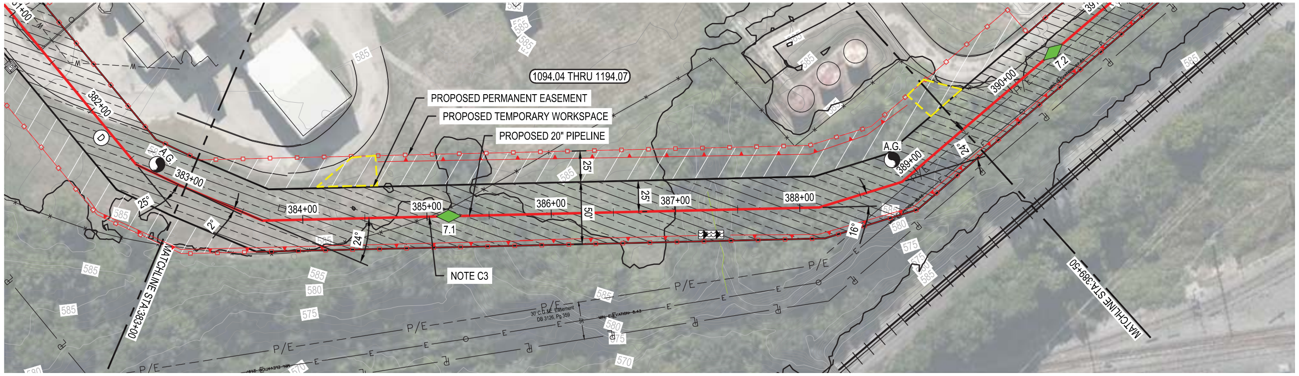
OWNERSHIP JURISDICTION	(1094.04 THRU 1194.07) EVENDALE
ACREAGE	2.7728 ACRES
EASEMENTS	VARIES
REF. DWG. NO.	PNG-C-350-0001312

STATIONING

STA: 383+68 24° BEND (H-LT)
STA: 385+41 1° SAG BEND (V)
STA: 386+66 14° OVERBEND (V)
STA: 387+06 13° SAG BEND (V)
STA: 387+47 7° SAG BEND (V)
STA: 388+16 BEND 16° (H-LT) 7° OVERBEND (V)
STA: 388+85 24° BEND (H-LT)

PLAN



HORIZONTAL SCALE: 1" = 50'
0
50'
100'
(1094.04 THRU 1194.07)
PROPOSED PERMANENT EASEMENT
PROPOSED TEMPORARY WORKSPACE
PROPOSED 20" PIPELINE
382+00
383+00
384+00
385+00
386+00
387+00
388+00
389+00
390+00
A.G.
A.G.
25'
50'
25'
24°
24°
16°
7.1
7.2
NOTE C3
MATCHLINE STA:383+00
MATCHLINE STA:389+50
P/E
E
585
580
575
570

RESTORE

TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	E
SURFACE TYPE:	FOR RESTORATION TYPE DETAIL	SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

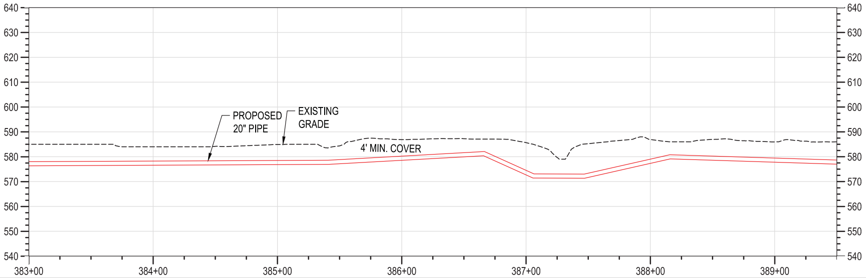
STA. WELD # (CONT.) JOINT LENGTH JOINT# HEAT#

CONSTRUCTION NOTE:
C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. CONTRACTOR SHALL TEMPORARILY REMOVE FENCE DURING CONSTRUCTION AND REINSTALL AS DIRECTED BY COMPANY.

PROFILE



MATERIAL	
CONST. METHOD	650' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01557

STATE OF OHIO AMANDA PALM E-84075 REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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	11/18/2020	AMP

DUKE ENERGY. Piedmont Natural Gas
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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH
HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	36 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—
DRAWING NUMBER	PNG -C-350-0001214	REVISION	0

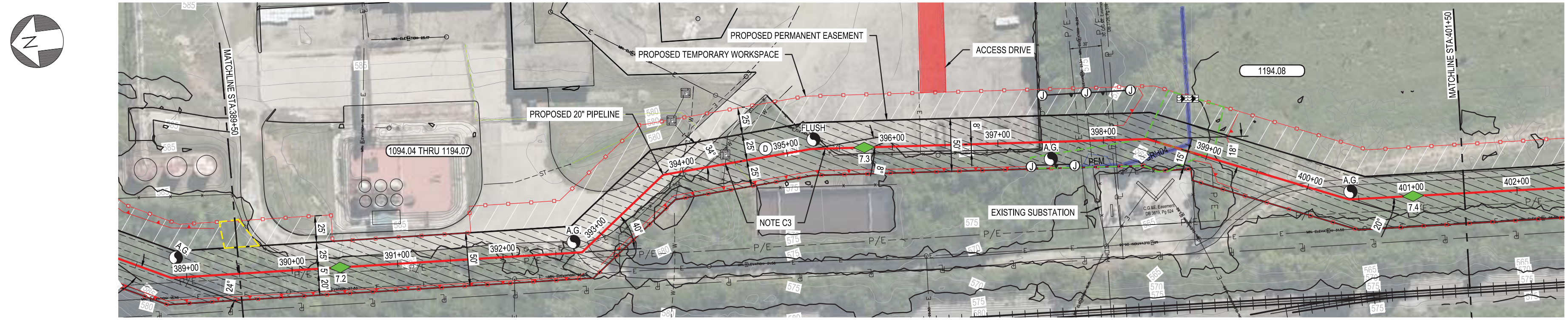
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY				
OWNERSHIP / JURISDICTION	1094.04 THRU 1194.07 EVENDALE	CG&E	1194.08 EVENDALE
ACREAGE	2.7728 ACRES	-	1.3367 ACRES
EASEMENTS	VARIES	30' EASEMENT	VARIES
REF. DWG. NO.	PNG-C-350-0001283 PNG-C-350-0001312		PNG-C-350-0001303

STATIONING

STA: 390+02 1° SAG BEND (V)
STA: 391+29 1° OVERBEND (V)
STA: 392+75 40° FTG (H-LT)
STA: 393+81 FTG 34° (H-RT) 2° OVERBEND (V)
STA: 394+55 3° SAG BEND (V)
STA: 395+23 BEND 8° (H-RT) 1° OVERBEND (V)
STA: 397+22 9° OVERBEND (V)
STA: 397+73 5° SAG BEND (V)
STA: 398+41 BEND 18° (H-RT) 4° SAG BEND (V)
STA: 400+41 20° BEND (H-LT)

PLAN


HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
N
MATCHLINE STA:389+50
MATCHLINE STA:401+50
PROPOSED PERMANENT EASEMENT
PROPOSED TEMPORARY WORKSPACE
ACCESS DRIVE
PROPOSED 20" PIPELINE
1094.04 THRU 1194.07
1194.08
EXISTING SUBSTATION
NOTE C3
FLUSH
PEM
A.G.
389+00
390+00
391+00
392+00
393+00
394+00
395+00
396+00
397+00
398+00
399+00
400+00
401+00
402+00
7.2
7.3
7.4
25'
5'
20'
24'
50'
40'
34°
8°
15'
18'
20°
P/E
E
ST
585
580
575
570
565

RESTORE						
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	E	D	E	D	E
SURFACE TYPE:	FOR RESTORATION TYPE DETAIL	SEED - ROUGH	1	SEED - ROUGH	1	SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

STA. WELD # (CONV.) JOINT LENGTH JOINT# HEAT# (CONV.) WELD # STA.

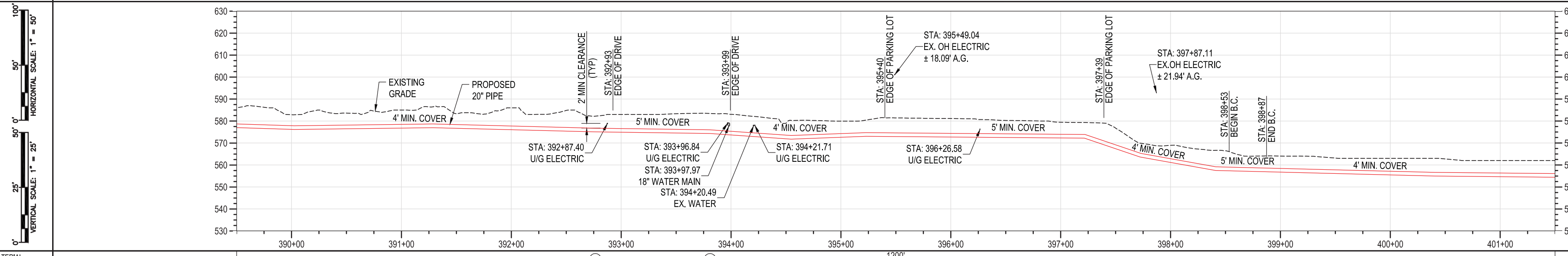
CONSTRUCTION NOTES:

C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. CONTRACTOR SHALL TEMPORARILY REMOVE FENCE DURING CONSTRUCTION AND REINSTALL AS DIRECTED BY COMPANY.

PROFILE



MATERIAL	(11) (11)
CONST. METHOD	1200' (1) OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 37 OF 64 DWG SCALE AS NOTED
DWG DATE 01/13/2020 SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001215 REVISION 0
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY			
OWNERSHIP	1194.08	1209.00	1210.00
JURISDICTION	EVENDALE	EVENDALE	READING
ACREAGE	1.3367 ACRES	1.0963 ACRES	
EASEMENTS	VARIES	50' EASEMENT	
REF. DWG. NO.	PNG-C-350-0001312	PNG-B-350-0001010	PNG-C-350-0001274

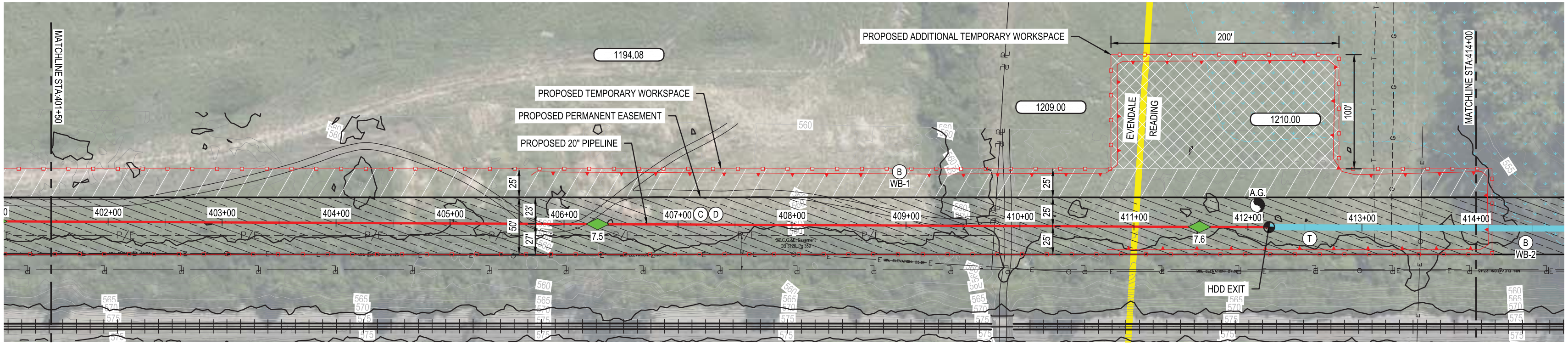
STATIONING

STA: 406+92 1° SAG BEND (V)

STA: 409+93 1° OVERBEND (V)

STA: 412+48 FTG
9° OVERBEND (V)

PLAN


N
HORIZONTAL SCALE: 1" = 50'
0
50'
100'
MATCHLINE STA:401+50
MATCHLINE STA:414+00
1194.08
1209.00
1210.00
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
200'
100'
EVENDALE
READING
402+00
403+00
404+00
405+00
406+00
407+00
408+00
409+00
410+00
411+00
412+00
413+00
414+00
25'
23'
27'
50'
7.5
7.6
C
D
B
WB-1
WB-2
T
A.G.
HDD EXIT
560
565
570
575

RESTORE			
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	E	N/A
SURFACE TYPE:		SEED - ROUGH	N/A

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (COV.) | JOINT LENGTH | JOINT# | HEAT#

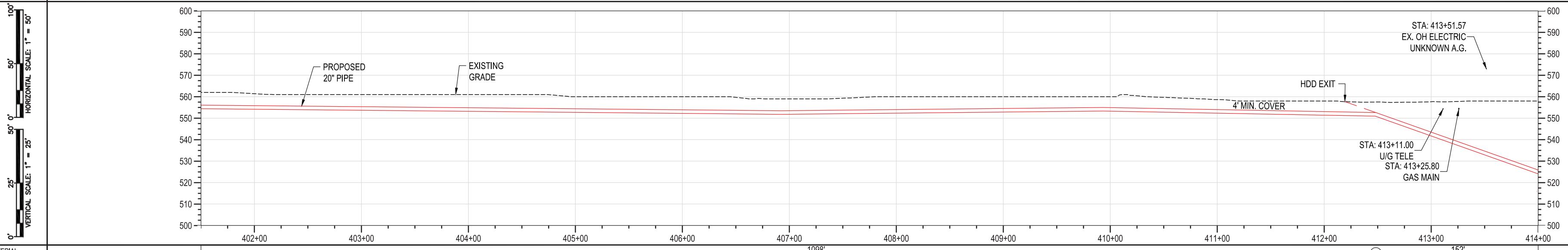
CONSTRUCTION NOTE:

C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. CONTRACTOR SHALL HAND CLEAR MINIMUM 16' CENTERED OVER PIPELINE IN HDD, UNLESS INSTRUCTED OTHERWISE BY DUKE ENVIRONMENTAL INSPECTOR.

PROFILE


HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'
600
590
580
570
560
550
540
530
520
510
500
PROPOSED 20" PIPE
EXISTING GRADE
HDD EXIT
4' MIN. COVER
STA: 413+51.57
EX. OH ELECTRIC
UNKNOWN A.G.
STA: 413+11.00
U/G TELE
STA: 413+25.80
GAS MAIN
402+00
403+00
404+00
405+00
406+00
407+00
408+00
409+00
410+00
411+00
412+00
413+00
414+00

MATERIAL	1098' ①	⑪	152' ②
CONST. METHOD	OPEN TRENCH		HDD
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG		

BURNS & MCDONNELL ENGINEERING COMPANY, INC.
STATE LICENSE # COA. 01557

AMANDA PALM
E-84075
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. | Piedmont Natural Gas
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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

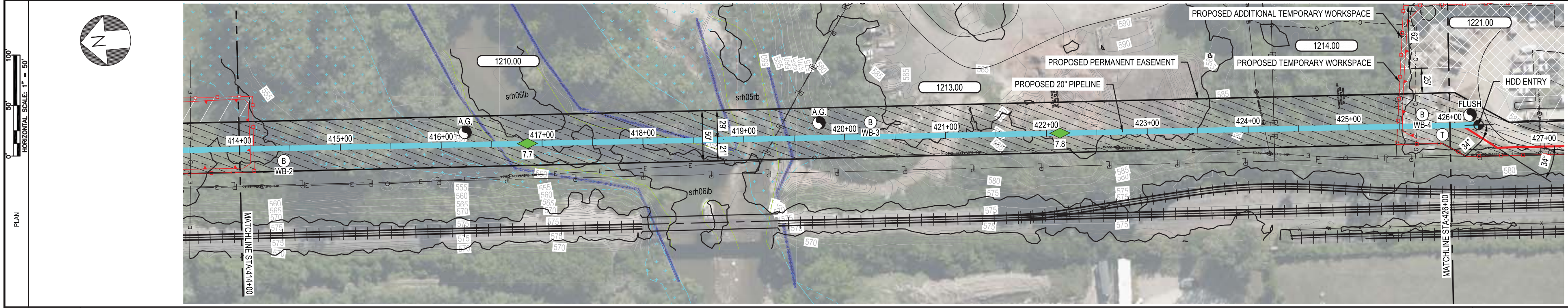
REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 38 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001216	REVISION 0
C/HAMILTON COUNTY/C350	

RIGHT-OF-WAY				
OWNERSHIP / JURISDICTION	1210.00 READING	1213.00 READING	1214.00 READING	1221.00 READING
ACREAGE	1.0963 ACRES	0.5708 ACRES	0.1362 ACRES	0.9506 ACRES
EASEMENTS	50' EASEMENT	50' EASEMENT	50' EASEMENT	VARIES

REF. DWG. NO. PNG-B-350-0001011 PNG-C-350-0001274 PNG-B-350-0001010 PNG-C-350-0001312 PNG-B-350-0001012

STATIONING


PLAN
HORIZONTAL SCALE: 1" = 50'
0' 50' 100'
N
MATCHLINE STA:414+00
MATCHLINE STA:426+00
414+00
415+00
416+00
417+00
418+00
419+00
420+00
421+00
422+00
423+00
424+00
425+00
426+00
427+00
B
WB-2
A.G.
7.7
1210.00
srh06lb
srh05rb
srh06lb
50'
29'
21'
A.G.
B
WB-3
1213.00
7.8
PROPOSED 20" PIPELINE
PROPOSED PERMANENT EASEMENT
1214.00
PROPOSED TEMPORARY WORKSPACE
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
1221.00
62'
25'
B
WB-4
T
FLUSH
HDD ENTRY
34'
34'
555
560
565
570
575
580
585
590

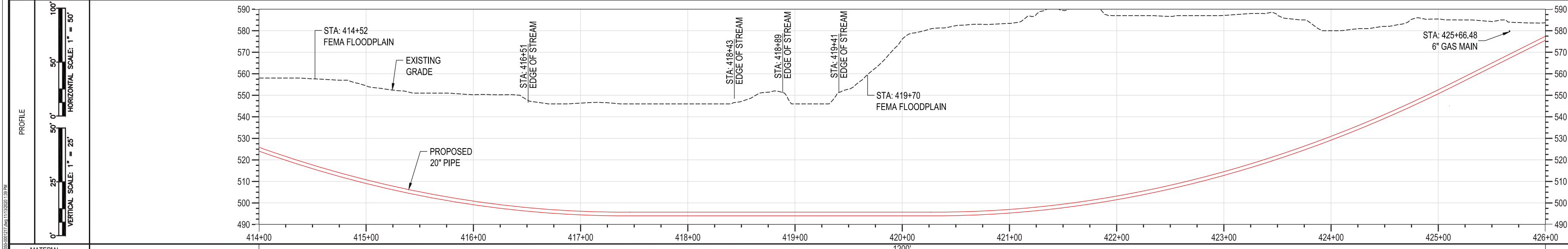
RESTORE			
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	N/A	D
SURFACE TYPE:		N/A	1

CONSTRUCTION NOTE:

C1. CONTRACTOR SHALL HAND CLEAR MINIMUM 16' CENTERED OVER PIPELINE IN HDD, UNLESS INSTRUCTED OTHERWISE BY DUKE ENVIRONMENTAL INSPECTOR. CLEARING IS NOT REQUIRED WITHIN 50' OF STREAM EDGE.

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT # HEAT #


PROFILE
HORIZONTAL SCALE: 1" = 50'
0' 50' 100'
VERTICAL SCALE: 1" = 25'
0' 25' 50'
590
580
570
560
550
540
530
520
510
500
490
414+00
415+00
416+00
417+00
418+00
419+00
420+00
421+00
422+00
423+00
424+00
425+00
426+00
STA: 414+52
FEMA FLOODPLAIN
EXISTING
GRADE
STA: 416+51
EDGE OF STREAM
STA: 418+43
EDGE OF STREAM
STA: 418+89
EDGE OF STREAM
STA: 419+41
EDGE OF STREAM
STA: 419+70
FEMA FLOODPLAIN
STA: 425+66.48
6" GAS MAIN
PROPOSED
20" PIPE

MATERIAL	1200' ②
CONST. METHOD	HDD
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL ENGINEERING COMPANY, INC.
STATE LICENSE # COA. 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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REF. DWG(S) SEE REFERENCE BAND

C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S)	39 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—

DRAWING NUMBER: PNG -C-350-0001217
REVISION: 0

C/HAMILTON COUNTY/C350

RIGHT-OF-WAY		
OWNERSHIP JURISDICTION	1221.00 READING	1221.01 READING
ACREAGE	0.9506 ACRES	
EASEMENTS	VARIES	
REF. DWG. NO.		

STATIONING

STA: 426+12 FTG 34° (H-RT) 16° OVERBEND (V)

STA: 426+53 34° FTG (H-LT)

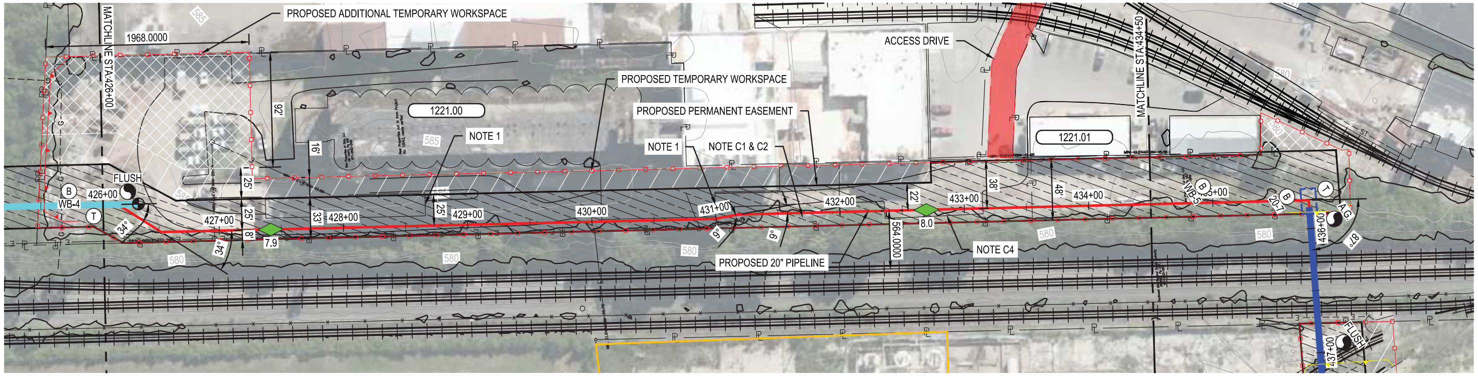
STA: 427+00 2° SAG BEND (V)

STA: 430+99 9° BEND (H-LT)

STA: 431+18 FTG 9° BEND (H-RT)

PLAN

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'



N
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
1968.0000
MATCHLINE STA:426+00
92'
1221.00
585
NOTE 1
16'
FLUSH
B
WB-4
T
426+00
34°
25'
25'
427+00
8'
7.9
34°
33'
428+00
25'
429+00
430+00
580
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
NOTE 1
NOTE C1 & C2
431+00
9°
9°
432+00
PROPOSED 20" PIPELINE
ACCESS DRIVE
22'
8.0
564.0000
433+00
38'
NOTE C4
1221.01
MATCHLINE STA:434+50
48'
434+00
B
WB-5
20.7
B
T
A.G.
436+00
87°
FLUSH
437+00

RESTORE		
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	D
SURFACE TYPE:	FOR RESTORATION TYPE DETAIL	1

PIPE DATA (SLOPE STATIONING)

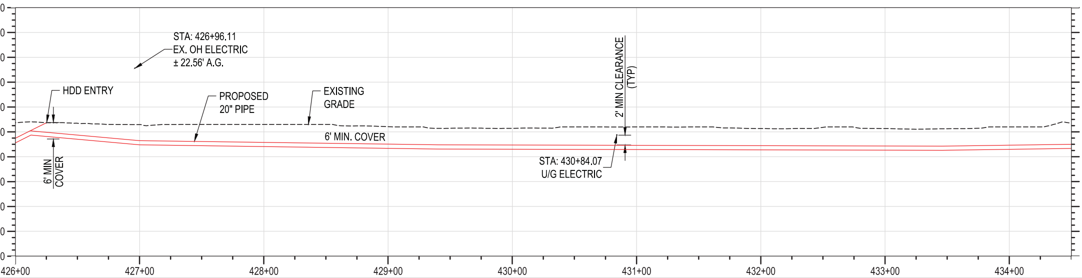
STA. | WELD # | (COV.) | JOINT LENGTH | JOINT # | HEAT #

STA. | WELD # | (COV.)

PROFILE

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'

VERTICAL SCALE: 1" = 25'
0' 25' 50'



NOTES:
1. AWNING TO BE REMOVED PRIOR TO CONSTRUCTION.

CONSTRUCTION NOTES:

C1. PIPELINE SHALL MAINTAIN A MINIMUM 25-FOOT CLEARANCE FROM CENTER OF RAILROAD TRACKS PER AREMA GUIDELINES. PIPELINE COVER SHALL BE 6-FEET WHEN LOCATED WITHIN 50-FEET OF RAILROAD CENTERLINE.

C2. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.

C3. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C4. PIPELINE MAY BE LOCATED FURTHER EAST IN CENTER OF ACCESS DRIVE PER LANDOWNER REQUEST. FINAL LOCATION SHALL BE AS SHOWN IN DRAWINGS OR AS OTHERWISE DIRECTED BY DUKE ENERGY IN WRITING.

MATERIAL: 12' (2) (11) (11) 838' (1) (11)

CONST. METHOD: HDD — OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. | Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	40 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—
DRAWING NUMBER	PNG -C-350-0001218	REVISION	0

C/HAMILTON COUNTY/C350

RIGHT-OF-WAY				
OWNERSHIP JURISDICTION	1221.01 READING	S.O.R.T.A. ROW READING	1221.06 READING	
ACREAGE	0.9506 ACRES		1.2918 ACRES	
EASEMENTS	VARIES		VARIES	
REF. DWG. NO.	PNG-B-350-0001012 PNG-B-350-0001010	PNG-C-350-0001259	PNG-C-350-0001169	

STATIONING

STA: 435+09 9° OVERBEND (V)

STA: 435+77 FTG
87° (H-RT) 9° SAG BEND (V)

STA: 437+73 4° SAG BEND (V)

STA: 438+34 FTG
25° (H-LT) 6° OVERBEND (V)

STA: 438+85 BEND
16° (H-LT) 2° OVERBEND (V)

STA: 439+62 5° BEND (H-LT)

STA: 440+16 5° SAG BEND (V)

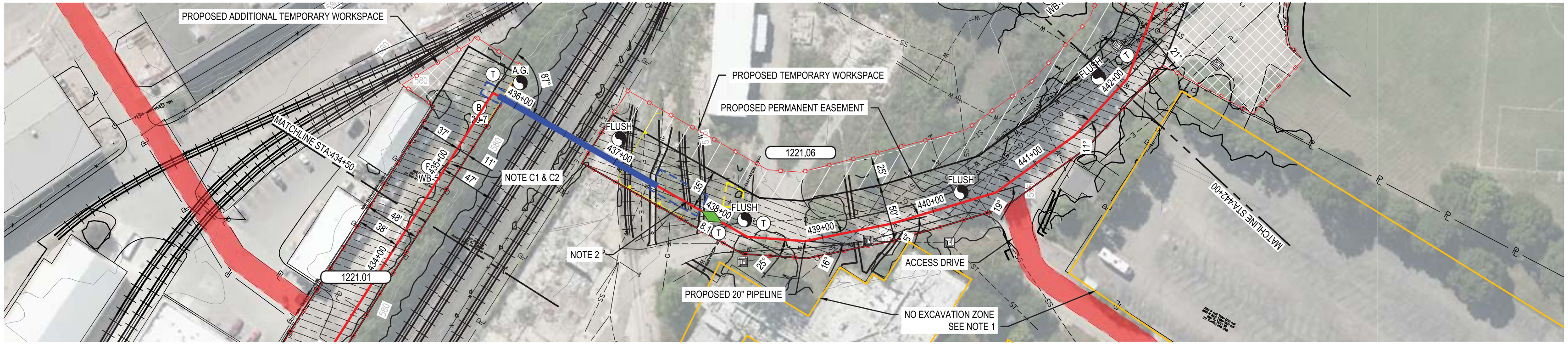
STA: 440+57 BEND
19° (H-LT) 9° SAG BEND (V)

STA: 440+88 10° OVERBEND (V)

STA: 441+43 11° BEND (H-LT)

PLAN

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'


PROPOSED ADDITIONAL TEMPORARY WORKSPACE
MATCHLINE STA:434+50
1221.01
434+00
435+00
436+00
437+00
438+00
439+00
440+00
441+00
442+00
A.G.
T
B
87°
37'
11'
47'
48'
38'
WB
NOTE C1 & C2
NOTE 2
FLUSH
35'
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
1221.06
25'
50'
16°
19°
11°
21°
ACCESS DRIVE
PROPOSED 20" PIPELINE
NO EXCAVATION ZONE
SEE NOTE 1
MATCHLINE STA:442+00

RESTORE				
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	D	N/A	D
SURFACE TYPE:		1	N/A	1

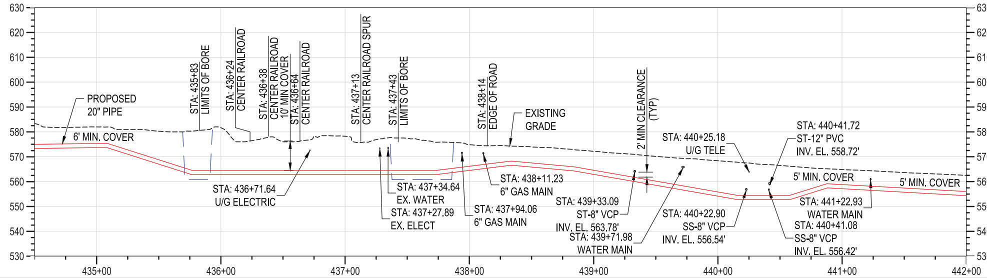
PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT# HEAT# (COV.) WELD # STA.

PROFILE

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'

VERTICAL SCALE: 1" = 25'
0' 25' 50'



NOTES:
1. EXCAVATION PROHIBITED WITHIN AREAS INDICATED. AREA LOCATIONS APPROXIMATE. SEE INSTITUTIONAL CONTROLS-FORMER ROHM AND HAAS CHEMICALS LLC SITE READING, OHIO 00.421.13.84.
2. RAIL SPURS SHALL BE REMOVED WITHIN WORKSPACE AS INDICATED ON PLAN.

CONSTRUCTION NOTES:
C1. PIPELINE SHALL MAINTAIN A MINIMUM 25-FOOT CLEARANCE FROM CENTER OF RAILROAD TRACKS PER AREMA GUIDELINES. PIPELINE COVER SHALL BE 6-FEET WHEN LOCATED WITHIN 50-FEET OF RAILROAD CENTERLINE.
C2. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.
C3. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

MATERIAL	133' ①	⑩	160' ②	⑪	457' ①
CONST. METHOD	OPEN TRENCH		BORE		OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG				

BURNS & MCDONNELL
ENGINEERING COMPANY, INC.
STATE LICENSE # COA. 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY.
Piedmont Natural Gas
COPYRIGHT 2019

C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	41 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—
DRAWING NUMBER	PNG -C-350-0001219	REVISION	0

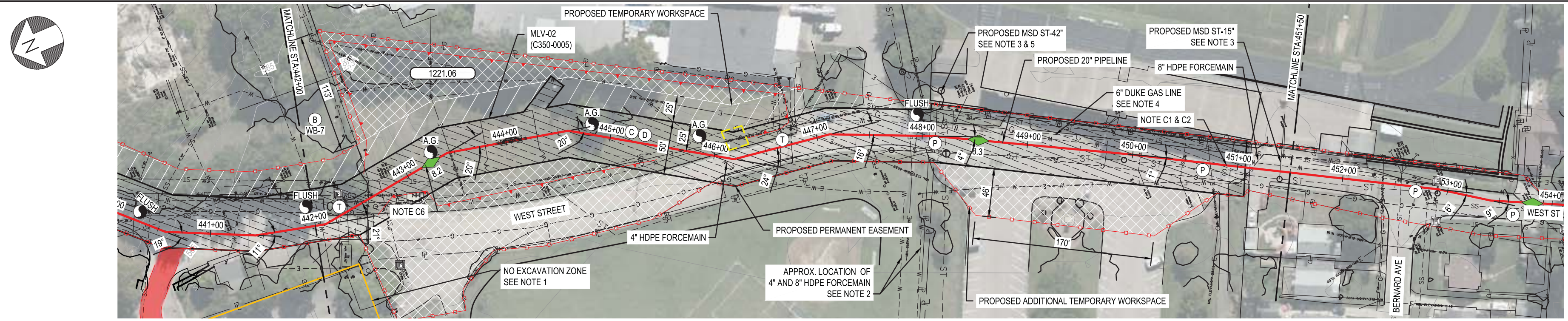
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY				
OWNERSHIP JURISDICTION	1221.06 READING	1228.03 READING	ROW READING
ACREAGE	1.2918 ACRES	0.3694 ACRES	
EASEMENTS	50' EASEMENT	VARIES	

REF. DWG. NO.: PNG-C-350-0001169 PNG-B-350-0001012 PNG-C-350-0001340 PNG-D-350-0001002 PNG-M-350-0001010 PNG-C-350-0001312 PNG-C-350-0001293

STATIONING
- STA: 442+10 BEND 21° (H-LT) 1° SAG BEND (V)
- STA: 443+02 6° SAG BEND (V)
- STA: 443+43 BEND 20° (H-RT) 5° OVERBEND (V)
- STA: 444+60 BEND 20° (H-RT) 3° OVERBEND (V)
- STA: 445+49 4° SAG BEND (V)
- STA: 446+19 24° BEND (H-LT)
- STA: 447+12 BEND 16° (H-RT) 1° OVERBEND (V)
- STA: 448+12 4° BEND (H-RT)
- STA: 449+92 BEND 1° (H-RT) 3° OVERBEND (V)
- STA: 451+06 3° SAG BEND (V)

PLAN


HORIZONTAL SCALE: 1" = 50'
0
50'
100'
N
MATCHLINE STA:442+00
MATCHLINE STA:451+50
PROPOSED TEMPORARY WORKSPACE
MLV-02
(C350-0005)
1221.06
PROPOSED MSD ST-42"
SEE NOTE 3 & 5
PROPOSED 20" PIPELINE
PROPOSED MSD ST-15"
SEE NOTE 3
8" HDPE FORCEMAIN
6" DUKE GAS LINE
SEE NOTE 4
NOTE C1 & C2
B
WB-7
113'
FLUSH
A.G.
441+00
442+00
443+00
444+00
445+00
446+00
447+00
448+00
449+00
450+00
451+00
452+00
453+00
454+00
NOTE C6
WEST STREET
WEST ST
BERNARD AVE
4" HDPE FORCEMAIN
NO EXCAVATION ZONE
SEE NOTE 1
PROPOSED PERMANENT EASEMENT
APPROX. LOCATION OF
4" AND 8" HDPE FORCEMAIN
SEE NOTE 2
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
19°
11°
21°
20°
8.2
25'
50'
24°
16°
4°
8.3
46'
170'
1°
9°
3°
T
P
C
D

RESTORE			
TRENCH TYPE: SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	D	E	F
SURFACE TYPE: FOR RESTORATION TYPE DETAIL	1	SEED - FINE	C

PIPE DATA (SLOPE STATIONING)
STA. WELD # (CW.) JOINT LENGTH JOINT# HEAT#

CONSTRUCTION NOTES:
C1. SEWER LATERALS NOT SHOWN ON PLANS. PIPELINE ELEVATIONS MAY NEED TO BE ADJUSTED TO MAINTAIN A MINIMUM 1-FOOT (2-FOOT PREFERRED) CLEARANCE.

C2. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.

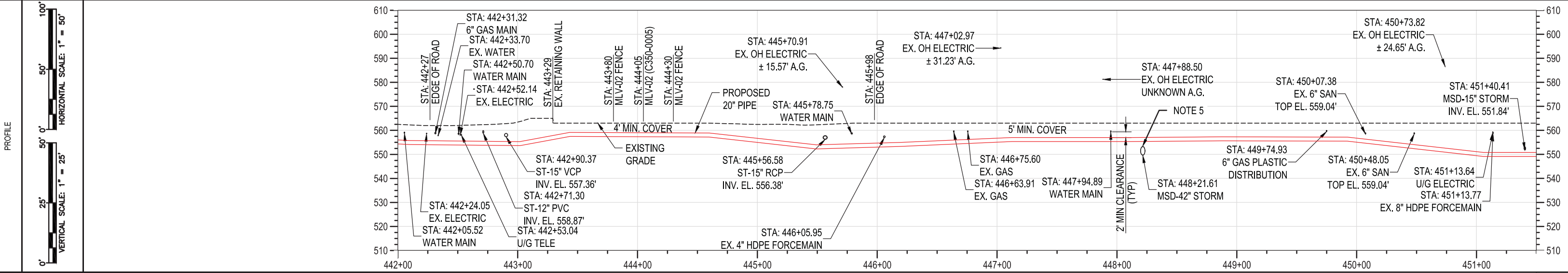
C3. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C4. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C5. MLV IS PREFABRICATED FROM VENDOR. FOR DETAILS SEE DRAWING PNG-D-350-0001002 & PNG-M-350-0001010.

C6. CONTRACTOR SHALL REPAIR RETAINING WALL TO INITIAL CONDITIONS OR BETTER.

PROFILE


HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'
610
600
590
580
570
560
550
540
530
520
510
STA: 442+27
EDGE OF ROAD
STA: 442+31.32
6" GAS MAIN
STA: 442+33.70
EX. WATER
STA: 442+50.70
WATER MAIN
STA: 442+52.14
EX. ELECTRIC
STA: 443+29
EX. RETAINING WALL
STA: 443+80
MLV-02 FENCE
STA: 444+05
MLV-02 (C350-0005)
STA: 444+30
MLV-02 FENCE
STA: 445+70.91
EX. OH ELECTRIC
± 15.57' A.G.
PROPOSED
20" PIPE
STA: 445+78.75
WATER MAIN
STA: 445+98
EDGE OF ROAD
STA: 447+02.97
EX. OH ELECTRIC
± 31.23' A.G.
STA: 447+88.50
EX. OH ELECTRIC
UNKNOWN A.G.
NOTE 5
STA: 450+07.38
EX. 6" SAN
TOP EL. 559.04'
STA: 450+73.82
EX. OH ELECTRIC
± 24.65' A.G.
STA: 451+40.41
MSD-15" STORM
INV. EL. 551.84'
4' MIN. COVER
5' MIN. COVER
EXISTING
GRADE
STA: 442+24.05
EX. ELECTRIC
STA: 442+05.52
WATER MAIN
STA: 442+90.37
ST-15" VCP
INV. EL. 557.36'
STA: 442+71.30
ST-12" PVC
INV. EL. 558.87'
STA: 442+53.04
U/G TELE
STA: 445+56.58
ST-15" RCP
INV. EL. 556.38'
STA: 446+05.95
EX. 4" HDPE FORCEMAIN
STA: 446+75.60
EX. GAS
STA: 446+63.91
EX. GAS
STA: 447+94.89
WATER MAIN
2' MIN CLEARANCE
(TYP)
STA: 448+21.61
MSD-42" STORM
STA: 449+74.93
6" GAS PLASTIC
DISTRIBUTION
STA: 450+48.05
EX. 6" SAN
TOP EL. 559.04'
STA: 451+13.64
U/G ELECTRIC
STA: 451+13.77
EX. 8" HDPE FORCEMAIN
442+00
443+00
444+00
445+00
446+00
447+00
448+00
449+00
450+00
451+00

NOTES:
1. EXCAVATION PROHIBITED WITHIN AREAS INDICATED. AREA LOCATIONS APPROXIMATE. SEE INSTITUTIONAL CONTROLS-FORMER ROHM AND HAAS CHEMICALS LLC SITE READING, OHIO 00.421.13.84.

2. PRISTINE PIPING IS APPROXIMATE BASED ON FIGURE 5.1 OFF-SITE FORCEMAIN AND EXTRACTION WELL LOCATION DOCUMENT.

3. PROPOSED MSD STORM LOCATION IS APPROXIMATE BASED ON PLAN SET TITLED "PROPOSED PROJECT NO. 10142200 C50 513 PARTIAL SEWER SEPARATION" 90% DESIGN SUBMITTAL DATED MARCH 5, 2019.

4. PROPOSED DUKE ENERGY 6" PLASTIC DISTRIBUTION LOCATION APPROXIMATE BASED ON PLAN DOCUMENT "1700 WEST ST STREET IMPROVEMENT, DOC NO. 036151554". DRAWING DATED 4/15/2020.

5. USE FLOWABLE FILL AROUND PIPE ABOVE PROPOSED MSD-42" STORM, SEE BACKFILL DETAIL F ON DWG PNG-C-350-0001293.

MATERIAL	
CONST. METHOD	950' 1 OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL
E ... INC.
S ... 57

STATE OF OHIO
AMANDA
PALM
E-84075
REGISTERED
PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION		DATE	INITIALS	APPROVALS
AREA CODE	-	-	-	REGIONAL ENGINEER
ACCOUNT NUMBER	Q3680			
PROJECT NUMBER	1880115	-	-	MGR TECH REC & STD
DRAWING BY	AKT			
STATION ID	C350	11/18/2020	AMP	PRINCIPAL ENGINEER
CHECKER INITIALS	CNS			

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 42 OF 64	DWG SCALE AS NOTED		
DWG DATE 01/13/2020	SUPERSEDED —		
DRAWING NUMBER PNG -C-350-0001220		REVISION 0	

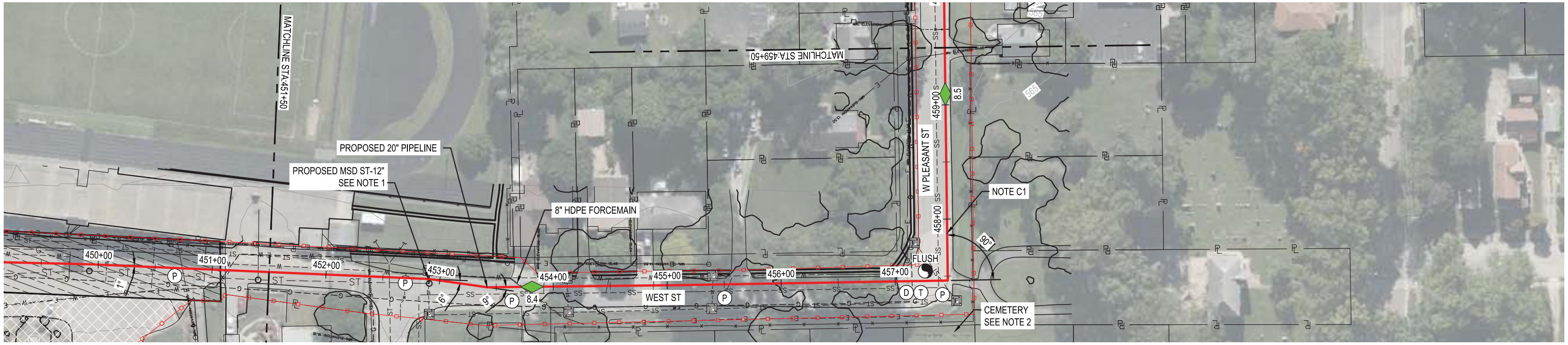
C/HAMILTON COUNTY/C350

OWNERSHIP	ROW
JURISDICTION	READING
ACREAGE	
EASEMENTS	
REF. DWG. NO.	PNG-C-350-0001312 PNG-C-350-0001287

STATIONING:
STA: 452+91 6° BEND (H-RT)
STA: 453+42 9° BEND (H-LT)
STA: 455+85 5° SAG BEND (V)
STA: 456+72 5° OVERBEND (V)
STA: 457+46 90° FTG (H-LT)

PLAN

HORIZONTAL SCALE: 1" = 50'


MATCHLINE STA:451+50
MATCHLINE STA:459+50
PROPOSED 20" PIPELINE
PROPOSED MSD ST-12"
SEE NOTE 1
8" HDPE FORCEMAIN
W PLEASANT ST
NOTE C1
90°
8.5
8.4
FLUSH
CEMETERY
SEE NOTE 2
WEST ST
450+00
451+00
452+00
453+00
454+00
455+00
456+00
457+00
458+00
459+00
P
D
T
SS
ST

RESTORE			
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	F	C
SURFACE TYPE:		C	C

PIPE DATA (SLOPE STATIONING): STA. WELD # (COV.) JOINT LENGTH JOINT # HEAT #

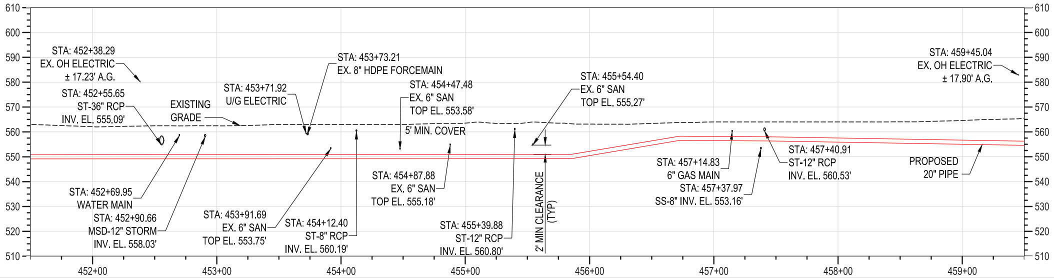
NOTES:

1. PROPOSED MSD STORM LOCATION IS APPROXIMATE BASED ON PLAN SET TITLED "PROPOSED PROJECT NO. 10142200 C50 513 PARTIAL SEWER SEPARATION" 90% DESIGN SUBMITTAL DATED MARCH 5, 2019.

2. FOR CEMETERY MONITORING REQUIREMENTS, SEE DWG PNG-350-C-0001287.

PROFILE

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'


610
600
590
580
570
560
550
540
530
520
510
STA: 452+38.29
EX. OH ELECTRIC
± 17.23' A.G.
STA: 452+55.65
ST-36" RCP
INV. EL. 555.09'
EXISTING
GRADE
STA: 453+71.92
U/G ELECTRIC
STA: 453+73.21
EX. 8" HDPE FORCEMAIN
STA: 454+47.48
EX. 6" SAN
TOP EL. 553.58'
5' MIN. COVER
STA: 455+54.40
EX. 6" SAN
TOP EL. 555.27'
STA: 452+69.95
WATER MAIN
STA: 452+90.66
MSD-12" STORM
INV. EL. 558.03'
STA: 453+91.69
EX. 6" SAN
TOP EL. 553.75'
STA: 454+12.40
ST-8" RCP
INV. EL. 560.19'
STA: 454+87.88
EX. 6" SAN
TOP EL. 555.18'
STA: 455+39.88
ST-12" RCP
INV. EL. 560.80'
2' MIN CLEARANCE
(TYP)
STA: 457+14.83
6" GAS MAIN
STA: 457+37.97
SS-8" INV. EL. 553.16'
STA: 457+40.91
ST-12" RCP
INV. EL. 560.53'
PROPOSED
20" PIPE
STA: 459+45.04
EX. OH ELECTRIC
± 17.90' A.G.
452+00
453+00
454+00
455+00
456+00
457+00
458+00
459+00

CONSTRUCTION NOTES:

C1. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C4. TRENCH BACKFILL TYPE F SHALL BE USED WHEN ALIGNMENT PASSES OVERTOP SANITARY SEWER LATERALS.

MATERIAL	800' ① ⑩
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL
ENGINEERING COMPANY, INC.
STATE LICENSE # COA. 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas
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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH
HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 43 OF 64		DWG SCALE	AS NOTED
DWG DATE 01/13/2020		SUPERSEDED	__
DRAWING NUMBER			REVISION
PNG -C-350-0001221			0
C/HAMILTON COUNTY/C350			

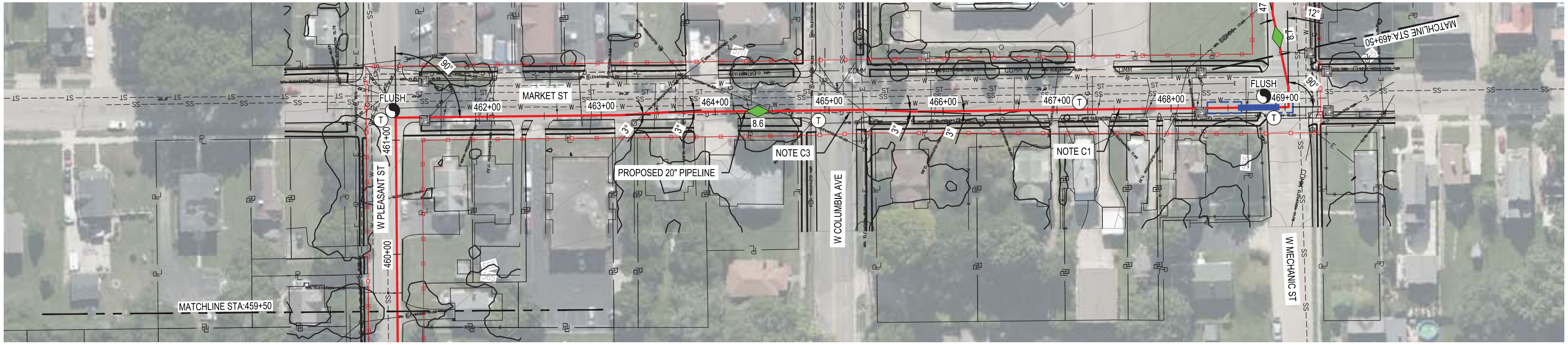
RIGHT-OF-WAY	
OWNERSHIP	
JURISDICTION	ROW READING
ACREAGE	
EASEMENTS	
REF. DWG. NO.	PNG-C-350-0001312 / PNG-C-350-0001260

STATIONING

STA: 461+20 90° FTG (H-RT)
STA: 463+18 3° BEND (H-LT)
STA: 463+56 BEND 3° (H-RT) 6° SAG BEND (V)
STA: 464+02 7° OVERBEND (V)
STA: 465+37 3° BEND (H-RT)
STA: 465+75 3° BEND (H-LT)
STA: 468+29 1° SAG BEND (V)
STA: 469+03 90° FTG (H-LT)
STA: 469+21 FTG 12° (H-LT) 6° SAG BEND (V)

PLAN

HORIZONTAL SCALE: 1" = 50'


N
MATCHLINE STA:459+50
W PLEASANT ST
460+00
461+00
FLUSH
90°
462+00
MARKET ST
463+00
3°
PROPOSED 20" PIPELINE
464+00
8.6
NOTE C3
W COLUMBIA AVE
465+00
3°
466+00
467+00
NOTE C1
468+00
FLUSH
469+00
90°
12°
47
W MECHANIC ST
MATCHLINE STA:469+50
SS
ST
W

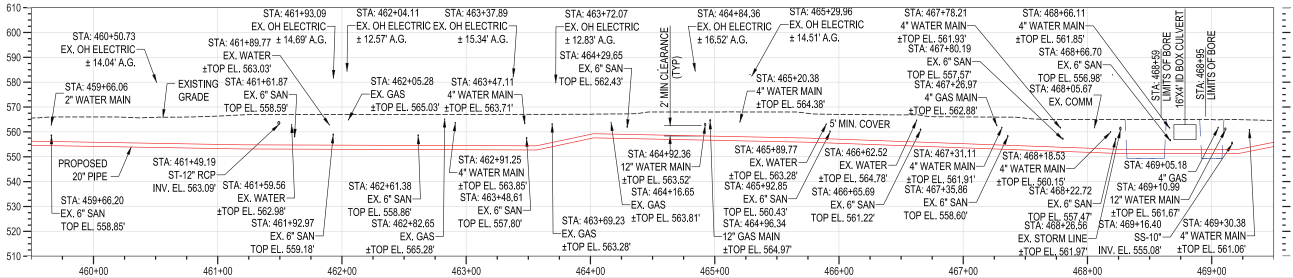
RESTORE				
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	C	N/A	C
SURFACE TYPE:		C	N/A	C

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (COV.) | JOINT LENGTH | JOINT # | HEAT #

PROFILE

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'


610
600
590
580
570
560
550
540
530
520
510
460+00
461+00
462+00
463+00
464+00
465+00
466+00
467+00
468+00
469+00
STA: 460+50.73
EX. OH ELECTRIC
± 14.04' A.G.
STA: 459+66.06
2" WATER MAIN
EXISTING GRADE
PROPOSED 20" PIPE
STA: 459+66.20
EX. 6" SAN
TOP EL. 558.85'
STA: 461+49.19
ST-12" RCP
INV. EL. 563.09'
STA: 461+93.09
EX. OH ELECTRIC
± 14.69' A.G.
STA: 461+89.77
EX. WATER
±TOP EL. 563.03'
STA: 461+61.87
EX. 6" SAN
TOP EL. 558.59'
STA: 461+59.56
EX. WATER
±TOP EL. 562.98'
STA: 461+92.97
EX. 6" SAN
TOP EL. 559.18'
STA: 462+04.11
EX. OH ELECTRIC
± 12.57' A.G.
STA: 462+05.28
EX. GAS
±TOP EL. 565.03'
STA: 462+61.38
EX. 6" SAN
TOP EL. 558.86'
STA: 462+82.65
EX. GAS
±TOP EL. 565.28'
STA: 463+37.89
EX. OH ELECTRIC
± 15.34' A.G.
STA: 463+47.11
4" WATER MAIN
±TOP EL. 563.71'
STA: 462+91.25
4" WATER MAIN
±TOP EL. 563.85'
STA: 463+48.61
EX. 6" SAN
TOP EL. 557.80'
STA: 463+72.07
EX. OH ELECTRIC
± 12.83' A.G.
STA: 464+29.65
EX. 6" SAN
TOP EL. 562.43'
STA: 463+69.23
EX. GAS
±TOP EL. 563.28'
2' MIN CLEARANCE (TYP)
STA: 464+92.36
12" WATER MAIN
±TOP EL. 563.52'
STA: 464+16.65
EX. GAS
±TOP EL. 563.81'
STA: 464+84.36
EX. OH ELECTRIC
± 16.52' A.G.
STA: 465+29.96
EX. OH ELECTRIC
± 14.51' A.G.
STA: 465+20.38
4" WATER MAIN
±TOP EL. 564.38'
STA: 465+89.77
EX. WATER
±TOP EL. 563.28'
STA: 465+92.85
EX. 6" SAN
TOP EL. 560.43'
STA: 464+96.34
12" GAS MAIN
±TOP EL. 564.97'
5' MIN. COVER
STA: 466+62.52
EX. WATER
±TOP EL. 564.78'
STA: 466+65.69
EX. 6" SAN
TOP EL. 561.22'
STA: 467+78.21
4" WATER MAIN
±TOP EL. 561.93'
STA: 467+80.19
EX. 6" SAN
TOP EL. 557.57'
STA: 467+26.97
4" GAS MAIN
±TOP EL. 562.88'
STA: 467+31.11
4" WATER MAIN
±TOP EL. 561.91'
STA: 467+35.86
EX. 6" SAN
TOP EL. 558.60'
STA: 468+66.11
4" WATER MAIN
±TOP EL. 561.85'
STA: 468+66.70
EX. 6" SAN
TOP EL. 556.98'
STA: 468+05.67
EX. COMM
STA: 468+18.53
4" WATER MAIN
±TOP EL. 560.15'
STA: 468+22.72
EX. 6" SAN
TOP EL. 557.47'
STA: 468+26.56
EX. STORM LINE
±TOP EL. 561.97'
STA: 468+59
LIMITS OF BORE
16'X4' ID BOX CULVERT
STA: 468+95
LIMITS OF BORE
STA: 469+05.18
4" GAS
STA: 469+10.99
12" WATER MAIN
±TOP EL. 561.67'
STA: 469+16.40
SS-10"
INV. EL. 555.08'
STA: 469+30.38
4" WATER MAIN
±TOP EL. 561.06'

CONSTRUCTION NOTES:
C1. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.

C2. TRENCH BACKFILL TYPE F SHALL BE USED WHEN ALIGNMENT PASSES OVERTOP SANITARY SEWER LATERALS.

C3. GAS DISTRIBUTION LINE RELOCATED PRIOR TO CONSTRUCTION BY OTHERS.

MATERIAL	⑩		⑩	⑪
CONST. METHOD	909' ① OPEN TRENCH	36' ② BORE		55' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG			

REF. DWG(S) SEE REFERENCE BAND

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

DESCRIPTION	
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	11/18/2020	AMP

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S)	44 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—
DRAWING NUMBER	PNG -C-350-0001222	REVISION	0

C/HAMILTON COUNTY/C350

BURNS & McDONNELL ENGINEERING COMPANY, INC.
STATE LICENSE # COA-01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

RIGHT-OF-WAY

OWNERSHIP
JURISDICTION
ACREAGE
EASEMENTS

ROW
READING

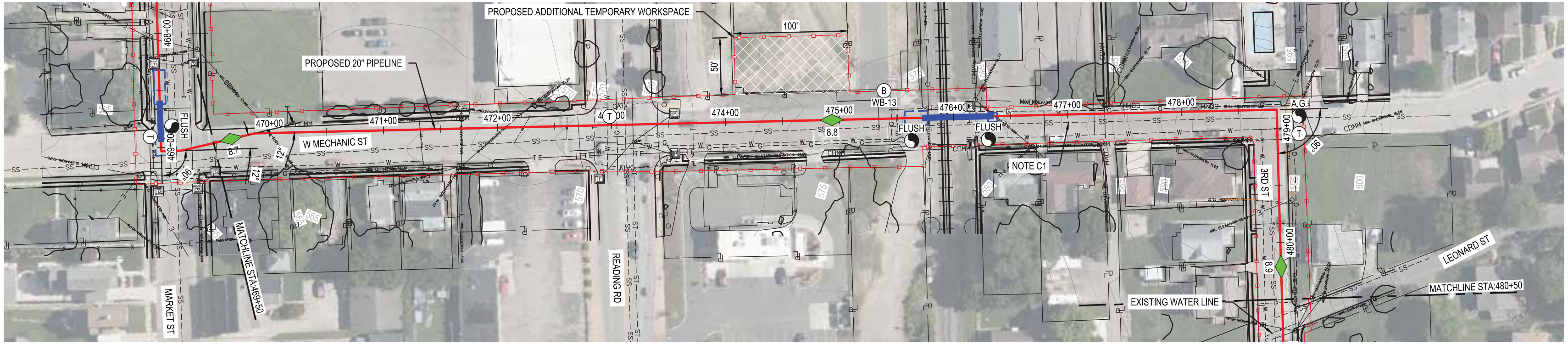
REF. DWG. NO.: PNG-C-350-0001312 | PNG-B-350-0001014 | PNG-C-350-0001261

STATIONING

STA: 469+87 BEND 12° (H-RT) 6° OVERBEND (V)
STA: 471+16 1° OVERBEND (V)
STA: 473+24 12° SAG BEND (V)
STA: 473+59 9° OVERBEND (V)
STA: 475+11 6° OVERBEND (V)
STA: 475+51 3° SAG BEND (V)
STA: 476+56 9° SAG BEND (V)
STA: 476+99 5° OVERBEND (V)
STA: 478+36 4° OVERBEND (V)
STA: 478+84 90° FTG (H-RT)

PLAN

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'



PROPOSED ADDITIONAL TEMPORARY WORKSPACE
100'
50'
PROPOSED 20" PIPELINE
468+00
469+00
470+00
471+00
472+00
474+00
475+00
476+00
477+00
478+00
479+00
480+00
FLUSH
FLUSH
FLUSH
W MECHANIC ST
MARKET ST
MATCHLINE STA:469+50
READING RD
B
WB-13
8.8
8.7
8.9
12°
12°
90°
90°
A.G.
NOTE C1
3RD ST
EXISTING WATER LINE
LEONARD ST
MATCHLINE STA:480+50

RESTORE

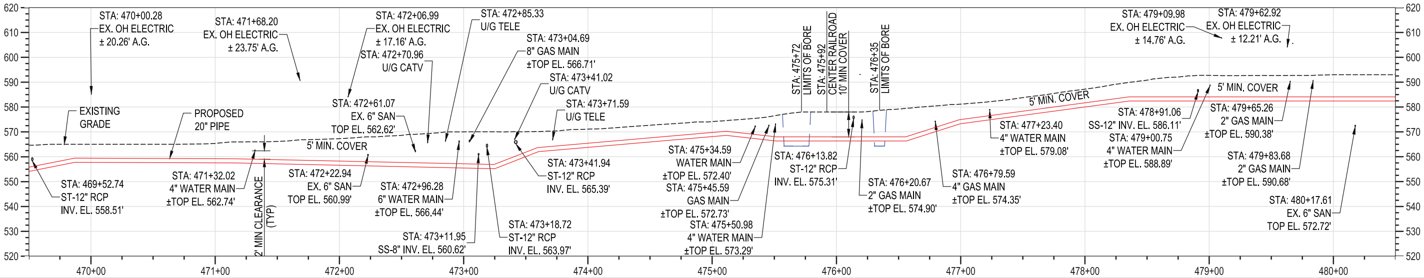
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	C	N/A	C
SURFACE TYPE:		C	N/A	C

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (COV.) | JOINT LENGTH | JOINT # | HEAT #

PROFILE

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'



620
610
600
590
580
570
560
550
540
530
520
STA: 470+00.28
EX. OH ELECTRIC
± 20.26' A.G.
STA: 471+68.20
EX. OH ELECTRIC
± 23.75' A.G.
EXISTING GRADE
PROPOSED 20" PIPE
STA: 469+52.74
ST-12" RCP
INV. EL. 558.51'
STA: 471+32.02
4" WATER MAIN
±TOP EL. 562.74'
2' MIN CLEARANCE (TYP)
5' MIN. COVER
STA: 472+06.99
EX. OH ELECTRIC
± 17.16' A.G.
STA: 472+70.96
U/G CATV
STA: 472+61.07
EX. 6" SAN
TOP EL. 562.62'
STA: 472+22.94
EX. 6" SAN
TOP EL. 560.99'
STA: 472+96.28
6" WATER MAIN
±TOP EL. 566.44'
STA: 473+11.95
SS-8" INV. EL. 560.62'
STA: 472+85.33
U/G TELE
STA: 473+04.69
8" GAS MAIN
±TOP EL. 566.71'
STA: 473+41.02
U/G CATV
STA: 473+71.59
U/G TELE
STA: 473+41.94
ST-12" RCP
INV. EL. 565.39'
STA: 473+18.72
ST-12" RCP
INV. EL. 563.97'
STA: 475+34.59
WATER MAIN
±TOP EL. 572.40'
STA: 475+45.59
GAS MAIN
±TOP EL. 572.73'
STA: 475+50.98
4" WATER MAIN
±TOP EL. 573.29'
STA: 475+72
LIMITS OF BORE
STA: 475+92
CENTER RAILROAD
10' MIN COVER
STA: 476+35
LIMITS OF BORE
STA: 476+13.82
ST-12" RCP
INV. EL. 575.31'
STA: 476+20.67
2" GAS MAIN
±TOP EL. 574.90'
STA: 476+79.59
4" GAS MAIN
±TOP EL. 574.35'
5' MIN. COVER
STA: 477+23.40
4" WATER MAIN
±TOP EL. 579.08'
STA: 478+91.06
SS-12" INV. EL. 586.11'
STA: 479+00.75
4" WATER MAIN
±TOP EL. 588.89'
STA: 479+09.98
EX. OH ELECTRIC
± 14.76' A.G.
STA: 479+62.92
EX. OH ELECTRIC
± 12.21' A.G.
5' MIN. COVER
STA: 479+65.26
2" GAS MAIN
±TOP EL. 590.38'
STA: 479+83.68
2" GAS MAIN
±TOP EL. 590.68'
STA: 480+17.61
EX. 6" SAN
TOP EL. 572.72'
470+00
471+00
472+00
473+00
474+00
475+00
476+00
477+00
478+00
479+00
480+00

CONSTRUCTION NOTES:

- C1. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.
- C2. TRENCH BACKFILL TYPE F SHALL BE USED WHEN ALIGNMENT PASSES OVERTOP SANITARY SEWER LATERALS.

MATERIAL

CONST. METHOD: 622' ① OPEN TRENCH | 63' ② BORE | 415' ① ⑩ OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. | Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

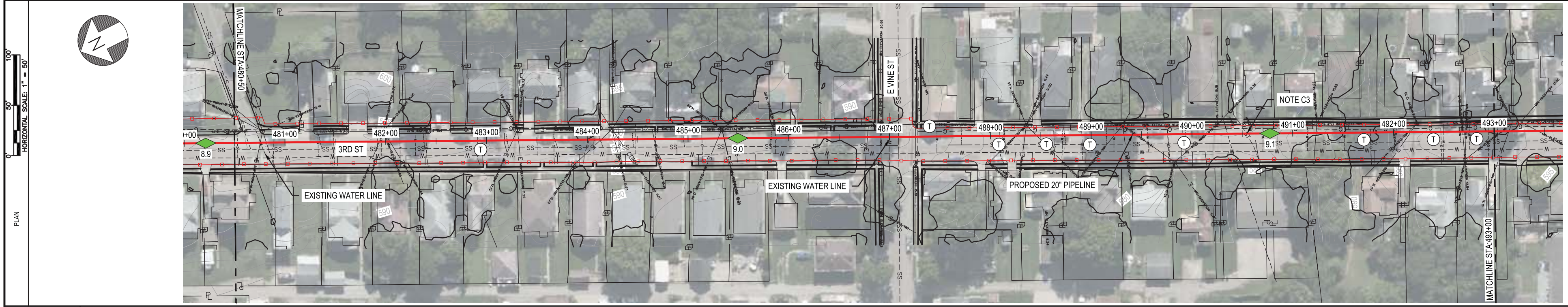
HAMILTON COUNTY, OH

REF. DWG(S): SEE REFERENCE BAND

SHEET(S): 45 OF 64
DWG SCALE: AS NOTED
DWG DATE: 01/13/2020
SUPERSEDED: —
DRAWING NUMBER: PNG -C-350-0001223
REVISION: 0
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY	
OWNERSHIP	ROW READING
JURISDICTION	
ACREAGE	
EASEMENTS	
REF. DWG. NO.	PNG-C-350-0001312 · PNG-C-350-0001293

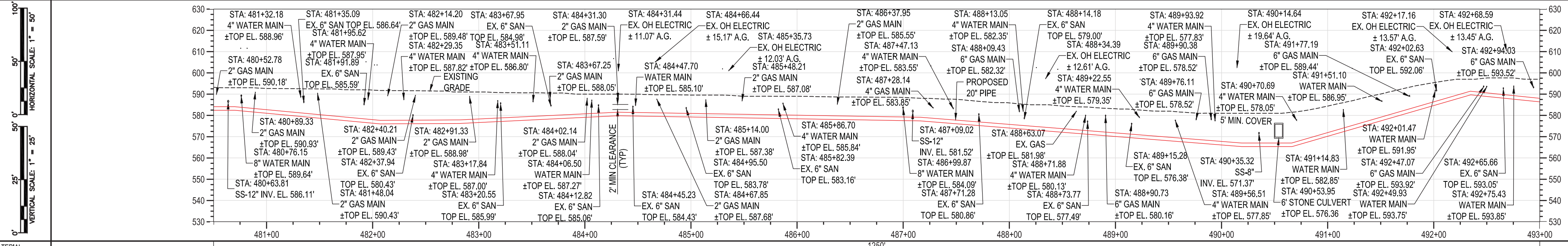
STATIONING:
STA: 480+70 3° OVERBEND (V)
STA: 482+07 3° SAG BEND (V)
STA: 482+82 1° SAG BEND (V)
STA: 484+31 2° OVERBEND (V)
STA: 487+16 2° OVERBEND (V)
STA: 490+19 2° SAG BEND (V)
STA: 490+66 8° SAG BEND (V)
STA: 492+35 11° OVERBEND (V)


PLAN
HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
MATCHLINE STA:480+50
481+00
482+00
483+00
484+00
485+00
486+00
487+00
488+00
489+00
490+00
491+00
492+00
493+00
8.9
9.0
9.1
3RD ST
E VINE ST
EXISTING WATER LINE
EXISTING WATER LINE
PROPOSED 20" PIPELINE
NOTE C3
T
MATCHLINE STA:493+00
590
600

RESTORE
TRENCH TYPE: SEE DWG PNG-C-350-0001293
THROUGH PNG-C-350-0001295
SURFACE TYPE: FOR RESTORATION TYPE DETAIL

PIPE DATA (SLOPE STATIONING)
STA. | WELD # | (COV.) | JOINT LENGTH | JOINT # | HEAT # | STA. | WELD # | (COV.)

NOTES:
1. OVERHEAD ELECTRIC LABELS NOT SHOWN FOR CLARITY.


PROFILE
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'
630
620
610
600
590
580
570
560
550
540
530
STA: 481+32.18 4" WATER MAIN ±TOP EL. 588.96'
STA: 480+52.78 2" GAS MAIN ±TOP EL. 590.18'
STA: 480+89.33 2" GAS MAIN ±TOP EL. 590.93'
STA: 480+76.15 8" WATER MAIN ±TOP EL. 589.64'
STA: 480+63.81 SS-12" INV. EL. 586.11'
STA: 481+35.09 EX. 6" SAN TOP EL. 586.64'
STA: 481+95.62 4" WATER MAIN ±TOP EL. 587.95'
STA: 481+91.89 EX. 6" SAN TOP EL. 585.59'
STA: 482+40.21 2" GAS MAIN ±TOP EL. 589.43'
STA: 482+37.94 EX. 6" SAN TOP EL. 580.43'
STA: 481+48.04 2" GAS MAIN ±TOP EL. 590.43'
STA: 482+14.20 2" GAS MAIN ±TOP EL. 589.48'
STA: 482+29.35 4" WATER MAIN ±TOP EL. 587.82'
STA: 483+67.95 EX. 6" SAN TOP EL. 584.98'
STA: 483+51.11 4" WATER MAIN ±TOP EL. 586.80'
EXISTING GRADE
STA: 482+91.33 2" GAS MAIN ±TOP EL. 588.98'
STA: 483+17.84 4" WATER MAIN ±TOP EL. 587.00'
STA: 483+20.55 EX. 6" SAN TOP EL. 585.99'
STA: 484+31.30 2" GAS MAIN ±TOP EL. 587.59'
STA: 483+67.25 2" GAS MAIN ±TOP EL. 588.05'
STA: 484+02.14 2" GAS MAIN ±TOP EL. 588.04'
STA: 484+06.50 WATER MAIN ±TOP EL. 587.27'
STA: 484+12.82 EX. 6" SAN TOP EL. 585.06'
2' MIN CLEARANCE (TYP)
STA: 484+31.44 EX. OH ELECTRIC ± 11.07' A.G.
STA: 484+47.70 WATER MAIN ±TOP EL. 585.10'
STA: 484+45.23 EX. 6" SAN TOP EL. 584.43'
STA: 484+66.44 EX. OH ELECTRIC ± 15.17' A.G.
STA: 485+35.73 EX. OH ELECTRIC ± 12.03' A.G.
STA: 485+48.21 2" GAS MAIN ±TOP EL. 587.08'
STA: 485+14.00 2" GAS MAIN ±TOP EL. 587.38'
STA: 484+95.50 EX. 6" SAN TOP EL. 583.78'
STA: 484+67.85 2" GAS MAIN ±TOP EL. 587.68'
STA: 485+86.70 4" WATER MAIN ±TOP EL. 585.84'
STA: 485+82.39 EX. 6" SAN TOP EL. 583.16'
STA: 486+37.95 2" GAS MAIN ±TOP EL. 585.55'
STA: 487+47.13 4" WATER MAIN ±TOP EL. 583.55'
STA: 487+28.14 4" GAS MAIN ±TOP EL. 583.85'
STA: 487+09.02 SS-12" INV. EL. 581.52'
STA: 486+99.87 8" WATER MAIN ±TOP EL. 584.09'
STA: 487+71.28 EX. 6" SAN TOP EL. 580.86'
STA: 488+13.05 4" WATER MAIN ±TOP EL. 582.35'
STA: 488+09.43 6" GAS MAIN ±TOP EL. 582.32'
PROPOSED 20" PIPE
STA: 488+63.07 EX. GAS ±TOP EL. 581.98'
STA: 488+71.88 4" WATER MAIN ±TOP EL. 580.13'
STA: 488+73.77 EX. 6" SAN TOP EL. 577.49'
STA: 488+14.18 EX. 6" SAN TOP EL. 579.00'
STA: 488+34.39 EX. OH ELECTRIC ± 12.61' A.G.
STA: 489+22.55 4" WATER MAIN ±TOP EL. 579.35'
STA: 489+15.28 EX. 6" SAN TOP EL. 576.38'
STA: 488+90.73 6" GAS MAIN ±TOP EL. 580.16'
STA: 489+93.92 4" WATER MAIN ±TOP EL. 577.83'
STA: 489+90.38 6" GAS MAIN ±TOP EL. 578.52'
STA: 489+76.11 6" GAS MAIN ±TOP EL. 578.52'
STA: 490+70.69 4" WATER MAIN ±TOP EL. 578.05'
5' MIN. COVER
STA: 490+35.32 SS-8" INV. EL. 571.37'
STA: 489+56.51 4" WATER MAIN ±TOP EL. 577.85'
STA: 490+14.64 EX. OH ELECTRIC ± 19.64' A.G.
STA: 491+77.19 6" GAS MAIN ±TOP EL. 589.44'
STA: 491+51.10 WATER MAIN ±TOP EL. 586.95'
STA: 491+14.83 WATER MAIN ±TOP EL. 582.85'
STA: 490+53.95 6' STONE CULVERT ±TOP EL. 576.36
STA: 492+17.16 EX. OH ELECTRIC ± 13.57' A.G.
STA: 492+02.63 EX. 6" SAN TOP EL. 592.06'
STA: 492+01.47 WATER MAIN ±TOP EL. 591.95'
STA: 492+47.07 6" GAS MAIN ±TOP EL. 593.92'
STA: 492+49.93 WATER MAIN ±TOP EL. 593.75'
STA: 492+68.59 EX. OH ELECTRIC ± 13.45' A.G.
STA: 492+94.03 6" GAS MAIN ±TOP EL. 593.52'
STA: 492+65.66 EX. 6" SAN TOP EL. 593.05'
STA: 492+75.43 WATER MAIN ±TOP EL. 593.85'
481+00
482+00
483+00
484+00
485+00
486+00
487+00
488+00
489+00
490+00
491+00
492+00
493+00

CONSTRUCTION NOTES:
C1. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.
C2. TRENCH BACKFILL TYPE F SHALL BE USED WHEN ALIGNMENT PASSES OVERTOP SANITARY SEWER LATERALS AND UNDER STONE CULVERT.
C3. 6' STONE CULVERT. LOCATION AND SIZE APPROXIMATED BY UTILITY RLA CAMERA.

MATERIAL
CONST. METHOD: 1250' ① OPEN TRENCH
CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

REF. DWG(S) SEE REFERENCE BAND

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

DESCRIPTION	
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	11/18/2020	AMP

DUKE ENERGY. | Piedmont Natural Gas
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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S) 46 OF 64 | DWG SCALE AS NOTED
DWG DATE 01/13/2020 | SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001224 | REVISION 0
C/HAMILTON COUNTY/C350

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01037
STATE OF OHIO AMANDA PALM E-84075 REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

RIGHT-OF-WAY

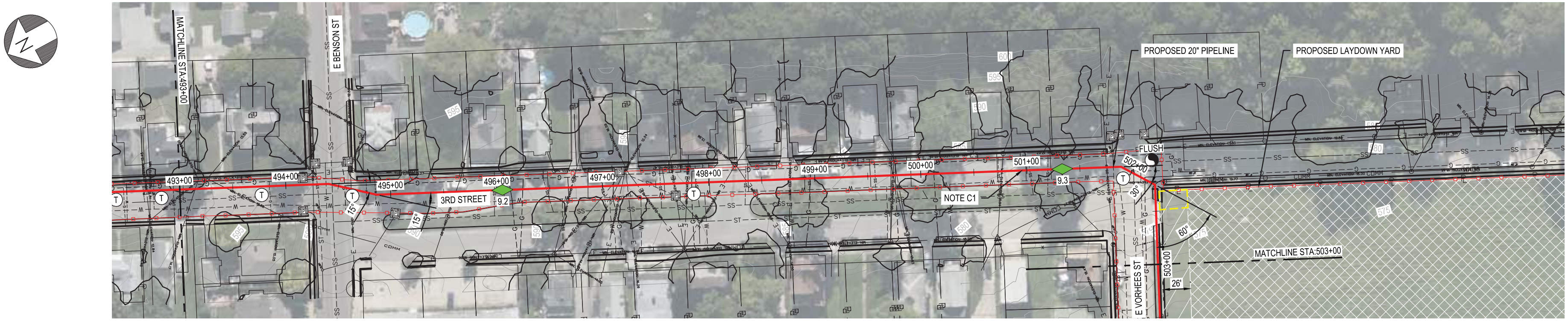
OWNERSHIP	ROW READING
JURISDICTION	
ACREAGE	
EASEMENTS	
REF. DWG. NO.	PNG-C-350-0001312 / PNG-C-350-0001293

STATIONING

STA: 494+41 BEND 15° (H-RT) 3° SAG BEND (V)
STA: 494+87 BEND 15° (H-LT) 3° SAG BEND (V)
STA: 495+49 4° OVERBEND (V)
STA: 496+75 1° SAG BEND (V)
STA: 501+59 7° OVERBEND (V)
STA: 501+89 FTG 30° (H-RT) 8° SAG BEND (V)
STA: 502+25 FTG 60° (H-RT) 3° OVERBEND (V)

PLAN

HORIZONTAL SCALE: 1" = 50'


0'
50'
100'
N
MATCHLINE STA:493+00
E BENSON ST
493+00
494+00
495+00
496+00
497+00
498+00
499+00
500+00
501+00
502+00
503+00
3RD STREET
9.2
9.3
15°
15°
30°
60°
NOTE C1
FLUSH
PROPOSED 20" PIPELINE
PROPOSED LAYDOWN YARD
E VORHEES ST
26'
MATCHLINE STA:503+00
SS
T

RESTORE

TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	C	E
SURFACE TYPE:		C	SEED - ROUGH, SIDEWALK TO MATCH EXISTING

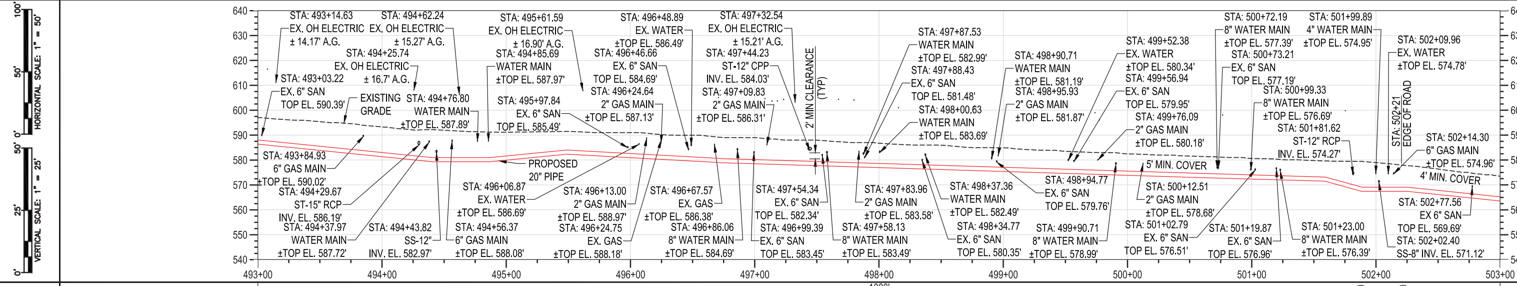
PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT# HEAT#

NOTES:
1. OVERHEAD ELECTRIC LABELS NOT SHOWN FOR CLARITY.

PROFILE

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'


640
630
620
610
600
590
580
570
560
550
540
493+00
494+00
495+00
496+00
497+00
498+00
499+00
500+00
501+00
502+00
503+00
STA: 493+14.63 EX. OH ELECTRIC ± 14.17' A.G.
STA: 494+62.24 EX. OH ELECTRIC ± 15.27' A.G.
STA: 494+25.74 EX. OH ELECTRIC ± 16.7' A.G.
STA: 493+03.22 EX. 6" SAN TOP EL. 590.39'
EXISTING GRADE
STA: 494+76.80 WATER MAIN ±TOP EL. 587.89'
STA: 493+84.93 6" GAS MAIN ±TOP EL. 590.02'
STA: 494+29.67 ST-15" RCP INV. EL. 586.19'
STA: 494+37.97 WATER MAIN ±TOP EL. 587.72'
STA: 494+43.82 SS-12" INV. EL. 582.97'
STA: 495+61.59 EX. OH ELECTRIC ± 16.90' A.G.
STA: 494+85.69 WATER MAIN ±TOP EL. 587.97'
STA: 495+97.84 EX. 6" SAN TOP EL. 585.49'
PROPOSED 20" PIPE
STA: 496+06.87 EX. WATER ±TOP EL. 586.69'
STA: 494+56.37 6" GAS MAIN ±TOP EL. 588.08'
STA: 496+13.00 2" GAS MAIN ±TOP EL. 588.97'
STA: 496+24.75 EX. GAS ±TOP EL. 588.18'
STA: 496+48.89 EX. WATER ±TOP EL. 586.49'
STA: 496+46.66 EX. 6" SAN TOP EL. 584.69'
STA: 496+24.64 2" GAS MAIN ±TOP EL. 587.13'
STA: 496+67.57 EX. GAS ±TOP EL. 586.38'
STA: 496+86.06 8" WATER MAIN ±TOP EL. 584.69'
STA: 497+32.54 EX. OH ELECTRIC ± 15.21' A.G.
STA: 497+44.23 ST-12" CPP INV. EL. 584.03'
STA: 497+09.83 2" GAS MAIN ±TOP EL. 586.31'
2' MIN CLEARANCE (TYP)
STA: 497+54.34 EX. 6" SAN TOP EL. 582.34'
STA: 496+99.39 EX. 6" SAN TOP EL. 583.45'
STA: 497+87.53 WATER MAIN ±TOP EL. 582.99'
STA: 497+88.43 EX. 6" SAN TOP EL. 581.48'
STA: 498+00.63 WATER MAIN ±TOP EL. 583.69'
STA: 497+83.96 2" GAS MAIN ±TOP EL. 583.58'
STA: 497+58.13 8" WATER MAIN ±TOP EL. 583.49'
STA: 498+37.36 WATER MAIN ±TOP EL. 582.49'
STA: 498+34.77 EX. 6" SAN TOP EL. 580.35'
STA: 498+90.71 WATER MAIN ±TOP EL. 581.19'
STA: 498+95.93 2" GAS MAIN ±TOP EL. 581.87'
STA: 498+94.77 EX. 6" SAN TOP EL. 579.76'
STA: 499+90.71 8" WATER MAIN ±TOP EL. 578.99'
STA: 499+52.38 EX. WATER ±TOP EL. 580.34'
STA: 499+56.94 EX. 6" SAN TOP EL. 579.95'
STA: 499+76.09 2" GAS MAIN ±TOP EL. 580.18'
5' MIN. COVER
STA: 500+12.51 2" GAS MAIN ±TOP EL. 578.68'
STA: 501+02.79 EX. 6" SAN TOP EL. 576.51'
STA: 500+72.19 8" WATER MAIN ±TOP EL. 577.39'
STA: 500+73.21 EX. 6" SAN TOP EL. 577.19'
STA: 500+99.33 8" WATER MAIN ±TOP EL. 576.69'
STA: 501+81.62 ST-12" RCP INV. EL. 574.27'
STA: 501+19.87 EX. 6" SAN TOP EL. 576.96'
STA: 501+23.00 8" WATER MAIN ±TOP EL. 576.39'
STA: 501+99.89 4" WATER MAIN ±TOP EL. 574.95'
STA: 502+21 EDGE OF ROAD
STA: 502+09.96 EX. WATER ±TOP EL. 574.78'
STA: 502+14.30 6" GAS MAIN ±TOP EL. 574.96'
4' MIN. COVER
STA: 502+77.56 EX 6" SAN TOP EL. 569.69'
STA: 502+02.40 SS-8" INV. EL. 571.12'

CONSTRUCTION NOTES:
C1. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.

C2. TRENCH BACKFILL TYPE F SHALL BE USED WHEN ALIGNMENT PASSES OVERTOP SANITARY SEWER LATERALS.

MATERIAL	1000' ①
CONST. METHOD	OPEN TRENCH ⑪ ⑩
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01537

AMANDA PALM E-84075
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas
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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH
HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 47 OF 64 DWG SCALE AS NOTED
DWG DATE 01/13/2020 SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001225 REVISION 0
C/HAMILTON COUNTY/C350

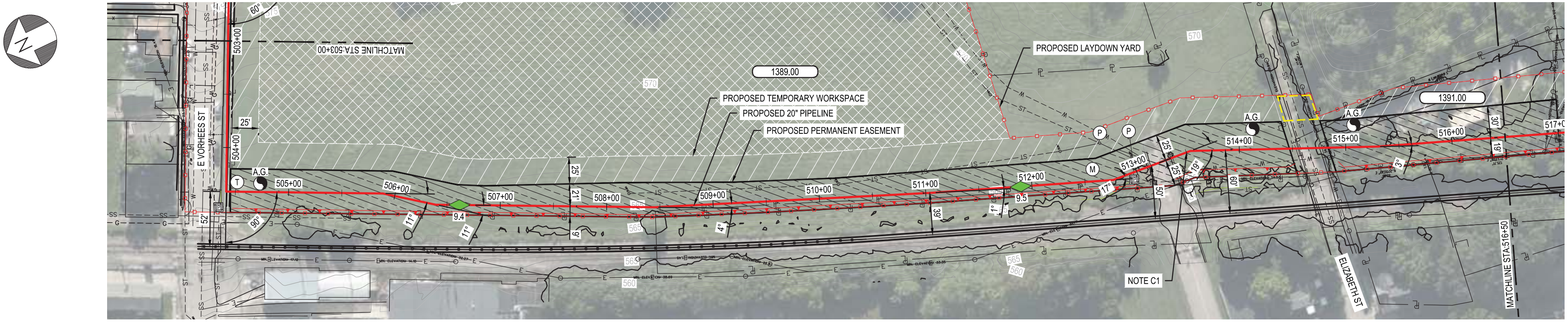
RIGHT-OF-WAY					
OWNERSHIP	ROW	1389.00	ROW	1391.00
JURISDICTION	READING	READING	READING	READING
ACREAGE		0.7998 ACRES		3.0466 ACRES
EASEMENTS		VARIES		VARIES
REF. DWG. NO.		PNG-C-350-0001171 PNG-C-350-0001312		

STATIONING

STA: 504+41 FTG 90° (H-LT) 3° SAG BEND (V)
STA: 505+88 11° BEND (H-RT)
STA: 506+40 11° BEND (H-LT)
STA: 508+46 4° BEND (H-LT)
STA: 511+07 1° BEND (H-LT)
STA: 512+27 5° OVERBEND (V)
STA: 512+77 BEND 17° (H-LT) 4° SAG BEND (V)
STA: 513+54 19° BEND (H-RT)
STA: 514+79 9° SAG BEND (V)
STA: 515+30 BEND 3° (H-LT) 9° OVERBEND (V)

PLAN

HORIZONTAL SCALE: 1" = 50'



N
0'
50'
100'
E VORHEES ST
MATCHLINE STA:503+00
503+00
504+00
505+00
506+00
507+00
508+00
509+00
510+00
511+00
512+00
513+00
514+00
515+00
516+00
517+0
60°
25'
52'
90°
11°
9.4
21'
25'
9'
4°
39'
1°
9.5
17°
50'
25'
19°
60'
3°
30'
19'
A.G.
T
M
P
1389.00
1391.00
PROPOSED TEMPORARY WORKSPACE
PROPOSED 20" PIPELINE
PROPOSED PERMANENT EASEMENT
PROPOSED LAYDOWN YARD
570
565
560
NOTE C1
ELIZABETH ST
MATCHLINE STA:516+50
SS
ST
G
E

RESTORE							
TRENCH TYPE:	SEE DWG PNG-C-350-0001293	E	D	E	C	E
SURFACE TYPE:	THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	SEED - ROUGH	1	SEED - ROUGH	C	SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT# HEAT# STA. WELD # (COV.)

CONSTRUCTION NOTES:

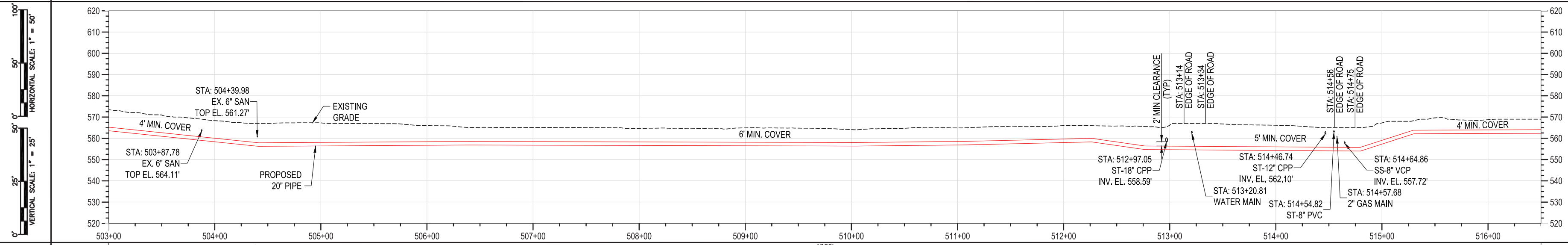
C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.

C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-350-0001312.

PROFILE

HORIZONTAL SCALE: 1" = 50'

VERTICAL SCALE: 1" = 25'



0'
50'
100'
0'
25'
50'
620
610
600
590
580
570
560
550
540
530
520
503+00
504+00
505+00
506+00
507+00
508+00
509+00
510+00
511+00
512+00
513+00
514+00
515+00
516+00
STA: 504+39.98
EX. 6" SAN
TOP EL. 561.27'
EXISTING GRADE
4' MIN. COVER
STA: 503+87.78
EX. 6" SAN
TOP EL. 564.11'
PROPOSED 20" PIPE
6' MIN. COVER
2' MIN CLEARANCE (TYP)
STA: 513+14 EDGE OF ROAD
STA: 513+34 EDGE OF ROAD
STA: 512+97.05
ST-18" CPP
INV. EL. 558.59'
STA: 513+20.81
WATER MAIN
5' MIN. COVER
STA: 514+46.74
ST-12" CPP
INV. EL. 562.10'
STA: 514+54.82
ST-8" PVC
STA: 514+56 EDGE OF ROAD
STA: 514+75 EDGE OF ROAD
STA: 514+57.68
2" GAS MAIN
STA: 514+64.86
SS-8" VCP
INV. EL. 557.72'
4' MIN. COVER

MATERIAL	⑩
CONST. METHOD	1350' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL
ENGINEERING COMPANY, INC.
STATE LICENSE # COA. 01557

AMANDA PALM E-84075
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. | Piedmont Natural Gas

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REF. DWG(S) SEE REFERENCE BAND

C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

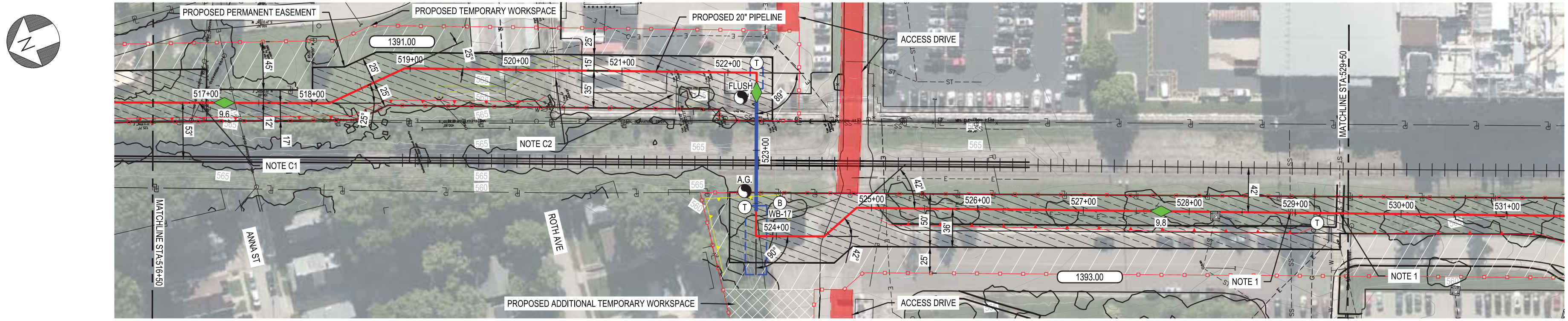
SHEET(S) 48 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001226	REVISION 0
C/HAMILTON COUNTY/C350	

RIGHT-OF-WAY			
OWNERSHIP JURISDICTION	1391.00 READING	S.O.R.T.A. ROW READING	1393.00 READING
ACREAGE	3.0466 ACRES		3.0466 ACRES
EASEMENTS	50' EASEMENT		50' EASEMENT
REF. DWG. NO.	PNG-C-350-0001312	PNG-C-350-0001262	PNG-B-350-0001015 PNG-C-350-0001171 PNG-C-350-0001293

STATIONING

STA: 516+69 3° OVERBEND (V)
STA: 517+22 3° SAG BEND (V)
STA: 518+17 FTG 25° (H-LT) 4° OVERBEND (V)
STA: 518+55 4° SAG BEND (V)
STA: 518+95 FTG 25° (H-RT) 1° SAG BEND (V)
STA: 520+11 3° SAG BEND (V)
STA: 520+76 3° OVERBEND (V)
STA: 521+91 9° OVERBEND (V)
STA: 522+27 FTG 89° (H-RT) 8° SAG BEND (V)
STA: 523+80 FTG 90° (H-LT) 2° SAG BEND (V)
STA: 524+45 42° FTG (H-LT)
STA: 524+86 FTG 42° (H-RT) 3° OVERBEND (V)
STA: 528+09 3° OVERBEND (V)
STA: 528+75 3° SAG BEND (V)
STA: 529+16 7° SAG BEND (V)

PLAN

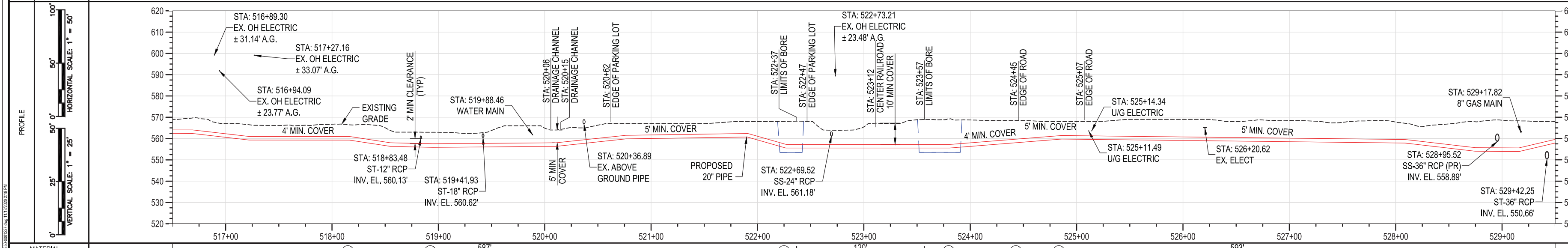

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'
PROPOSED PERMANENT EASEMENT
PROPOSED TEMPORARY WORKSPACE
PROPOSED 20" PIPELINE
ACCESS DRIVE
1391.00
517+00
518+00
519+00
520+00
521+00
522+00
523+00
524+00
525+00
526+00
527+00
528+00
529+00
530+00
531+00
9.6
9.8
53'
45'
12'
17'
25'
25°
15'
35'
89°
90°
42°
50'
36'
FLUSH
A.G.
WB-17
NOTE C1
NOTE C2
NOTE 1
MATCHLINE STA:516+50
MATCHLINE STA:529+50
ANNA ST
ROTH AVE
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
1393.00
565
560

RESTORE						
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	E	D	N/A	E	D	F
SURFACE TYPE:		SEED - ROUGH	1	N/A	SEED - ROUGH	1	1

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT # HEAT # (COV.) WELD # STA.

PROFILE



NOTE:
1. USE FLOWABLE FILL AROUND PIPE BENEATH 36" PIPE TO PREVENT FLOW OF WATER ALONG PIPELINE, SEE BACKFILL DETAIL ON DWG PNG-C-350-0001293.

CONSTRUCTION NOTES:
C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.
C2. ABOVE GROUND PIPING TO BE AVOIDED AND ACCESS TO THE PIPING SHALL BE MAINTAINED.
C3. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

MATERIAL: ⑪ ⑪ ⑩ | ⑩ ⑪ ⑪

CONST. METHOD: 587' ① OPEN TRENCH | 120' ② BORE | 593' ① OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

REF. DWG(S) SEE REFERENCE BAND

BURNS & MCDONNELL ENGINEERING COMPANY, INC.
STATE LICENSE # COA. 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. | Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S) 49 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —

DRAWING NUMBER: PNG -C-350-0001227
REVISION: 0

C/HAMILTON COUNTY/C350

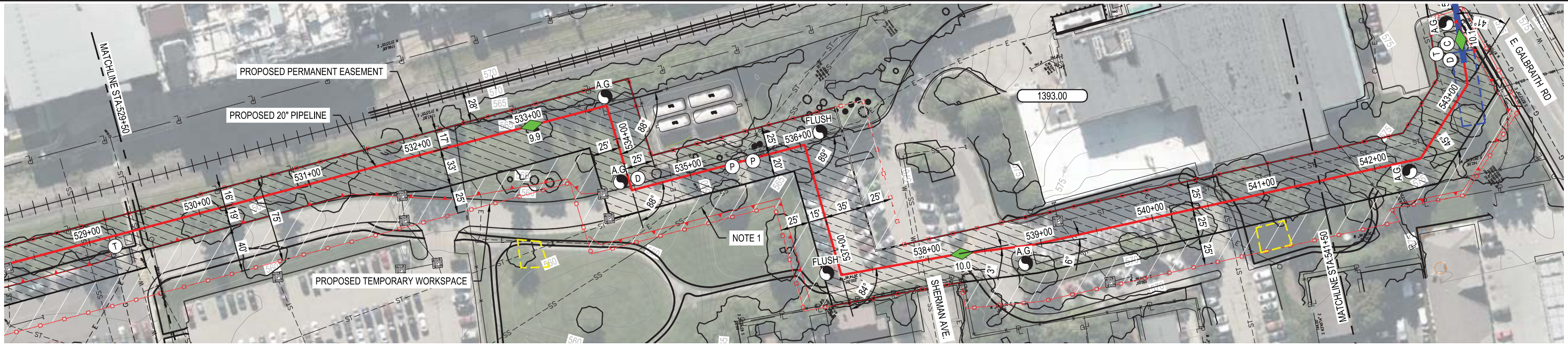
RIGHT-OF-WAY	
OWNERSHIP JURISDICTION	1393.00 READING
ACREAGE	3.0466 ACRES
EASEMENTS	50' EASEMENT
REF. DWG. NO.	PNG-C-350-0001293 PNG-C-350-0001312

STATIONING

STA: 529+57 7° OVERBEND (V)
STA: 531+96 1° SAG BEND (V)
STA: 532+84 7° OVERBEND (V)
STA: 533+69 FTG 88° (H-RT) 5° SAG BEND (V)
STA: 534+47 FTG 88° (H-LT) 6° OVERBEND (V)
STA: 535+12 7° SAG BEND (V)
STA: 535+52 16° SAG BEND (V)
STA: 536+04 FTG 89° (H-RT) 14° OVERBEND (V)
STA: 537+22 FTG 84° (H-LT) 5° OVERBEND (V)
STA: 537+78 3° SAG BEND (V)
STA: 538+24 BEND 3° (H-RT) 2° SAG BEND (V)
STA: 538+92 BEND 6° (H-LT) 1° OVERBEND (V)
STA: 540+74 2° SAG BEND (V)

PLAN

HORIZONTAL SCALE: 1" = 50'


MATCHLINE STA.529+50
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
PROPOSED TEMPORARY WORKSPACE
NOTE 1
1393.00
SHERMAN AVE.
E. GALBRAITH RD
MATCHLINE STA.541+50
529+00
530+00
531+00
532+00
533+00
534+00
535+00
536+00
537+00
538+00
539+00
540+00
541+00
542+00
543+00
A.G.
FLUSH
D
P
T
C
9.9
10.0
28'
17'
33'
16'
19'
75'
40'
25'
20'
35'
15'
88°
89°
84°
570
565
575

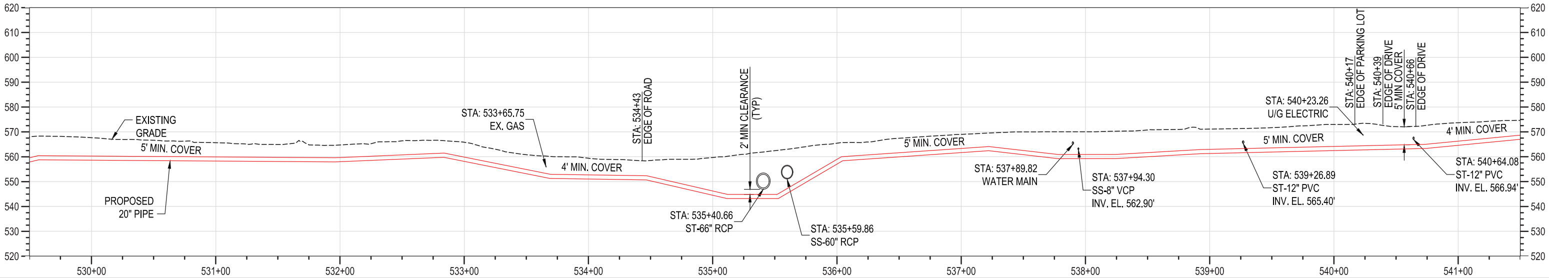
RESTORE				
TRENCH TYPE: SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	D	F	D	E
SURFACE TYPE: FOR RESTORATION TYPE DETAIL	1	SEED - FINE	1	SEED - FINE

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT# HEAT#

PROFILE

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'


620
610
600
590
580
570
560
550
540
530
520
EXISTING GRADE
5' MIN. COVER
PROPOSED 20" PIPE
STA: 533+65.75
EX. GAS
4' MIN. COVER
STA: 534+43
EDGE OF ROAD
2' MIN CLEARANCE (TYP)
STA: 535+40.66
ST-66" RCP
STA: 535+59.86
SS-60" RCP
5' MIN. COVER
STA: 537+89.82
WATER MAIN
STA: 537+94.30
SS-8" VCP
INV. EL. 562.90'
STA: 539+26.89
ST-12" PVC
INV. EL. 565.40'
5' MIN. COVER
STA: 540+23.26
U/G ELECTRIC
STA: 540+17
EDGE OF PARKING LOT
STA: 540+39
EDGE OF DRIVE
5' MIN COVER
STA: 540+66
EDGE OF DRIVE
4' MIN. COVER
STA: 540+64.08
ST-12" PVC
INV. EL. 566.94'
530+00
531+00
532+00
533+00
534+00
535+00
536+00
537+00
538+00
539+00
540+00
541+00

NOTE:
1. USE FLOWABLE FILL AROUND PIPE BENEATH 48" AND 60" PIPE TO PREVENT FLOW OF WATER ALONG PIPELINE, SEE BACKFILL DETAIL ON DWG PNG-C-350-0001293.

CONSTRUCTION NOTES:
C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.
C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

MATERIAL: ⑩ ⑩ ⑩ ⑩

CONST. METHOD: 1200' ① OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA.01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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	11/18/2020	AMP

DUKE ENERGY. Piedmont Natural Gas
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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	50 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—

DRAWING NUMBER: PNG -C-350-0001228
REVISION: 0

C/HAMILTON COUNTY/C350

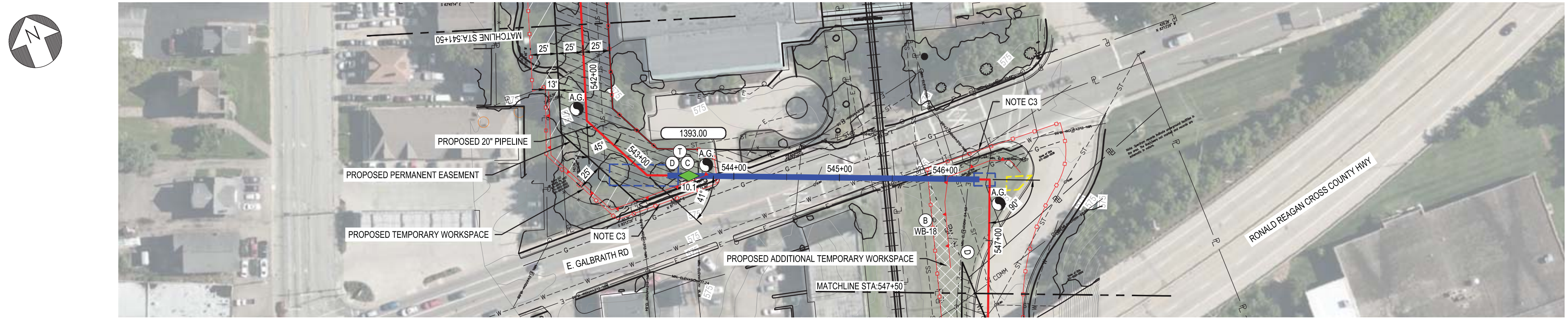
RIGHT-OF-WAY

OWNERSHIP / JURISDICTION	1393.00 READING	ROW READING
ACREAGE	3.0466 ACRES	
EASEMENTS	50' EASEMENT	
REF. DWG. NO.	PNG-B-350-0001014	PNG-C-350-0001263 PNG-C-350-0001312

STATIONING

STA: 541+67 4° OVERBEND (V)
STA: 542+41 45° FTG (H-LT)
STA: 543+18 FTG 41° (H-LT) 2° SAG BEND (V)
STA: 546+42 90° FTG (H-RT)
STA: 547+21 7° OVERBEND (V)

PLAN



0'
50'
100'
HORIZONTAL SCALE: 1" = 50'
N
MATCHLINE STA:541+50
25'
25'
25'
13'
A.G.
542+00
PROPOSED 20" PIPELINE
PROPOSED PERMANENT EASEMENT
PROPOSED TEMPORARY WORKSPACE
45'
543+00
25'
1393.00
T
D
C
A.G.
10.1'
41°
544+00
545+00
546+00
NOTE C3
NOTE C3
E. GALBRAITH RD
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
MATCHLINE STA:547+50
B
WB-18
D
547+00
A.G.
90°
575
RONALD REAGAN CROSS COUNTY HWY

RESTORE

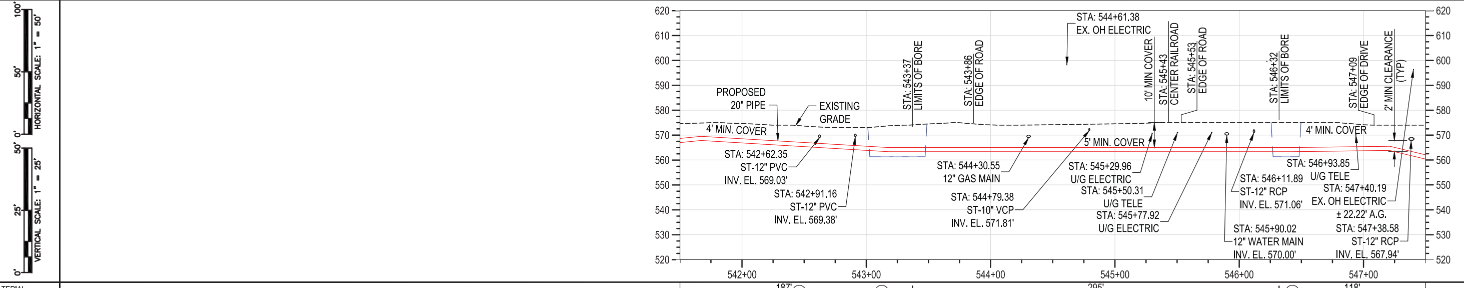
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL E	N/A	E
SURFACE TYPE:	SEED - FINE	N/A	SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT# HEAT#

STA. WELD # (COV.)

PROFILE



0'
50'
100'
HORIZONTAL SCALE: 1" = 50'
0'
25'
50'
VERTICAL SCALE: 1" = 25'
620
610
600
590
580
570
560
550
540
530
520
PROPOSED 20" PIPE
EXISTING GRADE
4' MIN. COVER
STA: 542+62.35 ST-12" PVC INV. EL. 569.03'
STA: 542+91.16 ST-12" PVC INV. EL. 569.38'
STA: 543+37 LIMITS OF BORE
STA: 543+86 EDGE OF ROAD
STA: 544+30.55 12" GAS MAIN
STA: 544+79.38 ST-10" VCP INV. EL. 571.81'
STA: 544+61.38 EX. OH ELECTRIC
5' MIN. COVER
STA: 545+29.96 U/G ELECTRIC
STA: 545+50.31 U/G TELE
STA: 545+77.92 U/G ELECTRIC
10' MIN COVER
STA: 545+43 CENTER RAILROAD
STA: 545+53 EDGE OF ROAD
STA: 546+32 LIMITS OF BORE
STA: 546+11.89 ST-12" RCP INV. EL. 571.06'
STA: 545+90.02 12" WATER MAIN INV. EL. 570.00'
4' MIN. COVER
STA: 546+93.85 U/G TELE
STA: 547+09 EDGE OF DRIVE
2' MIN CLEARANCE (TYP)
STA: 547+40.19 EX. OH ELECTRIC ± 22.22' A.G.
STA: 547+38.58 ST-12" RCP INV. EL. 567.94'
542+00
543+00
544+00
545+00
546+00
547+00

CONSTRUCTION NOTES:

C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. WATER FILLED BARRIERS SHALL BE PLACED OUTSIDE BORE PITS FOR TRAFFIC PROTECTION.

MATERIAL			
CONST. METHOD	187' ① ⑪ ⑪ OPEN TRENCH	295' ② BORE	⑩ 118' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG		

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA- 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	51 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—

DRAWING NUMBER: PNG -C-350-0001229
REVISION: 0

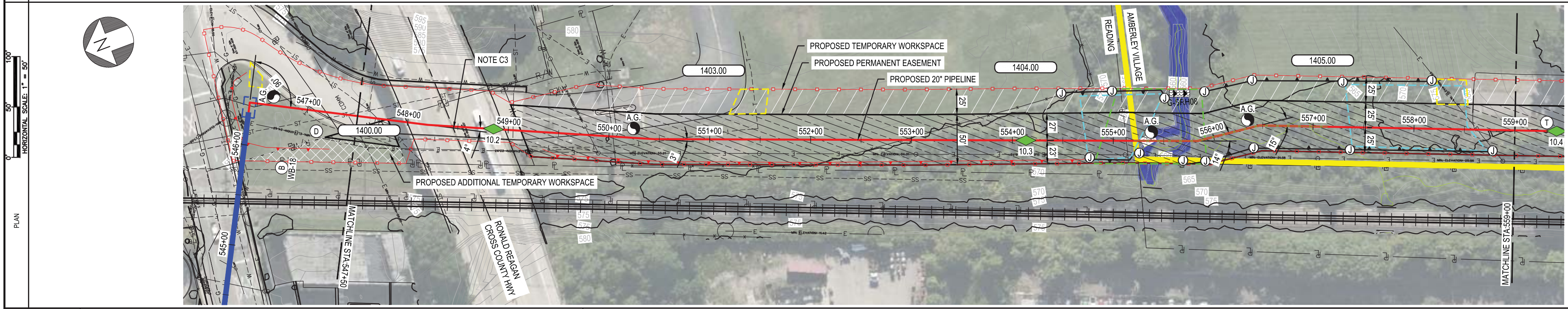
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY						
OWNERSHIP JURISDICTION	ROW READING	1400.00 READING	ROW READING	1403.00 READING	1404.00 READING	1405.00 AMBERLEY VILLIAGE
ACREAGE		0.7132 ACRES		0.7132 ACRES		1.4610 ACRES
EASEMENTS		VARIES		50' EASEMENT		50' EASEMENT
REF. DWG. NO.	PNG-C-350-0001312				PNG-C-350-0001303	

STATIONING

STA: 547+78 17° SAG BEND (V)
STA: 548+20 BEND 4° (H-LT) 10° OVERBEND (V)
STA: 550+45 3° BEND (H-LT)
STA: 550+85 1° SAG BEND (V)
STA: 551+48 1° OVERBEND (V)
STA: 553+59 1° OVERBEND (V)
STA: 554+73 9° OVERBEND (V)
STA: 555+38 12° SAG BEND (V)
STA: 555+83 14° BEND (H-LT)
STA: 556+47 15° BEND (H-RT)
STA: 557+46 5° SAG BEND (V)

PLAN



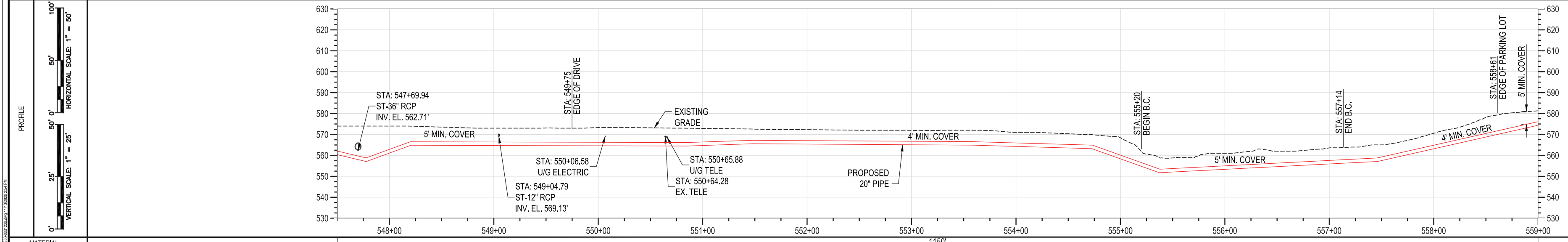
N
HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
NOTE C3
1403.00
1404.00
1405.00
1400.00
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
READING
AMBERLEY VILLAGE
RONALD REAGAN CROSS COUNTY HWY
MATCHLINE STA:547+50
MATCHLINE STA:559+00
545+00
546+00
547+00
548+00
549+00
550+00
551+00
552+00
553+00
554+00
555+00
556+00
557+00
558+00
559+00
A.G.
10.2
10.3
10.4
25'
50'
27'
23'
15°
14°
WB-18
D
B
T
J

RESTORE		
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	D	E
SURFACE TYPE:	FOR RESTORATION TYPE DETAIL	1	SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

STA.	WELD #	(COV.)	JOINT LENGTH	JOINT #	HEAT #

PROFILE



HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'
630
620
610
600
590
580
570
560
550
540
530
548+00
549+00
550+00
551+00
552+00
553+00
554+00
555+00
556+00
557+00
558+00
559+00
STA: 547+69.94
ST-36" RCP
INV. EL. 562.71'
5' MIN. COVER
STA: 549+75
EDGE OF DRIVE
EXISTING GRADE
STA: 550+06.58
U/G ELECTRIC
STA: 549+04.79
ST-12" RCP
INV. EL. 569.13'
STA: 550+65.88
U/G TELE
STA: 550+64.28
EX. TELE
4' MIN. COVER
PROPOSED 20" PIPE
STA: 555+20
BEGIN B.C.
5' MIN. COVER
STA: 557+14
END B.C.
4' MIN. COVER
STA: 558+61
EDGE OF PARKING LOT
5' MIN. COVER

CONSTRUCTION NOTES:

C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. CONTRACTOR SHALL NOT DISTURB OVERHEAD BRIDGE DECK OR APPURTENANCES.

MATERIAL	
CONST. METHOD	1150' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & MCDONNELL
ENGINEERING COMPANY, INC.
STATE LICENSE # COA. 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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	11/18/2020	AMP

DUKE ENERGY. | Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	52 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—
DRAWING NUMBER	PNG -C-350-0001230	REVISION	0

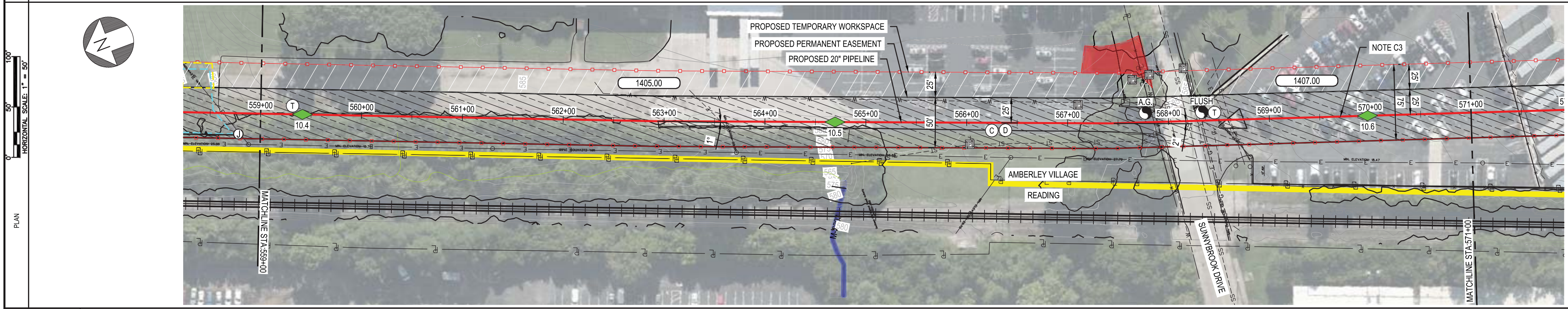
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY			
OWNERSHIP JURISDICTION	1405.00 AMBERLEY VILLAGE	1407.00 AMBERLEY VILLAGE
ACREAGE	1.4610 ACRES	0.6564 ACRES
EASEMENTS	50' EASEMENT	50' EASEMENT
REF. DWG. NO.	PNG-C-350-0001312	PNG-C-350-0001293

STATIONING

STA: 559+01 6° OVERBEND (V)
STA: 562+90 BEND 1° (H-LT) 1° OVERBEND (V)
STA: 563+67 3° OVERBEND (V)
STA: 564+35 3° SAG BEND (V)
STA: 565+20 3° SAG BEND (V)
STA: 565+91 3° OVERBEND (V)
STA: 567+43 2° BEND (H-LT)
STA: 568+24 3° SAG BEND (V)
STA: 569+16 2° OVERBEND (V)

PLAN


HORIZONTAL SCALE: 1" = 50'
0
50'
100'
N
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
NOTE C3
1405.00
1407.00
559+00
560+00
561+00
562+00
563+00
564+00
565+00
566+00
567+00
568+00
569+00
570+00
571+00
10.4
10.5
10.6
T
J
C
D
25'
50'
75'
1°
2°
A.G.
FLUSH
AMBERLEY VILLAGE
READING
SUNNYBROOK DRIVE
MATCHLINE STA:559+00
MATCHLINE STA:571+00

RESTORE

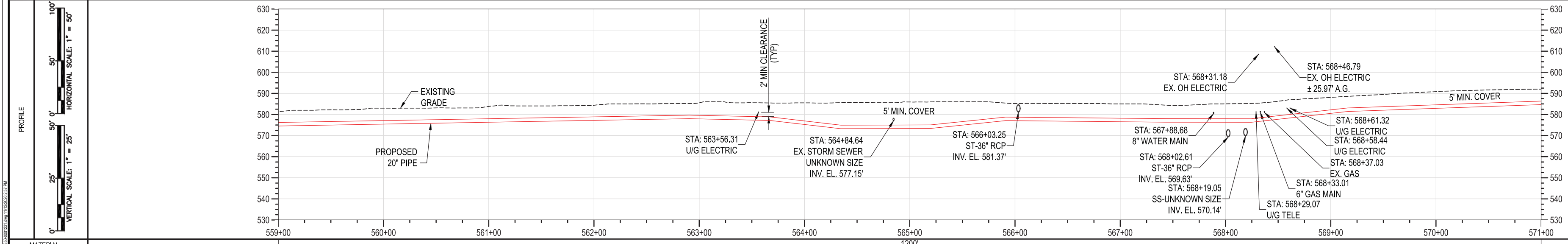
TRENCH TYPE: SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL — D

SURFACE TYPE: 1

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (COV.) | JOINT LENGTH | JOINT # | HEAT #

PROFILE


HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'
630
620
610
600
590
580
570
560
550
540
530
559+00
560+00
561+00
562+00
563+00
564+00
565+00
566+00
567+00
568+00
569+00
570+00
571+00
EXISTING GRADE
PROPOSED 20" PIPE
2' MIN CLEARANCE (TYP)
STA: 563+56.31 U/G ELECTRIC
STA: 564+84.64 EX. STORM SEWER UNKNOWN SIZE INV. EL. 577.15'
5' MIN. COVER
STA: 566+03.25 ST-36" RCP INV. EL. 581.37'
STA: 567+88.68 8" WATER MAIN
STA: 568+02.61 ST-36" RCP INV. EL. 569.63'
STA: 568+19.05 SS-UNKNOWN SIZE INV. EL. 570.14'
STA: 568+29.07 U/G TELE
STA: 568+33.01 6" GAS MAIN
STA: 568+37.03 EX. GAS
STA: 568+58.44 U/G ELECTRIC
STA: 568+61.32 U/G ELECTRIC
STA: 568+31.18 EX. OH ELECTRIC
STA: 568+46.79 EX. OH ELECTRIC ± 25.97' A.G.
5' MIN. COVER

CONSTRUCTION NOTES:

C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. EMPLOYEE PARKING LOT SHALL BE COMPLETELY RESTORED BEFORE ANY EXCAVATION ACTIVITIES BEGIN IN THE TRACTOR TRAILER PARKING LOT.

C4. TRENCH BACKFILL TYPE F SHALL BE USED WHEN ALIGNMENT PASSES OVERTOP SANITARY SEWER LATERALS.

MATERIAL: 1200' ①

CONST. METHOD: OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

REF. DWG(S) SEE REFERENCE BAND

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA.01557

STATE OF OHIO AMANDA PALM E-84075 REGISTERED PROFESSIONAL ENGINEER 11/18/2020

PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S) 53 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001231	REVISION 0
C/HAMILTON COUNTY/C350	

RIGHT-OF-WAY			
OWNERSHIP JURISDICTION	1407.00 AMBERLEY VILLAGE	1407.01 AMBERLEY VILLAGE	
ACREAGE	0.6564 ACRES	3.1226 ACRES	
EASEMENTS	50' EASEMENT	50' EASEMENT	
REF. DWG. NO.	PNG-C-350-0001312		PNG-C-350-0001303

STATIONING

STA: 573+06 BEND 22° (H-RT) 1° SAG BEND (V)

STA: 573+65 10° OVERBEND (V)

STA: 574+05 7° SAG BEND (V)

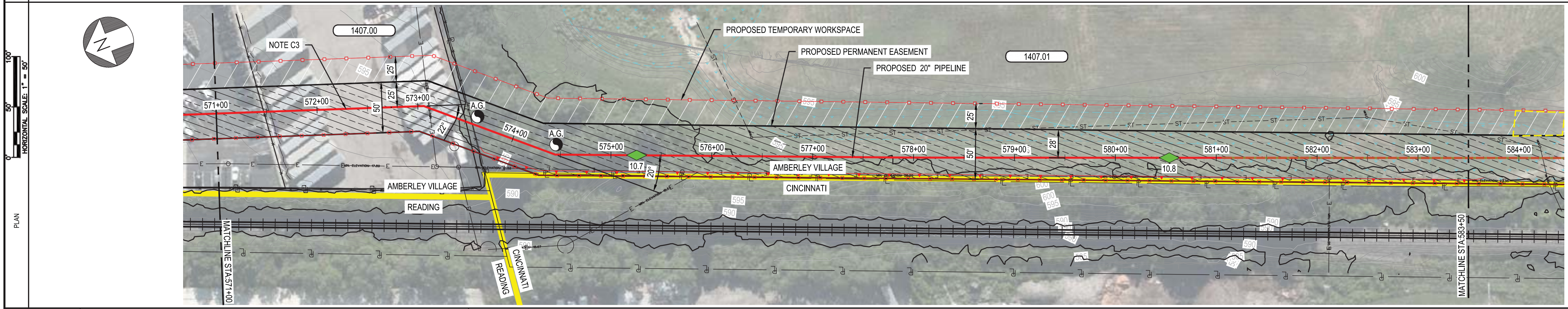
STA: 574+45 BEND 20° (H-LT) 3° SAG BEND (V)

STA: 575+88 2° OVERBEND (V)

STA: 579+82 1° OVERBEND (V)

STA: 582+99 1° SAG BEND (V)

PLAN

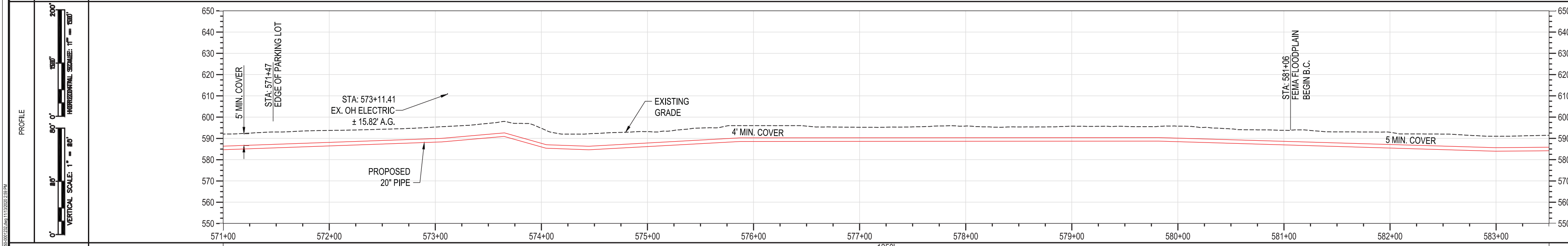

HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
1407.00
NOTE C3
595
25'
50'
571+00
572+00
573+00
A.G.
22°
574+00
575+00
10.7
20°
AMBERLEY VILLAGE
READING
590
CINCINNATI
READING
MATCHLINE STA:571+00
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
1407.01
576+00
577+00
578+00
579+00
580+00
581+00
582+00
583+00
584+00
28'
10.8
AMBERLEY VILLAGE
CINCINNATI
595
600
MATCHLINE STA:583+50

RESTORE			
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	D	E
SURFACE TYPE:		1	SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

STA.	WELD #	(COV.)	JOINT LENGTH	JOINT #	HEAT #	(COV.)	WELD #	STA.

PROFILE



CONSTRUCTION NOTES:

C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C3. EMPLOYEE PARKING LOT SHALL BE COMPLETELY RESTORED BEFORE ANY EXCAVATION ACTIVITIES BEGIN IN THE TRACTOR TRAILER PARKING LOT.

MATERIAL	
CONST. METHOD	1250' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
	11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	54 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—

DRAWING NUMBER: PNG -C-350-0001232

REVISION: 0

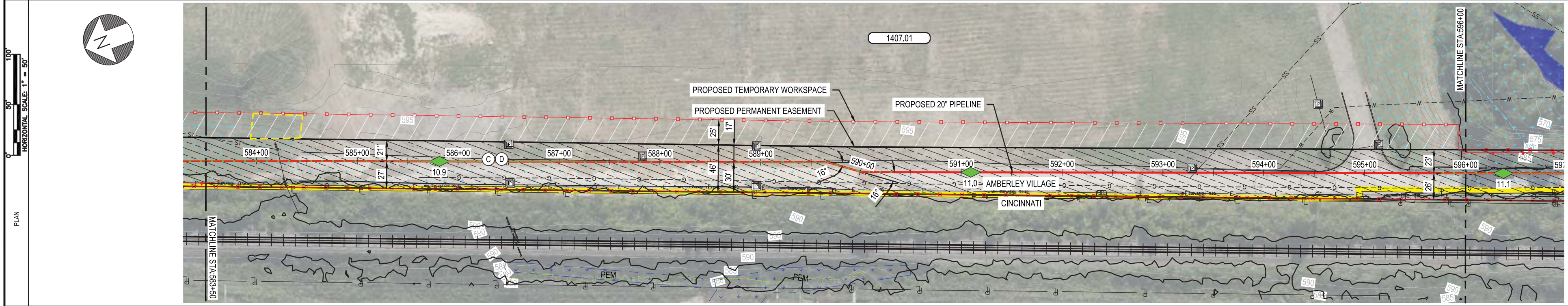
C/HAMILTON COUNTY/C350

OWNERSHIP JURISDICTION	1407.01 AMBERLEY VILLAGE
ACREAGE	3.1226 ACRES
EASEMENTS	VARIES
REF. DWG. NO.	PNG-C-350-0001303 / PNG-C-350-0001312 / PNG-C-350-0001303

STATIONING

STA: 584+34 1° SAG BEND (V)
STA: 585+00 1° OVERBEND (V)
STA: 589+67 16° BEND (H-RT)
STA: 590+01 16° BEND (H-LT)
STA: 593+10 1° OVERBEND (V)

PLAN


HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
N
1407.01
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
584+00
585+00
586+00
587+00
588+00
589+00
590+00
591+00
592+00
593+00
594+00
595+00
596+00
21'
27'
25'
17'
46'
30'
16'
16'
23'
26'
10.9
11.0
11.1
C
D
AMBERLEY VILLAGE
CINCINNATI
PEM
595
590
MATCHLINE STA:583+50
MATCHLINE STA:596+00

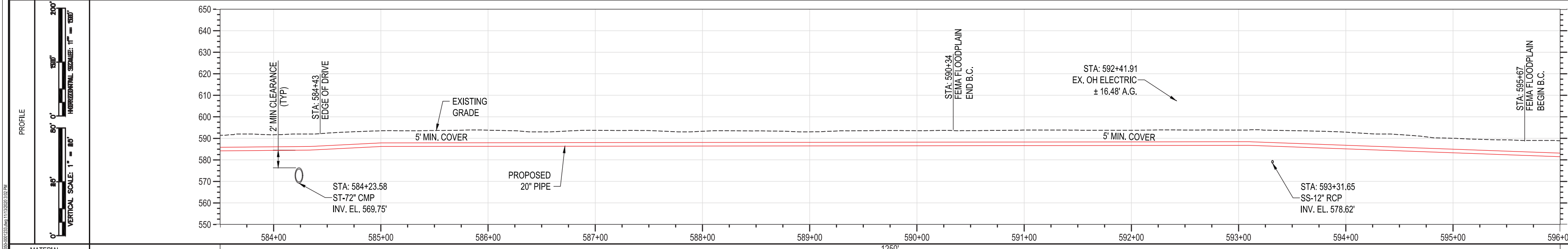
RESTORE

TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	E	D
SURFACE TYPE:		SEED - ROUGH	1

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (CON.) | JOINT LENGTH | JOINT# | HEAT#

PROFILE


VERTICAL SCALE: 1" = 80'
HORIZONTAL SCALE: 1" = 100'
650
640
630
620
610
600
590
580
570
560
550
2' MIN CLEARANCE (TYP)
STA: 584+43 EDGE OF DRIVE
EXISTING GRADE
5' MIN. COVER
STA: 584+23.58
ST-72" CMP
INV. EL. 569.75'
PROPOSED 20" PIPE
STA: 590+34 FEMA FLOODPLAIN END B.C.
STA: 592+41.91
EX. OH ELECTRIC
± 16.48' A.G.
5' MIN. COVER
STA: 593+31.65
SS-12" RCP
INV. EL. 578.62'
STA: 595+67 FEMA FLOODPLAIN BEGIN B.C.
584+00
585+00
586+00
587+00
588+00
589+00
590+00
591+00
592+00
593+00
594+00
595+00
596+00

CONSTRUCTION NOTES:

C1. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C2. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

MATERIAL

CONST. METHOD: 1250' ① OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

REF. DWG(S) SEE REFERENCE BAND

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA. 01507

STATE OF OHIO AMANDA PALM E-84075 REGISTERED PROFESSIONAL ENGINEER 11/18/2020

PROFESSIONAL ENG/ARCH STAMP

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

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

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

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

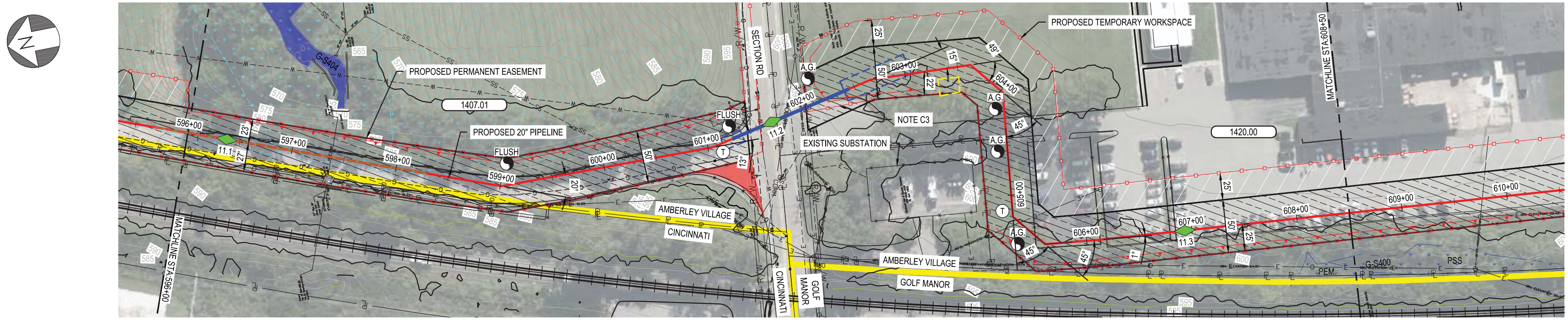
SHEET(S) 55 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001233	REVISION 0
C/HAMILTON COUNTY/C350	

RIGHT-OF-WAY				
OWNERSHIP / JURISDICTION	1407.01 AMBERLEY VILLAGE	ROW AMBERLEY VILLAGE	1420.00 AMBERLEY VILLAGE
ACREAGE	3.1226 ACRES		1.2432 ACRES
EASEMENTS	50' EASEMENT		50' EASEMENT
REF. DWG. NO.	PNG-C-004-0001303 PNG-C-350-0001312	PNG-C-004-0001264	

STATIONING

STA: 596+99 1° SAG BEND (V)
STA: 597+94 2° SAG BEND (V)
STA: 599+01 20° BEND (H-LT)
STA: 600+57 6° OVERBEND (V)
STA: 601+05 BEND 13° (H-LT) 4° SAG BEND (V)
STA: 602+67 BEND 15° (H-RT) 10° SAG BEND (V)
STA: 603+23 10° OVERBEND (V)
STA: 603+63 49° FTG (H-RT)
STA: 604+03 FTG 45° (H-RT) 1° OVERBEND (V)
STA: 605+21 FTG 45° (H-LT) 1° SAG BEND (V)
STA: 605+61 FTG 45° (H-LT) 1° SAG BEND (V)
STA: 606+13 1° BEND (H-LT)
STA: 607+15 1° OVERBEND (V)

PLAN



HORIZONTAL SCALE: 1" = 50'
0' 50' 100'
PROPOSED PERMANENT EASEMENT
1407.01
PROPOSED 20" PIPELINE
FLUSH
G-S404
596+00
597+00
598+00
599+00
600+00
601+00
602+00
603+00
604+00
605+00
606+00
607+00
608+00
609+00
610+00
11.1'
23'
27'
20°
50'
13°
11.2'
MATCHLINE STA:596+00
AMBERLEY VILLAGE
CINCINNATI
SECTION RD
A.G.
NOTE C3
EXISTING SUBSTATION
22'
15'
25'
49°
45°
1°
11.3'
PROPOSED TEMPORARY WORKSPACE
1420.00
MATCHLINE STA:608+50
GOLF MANOR
PEM
G-S400
PSS

RESTORE						
TRENCH TYPE: SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	D	N/A	E	D	E	D
SURFACE TYPE: FOR RESTORATION TYPE DETAIL	1	N/A	SEED - FINE	1	SEED - FINE	1

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (CDV.) | JOINT LENGTH | JOINT# | HEAT#

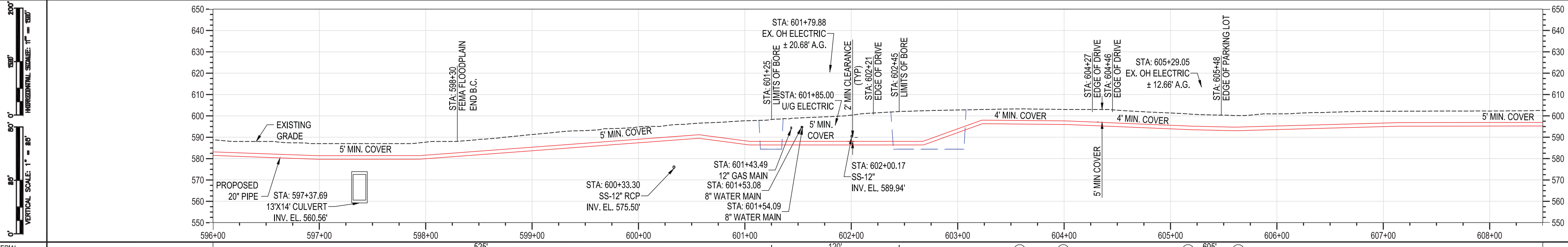
CONSTRUCTION NOTE:

C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.

C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C3. JERSEY BARRIER TO BE PLACED BETWEEN BORE PIT AND DRIVE AT LIMIT OF DISTURBANCE.

PROFILE



VERTICAL SCALE: 1" = 80'
HORIZONTAL SCALE: 1" = 100'
650
640
630
620
610
600
590
580
570
560
550
EXISTING GRADE
PROPOSED 20" PIPE
STA: 597+37.69 13'X14' CULVERT INV. EL. 560.56'
5' MIN. COVER
STA: 598+30 FEMA FLOODPLAIN END B.C.
STA: 600+33.30 SS-12" RCP INV. EL. 575.50'
5' MIN. COVER
STA: 601+43.49 12" GAS MAIN
STA: 601+53.08 8" WATER MAIN
STA: 601+54.09 8" WATER MAIN
STA: 601+25 LIMITS OF BORE
STA: 601+79.88 EX. OH ELECTRIC ± 20.68' A.G.
STA: 601+85.00 U/G ELECTRIC
5' MIN. COVER
2' MIN CLEARANCE (TYP)
STA: 602+21 EDGE OF DRIVE
STA: 602+45 LIMITS OF BORE
STA: 602+00.17 SS-12" INV. EL. 589.94'
4' MIN. COVER
5' MIN COVER
STA: 604+27 EDGE OF DRIVE
STA: 604+46 EDGE OF DRIVE
4' MIN. COVER
STA: 605+29.05 EX. OH ELECTRIC ± 12.66' A.G.
STA: 605+48 EDGE OF PARKING LOT
5' MIN. COVER
596+00
597+00
598+00
599+00
600+00
601+00
602+00
603+00
604+00
605+00
606+00
607+00
608+00

MATERIAL

CONST. METHOD: 525' ① OPEN TRENCH | 120' ② BORE | ⑩ ⑪ ⑪ 605' ① ⑪ OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

REF. DWG(S) SEE REFERENCE BAND

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

DESCRIPTION	
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
	11/18/2020	AMP	PRINCIPAL ENGINEER

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA. 01557

STATE OF OHIO AMANDA PALM E-84075 REGISTERED PROFESSIONAL ENGINEER 11/18/2020

PROFESSIONAL ENG/ARCH STAMP

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

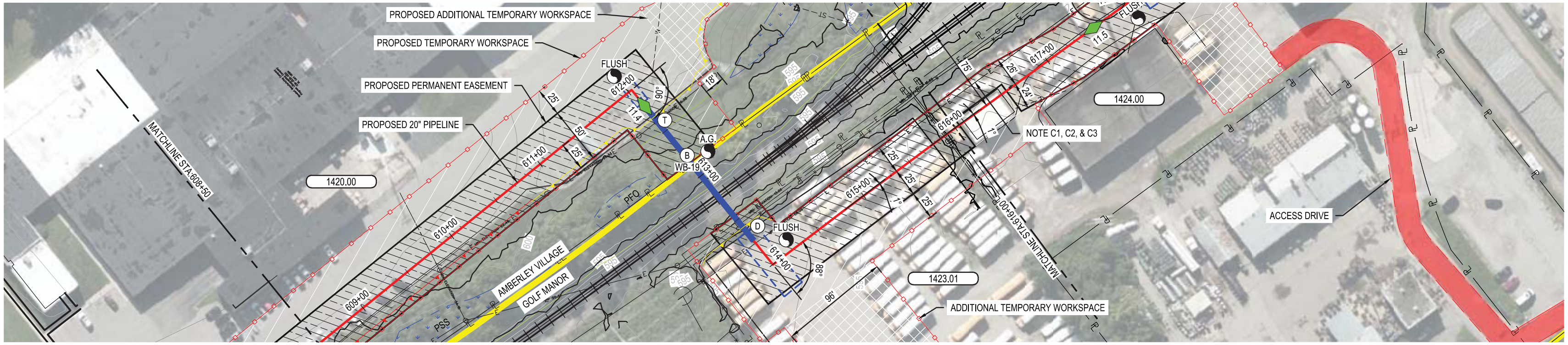
SHEET(S) 56 OF 64 | DWG SCALE AS NOTED
DWG DATE 01/13/2020 | SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001234 | REVISION 0
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY					
OWNERSHIP JURISDICTION	1420.00 AMBERLEY VILLAGE	S.O.R.T.A. ROW GOLF MANOR	1423.01 GOLF MANOR	1424.00 GOLF MANOR
ACREAGE	1.2432 ACRES		0.2795 ACRES	0.3642 ACRES
EASEMENTS	50' EASEMENT		50' EASEMENT	VARIES
REF. DWG. NO.	PNG-B-350-0001014	PNG-C-350-0001265	PNG-C-350-0001312	PNG-C-350-0001173

STATIONING

STA: 610+41 1° OVERBEND (V)
STA: 611+27 6° OVERBEND (V)
STA: 612+03 FTG 90° (H-RT) 7° SAG BEND (V)
STA: 614+00 FTG 88° (H-LT) 4° SAG BEND (V)
STA: 614+77 BEND 1° (H-RT) 6° OVERBEND (V)
STA: 615+70 BEND 1° (H-RT) 2° SAG BEND (V)

PLAN

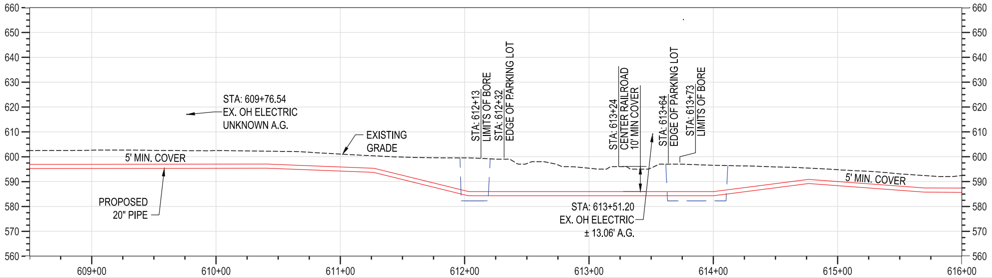

0
50'
100'
HORIZONTAL SCALE: 1" = 50'
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
MATCHLINE STA.608+50
1420.00
609+00
610+00
611+00
612+00
613+00
614+00
615+00
616+00
617+00
FLUSH
T
B
A.G.
WB-19
D
FLUSH
90°
18'
11.4
25
50'
25
PFO
PSS
AMBERLEY VILLAGE
GOLF MANOR
88°
96'
1423.01
1424.00
NOTE C1, C2, & C3
75'
26'
24'
25
25
25'
11.5
FLUSH
MATCHLINE STA.616+00
ADDITIONAL TEMPORARY WORKSPACE
ACCESS DRIVE

RESTORE			
TRENCH TYPE: SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295	D	N/A	D
SURFACE TYPE: FOR RESTORATION TYPE DETAIL	1	N/A	1

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT # HEAT #

PROFILE



CONSTRUCTION NOTES:

C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.

C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C3. PIPELINE SHALL MAINTAIN A MINIMUM 25-FOOT CLEARANCE FROM CENTER OF RAILROAD TRACKS PER AREMA GUIDELINES. PIPELINE COVER SHALL BE 6-FEET WHEN LOCATED WITHIN 50-FEET OF RAILROAD CENTERLINE.

C4. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

MATERIAL	⑩	⑩	
CONST. METHOD	363' ① OPEN TRENCH	160' ② BORE	227' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG		

BURNS & MCDONNELL ENGINEERING COMPANY, INC.
STATE LICENSE # COA 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY.
Piedmont Natural Gas
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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S)	57 OF 64	DWG SCALE	AS NOTED
DWG DATE	01/13/2020	SUPERSEDED	—
DRAWING NUMBER	PNG -C-350-0001235	REVISION	0

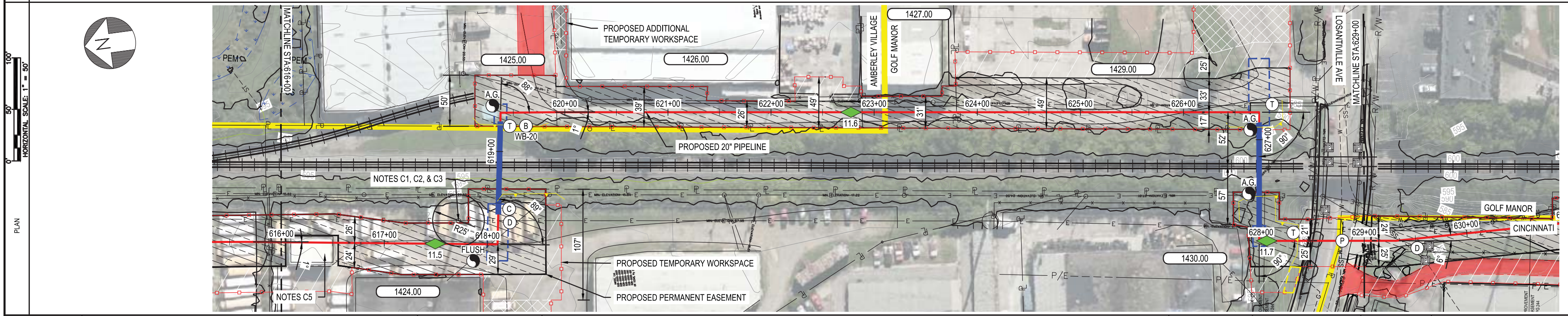
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY										
OWNERSHIP	1424.00	S.O.R.T.A. ROW	1425.00	1426.00	1427.00	1429.00	S.O.R.T.A. ROW	1430.00	ROW
JURISDICTION	GOLF MANOR	GOLF MANOR	AMBERLEY VILLAGE	AMBERLEY VILLAGE	AMBERLEY VILLAGE	GOLF MANOR	GOLF MANOR	GOLF MANOR	GOLF MANOR / CINCINNATI
ACREAGE	0.3642 ACRES		0.0906 ACRES	0.2881 ACRES		0.3553 ACRES		0.0889 ACRES	
EASEMENTS	VARIES		VARIES	VARIES		50' EASEMENT		VARIES	
REF. DWG. NO.	PNG-C-350-0001266			PNG-B-350-0001014		PNG-C-350-0001312		PNG-C-350-0001267	PNG-C-350-0001173

STATIONING

STA: 618+10 89° FTG (H-LT)
STA: 619+38 FTG 88° (H-RT) 5° SAG BEND (V)
STA: 619+88 BEND 1° (H-RT) 5° OVERBEND (V)
STA: 625+43 5° OVERBEND (V)
STA: 626+43 5° SAG BEND (V)
STA: 626+73 90° FTG (H-RT)
STA: 627+98 FTG 90° (H-LT) 11° OVERBEND (V)
STA: 628+38 8° SAG BEND (V)

PLAN


HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
N
MATCHLINE STA:616+00
PEM
1425.00
1426.00
1427.00
1429.00
1430.00
1424.00
AMBERLEY VILLAGE
GOLF MANOR
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
PROPOSED 20" PIPELINE
PROPOSED TEMPORARY WORKSPACE
PROPOSED PERMANENT EASEMENT
NOTES C1, C2, & C3
NOTES C5
A.G.
T
B
WB-20
C
D
P
FLUSH
R25'
11.5
11.6
11.7
616+00
617+00
618+00
619+00
620+00
621+00
622+00
623+00
624+00
625+00
626+00
627+00
628+00
629+00
630+00
50'
26'
24'
29'
89°
88°
39'
26'
49'
31'
49'
25'
33'
17'
52'
57'
21'
25'
24'
25'
90°
1'
107'
LOSANTIVILLE AVE
MATCHLINE STA:629+00
R/W
GOLF MANOR
CINCINNATI
P/E
595
590
585
600

RESTORE								
TRENCH TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	D	N/A	D	E	N/A	E	D
SURFACE TYPE:		1	N/A	1	SEED - ROUGH	N/A	SEED - ROUGH	4

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (COV.) | JOINT LENGTH | JOINT # | HEAT #

CONSTRUCTION NOTES:

C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.

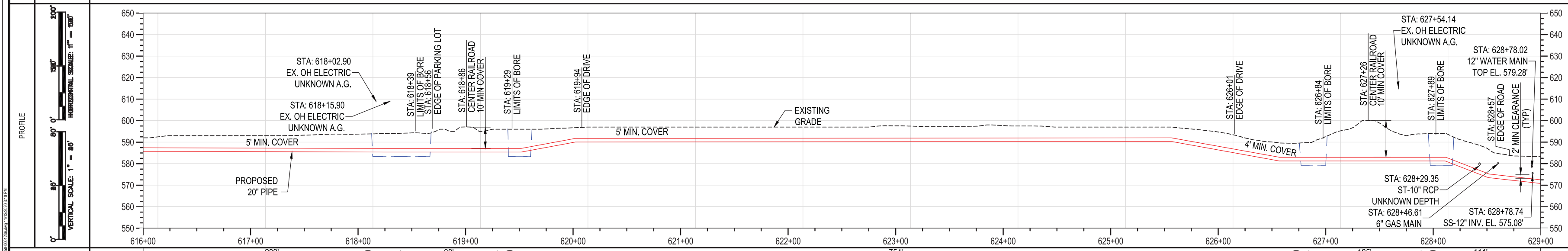
C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C3. PIPELINE SHALL MAINTAIN A MINIMUM 25-FOOT CLEARANCE FROM CENTER OF RAILROAD TRACKS PER AREMA GUIDELINES. PIPELINE COVER SHALL BE 6-FEET WHEN LOCATED WITHIN 50-FEET OF RAILROAD CENTERLINE.

C4. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C5. EXISTING BUILDING DEMOLITION UNDER NEGOTIATION. IF BUILDING STAYS, PIPELINE SHALL BE FIELD ADJUSTED TO THE EAST SIDE OF BUILDING.

PROFILE


HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 80'
650
640
630
620
610
600
590
580
570
560
550
STA: 618+02.90 EX. OH ELECTRIC UNKNOWN A.G.
STA: 618+15.90 EX. OH ELECTRIC UNKNOWN A.G.
STA: 618+39 LIMITS OF BORE
STA: 618+56 EDGE OF PARKING LOT
STA: 618+86 CENTER RAILROAD 10' MIN COVER
STA: 619+29 LIMITS OF BORE
STA: 619+94 EDGE OF DRIVE
EXISTING GRADE
5' MIN. COVER
5' MIN. COVER
PROPOSED 20" PIPE
4' MIN. COVER
STA: 626+01 EDGE OF DRIVE
STA: 626+84 LIMITS OF BORE
STA: 627+26 CENTER RAILROAD 10' MIN COVER
STA: 627+54.14 EX. OH ELECTRIC UNKNOWN A.G.
STA: 627+89 LIMITS OF BORE
STA: 628+57 EDGE OF ROAD
2' MIN CLEARANCE (TYP)
STA: 628+78.02 12" WATER MAIN TOP EL. 579.28'
STA: 628+29.35 ST-10" RCP UNKNOWN DEPTH
STA: 628+46.61 6" GAS MAIN
STA: 628+78.74 SS-12" INV. EL. 575.08'
616+00
617+00
618+00
619+00
620+00
621+00
622+00
623+00
624+00
625+00
626+00
627+00
628+00
629+00

MATERIAL: ⑩ | ⑩ | ⑩ | ⑩

CONST. METHOD: 239' ① OPEN TRENCH | 90' ② BORE | 754' ① OPEN TRENCH | 105' ② BORE | 111' ① OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

REF. DWG(S) SEE REFERENCE BAND

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

DESCRIPTION	
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	11/18/2020	AMP

DUKE ENERGY. | Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S) 58 OF 64 | DWG SCALE AS NOTED
DWG DATE 01/13/2020 | SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001236 | REVISION 0
C/HAMILTON COUNTY/C350

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA. 01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

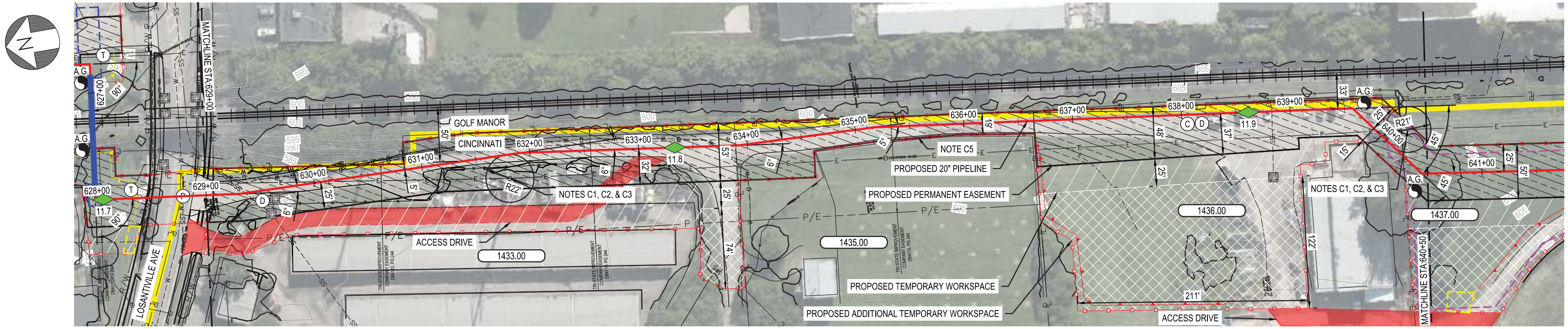
RIGHT-OF-WAY					
OWNERSHIP JURISDICTION	ROW GOLF MANOR / CINCINNATI	1433.00 CINCINNATI	1435.00 CINCINNATI	1436.00 CINCINNATI	1437.00 CINCINNATI
ACREAGE		0.5345 ACRES	0.1872 ACRES	1.8635 ACRES	
EASEMENTS		VARIES	VARIES	VARIES	
REF. DWG. NO.		PNG-C-350-0001312			

STATIONING

STA: 629+31 BEND 6° (H-LT) 8° SAG BEND (V)
STA: 630+99 3° OVERBEND (V)
STA: 631+91 BEND 6° (H-RT) 1° OVERBEND (V)
STA: 633+09 3° OVERBEND (V)
STA: 633+52 2° SAG BEND (V)
STA: 633+92 BEND 6° (H-LT) 5° SAG BEND (V)
STA: 634+36 3° OVERBEND (V)
STA: 635+18 BEND 5° (H-RT) 2° OVERBEND (V)
STA: 636+56 1° SAG BEND (V)
STA: 638+15 4° OVERBEND (V)
STA: 638+59 3° SAG BEND (V)
STA: 638+99 2° SAG BEND (V)
STA: 639+57 FTG 45° (H-RT) 2° OVERBEND (V)
STA: 640+45 45° FTG (H-LT)

PLAN

HORIZONTAL SCALE: 1" = 50'


0'
50'
100'
N
MATCHLINE STA:629+00
627+00
628+00
629+00
630+00
631+00
632+00
633+00
634+00
635+00
636+00
637+00
638+00
639+00
640+00
641+00
A.G.
T
D
C
90°
11.7
11.8
11.9
GOLF MANOR
CINCINNATI
LOSANTIVILLE AVE
R22'
R21'
NOTES C1, C2, & C3
NOTE C5
PROPOSED 20" PIPELINE
PROPOSED PERMANENT EASEMENT
PROPOSED TEMPORARY WORKSPACE
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
ACCESS DRIVE
1433.00
1435.00
1436.00
1437.00
P/E
50'
25'
5'
6'
9'
32'
53'
74'
19'
48'
37'
33'
15'
45°
122'
211'
MATCHLINE STA:640+50

RESTORE				
TRENCH TYPE: SURFACE TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	D 4	D 1	E SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

CONSTRUCTION NOTES:

C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE. LOCATIONS WITH LESS CLEARANCE MUST BE APPROVED IN ADVANCE BY DUKE ELECTRIC ASSET PROTECTION.

C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

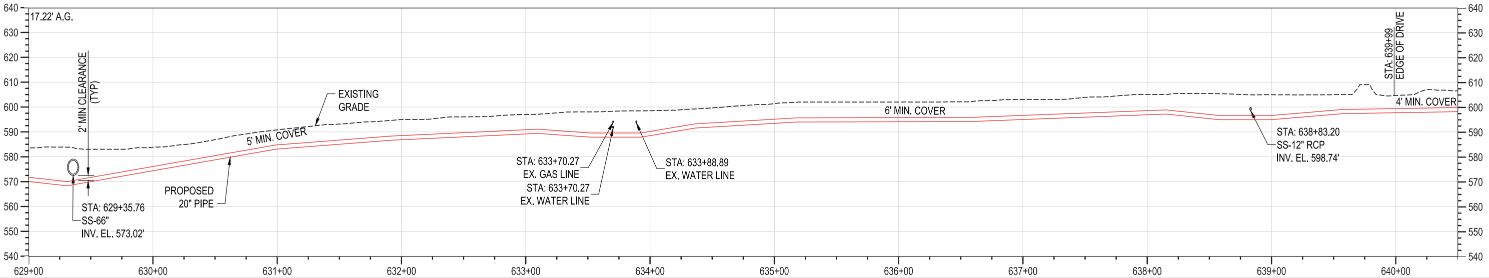
C3. PIPELINE SHALL MAINTAIN A MINIMUM 25-FOOT CLEARANCE FROM CENTER OF RAILROAD TRACKS PER AREMA GUIDELINES. PIPELINE COVER SHALL BE 6-FEET WHEN LOCATED WITHIN 50-FEET OF RAILROAD CENTERLINE.

C4. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

C5. CONTRACTOR SHALL NOT DISTURB EXISTING GROUNDWATER SEEPAGE WALL.

PROFILE

HORIZONTAL SCALE: 1" = 100'
VERTICAL SCALE: 1" = 80'


640
630
620
610
600
590
580
570
560
550
540
17.22' A.G.
2' MIN CLEARANCE (TYP)
EXISTING GRADE
5' MIN. COVER
6' MIN. COVER
4' MIN. COVER
PROPOSED 20" PIPE
STA: 629+35.76
SS-66"
INV. EL. 573.02'
STA: 633+70.27
EX. GAS LINE
STA: 633+70.27
EX. WATER LINE
STA: 633+88.89
EX. WATER LINE
STA: 638+83.20
SS-12" RCP
INV. EL. 598.74'
STA: 639+99
EDGE OF DRIVE
629+00
630+00
631+00
632+00
633+00
634+00
635+00
636+00
637+00
638+00
639+00
640+00

MATERIAL	(11) (11)
CONST. METHOD	1150' (1) OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA 01557

STATE OF OHIO AMANDA PALM E-84075 REGISTERED PROFESSIONAL ENGINEER 11/18/2020

PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 59 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —

DRAWING NUMBER PNG -C-350-0001237 REVISION 0

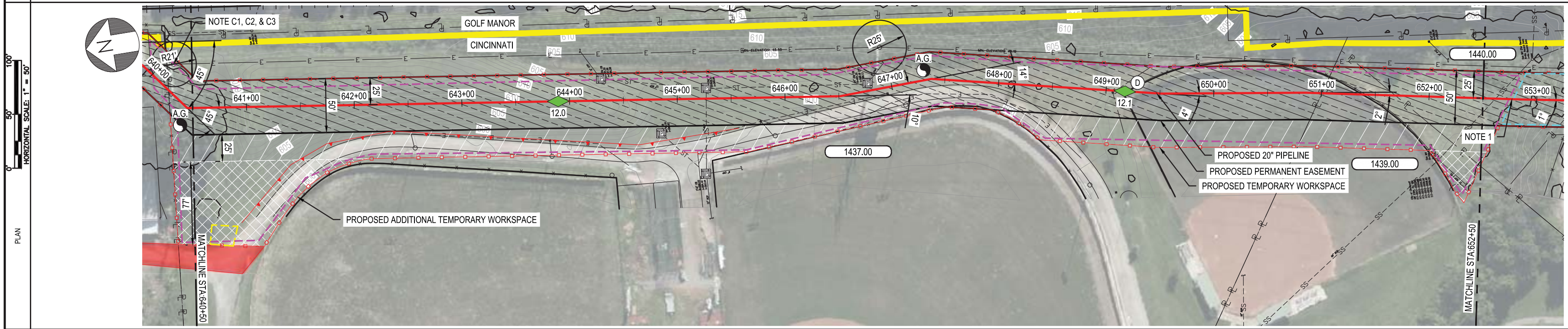
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY				
OWNERSHIP / JURISDICTION	1437.00 CINCINNATI	1439.00 CINCINNATI	1440.00 CINCINNATI
ACREAGE	1.8635 ACRES		
EASEMENTS	50' EASEMENT		
REF. DWG. NO.	PNG-C-350-0001312	PNG-C-350-0001305	

STATIONING

STA: 640+79 12° SAG BEND (V)
STA: 641+20 16° OVERBEND (V)
STA: 642+27 4° SAG BEND (V)
STA: 643+95 7° OVERBEND (V)
STA: 644+99 7° SAG BEND (V)
STA: 645+39 4° SAG BEND (V)
STA: 645+82 4° OVERBEND (V)
STA: 646+51 10° BEND (H-LT)
STA: 647+37 14° BEND (H-RT)
STA: 648+53 6° OVERBEND (V)
STA: 648+99 6° SAG BEND (V)
STA: 649+51 4° BEND (H-LT)
STA: 650+85 2° BEND (H-RT)

PLAN


HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
N
NOTE C1, C2, & C3
GOLF MANOR
CINCINNATI
R21'
640+00
45°
A.G.
641+00
642+00
50'
25'
643+00
644+00
12.0
645+00
646+00
R25'
647+00
A.G.
10°
648+00
14°
649+00
D
12.1
650+00
4°
651+00
2°
652+00
50'
25'
653+00
1440.00
1437.00
1439.00
NOTE 1
PROPOSED 20" PIPELINE
PROPOSED PERMANENT EASEMENT
PROPOSED TEMPORARY WORKSPACE
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
77'
25'
MATCHLINE STA:640+50
MATCHLINE STA:652+50

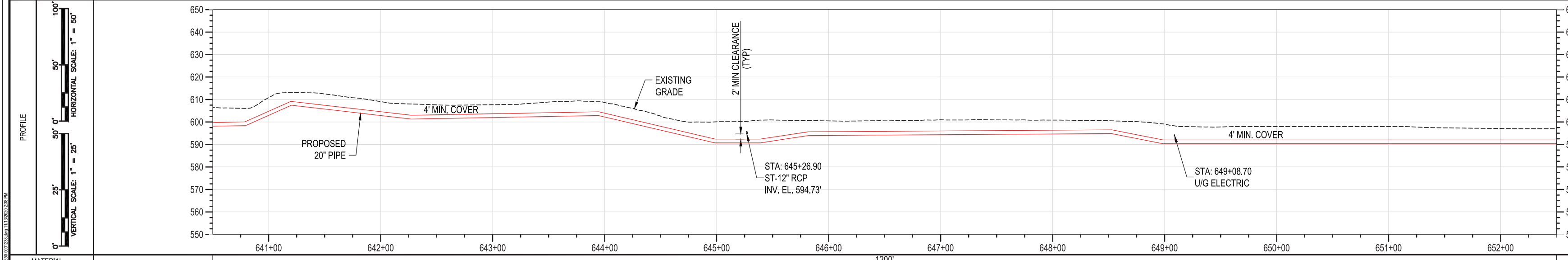
RESTORE				
TRENCH TYPE: / SURFACE TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	E SEED - ROUGH	E SEED - FINE	E SEED - ROUGH

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT # HEAT # WELD # (COV.) STA.

NOTES:
1. TRENCH PLUGS SHALL BE INSTALLED ON SLOPES AND TOE OF SLOPE TO MINIMIZE WATER SEEP ALONG PIPELINE FROM STA: 652+50 TO STA: 653+50.

PROFILE


HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'
650
640
630
620
610
600
590
580
570
560
550
EXISTING GRADE
4' MIN. COVER
PROPOSED 20" PIPE
2' MIN CLEARANCE (TYP)
STA: 645+26.90
ST-12" RCP
INV. EL. 594.73'
4' MIN. COVER
STA: 649+08.70
U/G ELECTRIC
641+00
642+00
643+00
644+00
645+00
646+00
647+00
648+00
649+00
650+00
651+00
652+00

CONSTRUCTION NOTES:
C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.

C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C3. PIPELINE SHALL MAINTAIN A MINIMUM 25-FOOT CLEARANCE FROM CENTER OF RAILROAD TRACKS PER AREMA GUIDELINES. PIPELINE COVER SHALL BE 6-FEET WHEN LOCATED WITHIN 50-FEET OF RAILROAD CENTERLINE.

C4. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

MATERIAL	
CONST. METHOD	1200' ① OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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
11/18/2020	AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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REF. DWG(S) SEE REFERENCE BAND

C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S) 60 OF 64	DWG SCALE	AS NOTED	
DWG DATE 01/13/2020	SUPERSEDED	—	
DRAWING NUMBER PNG -C-350-0001238		REVISION 0	
C/HAMILTON COUNTY/C350			

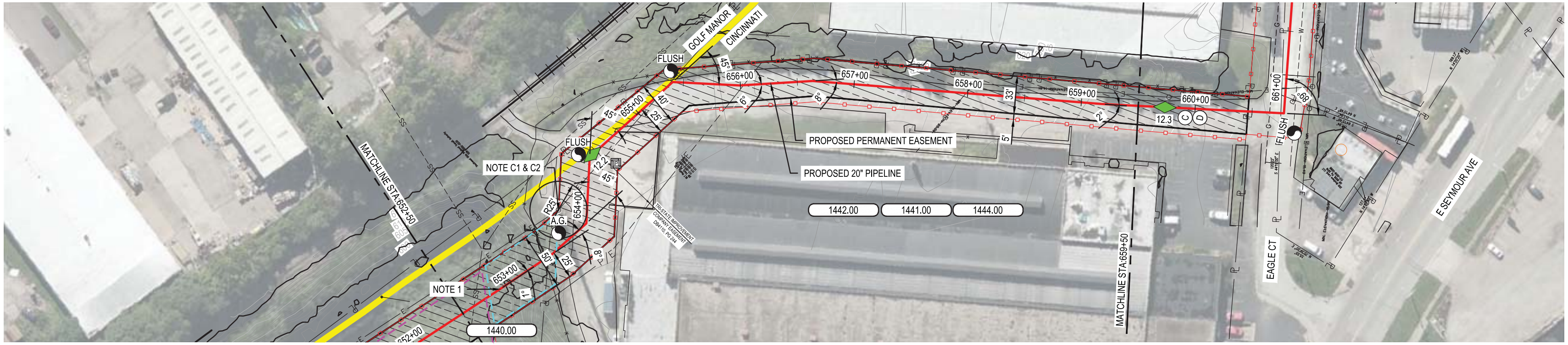
RIGHT-OF-WAY			
OWNERSHIP	1440.00	1442.00 1441.00 1444.00	
JURISDICTION	CINCINNATI	CINCINNATI	
ACREAGE	1.8635 ACRES	0.5854 ACRES	
EASEMENTS	50' EASEMENT	VARIES	
REF. DWG. NO.	PNG-C-350-0001305	PNG-C-350-0001312	

STATIONING

STA: 652+89 BEND 1° (H-LT) 20° SAG BEND (V)
STA: 653+44 BEND 8° (H-LT) 19° OVERBEND (V)
STA: 653+84 45° FTG (H-LT)
STA: 654+42 45° FTG (H-RT)
STA: 655+41 45° FTG (H-RT)
STA: 655+99 6° BEND (H-LT)
STA: 656+63 8° BEND (H-RT)
STA: 659+18 2° BEND (H-LT)

PLAN

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'



MATCHLINE STA:652+50
NOTE 1
NOTE C1 & C2
1440.00
652+00
653+00
654+00
655+00
656+00
657+00
658+00
659+00
660+00
661+00
FLUSH
FLUSH
FLUSH
A.G.
GOLF MANOR
CINCINNATI
PROPOSED PERMANENT EASEMENT
PROPOSED 20" PIPELINE
1442.00
1441.00
1444.00
MATCHLINE STA:659+50
EAGLE CT
E SEYMOUR AVE
45°
40'
25'
12.2'
45°
R25'
50'
25'
8°
1°
45°
6°
8°
33'
2°
5'
12.3
C
D
89'

RESTORE		
TRENCH TYPE: SURFACE TYPE:	SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL E SEED - ROUGH	D 1

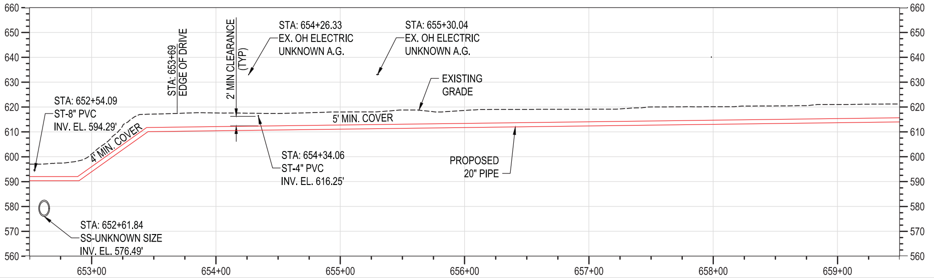
PIPE DATA (SLOPE STATIONING)

STA.	WELD #	(COV.)	JOINT LENGTH	JOINT#	HEAT#

PROFILE

HORIZONTAL SCALE: 1" = 50'
0' 50' 100'

VERTICAL SCALE: 1" = 25'
0' 25' 50'



NOTES:

1. TRENCH PLUGS SHALL BE INSTALLED ON SLOPES AND TOE OF SLOPE TO MINIMIZE WATER SEEP ALONG PIPELINE FROM STA: 652+50 TO STA: 653+50.

CONSTRUCTION NOTES:

C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.

C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C3. AC MITIGATION SITE, SEE DRAWING PNG-E-350-0001024.

MATERIAL	⑪ ⑪ ⑪ 700' ①
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC.
STATE LICENSE # COA.01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

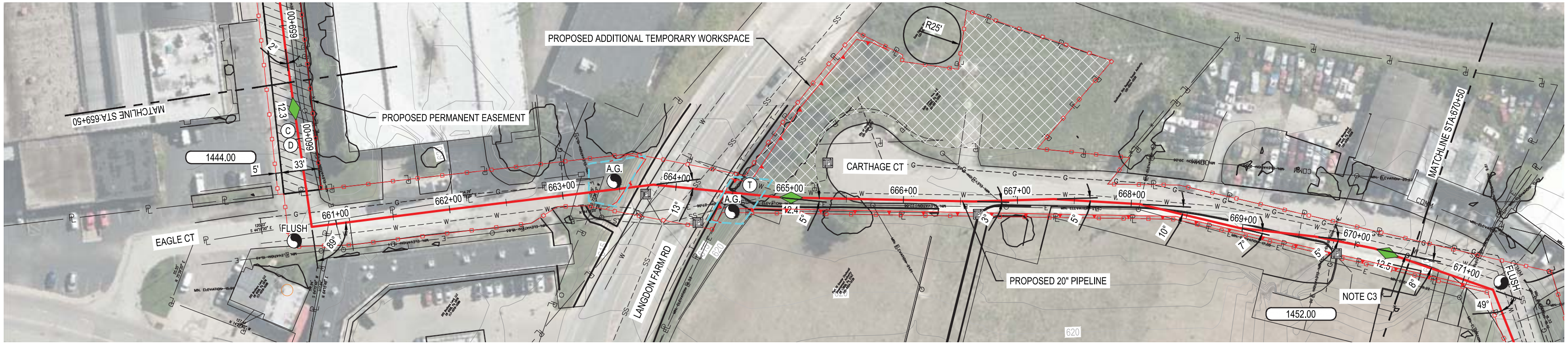
SHEET(S) 61 OF 64
DWG SCALE AS NOTED
DWG DATE 01/13/2020
SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001239
REVISION 0
C/HAMILTON COUNTY/C350

RIGHT-OF-WAY				
OWNERSHIP JURISDICTION	1444.00 CINCINNATI	ROW CINCINNATI	ROW CINCINNATI
ACREAGE	0.5854 ACRES		
EASEMENTS	VARIES		
REF. DWG. NO.			

STATIONING

STA: 659+99 5° OVERBEND (V)
STA: 660+47 5° SAG BEND (V)
STA: 660+78 89° FTG (H-LT)
STA: 663+39 9 OVERBEND (V)
STA: 663+80 BEND 13° (H-RT) 9° SAG BEND (V)
STA: 664+46 15° SAG BEND (V)
STA: 664+90 BEND 5° (H-LT) 15° OVERBEND (V)
STA: 666+62 3° BEND (H-LT)
STA: 667+32 5° BEND (H-RT)
STA: 668+07 BEND 10° (H-RT) 1° OVERBEND (V)
STA: 668+97 7° BEND (H-LT)
STA: 669+64 5° BEND (H-RT)
STA: 670+17 BEND 8° (H-RT) 3° OVERBEND (V)

PLAN


HORIZONTAL SCALE: 1" = 50'
0'
50'
100'
MATCHLINE STA:659+50
1444.00
PROPOSED PERMANENT EASEMENT
12.3
C
D
660+00
5'
33'
2°
661+00
FLUSH
89°
EAGLE CT
662+00
663+00
A.G.
664+00
13°
LANGDON FARM RD
PROPOSED ADDITIONAL TEMPORARY WORKSPACE
T
A.G.
665+00
12.4
5°
R25'
CARTHAGE CT
666+00
3°
667+00
PROPOSED 20" PIPELINE
668+00
5°
10°
669+00
7°
5°
670+00
12.5
8°
NOTE C3
1452.00
MATCHLINE STA:670+50
671+00
FLUSH
49°
620

RESTORE

TRENCH TYPE: SURFACE TYPE:						
SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 FOR RESTORATION TYPE DETAIL	D 1	D 4	E SEED - ROUGH	D 4	E SEED - ROUGH	D 4

PIPE DATA (SLOPE STATIONING)

STA. WELD # (COV.) JOINT LENGTH JOINT# HEAT#
STA. WELD # (COV.)

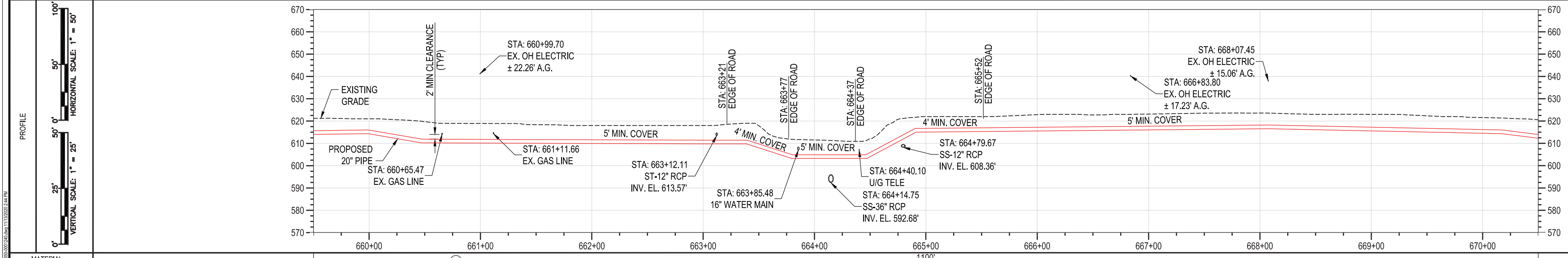
CONSTRUCTION NOTE:

C1. PIPELINE SHALL MAINTAIN 25-FOOT CLEARANCE FROM HIGH VOLTAGE OVERHEAD ELECTRIC WHERE POSSIBLE.

C2. CONTRACTOR SHALL GROUND PIPE PER DUKE STANDARDS IN PROXIMITY TO HIGH VOLTAGE OVERHEAD ELECTRIC LINES, SEE DRAWING PNG-C-350-0001312.

C3. CONTRACTOR SHALL REMOVE ABANDONED GAS MAIN BACK TO NEXT UPSTREAM SERVICE TAKEOFF TO ALLOW INSTALLATION OF C350 PIPELINE IN LOCATION PREVIOUSLY OCCUPIED BY GAS MAIN.

PROFILE


HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 25'
670
660
650
640
630
620
610
600
590
580
570
EXISTING GRADE
PROPOSED 20" PIPE
STA: 660+65.47 EX. GAS LINE
2' MIN CLEARANCE (TYP)
STA: 660+99.70 EX. OH ELECTRIC ± 22.26' A.G.
STA: 661+11.66 EX. GAS LINE
5' MIN. COVER
STA: 663+12.11 ST-12" RCP INV. EL. 613.57'
STA: 663+21 EDGE OF ROAD
4' MIN. COVER
STA: 663+77 EDGE OF ROAD
STA: 663+85.48 16" WATER MAIN
5' MIN. COVER
STA: 664+37 EDGE OF ROAD
STA: 664+40.10 U/G TELE
STA: 664+14.75 SS-36" RCP INV. EL. 592.68'
STA: 665+52 EDGE OF ROAD
4' MIN. COVER
STA: 664+79.67 SS-12" RCP INV. EL. 608.36'
5' MIN. COVER
STA: 666+83.80 EX. OH ELECTRIC ± 17.23' A.G.
STA: 668+07.45 EX. OH ELECTRIC ± 15.06' A.G.
660+00
661+00
662+00
663+00
664+00
665+00
666+00
667+00
668+00
669+00
670+00

MATERIAL ⑩

CONST. METHOD 1100' ① OPEN TRENCH

CLASS / MAOP CLASS 4 / MAOP 500 PSIG

REF. DWG(S) SEE REFERENCE BAND

BURNS & MCDONNELL ENGINEERING COMPANY, INC. STATE LICENSE # COA-01557

STATE OF OHIO
AMANDA PALM
E-84075
REGISTERED PROFESSIONAL ENGINEER
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

SHEET(S) 62 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —
DRAWING NUMBER PNG -C-350-0001240	REVISION 0
C/HAMILTON COUNTY/C350	

RIGHT-OF-WAY			
OWNERSHIP JURISDICTION		ROW CINCINNATI	1462.00 CINCINNATI
ACREAGE			0.1657 ACRES
EASEMENTS			VARIES
REF. DWG. NO.	PNG-C-350-0001312		

STATIONING

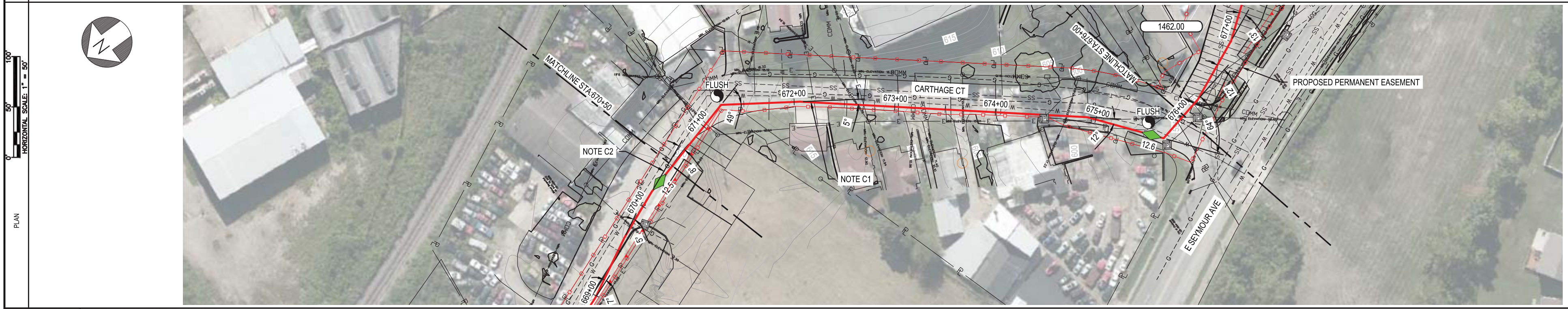
STA: 671+27 49° FTG (H-RT)

STA: 672+06 BEND
5° (H-RT) 1° SAG BEND (V)

STA: 674+91 12° BEND (H-RT)

STA: 675+70 FTG
64° (H-LT) 5° SAG BEND (V)

PLAN



N
0'
50'
100'
HORIZONTAL SCALE: 1" = 50'
MATCHLINE STA 670+50
NOTE C2
669+00
670+00
12.5
5'
671+00
49°
FLUSH
672+00
673+00
5°
CARTHAGE CT
NOTE C1
674+00
675+00
12°
600
615
FLUSH
676+00
12.6
64°
12°
677+00
1462.00
MATCHLINE STA 676+00
PROPOSED PERMANENT EASEMENT
E SEYMOUR AVE
SS
W
G
E

RESTORE

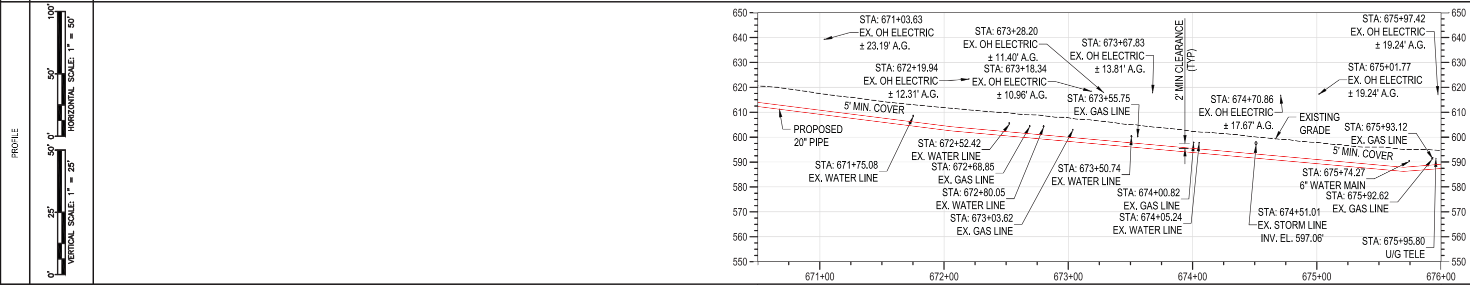
TRENCH TYPE: SEE DWG PNG-C-350-0001293 THROUGH PNG-C-350-0001295 — D

SURFACE TYPE: FOR RESTORATION TYPE DETAIL — 4

PIPE DATA (SLOPE STATIONING)

STA. | WELD # | (COV.) | JOINT LENGTH | JOINT # | HEAT #

PROFILE



CONSTRUCTION NOTES:
C1. PIPELINE SHALL BE INSTALLED AT LEAST 15-FEET FROM BUILDINGS, UNLESS APPROVED BY DUKE ENERGY.

C2. CONTRACTOR SHALL REMOVE ABANDONED GAS MAIN BACK TO NEXT UPSTREAM SERVICE TAKEOFF TO ALLOW INSTALLATION OF C350 PIPELINE IN LOCATION PREVIOUSLY OCCUPIED BY GAS MAIN.

MATERIAL: ⑩ — ⑩

CONST. METHOD: 550' ① OPEN TRENCH

CLASS / MAOP: CLASS 4 / MAOP 500 PSIG

BURNS & McDONNELL ENGINEERING COMPANY, INC.
STATE LICENSE # COA-01557

AMANDA PALM E-84075
11/18/2020
PROFESSIONAL ENG/ARCH STAMP

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

DESCRIPTION	
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 11/18/2020	INITIALS AMP	PRINCIPAL ENGINEER

DUKE ENERGY. | Piedmont Natural Gas

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C350 PIPELINE
ALIGNMENT PLAN & PROFILE
HAMILTON COUNTY, OH

HAMILTON COUNTY, OH

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 63 OF 64	DWG SCALE AS NOTED
DWG DATE 01/13/2020	SUPERSEDED —

DRAWING NUMBER: PNG -C-350-0001241
REVISION: 0

C/HAMILTON COUNTY/C350

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/4/2020 1:16:59 PM

in

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

Summary: Exhibit CCP Drawings for Preconstruction Conference Set 1 Part 3 electronically filed by Mrs. Debbie L Gates on behalf of Duke Energy Ohio Inc. and Kingery, Jeanne W and Vaysman, Larisa