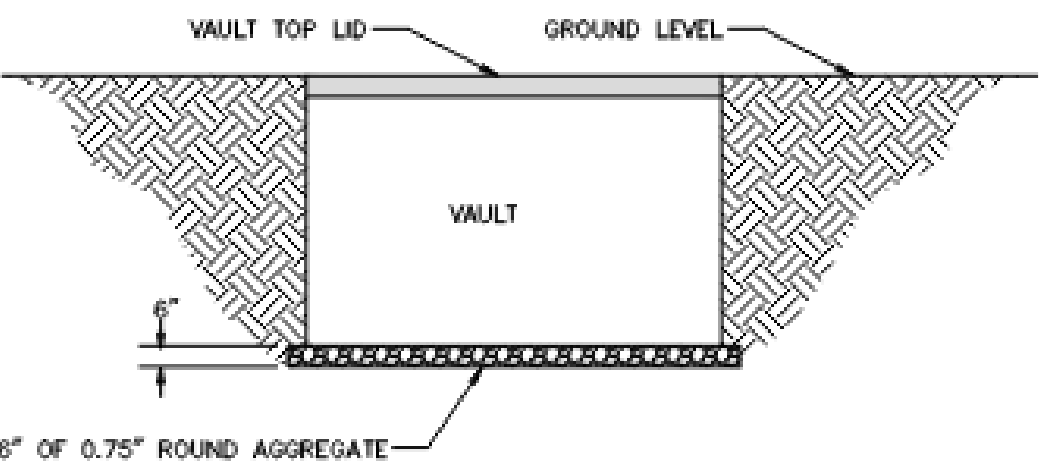
A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

C:\USERS\JEFF SCHAMBER\TELCON SERVICES\PROJECTS\PROJECT SAGE\01-ENGINEERING\CADD\SEGMENTS\15 POTOMAC NORTH RIVER CROSSING_060322_N.DWG

ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE



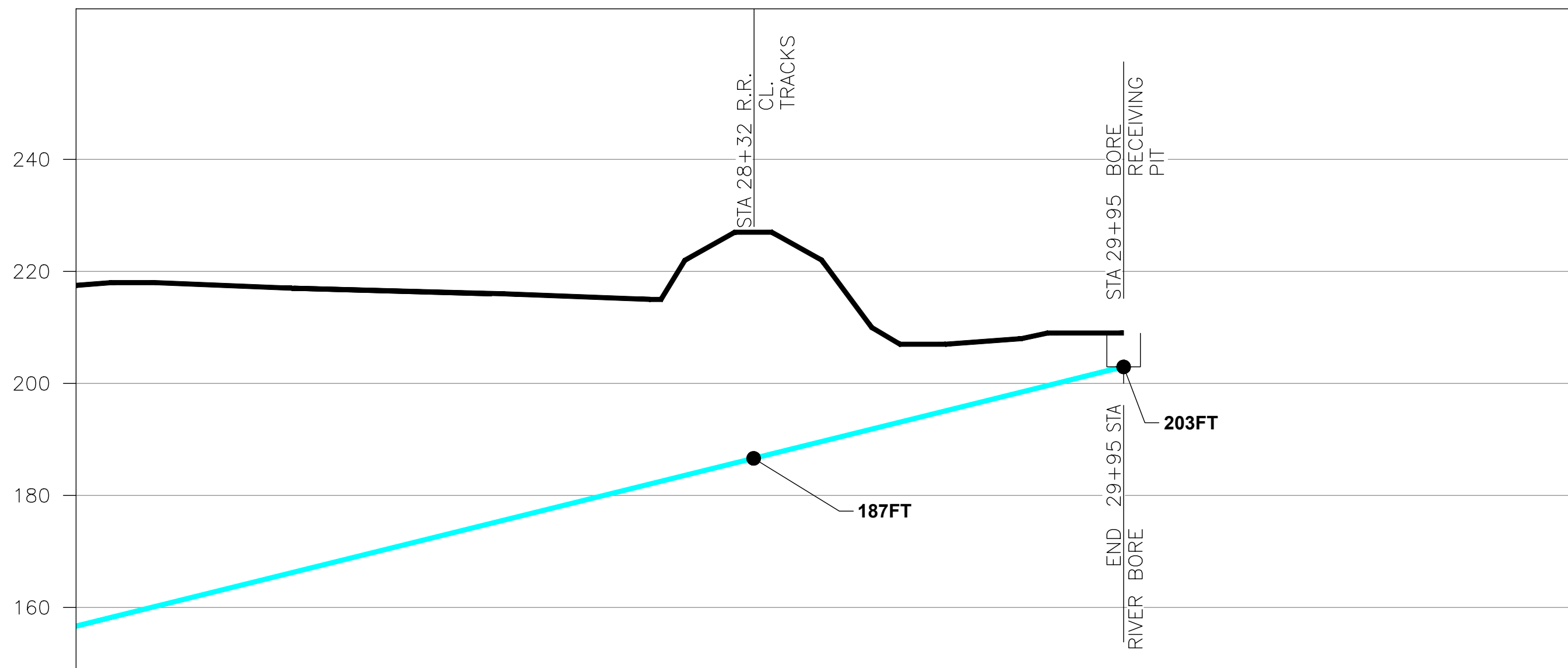
SEGMENT 15 BORE



NOTES:

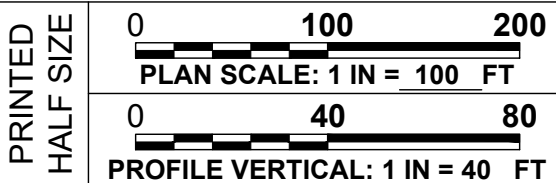
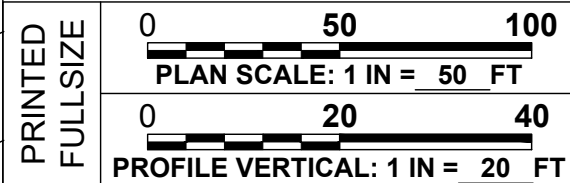
1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS.
4. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION
NOT TO SCALE



BORE PROFILE

CONSTRUCTION UNITS			MATERIAL			IMPACT AREAS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL	TOTAL SQFT
4.2	CLEARING & RESTORATION - (TREE)	- FT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA	FLOOD PLAIN	-	5650
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	5.5	ROCK ADDER - TRENCHING	- FT	PALUSTRINE EMERGENT WETLANDS (PEM)	-	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	51 FT	5.6	ROCK ADDER - DIRECTIONAL BORE	- FT	PERENNIAL STREAMS (R3)	-	-
4.6	SELECT BACKFILL	225 SQFT	5.7	ASPHALT REMOVAL & RESTORAL	- SQFT	FORESTED WETLANDS (PFO)	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	5.9	ROCK RIVER BORE - 24" SDR11 CASING & 30 C	467 FT	CRANE MAT CROSSINGS	-	-
4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	518 FT	6.0	TRAFFIC CONTROL	- EA	-	-	-
4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA	-	-	-	-	-	-
5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	-	-	-	-	-	-
5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	-	-	-	-	-	-



QUANTUM LOOPHOLE

ACCEPTED BY:

RICH PAUL-HUS

DATE



CONTINUED
ON SHEET
S15-X-005

FLOODPLAIN
MAP
24021C0440D

Note: The Frederick County Division of Water and Sewer Utilities Construction Manager shall be notified, at least, 48 Hours prior to work within the location of public raw water lines and public water utility easement @ 301-600-2266

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LIMIT OF DISTURBANCE(LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

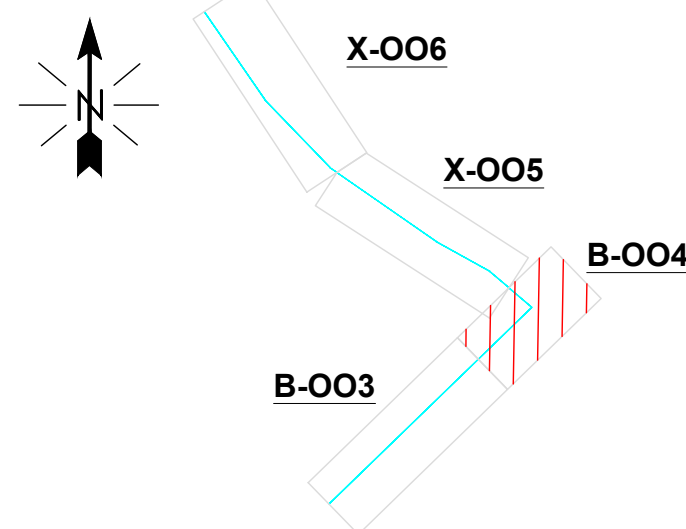
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS AS REQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



KEY PLAN

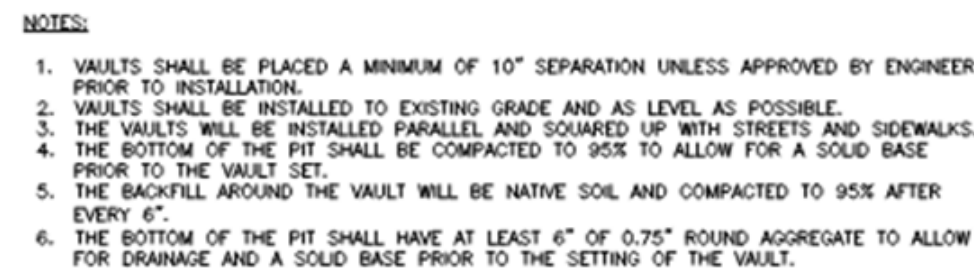


QUANTUM LOOPHOLE				JOB NUMBER			REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE			<div>2</div>	
BORE PLAN AND PROFILE				DRAWING NUMBER				
SEGMENT 15 NORTH POTOMAC RIVER CROSSING				S15-B-004				
2	RUNNING LINE CHANGE			08/25/22	RPE	RB	RI	
1	ISSUED FOR ESC PERMIT			05/11/22	RPE	RB	RI	
0	ISSUED FOR PERMIT			11/28/21	RPE	RB	RI	
REV	REVISIONS			DATE	DRN	CKD	DSGN	APPD
DSGN	RI	7/21		THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.				
DRN	RPE	11/21						
CKD	RB	11/21						
SCALE:		1" = 50'		FOR 22x34 CONSTRUCTION DWG ONLY				

THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.

FOR 22x34 CONSTRUCTION DWG ONLY

CONTINUED
ON SHEET
S15-X-006




Vault Installation
NOT TO SCALE




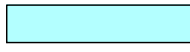


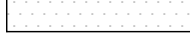
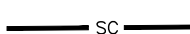

















ACCEPTED BY: _____ DATE: _____



QUANTUM LOOPHOLE				JOB NUMBER		REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE			
SEGMENT 15 PLAN AND BORE PROFILE PARCEL 0109/0013 208' W OF NEW DESIGN RD				DRAWING NUMBER S15-X-005			
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RI	RB		
0	ISSUED FOR PERMIT	11/28/21	RPE	RI	RB		
REV	REVISIONS		DATE	DRN	CKD	DSGN	APPD
DSGN	RI	9/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED. FOR 22x34 CONSTRUCTION CDG ONLY				
DRN	RPE	11/21					
CKD	RB	11/21					
SCALE: 1" = 50'							

LEGEND

	PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
	PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
	FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
	INTERMITTENT STREAM
	WETLAND BUFFER
	NO WORK ZONE
	IMPACT AREA
	SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
	SILT FENCE SEE G-007
	FLOOD PLAIN BOUNDARY
	DIRECTIONAL BORE
	TRENCH
	EASEMENT LINE
	PROPERTY LINE
	RIGHT-OF-WAY (ROW)
	LIMIT OF DISTURBANCE(LOD)
	INLET PROTECTION
	STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
	PROPOSED VAULTS
	UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
	BORE PIT
	NEW FIBER LINE MARKER
	NEW FIBER LINE LOCATE MARKER WITH TEST STATION

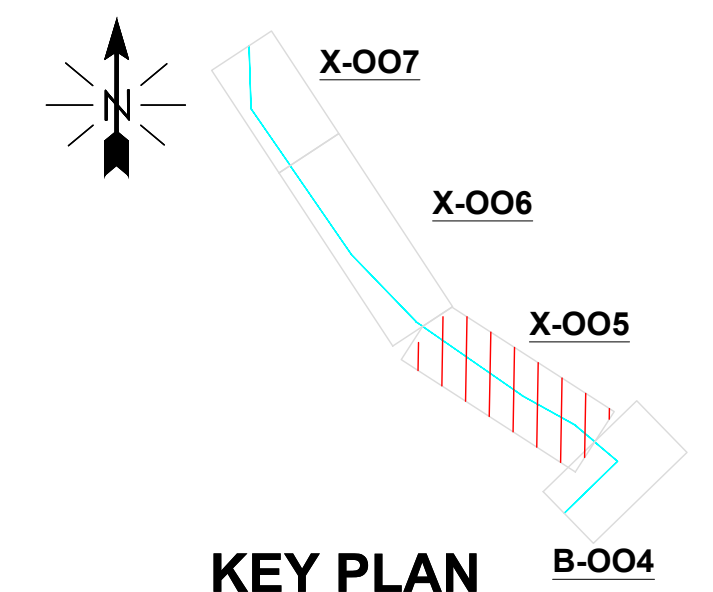
THE FOLLOWING ALIGNMENT AND GROUND
PROFILE IS BASED ON USGS, ORTHOIMAGRY AND
2019 3DEP BARE EARTH DIGITAL ELEVATION
MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION
DESIGN AND BORE PROFILE TO BE DETERMINED
IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE
ALIGNMENT WILL BE WITHIN APPROVED
EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE,
WITH FOUNDATION TO BE REVIEWED IN THE FIELD
TO DETERMINE AVOIDANCE.

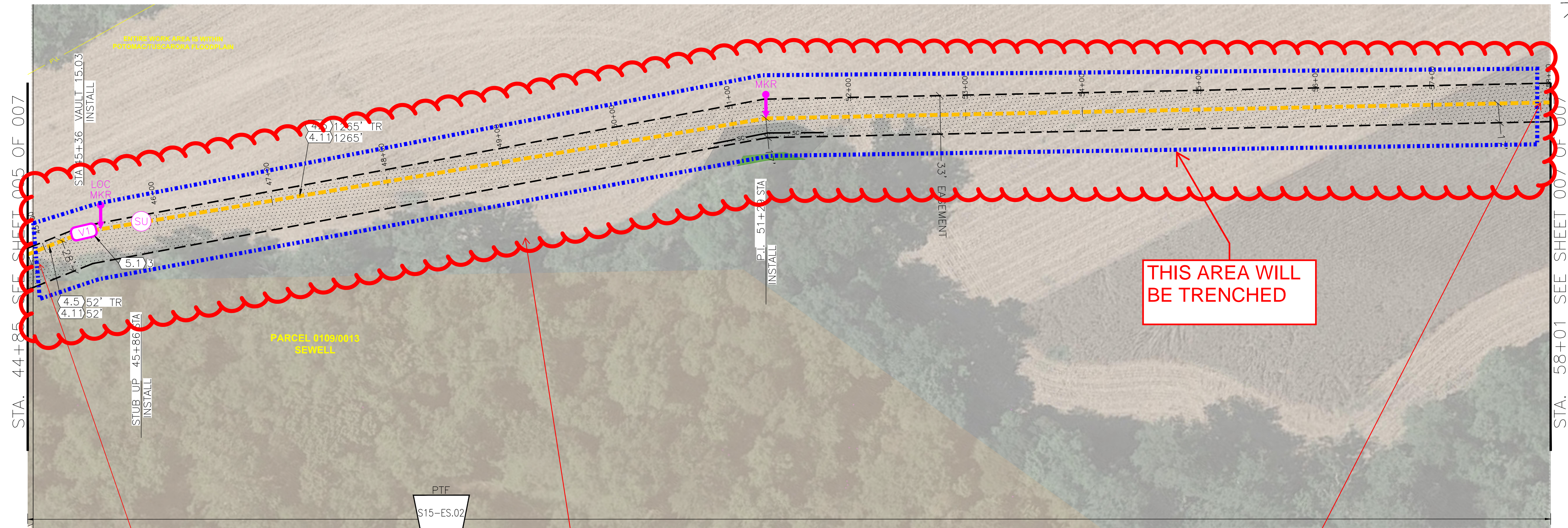
CONSTRUCTION/WORK IS FOR REPRESENTATION
ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS
AS REQUIRED. ALL EASEMENTS WILL REQUIRE
OWNER NOTIFICATION BEFORE ENTERING THE
PROPERTY. THE FINAL RUNNING LINE WILL BE
FIELD STAKED PRIOR TO CONSTRUCTION.



KEY PLAN

C:\USERS\JEFF SCHAMBER\TELCON SERVICES\PROJECTS\PROJECT SAGE\01-ENGINEERING\CADD\SEGMENTS\15 POTOMAC NORTH RIVER CROSSING\0603022_N.DWG



CONTINUED
FROM SHEET
S15-X-005

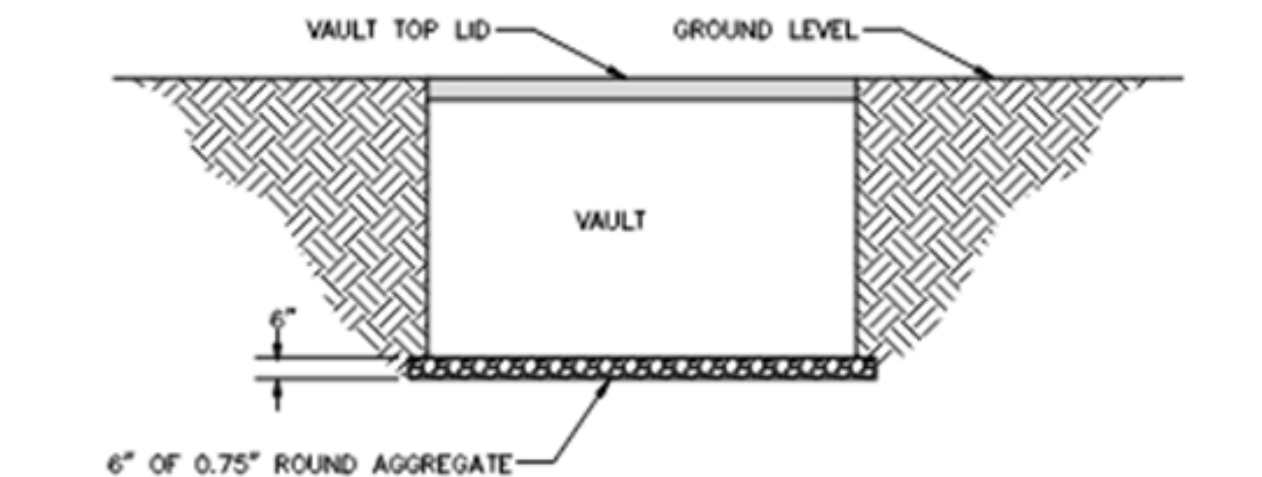
FLOODPLAIN
MAP
24021C0440D

SEGMENT 15 PARTIAL PLAN

CONTINUED
ON SHEET
S15-X-007

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.



- NOTES:
1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
 2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
 3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS.
 4. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
 5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
 6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION
NOT TO SCALE

CONSTRUCTION UNITS				MATERIAL		IMPACT AREAS	
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL SQFT
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1317 FT	FLOOD PLAIN	43355
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA	PALUSTRINE EMERGENT WETLANDS (PEM)	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	PERENNIAL STREAMS (R3)	-
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	1317 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	FORESTED WETLANDS (PFO)	-
4.6	SELECT BACKFILL	- SQFT	5.2	INSTALL 6' LOCATE MARKER POST	1 EA	TEMPORARY IMPACT TO WETLAND BUFFER	964
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	1 EA	-	-
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	-	-	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-	-	-

PRINTED
FULL SIZE
0 50 100
PLAN SCALE: 1 IN = 100 FT
0 50 100
PROFILE VERTICAL: 1 IN = 100 FT

PRINTED
HALF SIZE
0 100 200
PLAN SCALE: 1 IN = 200 FT
0 100 200
PROFILE VERTICAL: 1 IN = 100 FT

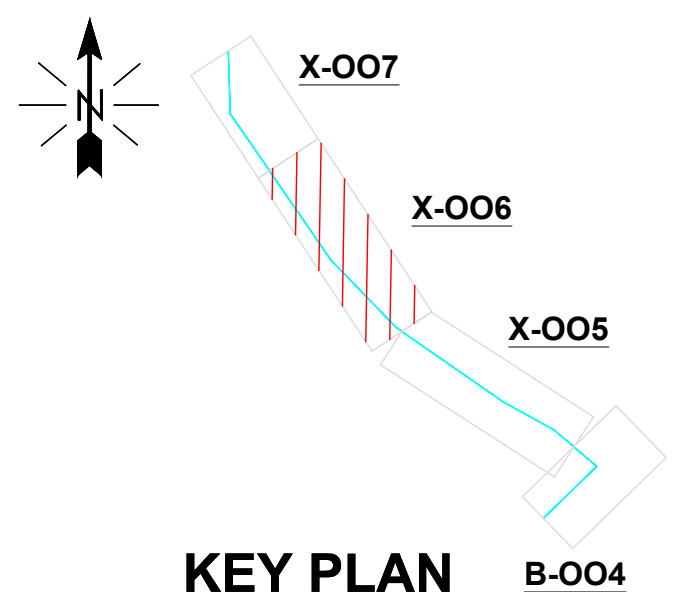


QUANTUM LOOPHOLE

ACCEPTED BY: _____ RICH PAUL-HUS _____ DATE _____



- LEGEND**
- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
 - PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
 - FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
 - INTERMITTENT STREAM
 - WETLAND BUFFER
 - NO WORK ZONE
 - IMPACT AREA
 - SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
 - SILT FENCE SEE G-007
 - FLOOD PLAIN BOUNDARY
 - DIRECTIONAL BORE
 - TRENCH
 - EASEMENT LINE
 - PROPERTY LINE
 - RIGHT-OF-WAY (ROW)
 - LIMIT OF DISTURBANCE(LOD)
 - INLET PROTECTION
 - STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
 - PROPOSED VAULTS
 - UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
 - BORE PIT
 - NEW FIBER LINE MARKER
 - NEW FIBER LINE LOCATE MARKER WITH TEST STATION
- NOTES:
- THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).
- THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.
- KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.
- CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.
- SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



QUANTUM LOOPHOLE				JOB NUMBER		REV		
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE		<div>1</div>		
SEGMENT 15 PLAN AND BORE PROFILE				DRAWING NUMBER				
PARCEL 0109/0013 NW OF NEW DESIGN RD				S15-X-006				
1	REVISED PER FIELD INVESTIGATION		12/09/21	RPE	RI	RB		
0	ISSUED FOR PERMIT		11/28/21	RPE	RI	RB		
REV	REVISIONS			DATE	DRN	CKD	DSGN	APPD
DSGN	RI	9/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.					
DRN	RPE	11/21						
CKD	RB	11/21						
SCALE:		1" = 50'		FOR 22x34 CONSTRUCTION DWG ONLY				

C:\USERS\JEFF SCHAMBER\TELCON SERVICES\PROJECTS\PROJECT SAGE\01-ENGINEERING\CADD\SEGMENTS\15- POTOMAC NORTH RIVER CROSSING\060302_N.DWG

CONTINUED FROM
S15-X-006

CONTINUED ON SHEET
S16-X-001

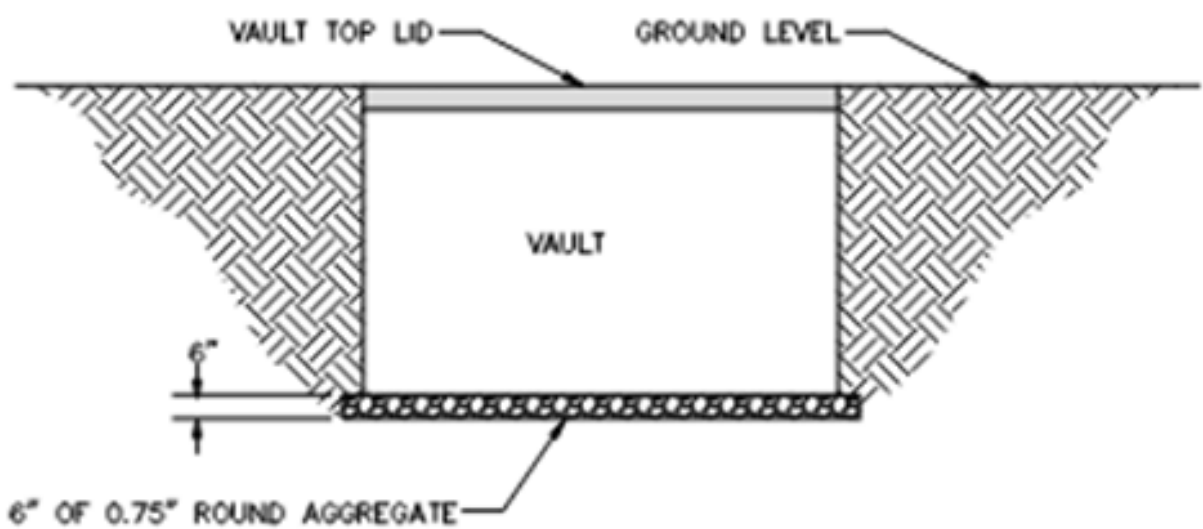
THIS AREA WILL BE
TRENCHED

SEGMENT 15 PARTIAL PLAN

FLOODPLAIN
MAP
24021C0440D

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.



NOTES:

1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS.
4. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION
NOT TO SCALE

CONSTRUCTION UNITS			MATERIAL			IMPACT AREAS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL	TOTAL SQFT
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	947 FT	FLOOD PLAIN	-	31241
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C. LOC. WIRE & MULE TAPE 3' AGL	1 EA	PALUSTRINE EMERGENT WETLANDS (PEM)	-	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	PERENNIAL STREAMS (R3)	-	-
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	947 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	FORESTED WETLANDS (PFO)	-	-
4.6	SELECT BACKFILL	- SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA	CRANE MAT CROSSINGS	-	-
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	- EA	TEMPORARY IMPACT TO WETLAND BUFFER	-	-
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	-	-	-	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-	-	-	-

PRINTED
FULL SIZE
0 50 100
PLAN SCALE: 1 IN = 100 FT
0 50 100
PROFILE VERTICAL: 1 IN = 100 FT

PRINTED
HALF SIZE
0 100 200
PLAN SCALE: 1 IN = 200 FT
0 100 200
PROFILE VERTICAL: 1 IN = 100 FT



QUANTUM LOOPHOLE

ACCEPTED BY: RICH PAUL-HUS DATE



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LIMIT OF DISTURBANCE(LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

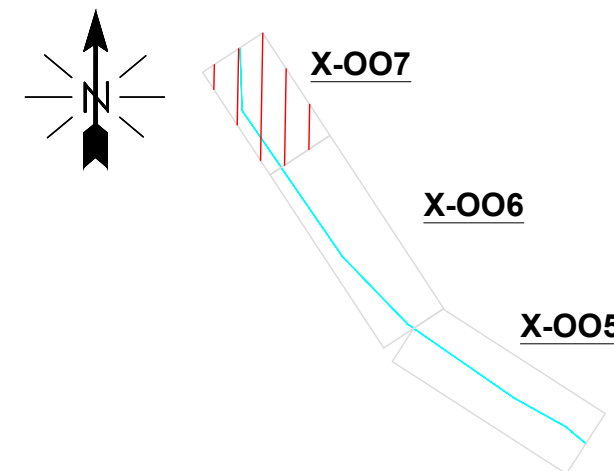
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

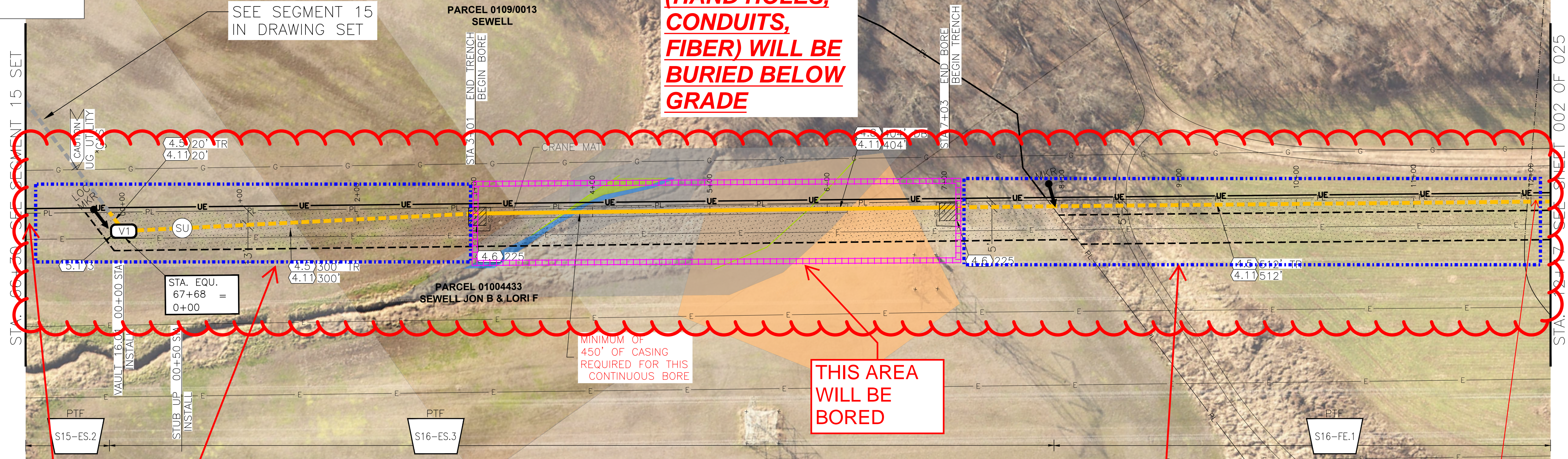
SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



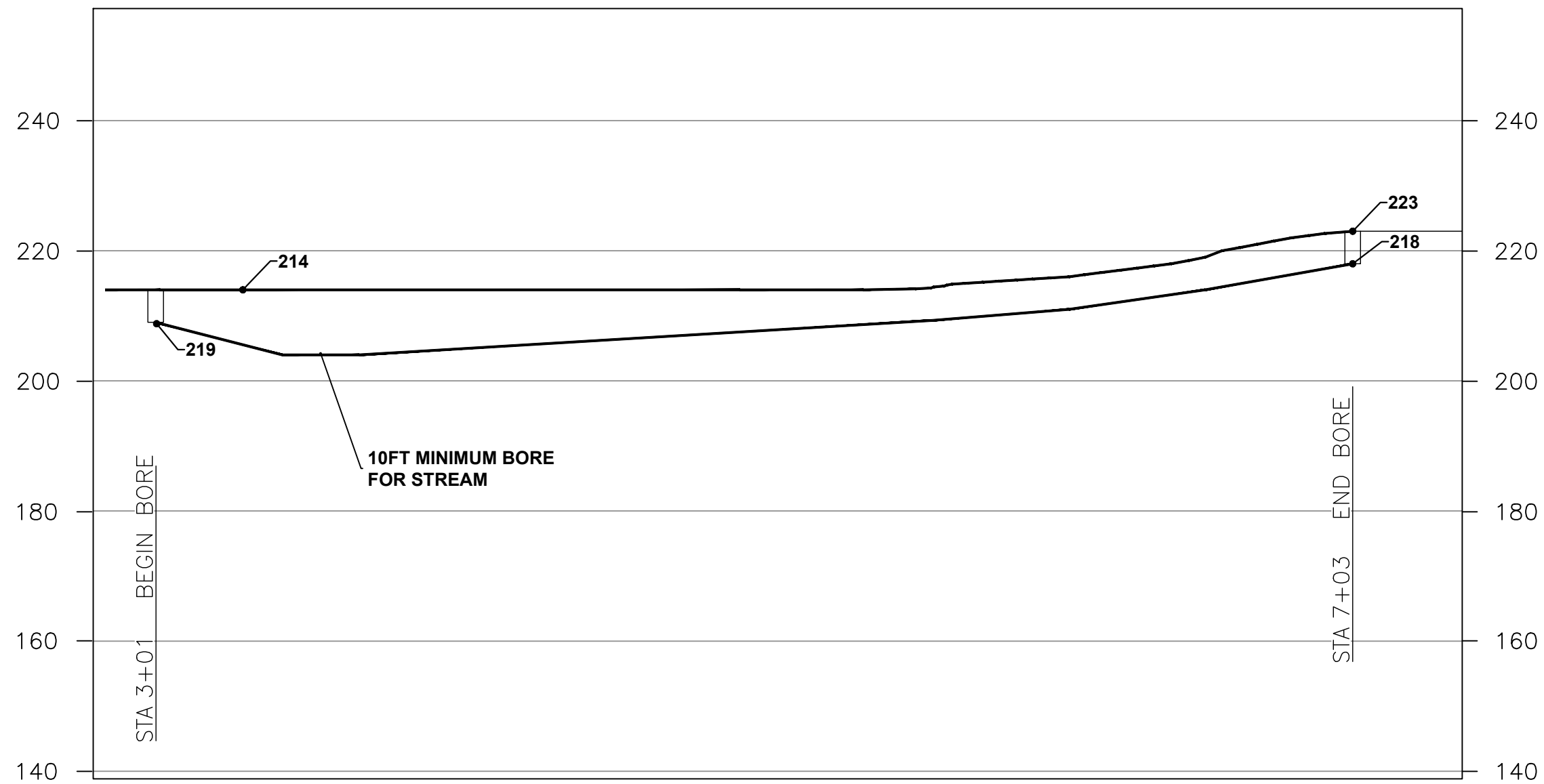
KEY PLAN

QUANTUM LOOPHOLE				JOB NUMBER		REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE		1	
SEGMENT 15 PLAN AND BORE PROFILE PARCEL 0109/0013 NW OF NEW DESIGN RD				DRAWING NUMBER		S15-X-007	
REV	REVISIONS	DATE	DRN	CKD	DSGN	APPD	
1	PERMIT CORRECTION	1/21/22	RPE	RB	RI		
0	ISSUED FOR PERMIT	11/28/21	RPE	RI	RB		
DSGN	RI	9/21					
DRN	RPE	11/21					
CKD	RB	11/21					
SCALE: 1" = 50'				THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.			
				FOR 22x34 CONSTRUCTION DWG ONLY			

P:\PROJECTS\SAGE 01 - ENGINEERING\CADD\SEGMENTS\16\PROJECTS\SAGE_SEG16_LANDBASE_ESC_063022.DWG



SEGMENT 16 PARTIAL PLAN



SEGMENT 16 PARTIAL PROFILE

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

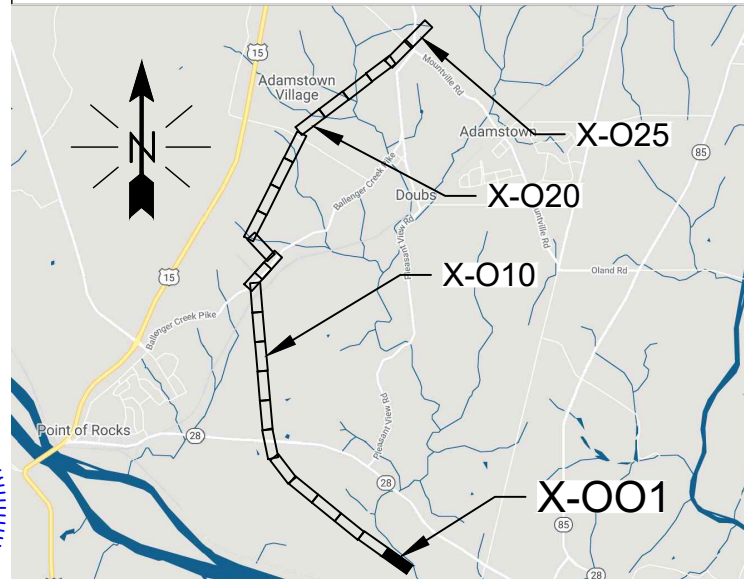
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

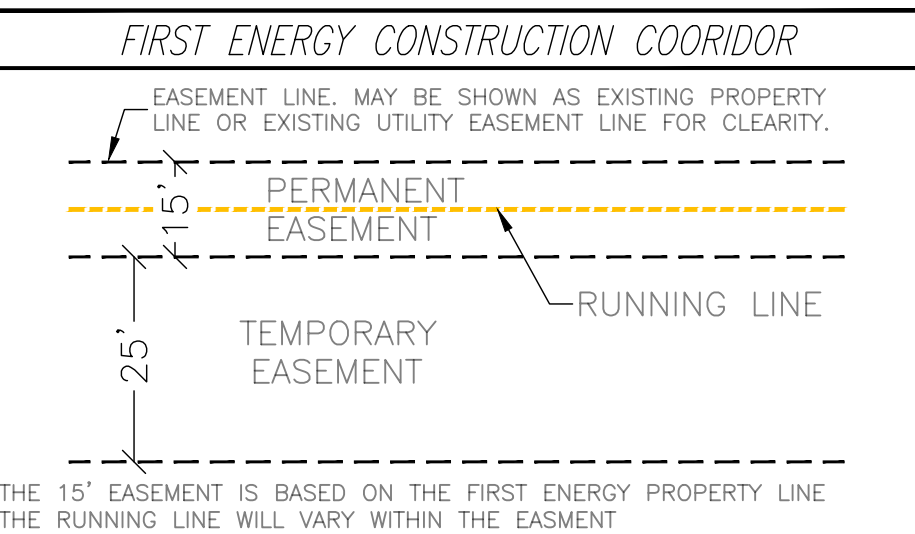
CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS AS REQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.

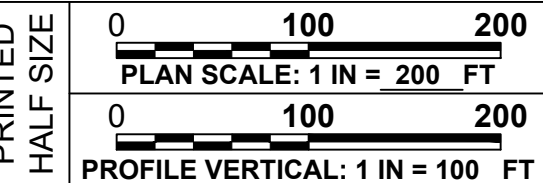
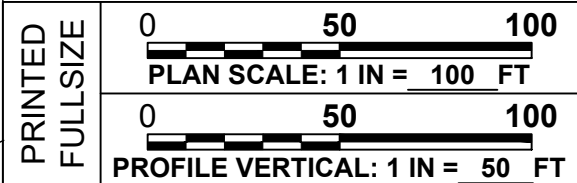


KEY PLAN

CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1236 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	832 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	450 SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	1 EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	404 FT	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



EST. POT HOLE LOCATES		TOTAL EA
DESCRIPTION		
-		-
-		-
-		-
IMPACT AREAS		TOTAL SQFT
DESCRIPTION		
FLOOD PLAIN		14304
PALUSTRINE EMERGENT WETLANDS (PEM)		1511
PERENNIAL STREAMS (R3)		-
FORESTED WETLANDS (PFO)		-
TEMPORARY WETLAND BUFFER IMPACTS		584



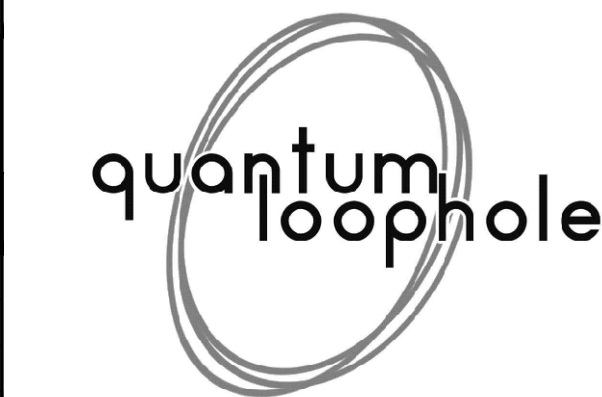
APPROVED BY: _____

DATE: _____

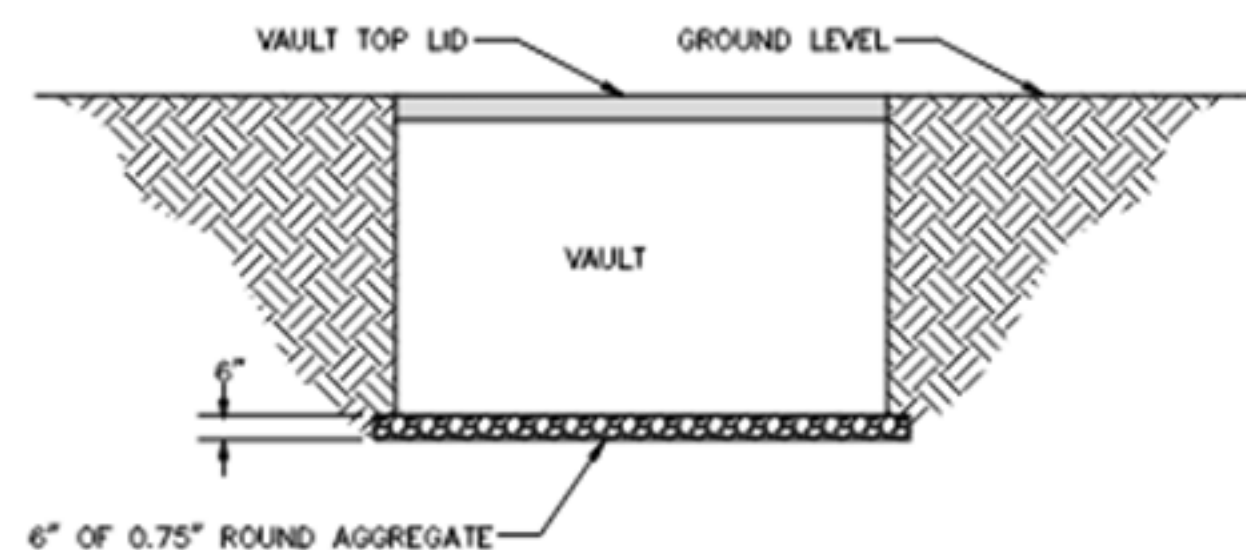
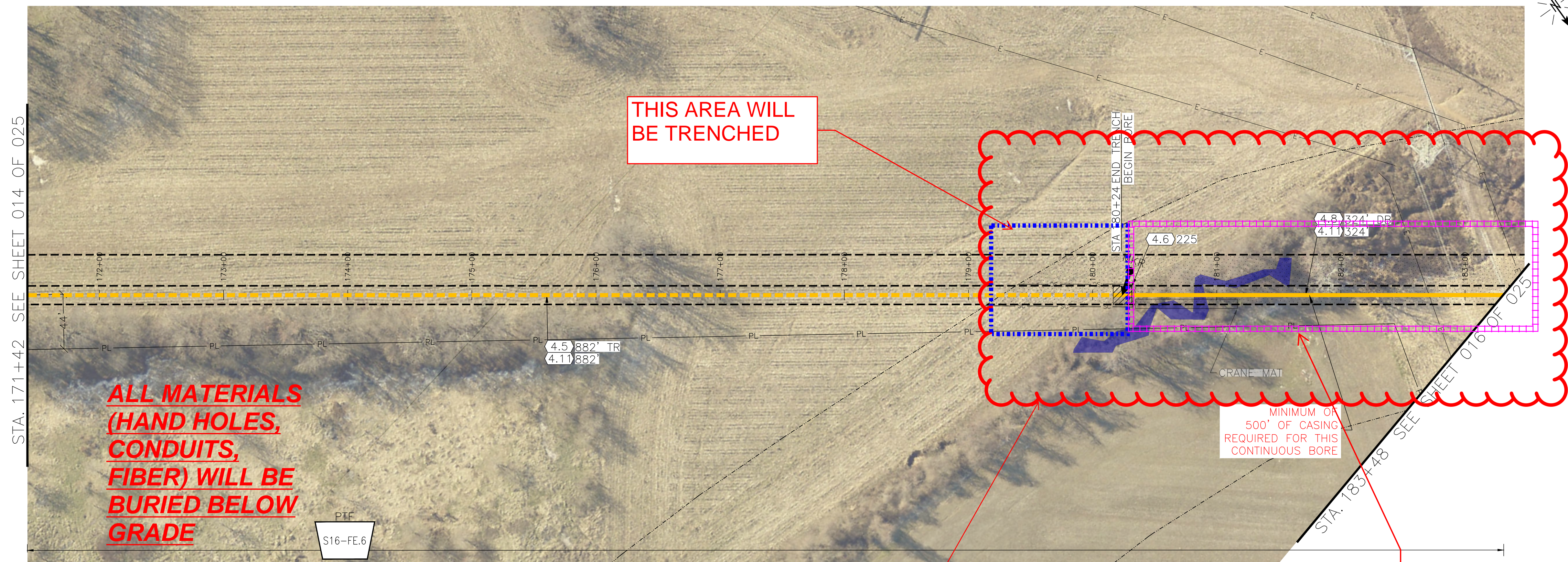


QUANTUM LOOPHOLE

ACCEPTED BY: _____



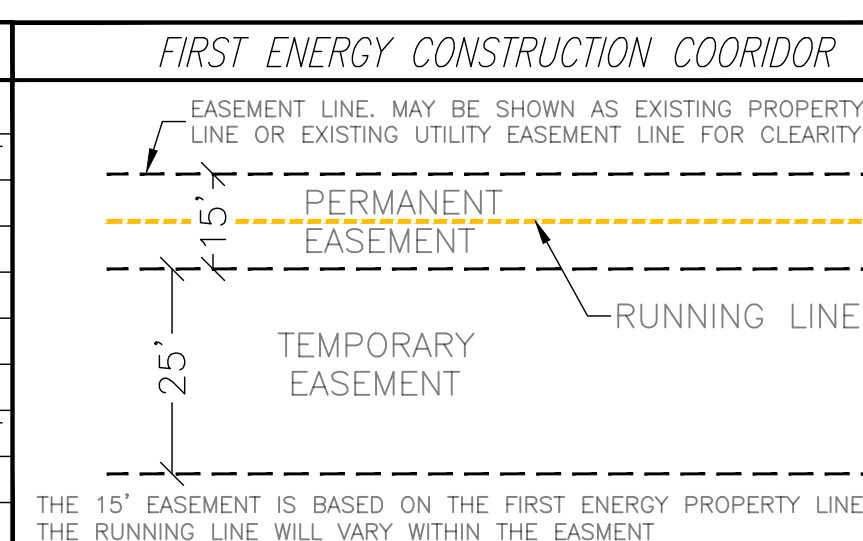
QUANTUM LOOPHOLE				JOB NUMBER	REV
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE	3
SEGMENT 16 PLAN AND PROFILE				DRAWING NUMBER	
P#0109-0014-0032 & P#0109-0014-0033				S16-X-001	
3	ISSUED FOR ESC PERMIT	05/11/22	RPE	RB	RI
1	MODIFIED PTF	2/24/22	RPE	RB	RI
2	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RB	RI
REV		REVISIONS		DATE	DRN
DSGN	RI	9/21			
DRN	RPE	11/21			
CKD	RB	11/21			
SCALE: 1" = 50'				FOR 22x34 CONSTRUCTION DWG ONLY	



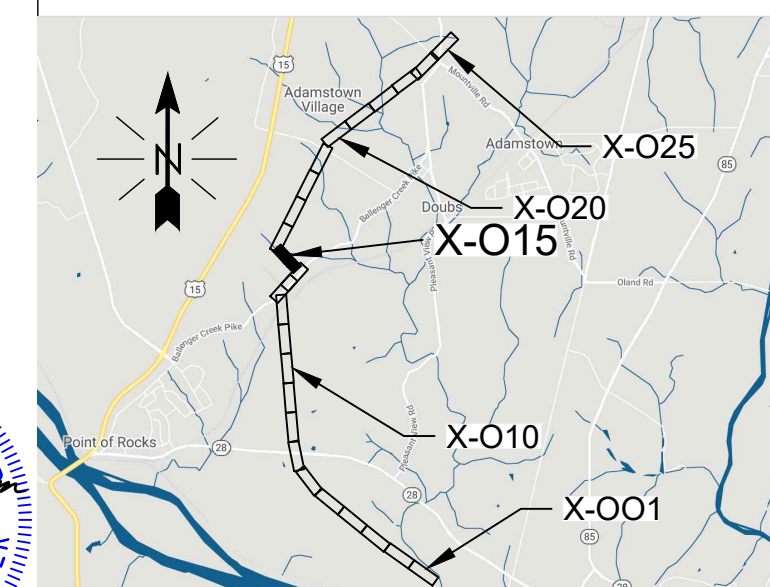
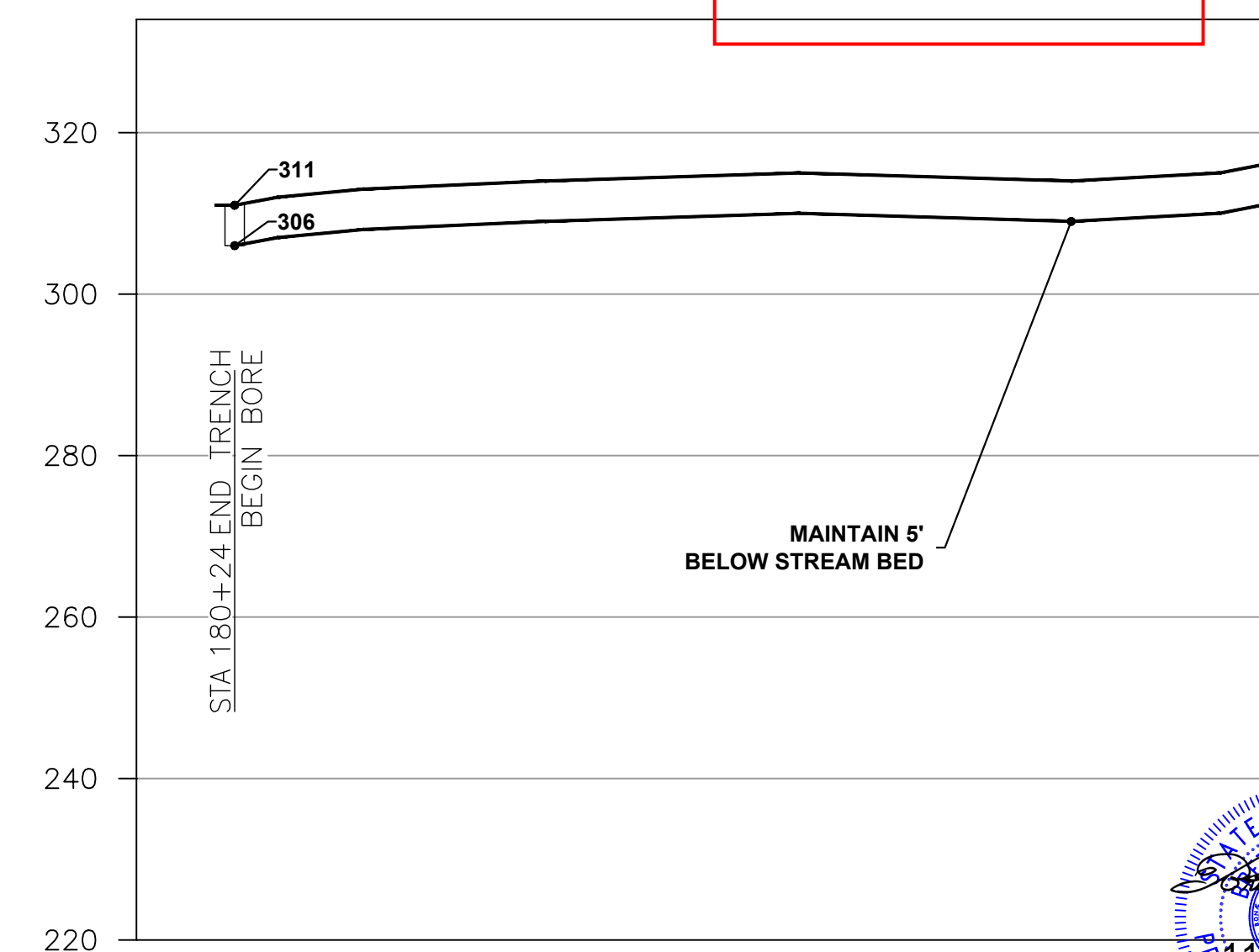
- NOTES:**

1. VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
2. VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
3. THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS. THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE PRIOR TO THE VAULT SET.
5. THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
6. THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.




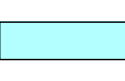
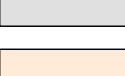
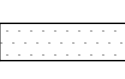
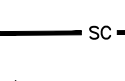

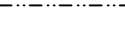












CONSTRUCTION UNITS					
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1206 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	- EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	882 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	- EA
4.6	SELECT BACKFILL	225 SQFT	5.2	INSTALL 6' LOCATE MARKER POST	- EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	1 EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	324 FT	5.10	JACK & BORE RXR 24" STEEL CASING & 30 C	- FT
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



EST. POTHOLE LOCATES	
DESCRIPTION	TOTAL EA
-	-
-	-
-	-
IMPACT AREAS	
DESCRIPTION	TOTAL SQF
FLOOD PLAIN	16217
PALUSTRINE EMERGENT WETLANDS (PEM)	-
PERENNIAL STREAMS (R3)	-
FORESTED WETLANDS (PFO)	-
TEMPORARY WETLAND BUFFER IMPACTS	-



LEGEND

- | | |
|---|--|
|  | PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR |
|  | PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR |
|  | FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR |
|  | INTERMITTENT STREAM |
|  | WETLAND BUFFER |
|  | NO WORK ZONE |
|  | IMPACT AREA |
|  | SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009 |
|  | SILT FENCE SEE G-007 |
|  | FLOOD PLAIN BOUNDARY |
|  | DIRECTIONAL BORE |
|  | TRENCH |
|  | EASEMENT LINE |
|  | PROPERTY LINE |
|  | INLET PROTECTION |
|  | STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL. |
|  | PROPOSED VAULTS |
|  | UNIT 4.12: STUB UP FOR FUTURE HAND HOLE |
|  | BORE PIT |
|  | NEW FIBER LINE MARKER |
|  | NEW FIBER LINE LOCATE MARKER WITH TEST STATION |

NOTES:

THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION
DESIGN AND BORE PROFILE TO BE DETERMINED
IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE
ALIGNMENT WILL BE WITHIN APPROVED
EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

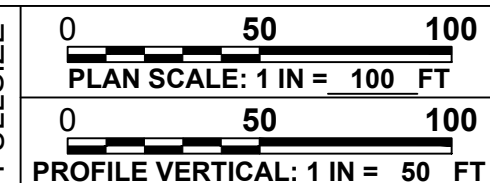
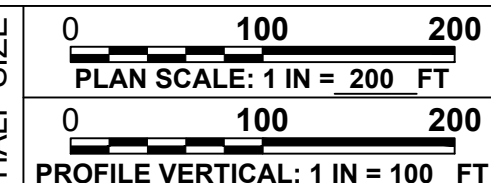
KNOWN STRUCTURES ALONG THE RUNNING-LINE
WITH FOUNDATION TO BE REVIEWED IN THE FIELD
TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION
ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS
AS REQUIRED. ALL EASEMENTS WILL REQUIRE
OWNER NOTIFICATION BEFORE ENTERING THE
PROPERTY. THE FINAL RUNNING LINE WILL BE
FIELD STAKED PRIOR TO CONSTRUCTION.

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

D:\PROJECT SAGE\01 ENGINEERING\CADD\SEGMENTS\16\PROJECTSAGE SEG16 IANDBASE ESC 063022.DWG

PRINTED
FULL SIZEPRINTED
HALF SIZE

FREDERICK SOIL CONSERVATION DISTRICT

APPROVED BY:

DISTRICT MANAGER

DATE:

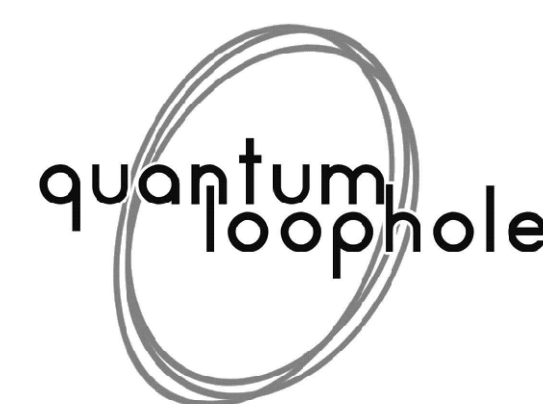


QUANTUM LOOPHOLE

ACCEPTED BY:

RICH PAUL-HUIS

	DATE
1	1/1/2020
2	1/1/2020
3	1/1/2020
4	1/1/2020
5	1/1/2020
6	1/1/2020
7	1/1/2020
8	1/1/2020
9	1/1/2020
10	1/1/2020
11	1/1/2020
12	1/1/2020
13	1/1/2020
14	1/1/2020
15	1/1/2020
16	1/1/2020
17	1/1/2020
18	1/1/2020
19	1/1/2020
20	1/1/2020
21	1/1/2020
22	1/1/2020
23	1/1/2020
24	1/1/2020
25	1/1/2020
26	1/1/2020
27	1/1/2020
28	1/1/2020
29	1/1/2020
30	1/1/2020
31	1/1/2020
32	1/1/2020
33	1/1/2020
34	1/1/2020
35	1/1/2020
36	1/1/2020
37	1/1/2020
38	1/1/2020
39	1/1/2020
40	1/1/2020
41	1/1/2020
42	1/1/2020
43	1/1/2020
44	1/1/2020
45	1/1/2020
46	1/1/2020
47	1/1/2020
48	1/1/2020
49	1/1/2020
50	1/1/2020
51	1/1/2020
52	1/1/2020
53	1/1/2020
54	1/1/2020
55	1/1/2020
56	1/1/2020
57	1/1/2020
58	1/1/2020
59	1/1/2020
60	1/1/2020
61	1/1/2020
62	1/1/2020
63	1/1/2020
64	1/1/2020
65	1/1/2020
66	1/1/2020
67	1/1/2020
68	1/1/2020
69	1/1/2020
70	1/1/2020
71	1/1/2020
72	1/1/2020
73	1/1/2020
74	1/1/2020
75	1/1/2020
76	1/1/2020
77	1/1/2020
78	1/1/2020
79	1/1/2020
80	1/1/2020
81	1/1/2020
82	1/1/2020
83	1/1/2020
84	1/1/2020
85	1/1/2020
86	1/1/2020
87	1/1/2020
88	1/1/2020
89	1/1/2020
90	1/1/2020
91	1/1/2020
92	1/1/2020
93	1/1/2020
94	1/1/2020
95	1/1/2020
96	1/1/2020
97	1/1/2020
98	1/1/2020
99	1/1/2020
100	1/1/2020



KEY PLAN

QUANTUM LOOPHOLE
TELECOMMUNICATIONS FIBER
NETWORK BUILD

SEGMENT 16 PLAN AND PROFILE
P#0102-0012-0066-0000-0000 130

3	ISSUED FOR ESC PERMIT	05/11/22	RPE	RB	RI	
2	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI	
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RB	RI	
0	ISSUED FOR PERMIT	11/28/21	RPE	RB	RI	
REV	REVISIONS	DATE	DRN	CKD	DSGN	APP
DSGN	RI	9/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.			
DRN	RPE	11/21				
CKD	RB	11/21				
SCALE:	1" = 50'		FOR 22x34 CONSTRUCTION DWG ONLY			

P:\PROJECTS\SAGE\01_ENGINEERING\CADD\SEGMENTS\16\PROJECTS\SAGE_SEG16_LANDBASE_ESC_063022.DWG

MINIMUM OF
500' OF CASING
REQUIRED FOR THIS
CONTINUOUS BORE

CONTINUED
FROM SHEET
S16-X-015

FLOODPLAIN
MAP
24021C0420D

ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE

PARCEL 01011472
POTOMAC EDISON COMPANY

STA. 194+96 SEE SHEET 017 OF 25

SEGMENT 16 PARTIAL PLAN

END OF FLOODPLAIN
FROM PREVIOUS PAGE

SEE SHEET
S16-X-018 FOR
NEXT
FLOODPLAIN

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SC SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SF SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE

- INLET PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- V1 PROPOSED VAULTS
- SU UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- MKR NEW FIBER LINE MARKER
- LOC MKR NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

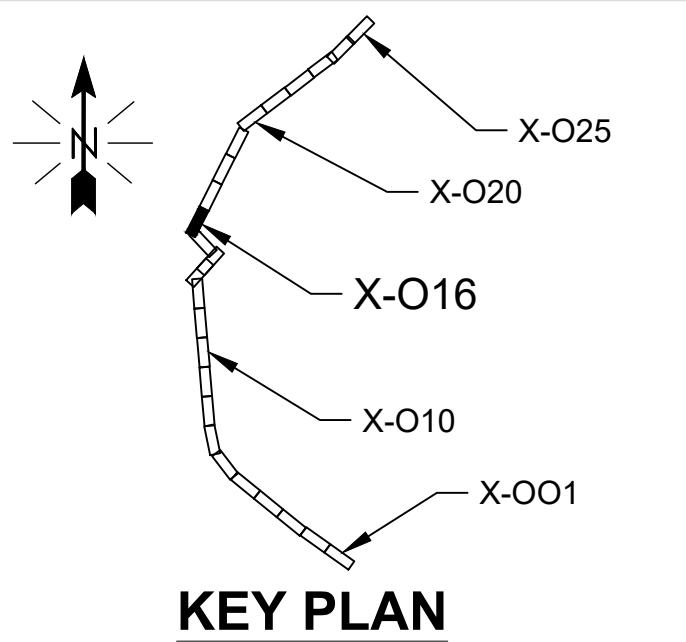
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

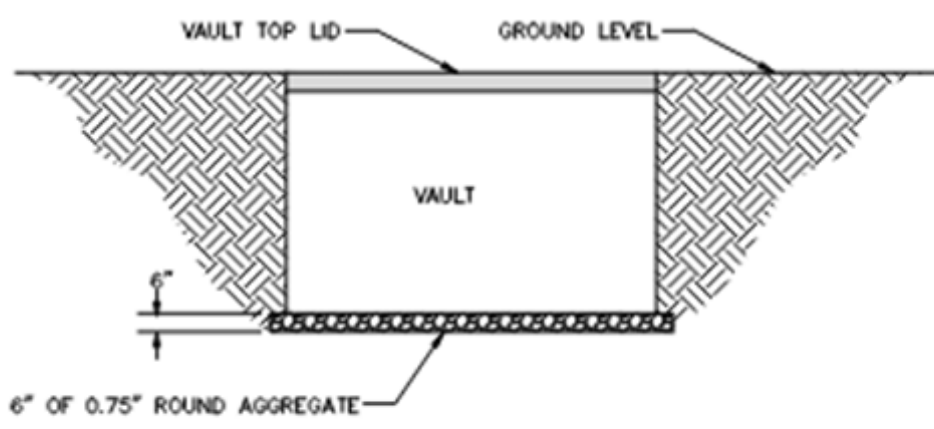
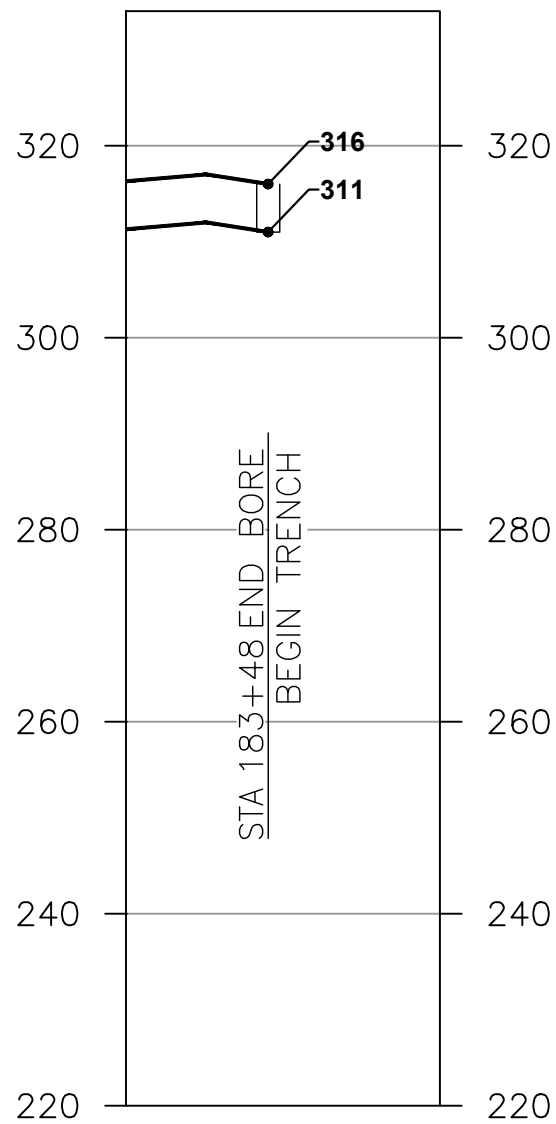
KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS AS REQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



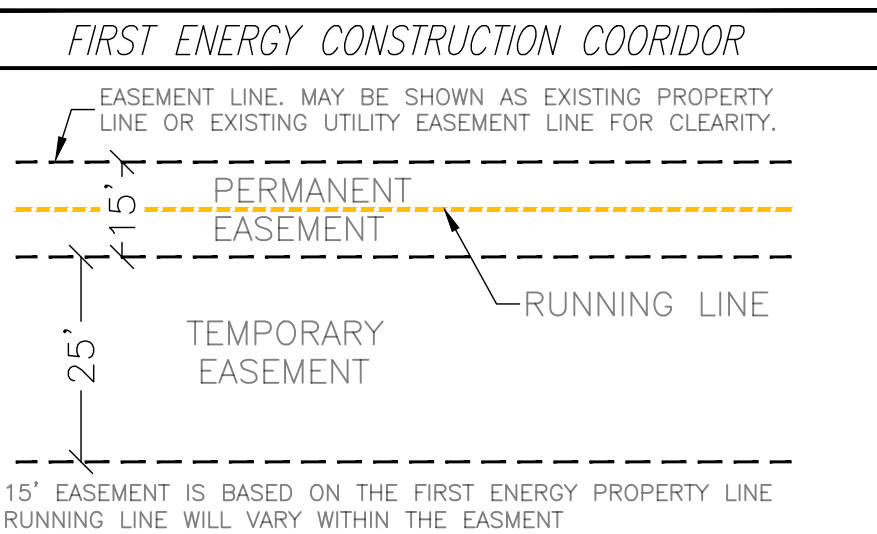
SEGMENT 16 PARTIAL PROFILE



- NOTES:
- VAULTS SHALL BE PLACED A MINIMUM OF 10" SEPARATION UNLESS APPROVED BY ENGINEER PRIOR TO INSTALLATION.
 - VAULTS SHALL BE INSTALLED TO EXISTING GRADE AND AS LEVEL AS POSSIBLE.
 - THE VAULTS WILL BE INSTALLED PARALLEL AND SQUARED UP WITH STREETS AND SIDEWALKS. PRIOR TO THE VAULT SET.
 - THE BOTTOM OF THE PIT SHALL BE COMPACTED TO 95% TO ALLOW FOR A SOLID BASE.
 - THE BACKFILL AROUND THE VAULT WILL BE NATIVE SOIL AND COMPACTED TO 95% AFTER EVERY 6".
 - THE BOTTOM OF THE PIT SHALL HAVE AT LEAST 6" OF 0.75" ROUND AGGREGATE TO ALLOW FOR DRAINAGE AND A SOLID BASE PRIOR TO THE SETTING OF THE VAULT.

VAULT INSTALLATION
NOT TO SCALE

CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1148 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C. LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	1111 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	225 SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	37 FT	5.3	INSTALL RUNNING LINE MARKER	1 EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	5.10	JACK & BORE RXR 24" STEEL CASING & 30 C	- FT
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



EST. POT HOLE LOCATES		TOTAL EA
DESCRIPTION		
-		-
-		-
-		-
IMPACT AREAS		TOTAL SQFT
DESCRIPTION		
FLOOD PLAIN		-
PALUSTRINE EMERGENT WETLANDS (PEM)		-
PERENNIAL STREAMS (R3)		-
FORESTED WETLANDS (PFO)		-
TEMPORARY WETLAND BUFFER IMPACTS		-



PRINTED FULL SIZE
0 50 100
PLAN SCALE: 1 IN = 100 FT
0 50 100
PROFILE VERTICAL: 1 IN = 50 FT

PRINTED HALF SIZE
0 100 200
PLAN SCALE: 1 IN = 200 FT
0 100 200
PROFILE VERTICAL: 1 IN = 100 FT

APPROVED BY: _____
DISTRICT MANAGER

DATE: _____



QUANTUM LOOPHOLE

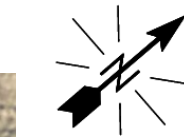
ACCEPTED BY: _____
RICH PAUL-HUS

DATE: _____

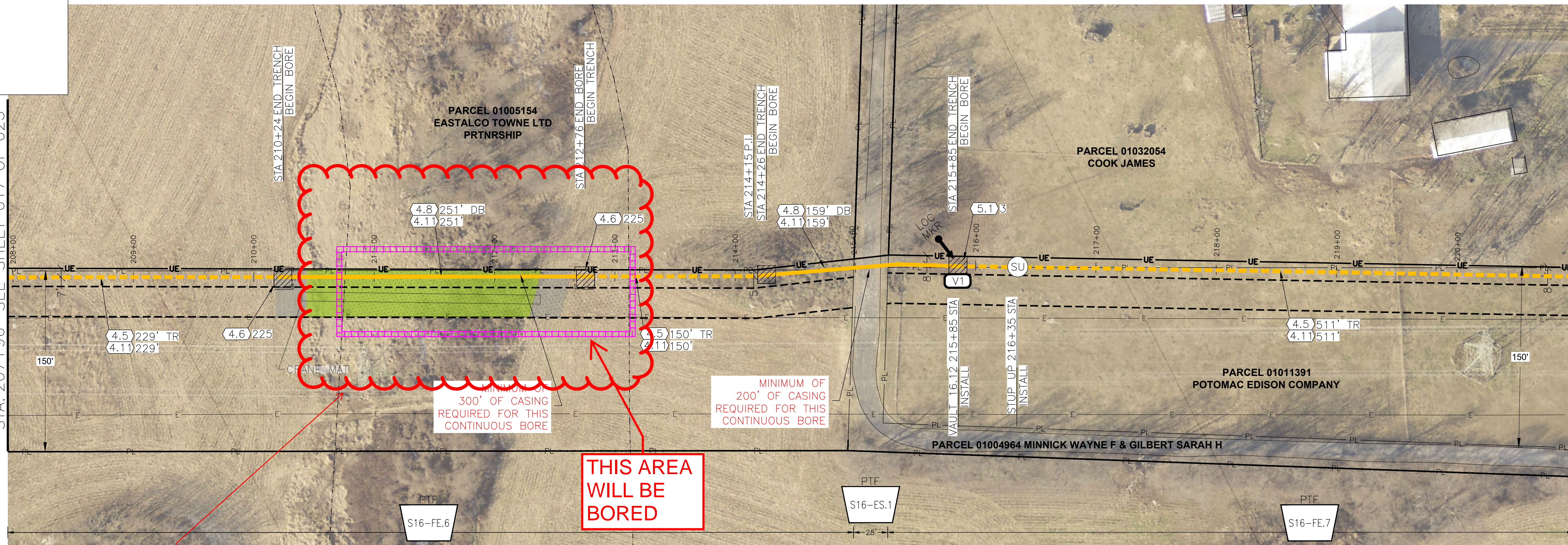
QUANTUM LOOPHOLE				JOB NUMBER	REV
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE	2
SEGMENT 16 PLAN AND PROFILE P#0102-0012-0066-0000-0000 1144'				DRAWING NUMBER	S16-X-016
2	ISSUED FOR ESC PERMIT	05/11/22	RPE	RB	RI
1	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI
0	ISSUED FOR PERMIT	11/28/21	RPE	RB	RI
REV	REVISIONS	DATE	DRN	CKD	DSGN
DSGN	RI	9/21			
DRN	RPE	11/21			
CKD	RB	11/21			
SCALE: 1" = 50'					
THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.					
FOR 22x34 CONSTRUCTION DWG ONLY					

P:\PROJECTS\SAGE 01 - ENGINEERING\CADD\SEGMENTS\16\PROJECTS\SAGE_SEG16_LANDBASE_ESC_063022.DWG

STA. 207+96 SEE SHEET 017 OF 025



STA. 220+96 SEE SHEET 019 OF 025



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SC SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SF SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- INLET PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- V1 PROPOSED VAULTS
- SU UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- MARKER BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

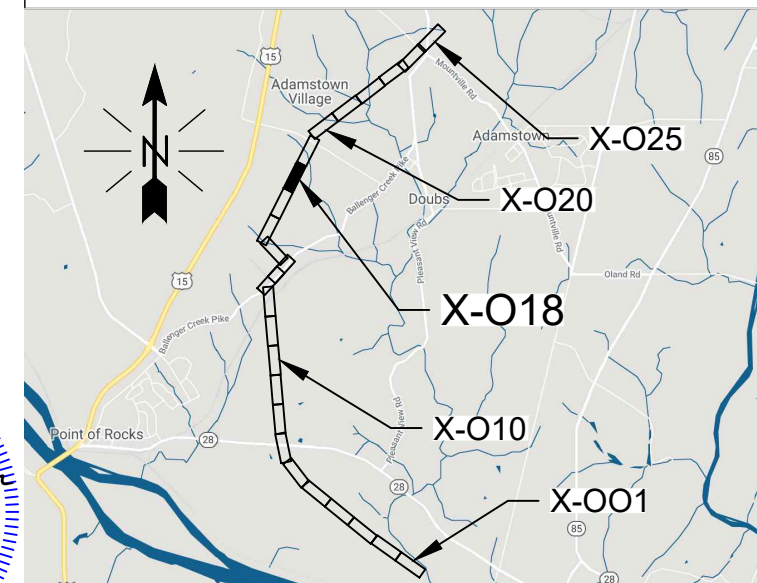
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS AS REQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



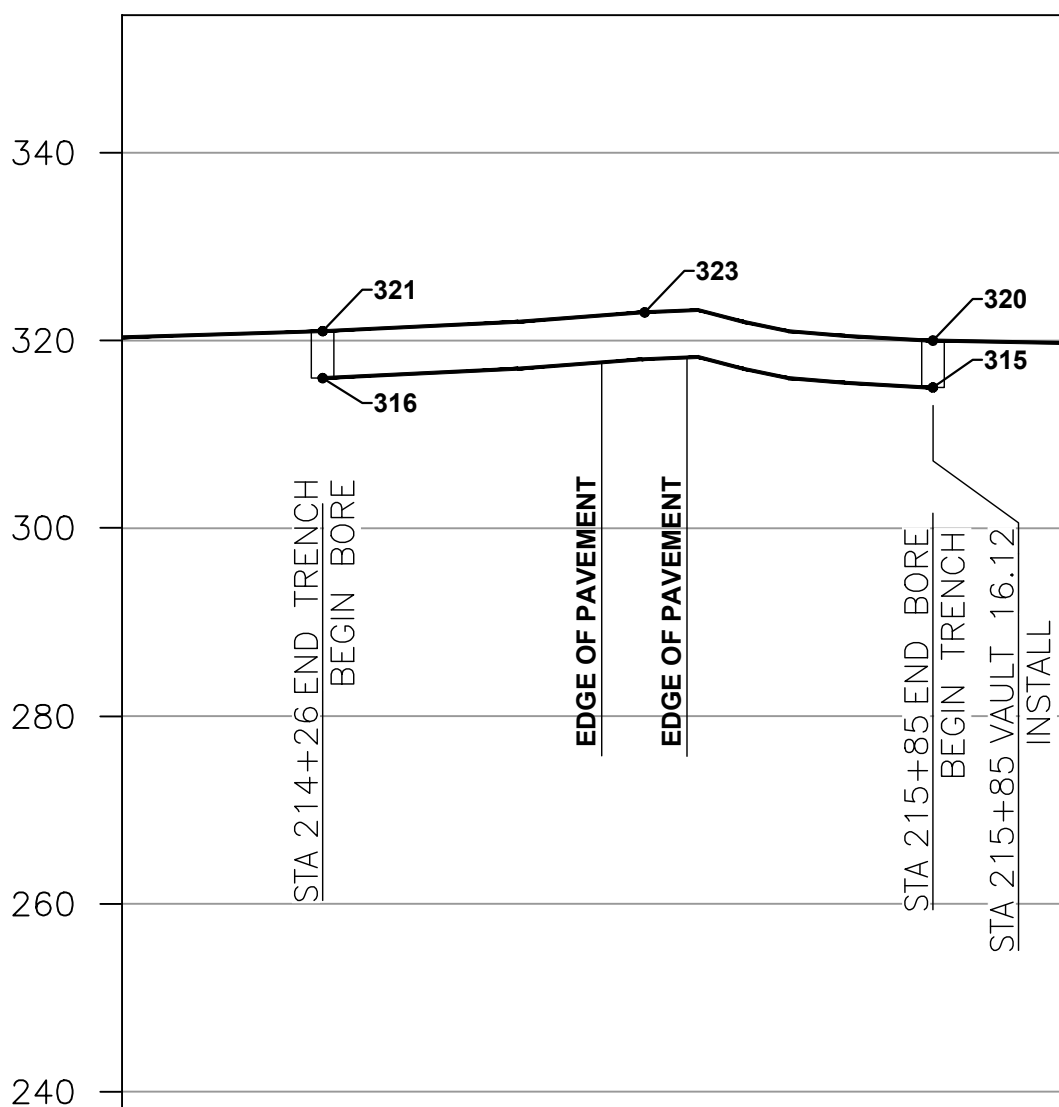
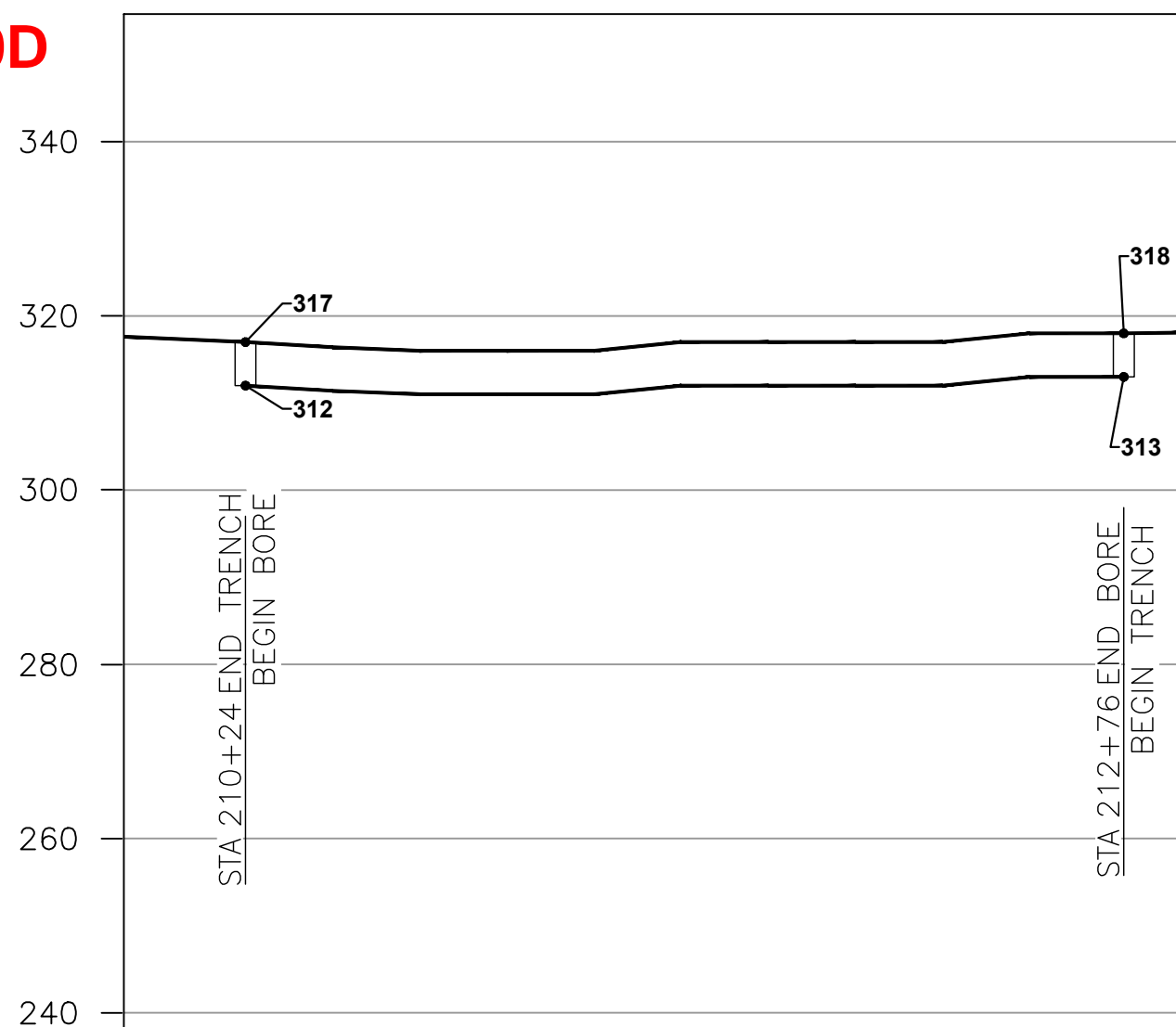
KEY PLAN

FLOODPLAIN MAP 24021C0420D

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**

SEE SHEET S16-X-016
FOR HAND HOLE
DETAILS

SEGMENT 16 PARTIAL PLAN

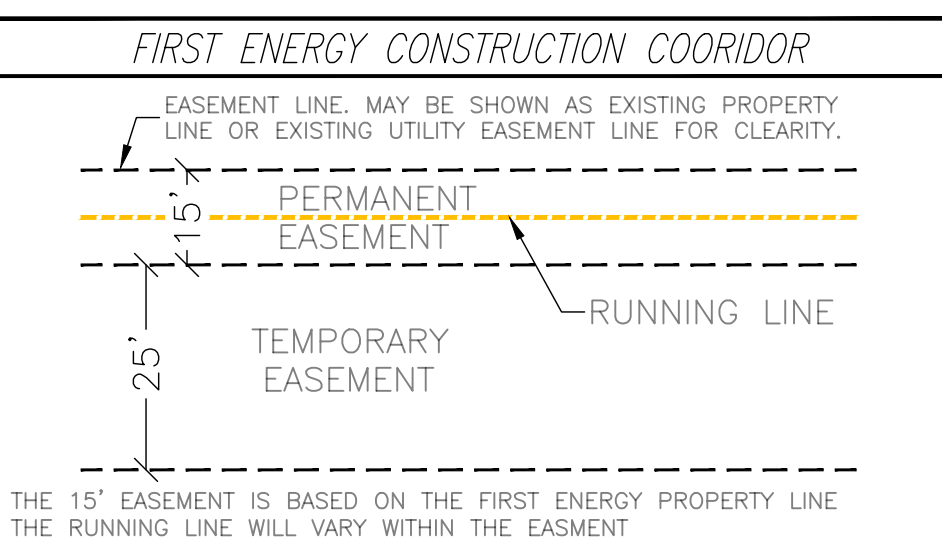


SEGMENT 16 PARTIAL PROFILE

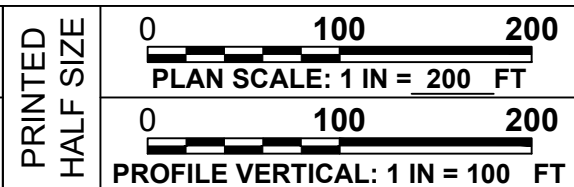
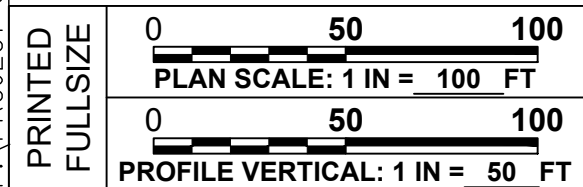
END FLOODPLAIN PRINTS

A review of all project designs and specifications has determined that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain. Project sage involves no permanent cut or fill. All trenches and pits will be backfilled with native material or imported aggregate; any surplus material will be hauled off to an approved upland disposal location. Any temporary staging areas within the floodplain will be removed. Slope contours intersected by trenching will be restored to match preconstruction conditions and the surrounding terrain. This earthwork approach will result in a No-rise to floodwaters within the floodways and floodplains traversed by the project.

CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1300 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	890 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	450 SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	- EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	410 FT	5.10	JACK & BORE RXR 24" STEEL CASING & 30 C	- FT
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



EST. POT HOLE LOCATES		TOTAL EA
DESCRIPTION		
DRIVEWAY BORE 215+00		2
		-
		-
IMPACT AREAS		TOTAL SQFT
DESCRIPTION		
FLOOD PLAIN		3582
PALUSTRINE EMERGENT WETLANDS (PEM)		1507
PERENNIAL STREAMS (R3)		-
FORESTED WETLANDS (PFO)		-
TEMPORARY WETLAND BUFFER IMPACTS		3284

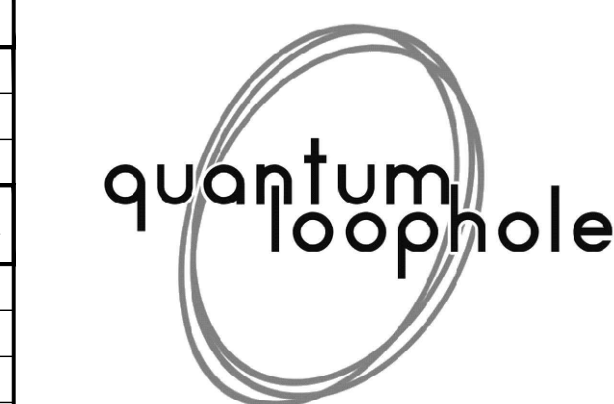


FREDERICK SOIL CONSERVATION DISTRICT
APPROVED BY: _____
DISTRICT MANAGER

DATE: _____



QUANTUM LOOPHOLE
ACCEPTED BY: _____
RICH PAUL-HUS
DATE: _____



QUANTUM LOOPHOLE				JOB NUMBER	REV
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE	3
SEGMENT 16 PLAN AND PROFILE				DRAWING NUMBER	
P#0102-0012-0065 & P#0102-0011-0011 & P#0103-0001-0118				S16-X-018	
3	ISSUED FOR ESC PERMIT	05/11/22	RPE	RB	RI
2	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RB	RI
0	ISSUED FOR PERMIT	11/28/21	RPE	RB	RI
REV		REVISIONS		DATE	DRN
DSGN	RI	9/21			
DRN	RPE	11/21			
CKD	RB	11/21			
SCALE: 1" = 50'				FOR 22x34 CONSTRUCTION DWG ONLY	

JUSTIFICATION STATEMENT

Telcon Services, on behalf of QLoop Communications Services, LLC; is requesting permission to place conduit, fiber, and hand holes below grade through Frederick County floodplains as part of the construction to place a 42-mile fiber ring from/to a campus in Frederick County. The project is underway and has passed the requirements of MDE and USACE through the floodplain area. The material will all be placed below ground, and we had a professional engineer sign and stamp that the project will not permanently change soil/slope contours or result in any permanent net fill within a floodway or floodplain.

The request has been made since this portion of the project(floodplain) is holding up the construction and grading permit applications that have been filed over the course of the last 8 months. In order to proceed with the construction, the permits are required and are relevant to starting and completing this project in a timely and efficient manner. Due to the fact that this permit affects all of the other permits currently with Frederick County, it is pertinent to get this approved.

Since the MDE and USACE have already reviewed and approved this project, construction and funding were approved and have begun. Frederick County requested that QLoop Communications Services also complete the Board of Appeals application due to the fact that the line goes through some of the floodplain area. Telcon Services engaged environmental team Point Environmental to review the properties prior to deeming the area safe for construction. It was Point Environmental's review and applications with MDE & USACE that were approved based on the fact that there were no impacts to the floodplains with the underground and no above grade material being placed.



POINT ENVIRONMENTAL

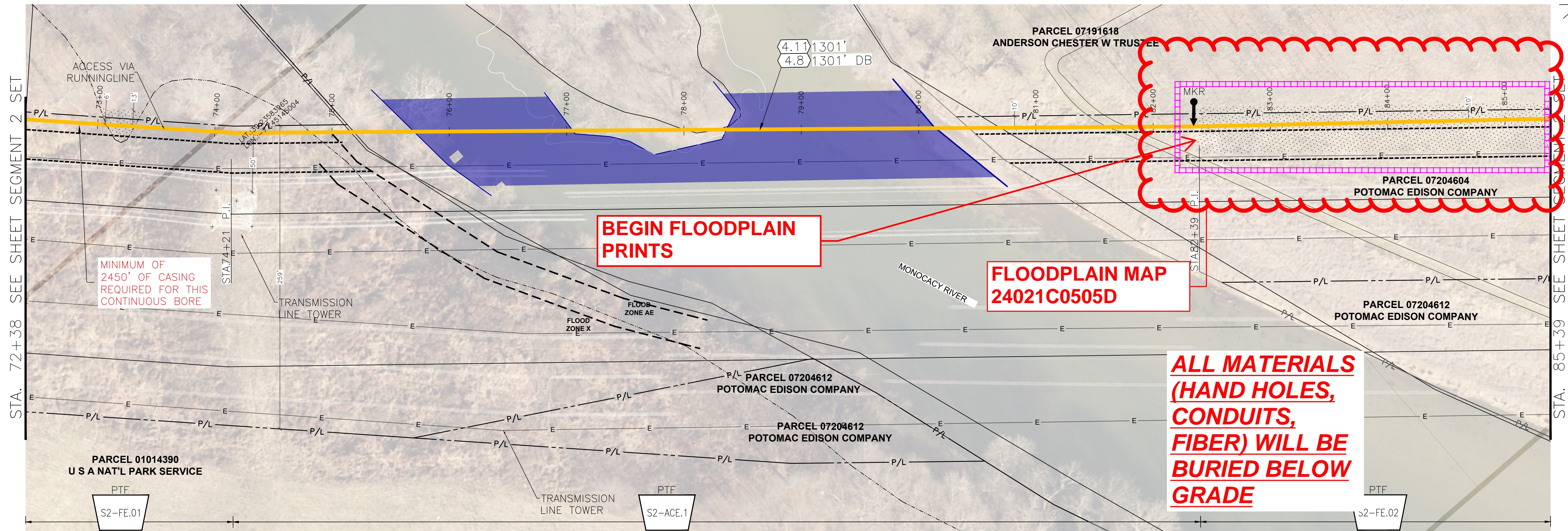
**PO BOX 271,
OREGON CITY, OR 97045**

Nontidal Wetlands and Waterways Application Number:
21-NT-3181/202161612

Adjoining Property Owners

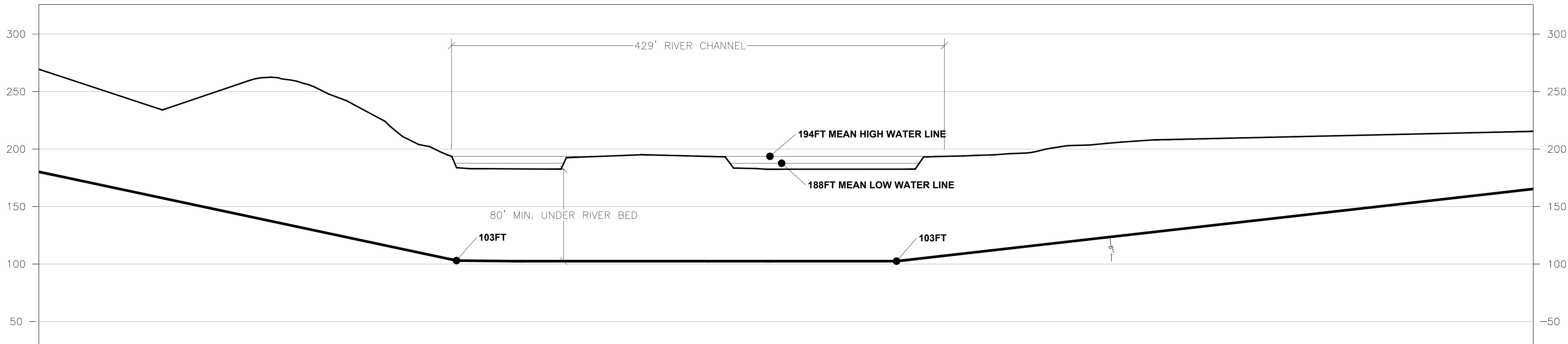
1. Elysian North 5, LLC
PO BOX 588
LEESBURG VA 20178
2. US National Park Service
Permits Coordinator
142 W. Potomac St.
Williamsport, MD 21795
3. Frederick County Highway Dept.
331 Montevue Lane
Frederick, MD 21702
4. Jon B and Lori F Sewell
5323 Tuscarora Rd
Tuscarora MD, 21790-2016
5. CSX
1400 Railroad Ave
Fredericksburg, VA 22401
6. Lewis Legacy LLC
19100 Peach Tree Rd
Dickerson MD, 20842-8501
7. Potomac Edison Company
Tax Department
800 Cabin Hill Drive
Greensburg PA, 15601-1689
8. Northern Virginia Regional Park Authority
Land Manager
5400 Ox Road
Fairfax Station, VA 22039
703-352-5900

P:\PROJECTS\01-ENGINEERING\CADD\SEGMENTS\02\PROJECTSAGE_SEG_02_LANDBASE_092122A_BGED.DWG



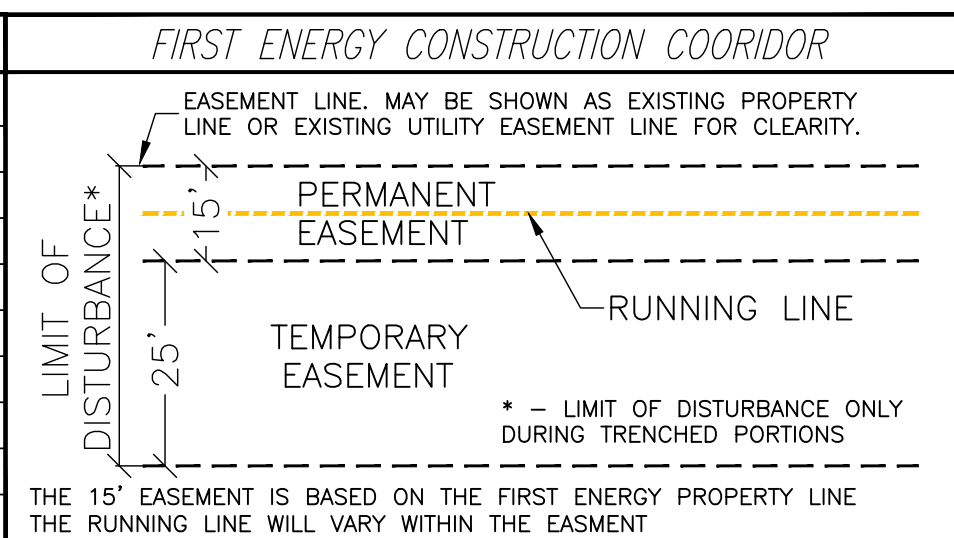
SEGMENT 2 MONOCACY BORE

SPECIAL NOTE: NO WORK BELOW MONOCACY (OHW-OHW) BETWEEN MARCH 1 – JUNE 15.

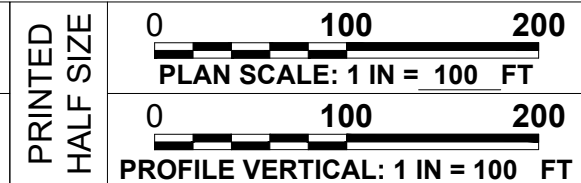
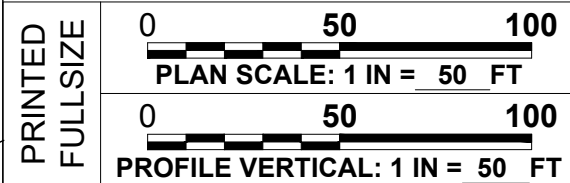


BORE PROFILE

CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	- FT
4.6	SELECT BACKFILL	- SQFT
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	1301 FT
4.9	INSTALL HH 24"x36"x30"	- EA
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT



IMPACT AREAS	
DESCRIPTION	TOTAL SQFT
FLOOD PLAIN	12,525
PALUSTRINE EMERGENT WETLANDS (PEM)	-
PERENNIAL STREAMS (R3)	-
FORESTED WETLANDS (PFO)	-
TEMPORARY WETLAND BUFFER IMPACTS	-
-	-
-	-
-	-
-	-



QUANTUM LOOPHOLE

ACCEPTED BY: RICH PAUL-HUS DATE:



QUANTUM LOOPHOLE				JOB NUMBER	REV
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE 2	<div>1</div>
BORE PLAN AND PROFILE SEGMENT 2 MONOCACY BORE				DRAWING NUMBER	X-007
1	MODIFIED PTF	2/24/22	RPE	RB	RI
1	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI
0	ISSUED FOR PERMIT	11/28/21	RPE	RB	RI
REV	REVISIONS		DATE	DRN	CKD DSGN APPD
DSGN	RI	7/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.		
DRN	RPE	11/21			
CKD	RB	11/21			
SCALE:		1" = 50'	FOR 22x34 CONSTRUCTION DWG ONLY		

P:\PROJECT_SAGE\01_ENGINEERING\CADD\SEGMENTS\02_PROJECTS\SAGE_SEG_02_LANDBASE_092122A_BGE.DWG

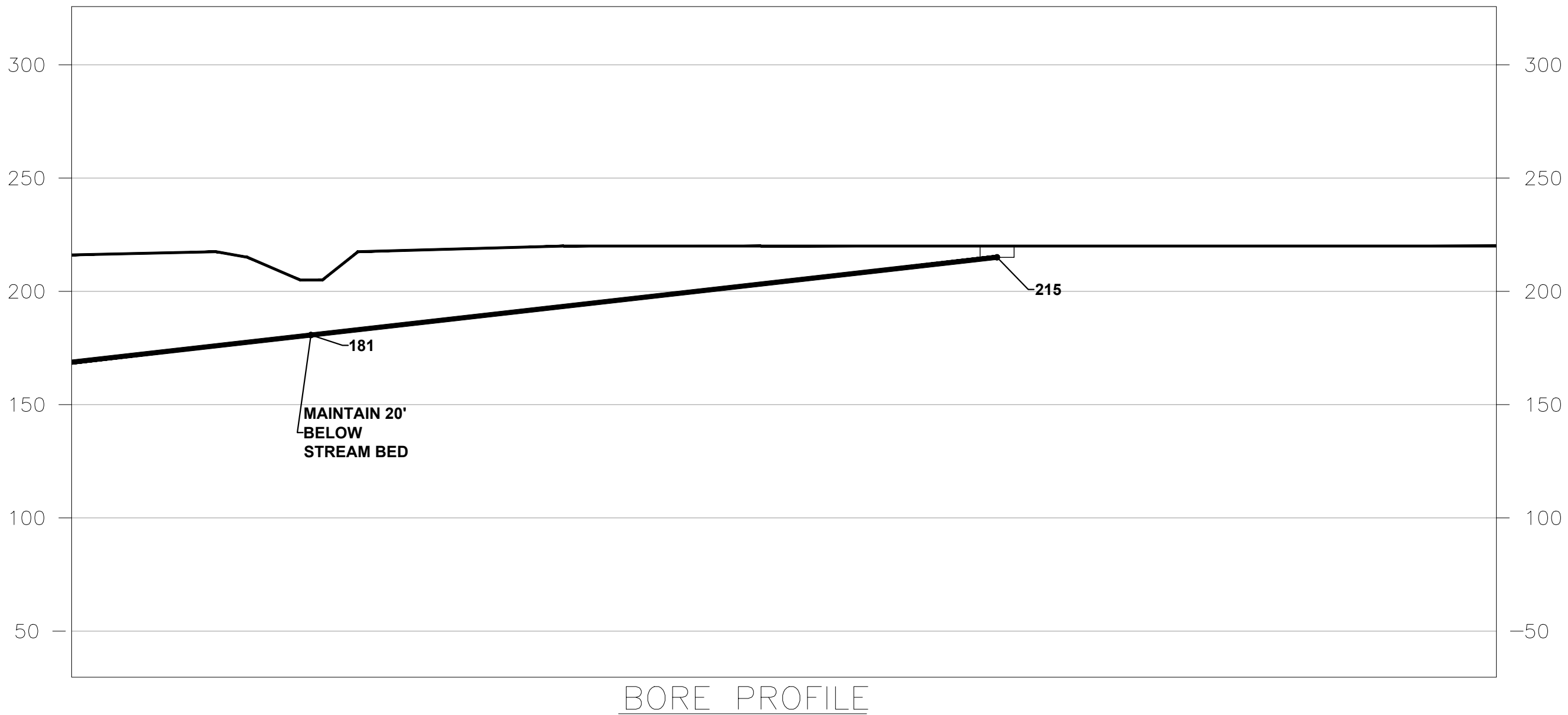
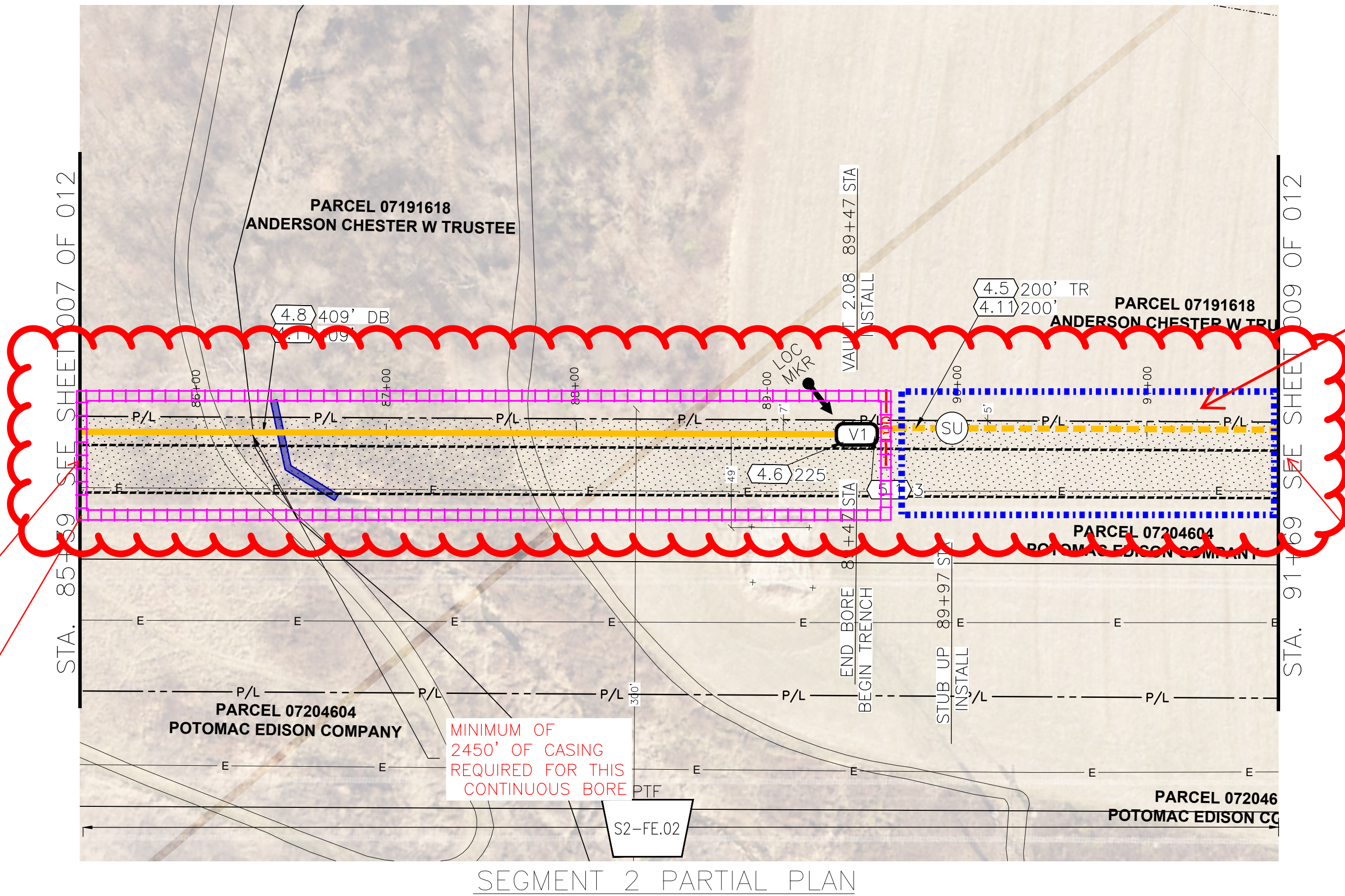
CONTINUED FROM
PREVIOUS PAGE
S02-X-007

AREA
WILL BE
BORED

AREA WILL BE
OPEN
TRENCHED

FLOODPLAIN MAP
24021C0505D

CONTINUED ON
PAGE S02-X-009



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SC SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SF SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LOD LIMIT OF DISTURBANCE(LOD)
- INLET PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- V1 PROPOSED VAULTS
- SU UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- MKR NEW FIBER LINE MARKER
- LOC MKR NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

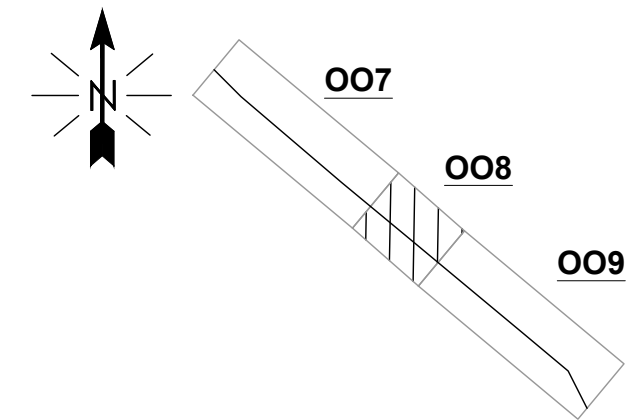
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



008 KEY PLAN

CONSTRUCTION UNITS			MATERIAL			IMPACT AREAS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL	
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	609 FT	FLOOD PLAIN	17,219	
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA	PALUSTRINE EMERGENT WETLANDS (PEM)	-	
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	PERENNIAL STREAMS (R3)	-	
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	200 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	FORESTED WETLANDS (PFO)	-	
4.6	SELECT BACKFILL	225 SQFT	5.2	INSTALL 6' LOCATE MARKER POST	1 EA	TEMPORARY WETLAND BUFFER IMPACT	-	
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	- EA		-	
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	409 FT	-	-	-		-	
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-		-	
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-		-	

PRINTED
FULL SIZE

0 50 100
PLAN SCALE: 1 IN = 50 FT

0 20 40
PROFILE VERTICAL: 1 IN = 50 FT

PRINTED
HALF SIZE

0 100 200
PLAN SCALE: 1 IN = 100 FT

0 40 80
PROFILE VERTICAL: 1 IN = 100 FT



QUANTUM LOOPHOLE

ACCEPTED BY: RICH PAUL-HUS DATE:



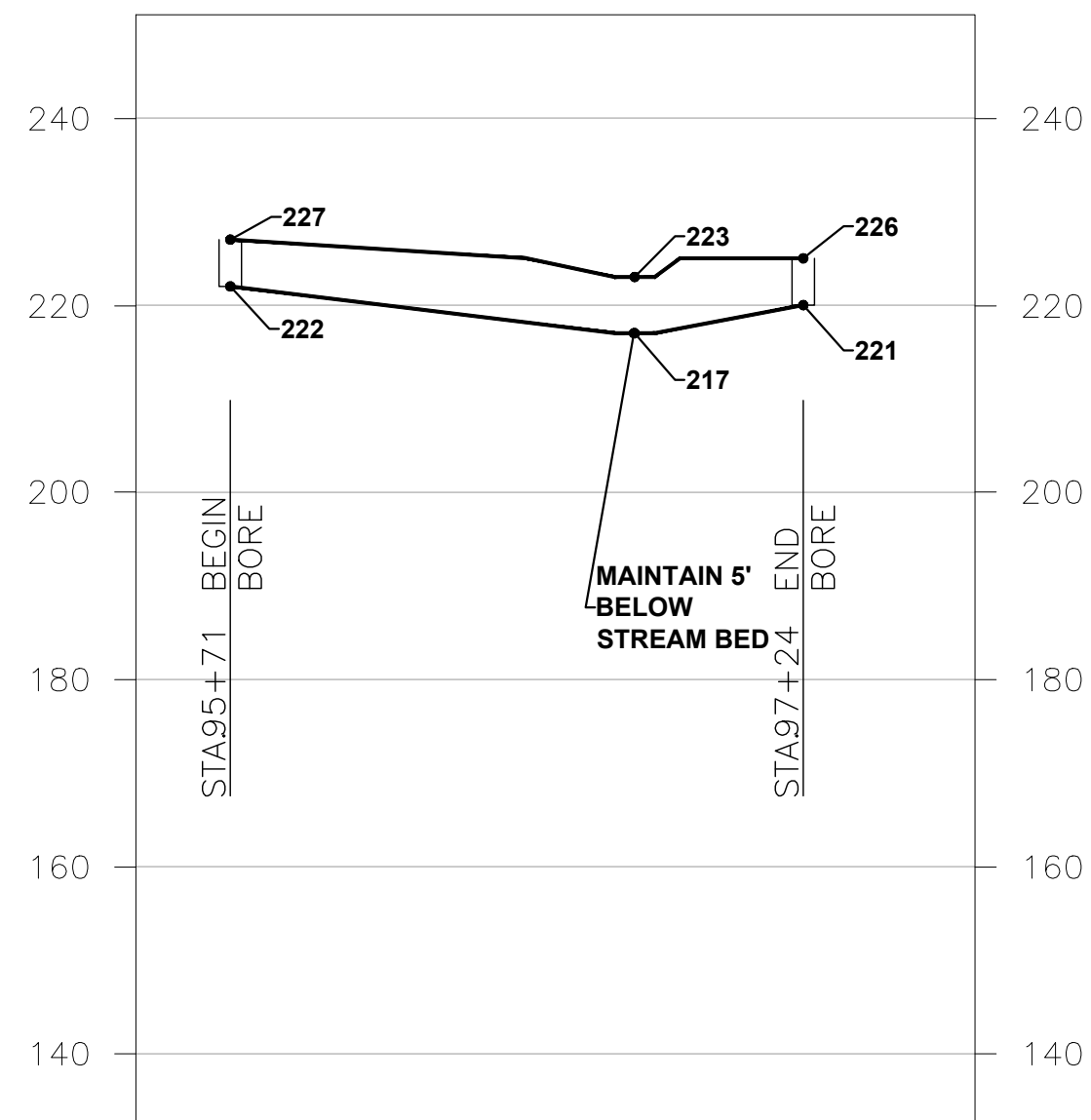
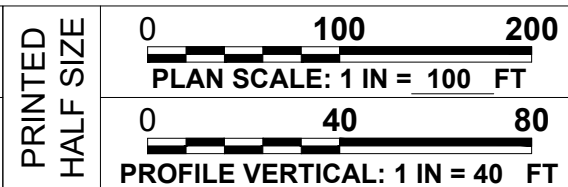
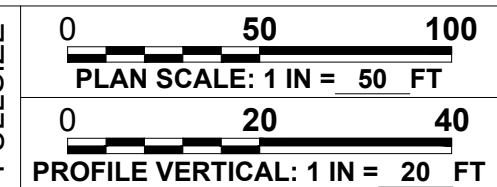
QUANTUM LOOPHOLE				JOB NUMBER	REV
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE 2	1
SEGMENT 2 PLAN AND PROFILE PARCEL 07204604 920'				DRAWING NUMBER	S02-X-008
1	MODIFIED PTF	2/24/22	RPE	RI	RB
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RI	RB
0	ISSUED FOR PERMIT	11/28/21	RPE	RI	RB
REV	REVISIONS		DATE	DRN	CKD
DSGN	RI	9/21			
DRN	RPE	11/21			
CKD	RB	11/21			
SCALE:			1" = 50'		

THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.

FOR 22x34 CONSTRUCTION DWG ONLY

P:\PROJECT_SAGE\01_ENGINEERING\CADD\SEGMENTS\02_PROJECTSAGE_SEG_02_LANDBASE_092122A_BGE.DWG

CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1101 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	948 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	450 SQFT	5.2	INSTALL 6' LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	153 FT	5.3	INSTALL RUNNING LINE MARKER	- EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



SEGMENT 2 PARTIAL PROFILE

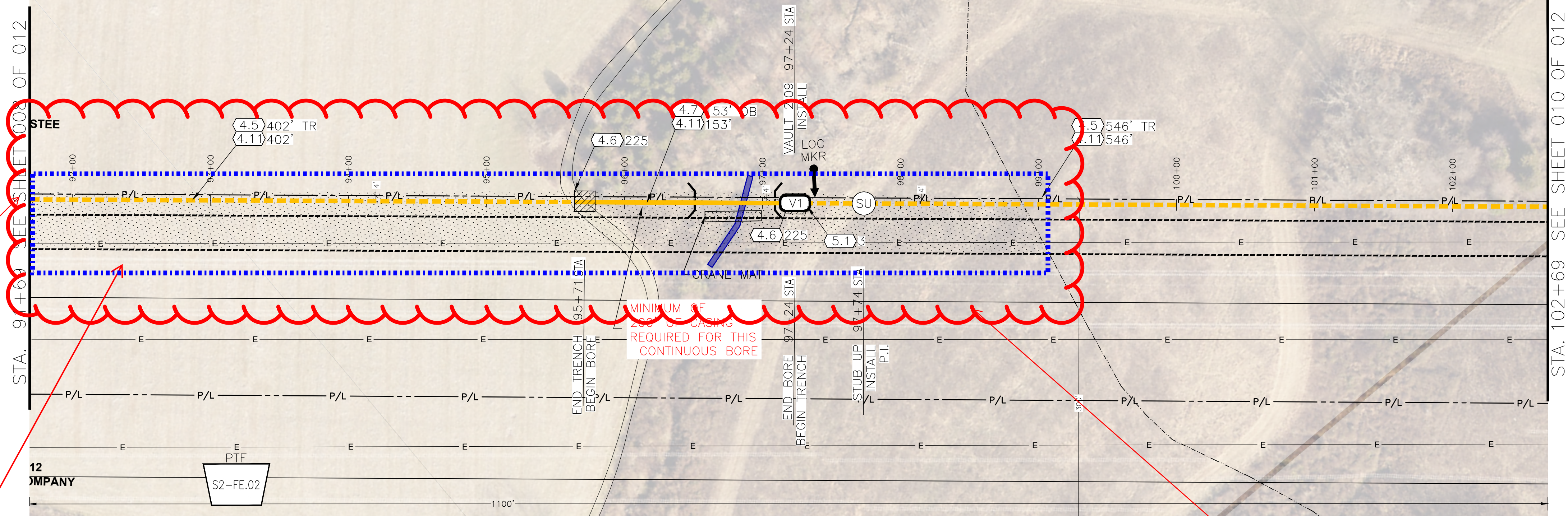
FIRST ENERGY CONSTRUCTION COORIDOR		IMPACT AREAS	
EASEMENT LINE, MAY BE SHOWN AS EXISTING PROPERTY LINE OR EXISTING UTILITY EASEMENT LINE FOR CLARITY.		DESCRIPTION	TOTAL SQFT
		FLOOD PLAIN	37,012
		PALUSTRINE EMERGENT WETLANDS (PEM)	-
		PERENNIAL STREAMS (R3)	-
		FORESTED WETLANDS (PFO)	-
		TEMPORARY WETLAND BUFFER IMPACT	-
		-	-
		-	-
		-	-

CONTINUED FROM SHEET S02-X-008

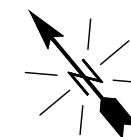
THIS AREA WILL BE TRENCHED

ALL MATERIALS (HAND HOLES, CONDUITS, FIBER) WILL BE BURIED BELOW GRADE

FLOODPLAIN MAP 24021C0505D



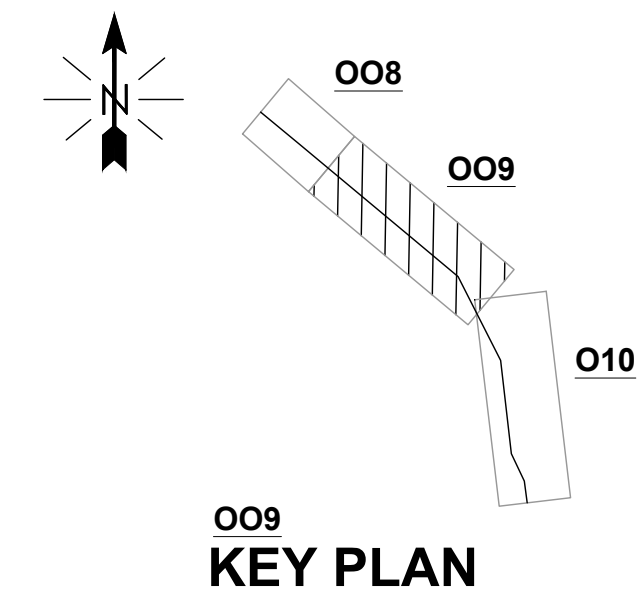
SEGMENT 2 PARTIAL PLAN



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SC SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SF SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LOD LIMIT OF DISTURBANCE(LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- V1 PROPOSED VAULTS
- SU UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- MKR NEW FIBER LINE MARKER
- LOC MKR NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).
THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.
KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.
CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.
SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.

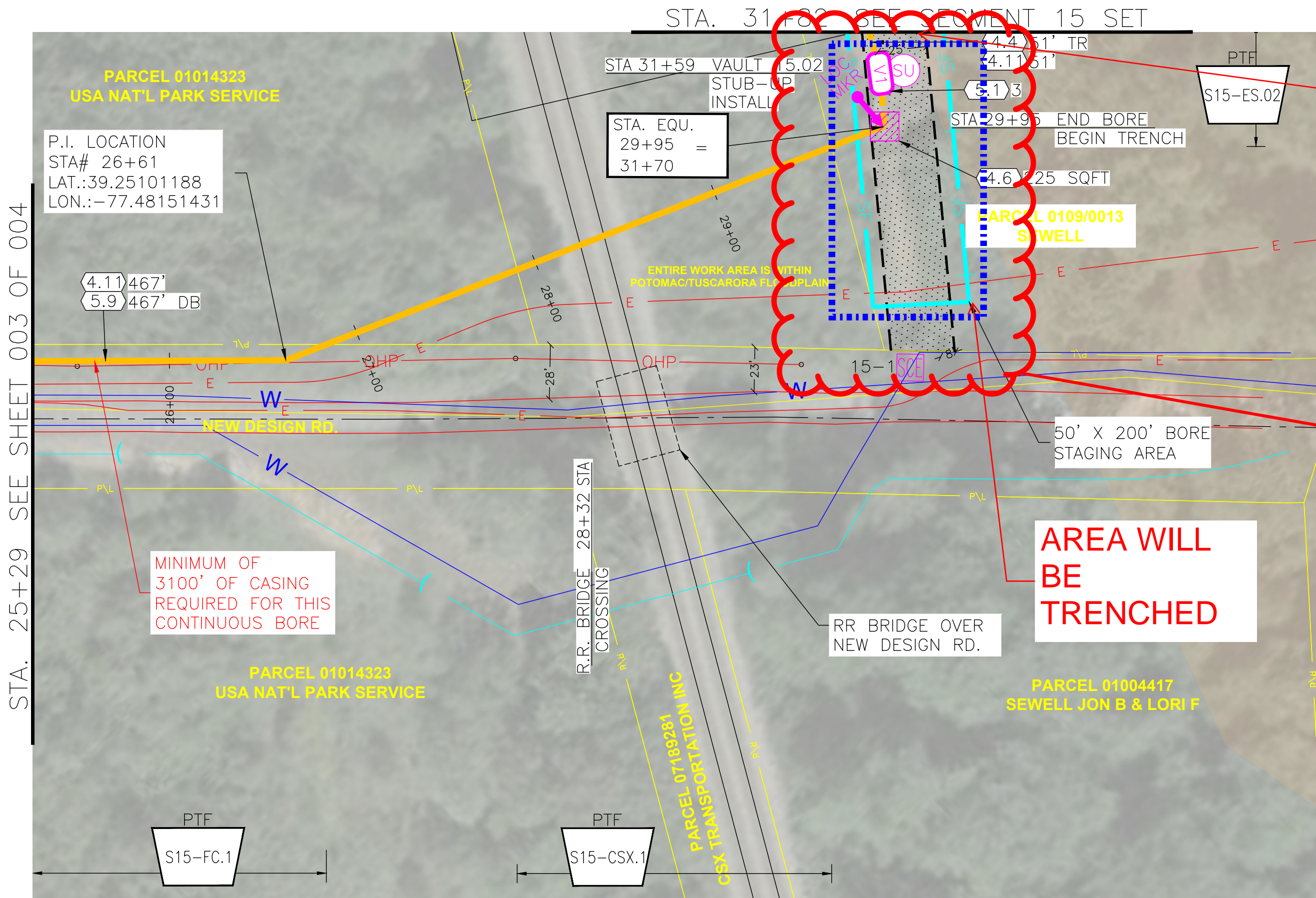


QUANTUM LOOPHOLE

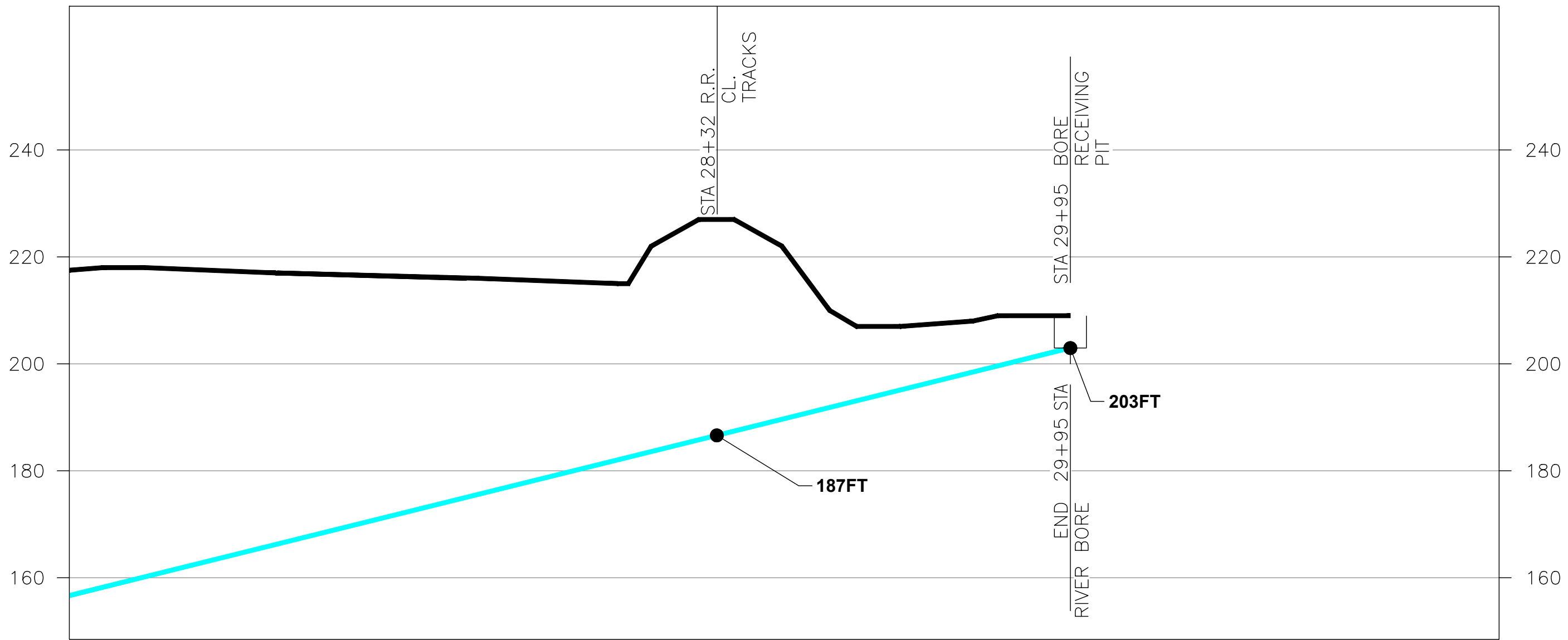
ACCEPTED BY: RICH PAUL-HUS DATE:

QUANTUM LOOPHOLE				JOB NUMBER		REV
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE 2		2
SEGMENT 2 PLAN AND PROFILE				DRAWING NUMBER		
PARCEL 07204604 1311'				S02-X-009		
1	MODIFIED PTF	2/24/22	RPE	RI	RB	
2	RUNNING LINE CHANGE	12/27/21	RPE	RI	RB	
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RI	RB	
0	ISSUED FOR PERMIT	11/28/21	RPE	RI	RB	
REV		REVISIONS		DATE	DRN	CKD
DSGN	RI	9/21				
DRN	RPE	11/21				
CKD	RB	11/21				
SCALE: 1" = 50'				FOR 22x34 CONSTRUCTION DWG ONLY		

C:\USERS\JEFF SCHAMBER\TELCON SERVICES\PROJECTS\PROJECT SAGE\01-ENGINEERING\CADD\SEGMENTS\15 POTOMAC NORTH RIVER CROSSING_060322_N.DWG

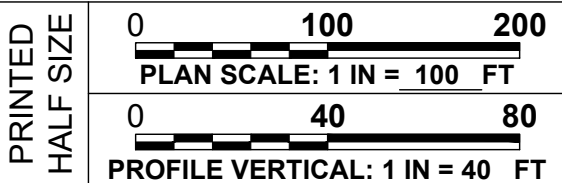
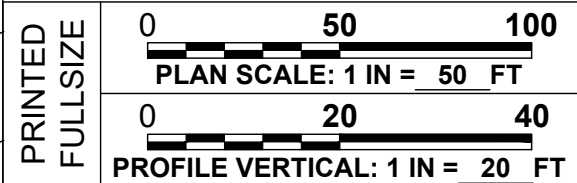


SEGMENT 15 BORE



BORE PROFILE

CONSTRUCTION UNITS			MATERIAL			IMPACT AREAS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL	TOTAL SQFT
4.2	CLEARING & RESTORATION - (TREE)	- FT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA	FLOOD PLAIN	-	5650
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	5.5	ROCK ADDER - TRENCHING	- FT	PALUSTRINE EMERGENT WETLANDS (PEM)	-	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	51 FT	5.6	ROCK ADDER - DIRECTIONAL BORE	- FT	PERENNIAL STREAMS (R3)	-	-
4.6	SELECT BACKFILL	225 SQFT	5.7	ASPHALT REMOVAL & RESTORAL	- SQFT	FORESTED WETLANDS (PFO)	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	5.9	ROCK RIVER BORE - 24" SDR11 CASING & 30' C	467 FT	CRANE MAT CROSSINGS	-	-
4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	518 FT	6.0	TRAFFIC CONTROL	- EA	-	-	-
4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA	-	-	-	-	-	-
5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	-	-	-	-	-	-
5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	-	-	-	-	-	-



QUANTUM LOOPHOLE

ACCEPTED BY: RICH PAUL-HUS DATE:

CONTINUED
ON SHEET
S15-X-005

FLOODPLAIN
MAP
24021C0440D

Note: The Frederick County Division of Water and Sewer Utilities Construction Manager shall be notified, at least, 48 Hours prior to work within the location of public raw water lines and public water utility easement @ 301-600-2266

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LIMIT OF DISTURBANCE(LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

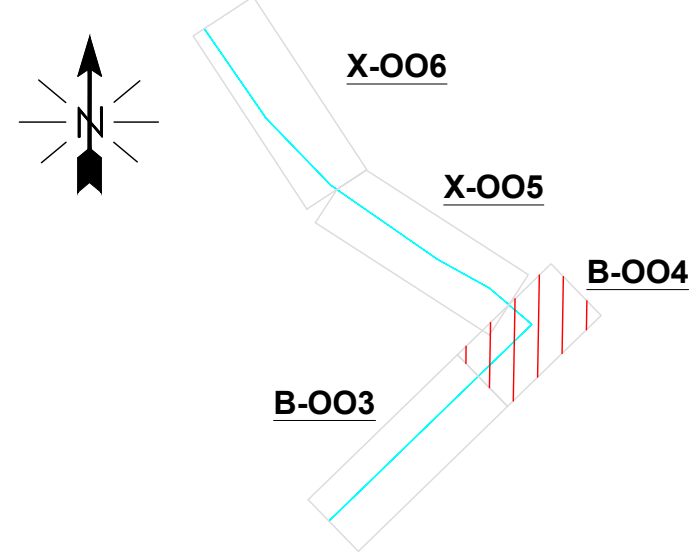
NOTES:
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

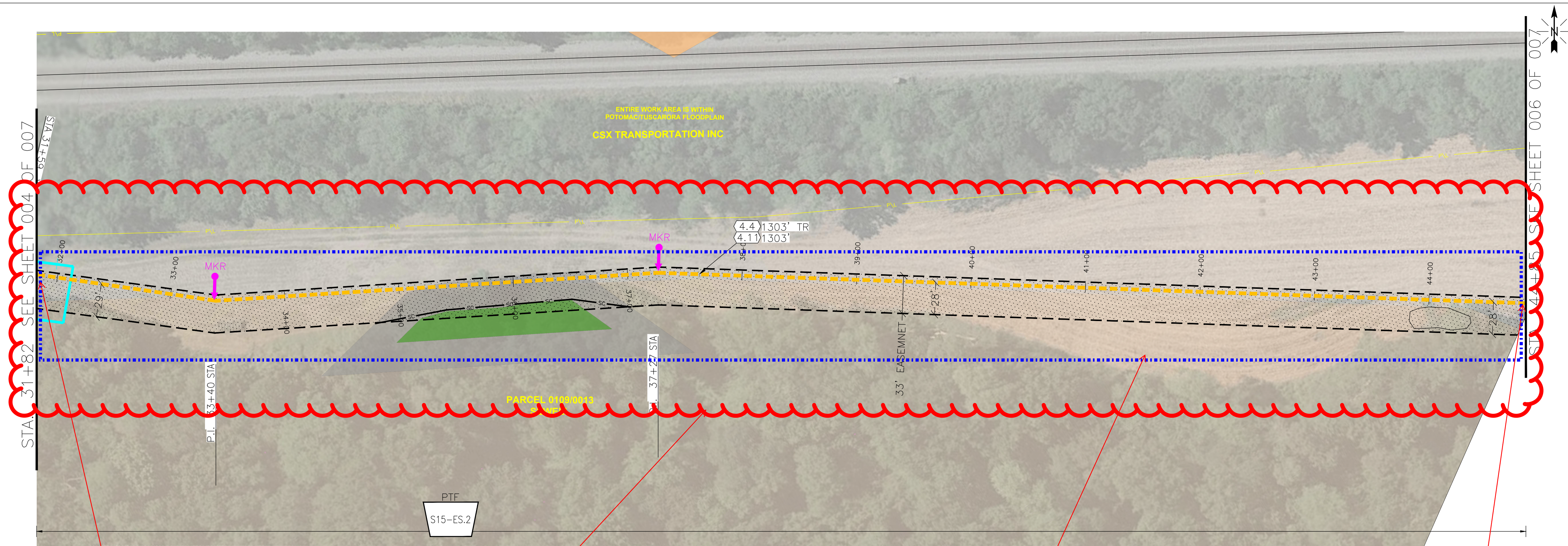
SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



KEY PLAN



QUANTUM LOOPHOLE				JOB NUMBER		REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE		2	
BORE PLAN AND PROFILE				DRAWING NUMBER			
SEGMENT 15 NORTH POTOMAC RIVER CROSSING				S15-B-004			
2	RUNNING LINE CHANGE		08/25/22	RPE	RB	RI	
1	ISSUED FOR ESC PERMIT		05/11/22	RPE	RB	RI	
0	ISSUED FOR PERMIT		11/28/21	RPE	RB	RI	
REV	REVISIONS		DATE	DRN	CKD	DSGN	APP
DSGN	RI	7/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.				
DRN	RPE	11/21					
CKD	RB	11/21					
SCALE:		1" = 50'		FOR 22x34 CONSTRUCTION DWG ONLY			



CONTINUED
FROM SHEET
S15-X-004

**FLOODPLAIN
MAP
24021C0440D**

ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE

THIS AREA WILL
BE TRENCHED

CONTINUED
ON SHEET
S15-X-006

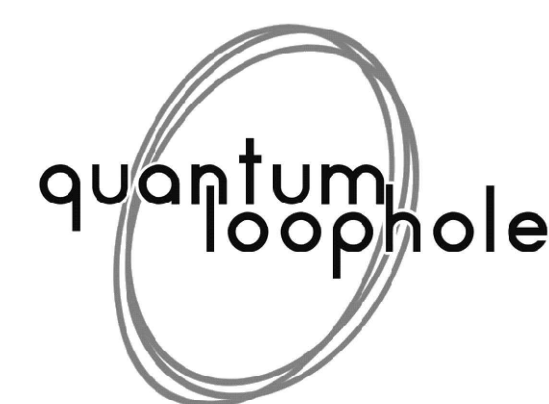
CONSTRUCTION UNITS						MATERIAL		IMPACT AREAS	
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL SQ
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1303 FT	-	-	FLOOD PLAIN	43000
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	- EA	-	-	PALUSTRINE EMERGENT WETLANDS (PEM)	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	1.303 FT	5.0	INSTALL VAULT 72"X48"X48" TIER 8	- EA	-	-	PERENNIAL STREAMS (R3)	-
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	- FT	5.1	INSTALL VAULT 72"X48"X48" TIER 15	- EA	-	-	FORESTED WETLANDS (PFO)	-
4.6	SELECT BACKFILL	- SQFT	5.2	INSTALL 6' LOCATE MARKER POST	- EA	-	-	CRANE MAT CROSSINGS	-
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	2 EA	-	-	TEMPORARY IMPACT TO WETLAND BUFFER	5840
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	-	-	-	-	-	-	-
4.9	INSTALL HH 24"X36"X30"	- EA	-	-	-	-	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-	-	-	-	-


FULL SIZE	 PLAN SCALE: 1 IN = 100 FT	PRINTED HALF SIZE	 PLAN SCALE: 1 IN = 200 FT
	 PROFILE VERTICAL: 1 IN = 100 FT		 PROFILE VERTICAL: 1 IN = 100 FT

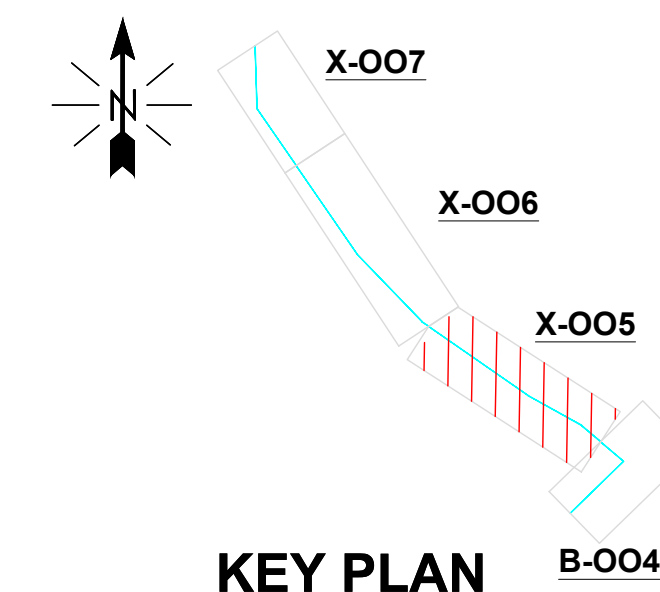


QUANTUM LOOPHOLE

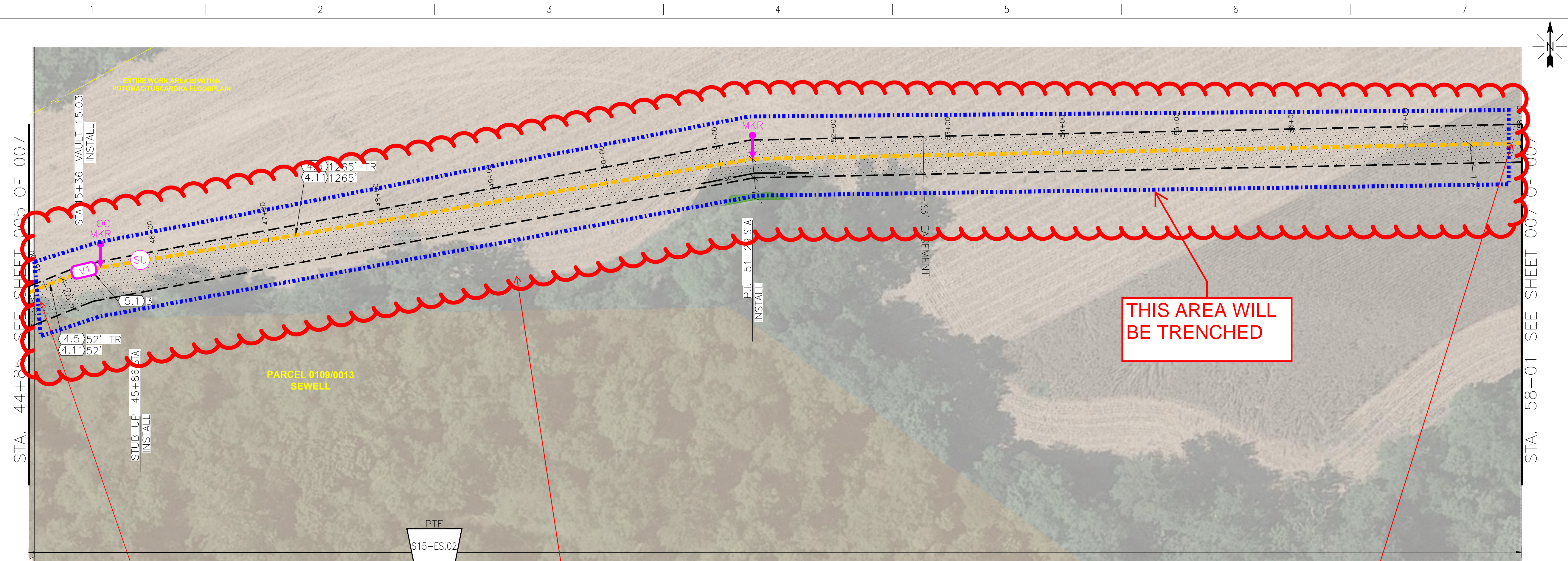
ACCEPTED BY: _____ DATE: _____



QUANTUM LOOPHOLE				JOB NUMBER				REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE					
SEGMENT 15 PLAN AND BORE PROFILE PARCEL 0109/0013 208' W OF NEW DESIGN RD				DRAWING NUMBER S15-X-005					
1	REVISED PER FIELD INVESTIGATION			12/09/21	RPE	RI	RB		
0	ISSUED FOR PERMIT			11/28/21	RPE	RI	RB		
REV	REVISIONS			DATE	DRN	CKD	DSGN	APP	
DSGN	RI	9/21		THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.					
DRN	RPE	11/21							
CKD	RB	11/21							
SCALE: 1" = 50'				FOR 22x34 CONSTRUCTION DWG ONLY					



C:\USERS\JEFF SCHAMBER\TELCON SERVICES DROPBOX\TELCON SERVICES\PROJECTS\PROJECT SAGE\01-ENGINEERING\CADD\SEGMENTS\15- POTOMAC NORTH RIVER CROSSING\0603022_N.DWG



CONTINUED
FROM SHEET
S15-X-005

FLOODPLAIN
MAP
24021C0440D

SEGMENT 15 PARTIAL PLAN

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**

CONTINUED
ON SHEET
S15-X-007

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LIMIT OF DISTURBANCE (LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

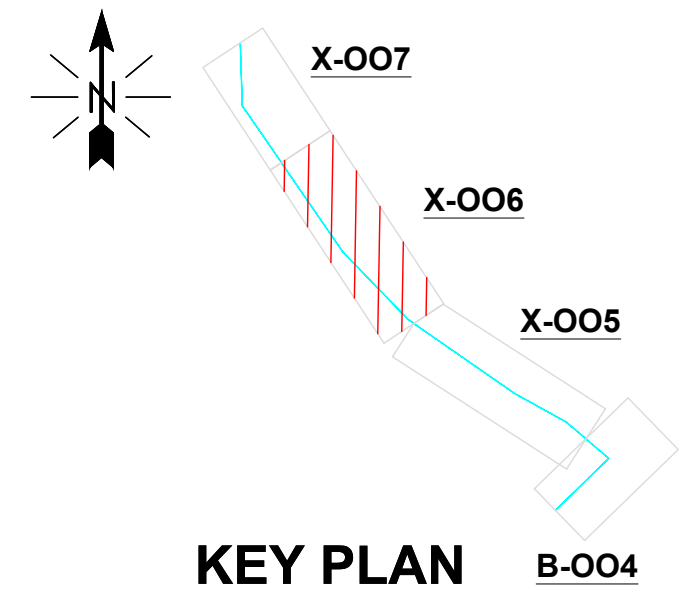
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

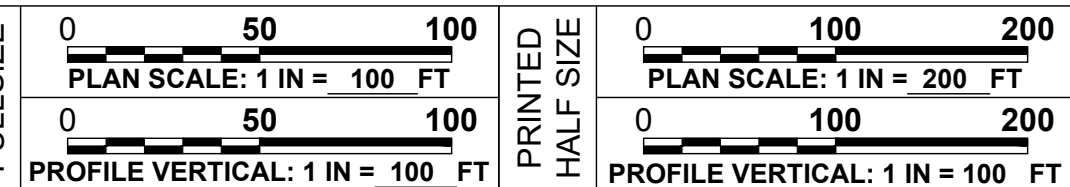
KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



CONSTRUCTION UNITS			MATERIAL			IMPACT AREAS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL	DESCRIPTION	TOTAL	TOTAL SQFT
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1317 FT	FLOOD PLAIN	-	43355
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA	PALUSTRINE EMERGENT WETLANDS (PEM)	-	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	PERENNIAL STREAMS (R3)	-	-
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	1317 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	FORESTED WETLANDS (PFO)	-	-
4.6	SELECT BACKFILL	- SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA	TEMPORARY IMPACT TO WETLAND BUFFER	-	964
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	1 EA	-	-	-
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	-	-	-	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-	-	-	-



QUANTUM LOOPHOLE

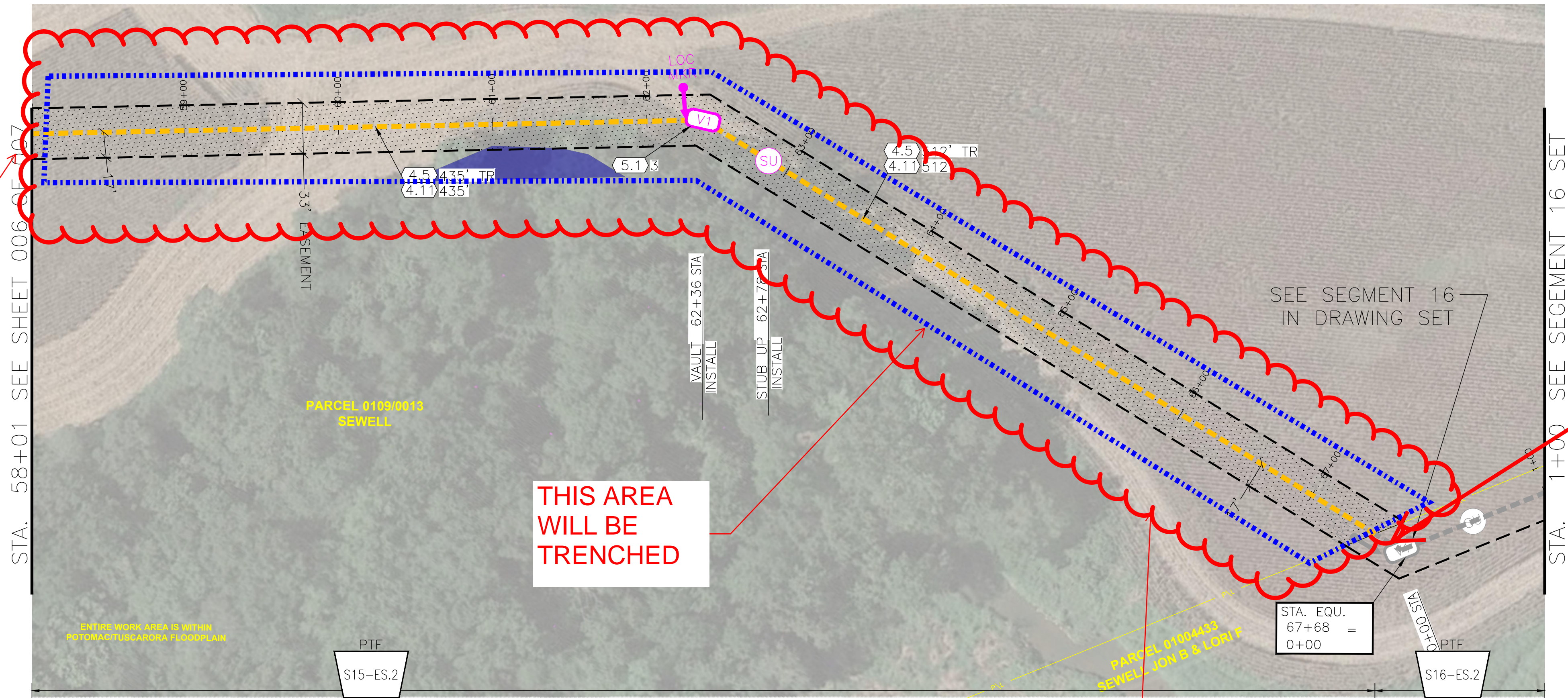
ACCEPTED BY: _____ RICH PAUL-HUS _____ DATE _____



QUANTUM LOOPHOLE				JOB NUMBER		REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE		1	
SEGMENT 15 PLAN AND BORE PROFILE				DRAWING NUMBER		S15-X-006	
PARCEL 0109/0013 NW OF NEW DESIGN RD							
REV	REVISIONS	DATE	DRN	CKD	DSGN	APPD	
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RI	RB		
0	ISSUED FOR PERMIT	11/28/21	RPE	RI	RB		
DSGN	RI	9/21					
DRN	RPE	11/21					
CKD	RB	11/21					
SCALE: 1" = 50'				FOR 22x34 CONSTRUCTION DWG ONLY			

C:\USERS\JEFF SCHAMBER\TELCON SERVICES DROPBOX\TELCON SERVICES\PROJECTS\PROJECT SAGE\01-ENGINEERING\CADD\SEGMENTS\15- POTOMAC NORTH RIVER CROSSING\0603022_N.DWG

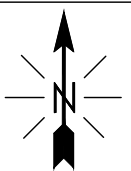
CONTINUED FROM
S15-X-006



SEGMENT 15 PARTIAL PLAN

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**

**FLOODPLAIN
MAP
24021C0440D**



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- RIGHT-OF-WAY (ROW)
- LIMIT OF DISTURBANCE(LOD)
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

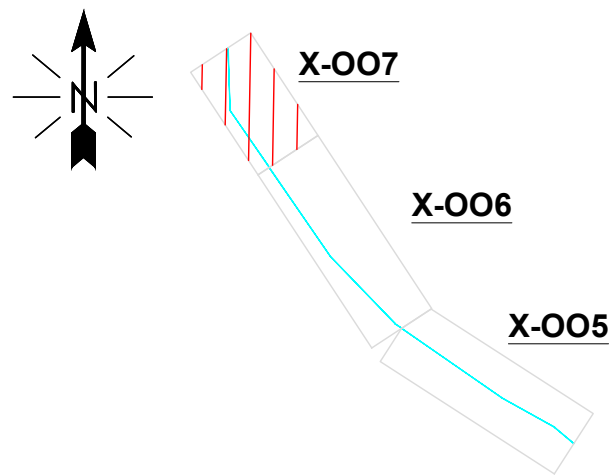
NOTES:
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



KEY PLAN

CONSTRUCTION UNITS				MATERIAL		IMPACT AREAS	
UNIT	DESCRIPTION	TOTAL		DESCRIPTION	TOTAL	DESCRIPTION	TOTAL SQFT
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	947 FT	FLOOD PLAIN	31241
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA	PALUSTRINE EMERGENT WETLANDS (PEM)	-
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA	PERENNIAL STREAMS (R3)	-
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	947 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA	FORESTED WETLANDS (PFO)	-
4.6	SELECT BACKFILL	- SQFT	5.2	INSTALL 6' LOCATE MARKER POST	1 EA	CRANE MAT CROSSINGS	-
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	- EA	TEMPORARY IMPACT TO WETLAND BUFFER	-
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	-	-	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-	-	-

PRINTED FULL SIZE
0 50 100
PLAN SCALE: 1 IN = 100 FT
0 50 100
PROFILE VERTICAL: 1 IN = 100 FT

PRINTED HALF SIZE
0 100 200
PLAN SCALE: 1 IN = 200 FT
0 100 200
PROFILE VERTICAL: 1 IN = 100 FT



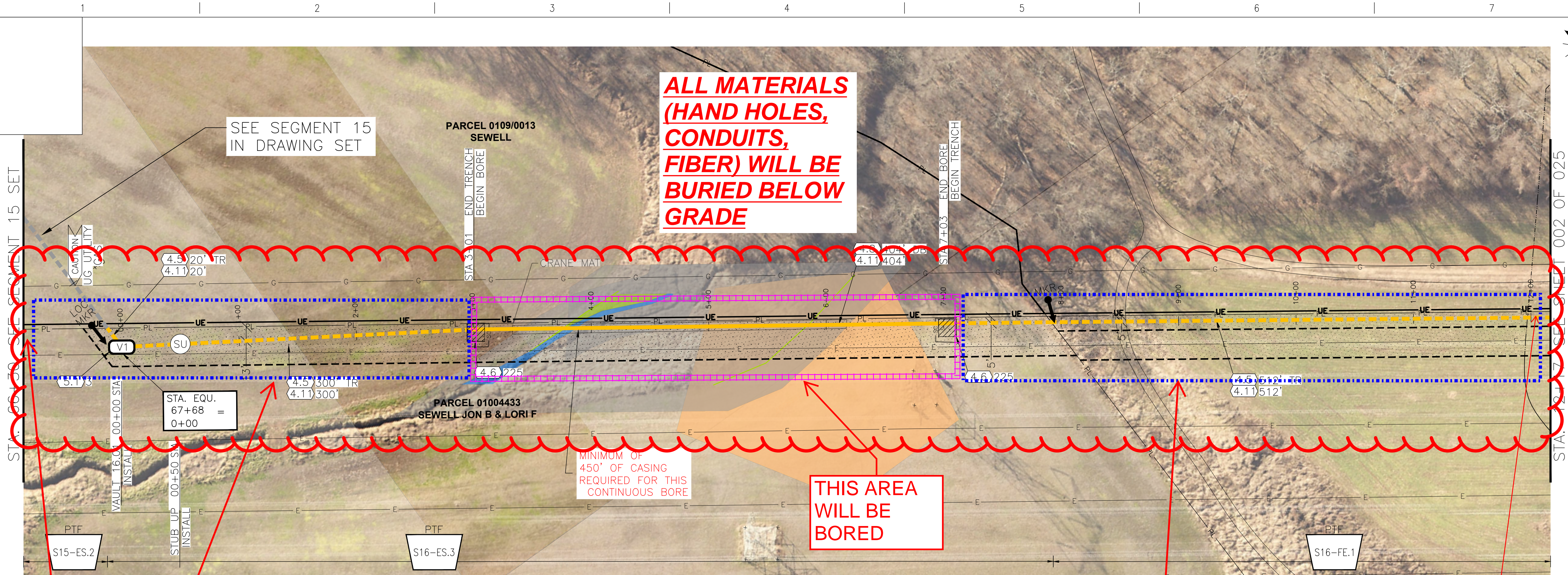
QUANTUM LOOPHOLE

ACCEPTED BY: RICH PAUL-HUS DATE

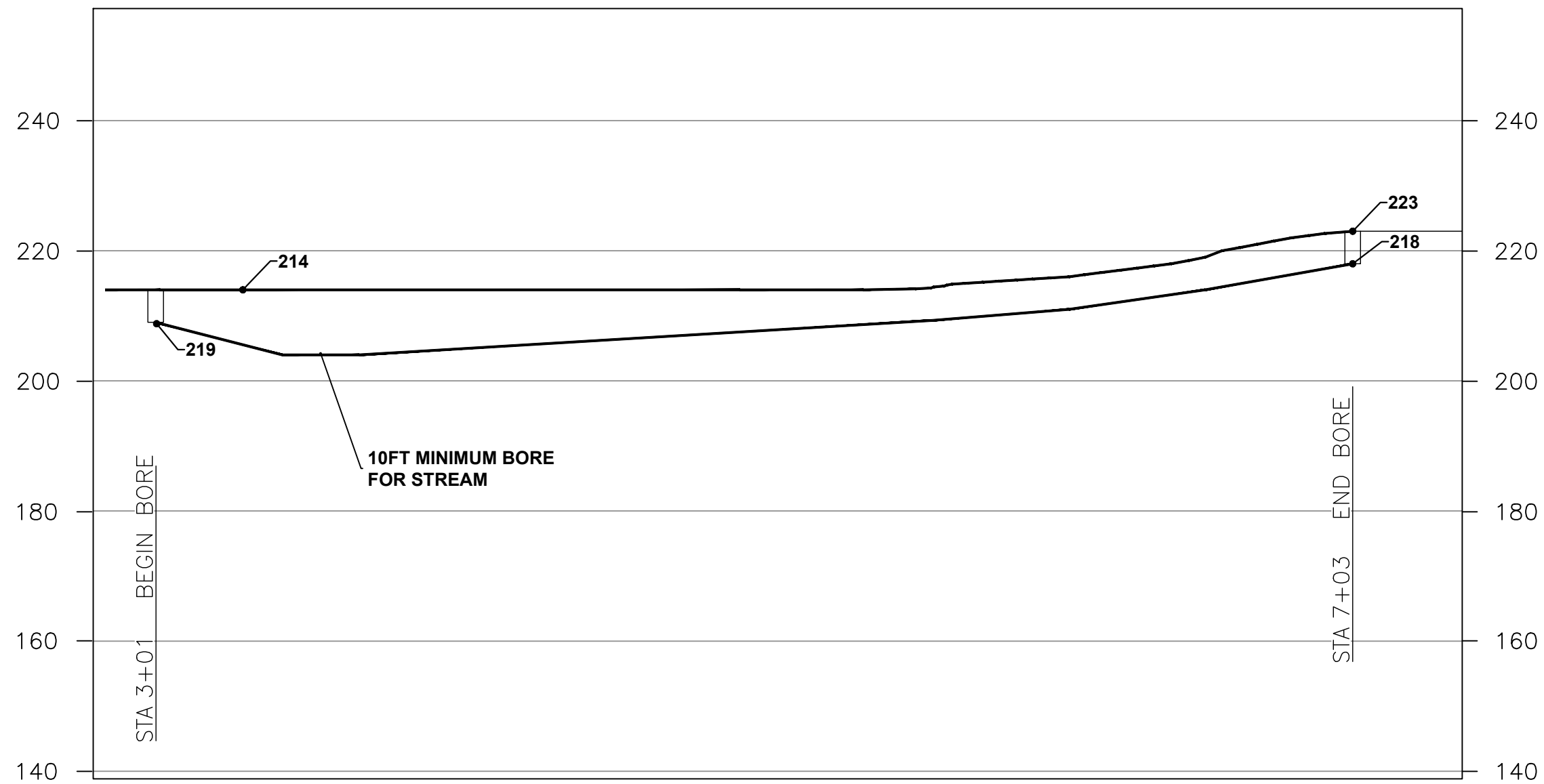


QUANTUM LOOPHOLE				JOB NUMBER			REV
TELECOMMUNICATIONS FIBER NETWORK BUILD							
SEGMENT 15 PLAN AND BORE PROFILE PARCEL 0109/0013 NW OF NEW DESIGN RD				DRAWING NUMBER			1
				S15-X-007			
1	PERMIT CORRECTION		1/21/22	RPE	RB	RI	
0	ISSUED FOR PERMIT		11/28/21	RPE	RI	RB	
REV	REVISIONS			DATE	DRN	CKD	DSGN APP
DSGN	RI	9/21	THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIAL AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.				
DRN	RPE	11/21	FOR 22x34 CONSTRUCTION DWG ONLY				
CKD	RB	11/21					
SCALE:		1" = 50'					

P:\PROJECT SAGE\01-ENGINEERING\CADD\SEGMENTS\16\PROJECTSAGE_SEG16_LANDBASE_ESC_063022.DWG



SEGMENT 16 PARTIAL PLAN



SEGMENT 16 PARTIAL PROFILE

CONTINUED FROM SHEET S15-X-007

THIS AREA WILL BE TRENCHED

THIS AREA WILL BE BORED

THIS AREA WILL BE TRENCHED

END OF FLOODPLAIN MAP 24021C0440D

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

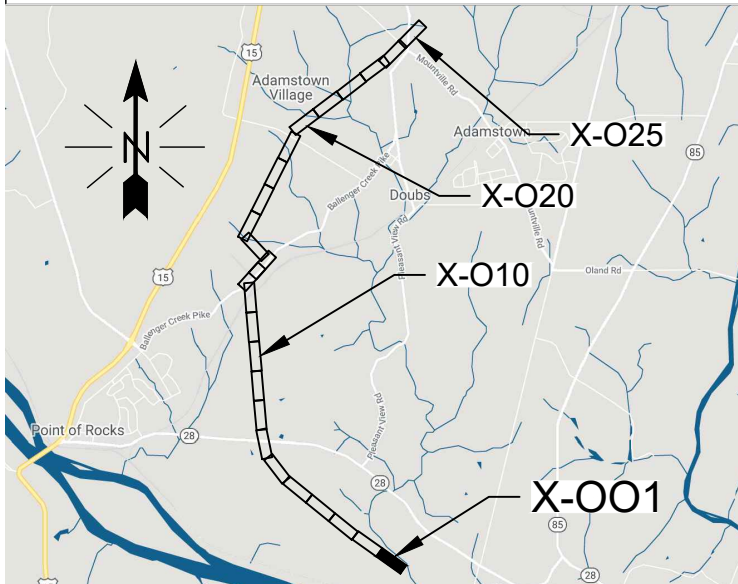
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

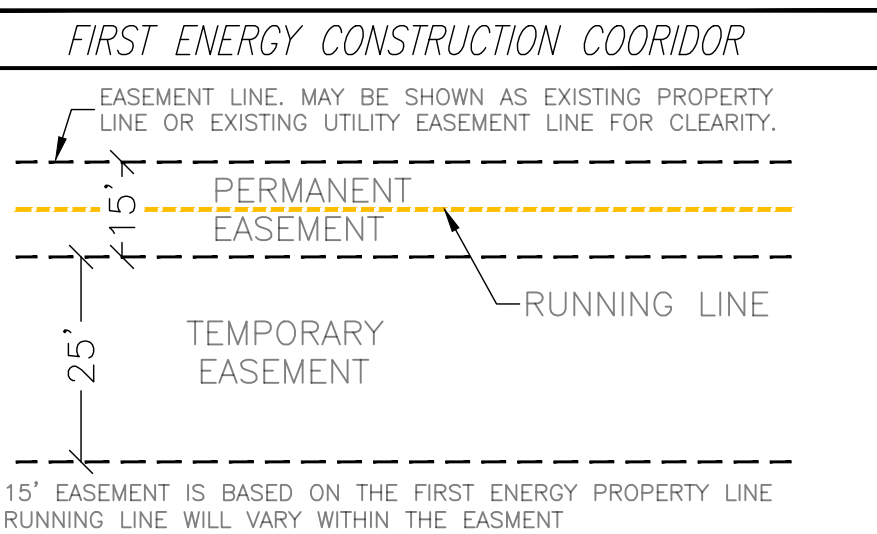
CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.

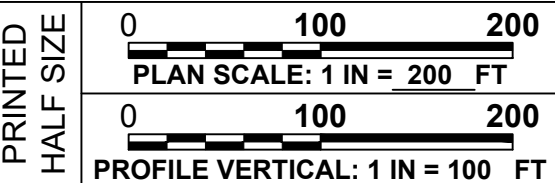
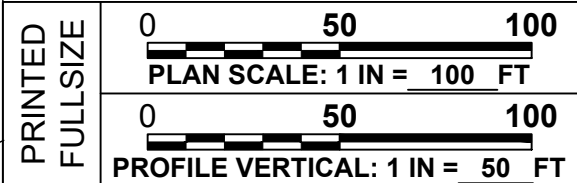


KEY PLAN

CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1236 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	832 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	450 SQFT	5.2	INSTALL 6' LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	1 EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	404 FT	-	-	-
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



EST. POT HOLE LOCATES		TOTAL EA
DESCRIPTION		
-		-
-		-
-		-
IMPACT AREAS		TOTAL SQFT
DESCRIPTION		
FLOOD PLAIN		14304
PALUSTRINE EMERGENT WETLANDS (PEM)		1511
PERENNIAL STREAMS (R3)		-
FORESTED WETLANDS (PFO)		-
TEMPORARY WETLAND BUFFER IMPACTS		584



APPROVED BY: _____ DISTRICT MANAGER

DATE: _____



QUANTUM LOOPHOLE

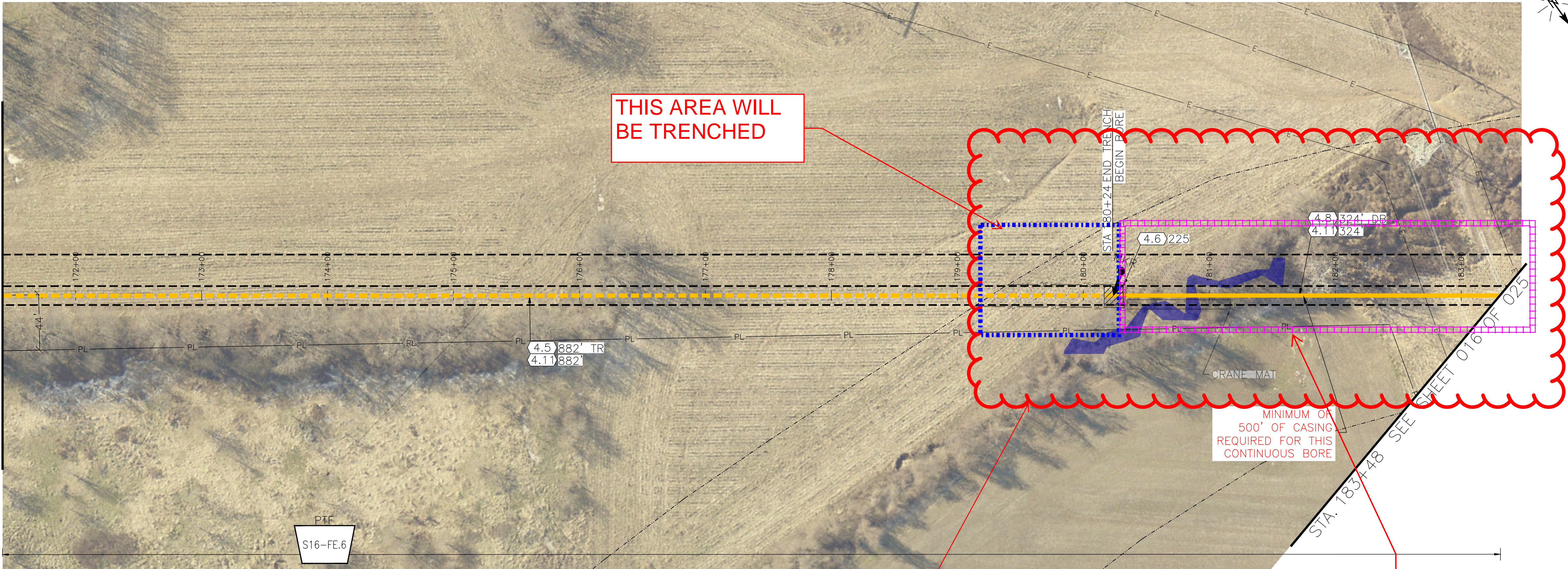
ACCEPTED BY: _____ RICH PAUL-HUS _____ DATE: _____



QUANTUM LOOPHOLE				JOB NUMBER	REV
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE	3
SEGMENT 16 PLAN AND PROFILE				DRAWING NUMBER	
P#0109-0014-0032 & P#0109-0014-0033				S16-X-001	
3	ISSUED FOR ESC PERMIT	05/11/22	RPE	RB	RI
1	MODIFIED PTF	2/24/22	RPE	RB	RI
2	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RB	RI
REV	REVISIONS		DATE	DRN	CKD
DSGN	RI	9/21			
DRN	RPE	11/21			
CKD	RB	11/21			
SCALE: 1" = 50'				FOR 22x34 CONSTRUCTION DWG ONLY	

P:\PROJECT SAGE\01_ENGINEERING\CADD\SEGMENTS\16\PROJECTSAGE_SEG16_LANDBASE_ESC_063022.DWG

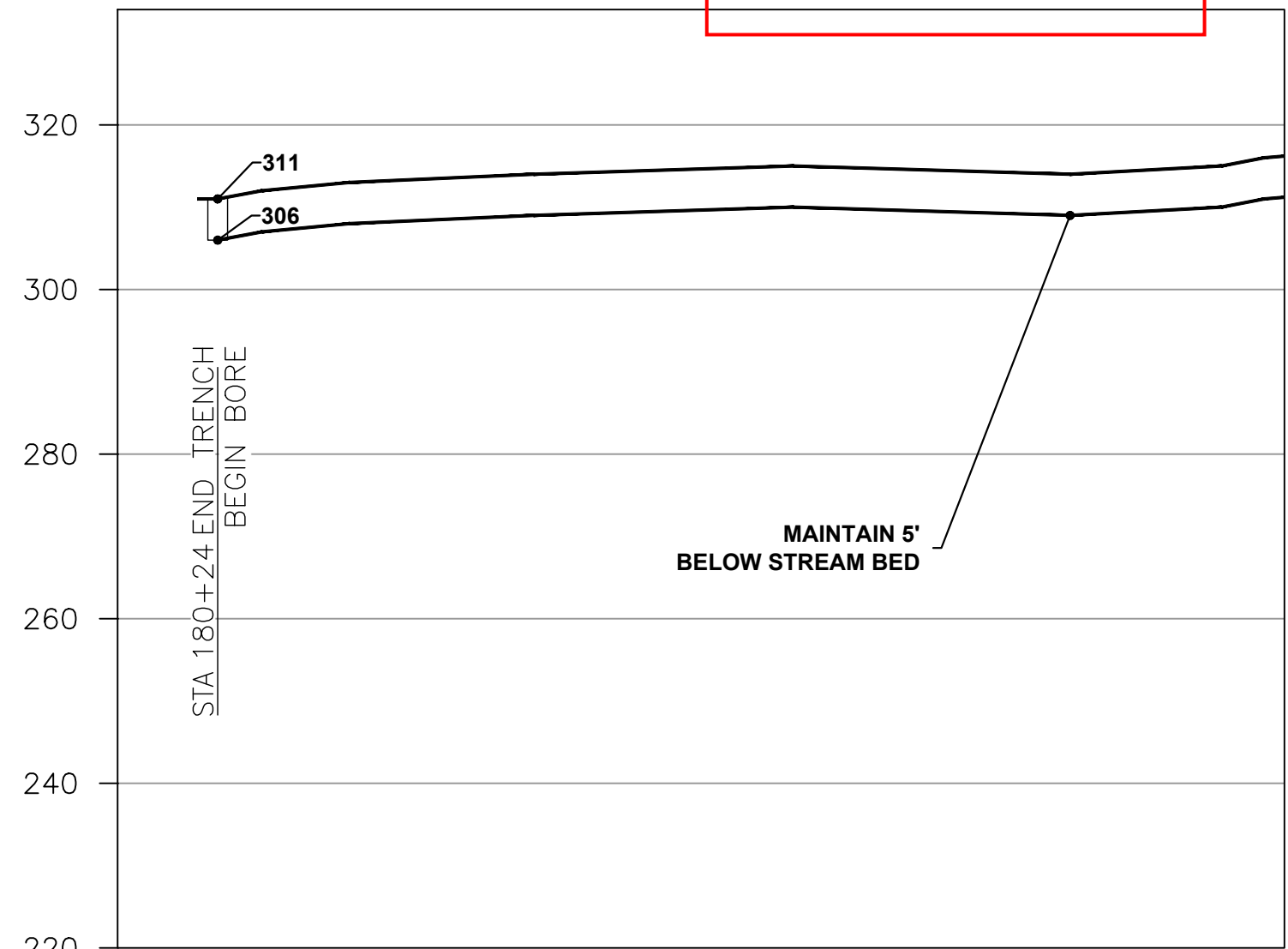
STA. 171+42 SEE SHEET 014 OF 025



SEGMENT 16 PARTIAL PLAN

BEGIN OF
FLOODPLAIN
MAP 24021C0420D

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**



SEGMENT 16 PARTIAL PROFILE

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

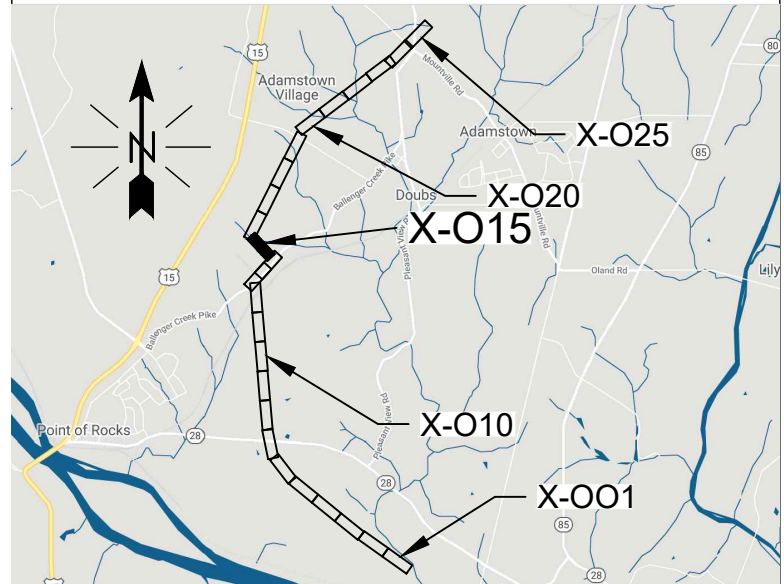
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

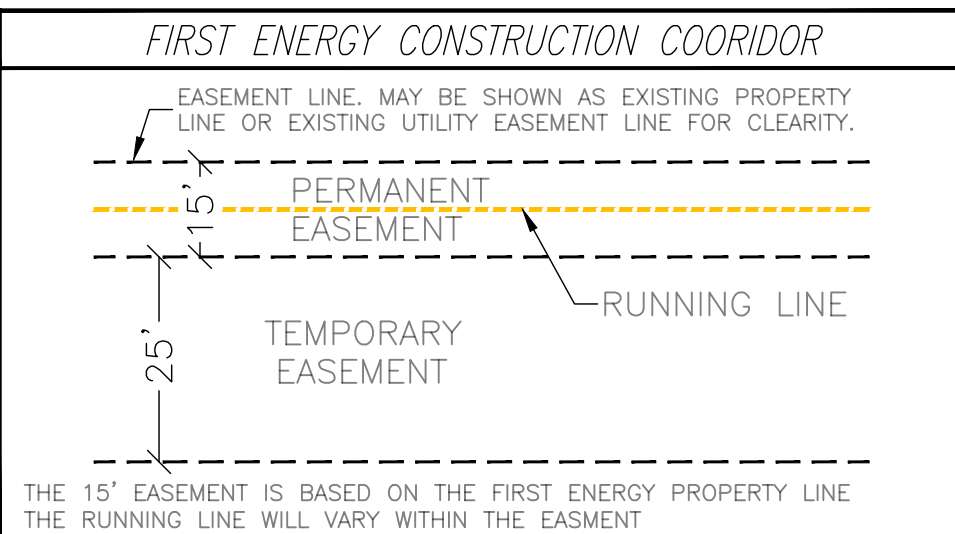
CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



KEY PLAN

CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1206 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	- EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	882 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	- EA
4.6	SELECT BACKFILL	225 SQFT	5.2	INSTALL 6' LOCATE MARKER POST	- EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	1 EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	324 FT	5.10	JACK & BORE RXR 24" STEEL CASING & 30 C	- FT
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



EST. POT HOLE LOCATES		TOTAL EA
DESCRIPTION		
-		-
-		-
-		-
IMPACT AREAS		TOTAL SQFT
DESCRIPTION		
FLOOD PLAIN		16217
PALUSTRINE EMERGENT WETLANDS (PEM)		-
PERENNIAL STREAMS (R3)		-
FORESTED WETLANDS (PFO)		-
TEMPORARY WETLAND BUFFER IMPACTS		-



PRINTED FULL SIZE
0 50 100
PLAN SCALE: 1 IN = 100 FT
0 50 100
PROFILE VERTICAL: 1 IN = 50 FT

PRINTED HALF SIZE
0 100 200
PLAN SCALE: 1 IN = 200 FT
0 100 200
PROFILE VERTICAL: 1 IN = 100 FT

FREDERICK SOIL CONSERVATION DISTRICT

APPROVED BY: _____
DISTRICT MANAGER

DATE: _____



QUANTUM LOOPHOLE

ACCEPTED BY: _____
RICH PAUL-HUS DATE: _____

QUANTUM LOOPHOLE

TELECOMMUNICATIONS FIBER

NETWORK BUILD

SEGMENT 16 PLAN AND PROFILE

P#0102-0012-0066-0000-0000 1306'

JOB NUMBER

PROJECT SAGE

DRAWING NUMBER

S16-X-015

REV

DATE

DRN

CKD

DSGN

APPD

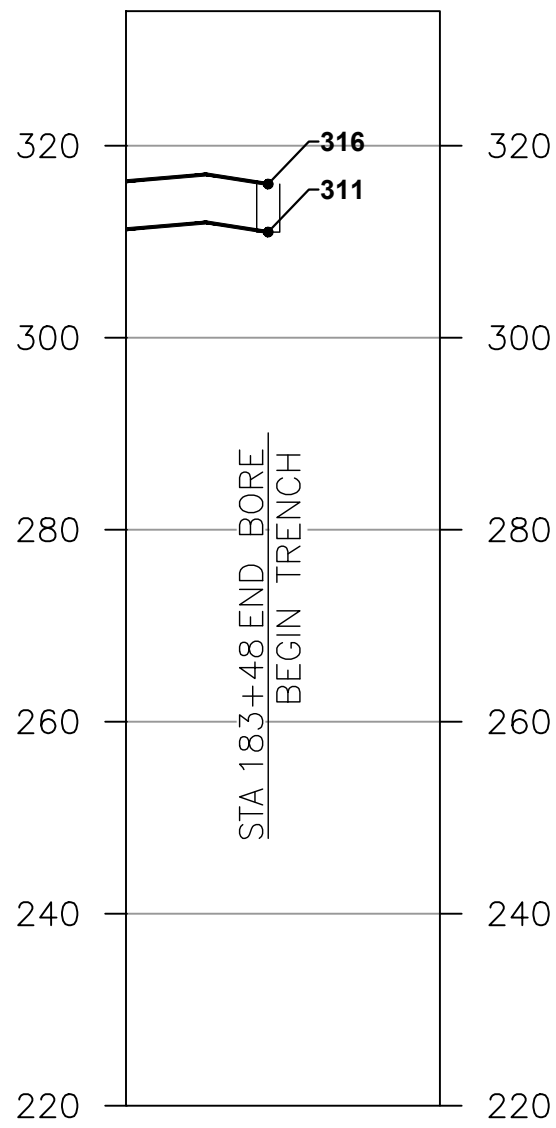
SCALE: 1" = 50'

FOR 22x34 CONSTRUCTION DWG ONLY

P:\PROJECT SAGE\01_ENGINEERING\CADD\SEGMENTS\16\PROJECTSAGE_SEG16_LANDBASE_ESC_063022.DWG



SEGMENT 16 PARTIAL PLAN



SEGMENT 16 PARTIAL PROFILE

END OF FLOODPLAIN
FROM PREVIOUS PAGE

SEE SHEET
S16-X-018 FOR
NEXT
FLOODPLAIN

**ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE**

LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SC SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SF SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- INLET PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- V1 PROPOSED VAULTS
- SU UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- MKR NEW FIBER LINE MARKER
- LOC MKR NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

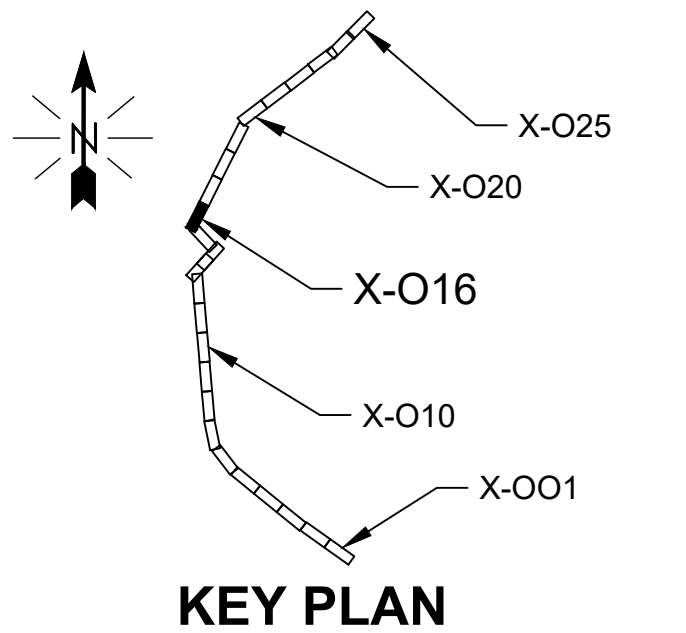
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

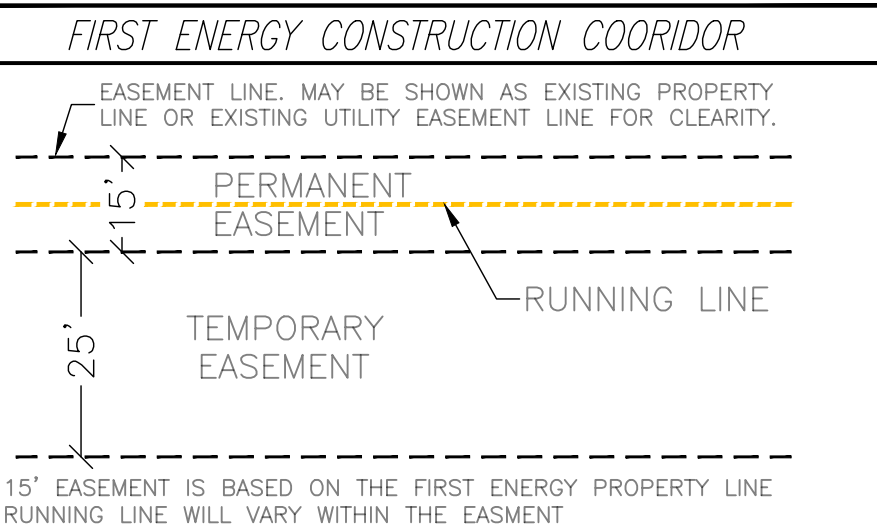
KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

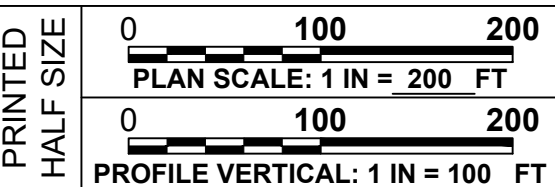
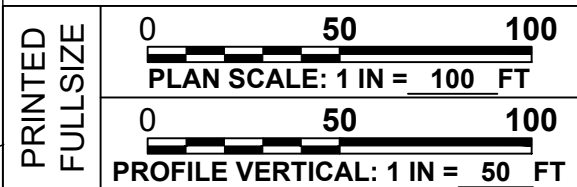
SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1148 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2) 2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	1111 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	225 SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	37 FT	5.3	INSTALL RUNNING LINE MARKER	1 EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	- FT	5.10	JACK & BORE RXR 24" STEEL CASING & 30 C	- FT
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-



EST. POT HOLE LOCATES		TOTAL EA
DESCRIPTION		
-		-
-		-
-		-
IMPACT AREAS		TOTAL SQFT
DESCRIPTION		
FLOOD PLAIN		-
PALUSTRINE EMERGENT WETLANDS (PEM)		-
PERENNIAL STREAMS (R3)		-
FORESTED WETLANDS (PFO)		-
TEMPORARY WETLAND BUFFER IMPACTS		-



FREDERICK SOIL CONSERVATION DISTRICT

APPROVED BY: _____
DISTRICT MANAGER

DATE: _____



QUANTUM LOOPHOLE

ACCEPTED BY: _____
RICH PAUL-HUS DATE: _____

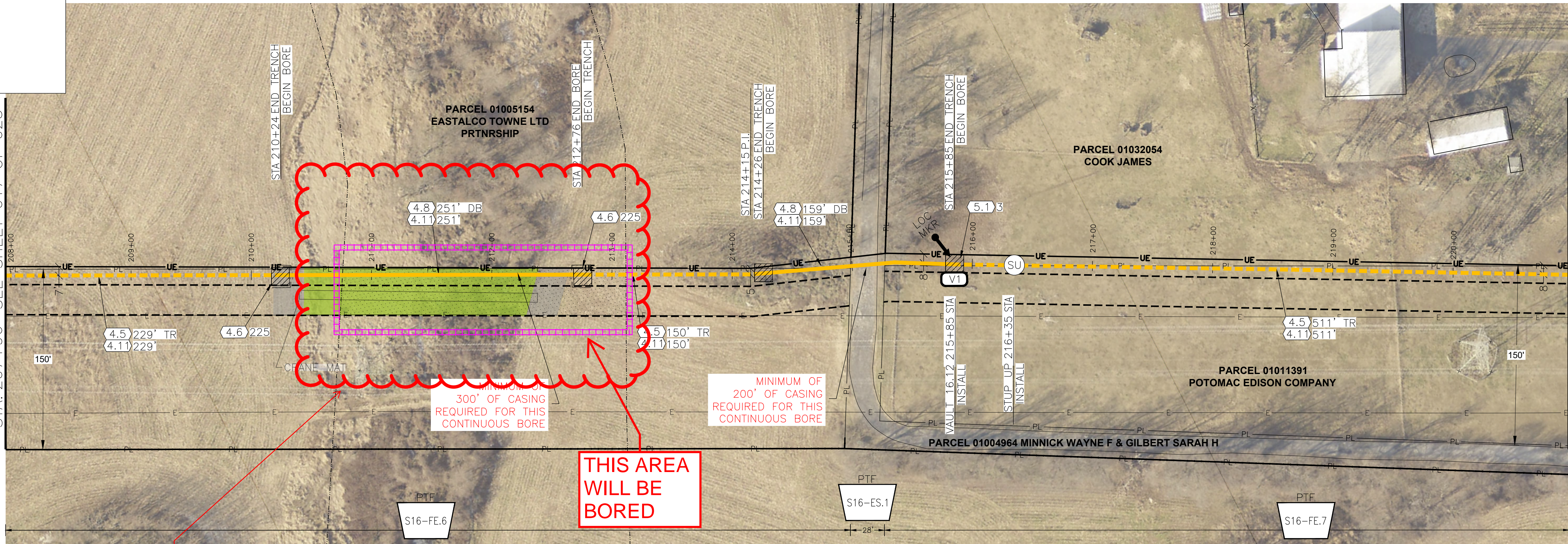


QUANTUM LOOPHOLE				JOB NUMBER		REV	
TELECOMMUNICATIONS FIBER NETWORK BUILD				PROJECT SAGE		2	
SEGMENT 16 PLAN AND PROFILE				DRAWING NUMBER		S16-X-016	
P#0102-0012-0066-0000-0000 1144'							
2	ISSUED FOR ESC PERMIT	05/11/22	RPE	RB	RI		
1	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI		
0	ISSUED FOR PERMIT	11/28/21	RPE	RB	RI		
REV		REVISIONS		DATE	DRN	CKD	DSGN APPD
DSGN	RI	9/21					
DRN	RPE	11/21					
CKD	RB	11/21					
SCALE: 1" = 50'				FOR 22x34 CONSTRUCTION DWG ONLY			

P:\PROJECTS\01_ENGINEERING\CADD\SEGMENTS\16\PROJECTSAGE_SEG16_LANDBASE_ESC_063022.DWG

STA. 207+96 SEE SHEET 017 OF 025

STA. 220+96 SEE SHEET 019 OF 025



LEGEND

- PALUSTRINE EMERGENT WETLANDS (PEM) WITHIN PROJECT CORRIDOR
- PERENNIAL STREAMS (R3) WITHIN PROJECT CORRIDOR
- FORESTED WETLANDS (PFO) WITHIN PROJECT CORRIDOR
- INTERMITTENT STREAM
- WETLAND BUFFER
- NO WORK ZONE
- IMPACT AREA
- SEDIMENT CONTROL DURAWATTLE OR SIMILAR SEE G-009
- SILT FENCE SEE G-007
- FLOOD PLAIN BOUNDARY
- DIRECTIONAL BORE
- TRENCH
- EASEMENT LINE
- PROPERTY LINE
- INLET PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE. SEE G-008 DETAIL.
- PROPOSED VAULTS
- UNIT 4.12: STUB UP FOR FUTURE HAND HOLE
- BORE PIT
- NEW FIBER LINE MARKER
- NEW FIBER LINE LOCATE MARKER WITH TEST STATION

NOTES:

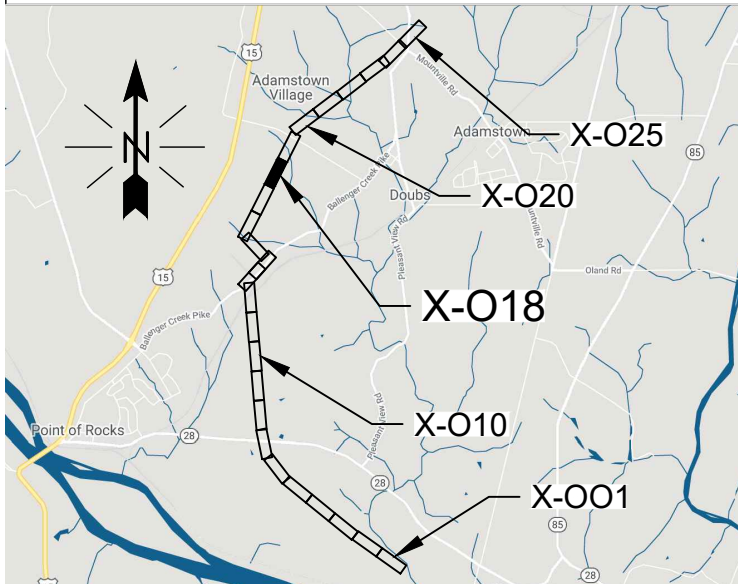
THE FOLLOWING ALIGNMENT AND GROUND PROFILE IS BASED ON USGS, ORTHOIMAGRY AND 2019 3DEP BARE EARTH DIGITAL ELEVATION MODEL (DEM).

THE FINAL ALIGNMENT, CONTOUR ELEVATION DESIGN AND BORE PROFILE TO BE DETERMINED IN THE FIELD. ANY FIELD ADJUSTMENTS TO THE ALIGNMENT WILL BE WITHIN APPROVED EASEMENTS/RIGHT-OF-ENTRY AGREEMENTS.

KNOWN STRUCTURES ALONG THE RUNNING-LINE, WITH FOUNDATION TO BE REVIEWED IN THE FIELD TO DETERMINE AVOIDANCE.

CONSTRUCTION/WORK IS FOR REPRESENTATION ONLY AND MUST BE OUTLINED ON-SITE.

SEE EASEMENT SHEET FOR PLACEMENT DETAILS ASREQUIRED. ALL EASEMENTS WILL REQUIRE OWNER NOTIFICATION BEFORE ENTERING THE PROPERTY. THE FINAL RUNNINGLINE WILL BE FIELD STAKED PRIOR TO CONSTRUCTION.



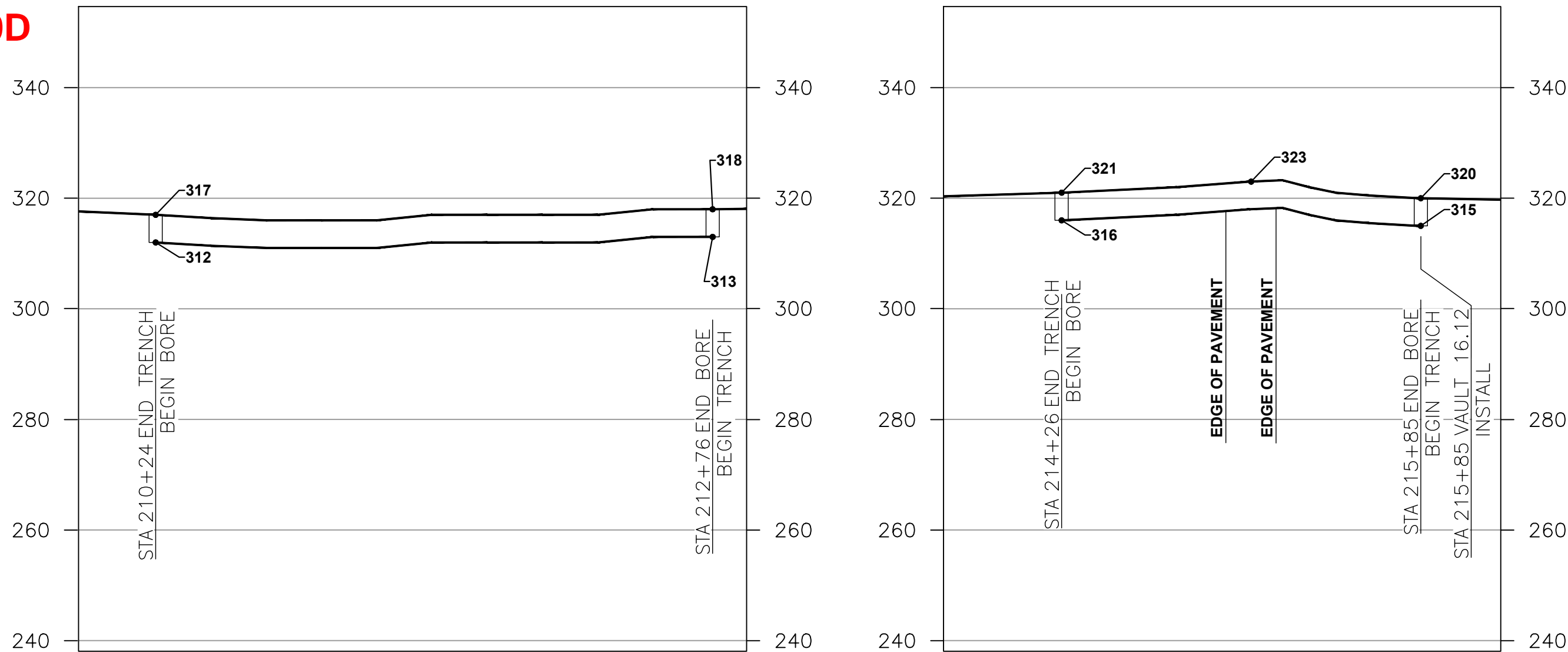
KEY PLAN

FLOODPLAIN MAP
24021C0420D

ALL MATERIALS
(HAND HOLES,
CONDUITS,
FIBER) WILL BE
BURIED BELOW
GRADE

SEGMENT 16 PARTIAL PLAN

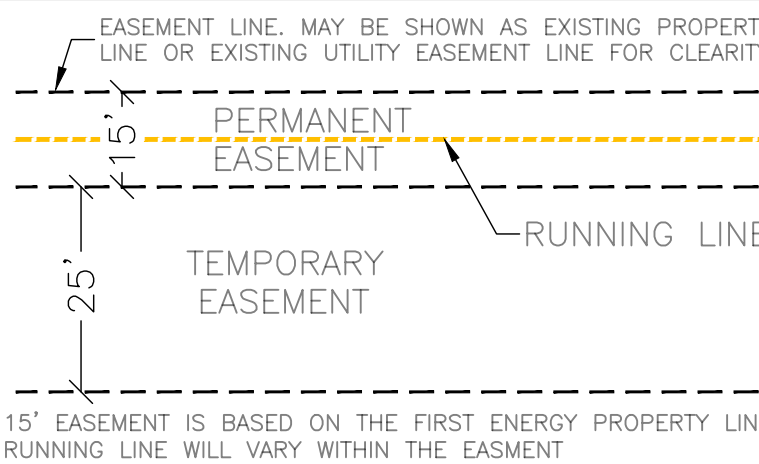
END FLOODPLAIN PRINTS



SEGMENT 16 PARTIAL PROFILE

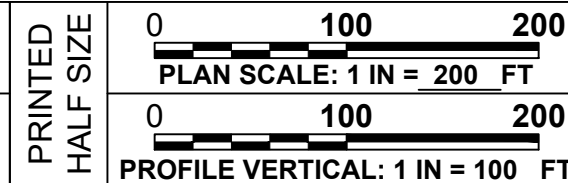
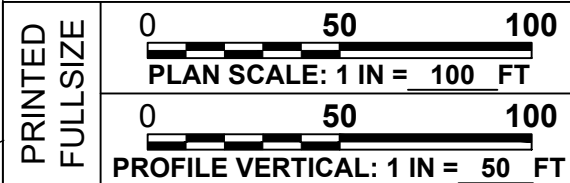
CONSTRUCTION UNITS			CONSTRUCTION UNITS		
UNIT	DESCRIPTION	TOTAL	UNIT	DESCRIPTION	TOTAL
4.2	CLEARING & RESTORATION - (TREE)	- FT	4.11	INSTALL ADD. (4) 2" CONDUIT IN TRENCH	1300 FT
4.3	CLEARING & RESTORATION - (BRUSH & VEGETATION)	- FT	4.12	STUB UP (2)2" C, LOC. WIRE & MULE TAPE 3' AGL	1 EA
4.4	OPEN TRENCH(24"W X 60"D WITH MIN. 48" COVER)	- FT	5.0	INSTALL VAULT 72"x48"x48" TIER 8	- EA
4.5	OPEN TRENCH(24"W X 62"D WITH MIN. 48" COVER)	890 FT	5.1	INSTALL VAULT 72"x48"x48" TIER 15	3 EA
4.6	SELECT BACKFILL	450 SQFT	5.2	INSTALL 6" LOCATE MARKER POST	1 EA
4.7	DIRECT. BORE - 24"SDR17 CASING & 30C(<250FT)	- FT	5.3	INSTALL RUNNING LINE MARKER	- EA
4.8	DIRECT. BORE - 24"SDR17 CASING & 30C (>250FT)	410 FT	5.10	JACK & BORE RXR 24" STEEL CASING & 30 C	- FT
4.9	INSTALL HH 24"x36"x30"	- EA	-	-	-
4.10	INSTALL ADD. 2" CONDUIT IN TRENCH (1 CONDUIT)	- FT	-	-	-

FIRST ENERGY CONSTRUCTION COORIDOR



EST. POT HOLE LOCATES

DESCRIPTION	TOTAL EA
DRIVEWAY BORE 215+00	2
-	-
-	-
IMPACT AREAS	
DESCRIPTION	TOTAL SQFT
FLOOD PLAIN	3582
PALUSTRINE EMERGENT WETLANDS (PEM)	1507
PERENNIAL STREAMS (R3)	-
FORESTED WETLANDS (PFO)	-
TEMPORARY WETLAND BUFFER IMPACTS	3284



APPROVED BY: _____
DISTRICT MANAGER

DATE: _____



QUANTUM LOOPHOLE

ACCEPTED BY: _____
RICH PAUL-HUS DATE: _____



QUANTUM LOOPHOLE

TELECOMMUNICATIONS FIBER NETWORK BUILD

SEGMENT 16 PLAN AND PROFILE

P#0102-0012-0065 & P#0102-0011-0011 & P#0103-0001-0118

3	ISSUED FOR ESC PERMIT	05/11/22	RPE	RB	RI
2	PERMIT CORRECTIONS	1/21/22	RPE	RB	RI
1	REVISED PER FIELD INVESTIGATION	12/09/21	RPE	RB	RI
0	ISSUED FOR PERMIT	11/28/21	RPE	RB	RI

REVISIONS

REV	REVISIONS	DATE	DRN	CKD	DSGN	APPD
DSGN	RI	9/21				
DRN	RPE	11/21				
CKD	RB	11/21				

SCALE: 1" = 50'

THIS DRAWING WAS PREPARED BY TELCON SERVICES FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM THE CLIENT IS GRANTED.
FOR 22x34 CONSTRUCTION DWG ONLY

JOB NUMBER

PROJECT SAGE

DRAWING NUMBER

S16-X-018

REV 3

General Criteria – Special Exception:

The following questions and statements are required to be addressed with your Board of Appeals (BOA) Special Exception Application. Some questions or statements may only require a simple acknowledgement that you have read them and that you understand them. Other questions or statements will require a response with information provided based on your specific application. You must respond to all questions and statements

- (A) An application for a special exception may be made only by persons with a financial, contractual or proprietary interest in the property for which a special exception is requested.

a. This request is being made by QLoop which is the entity with financial, contractual, and proprietary interest in the property. See attached proof of financial interest.

(B) A grant of a special exception is basically a matter of development policy, rather than an appeal based on administrative error or on hardship in a particular case. The Board of Appeals should consider the relation of the proposed use to the existing and future development patterns. A special exception shall be granted when the Board finds that:

- (1) The proposed use is consistent with the purpose and intent of the Comprehensive Development Plan and of this chapter; and
 - a. The proposed use is consistent with the existing and future development patterns of this area, as the existing land use is a utility corridor, and it will continue to be used as a utility corridor in perpetuity.
- (2) The nature and intensity of the operations involved in or conducted in connection with it and the size of the site in relation to it are such that the proposed use will be in harmony with the appropriate and orderly development of the neighborhood in which it is located; and
 - a. The nature and intensity of the operations involved with the proposed use will be in harmony with the appropriate and orderly development of the neighborhood. The proposed project places fiber optic cable within existing powerline utility rights of way, which pass through agricultural areas that are continuously disturbed by ground cultivation.
- (3) Operations in connection with the special exception at the proposed location shall not have an adverse effect such as noise, fumes, vibration or other characteristics on neighboring properties above and beyond those inherently associated with the special exception at any other location within the zoning district; and
 - a. Operation of the fiber optic cable will have no adverse effect on neighboring properties as it is a subsurface and silent utility. Temporary construction impacts associated with installation of the cable will be of no greater or lesser magnitude than the existing operations required to maintain the power line infrastructure or cultivate and harvest the fields.
- (4) Parking areas will comply with the off street parking regulations of this chapter and will be screened from adjoining residential uses, and the entrance and exit drives shall be laid out so as to achieve maximum safety.
 - a. Not applicable, the proposed use and operation will not require parking areas. Entrance and exit drives have already been established by the power company and farmers.
- (5) The road system providing access to the proposed use is adequate to serve the site for the intended use.
 - a. Operation of the proposed fiber optic cable will require negligible vehicular access. Only occasional service trucks will be required to access the line. The

existing road system which currently provides adequate access and safety for the service of the power lines and farms will be sufficient for the operation of the fiber optic cable as well.

(C) In addition to the general requirements listed above, uses requiring a special exception shall be subject to the specific requirements for each use outlined in §§ [1-19-8.320](#) through [1-19-8.355](#) of this Code.

ACKNOWLEDGED

(D) A special exception approval may be granted in accordance with the general and specific requirements enumerated in this section. The Board of Appeals may, in addition to other requirements imposed under this chapter and is hereby authorized to add to the specific requirements any additional conditions that it may deem necessary to protect adjacent properties, the general neighborhood, and its residents or workers. Violation of such additional conditions, when made a part of the terms under which the special exception permit is granted, is a violation of this chapter and may be grounds for termination of the special exception.

ACKNOWLEDGED

(E) The Board of Appeals shall not grant a special exception unless and until:

(1) A written application for a special exception is submitted indicating the section of this chapter under which the special exception is sought and stating the grounds on which it is requested; and

(2) A public hearing has been held; and the Board had made a finding of fact that the special exception requested meets the general and specific requirements outlined in this section.

(F) The grant of special exception may include approval of customary incidental accessory uses as reviewed and approved by the Zoning Administrator.

(G) No use or activity permitted as a special exception shall be enlarged or extended beyond the limits authorized in the grant of special exception. All enlargements, extensions, and changes in use shall require grants of special exception, as in the case of an original petition.

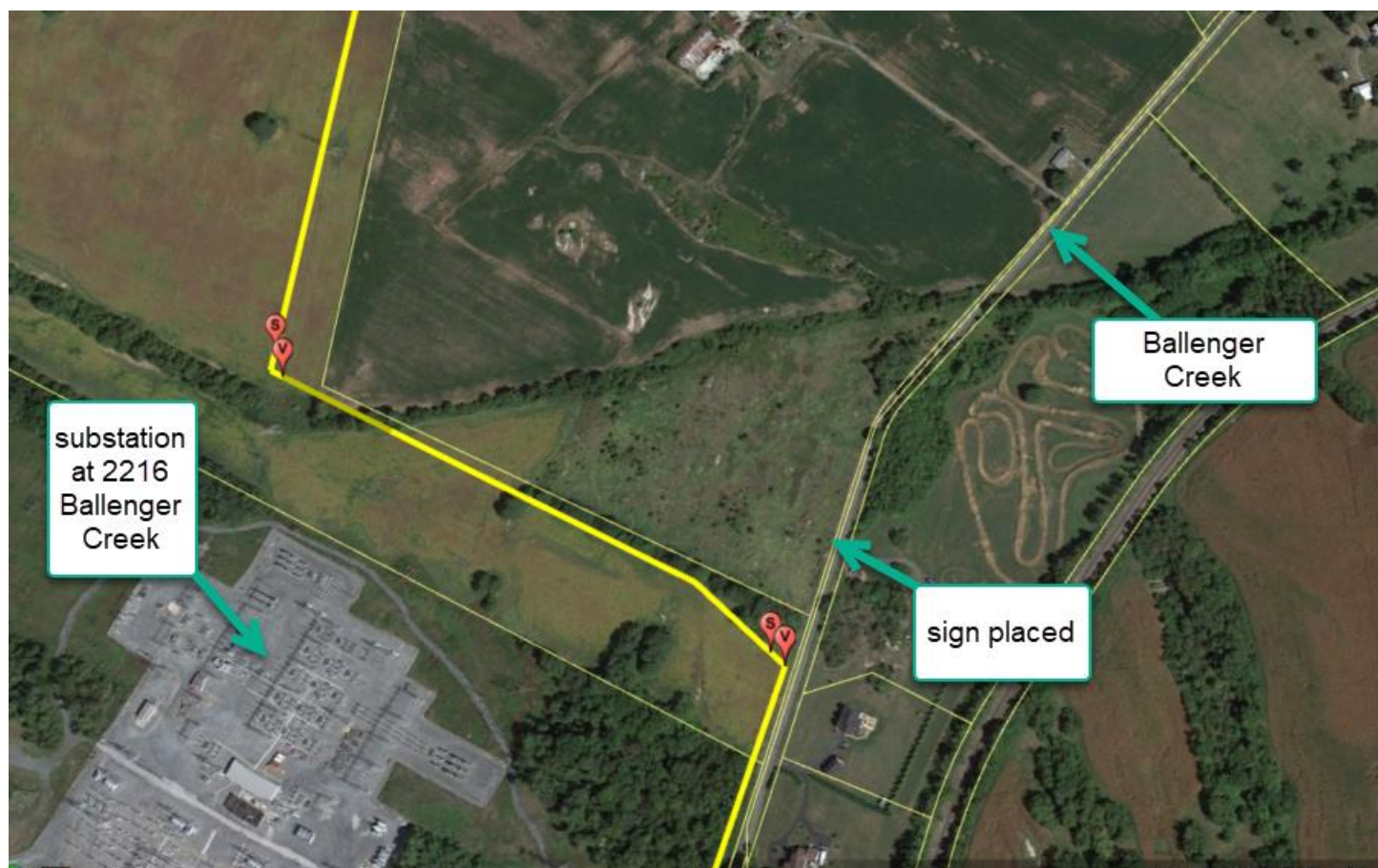
(H) If a grant of special exception is denied, no new petition for the denied use on the same property shall be accepted by the Board of Appeals for 1 year after the date of denial of the petition.

(I) A decision of the Board of Appeals granting a special exception will be void 5 years from date of approval by the Board of Appeals unless the use is established, a building permit is issued, construction has begun, or final site development plan approval has been received in accordance with the terms of the decision. Upon written request submitted to the Zoning Administrator no later than 1 month prior to the expiration date and for good cause shown by the applicant, a 1 time extension may be granted by the Zoning Administrator for a period not to exceed 6 months.

ACKNOWLEDGED



Picture 2023-01-05-12-34-15



Picture 2023-01-05-12-24-41



Picture 2023-01-05-12-07-09



Picture 2023-01-05-09-03-31

