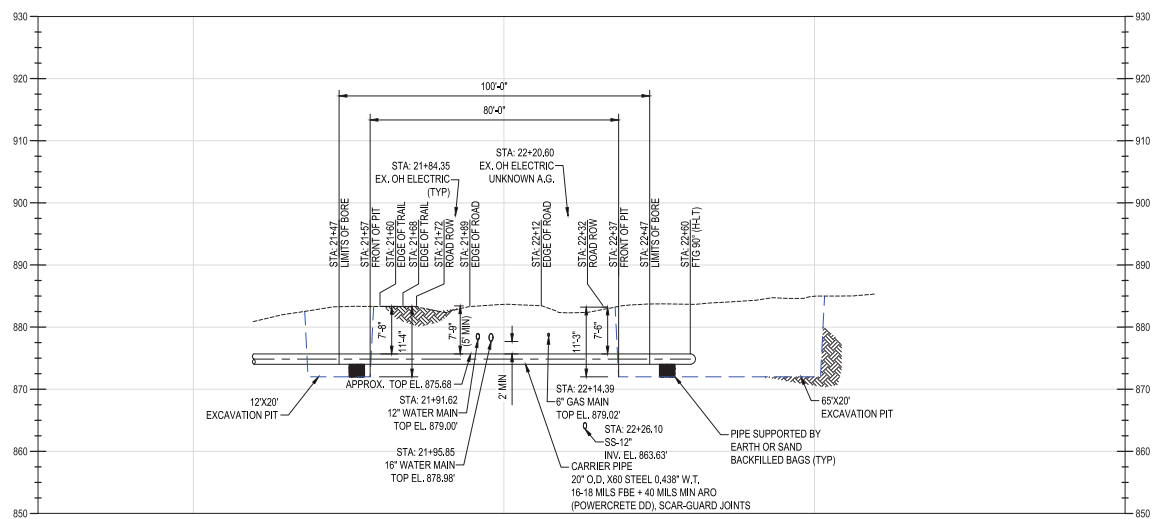
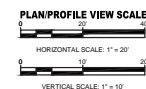
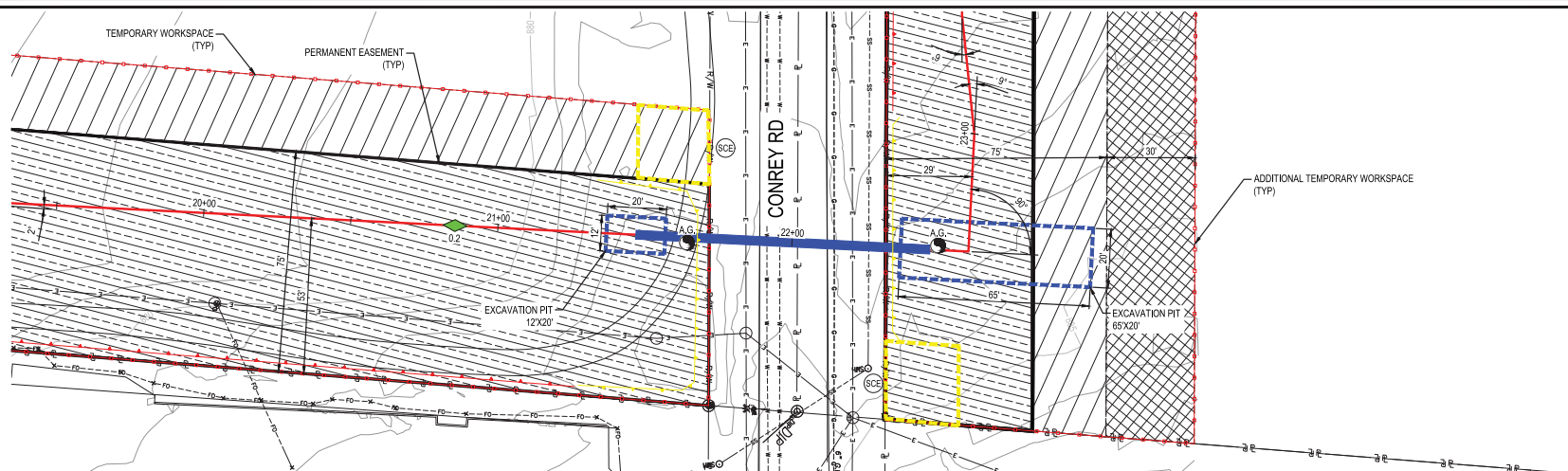


## PLAN



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION		APPROVALS			
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	-	DATE	-	DETAILS	
						ACCOUNT NUMBER	Q3680		-	-	REGIONAL ENGINEER
						PROJECT NUMBER	1880115	DATE	-	DETAILS	MGR TECH REC & STD
						DRAWING BY	AKT		-	-	
						STATION ID	C350	DATE	-	DETAILS	
						CHECKER INITIALS	CNS	11/18/2020	AMP	AMP	PRINCIPAL ENGINEER

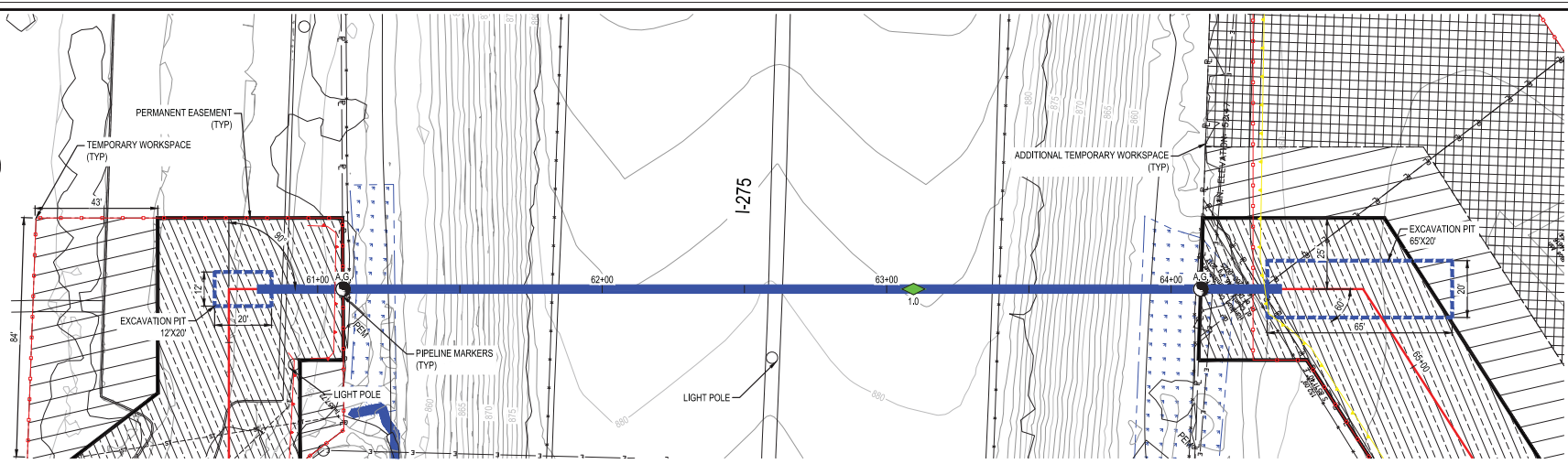


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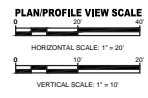
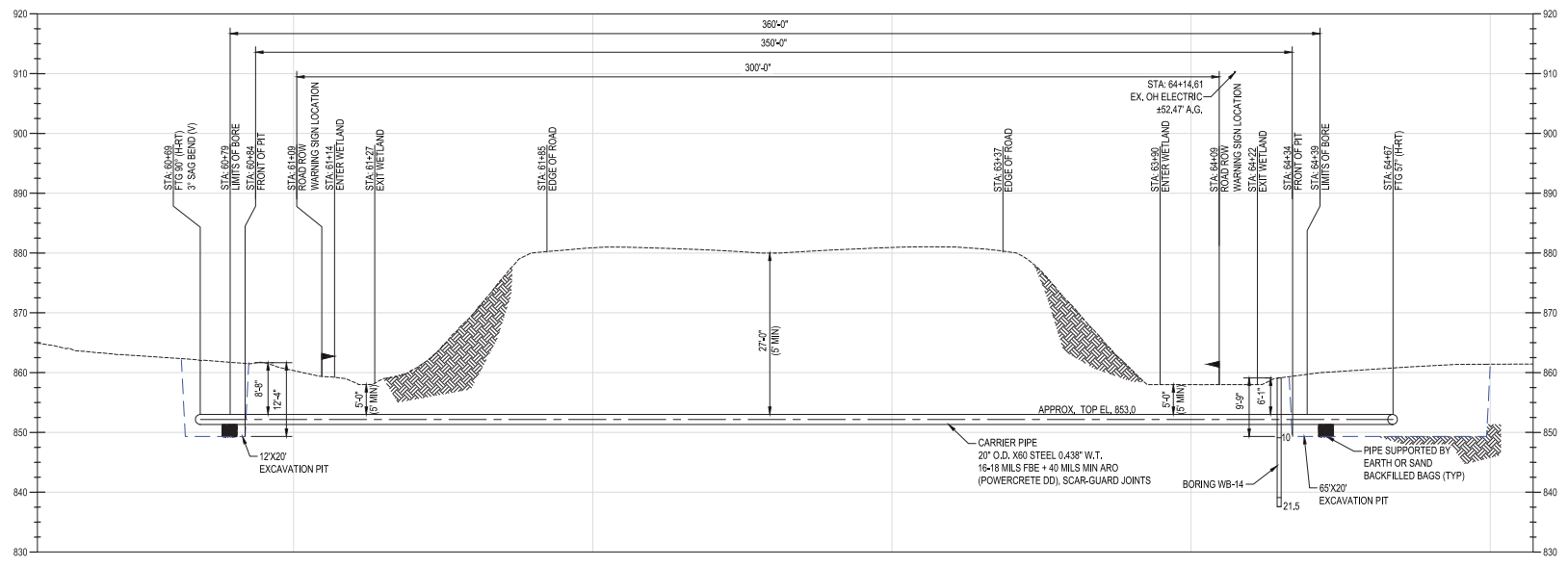
C350 PROJECT  
BORE CROSSING DETAIL 1  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009 PNG-C-350-0001180			
SHEET(S) 1 OF 19		DWG SCALE	AS NOTED
DWG DATE 09-05-2018		SUPERSEDED	—
DRAWING NUMBER			REVISION
PNG -C-350-0001249			0
C:\HAMILTON COUNTY\C350			

PLAN



PROFILE



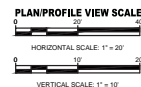
NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	
						ACCOUNT NUMBER	Q3680
						PROJECT NUMBER	1880115
						DRAWING BY	AKT
						STATION ID	C350
						CHECKER INITIALS	CNS
						DATE	11/18/2020
						DATE	AMP
						REGIONAL ENGINEER	
						MGR. TECH. REC. & STD.	
						PRINCIPAL ENGINEER	



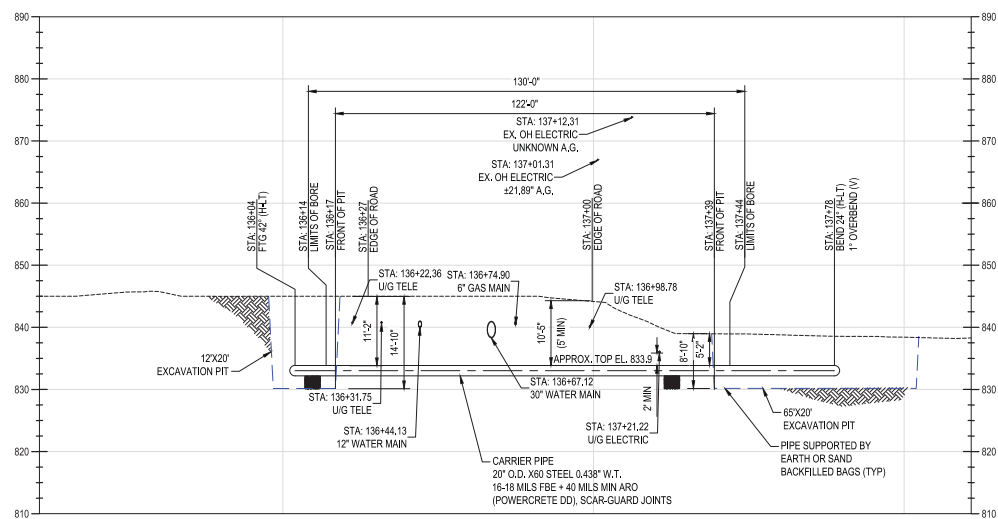
C350 PROJECT  
BORE CROSSING DETAIL 2  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S):	PNG-G-350-0001009
	PNG-B-350-0001014
	PNG-C-350-0001184
SHEET(S)	2 OF 19
DWG DATE	09-05-2018
DRAWING NUMBER	PNG -C-350-0001250
REVISION	0

## PROFILE



- NOTES**
1. LIGHT POLE SHALL BE REMOVED FOR BORE CONSTRUCTION.
  2. CHARTER COMMUNICATIONS RECORDS SHOW UNDERGROUND UTILITIES IN THE VICINITY RUNNING ALONG THE SOUTH SIDE OF CORNELL ROAD, NOT MARKED.



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS			
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	-	DATE	DETAILS	REGIONAL ENGINEER
						ACCOUNT NUMBER	Q3680	-	-	
						PROJECT NUMBER	1880115	DATE	DETAILS	MGR TECH REC & STD
						DRAWING BY	AKT	-	-	
						STATION ID	C350	DATE	DETAILS	PRINCIPAL ENGINEER
						CHECKER INITIALS	CNS	11/18/2020	AMP	



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C350 PROJECT  
BORE CROSSING DETAIL 3  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009  
PNG-C-350-0001192

SHEET(S)	3 OF 19	DWG SCALE	AS NOTED
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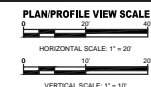
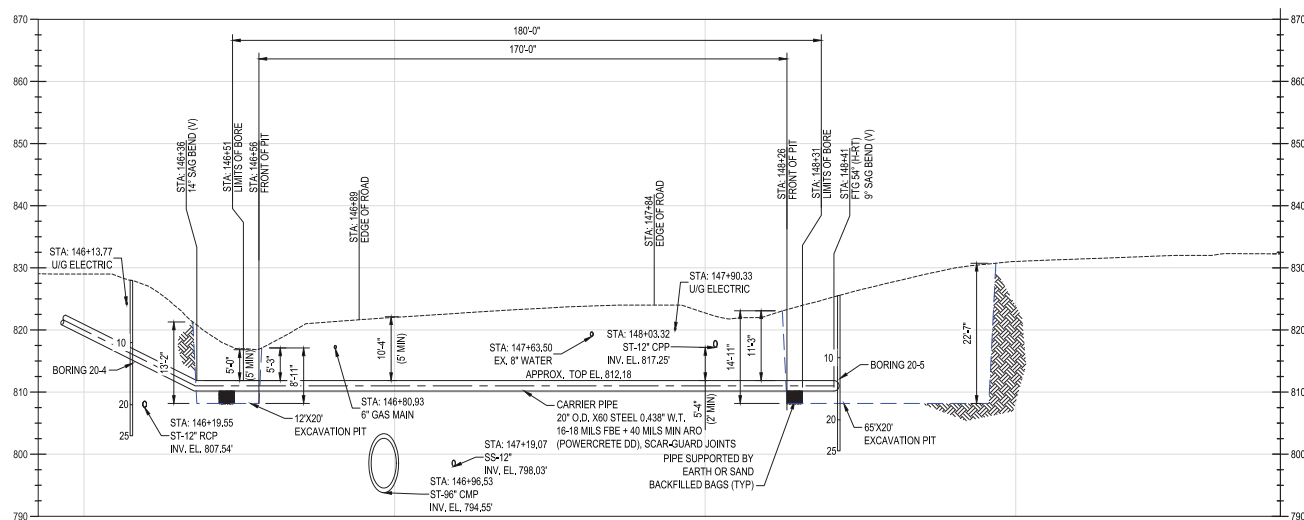
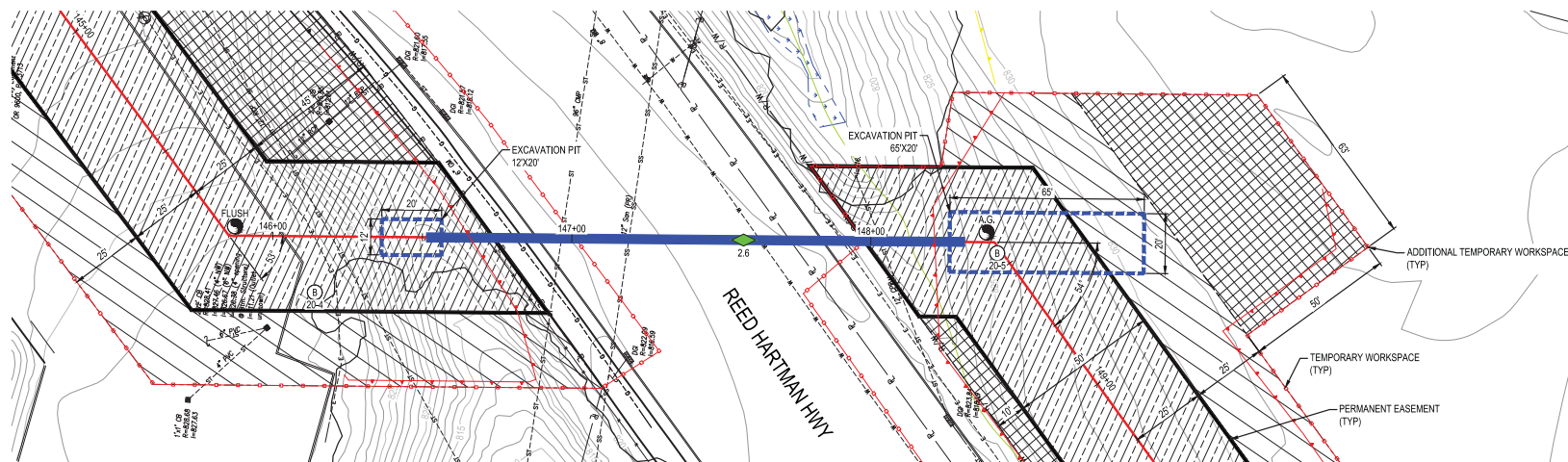
DWG DATE 09-05-2018	SUPERSEDED
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DRAWING NUMBER		REVISION
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PNG -C-350-0001251	0
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C/HAMILTON COUNTY/350

## PROFILE







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DUKE  
ENERGY

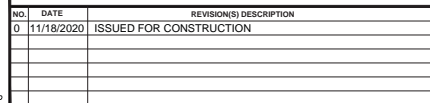
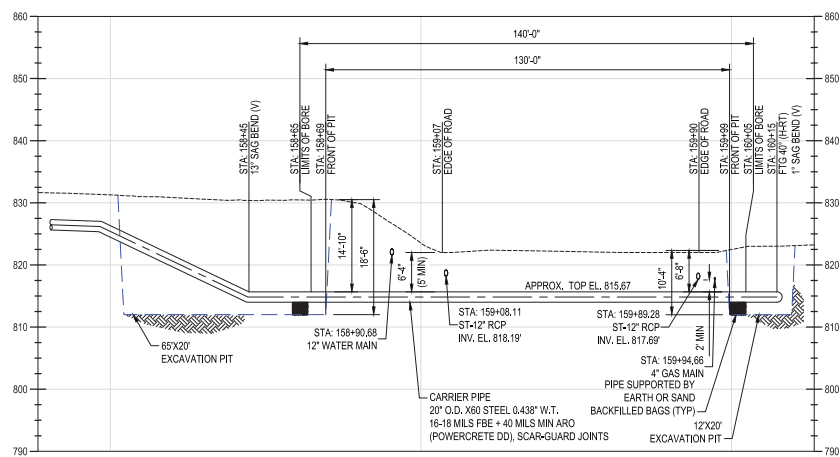
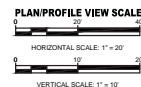


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<p>  <b>HAMILTON COUNTY</b>          CLERK OF SUPERIOR COURT          1000 MAIN STREET          HAMILTON, OHIO 45002-3999          TEL: 513/533-0001 FAX: 513/533-0002          WWW.HAMILTONCOUNTYOHIO.GOV       </p>	<p>         HAMILTON COUNTY          CLERK OF SUPERIOR COURT          1000 MAIN STREET          HAMILTON, OHIO 45002-3999          TEL: 513/533-0001 FAX: 513/533-0002          WWW.HAMILTONCOUNTYOHIO.GOV       </p>
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## PROFILE



BY	CHK	APPD	DESCRIPTION	
AKT	CNS	AMP	AREA CODE	-
			ACCOUNT NUMBER	Q3680
			PROJECT NUMBER	1880115
			DRAWING BY	AKT
			STATION ID	C350
			CHECKER INITIALS	CNS

APPROVALS		
DATE	INITIALS	REGIONAL ENGINEER
-	-	
DATE	INITIALS	MGR TECH REC & STD
-	-	
DATE	INITIALS	PRINCIPAL ENGINEER
11/18/2020	AMP	

DUKE ENERGY | Piedmont Natural Gas

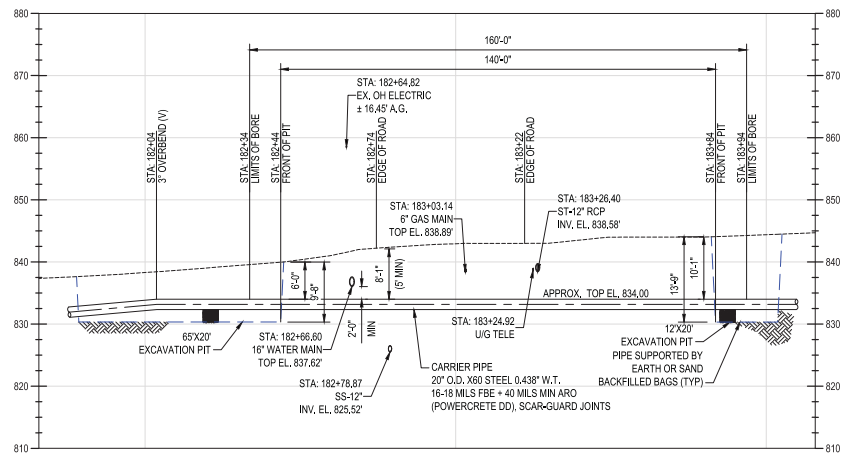
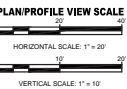
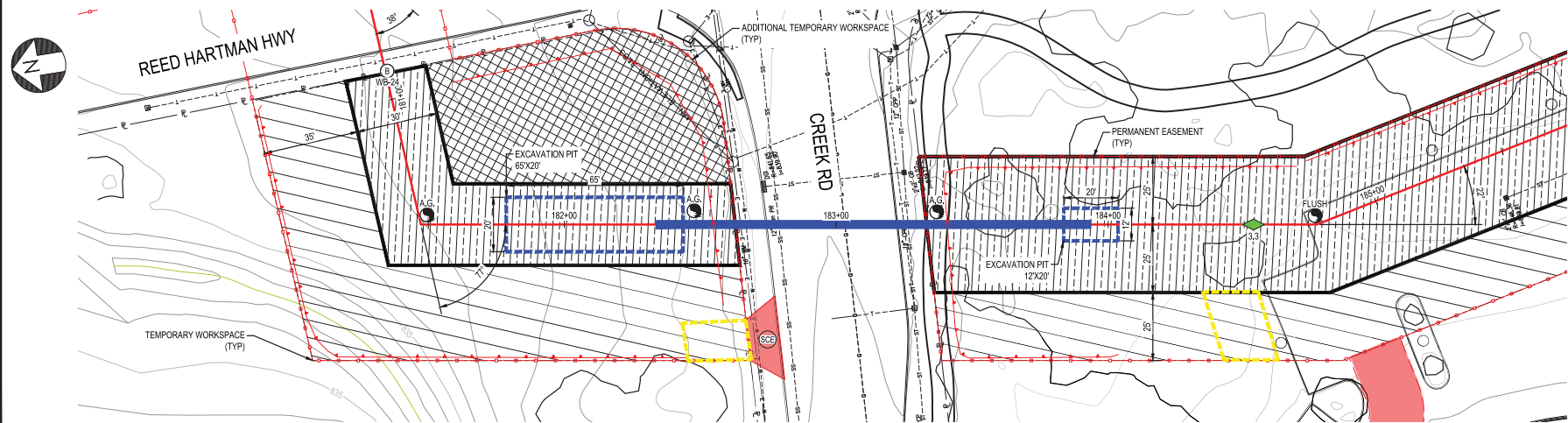
COPYRIGHT 2019

C350 PROJECT  
BORE CROSSING DETAIL 5  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S):	PNG-G-350-0001009 PNG-C-350-0001194
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SHEET(S) 5 OF 19	DWG SCALE AS NOTED
DWG DATE 09-05-2018	SUPERSEDED —
DRAWING NUMBER <b>PNG -C-350-0001253</b>	REVISION <b>0</b>
C:HAMILTON COUNTY/C350	

## PROFILE



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPRO	DESCRIPTION	APPROVALS			
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	-	DATE	DETAILS	REGIONAL ENGINEER
						ACCOUNT NUMBER	Q3680	-	-	
						PROJECT NUMBER	1880115	DATE	DETAILS	MGR TECH REC & STD
						DRAWING BY	AKT			
						STATION ID	C350	DATE	DETAILS	PRINCIPAL ENGINEER
						CHECKER INITIALS	CNS	11/18/2020	AMP	



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C350 PROJECT  
BORE CROSSING DETAIL 6  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009  
PNG-C-350-0001196

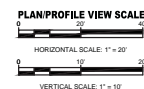
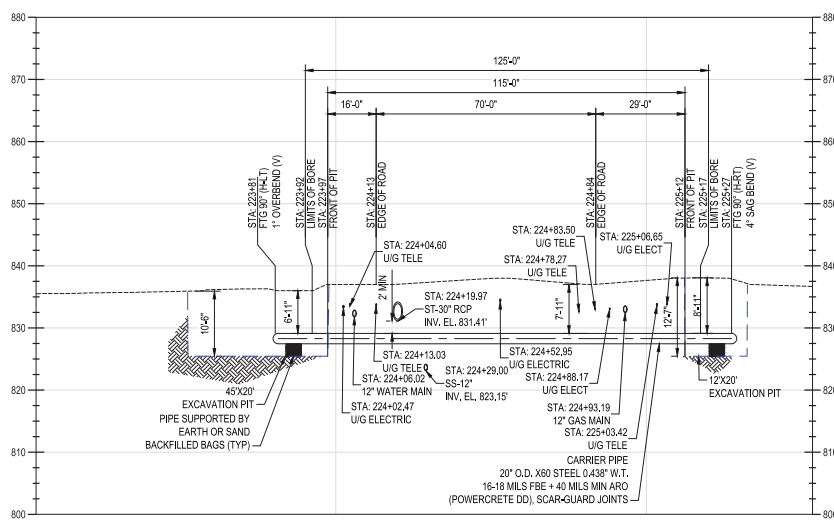
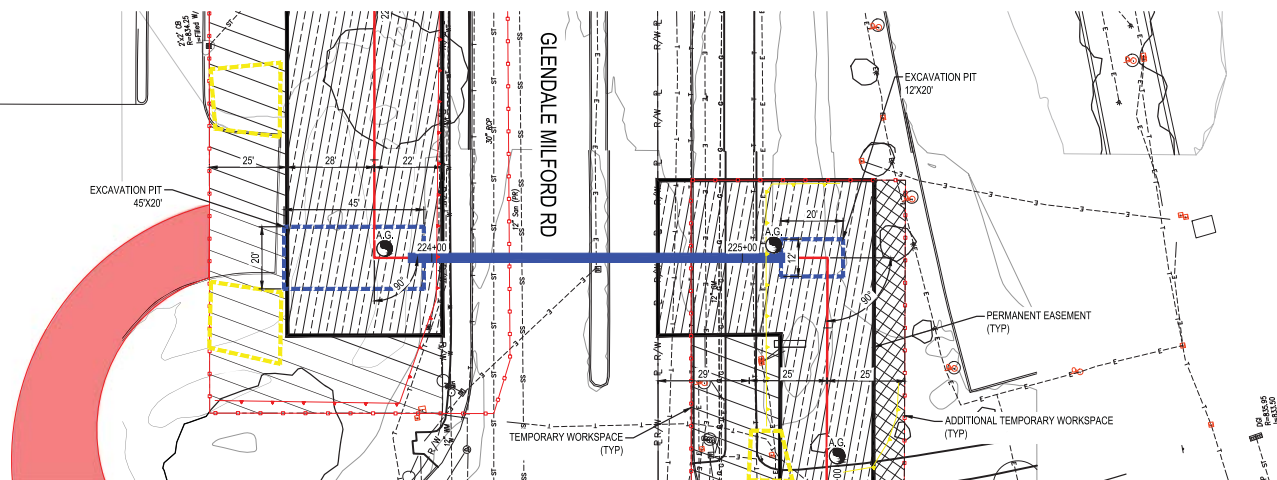
SHEET(S)	6 OF 19	DWG SCALE	AS NOTED
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DWG DATE 09-05-2018	SUPERSEDED
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DRAWING NUMBER	REVISION
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PNG -C-350-0001254	0
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C/HAMILTON COUNTY/C350



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION		APPROVALS		
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	-	DATE	DETAILS	
						ACCOUNT NUMBER	Q3680			REGIONAL ENGINEER
						PROJECT NUMBER	1880115	DATE	DETAILS	MGR TECH REC & STD
						DRAWING BY	AKT			
						STATION ID	C350	DATE	DETAILS	
						CHECKER INITIALS	CNS	11/18/2020	AMP	PRINCIPAL ENGINEER

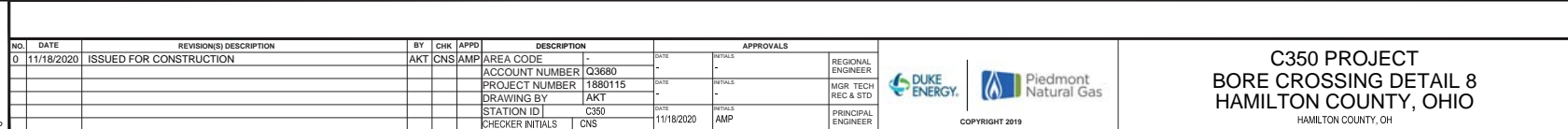
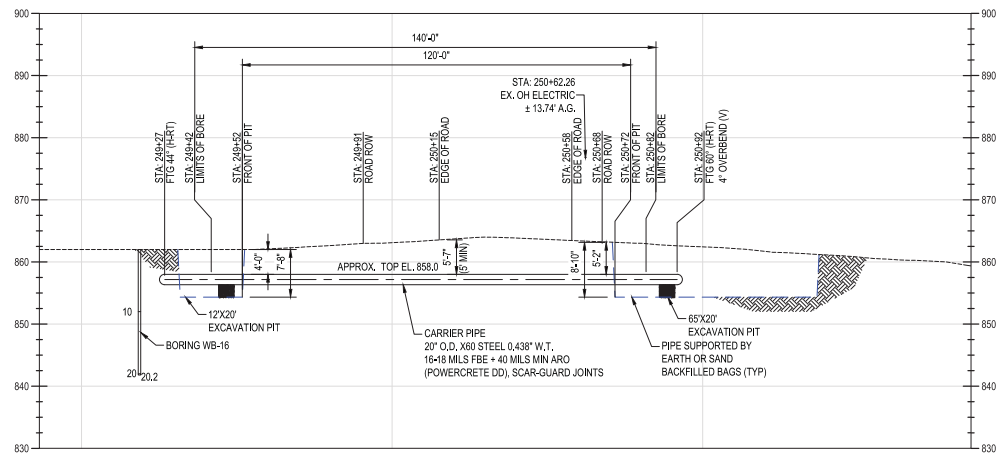
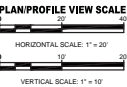


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C350 PROJECT  
BORE CROSSING DETAIL 7  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009 PNG-C-350-0001200			
SHEET(S) 7 OF 19		DWG SCALE	AS NOTED
DWG DATE 09-05-2018		SUPERSEDED	—
DRAWING NUMBER			REVISION
PNG -C-350-0001255			0
C:\HAMILTON COUNTY\350			

## PROFILE

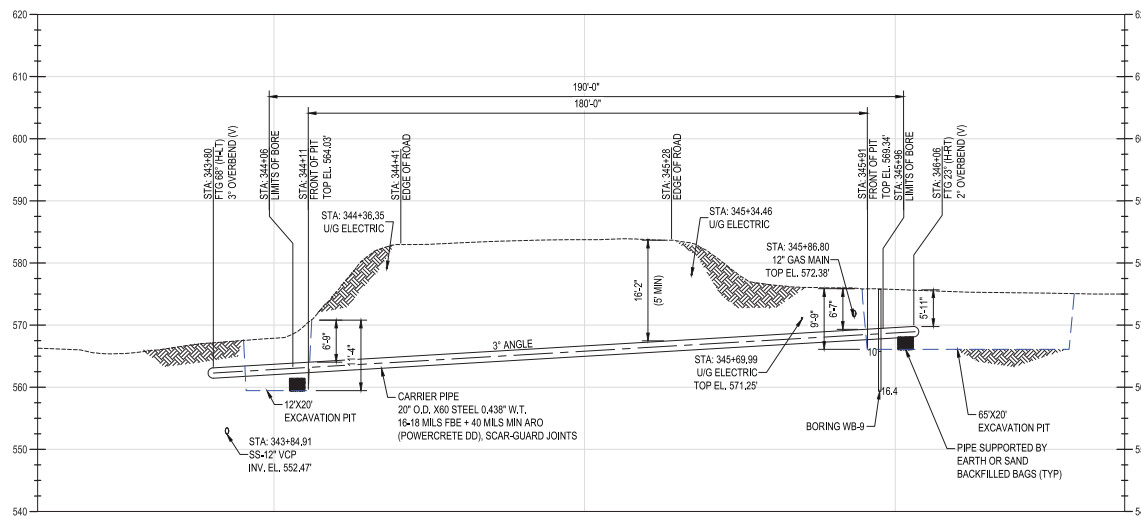
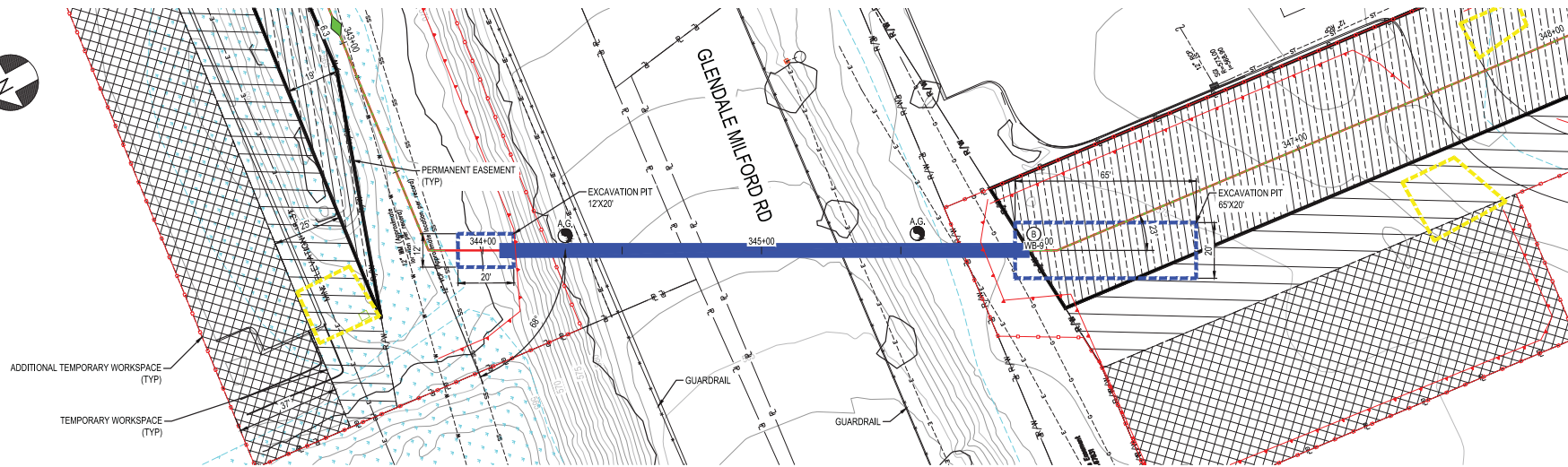


C350 PROJECT  
BORE CROSSING DETAIL 8  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

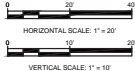
REF. DWG(S): PNG-G-350-0001009 PNG-B-350-0001014 PNG-C-350-0001202		
SHEET(S) 8 OF 119	DWG SCALE	AS NOTED
DWG DATE 09-05-2018	SUPERSEDED	—
DRAWING NUMBER		REVISION
PNG -C-350-0001256		0
CHAMILLON COUNTY/C350		



## PLAN



**PLAN/PROFILE VIEW SCALE**



## PROFILE



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS				
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	-	DATE	-	INITIALS	REGIONAL ENGINEER
						ACCOUNT NUMBER	Q3680				
						PROJECT NUMBER	1880115	DATE	-	INITIALS	MGR TECH REC & STD
						DRAWING BY	AKT				
						STATION ID	C350	DATE	11/18/2020	INITIALS	AMP
						CHECKER INITIALS	CNS				PRINCIPAL ENGINEER



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C350 PROJECT  
BORE CROSSING DETAIL 9  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S):	PNG-G-350-0001009
	PNG-B-350-0001012
	PNG-C-350-0001210

SHEET(S)	9 OF 19	DWG SCALE	AS NOTED
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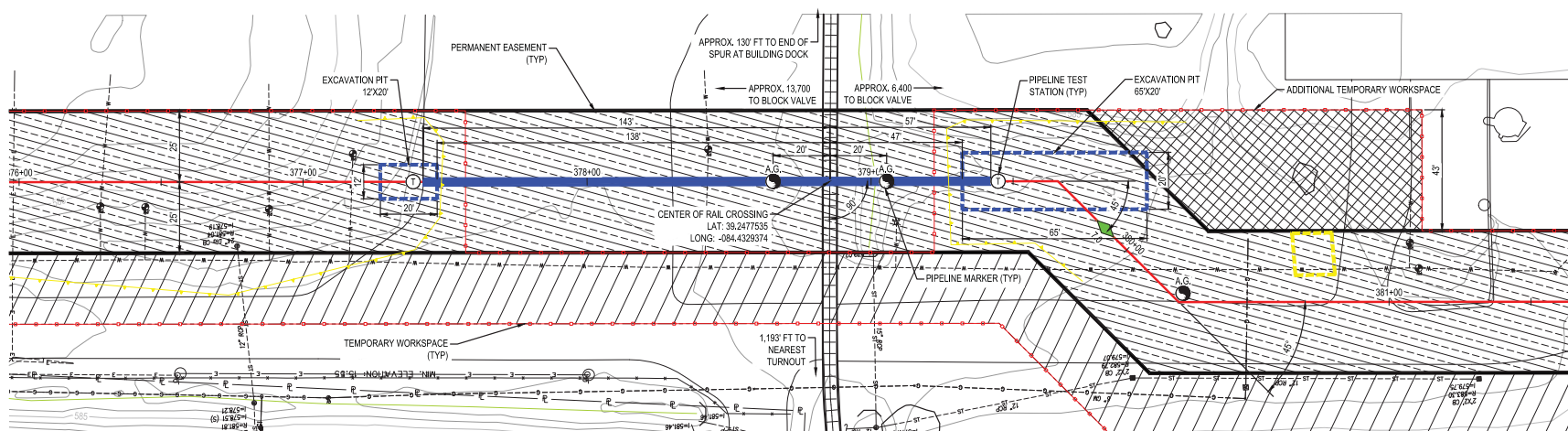
DWG DATE 09-05-2015	SUPERSEDED
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DRAWING NUMBER		REVISION
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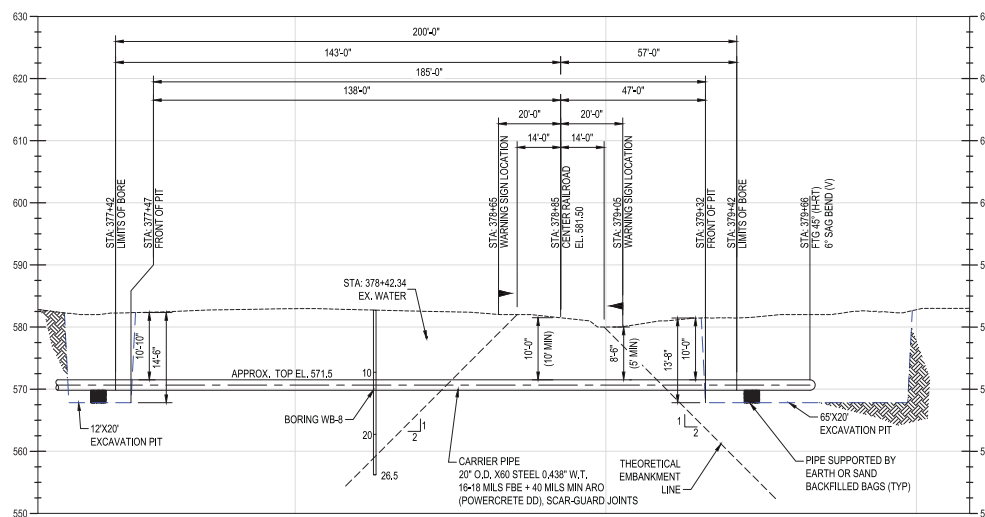
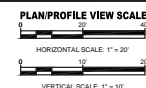
DRAWING NUMBER		REVISION
DWG	C 250 0004257	0

PNG -C-350-0001257	0
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C/HAMILTON COUNTY/C350



- NOTES:
1. ALL WORK ON NORFOLK SOUTHERN RIGHT-OF-WAY TO BE PERFORMED IN ACCORDANCE WITH NSCE-8 "SPECIFICATIONS FOR PIPELINE OCCUPANCY OF NORFOLK SOUTHERN CORPORATION PROPERTY" (CURRENT VERSION).
  2. NO RAIL BRIDGES OR HIGHWAY GRADE CROSSING ON THIS RAIL SPUR.



C350 PROJECT  
BORE CROSSING DETAIL 10  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009  
PNG-B-350-0001012  
PNG-C-350-0001213

SHEET(S) 10 OF 19 DWG SCALE AS NOTED

DWG DATE 09-05-2018 SUPERSEDED

DRAWING NUMBER REVISION

PNG -C-350-0001258 0

CHAMILLON COUNTY/C350

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	INITIALS

PROJECT NUMBER	Q3680	DATE	INITIALS
DRAWING BY	AKT	DATE	INITIALS
STATION ID	C350	DATE	INITIALS
CHECKER INITIALS	CNS	DATE	INITIALS

ACCOUNT NUMBER	1880115
DATE	11/18/2020

DATE	11/18/2020
DATE	11/18/2020

DATE	11/18/2020
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DATE	11/18/2020
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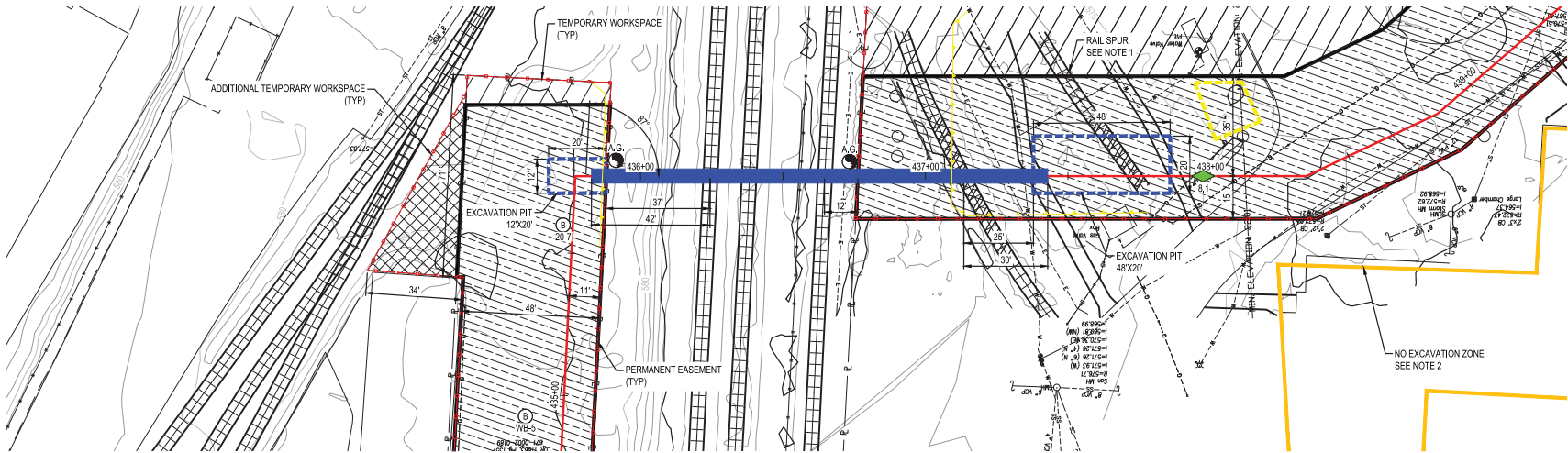
DATE	11/18/2020
DATE	11/18/2020



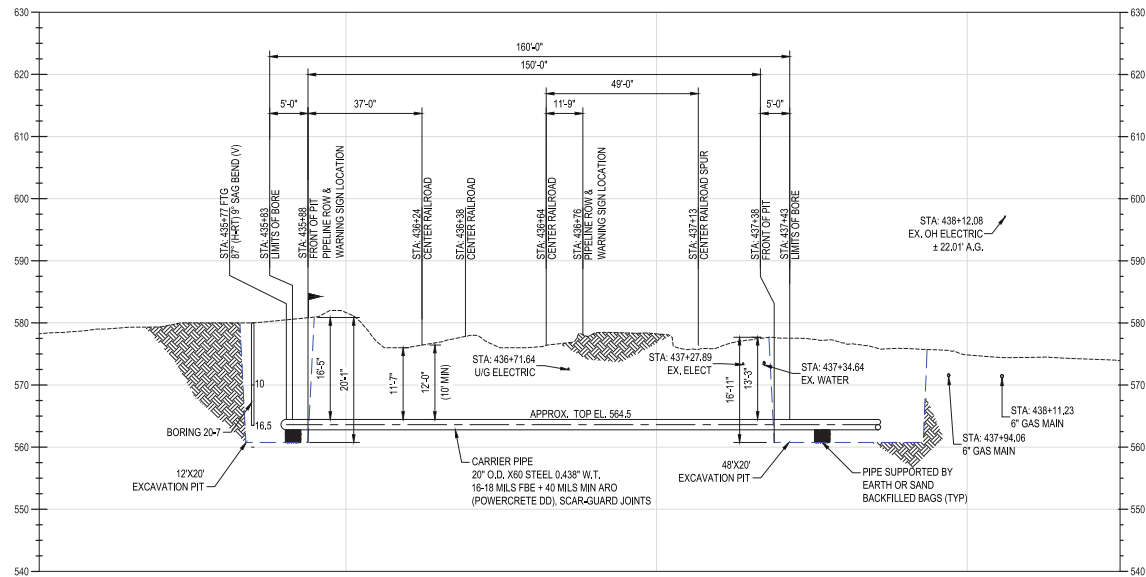
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PLAN



PROFILE



PLAN/PROFILE VIEW SCALE

HORIZONTAL SCALE: 1" = 20'

VERTICAL SCALE: 1" = 10'

## NOTES

1. RAIL SPURS SHALL BE REMOVED WITHIN WORKSPACE AS INDICATED ON PLAN.
2. EXCAVATION PROHIBITED WITHIN AREAS INDICATED. AREA LOCATIONS APPROXIMATE. SEE "INSTITUTIONAL CONTROLS-FORMER RDM AND HAAS CHEMICALS LLC SITE READING, OHIO 100-724-1334."



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP

DESCRIPTION	DATE	INITIALS
AREA CODE	-	-
ACCOUNT NUMBER	Q3680	-
PROJECT NUMBER	1880115	-
DRAWING BY	AKT	-
STATION ID	C350	-
CHECKER INITIALS	CNS	-

APPROVALS	DATE	INITIALS
REGIONAL ENGINEER	-	-
MGR. TECH. REC. & STD.	-	-
PRINCIPAL ENGINEER	-	-



C350 PROJECT  
BORE CROSSING DETAIL 11  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009

PNG-B-350-0001010

PNG-C-350-0001219

SHEET(S) 11 OF 19 DWG SCALE AS NOTED

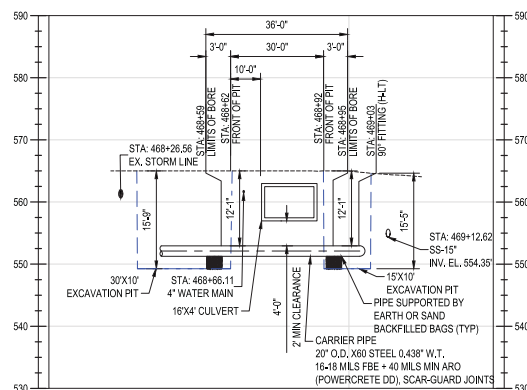
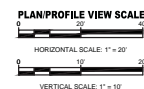
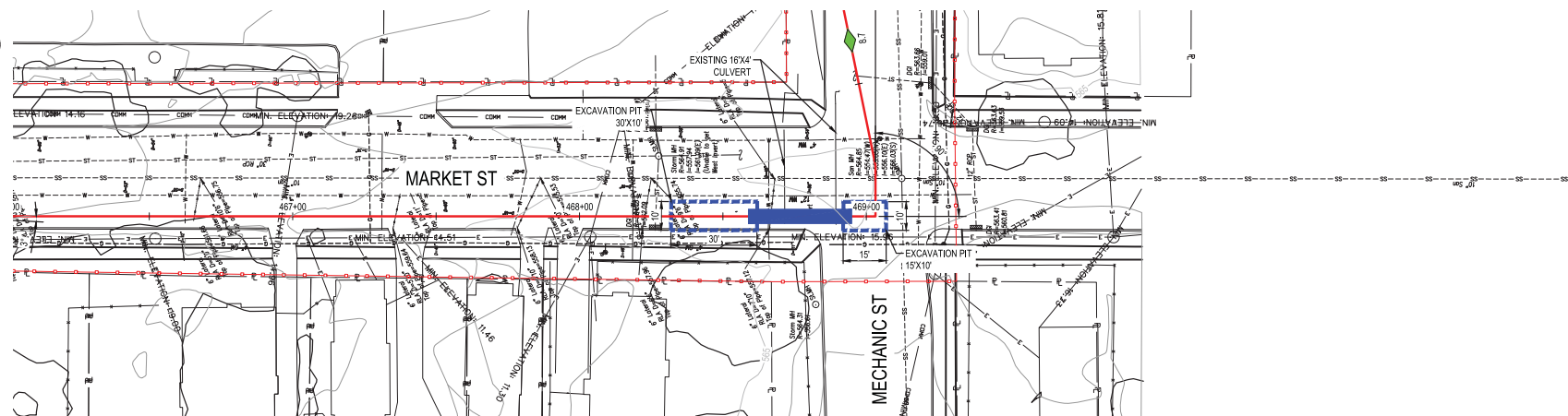
DWG DATE: 09-05-2018 SUPERSEDED

DRAWING NUMBER

REVISION

PNG -C-350-0001259 0

CHAMILLON COUNTY/C350



C350 PROJECT  
BORE CROSSING DETAIL 12  
HAMILTON COUNTY, OHIO

REF. DWG(S): PNG-G-350-0001009  
PNG-C-350-0001222

SHEET(S) 12 OF 19 DWG SCALE AS NOTED

DWG DATE 09-05-2018 SUPERSEDED

DRAWING NUMBER PNG -C-350-0001260

REVISION 0

HAMILTON COUNTY/C350

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	
						ACCOUNT NUMBER	
						PROJECT NUMBER	
						DRAWING BY	
						STATION ID	
						CHECKER INITIALS	

AMANDA PALM	REGISTERED PROFESSIONAL ENGINEER	11/18/2020	PROFESSIONAL ENGINEER STAMP
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DUKE ENERGY	Piedmont Natural Gas
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REGIONAL ENGINEER	DATE	INITIALS
MGR. TECH REC & STD	DATE	INITIALS
PRINCIPAL ENGINEER	DATE	INITIALS

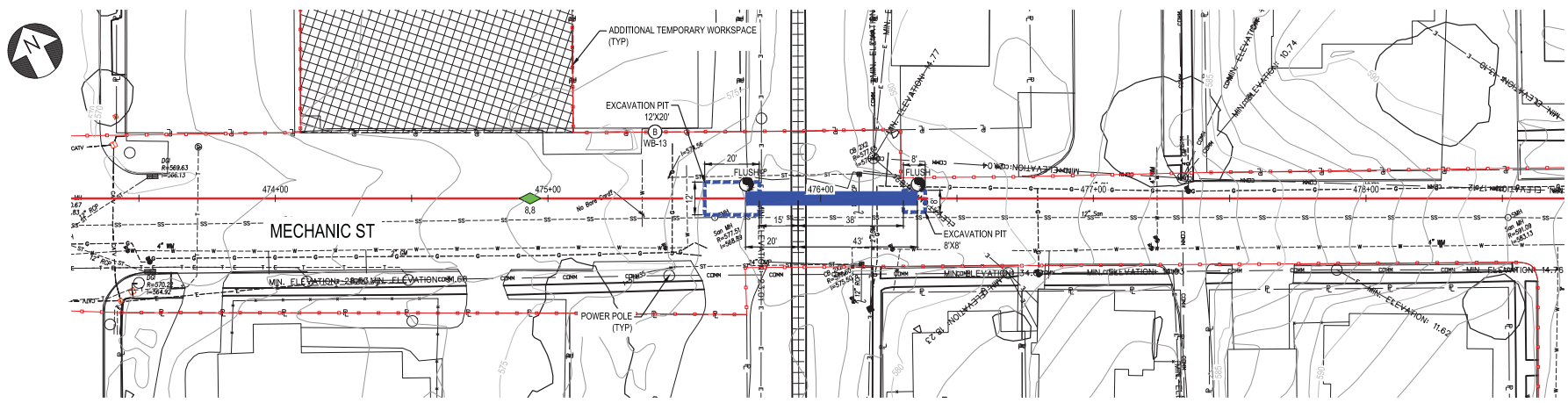
DATE	INITIALS	AMP
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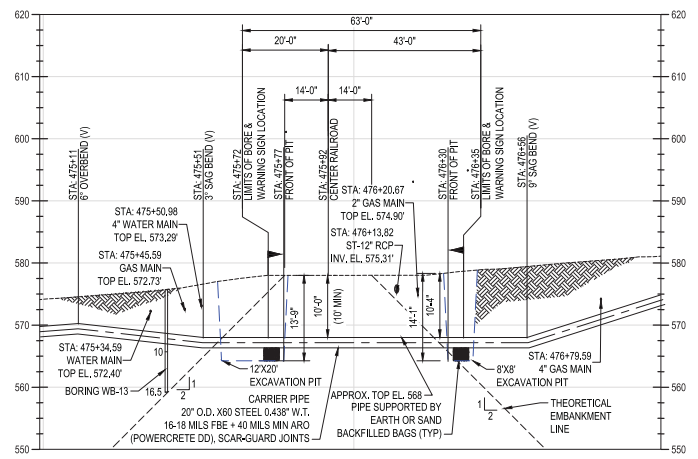
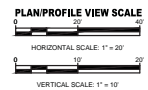


PLAN

PROFILE



NOTES:  
1. PER I.O.R.Y. GENERAL SPECIFICATIONS FOR SUB-GRADE AND ABOVE GRADE UTILITY CROSSINGS OF RAILROAD'S RIGHT-OF-WAY: BORE PITS WILL BE PROTECTED WITH ADEQUATE SHEETING, BULKHEADS, AND SIDEWALLS TO PROTECT THE RAILROAD'S ROADBED.

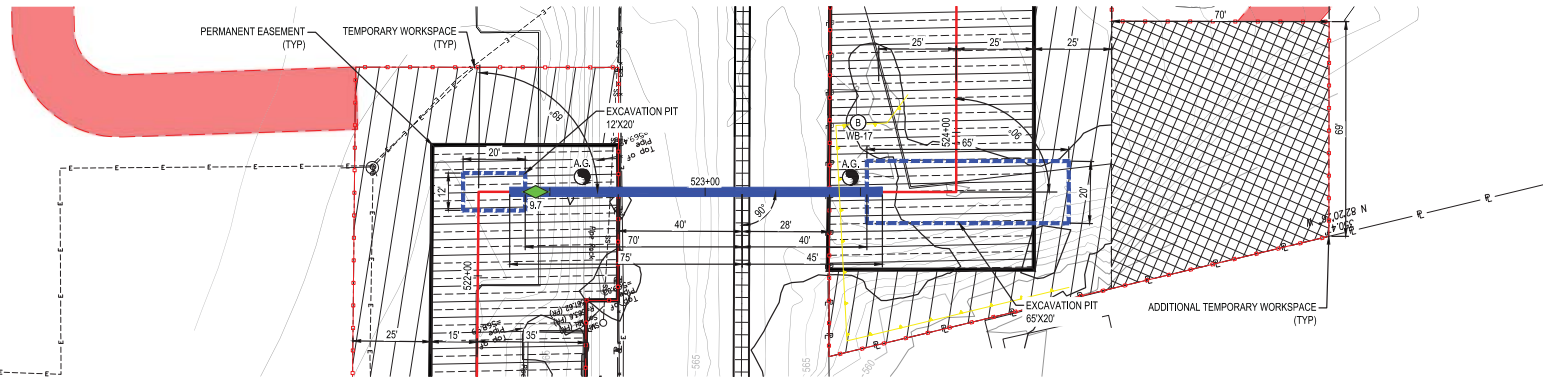


NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPR	DESCRIPTION	APPROVALS
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE PROJECT NUMBER DRAWING BY STATION ID CHECKER INITIALS	APPROVALS REGIONAL ENGINEER MGR. TECH REC & STD PRINCIPAL ENGINEER
						Q3680 1880115 AKT C350 CNS	



C350 PROJECT  
BORE CROSSING DETAIL 13  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009 PNG-B-350-0001014 PNG-C-350-0001223
SHEET(S) 13 OF 19 DWG SCALE AS NOTED
DWG DATE 09-05-2018 SUPERSEDED
DRAWING NUMBER PNG -C-350-0001261
REVISION 0
CHAMILLON COUNTY/C350



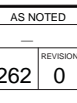
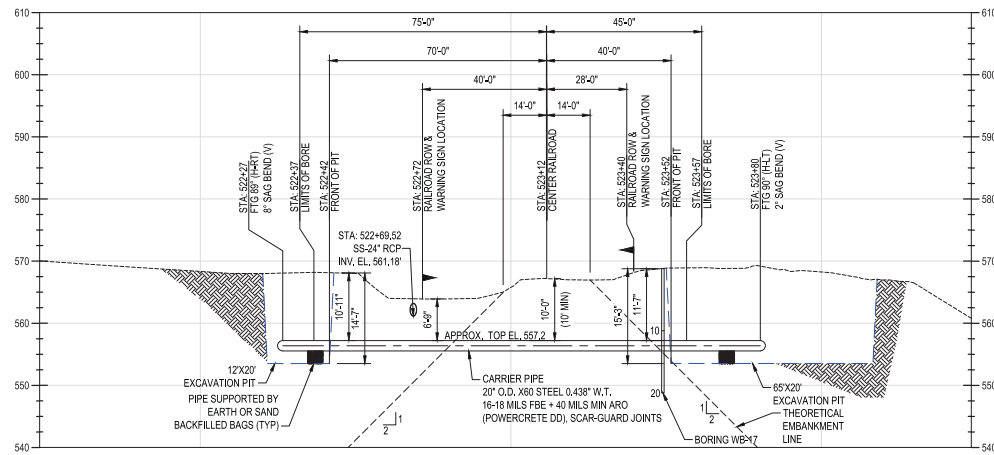
**PLAN/PROFILE VIEW SCALE**

0 20' 40'

HORIZONTAL SCALE: 1" = 20'

0 10' 20'

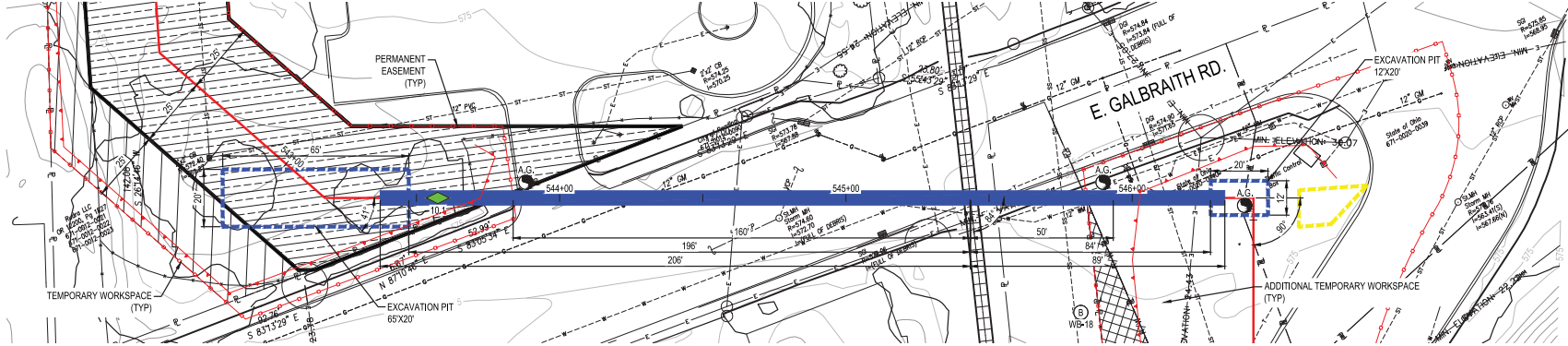
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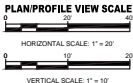
C350 PROJECT  
BORE CROSSING DETAIL 14  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH



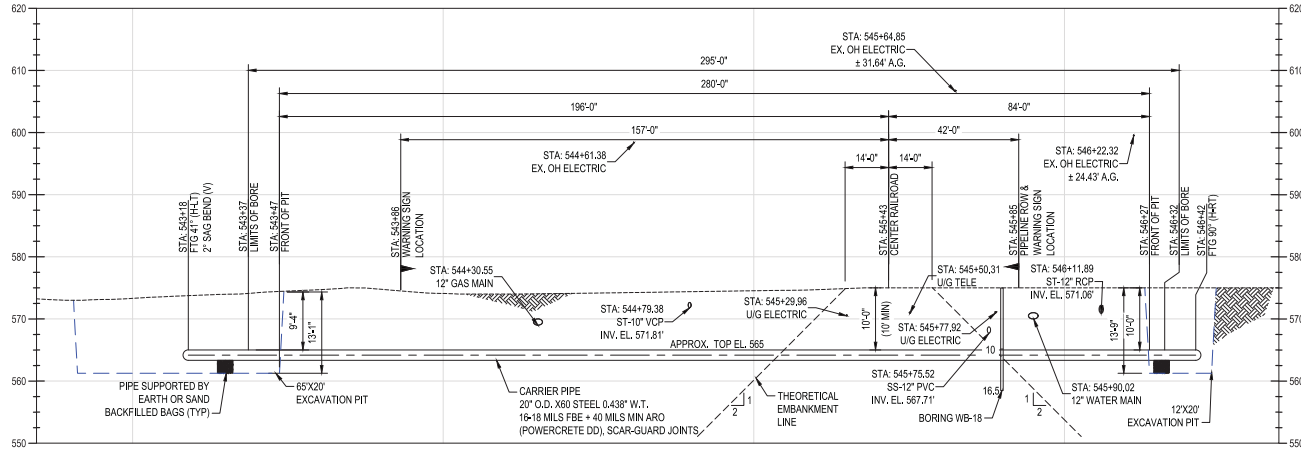
PLAN



NOTES:  
1. PER I.O.R.Y. GENERAL SPECIFICATIONS FOR SUB-GRADE AND ABOVE GRADE  
UTILITY CROSSINGS OF RAILROAD'S RIGHT-OF-WAY: BORE PITS WILL BE  
PROTECTED WITH ADEQUATE SHEETING, BULKHEADS, AND SIDEWALLS TO  
PROTECT THE RAILROAD'S ROADBED.



PROFILE



NO.		DATE	REVISION(S) DESCRIPTION	BY	CHK	APP'D	DESCRIPTION	DATE	INITIALS	APPROVALS	REGIONAL ENGINEER
0	11/18/2020		ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE	-	-	-	
			PROJECT NUMBER				ACCOUNT NUMBER	Q3680			
			DRAWING BY				STATION ID	C350			
			CHECKER INITIALS				DATE	11/18/2020			

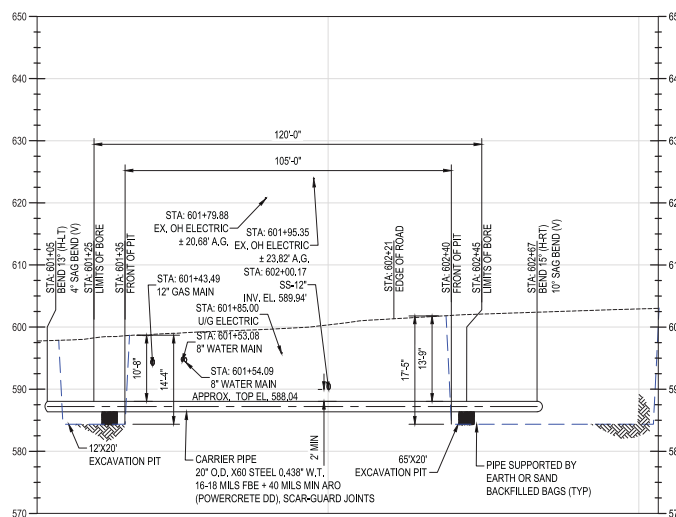
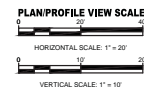
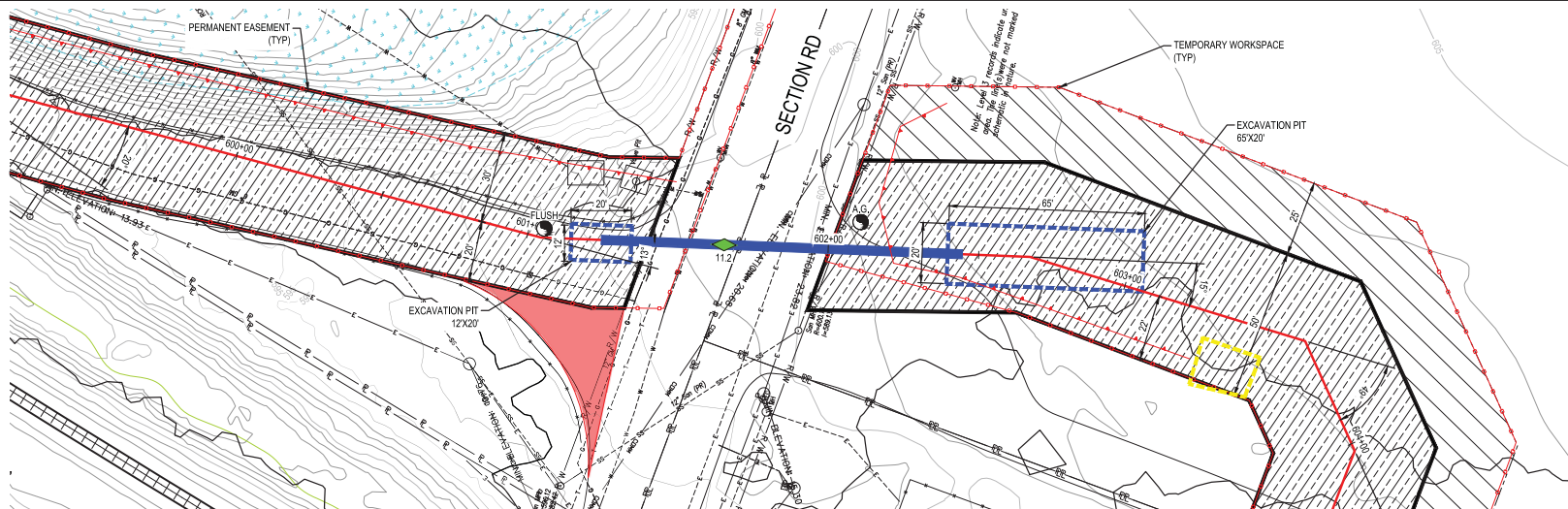
**C350 PROJECT**  
**BORE CROSSING DETAIL 15**  
**HAMILTON COUNTY, OHIO**

HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009 PNG-B-350-0000104 PNG-C-350-0001229
SHEET(S) 15 OF 19 DWG SCALE AS NOTED
DWG DATE 09-05-2018 SUPERSEDED
DRAWING NUMBER
REVISION
<b>PNG -C-350-0001263</b> 0
CHAMILTON COUNTY/C350

PLAN

PROFILE



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE - ACCOUNT NUMBER 1880115 DRAWING BY AKT STATION ID C350 CHECKER INITIALS CNS	DATE - INITIALS - DATE - INITIALS - DATE - INITIALS - DATE - INITIALS -
					REGIONAL ENGINEER MGR. TECH REC & STD PRINCIPAL ENGINEER		

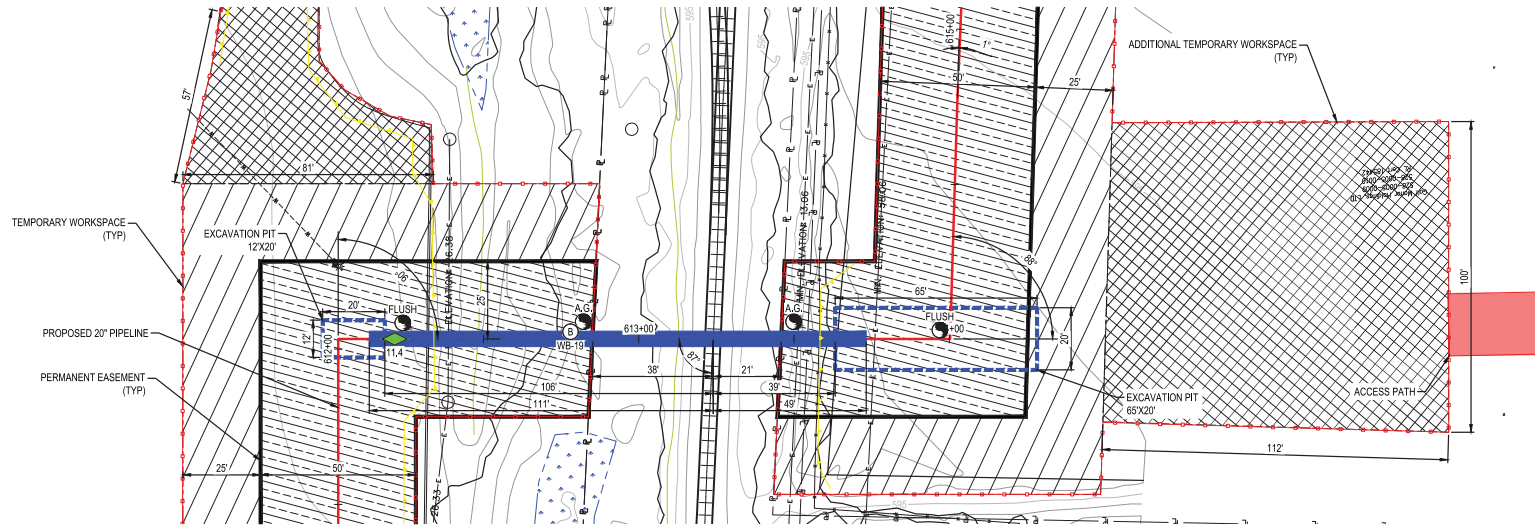


COPYRIGHT 2019

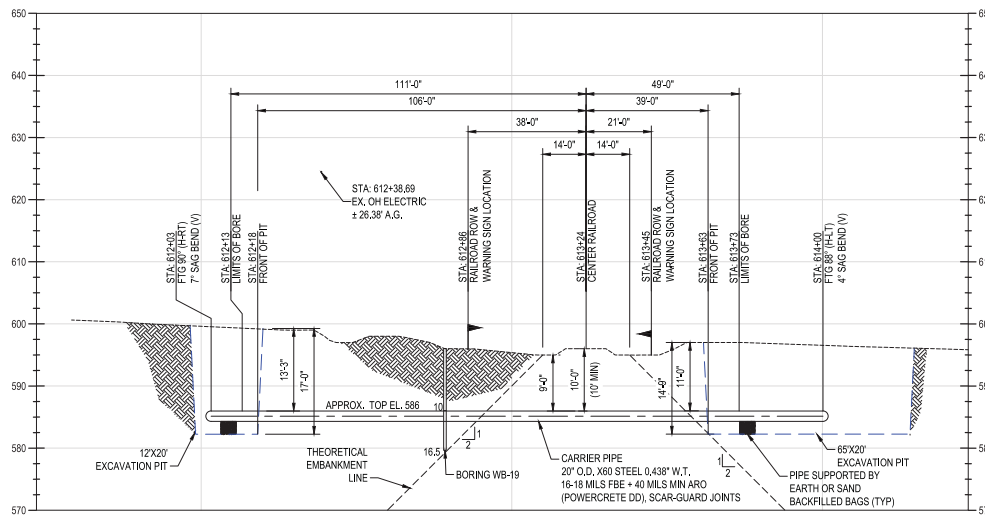
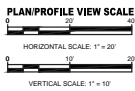
C350 PROJECT  
BORE CROSSING DETAIL 16  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009 PNG-C-350-0001234			
SHEET(S) 16 OF 19		DWG SCALE	AS NOTED
DWG DATE 09-05-2018		SUPERSEDED	—
DRAWING NUMBER <b>PNG -C-350-0001264</b>			REVISION 0
CHAMILTON COUNTY/C350			





NOTES:  
1. PER I.O.R.Y. GENERAL SPECIFICATIONS FOR SUB-GRADE AND ABOVE GRADE UTILITY CROSSINGS OF RAILROAD'S RIGHT-OF-WAY: BORE PITS WILL BE PROTECTED WITH ADEQUATE SHEETING, BULKHEADS, AND SIDEWALLS TO PROTECT THE RAILROAD'S ROADBED.



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP

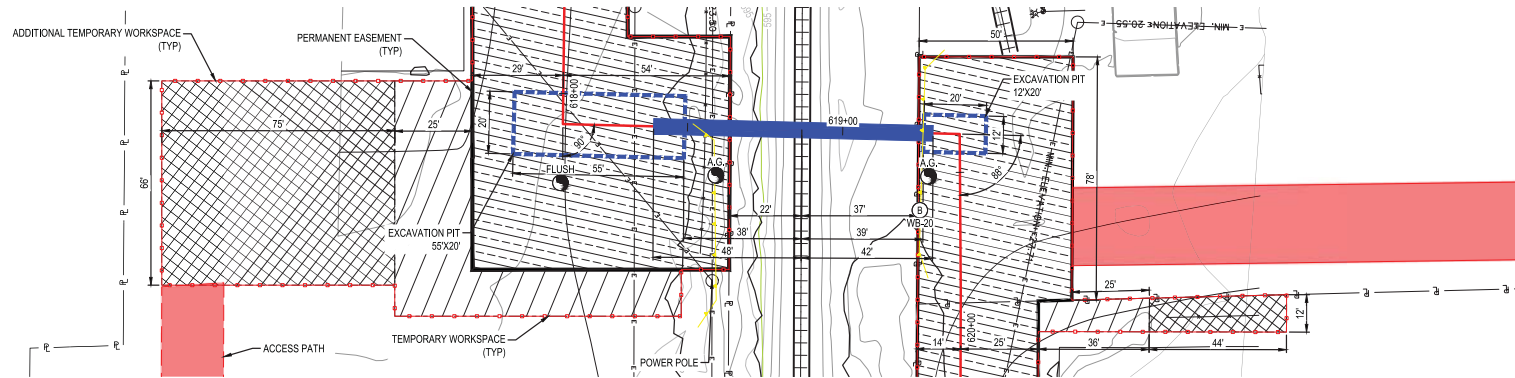
DESCRIPTION	DATE	INITIALS
AREA CODE	-	-
PROJECT NUMBER	Q3680	-
DRAWING BY	AKT	-
STATION ID	C350	-
CHECKER INITIALS	CNS	-

APPROVALS	DATE	INITIALS
REGIONAL ENGINEER	-	-
MGR. TECH. REC. & STD.	-	-
PRINCIPAL ENGINEER	11/18/2020	AMP



**C350 PROJECT**  
**BORE CROSSING DETAIL 17**  
**HAMILTON COUNTY, OHIO**  
HAMILTON COUNTY, OH

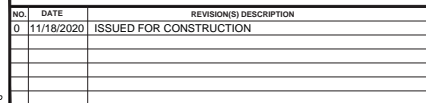
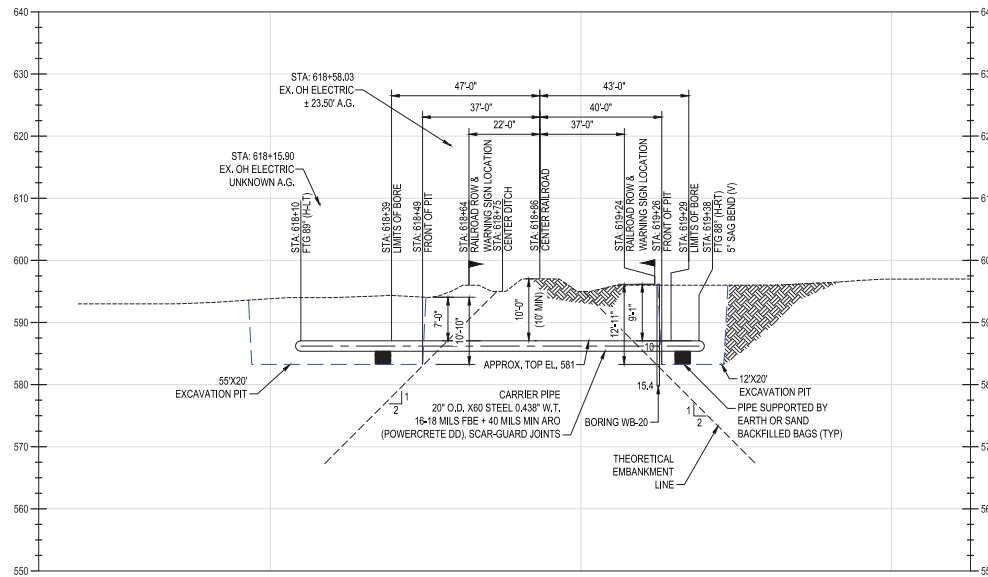
REF. DWG(S): PNG-G-350-0001009 PNG-B-350-0001014 PNG-C-350-0001235	SHEET(S) 17 OF 19	DWG SCALE AS NOTED	REVISION
DWG DATE 09-05-2018	SUPERSEDED	-	-
DRAWING NUMBER	PNG -C-350-0001265	0	0
HAMILTON COUNTY, OH			



**PLAN/PROFILE VIEW SCALE**

HORIZONTAL SCALE: 1" = 20'

VERTICAL SCALE: 1" = 10'



BY CHK APPD			DESCRIPTION	APPROVALS	
AKT	CNS	AMP	AREA CODE	DATE	INITIALS
			ACCOUNT NUMBER Q3680	-	-
			PROJECT NUMBER 1880115	DATE	INITIALS
			DRAWING BY AKT		
			STATION ID C350	DATE	INITIALS
			CHECKER INITIALS CNS	11/18/2020	AMP

	REGIONAL ENGINEER
	MGR TECH REC & STD
	PRINCIPAL ENGINEER



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C350 PROJECT  
BORE CROSSING DETAIL 18  
HAMILTON COUNTY, OHIO  
HAMILTON COUNTY, OH

REF. DWG(S):	PNG-G-350-0001009
	PNG-B-350-0001014
	PNG-C-350-0001236

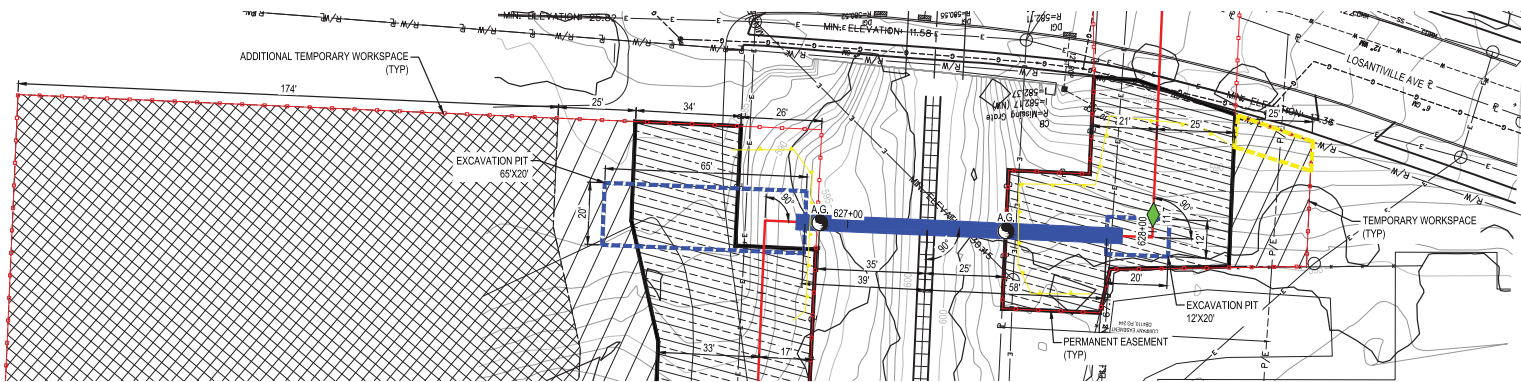
SHEET(S) 18 OF 19	DWG SCALE AS NOTED
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DWG DATE 09-05-2018	SUPERSEDED
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DRAWING NUMBER		REVISION
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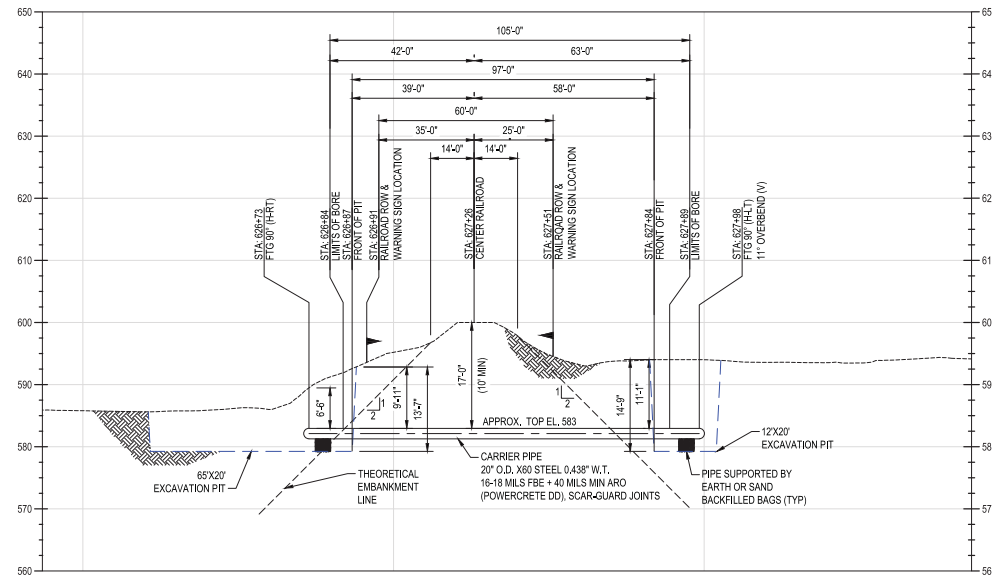
DRAWING NUMBER	REVISION
PNG -C-350-0001266	0

C/HAMILTON COUNTY/C350



NOTES:  
1. PER I.O.R.Y. GENERAL SPECIFICATIONS FOR SUB-GRADE AND ABOVE GRADE  
UTILITY CROSSINGS OF RAILROAD'S RIGHT-OF-WAY: BORE PITS WILL BE  
PROTECTED WITH ADEQUATE SHEETING, BULKHEADS, AND SIDEWALLS TO  
PROTECT THE RAILROAD'S ROADBED.

PLAN/PROFILE VIEW SCALE  
HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: 1" = 10'



NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPR	DESCRIPTION	APPROVALS
0	11/18/2020	ISSUED FOR CONSTRUCTION	AKT	CNS	AMP	AREA CODE ACCOUNT NUMBER PROJECT NUMBER DRAWING BY STATION ID CHECKER INITIALS	INITIALS DATE INITIALS DATE INITIALS DATE
						Q3680 1880115 AKT C350 CNS	REGIONAL MGR. TECH REC. & STD. ENGINEER

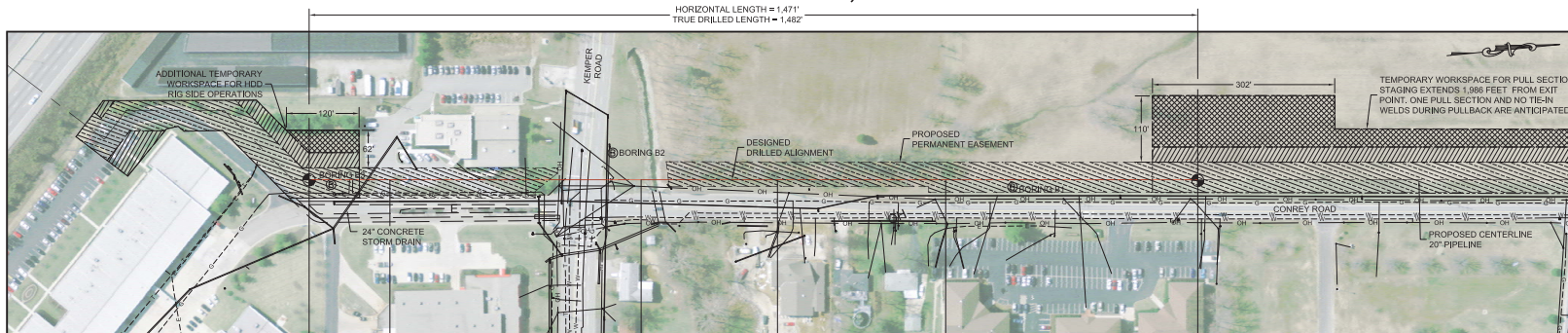


**C350 PROJECT**  
**BORE CROSSING DETAIL 19**  
**HAMILTON COUNTY, OHIO**  
HAMILTON COUNTY, OH

REF. DWG(S): PNG-G-350-0001009 PNG-C-350-0001236	SHEET(S) 19 OF 19	DWG SCALE AS NOTED
DWG DATE: 03-31-2020	SUPERSEDED	REVISION
DRAWING NUMBER <b>PNG -C-350-0001267</b>	0	
HAMILTON COUNTY/C350		

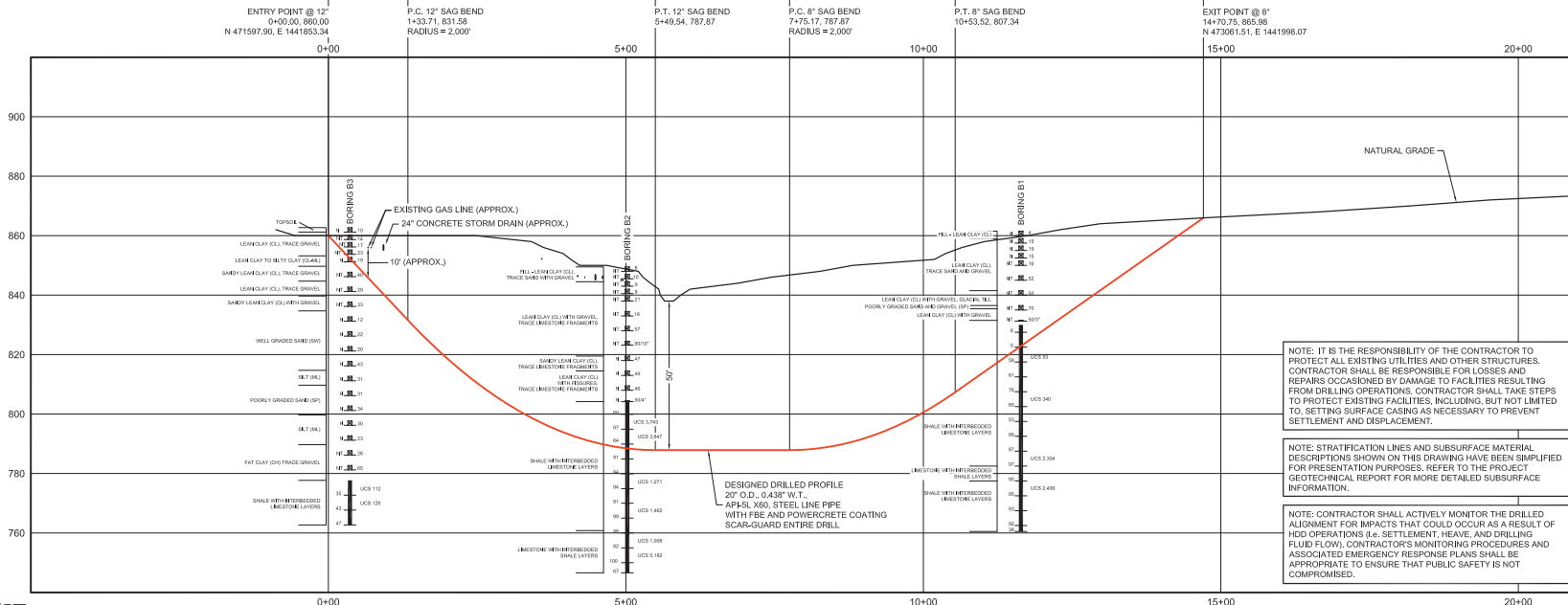
# HAMILTON COUNTY, OHIO

HORIZONTAL LENGTH = 1,471'  
TRUE DRILLED LENGTH = 1,482'



## PLAN

SCALE: 1"=100'



## PROFILE

SCALE: 1"=100' HORIZONTAL  
1"=20' VERTICAL

### GENERAL LEGEND

DRILLED PATH ENTRY/EXIT POINT

### GEOTECHNICAL LEGEND

BORING LOCATION

SPLIT SPOON SAMPLE  
PENETRATION RESISTANCE IN BLOWS PER FOOT FOR A 140 POUND HAMMER FALLING 30 INCHES  
PERCENTAGE OF GRAVEL BY WEIGHT FOR SAMPLES CONTAINING GRAVEL

### CORE BARREL SAMPLE

UNCONFINED COMPRESSIVE STRENGTH (PSI)  
MOHS HARDNESS  
ROCK QUALITY DESIGNATION (PERCENT)

### GEOTECHNICAL NOTES

- GEOTECHNICAL DATA PROVIDED BY TERRACON CONSULTANTS, INC. CINCINNATI, OHIO, REFER TO THE PROJECT GEOTECHNICAL REPORT DATED OCTOBER 2020 FOR MORE DETAILED SUBSURFACE INFORMATION.
- THE LETTER "N" TO THE LEFT OF A SPLIT SPOON SAMPLE INDICATES THAT NO GRAVEL WAS OBSERVED IN THE SAMPLE. THE LETTERS "NT" INDICATE THAT GRAVEL WAS OBSERVED BUT NO GRADATION TEST WAS PERFORMED.
- THE GEOTECHNICAL DATA IS ONLY DESCRIPTIVE OF THE LOCATIONS ACTUALLY SAMPLED. EXTENSION OF THIS DATA OUTSIDE OF THE ORIGINAL BORINGS MAY BE DONE TO CHARACTERIZE THE SOIL CONDITIONS. HOWEVER, COMPANY DOES NOT GUARANTEE THESE CHARACTERIZATIONS TO BE ACCURATE. CONTRACTOR MUST USE HIS OWN EXPERIENCE AND JUDGMENT IN INTERPRETING THIS DATA.

### TOPOGRAPHIC SURVEY NOTES

- TOPOGRAPHIC SURVEY DATA PROVIDED BY XP-RS, LLC, OVERLAND PARK, KANSAS.
- NORTHINGS AND EASTINGS ARE IN U.S. SURVEY FEET REFERENCED TO OHIO STATE PLANE COORDINATES, SOUTH ZONE, NAD 83.
- ELEVATIONS ARE IN FEET REFERENCED TO NAVD 88.

### DRILLED PATH NOTES

- DRILLED PATH STATIONING IS IN FEET BY HORIZONTAL MEASUREMENT AND IS REFERENCED TO CONTROL ESTABLISHED FOR THE DRILLED SEGMENT.
- DRILLED PATH COORDINATES REFER TO CENTERLINE OF PILOT HOLE AS OPPOSED TO TOP OF INSTALLED PIPE.

### PILOT HOLE TOLERANCES

THE PILOT HOLE SHALL BE DRILLED TO THE TOLERANCES LISTED BELOW. HOWEVER, IN ALL CASES, RIGHT-OF-WAY RESTRICTIONS AND CONCERN FOR ADJACENT FACILITIES SHALL TAKE PRECEDENCE OVER THESE TOLERANCES.

- ENTRY POINT: AT THE STAKED LOCATION
- ENTRY ANGLE: INCREASE ANGLE UP TO 1-DEGREE (STEEPER), BUT NO DECREASE IN ANGLE ALLOWED
- EXIT POINT: UP TO 5 FEET SHORT OR 10 FEET LONG RELATIVE TO THE DESIGNED EXIT POINT; UP TO 3 FEET RIGHT OR LEFT OF THE DESIGNED ALIGNMENT
- EXIT ANGLE: NO INCREASE IN EXIT ANGLE. DECREASE UP TO 2-DEGREES (FLATTER)
- ELEVATION: UP TO 2 FEET ABOVE AND 10 FEET BELOW THE DESIGNED PROFILE
- ALIGNMENT: UP TO 5 FEET RIGHT, 0 FEET LEFT OF THE DESIGNED ALIGNMENT FROM STA. 0+00 TO 5+00. UP TO 5 FEET RIGHT OR LEFT BEYOND STA. 5+00
- CURVE RADIUS: NO LESS THAN 1,200 FEET BASED ON A 3-JOINT AVERAGE

### PROTECTION OF EXISTING FACILITIES

CONTRACTOR SHALL UNDERTAKE THE FOLLOWING STEPS PRIOR TO COMMENCING DRILLING OPERATIONS:

- CONTACT THE UTILITY LOCATION/NOTIFICATION SERVICE FOR THE CONSTRUCTION AREA.
- POSITIVELY LOCATE AND STAKE ALL EXISTING UNDERGROUND FACILITIES. ANY FACILITIES LOCATED WITHIN 10 FEET OF THE DESIGNED DRILLED PATH SHALL BE EXPOSED.
- MODIFY DRILLING PRACTICES AND DOWNHOLE ASSEMBLIES AS NECESSARY TO PREVENT DAMAGE TO EXISTING FACILITIES.

NOTE: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES AND OTHER STRUCTURES. CONTRACTOR SHALL BE RESPONSIBLE FOR LOSSES AND REPAIRS OCCASIONED BY DAMAGE TO FACILITIES RESULTING FROM DRILLING OPERATIONS. CONTRACTOR SHALL TAKE STEPS TO PROTECT EXISTING FACILITIES, INCLUDING, BUT NOT LIMITED TO, SETTING SURFACE CASING AS NECESSARY TO PREVENT SETTLEMENT AND DISPLACEMENT.

NOTE: STRATIFICATION LINES AND SUBSURFACE MATERIAL DESCRIPTIONS SHOWN ON THIS DRAWING HAVE BEEN SIMPLIFIED FOR PRESENTATION PURPOSES. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR MORE DETAILED SUBSURFACE INFORMATION.

NOTE: CONTRACTOR SHALL ACTIVELY MONITOR THE DRILLED ALIGNMENT FOR IMPACTS THAT COULD OCCUR AS A RESULT OF HDD OPERATIONS (i.e., SETTLEMENT, HEAVE, AND DRILLING FLUID FLOW). CONTRACTOR'S MONITORING PROCEDURES AND ASSOCIATED EMERGENCY RESPONSE PLANS SHALL BE APPROPRIATE TO ENSURE THAT PUBLIC SAFETY IS NOT COMPROMISED.

<b>MATERIAL CLASS/INCH</b> J.D. HAIR & ASSOCIATES, INC. STATE LICENSE # CCA 05060 11/18/20		<b>NO.</b> 0		<b>DATE</b> 11/18/20		<b>REVISION(S) DESCRIPTION</b> ISSUED FOR CONSTRUCTION		<b>BY</b> JMS		<b>CHK</b> CNS		<b>APPRO</b> JMS		<b>DESCRIPTION</b> AREA CODE Q3680 PROJECT NUMBER 1880115 DRAWING BY JMS STATION ID C350 CHECKER INITIALS CNS		<b>APPROVALS</b> DATE 09/28/2020 INITIALS JMS REGIONAL ENGINEER MGR. TECH REC & STD PRINCIPAL ENGINEER		<b>DUKE ENERGY</b> <b>Piedmont Natural Gas</b>		<b>COPYRIGHT 2019</b>		<b>C350 PROJECT</b> <b>KEMPER RD HDD ALIGNMENT SHEET</b> <b>HAMILTON COUNTY, OHIO</b> HAMILTON COUNTY, OHIO		<b>REF, DWG(S)</b> PNG-C-350-0001182 PNG-B-350-0001008 PNG-C-350-0001183 PNG-B-350-0001009		<b>SHEET(S) 1 OF 4</b> <b>DWG SCALE AS NOTED</b> DWG DATE 09/05/18 SUPERSEDED <b>PNG-C-350-0001272</b> CHAMLTON COUNTY/C350		<b>REVISION</b> 0	
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**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**12/4/2020 1:31:13 PM**

**in**

**Case No(s). 16-0253-GA-BTX**

Summary: Exhibit CCP Drawings for Preconstruction Conference Set 2 part 1 electronically filed by Mrs. Debbie L Gates on behalf of Duke Energy Ohio Inc. and Kingery, Jeanne W and Vaysman, Larisa