

**UL60 PIPELINE PHASE 1**

SCALE: NOT TO SCALE

**NOTES:**

- 1) LAT/LONG TO BE VERIFIED BY AS BUILD SURVEY.
- 2) AS BUILD SURVEY LOCATION TIE IN POINT  
AM07 TIE-IN: LATITUDE: 39.021849 LONGITUDE: -84.372547  
WENDELL FORD TIE-IN: LATITUDE: 39.0226598 LONGITUDE: -84.6545896  
BURLINGTON PIKE TIE-IN: LATITUDE: 39.0175344 LONGITUDE: -84.6827996
- 3) IN SERVICE DATE: 11/25/2020

**DRAWING INDEX**

DRAWING NUMBER	DRAWING TITLE
PNG-G-043-0001022	COVER SHEET
PNG-G-043-0001023	GENERAL NOTES
PNG-G-043-0001024	ABBREVIATIONS & LEGEND
PNG-G-043-0001025	BILL OF MATERIALS
PNG-C-043-0001048 THROUGH 0001069	ALIGNMENT SHEET
PNG-C-043-0001070 THROUGH 0001071	ALIGNMENT SHEET - 8" LATERAL
PNG-C-043-0001072	ALIGNMENT SHEET - BURLINGTON PIKE LATERAL
PNG-C-043-0001078 THROUGH 0001079	TIE-IN DETAIL
PNG-C-043-0001082	HDD ALIGNMENT SHEET
PNG-C-043-0001084 THROUGH 0001086	BORE CROSSING DETAILS
PNG-C-043-0001087	GUN POWDER CREEK CROSSING DETAIL
PNG-C-043-0001089 THROUGH 0001095	CONSTRUCTION DETAILS
PNG-C-043-0001096	ACCESS DRIVE DETAILS
PNG-C-043-0001099 THROUGH 0001101	EROSION & SEDIMENT CONTROL DETAILS
PNG-C-043-0001104	AIRPORT LAYDOWN YARD ACCESS PLAN
PNG-C-043-0001109 THROUGH 0001110	HYDROSTATIC TEST PLANS
PNG-B-043-0001001 THROUGH 0001003	GEOTECH BORE LOGS
PNG-E-043-0001033 THROUGH 0001039	CP/AC MITIGATION DETAILS & EQUIPMENT SCHEDULES
PNG-E-043-0001040	CATHODIC PROTECTION & AC MITIGATION BILL OF MATERIALS

BURNS & MCDONNELL  
STATE LICENSE #43

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

PROFESSIONAL ENG/ARCH STAMP

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID - CHECKER INITIALS CEB	DATE 04/17/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER



COPYRIGHT 2019

**UL60 PIPELINE - PHASE 1**  
**COVER SHEET**  
**BOONE COUNTY, KY**  
ERLANGER, KY

SHEET(S) 1 OF 1	DWG SCALE NONE
DWG DATE 04/26/2019	SUPERSEDED
DRAWING NUMBER PNG -G-043-0001022	REVISION 0
G/ERLANGER/UL60	



DESIGN REVIEW OF COMPLETED CONSTRUCTION JOB

SPONSOR \_\_\_\_\_ DATE \_\_\_\_\_

FIELD CHANGE REQUEST DOCUMENT REQUIRED: YES  NO

TRANSMISSION DESIGN DOCUMENT REQUIRED: YES  NO

CORROSION ENGINEERING

CONDITION OF COATING WHEN DELIVERED TO JOB:  TEST CONN. PER STD. 7.7.1

NO. PROPOSED 24

NO. INSTALLED 24

APPR. BY \_\_\_\_\_

COATING TYPE  FACTORY APPLIED   GOOD  FAIR  POOR  NO. TESTED OK (P/S INDICATOR)

INSPECTION: INSULATION CHECKED  PLASTIC SEPARATIONS INSTALLED

VISUAL  JEEP  NO. CHECKED \_\_\_\_\_ CONTINUITY OF COUPLINGS CHECKED

TYPE PATCH MATERIAL \_\_\_\_\_ CASING CHECKED FOR SHORT

VALVES THAT HAVE BEEN ABANDONED AND REMOVED

#	#
#	#
#	#
#	#
#	#
#	#

SUPERVISOR BLOCK

SUPERVISOR OR CONTRACTOR JON TRAPP / INFRASOURCE

RECORDED BY GLENN SIEK

DATE STARTED 4/16/20 DATE PLACED IN SERVICE 11/25/20

DATE COMPLETED \_\_\_\_\_ PERMIT NO. PERMIT MATRIX

TRACEABILITY OF PLASTIC MAIN AND SERVICES TESTED UPON COMPLETION

COMPLETION CONTRACTOR \_\_\_\_\_

VERIFICATION INSPECTOR \_\_\_\_\_

FIELD PRESSURE LEAK TEST

ALL PIPELINES REQUIRE LEAK TESTING BEFORE PLACING INTO SERVICE. PRESSURE CHARTS AND FORMS SHOULD BE FORWARDED TO GAS ENGINEERING

REQUIRED TEST PRESSURE RANGE: MIN. 90 PSIG TO MAX 100 PSIG

HOURS 24 MEDIUM AIR

TESTED BY CHAD COSTELLO DATE \_\_\_\_\_

9/3/21, 9/25/21, 10/2/21, 10/10/21, 10/19/21, 10/27/21

PIPE INSTALLED ON JOB

SIZE	KIND	WALL THICKNESS	EST. PIPE LENGTH	ACTUAL PIPE LENGTH	ACTUAL FITTING & VALVE LENGTH
24"	X65	0.500"	23,810 FT.	23,697.5 FT.	23,761.5 FT.
10"	X52	0.365"	10 FT.	6 FT.	6.5 FT.
8"	X52	0.322"	2,575 FT.	2,577 FT.	2,591 FT.
1"	GR B	0.179"	40 FT.	28.6 FT.	30.6 FT.
TOTAL			26,435 FT.	26,309.1 FT.	26,389.6 FT.

PERMIT(S) REQUIRED

BOONE COUNTY

KYTC

FAA

KDEP

SD1

KPSC

KDOW

USACE

PROJECT CONTACTS

CONSTRUCTION: JON TRAPP (W) 513-287-1513 (C) 859-250-4785

ENGINEERING SPONSOR: BRAD SEITER (W) 513-287-4415 (C) 859-466-6690 MATTHEW HUGHES (W) 513-287-3026 (C) 859-663-5744

HYDROSTATIC PRESSURE TEST

ALL LINES OPERATING ABOVE 60 PSIG REQUIRE STRENGTH TESTING BEFORE PLACING INTO SERVICE. PRESSURE CHARTS AND FORMS SHOULD BE FORWARDED TO GAS ENGINEERING, TEST PER PROCEDURE GD10.1003-1

HYDROSTATIC TEST WATER DISCHARGE REQUIREMENTS

PERMIT REQUIRED FOR ALL DISCHARGE. CONTACT GAS OPERATION REGULATORY COMPLIANCE TO ARRANGE FOR DISCHARGE PERMIT. SAMPLING AND TESTING REQUIRED FOR ALL DISCHARGES TO SURFACE WATERS. CONTACT LOCAL POTW FOR OFFSITE DISCHARGE REQUIREMENTS AND LOCAL WATER DISTRICT. IN KENTUCKY, A WITHDRAW PERMIT IS REQUIRED, IF 10,000 GALLONS OF WATER PER DAY IS TAKEN FROM ANY SURFACE OF GROUND WATER SOURCE.

REQUIRED TEST PRESSURE RANGE: MIN. 1500 PSIG TO MAX 1600 PSIG

HOURS 8 MEDIUM WATER

SIGNATURE CHAD COSTELLO DATE 9/2/21, 9/24/21, 10/1/21, 10/9/21, 10/17/21, 10/26/21

INSTALLED PIPE & FITTING MAOP VERIFICATION T/L UL60 TO BE FILLED IN BY MAOP ENGINEER

SIZE	WALL THICKNESS	GRADE	% SYMS
24"	0.500"	X65	36.92%
10"	0.365"	X65	22.66%
10"	0.365"	X52	28.32%
8"	0.322"	X52	25.76%
1"	0.179"	B	10.49%

HYDROSTATIC TEST PROJECT CONTACTS

CONSTRUCTION MANAGER JON TRAPP (C) 859-250-4785

CONTRACTOR CONSTRUCTION MANAGEMENT SUPERVISOR KEN HELLE (C) 425-870-0775 INFRASOURCE

PROJECT MANAGER BRAD SEITER (C) 859-466-6690

CORROSION ENGINEER MICKEY HARGROVE (C) 615-872-2392

CONSTRUCTION & MAINTENANCE (C&M) MANAGER MIKE GASSETT (C) 513-479-5185

DESIGN MAOP PER CLASS 4 1000 PSIG. OPERATING OF LINE 370 PSIG MIN. PRESSURE RATING OF VALVE, FLANGE OR FITTING 1000 PSIG.

I HEREBY CERTIFY THAT ALL MATERIAL INSTALLED IS RATED HIGHER THAN THE DESIGN MAOP OF THIS LINE, AND THAT THE MATERIAL WAS INSTALLED AS DESIGNED UNLESS NOTED ON MATERIAL LIST.

MAOP ENGINEER SIGNATURE CASEY BLOISE DATE 1/8/2021

WELD PROCEDURE(S) REQUIRED

SPEC # WPS 50 SPEC # \_\_\_\_\_

SPEC # WPS 40 SPEC # \_\_\_\_\_

SPEC # WPS 30 SPEC # \_\_\_\_\_

SPEC # \_\_\_\_\_ SPEC # \_\_\_\_\_

CONFORMING TO THE OFFICE OF PIPELINE SAFETY'S REGULATIONS (SECTION 192.243. PARAGRAPH F), WELDING FOR PIPELINE IS REQUIRED TO BE MAINTAINED AS A PART OF THE PIPELINE'S PERMANENT RECORD.

TO MEET THIS REQUIREMENT, THE INSPECTOR SHALL IDENTIFY EACH WELD OF THIS PIPELINE BY NUMBERING AND LOCATING THE WELD ON THE CONSTRUCTION DRAWING AND COMPLETING THE INFORMATION BLOCK BELOW. NUMBERS MUST MATCH THOSE ON X-RAY SHEET. ALL WELDS MUST BE IN ACCORDANCE WITH COMPANY SPECIFICATION GD 55.500.

TO BE FILLED OUT BY DESIGN ENGINEER

PIPE SIZE	24"	10"	10"	8"	1"	2" TOR
PIPE WALL THK.	0.500"	0.365"	0.365"	0.322"	0.179"	
PIPE GRADE	X65	X65	X52	X52	B	
SYMS PER MAOP	36.92%	22.66%	28.32%	25.76%	10.49%	
WELDING SPEC.						
% XRAY	100%	100%	100%	100%	100%	100%

TO BE FILLED OUT BY INSPECTOR

TOTAL NO. OF WELDS MADE	613	2	2	86	16	2
TOTAL NO. OF WELDS X-RAYED	613	2	2	86	16	2
TOTAL NO. OF WELDS REJECTED	0	0	0	0	0	0
TOTAL NO. OF WELDS REPAIRED	0	0	0	0	0	0
TOTAL NO. OF WELDS REPLACED	0	0	0	0	0	0

NOTE: TOTAL OF REPAIRED PLUS REPLACED WELDS SHOULD EQUAL AMOUNT OF REJECTED WELDS

BURNS & MCDONNELL  
STATE LICENSE #43

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

PROFESSIONAL ENG/ARCH STAMP

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPMD	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY JXV STATION ID - CHECKER INITIALS CEB	DATE - INITIALS - DATE - INITIALS - DATE 04/17/2020 INITIALS AMP



UL60 PIPELINE - PHASE 1  
SIGN OFF SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

WORK ORDER: -

MAP NO. -

SHEET(S) 1 OF 1 DWG SCALE AS NOTED

DWG DATE 04/08/2020 SUPERSEDED

DRAWING NUMBER PNG -G-043-0001058 REVISION 0

C/ERLANGER/UL60



**GENERAL NOTES**

- "COMPANY" IS DEFINED AS DUKE ENERGY OR DUKE ENERGY'S APPROVED REPRESENTATIVE.
- INSTALLER SHALL FURNISH ALL MATERIALS NOT PROVIDED BY THE COMPANY (UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFICATIONS) INCLUDING EQUIPMENT TRANSPORTATION, SERVICES AND PERFORM ALL NECESSARY WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREINAFTER.
- IT SHALL BE THE RESPONSIBILITY OF THE INSTALLER TO VERIFY ALL DIMENSIONS GIVEN ON THE DRAWINGS. ANY ITEM IN QUESTION SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT MANAGER PRIOR TO PROCEEDING WITH THE WORK.
- INSTALLER SHALL BE RESPONSIBLE FOR PROTECTION OF ALL SURROUNDING AREAS.
- ALL BELOW GROUND WELDS SHALL BE COATED WITH A TWO-PART EPOXY (DENSO 7125, 7200, OR 7300) PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS.
- ALL ABOVE GROUND PIPING TO BE BLASTED TO CORRECT SOCIETY FOR PROTECTIVE COATINGS (SSPC) SURFACE PROFILE. PAINT SYSTEM TO BE UTILIZED SHALL BE PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS.
- UPON BACKFILLING IN AREAS OF ROCK, BURIED PIPE SHALL HAVE 6" OF SAND PAD FILL PLACED AROUND THE PIPE'S CIRCUMFERENCE.
- PRESSURE TESTING SHALL MEET THE REQUIREMENTS OF DUKE ENERGY'S CURRENT STRENGTH AND LEAK TEST PROCEDURES AND STANDARDS.
- INSTALLER SHALL DEWATER ALL HYDROSTATICALLY TESTED PIPING, USING CLEANING PIGS AS REQUIRED, AND DRY TO A DEWPOINT OF -40 °F PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS.
- ALL WELDS SHALL BE INSPECTED PER DUKE GAS STANDARD 55.500.
- INSTALLER IS REQUIRED TO FOLLOW DUKE ENERGY NGBU GD WELDING STANDARD MANUAL WELDING PROCEDURES.
- ALL EXISTING PIPELINE INFORMATION PER DUKE RECORDS.

**CONSTRUCTION NOTES**

- EXISTING OVERHEAD AND BELOW GROUND FACILITIES MAY BE IN THE WORK AREA VICINITY. INSTALLER IS RESPONSIBLE FOR HAVING SUCH FACILITIES LOCATED AND IS RESPONSIBLE FOR MAINTENANCE AND PRESERVATION OF THESE FACILITIES.
- PER PERTINENT DUKE ENERGY DESIGN AND CONSTRUCTION STANDARDS, INSTALLER IS REQUIRED TO CALL 811 FOR UTILITY LOCATES A MINIMUM OF 72 HOURS AND MAXIMUM OF 10 DAYS PRIOR TO COMMENCEMENT OF WORK. NO EXTRA COMPENSATION WILL BE ALLOWED FOR DELAYS FROM ANY WORK PROVIDED BY OTHER UTILITIES.
- IF EXISTING UTILITIES OF ANY TYPE ARE ENCOUNTERED IN THE FIELD AND DEEMED TO BE IN CONFLICT WITH INSTALLATION OF FACILITIES, INSTALLER SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY SO THE CONFLICT MAY BE RESOLVED.
- WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, INSTALLER SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR PRIVATE DRAINS OR SEWERS. RESTORATION OF THESE FACILITIES IS TO BE PERFORMED ONCE CONSTRUCTION IS COMPLETE AND ARE CONSIDERED INCIDENTAL COSTS OF THE PROJECT.
- ALL DRAWING MEASUREMENTS ARE TO BE TAKEN FROM EXISTING GRADE. FINAL GRADE SHALL BE MATCHED TO SURROUNDING GRADE AS PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS.
- INSTALLER IS TO REMAIN WITHIN CONSTRUCTION WORKING LIMITS. ACCESS TO AREAS OUTSIDE WORKING LIMITS MUST BE COORDINATED WITH THE OWNER OR DUKE ENERGY PROJECT MANAGER.
- ALL EXCESS EXCAVATION, CONSTRUCTION DEMOLITION DEBRIS AND UNSUITABLE MATERIALS THAT DO NOT CONTAIN ASBESTOS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED.
- STANDARD SPECIFICATIONS REFERENCED ON THIS SHEET AND CONSTRUCTION PLANS ARE CONSIDERED AS PART OF THE CONTRACT DOCUMENTS. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED, BUT ARE CONSIDERED TO BE A PART OF THIS CONTRACT.
- BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVED BY DUKE ENERGY OR COMPANY REPRESENTATIVE. FINAL PAYMENT SHALL BE MADE AFTER ALL OF THE INSTALLER'S WORK HAS BEEN ACCEPTED AND APPROVED AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- DURING CONSTRUCTION, ALL LOOSE MATERIAL THAT IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, SHALL BE REMOVED AT THE END OF EACH WORK DAY.
- ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION SHALL BE EXTENDED TO OUTLET INTO AN EXISTING DRAINAGE WAY. A RECORD OF ALL FIELD TILE FOR ONSITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE INSTALLER AND TURNED OVER TO THE PROJECT MANAGER UPON COMPLETION OF THE PROJECT.
- INSTALLER IS REQUIRED TO MAINTAIN A SET OF ISSUED FOR CONSTRUCTION DRAWINGS AND ALL PERMITS AT THE JOB SITE. ANY MODIFICATIONS OR ALTERATIONS TO THE PLANS OR SPECIFICATIONS SHALL BE APPROVED BY THE PROJECT MANAGER.
- INSTALLER IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS/HER WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS. INSTALLER IS RESPONSIBLE FOR THE CONSTRUCTION METHODS AND TECHNIQUES, SEQUENCES, TIME OF PERFORMANCE, AND ALL SAFETY PRECAUTIONS.
- MINIMUM DEPTH OF BURIAL SHALL BE PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS.
- ALL PIPELINES BEING CROSSED ARE TO BE PROTECTED WITH A MINIMUM OF THREE (3) 4 FEET X 18 FEET WOODEN MATS.

- PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS, FOR OPEN DITCH EXCAVATION, A MINIMUM OF TWO FEET OF SEPARATION SHALL BE MAINTAINED BETWEEN ALL CROSSING STRUCTURES. SEPARATION BETWEEN CROSSING STRUCTURES AND PIPELINES THAT ARE INSTALLED VIA DIRECTIONAL DRILLING METHODS IS AT THE DISCRETION OF ENGINEERING.
- DURING BACKFILLING, A SIX INCH CROWN SHALL BE PLACED ON ALL DISTURBED AREAS. COMPACTION REQUIREMENTS SHALL BE PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS.
- FLOWABLE FILL MUST BE USED IN ROADWAY AND WITHIN 3' OF ROADWAY PER DUKE STANDARDS.
- SUE LEVEL B SURVEY ACQUIRED. TOP OF PIPE ELEVATIONS SHOWN FOR KNOWN UTILITY DEPTHS. REMAINING UTILITIES ASSUMED TO HAVE 4 FT. OF COVER. CONTRACTOR TO FIELD VERIFY ALL UTILITY DEPTHS.
- EXTENSIVE DEVELOPMENT BY OTHERS FROM STA: 135+00 TO STA: 244+00 AND STA: 500+00 TO STA: 521+00. STREAMS, WETLANDS, AND WATER BODIES THROUGH AREA REMOVED BY OTHERS. GRADING SHOWN IS DESIGN. CONTOURS BY OTHERS.

**CIVIL AND STRUCTURAL NOTES**

- ADDITIONAL EXCAVATIONS BELOW FOOTINGS MAY BE NECESSARY TO REACH UNDISTURBED SOIL. SHOULD THIS OCCUR, THE EXCAVATION SHALL BE BROUGHT TO THE BOTTOM OF THE FOOTING ELEVATION WITH COMPACTED SAND FILL MEETING THE REQUIREMENTS OF MODIFIED PROCTOR COMPACTION TEST (ASTM D1557) TO 95% IN SIX INCH LIFTS.
- ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1" X 1" 45° CHAMFER.
- CONCRETE SHALL BE MIXED AND POURED PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS. TESTING SHALL CONFORM TO ACI 318. INSTALLER TO SUPPLY ALL CONCRETE AND TESTING.
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 SPECIFICATION. STEEL REINFORCING BAR SHALL CONFORM TO ASTM A615 GRADE 60 AND WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. TIE WIRE SHALL CONFORM TO ASTM A82.
- UNSUITABLE OR EXCESS EARTH SPOIL SHALL BE DISPOSED OF AT AN APPROVED WASTE LOCATION. SOIL BEING TRANSPORTED ONTO THE JOB SITE SHALL BE APPROVED BY EITHER THE PROJECT MANAGER OR CONSTRUCTION MANAGER.
- ROCKSHIELD OR SIMILAR COMPANY APPROVED PRODUCT MUST BE INSTALLED BETWEEN ALL PIPE AND FITTINGS THAT COME INTO CONTACT WITH CONCRETE. A LAYER OF NON ABRASIVE MATERIAL SUCH AS FRP SHALL BE INSTALLED BETWEEN ALL PIPE SUPPORTS AND PIPING.
- ALL FIELD BENDING OF REBAR SHALL BE DONE COLD.

**SOIL EROSION AND SEDIMENT CONTROL NOTES**

- INSTALLER IS TO CONSTRUCT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES IN SEQUENCE WITH THE PIPELINE CONSTRUCTION, PROVIDE MAINTENANCE AND ASSURE EFFECTIVENESS THROUGHOUT THE DURATION OF THE PROJECT.
- AS PER THE CONSTRUCTION STORMWATER PERMIT REQUIREMENTS OUTLINED IN THE KDEP-KOW KPDES PERMIT NO. KYR100000, AREAS LEFT TEMPORARILY UNDISTURBED OR AT FINAL GRADE WILL BE STABILIZED WITHIN 14 DAYS OF ACTIVITY CESSATION.
- ALL SPOILS INCLUDING ORGANIC SOILS, VEGETATION AND DEBRIS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN SUCH A MANNER AS TO NOT ERODE INTO ANY BODY OF WATER OR WETLAND.
- PERIMETER EROSION CONTROLS (E.G. SILT FENCING) SHALL BE PLACED AS PER THE PLANS AND WHERE NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE WORK AREA.
- CATCH-ALL INLET FILTERS ARE REQUIRED AT ALL SEWER INLETS, GRATES AND MANHOLES FOR SEDIMENT CONTROL.
- WETLAND AREAS SHALL HAVE SILT FENCING AND ONE LAYER OF FILTER SOCK INSTALLED NO CLOSER THAN 25 FEET FROM POINT OF WETLAND DELINEATION.
- TOPSOIL STOCKPILES SHALL BE LOCATED TO AVOID EROSION OF SAID STOCKPILE ONTO OFFSITE AREAS.
- ALL ENVIRONMENTAL MEASURES SHALL BE PER PERTINENT DESIGN AND CONSTRUCTION STANDARDS, AS OUTLINED IN SWPPP NARRATIVES AND APPLICABLE STORMWATER PERMITS.
- ALL STREAMS AND WETLANDS WITHIN THE PROJECT WORKSPACE MUST BE MATTED IN AREAS WHERE EQUIPMENT OR VEHICLE ACCESS IS NEEDED. IF A WETLAND OR STREAM IS CROSSED AND THE DECISION IS MADE THAT THE FEATURE DOES NOT NEED TO BE MATTED OVER THE ENTIRETY THEN PERIMETER CONTROLS (E.G. SILT FENCE, FILTER SOCK) MUST BE INSTALLED UP SLOPE FROM THE WATER FEATURE CONTINUOUSLY FROM THE EDGE OF THE WORKSPACE UP TO THE CORNERS OF THE MATTING TO PREVENT SEDIMENT FROM ENTERING THE WATER FEATURE. NOTE THAT THIS REQUIREMENT IS NOT EXPLICITLY LOCATED ON THESE PLANS.
- CONTRACTOR SHALL INSTALL EROSION CONTROL BMPs IN SEQUENCE WITH PIPELINE CONSTRUCTION. NOT ALL CONTROLS NEED TO BE PRESENT SIMULTANEOUSLY. ALL BMPs ARE SHOWN ON THE PLANS FOR LOCATION AND CLARITY, BUT CONTROLS SHALL BE INSTALLED AS PIPELINE CONSTRUCTION PROGRESSES AND IN ACCORDANCE WITH COMPANY INSPECTOR'S DIRECTION.
- JASON BURLAGE OF SD1 IS TO BE CONTRACTED AT 859-578-6892 AT LEAST 72 HOURS PRIOR TO ALL LAND DISTURBING ACTIVITIES.
- ADDITIONAL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES MAY BE REQUIRED DURING THE PERIOD OF LAND DISTURBING ACTIVITY TO MEET THE REQUIREMENTS IN THE SD1 STORM WATER RULES AND REGULATIONS.
- THE SITE AND BMPs WILL BE CHECKED AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS AFTER A 0.5-INCH OR GREATER RAIN EVENT.

**SURVEY INVESTIGATION NOTES:**

- BEARINGS AND COORDINATES ARE RELATIVE TO NAD83 KENTUCKY STATE PLANES, NORTH ZONE, US. FOOT. VERTICAL DATUM IS NAVD88.
- BENCHMARK LOCATION & DESCRIPTION:

POINT NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	560987.29	1534570.55	845.24	Control Point
2	561121.43	1534448.05	839.51	Control Point
3	553512.50	1526715.85	892.18	Control Point
4	553091.36	1526625.12	873.47	Control Point
5	554199.81	1514048.20	833.77	Control Point
6	553926.87	1513937.71	843.13	Control Point
7	546520.11	1511517.36	829.81	Control Point
8	546233.77	1511806.39	826.97	Control Point
9	559626.45	1532675.54	907.48	Control Point
10	559689.60	1532836.35	906.30	Control Point
11	560460.40	1534226.67	888.50	Control Point
12	560363.39	1534119.03	890.10	Control Point
13	560393.25	1533864.88	883.04	Control Point
14	560444.24	1533914.61	881.04	Control Point
15	556761.13	1528447.75	896.43	Control Point
16	556207.47	1528935.76	922.16	Control Point
17	553048.14	1517975.22	854.56	Control Point
18	553146.12	1517707.29	843.20	Control Point
19	552405.16	1511740.47	875.61	Control Point
20	552163.00	1511720.44	876.15	Control Point

**GEOTECHNICAL DATA**

- BORING IS OFFSET FROM THE PIPELINE CENTERLINE AS SHOWN ON PLAN VIEW. BORING GROUND SURFACE ELEVATION WAS PROVIDED WITH THE GEOTECHNICAL DATA RECEIVED FOR THIS SITE AS SHOWN ON THE PROFILE VIEW. THE GEOTECHNICAL INFORMATION PROVIDED ON THIS DRAWING SET IS A GENERAL SUMMARY. REFER TO THE APPLICABLE GEOTECHNICAL REPORT IN THE CONTRACT DOCUMENTS FOR MORE DETAILED INFORMATION (PROVIDED BY GEOTECHNOLOGY, INC., DATED 01/06/2020).

**CATHODIC PROTECTION & AC MITIGATION NOTES:**

- CONTRACTOR SHALL PROVIDE AND INSTALL ALL MISCELLANEOUS PARTS TO COMPLETE PROJECT PER CONTRACT DRAWINGS, CONTRACT SPECIFICATIONS, ELECTRICAL CODES, STATE AND LOCAL CODES AND STANDARDS, AND LOCAL ELECTRICAL DISTRIBUTION COMPANY REQUIREMENTS. PARTS INCLUDE, BUT ARE NOT LIMITED TO, WIRING AND MOUNTING MATERIALS, METER SOCKET, DISCONNECT EQUIPMENT, ENCLOSURES, TRANSIENT VOLTAGE SURGE SUPPRESSORS, AC MAIN BUSS TERMINATION, CIRCUIT BREAKERS, AND OTHER ELECTRICAL EQUIPMENT REQUIRED. ACTUAL LENGTH WIRING IS DEPENDENT ON DISTANCE FROM INSTALLATION.

**DESIGN NOTES:**

- DESIGN MAOP: 1000 PSIG  
NORMAL OPERATING PRESSURE OF UL60: 370 PSIG  
SMYS AT NORMAL OPERATING PRESSURE FOR 24" 0.500" WT X65 - 13.66%  
SMYS AT NORMAL OPERATING PRESSURE FOR 10" 0.365" WT X65 - 8.38%  
SMYS AT NORMAL OPERATING PRESSURE FOR 10" 0.365" WT X52 - 10.48%  
SMYS AT NORMAL OPERATING PRESSURE FOR 8" 0.322" WT X52 - 9.53%  
SMYS AT NORMAL OPERATING PRESSURE FOR 1" 0.179" WT GR B - 3.88%
- FOR 24" PIPE, FIELD BEND ALL ANGLES LESS OR EQUAL TO 22.5 DEGREES. ALL FIELD BENDS REQUIRE 5' TANGENTS. CUT SEGMENTABLE FITTINGS FOR ALL ANGLES ABOVE 22.5 DEGREES.
- MINIMUM ROPING RADIUS FOR 24" PIPE: 1600'

BURNS & MCDONNELL STATE LICENSE #43  AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142  PROFESSIONAL ENGR/ARCH STAMP	PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED * DO NOT SCALE THIS DRAWING * USE DIMENSIONS ONLY PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) * DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE * TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001	REF. DWG(S) PNG-G-043-0001022  SHEET(S) 1 OF 1    DWG SCALE NONE DWG DATE 04/26/2019    SUPERSEDED DRAWING NUMBER <b>PNG -G-043-0001023</b> REVISION <b>0</b> G/ERLANGER/UL60																																																																						
	<table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>REVISION(S) DESCRIPTION</th> <th>BY</th> <th>CHK</th> <th>APPD</th> <th>DESCRIPTION</th> <th colspan="3">APPROVALS</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>02/10/2021</td> <td>ISSUED FOR AS-BUILT</td> <td>JXV</td> <td>CEB</td> <td>EPM</td> <td>AREA CODE 5339</td> <td>DATE -</td> <td>INITIALS -</td> <td>REGIONAL ENGINEER</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ACCOUNT NUMBER V8191</td> <td>DATE -</td> <td>INITIALS -</td> <td>MGR TECH REC &amp; STD</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>PROJECT NUMBER G7UL02PH1</td> <td>DATE -</td> <td>INITIALS -</td> <td>PRINCIPAL ENGINEER</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DRAWING BY AKT</td> <td>DATE 04/17/2020</td> <td>INITIALS AMP</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>STATION ID -</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>CHECKER INITIALS CEB</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS			0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339	DATE -	INITIALS -	REGIONAL ENGINEER							ACCOUNT NUMBER V8191	DATE -	INITIALS -	MGR TECH REC & STD							PROJECT NUMBER G7UL02PH1	DATE -	INITIALS -	PRINCIPAL ENGINEER							DRAWING BY AKT	DATE 04/17/2020	INITIALS AMP								STATION ID -										CHECKER INITIALS CEB				<p style="font-size: x-small; margin-top: 5px;">COPYRIGHT 2019</p>
NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS																																																																	
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339	DATE -	INITIALS -	REGIONAL ENGINEER																																																															
						ACCOUNT NUMBER V8191	DATE -	INITIALS -	MGR TECH REC & STD																																																															
						PROJECT NUMBER G7UL02PH1	DATE -	INITIALS -	PRINCIPAL ENGINEER																																																															
						DRAWING BY AKT	DATE 04/17/2020	INITIALS AMP																																																																
						STATION ID -																																																																		
						CHECKER INITIALS CEB																																																																		
UL60 PIPELINE - PHASE 1 GENERAL NOTES BOONE COUNTY, KY ERLANGER, KY																																																																								



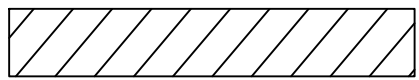

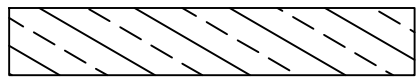

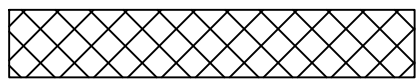




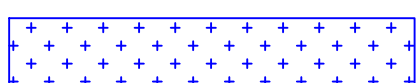




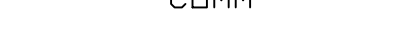


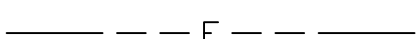


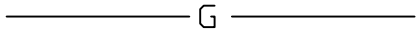





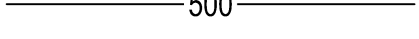
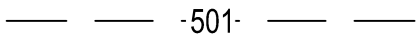



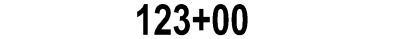
**GENERAL RESTRICTIONS**

1. STAY IN ROW/EASEMENTS OR WITHIN PREDETERMINED WORKSPACE AREAS.
2. ONLY USE DESIGNATED POINTS OF ACCESS AS APPROVED BY DUKE.
3. NO DIGGING, WORK, OR STORAGE WITHIN 25' OF POWER LINE OR EQUIPMENT INCLUDING GUY WIRES, EXCEPT AT CROSSINGS OF POWER RIGHT OF WAY DESIGNATED ON PLANS.
4. ANY DOT CROSSING NOTIFICATIONS TO BE MADE AS DICTATED BY THE PERMIT OR STATE DOT PERMIT.
5. INSTALLER IS RESPONSIBLE FOR KNOWING LOCATION OF ALL ENVIRONMENTALLY SENSITIVE AREA RESTRICTIONS PERTAINING TO THIS PROJECT.

**ABBREVIATIONS**

APPROX.	APPROXIMATE
B.C.	BUOYANCY CONTROL
C/L	CENTERLINE
CMP	CORRUGATED METAL PIPE
COMM	COMMUNICATIONS
CP	CATHODIC PROTECTION
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
E	EASTING
EA	EACH
EL / ELEV	ELEVATION
EX	EXISTING
FLC	FOREIGN LINE CROSSING
FM	FORCE MAIN
FT	FEET
FTG	FITTING
H / HORIZ	HORIZONTAL
HDD	HORIZONTAL DIRECTIONAL DRILL
H-LT	HORIZONTAL LEFT TURN
H-RT	HORIZONTAL RIGHT TURN
IN / INV	INVERT
JAB	JACK AND AUGER BORE
L	LENGTH
LF	LINEAR FEET
MAX	MAXIMUM
MIN	MINIMUM
MH	MANHOLE
N	NORTHING
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OC	OPEN CUT
O.D.	OUTSIDE DIAMETER
PCC	PORTLAND CEMENT CONCRETE
PIV	POST INDICATOR VALVE
P / PIL	PROPERTY LINE
PSI	POUNDS PER SQUARE INCH
PVC	POLY VINYL CHLORIDE
R	RADIUS
RD	ROAD
R/W / ROW	RIGHT-OF-WAY
RCP	REINFORCED CONCRETE PIPE
SD	STORM DRAIN
SS	SANITARY SEWER
SSD	SOLID STATE DECOUPLER
STA	STATION
TOP	TOP OF PIPE
TWS	TEMPORARY WORKSPACE
T.C.E.	TEMPORARY CONSTRUCTION EASEMENT
TYP	TYPICAL
UGE	UNDERGROUND ELECTRIC
UGT	UNDERGROUND TELEPHONE/COMMUNICATIONS
V / VERT	VERTICAL
W	WIDTH
W.T.	WALL THICKNESS
X-ING	CROSSING

**LEGEND**

	PROPOSED TEMPORARY WORKSPACE (OPEN TRENCH).		POT HOLE LOCATION
	PROPOSED PERMANENT EASEMENT		BORING LOCATION
	ADDITIONAL TEMPORARY WORKSPACE (PIPE STRING AREA)		FLUSH PIPELINE MARKER
	CONSTRUCTION MATTING		ABOVE GRADE PIPELINE MARKER
	TRENCH PLUG		MILE MARKER
	SLOPE BREAKER		J-HOOK
	DELINEATED WETLAND		INLET PROTECTION
	FEMA 100 YEAR FLOOD AREA		ROCK DITCH CHECK
	ACCESS PATH		FILTER SOCK CHECK DAM
	STREAM		SOIL STOCK PILE
	DITCH		CONSTRUCTION ENTRANCE
	TREE LINE		TEST STATION (SEE EQUIPMENT SCHEDULES ON PNG-E-043-0001039)
	EX. COMMUNICATION LINE		SOLID STATE DECOUPLER (SEE EQUIPMENT SCHEDULES ON PNG-E-043-0001039)
	EX. OVERHEAD LINE		COUPON TEST STATION (SEE EQUIPMENT SCHEDULES ON PNG-E-043-0001039)
	EX. ELECTRIC LINE		
	FENCE		
	EX. GAS LINE		
	RIGHT-OF-WAY		
	RAILROAD		
	EX. SANITARY SEWER		
	EX. STORM WATER LINE		
	EX. WATER LINE		
	PROPERTY LINE		
	RUNON PROTECTION (SILT FENCE / FILTER SOCK)		
	RUNOFF PROTECTION (SILT FENCE / FILTER SOCK)		
	EX. MAJOR CONTOUR		
	EX. MINOR CONTOUR		
	PROPOSED MAJOR CONTOUR		
	PROPOSED MINOR CONTOUR		
	PROPOSED DEVELOPMENT OUTLINE		
	BUOYANCY CONTROL		
	PROPOSED GAS LINE		
	HORIZONTAL DIRECTIONAL DRILL		
	AUGER BORE		
	EXCAVATION PIT		
	CP/AC LINE		

BURNS & MCDONNELL  
STATE LICENSE #43

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-G-043-0001022

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339	INITIALS -
						ACCOUNT NUMBER V8191	REGIONAL ENGINEER
						PROJECT NUMBER G7UL02PH1	MGR TECH REC & STD
						DRAWING BY AKT	PRINCIPAL ENGINEER
						STATION ID -	
						CHECKER INITIALS CEB	




COPYRIGHT 2019

**UL60 PIPELINE - PHASE 1**  
**ABBREVIATIONS & LEGEND**  
**BOONE COUNTY, KY**  
ERLANGER, KY

SHEET(S) 1 OF 1	DWG SCALE NONE
DWG DATE 04/26/2019	SUPERSEDED
DRAWING NUMBER PNG -G-043-0001024	REVISION 0
G/ERLANGER/UL60	



BILL OF MATERIAL

BOM #	EST QTY	UOM	AS-BUILT QTY	UOM	RETIRED	DESCRIPTION	MAXIMO PART #	LEGACY PART #
1	23,360	FT	22,007.3	FT		PIPE, 24" NPS X 0.500 W.T., DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, FBE, STL, API 5L PSL-2, GR X65	1575408	1575408
2	2,000	FT	1,690.20	FT		PIPE, 24" NPS X 0.500 W.T., DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, FBE/PC, STL, API 5L PSL-2, GR X65	1575409	1575409
3	2,640	FT	2,417.4	FT		PIPE, 8" NPS X 0.322" WALL THK, DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, SCH 40, STL, API 5L PSL-2, GR X52, NO JOINTERS, FUSION BONDED EPOXY COATED	1551341	16360
4	200	FT	160	FT		PIPE, 8", DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, SCH 40, CS, API 5L PSL-2, GR X52, 0.322" WALL THK, ASME B31.8 APPENDIX I, FIG I-4, W/ FUSION BONDED EPOXY COATING, THIN FILM (12-14 MILS) W/ 40 MILS (+12/-3 MILS) OF POWER CRETE APPLIED TO EXTERIOR, MIN AVERAGE SET OF 3 SHEAR FRACTURE AREA F/ EA PIPE BODY TEST SHALL BE AT LEAST 85% @ 32 DEG F, MULTIPLE GR STENCILED PIPE IS NOT ACCEPTABLE	1568434	16563
5	10	FT	6	FT		PIPE, 10" NPS X 0.365 W.T., DBL RANDOM LG, BEVELED ENDS, ELECTRIC RESISTANCE WELD, FBE, STL, API 5L PSL-2, GR X52, NO JOINTERS	1551282	16279
6	2	EA	2	EA		VALVE,BALL, TRUNNION, 8" NPS, ANSI 600, FULL PORT, WELDED, 2" SQ NUT GEAR OPERATED, STL BODY, WELDED BODY, API 6D, DM-ST-2080, IF OPERATOR EXTENSION IS ORDERED, BODY DRAIN AND SEALANT PORTS TO BE FACTORY PIPED UP TO THE OPERATOR WITH WELDED AND COATED CS PIPE WITH GIANT BUTTON HEAD GREASE FITTINGS, PER DM-ST-208, IF ORDERED, MANUFACTURER TO PROVIDE PIPE PUPS PER DIMENSIONS, TESTING AND DOCUMENTATION REQUIREMENTS OF DM-ST-2085.	1556113	11850
7	14	EA	0	EA		ELBOW,PIPE, 24" NPS X 0.5 W.T., BW, 45 DEG, 3D RADIUS, STL, MSS SP-75, GR Y65, FULLY SEGMENTABLE, BARE, MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1553024	17385
8	7	EA	0	EA		ELBOW,PIPE, 24" NPS X 0.5 W.T., BW, 90 DEG, 5D RADIUS, STL, MSS SP-75, GR Y65, FULLY SEGMENTABLE, BARE, MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1594860	1594860
9	1	EA	0	EA		ELBOW,PIPE, 8" NPS X 0.322 W.T., BW, 45 DEG, 3D RADIUS, STL, MSS SP-75, GR Y52, FULLY SEGMENTABLE, PAINTED PREFERRED, BARE ACCEPTABLE., MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1552933	16565
10	2	EA	2	EA		TEE,PIPE REDUCING, 24" NPS X 24" NPS RUN, 10" NPS BRANCH, WELD, STL, MSS SP-75, GR Y65, BBT, PAINTED PREFERRED, BARE ACCEPTABLE., MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1557965	17319
11	2	EA	2	EA		REDUCER,PIPE, CONCENTRIC, 10" NPS X 0.365 W.T. X 8" NPS X 0.322 W.T., WELD, STL, MSS SP-75, GR Y52, PAINTED PREFERRED, BARE ACCEPTABLE., MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1553771	13537
12	2	EA	2	EA		16" BOX, VALVE	1555048	1555048
13	4	EA	4	EA		PLUG,PIPE, 1" NPS, SQ HEAD, THD, CLASS 3000, FORGED STL, ASME B16.11, ASTM A105, GR 55	50056901	50056901
14	4	EA	4	EA		VALVE,BALL, FLOATING, 1", 2-WAY, 2000 PSIG, FULL PORT, FPT, LEVER OPERATED, CS BODY, 316 SS BALL & STEM, ASME B16.34 OR MSS SP-110, API 607	1586600	12285
15	40	FT	28.6	FT		PIPE, 1" NPS X 0.179 W.T., SRL RANDOM LG, BEVELED ENDS, SEAMLESS, FBE, STL, ASTM A106, GR B	1557796	17297
16	4	EA	4	EA		TEE, SERVICE TEE, 1" NPS, WELD, FORGED STL, ASME B16.11, ASME B16.11, ASTM A105, NO-BLO SERVICE, BARE, CAP, ASTM A105, TAPPING TEE	1556863	16105
17	4	EA	4	EA		ELBOW,PIPE, 1" NPS X 0.179 W.T., BW, 90 DEG, 1.5D RADIUS, STL, ASME B16.9, ASTM A234 GR WPB, NON SEGMENTABLE, PAINTED PREFERRED, BARE ACCEPTABLE., MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1553218	17396
18	1	EA	2	EA		FITTING, THREAD-O-RING, 2" X 4" NPS WE, STL, ASTM A333 GR. 6 ASME B31.8, , BARE, NIPPLE, ASTM A333. CAP, ASTM A105. PLUG, ASTM B-16 YELLOW BRASS. BUNA-N N674-70 O-RING	1554279	16577
19	1	EA	1	EA		CAP,PIPE, 24" NPS X 0.500 W.T., WELD, GR Y65, BARE	1553800	17410
20	0	EA	2	EA		INSULATOR, MONOLITHIC, WELD, 8" NPS, FORGED STL, ASTM A105, CLASS 600, ASME B16.11, PIPE PUP STYLE, API 5L PSL-2, GR X52, 0.322" W.T. PIPE PUPS WELDED ON EACH END. BEVEL ENDS 30 - 35 DEG WITH 1/16" LANDING.	1557211	17425
21	0	EA	9	EA		ELBOW,PIPE, 24" NPS X 0.5" WALL THK, BW, 90 DEG, 3D RADIUS, STL, MSS SP-75, GR Y65, FULLY SEGMENTABLE, PAINTED PREFERRED, BARE ACCEPTABLE., MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1553155	15331
22	0	EA	3	EA		ELBOW,PIPE, 8" NPS X 0.322 W.T., BW, 90 DEG, 3D RADIUS, STL, MSS SP-75, GR Y52, FULLY SEGMENTABLE, PAINTED PREFERRED, BARE ACCEPTABLE., MACHINE BEVEL ENDS PER ASME B31.8 APPENDIX I, FIG I-4	1552912	16562

NOTES:  
1. CONTRACTOR TO SUPPLY SCARGUARD AND/OR POWERCRETE FOR ALL WELDS ON BORED PIPE, PER DUKE COATING SPECIFICATIONS.

BURNS & MCDONNELL STATE LICENSE #43  AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142  PROFESSIONAL ENG/ARCH STAMP	PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED * DO NOT SCALE THIS DRAWING * USE DIMENSIONS ONLY PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) * DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE * TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001										REF. DWG(S) PNG-G-043-0001022	
	NO. DATE REVISION(S) DESCRIPTION BY CHK APPD	1 02/10/2021 ISSUED FOR AS-BUILT JXV CEB EPM		DESCRIPTION AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY JXV STATION ID - CHECKER INITIALS CEB		APPROVALS DATE INITIALS REGIONAL ENGINEER DATE INITIALS MGR TECH REC & STD DATE INITIALS PRINCIPAL ENGINEER		DATE INITIALS AMP		DATE 02/12/2020		SHEET(S) 1 OF 1 DWG SCALE NONE DWG DATE 09/13/2019 SUPERSEDED DRAWING NUMBER PNG -G-043-0001025 REVISION 1 G/ERLANGER/UL60



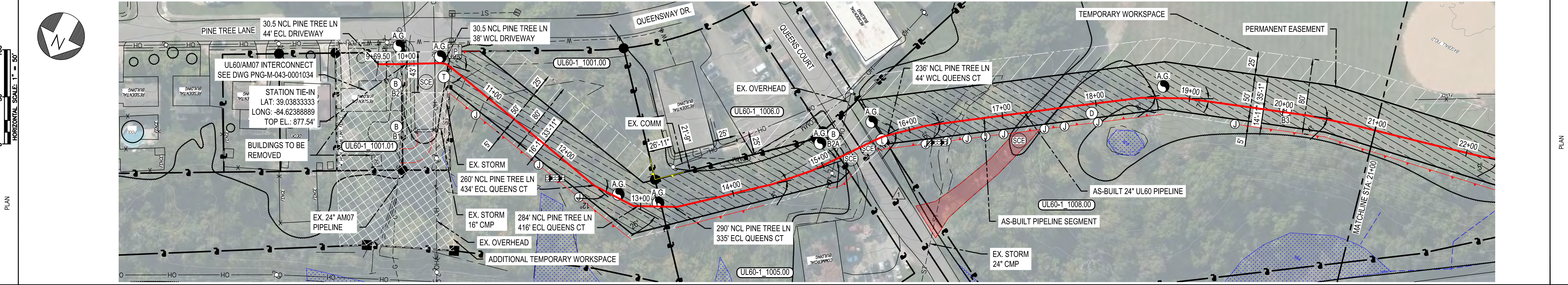
UL60 PIPELINE - PHASE 1  
BILL OF MATERIALS  
BOONE COUNTY, KY  
ERLANGER, KY

COPYRIGHT 2019

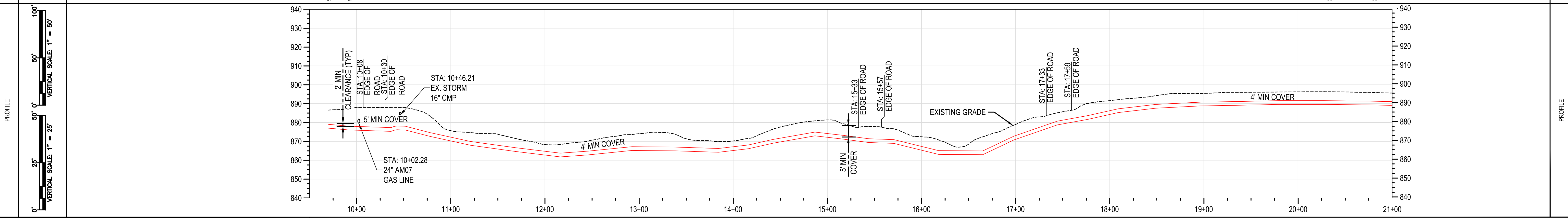


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1001.01	BOONE COUNTY	UL60-1_1001.00	UL60-1_1005.00	BOONE COUNTY	UL60-1_1008.00
ACREAGE		N/A	N/A	0.466 ACRES	0.249 ACRES	N/A	2.177 ACRES
EASEMENTS		N/A	N/A	PROPOSED 50' EASEMENT		N/A	PROPOSED 50' EASEMENT
REF. DWG. NO.		PNG-M-043-0001034					

STATIONING	STA: 9+70 TIE-IN LOCATION STA: 9+92 BEND 1.0" (H-LT) 3.0" SAG (V) STA: 10+37 BEND 9.0" (H-RT) 22.0" OVERBEND (V) STA: 10+40 FTG 8.0" (H-RT) 10.0" OVERBEND (V) STA: 10+43 FTG 21.0" (H-RT) 13.0" OVERBEND (V) STA: 10+52 BEND 2.0" (H-RT) 12.0" OVERBEND (V) STA: 11+21 BEND 4.0" SAG (V) STA: 11+69 BEND 1.0" SAG (V) STA: 12+16 BEND 11.0" SAG (V) STA: 12+46 BEND 12.00" (H-LT) 2.0" SAG (V) STA: 12+92 BEND 26" (H-LT) 6.0" OS (V) STA: 13+39 BEND 14" (H-LT) STA: 13+84 BEND 1.0" (H-LT) 9.0" SAG (V) STA: 14+16 BEND 1.0" (H-LT) 6.0" SAG (V) STA: 14+42 BEND 6.0" (H-LT) 3.0" OVERBEND (V) STA: 14+87 BEND 7.0" (H-LT) 17.0" OVERBEND (V) STA: 15+18 BEND 1.0" OVERBEND (V) STA: 15+44 BEND 1.0" (H-LT) 6.0" SAG (V) STA: 15+71 BEND 11.0" (H-RT) 12.0" OVERBEND (V) STA: 16+18 BEND 6.0" (H-RT) 13.0" SAG (V) STA: 16+65 BEND 26.0" SAG (V) STA: 16+98 BEND 6.0" OVERBEND (V) STA: 17+44 BEND 6.0" OVERBEND (V) STA: 17+77 BEND 1.0" (H-LT) 2.0" SAG (V) STA: 18+09 BEND 6.0" OVERBEND (V) STA: 18+49 BEND 8.0" (H-RT) 4.0" OVERBEND (V) STA: 18+96 BEND 7.0" (H-RT) 2.0" OVERBEND (V) STA: 19+19 BEND 1.0" OVERBEND (V) STA: 20+27 BEND 4.0" (H-RT) 1.0" OVERBEND (V) STA: 20+75 BEND 2" (H-LT)
------------	--



PIPE DATA (SLOPE STATIONING)		JOINT		HEAD	
STA	WELD #	STA	WELD #	STA	WELD #
9+70	CS/AC XR-P-FB-361	6.8	J53C361	HR30350	
9+82	RL/S XR-P-TI-077	6.5	J53C347	HR7B458	
10+37	RL/S XR-P-M-199	10.3	J53C410	HR4B479	
10+40	RL/S XR-H-FB-001	9.3	J53C408	HR4B479	
10+43	RL/S XR-H-FB-002	9.3	J53C410A	HR4B479	
10+52	RL/S XR-P-TI-076	9.2	J53C193	HR1B1284	
10+78	JC/CS XR-C-M-022	8.7	J53C174	HR49867	
11+22	JC/CS XR-C-TI-017	4.7	J53C136	HR530919	
11+70	JC/CS XR-C-M-017	5.2	J53C166	HR76721	
12+16	RM/CM XR-C-M-016	4.1	J53C165	HR49880	
12+47	JC/CS XR-C-TI-016	4.9	J53C122	HR30912	
12+94	RM/CM XR-C-M-015	5.4	J53C131	HR30912	
13+41	JC/CS XR-C-TI-014	6.0	J53C125	HR530919	
13+86	RM/CM XR-C-M-001	4.1	J53C145	HR49882	
14+18	JC/CS XR-C-TI-015	4.8	J53C282	HR530465	
14+44	JC/CS XR-P-M-008	5.1	J53C132	HR30920	
14+90	JC/CS XR-C-TI-004	4.8	J53C162	HR49880	
15+20	RM/CM XR-P-M-005	6.1	J53C155	HR30920	
15+47	RM/CM XR-P-M-004	6.5	J53C121	HR30919	
15+74	JC/CS XR-P-TI-008	4.9	J53C147	HR30920	
16+22	RM/CM XR-A-M-008	5.6	J53C110	HR30920	
16+70	JC/CS XR-P-TI-007	6.8	J53C171	HR30912	
17+04	JC/CS XR-A-M-007	5.3	J53C176	HR49880	
17+50	JC/CS XR-A-M-005	5.2	J53C168	HR49867	
17+83	JC/CS XR-P-TI-005	6.5	J53C089	HR30912	
18+15	JC/CS XR-A-M-006	4.8	J53C091	HR30921	
18+55	JC/CS XR-A-M-004	4.8	J53C188	HR30920	
19+03	JC/CS XR-P-TI-003	4.8	J53C129	HR530912	
19+38	JC/CS XR-A-M-003	4.4	J53C173	HR49867	
19+86	JC/CS XR-A-M-002	4.4	J53C186	HR30921	
20+34	JC/CS XR-C-TI-009	4.9	J53C190	HR76702	
20+82	JC/CS XR-A-M-001	4.2	J53C175	HR49882	



MATERIAL	(2)	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD		OPEN TRENCH
CLASS / MAOP		

BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

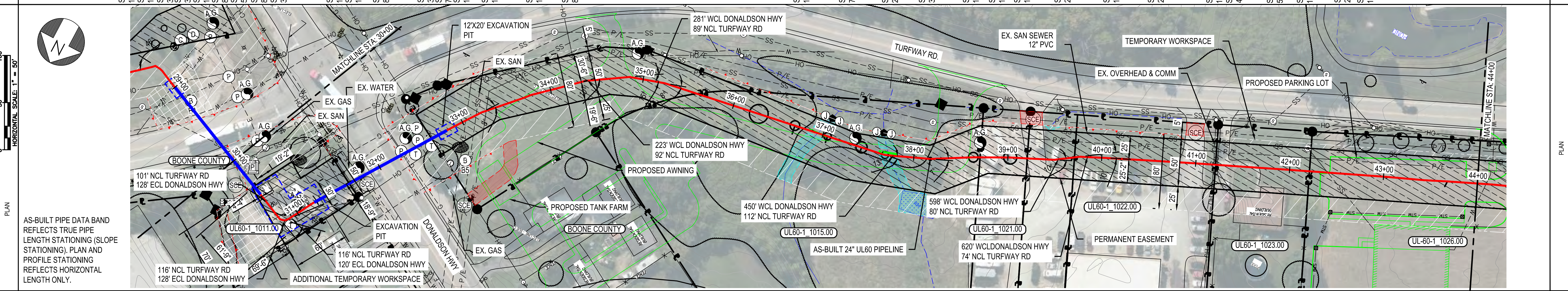




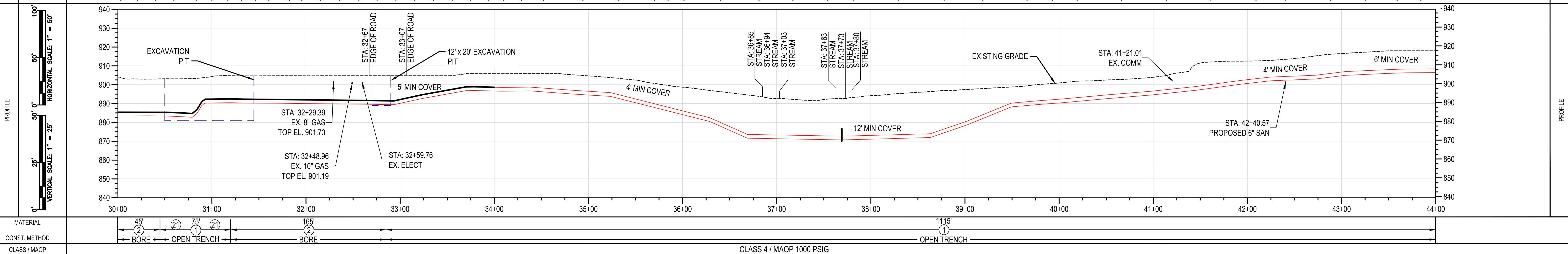


RIGHT-OF-WAY	OWNERSHIP	BOONE COUNTY	UL60-1_1011.00	BOONE COUNTY	UL60-1_1015.00	UL60-1_1021.00	UL60-1_1022.00	UL60-1_1023.00	UL60-1_1026.00
ACREAGE	N/A	0.237 ACRES	N/A	1.093 ACRES	0.093 ACRES	0.368 ACRES	0.184 ACRES	1.556 ACRES	
EASEMENTS	N/A	PROPOSED 50' EASEMENT	N/A			PROPOSED 50' EASEMENT			
REF. DWG. NO.	PNG-C-043-0001084		PNG-C-043-0001085						

STATIONING	STA. 30+52 BEND 1.0° (H/LT) 2.0° OVERBEND (V)	STA. 30+72 BEND 1.0° (H/LT) 2.0° SAG (V)	STA. 30+79 FTG 35.0° (H/LT) 43.0° SAG (V)	STA. 30+84 FTG 36.0° (H/LT) 19.0° SAG (V)	STA. 30+89 BEND 15.0° (H/LT) 23.0° OB (V)	STA. 30+93 BEND 8.0° (H/LT) 35.0° OVERBEND (V)	STA. 30+97 BEND 5.0° (H/LT)	STA. 31+20 BEND 8.0° (H/LT) 1.0° OVERBEND (V)	STA. 31+34 BEND 3.0° (H/LT)	STA. 32+73 BEND 1.0° (H/LT)	STA. 32+93 BEND 1.0° (H/LT) 13.0° SAG (V)	STA. 33+23 BEND 8.0° (H/LT)	STA. 33+70 BEND 3.0° (H/LT) 9.0° OVERBEND (V)	STA. 33+78 BEND 7.0° (H/LT)	STA. 34+08 BEND 1.0° (H/LT) 2.0° SAG (V)	STA. 34+38 BEND 10.0° (H/LT) 5.0° OVERBEND (V)	STA. 34+85 BEND 15.0° (H/LT) 1.0° SAG (V)	STA. 35+23 BEND 8.0° (H/LT) 7.0° OVERBEND (V)	STA. 37+69 BEND 13.0° (H/LT) 12.0° SAG (V)	STA. 38+18 FTG 7.0° (H/LT) 5.0° OVERBEND (V)	STA. 38+63 BEND 2.0° (H/LT) 27.0° SAG (V)	STA. 39+02 BEND 3.0° (H/LT)	STA. 39+49 BEND 10.0° (H/LT) 17.0° OVERBEND (V)	STA. 39+77 BEND 10.0° (H/LT)	STA. 40+04 BEND 1.0° (H/LT) 1.0° SAG (V)	STA. 40+41 BEND 2.0° OB (V)	STA. 40+98 BEND 1.0° (H/LT) 1.0° SAG (V)	STA. 41+46 BEND 2.0° SAG (V)	STA. 41+93 BEND 1.0° OVERBEND (V)	STA. 42+24 BEND 4.0° OVERBEND (V)	STA. 42+72 BEND 5.0° SAG (V)	STA. 43+04 BEND 1.0° (H/LT) 4.0° OVERBEND (V)	STA. 43+44 BEND 2.0° (H/LT)	STA. 43+68 BEND 1.0° (H/LT) 2.0° OVERBEND (V)
------------	---	--	---	---	---	--	-----------------------------	---	-----------------------------	-----------------------------	---	-----------------------------	---	-----------------------------	--	--	---	---	--	--	---	-----------------------------	---	------------------------------	--	-----------------------------	--	------------------------------	-----------------------------------	-----------------------------------	------------------------------	---	-----------------------------	---



PIPE DATA (SLOPE STATIONING)	STA.	WELD #	MATERIAL	LENGTH (FOV)	JOINT	HEAD #
30+02	RM/CM	XR-P-RB-002	14.4	20.0	CT	JAR00474 HRB44K3
30+22	RM/CM	XR-X-RB-001	17.8	20.0	CT	JAR00444 HR7B5458
30+42	RM/CM	XR-O-RB-003	15.1	20.0	CT	JAR0024 HRB2982
30+62	RM/CM	XR-P-TL-024	15.4	20.0	CT	JSC0301 HRB7202
30+81	J/S/CS	XR-P-TL-057	15.3	6.5	CT	JSC0454 HRB1284
30+88	J/S/CS	XR-A-FB-032	15.4	8.1	CT	JFTTM0082 HRH17KCK
30+94	J/S/CS	XR-A-FB-031	13.2	14.4	CT	JSC0458 HRB1284
31+00	J/S/CS	XR-A-FB-030	11.4	4.0	CT	JFTTM0083 HRH17KCK
31+05	J/S/CS	XR-A-FB-029	11.4	4.7	CT	JSC0454 HRB1284
31+09	J/S/CS	XR-P-TL-056	11.8	22.7	CT	JSC0405 HR746101
31+31	J/S/CS	XR-P-TL-055	11.7	13.0	CT	JAR00258 HRB2981
31+45	RM/CM	XR-P-RB-012	11.8	20.0	CT	JAR00434 HR7B5458
31+65	RM/CM	XR-P-RB-011	12.9	19.9	CT	JAR00424 HRB2982
31+85	RM/CM	XR-P-RB-010	12.9	20.0	CT	JAR0042
32+05	RM/CM	XR-P-RB-009	13.4	20.0	CT	JAR0043
32+25	RM/CM	XR-P-RB-008	13.4	19.9	CT	JAR00414 HR7B5458
32+45	RM/CM	XR-P-RB-007	13.3	19.9	CT	JAR0041
32+65	RM/CM	XR-P-RB-006	13.3	20.0	CT	JAR00334 HRB44K3
32+85	RM/CM	XR-P-RB-005	13.2	20.0	CT	JAR0033
33+05	J/C/CS	XR-P-TL-074	12.8	29.5	CT	JSC0483 HRM84274
33+35	J/C/CS	XR-P-ML-184	9.4	47.8	CT	JSC0489 HRV85571
33+62	J/C/CS	XR-C-TL-022	6.8	8.0	CT	JSC0408 HR746101
33+91	J/C/CS	XR-P-ML-181	7.8	30.1	CT	JSC0484 HRB6477
34+21	J/C/CS	XR-P-ML-182	10.1	30.2	CT	JSC0481 HRB1230
34+51	RM/CS	XR-C-TL-021	5.9	47.8	CT	JSC0488 HRB1284
34+86	J/C/CS	XR-P-ML-183	7.4	38.3	CT	JSC0485 HRB1230
35+16	J/C/CS	XR-P-ML-180	7.1	47.8	CT	JSC0485 HR7B5458
35+44	J/C/CS	XR-P-TL-076	7.9	7.9	CT	JSC02780 HRB7202
35+84	CM/RM	XR-P-TL-052	7.8	7.1	CT	JAR0025C HRB2981
35+88	J/C/CS	XR-A-ML-024	7.2	47.8	CT	JSC0355 HRB1284
36+44	J/S/CS	XR-P-ML-028	15.2	36.4	CT	JSC0543 HRB2982
36+86	J/C/CS	XR-A-ML-027	21.7	37.5	CT	JSC0541 HRB1230
37+23	J/C/CS	XR-A-ML-026	20.8	37.4	CT	JSC0532 HRB1059
37+61	J/S/CS	XR-P-ML-025	21.0	26.7	CT	JSC0542 HRB2981
37+87	J/C/CS	XR-X-TL-001	16.2	47.8	CT	JSC0554 HRB1284
38+36	J/C/CS	XR-P-ML-203	17.2	47.3	CT	JSC0553 HRB2981
38+82	J/C/CS	XR-P-ML-202	18.1	39.7	CT	JSC0525 HRB748
39+22	J/C/CS	XR-P-ML-201	14.0	47.8	CT	JSC0551 HR7B5458
39+70	J/C/CS	XR-P-ML-200	8.1	27.6	CT	JSC0540 HRM84274
39+86	J/C/CS	XR-X-TL-002	7.8	27.1	CT	JSC0454 HRM84274
40+24	J/C/CS	XR-P-ML-206	8.2	46.6	CT	JSC0526 HRB2982
40+72	KN/RL	XR-P-TL-082	7.0	47.7	CT	JSC0544 HRB2982
41+19	CM/SH	XR-P-ML-210	7.2	47.3	CT	JSC0546 HRB2981
41+67	KN/RL	XR-P-TL-083	9.0	47.7	CT	JSC0529 HRB2981
42+14	KN/RL	XR-P-ML-211	8.9	31.2	CT	JSC0546 HR7B5458
42+45	KN/RL	XR-P-ML-213	8.0	47.9	CT	JSC0134 HRB0019
42+83	KN/RL	XR-P-ML-212	9.0	31.7	CT	JSC0517 HRB6480
43+25	RL/KN	XR-P-TL-085	8.7	40.4	CT	JSC0-537 HR7B5458
43+85	CS/KN	XR-P-ML-207	8.2	23.8	CT	JSC0-478A HRB6179
43+88	RL/KN	XR-P-ML-214	9.1	47.8	CT	JSC0-536 HR7B5458



MATERIAL	45' (2)	75' (2)	165' (2)	1115' (1)
CONST. METHOD	BORE	OPEN TRENCH	BORE	OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG			

BURNS & MCDONNELL STATE LICENSE #43

AMANDA PALM 04/17/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENGINEER ARCHITECT

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM

DESCRIPTION	AREA CODE	DATE	INITIALS
ACCOUNT NUMBER	5339	-	-
PROJECT NUMBER	V8191	-	-
DRAWING BY	G7UL02PH1	-	-
STATION ID	AKT	-	-
CHECKER INITIALS	CEB	DATE	INITIALS
		04/17/2020	AMP

APPROVALS	REGIONAL ENGINEER
MGR TECH REC & STD	
PRINCIPAL ENGINEER	

DUKE ENERGY | Piedmont Natural Gas

COPYRIGHT 2019

## UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET

### BOONE COUNTY, KY

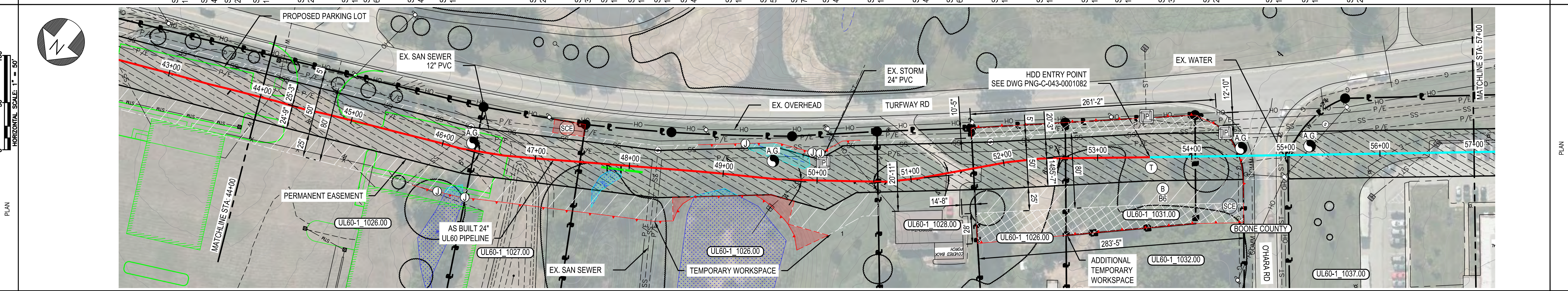
ERLANGER, KY

SHEET(S)	3 OF 25	DWG SCALE	AS NOTED
DWG DATE	04/02/2019	SUPERSEDED	
DRAWING NUMBER	PNG C-043-0001050		
REVISION	1		

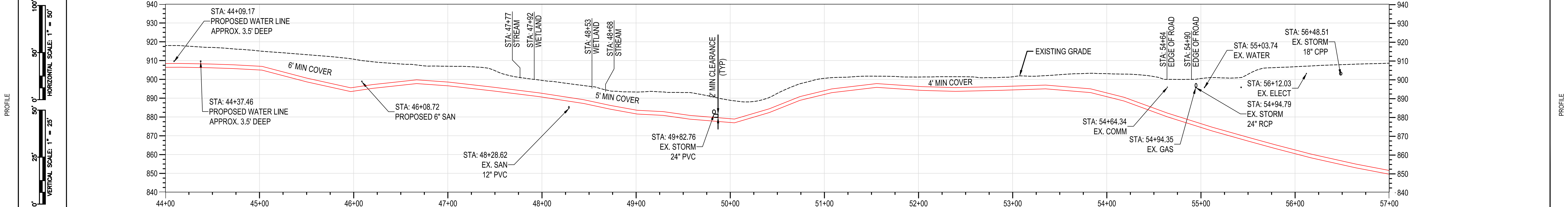


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1026.00	46+35	UL60-1_1027.00	47+47	UL60-1_1026.00	50+65	UL60-1_1028.00	51+67	UL60-1_1026.00	52+66	UL60-1_1031	54+04	UL60-1_1032.00	54+52	BOONE COUNTY	55+02	UL60-1_1037.00	RIGHT-OF-WAY
	ACREAGE	1.556 ACRES		0.207 ACRES		1.556 ACRES		0.129 ACRES		1.093 ACRES		.0371 ACRES		0.114 ACRES		N/A		0.599 ACRES	
	EASEMENTS					PROPOSED 50' EASEMENT										N/A		PROPOSED 50' EASEMENT	
	REF. DWG. NO.															PNG-C-043-0001082			

STATIONING	STA: 44+16 BEND 1.0" (H-LT) 1.0" OVERBEND (V)	STA: 44+47 BEND 4.0" (H-LT) 1.0" OVERBEND (V)	STA: 44+72 BEND 2.0" (H-LT) 1.0" OVERBEND (V)	STA: 45+03 BEND 12.0" OVERBEND (V)	STA: 45+50 BEND 2.0" SAG (V)	STA: 45+97 BEND 1.0" (H-LT) 21.0" SAG (V)	STA: 46+20 BEND 6.0" (H-LT) 2.0" OVERBEND (V)	STA: 46+63 BEND 4.0" (H-LT) 10.0" OVERBEND (V)	STA: 47+01 BEND 1.0" (H-R) 2.0" OVERBEND (V)	STA: 47+97 BEND 2.0" OVERBEND (V)	STA: 48+44 BEND 3.0" OVERBEND (V)	STA: 48+72 BEND 1.0" (H-LT) 2.0" SAG (V)	STA: 49+01 BEND 1.0" (H-LT) 7.0" SAG (V)	STA: 49+29 BEND 1.0" (H-LT) 5.0" OVERBEND (V)	STA: 49+57 BEND 4.0" (H-LT) 3.0" SAG (V)	STA: 50+04 BEND 1.0" (H-LT) 21.0" SAG (V)	STA: 50+41 BEND 5.0" SAG (V)	STA: 50+74 BEND 7.0" (H-LT) 8.0" OVERBEND (V)	STA: 51+08 BEND 4.0" (H-LT) 7.0" OVERBEND (V)	STA: 51+56 BEND 11.0" OVERBEND (V)	STA: 52+03 BEND 4.0" (H-R) 2.0" SAG (V)	STA: 52+39 BEND 6.0" (H-R) 3.0" SAG (V)	STA: 52+87 BEND 1.0" SAG (V)	STA: 53+35 BEND 1.0" (H-LT) 7.0" OVERBEND (V)	STA: 53+83 BEND 1.0" (H-LT) 10.0" OVERBEND (V)	STA: 54+18 BEND 1.0" (H-LT) 6.0" OVERBEND (V)	STA: 54+64 BEND 3.0" SAG (V)	STA: 55+12 BEND 2.0" SAG (V)	STA: 55+79 BEND 1.0" SAG (V)	STA: 56+17 BEND 1.0" (H-LT) 2.0" SAG (V)	STA: 56+65 BEND 2.0" SAG (V)	STATIONING
------------	--	--	--	---------------------------------------	---------------------------------	--	--	---	---	--------------------------------------	--------------------------------------	---	---	--	---	--	---------------------------------	--	--	---------------------------------------	--	--	---------------------------------	--	---	--	---------------------------------	---------------------------------	---------------------------------	---	---------------------------------	------------



PIPE DATA (SLOPE STATIONING)		JOINT		HEAD	
STA	WELD #	STA	WELD #	STA	WELD #
44+38	RL/NN XR-P-ML-215 6.8	CT	J59C-536	HRY65458	
44+48	RL/NN XR-P-ML-216 8.4	CT	J59C-533	HRY61230	
44+83	EV/CH XR-P-TL-084 8.1	CT	J59C-459	HRY61874	
45+24	AC/CS XR-P-ML-209 7.1	CT	J59C-381	HRY61230	
45+72	AC/CS XR-X-ML-012 11.6	CT	J59C-530	HRY65453	
46+18	AC/CS XR-X-ML-011 14.2	CT	J59C-546	HRY61284	
46+42	AC/CS XR-P-ML-208 11.1	CT	J59C-478	HRY61879	
46+88	RL/NN XR-P-TL-079 6.5	CT	J59C-550	HRY64748	
47+23	AC/CS XR-P-ML-193 7.2	CT	J59C-481	HRY60350	
47+72	AC/CS XR-P-ML-192 6.2	CT	J59C-513	HRY65458	
48+19	AC/CS XR-P-ML-191 6.0	CT	J59C-511	HRY65458	
48+67	AC/CS XR-P-ML-190 6.3	CT	J59C-487	HRY61284	
48+95	AC/CS XR-P-TL-075 6.7	CT	J59C-510	HRY60350	
49+25	AC/CS XR-P-ML-179 6.2	CT	J59C-475	HRY61874	
49+52	AC/CS XR-P-ML-178 5.6	CT	J59C-469	HRY64842	
49+80	AC/CS XR-P-TL-069 6.1	CT	J59C-470	HRY61230	
50+26	AC/CS XR-O-ML-013 7.8	CT	J59C-468	HRY61284	
50+66	AC/CS XR-P-TL-067 6.1	CT	J59C-460	HRY6477	
50+98	AC/CS XR-P-ML-170 5.4	CT	J59C-411	HRY6477	
51+35	AC/CS XR-P-ML-171 6.3	CT	J59C-385	HRY67202	
51+81	AC/CS XR-P-ML-172 4.2	CT	J59C-345	HRY61059	
52+29	AC/CS XR-P-TL-065 4.5	CT	J59C-319	HRY66823	
52+65	CM/RW XR-P-ML-147 5.0	CT	J59C-356	HRY6788	
53+12	AC/CS XR-P-ML-148 4.3	CT	J59C-388	HRY64079	
53+60	AC/CS XR-P-ML-149 5.0	CT	J59C-409	HRY64081	
54+08	AC/CS XR-P-TL-061 7.1	CT	J59C-401	HRY64081	
54+44	AC/CS XR-F-HDD-032 12.0	CT	J49D-002	HRY64643	
54+91	AC/CS XR-F-HDD-020 17.6	CT	J49D-003	HRY62861	
55+39	AC/CS XR-F-HDD-019 25.8	CT	J49D-005	HRY61284	
55+79	AC/CS XR-F-HDD-018 34.0	CT	J49D-006	HRY62861	
56+06	AC/CS XR-F-HDD-017 40.5	CT	J49D-004	HRY64748	
56+45	AC/CS XR-F-HDD-016 46.8	CT	J49D-007	HRY64643	
56+83	AC/CS XR-F-HDD-015 53.0	CT	J49D-008	HRY65458	
57+00	AC/CS XR-F-HDD-014 59.7	CT	J49D-009	HRY65299	



MATERIAL	OPEN TRENCH
CONST. METHOD	CLASS 4 / MAOP 1000 PSIG
CLASS / MAOP	

BURNS & MCDONNELL STATE LICENSE #43

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

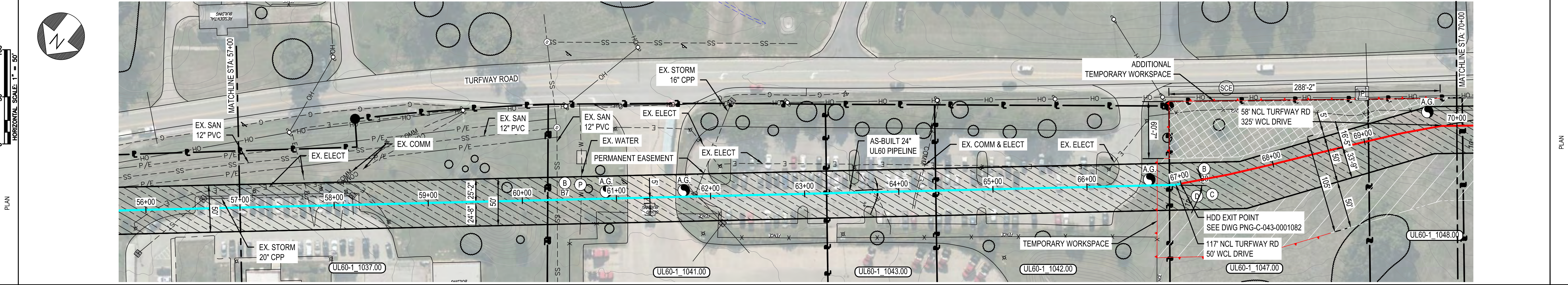
REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142	NO. 1	DATE 02/10/2021	REVISION(S) DESCRIPTION ISSUED FOR AS-BUILT	BY JXV	CHK CEB	APPD EPM	DESCRIPTION AREA CODE 5339	DATE 04/17/2020	INITIALS AMP	APPROVALS REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER	DUKE ENERGY	Piedmont Natural Gas	UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET BOONE COUNTY, KY	SHEET(S) 4 OF 25	DWG SCALE AS NOTED	DWG DATE 04/02/2019	SUPERSEDED	DRAWING NUMBER PNG C-043-0001051	REVISION 1
--	-------	-----------------	---	--------	---------	----------	----------------------------	-----------------	--------------	---	-------------	----------------------	--	------------------	--------------------	---------------------	------------	----------------------------------	------------

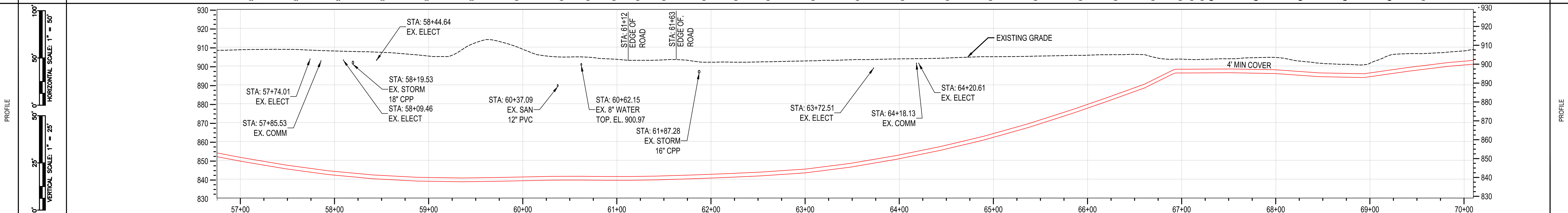


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1037.00	60+27	UL60-1_1041.00	63+27	UL60-1_1043.00	64+39	UL60-1_1042.00	66+68	UL60-1_1047.00	69+05	UL60-1_1048.00	
	ACREAGE	0.599 ACRES		0.340 ACRES		0.133 ACRES		0.302 ACRES		0.753 ACRES		0.269 ACRES	
	EASEMENTS	PROPOSED 50' EASEMENT											
REF. DWG. NO.	PNG-C-043-0001082												

STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING	STATIONING
STA: 56+00	STA: 56+65 BEND 2.0° SAG (V)	STA: 57+01 BEND 1.0° SAG (V)	STA: 57+48 BEND 2.0° SAG (V)	STA: 57+93 BEND 2.0° SAG (V)	STA: 58+41 BEND 2.0° SAG (V)	STA: 58+88 BEND 2.0° SAG (V)	STA: 59+36 BEND 1.0° (H-LT) 2.0° SAG (V)	STA: 60+32 BEND 1.0° (H-LT) 1.0° OVERBEND (V)	STA: 60+32 BEND 1.0° OVERBEND (V)	STA: 60+88 BEND 1.0° SAG (V)	STA: 60+13 BEND 1.0° SAG (V)	STA: 61+41 BEND 1.0° (H-LT) 1.0° SAG (V)	STA: 62+53 BEND 1.0° SAG (V)
STA: 63+01 BEND 3.0° SAG (V)	STA: 63+48 BEND 1.0° (H-LT) 2.0° SAG (V)	STA: 63+96 BEND 1.0° (H-LT) 2.0° SAG (V)	STA: 64+44 BEND 1.0° (H-LT) 2.0° SAG (V)	STA: 64+89 BEND 2.0° SAG (V)	STA: 65+37 BEND 1.0° (H-LT) 2.0° SAG (V)	STA: 65+84 BEND 1.0° SAG (V)	STA: 66+21 BEND 1.0° SAG (V)	STA: 66+60 BEND 2.0° (H-LT) 7.0° SAG (V)	STA: 66+90 BEND 1.0° (H-LT) 4.0° OVERBEND (V)	STA: 66+93 BEND 4.0° (H-LT) 15.0° OVERBEND (V)	STA: 66+94 BEND 8.0° (H-LT) 7.0° OVERBEND (V)	STA: 67+04 BEND 1.0° (H-LT)	STA: 67+52 FTG 1.0° (H-LT) 1.0° OVERBEND (V)
STA: 67+99 BEND 1.0° (H-LT) 3.0° OVERBEND (V)	STA: 68+46 BEND 3.0° SAG (V)	STA: 68+93 BEND 9.0° SAG (V)											



PIPE DATA (SLOPE STATIONING)		JOINT LENGTH (FOOT)	JOINT	HEAVY
STA	WELD #	STA	WELD #	
57+29	46/CS	57+77	46/CS	HTM68289
58+22	46/CS	58+70	46/CS	HTM64079
59+16	46/CS	59+45	46/CS	HTD62982
59+70	46/CS	60+12	46/CS	HTD62982
60+16	46/CS	60+61	46/CS	HTD62982
60+88	46/CS	61+17	46/CS	HTD62982
61+42	46/CS	61+70	46/CS	HTD62982
62+13	46/CS	62+47	46/CS	HTD62982
62+82	46/CS	63+30	46/CS	HTD62982
63+77	46/CS	64+25	46/CS	HTD62982
64+73	46/CS	65+19	46/CS	HTD62982
66+15	46/CS	66+67	46/CS	HTD62982
66+93	46/CS	67+23	46/CS	HTD62982
67+26	46/CS	67+27	46/CS	HTD62982
67+37	46/CS	67+45	46/CS	HTD62982
67+85	46/CS	68+32	46/CS	HTD62982
68+32	46/CS	68+79	46/CS	HTD62982
69+27	46/CS	69+47	46/CS	HTD62982
69+74	46/CS	69+74	46/CS	HTD62982



MATERIAL	CLASS 4 / MAOP 1000 PSIG	
CONST. METHOD	1000'	300'
CLASS / MAOP	HDD	OPEN TRENCH

BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS & ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142	NO. DATE REVISION(S) DESCRIPTION BY CHK APPD	1 02/10/2021 ISSUED FOR AS-BUILT JXV CEB EPM	DESCRIPTION AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	APPROVALS INITIALS DATE REGIONAL ENGINEER INITIALS DATE MGR TECH REC & STD INITIALS DATE PRINCIPAL ENGINEER		<p><b>UL60 PIPELINE - PHASE 1</b>  <b>ALIGNMENT SHEET</b>  <b>BOONE COUNTY, KY</b>                  ERLANGER, KY</p>	SHEET(S) 5 OF 25 DWG SCALE AS NOTED DWG DATE 04/02/2019 SUPERSEDED DRAWING NUMBER <b>PNG C-043-0001052</b> C/ERLANGER/UL60	REVISION <b>1</b>
--	--	--	---	--	--	--	--	----------------------

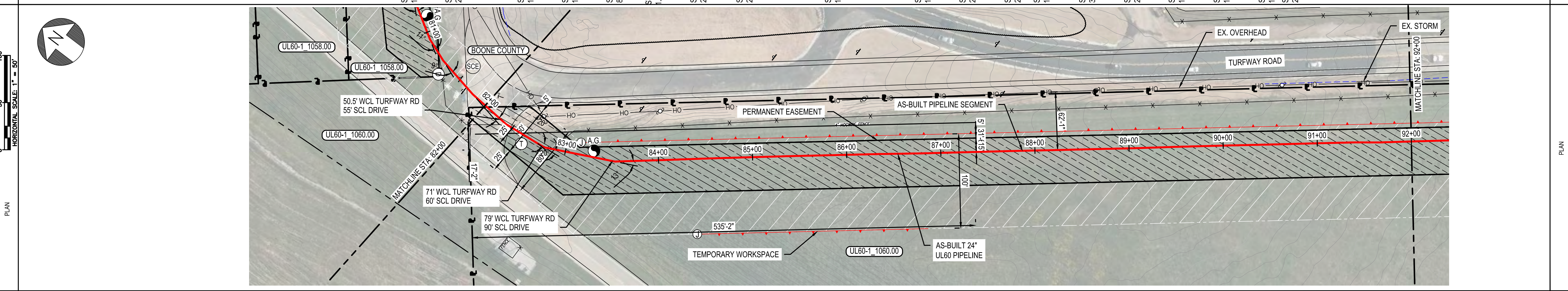




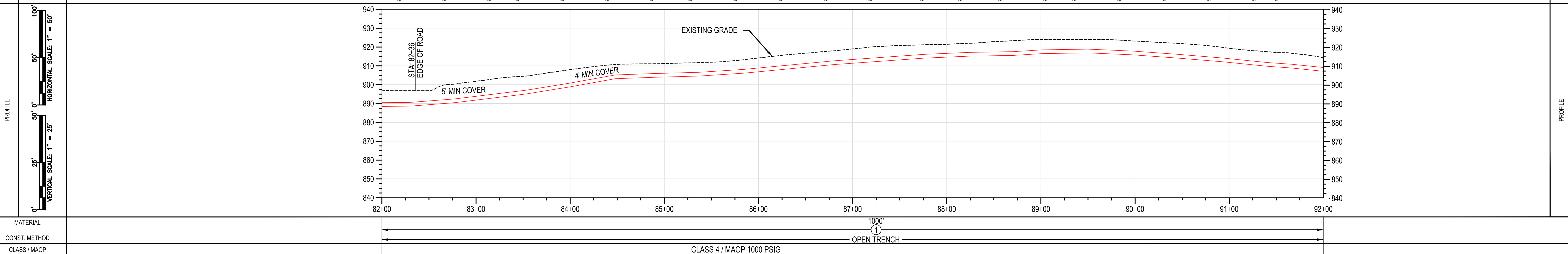


RIGHT-OF-WAY	OWNERSHIP	BOONE COUNTY
	ACREAGE	N/A
	EASEMENTS	N/A
REF. DWG. NO.		

STATIONING	STATIONING
------------	------------



PIPE DATA (SLOPE STATIONING)		JOINT		HEAT #
STA	WELD #	STA	WELD #	
82+18	J2/CS	82+36	XR-P-ML-003	5.7
82+46	J2/CS	82+64	XR-P-ML-004	6.6
83+13	J2/CS	83+31	XR-P-TL-033	6.2
83+43	CS/AC	83+61	XR-A-ML-012	6.2
83+91	CS/AC	84+09	XR-P-TL-035	6.3
84+38	CS/AC	84+66	XR-A-ML-013	6.2
84+86	CS/AC	85+14	XR-P-TL-036	5.0
85+27	EH/CS	85+55	XR-F-ML-011	4.3
85+75	J2/CS	86+03	XR-F-ML-010	4.2
86+23	J2/CS	86+51	XR-F-ML-009	5.8
86+71	J2/CS	87+00	XR-F-ML-008	4.9
87+18	J2/CS	87+46	XR-F-ML-007	4.8
87+66	EH/CH	87+94	XR-F-TL-001	4.7
88+14	J2/CS	88+42	XR-F-ML-006	4.2
88+61	J2/CS	88+89	XR-F-ML-005	4.2
88+09	J2/CS	88+37	XR-F-ML-004	5.1
88+46	CV/EH	88+74	XR-F-TL-002	4.4
88+88	J2/CS	89+16	XR-F-ML-000	4.7
89+36	CV/EH	89+64	XR-F-ML-003	4.7
89+83	J2/CS	90+11	XR-F-ML-003	4.8
91+31	J2/CS	91+59	XR-F-ML-002	4.8
91+37	J2/CS	91+65	XR-F-ML-001	5.1
				25.0'



MATERIAL	
CONST. METHOD	
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG

BURNS & MCDONNELL STATE LICENSE #43

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENGINEER/ARCHITECT STAMP

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

DUKE ENERGY | Piedmont Natural Gas

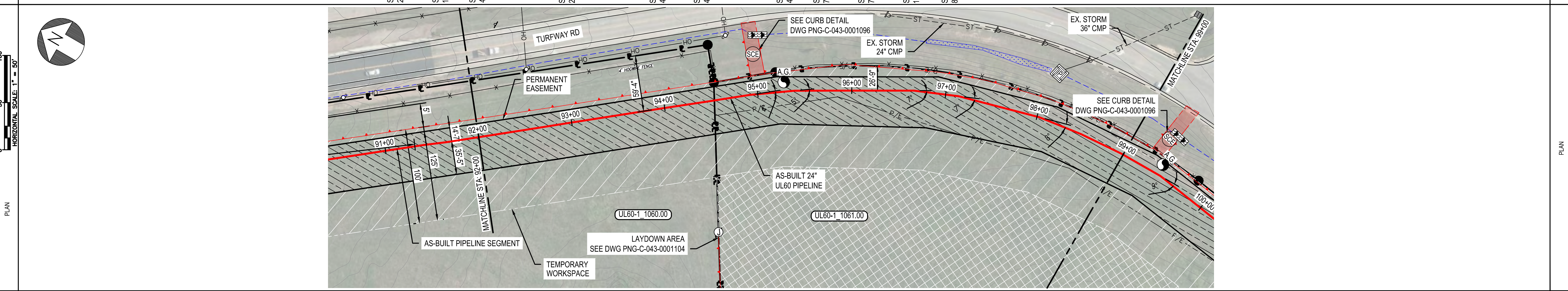
COPYRIGHT 2019

REF. DWG(S)	SEE REFERENCE BAND
SHEET(S)	7 OF 25
DWG DATE	04/02/2019
DWG SCALE	AS NOTED
DRAWING NUMBER	PNG C-043-0001054
REVISION	1

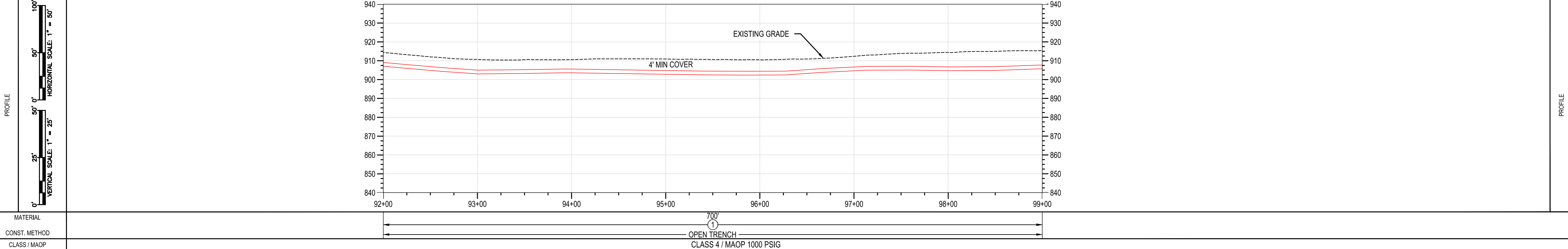


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1060.00	UL60-1_1061.00
	ACREAGE	4.513 ACRES	17.780 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT	
REF. DWG. NO.		PNG-C-043-0001096	PNG-C-043-0001104

STATIONING	STA: 92+14 BEND 2.0° SAG (V)	STA: 92+62 BEND 1.0° SAG (V)	STA: 93+01 BEND 4.0° SAG (V)	STA: 93+96 BEND 2.0° OVERBEND (V)	STA: 94+92 BEND 4.0° (H-LT)	STA: 95+39 BEND 4.0° (H-RT) 1.0° SAG (V)	STA: 96+27 BEND 4.0° SAG (V)	STA: 96+66 BEND 7.0° (H-RT) 1.0° OVERBEND (V)	STA: 97+14 BEND 7.0° (H-RT) 3.0° OVERBEND (V)	STA: 97+62 BEND 1.0° OVERBEND (V)	STA: 98+02 BEND 8.0° (H-RT) 1.0° SAG (V)	STA: 98+50 BEND 4.0° (H-RT) 2.0° SAG (V)	STA: 98+98 BEND 4.0° (H-RT) 2.0° SAG (V)
------------	------------------------------	------------------------------	------------------------------	-----------------------------------	-----------------------------	--	------------------------------	---	---	-----------------------------------	--	--	--



PIPE DATA (SLOPE STATIONING)		JOINT LENGTH (CONV)	JOINT	HEIGHT
STA	WELD #	STA	WELD #	
92+04	CH/EH XR-P-TL-001	4.8	AS30C-06	HFS30919
92+49	CS/EH XR-F-ML-012	4.7	AS30C-05	HFS30921
93+00	CS/SS XR-F-ML-013	4.2	AS30C-02	HFS30920
93+39	CS/SS XR-F-ML-014	5.0	AS30C-01	HFS30912
93+87	CS/SS XR-F-ML-015	4.7	AS30C-010	HFS30920
94+34	CS/SS XR-F-ML-016	4.2	AS30C-08	HFS30912
94+82	EH/CH XR-C-TL-002	5.4	AS30C-03	HFS30921
95+30	CS/CS XR-F-ML-004	5.3	S6C007	HFS49880
95+78	CS/CS XR-F-ML-005	5.7	S6C014	HFS30919
96+23	CS/CS XR-F-ML-006	4.7	S6C004	HFS30912
96+66	EH/CH XR-C-TL-003	5.4	S6C061	HFS30920
97+05	CS/SS XR-F-ML-017	4.9	S6C044	HFS30920
97+53	CS/SS XR-F-ML-018	5.3	AS30C002	HFS30912
98+00	CM/RW XR-G-TL-001	7.1	AS30C015	HFS30919
98+41	CS/SS XR-F-ML-019	6.4	AS30C065	HFS30919
98+88	CS/SS XR-F-ML-021	6.2	AS30C059	HFS30920
99+00	CM/RW	47.9	AS30C080	HFS30920



MATERIAL	
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG

BURNS & MCDONNELL STATE LICENSE #43

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENG/ARCH STAMP

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

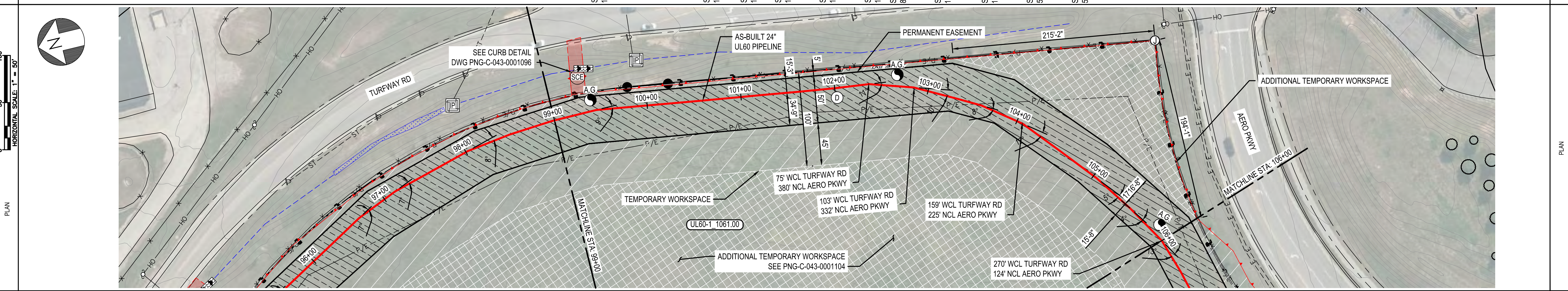
UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

DWGSHEET(S) 8 OF 25 DWG SCALE AS NOTED  
DWG DATE 04/02/2019 SUPERSEDED  
DRAWING NUMBER PNG C-043-0001055 REVISION 1  
C/ERLANGER/UL60

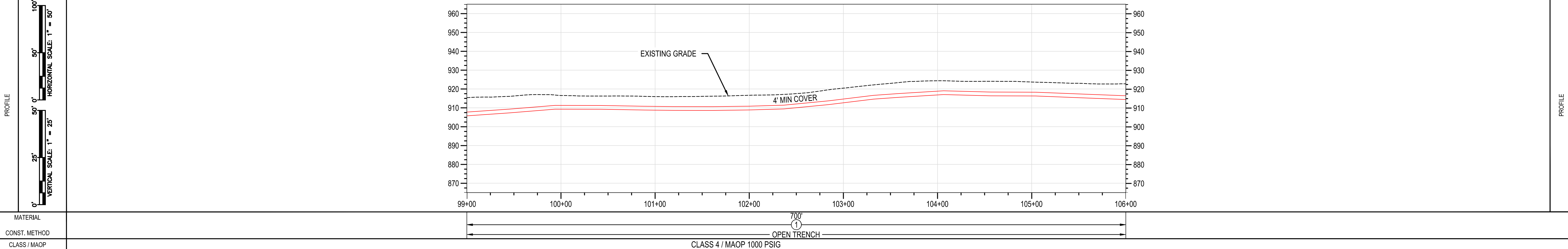


RIGHT-OF-WAY	OWNERSHIP	
	ACREAGE	17.780 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT
REF. DWG. NO.		PNG-C-043-0001096 PNG-C-043-0001104

STATIONING	STA: 99+46 BEND 9.0° (HRT) 1.0° SAG (V)	STA: 99+94 BEND 5.0° OVERBEND (V)	STA: 100+42 BEND 1.0° OVERBEND (V)	STA: 101+61 BEND 1.0° SAG (V)	STA: 102+00 BEND 1.0° (HRT) 1.0° SAG (V)	STA: 102+37 BEND 11.0° (HRT) 4.0° SAG (V)	STA: 102+84 BEND 10.0° (HRT) 1.0° SAG (V)	STA: 103+32 BEND 1.0° (HRT) 3.0° OVERBEND (V)	STA: 103+59 BEND 8.0° (HRT) 1.0° OVERBEND (V)	STA: 104+06 BEND 12.0° (HRT) 5.0° OVERBEND (V)	STA: 104+56 BEND 1.0° SAG (V)	STA: 105+04 BEND 5.0° (HRT) 2.0° OVERBEND (V)	STA: 105+52 BEND 5.0° (HRT)
------------	---	-----------------------------------	------------------------------------	-------------------------------	--	---	---	---	---	--	-------------------------------	---	-----------------------------



PIPE DATA (SLOPE STATIONING)		JOINT	HEAT
STA	WELD #	LENGTH (CV)	
99+37	AC/CS XR-F-ML-022	6.4	HFS30620
	CV/EH		
99+45	AC/CS XR-F-ML-023	5.8	HFS30621
	CV/EH		
100+33	CV/EH XR-F-ML-024	5.3	HFS30621
	CV/EH		
100+61	AC/CS XR-F-ML-024	4.7	HFS30621
	CV/EH		
101+28	AC/CS XR-F-ML-025	4.6	HFS46867
	RV/CM		
101+58	AC/CS XR-F-ML-026	4.4	HFS30619
	CV/EH		
102+00	AC/CS XR-F-ML-027	5.1	HFS46880
	CV/EH		
102+39	CV/EH XR-F-ML-027	5.7	HRT6175
	CV/EH		
102+76	AC/CS XR-F-ML-028	5.3	HRT6721
	RV/CM		
103+24	AC/CS XR-F-ML-028	4.9	HFS30619
	RV/CM		
103+72	RV/RL XR-F-ML-028	4.5	HFS30612
	RV/CM		
103+88	AC/CS XR-F-ML-027	4.5	HFS30619
	CV/EH		
104+46	CV/EH XR-F-ML-027	4.7	HFS30621
	CV/EH		
104+52	CV/EH XR-F-ML-028	4.8	HFS30620
	CV/EH		
104+86	AC/CS XR-F-ML-030	4.1	HFS30612
	CV/EH		
105+44	AC/CS XR-F-ML-031	4.3	HFS30621
	RV/CM		
105+82	AC/CS XR-F-ML-032	4.9	HFS30612
	CV/EH		
		47.9'	HFS30621



MATERIAL	
CONST. METHOD	
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG

BURNS & MCDONNELL STATE LICENSE #43

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENG/ARCH STAMP

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

SHEET(S) 9 OF 25 DWG SCALE AS NOTED  
DWG DATE 04/02/2019 SUPERSEDED  
DRAWING NUMBER PNG C-043-0001056 REVISION 1  
C/ERLANGER/UL60



COPYRIGHT 2019



UL60-1\_1061.00  
17.780 ACRES  
PROPOSED 50' EASEMENT

RIGHT-OF-WAY  
OWNERSHIP  
ACREAGE  
EASEMENTS

STATIONING

PLAN

PIPE DATA  
(SLOPE STATIONING)

PROFILE

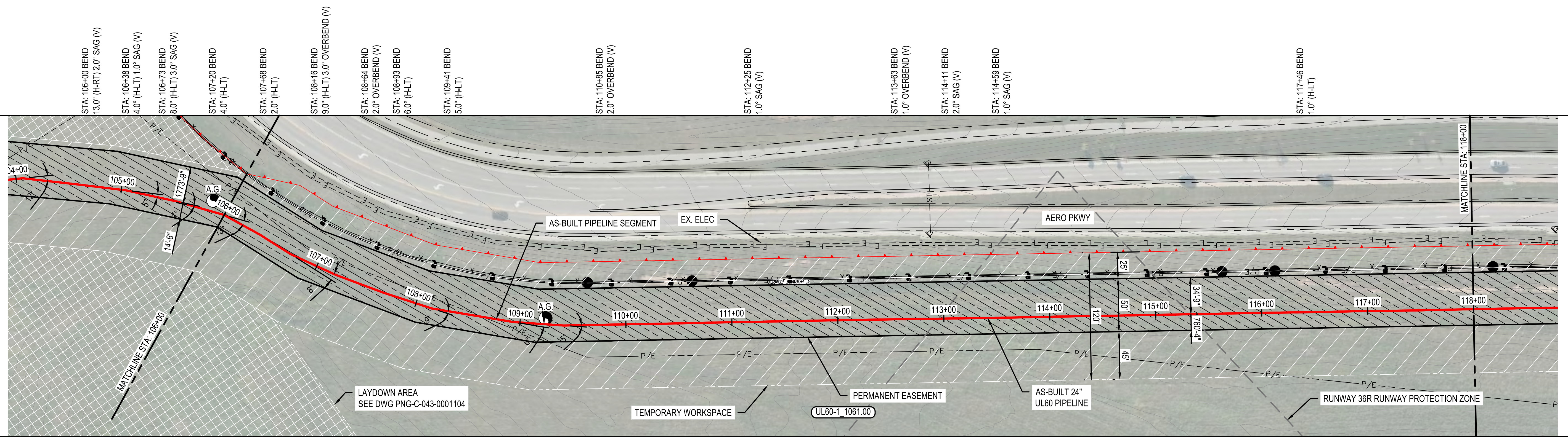
MATERIAL  
CONST. METHOD  
CLASS / MAOP

BURNS & MCDONNELL  
STATE LICENSE #43

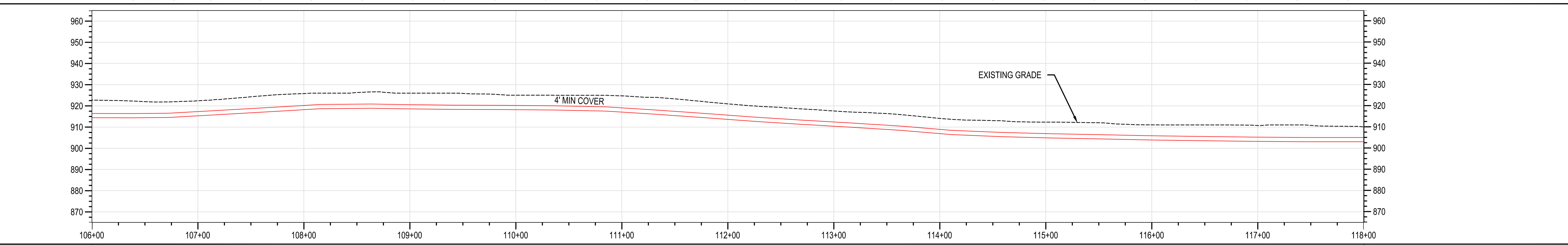
AMANDA M. PALM  
02/11/2020  
KENTUCKY  
SEAL 33142

PROFESSIONAL ENG/ARCH STAMP

PNG-C-043-0001104



STA	WELD #	JOINT	HEAT #
106+40	AC/CS XR-F-ML-003	LS300061	HFS30021
106+78	CV/EH XR-G-TI-004	LS300043	HFS30021
107+13	AC/CS XR-F-ML-004	LS300009	HFS49867
107+40	AC/CS XR-F-ML-005	LS300030	HFR6174
108+08	AC/CS XR-F-ML-006	LS300062	HFS30020
108+56	AC/CS XR-F-ML-007	LS300054	HFS30019
109+04	CV/EH XR-G-TI-005	LS300027	HFS30020
109+34	AC/CS XR-F-ML-009	LS300033	HFS30012
109+82	AC/CS XR-X-ML-001	LS300068	HFS30020
110+30	AC/CS XR-X-ML-002	LS300026	HFS30020
110+78	AC/CS XR-X-ML-003	LS300024	HFS30021
111+26	CV/EH XR-G-TI-007	LS300019	HFR1284
111+72	AC/CS XR-X-ML-004	LS300034	HFS30012
112+18	CV/EH XR-X-ML-005	LS300048	HFS30020
112+66	AC/CS XR-X-ML-006	LS300018	HFS49880
113+09	AC/CS XR-X-ML-007	LS300056	HFR2061
113+56	CV/EH XR-G-TI-006	LS300063	HFS49880
114+04	AC/CS XR-X-ML-008	LS300023	HFS30012
114+52	AC/CS XR-F-ML-009	LS300022	HFS30020
115+00	AC/CS XR-X-ML-010	LS300020	HFS30020
115+48	AC/CS XR-F-ML-008	LS300028	HFS30020
115+96	CV/EH XR-G-TI-010	LS300046	HFS30020
116+43	AC/CS XR-F-ML-040	LS300078	HFS30021
116+91	AC/CS XR-F-ML-041	LS300079	HFS30020
117+39	AC/CS XR-F-ML-042	LS300078	HFS49869
117+87	AC/CS XR-F-ML-043	LS300077	HFS30020



1200'  
OPEN TRENCH  
CLASS 4 / MAOP 1000 PSIG

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE - INITIALS - DATE - INITIALS AMP DATE 02/12/2020

REGIONAL ENGINEER  
MGR TECH REC & STD  
PRINCIPAL ENGINEER



UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

SHEET(S) 10 OF 25	DWG SCALE AS NOTED
DWG DATE 04/02/2019	SUPERSEDED
DRAWING NUMBER PNG C-043-0001057	REVISION 1



UL60-1\_1061.00  
17.780 ACRES  
PROPOSED 50' EASEMENT

RIGHT-OF-WAY  
OWNERSHIP  
ACREAGE  
EASEMENTS  
REF. DWG. NO.

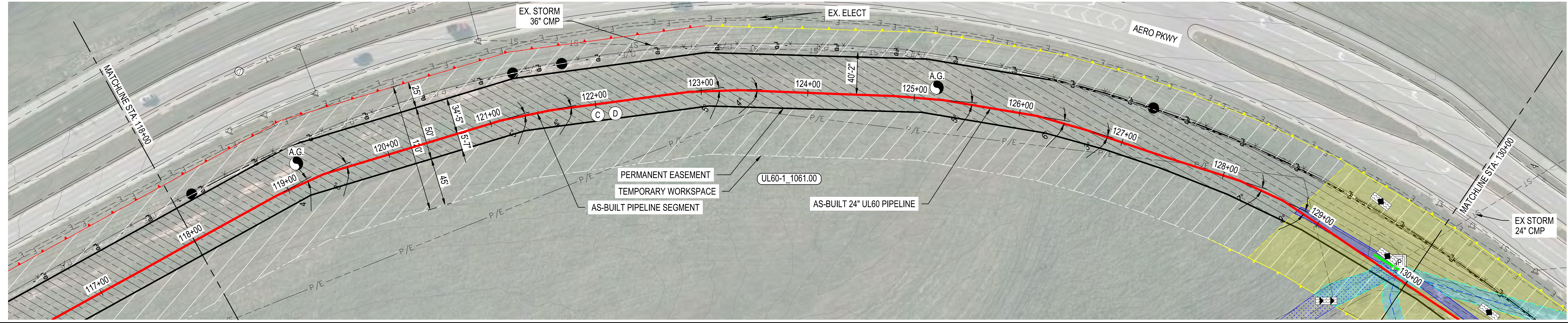
STATIONING

PLAN  
1" = 50'  
HORIZONTAL SCALE

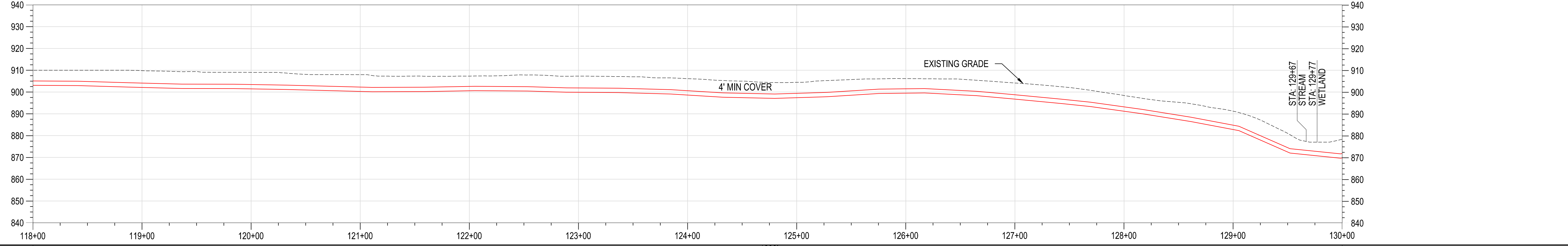
PIPE DATA  
(SLOPE STATIONING)  
STA. WELD #  
JOINT #  
HEAD #  
AS-BUILT PIPE DATA BAND REFLECTS TRUE PIPE LENGTH STATIONING (SLOPE STATIONING), PLAN AND PROFILE STATIONING REFLECTS HORIZONTAL LENGTH ONLY.

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

MATERIAL  
CONST. METHOD  
CLASS / MAOP



STA.	WELD #	JOINT #	HEAD #
118+35	CH/EH XR-G-TI-011	4.5	J55C-077 HFS30920
118+62	JC/CS XR-F-ML-044	4.8	J55C-076 HFS30919
119+30	JC/CS XR-F-ML-045	4.2	J55C-075 HFS30920
119+78	JC/CS XR-F-ML-046	4.2	J55C-088 HFS30912
120+26	JC/CS XR-F-ML-047	4.4	J55C-021 HFS30919
120+73	CH/EH XR-G-TI-012	4.5	J55C-074 HFS30920
121+21	JC/CS XR-F-ML-053	4.1	J55C-087 HFS30921
122+52	JC/CS XR-F-ML-054	4.3	J55C-081 HFS30919
122+90	JC/CS XR-F-ML-055	4.6	J55C-104 HFS30919
122+95	JC/CS XR-F-ML-056	4.4	J55C-085 HFS30919
122+98	JC/CS XR-F-ML-057	4.5	J55C-083 HFS30919
123+30	JC/CS XR-F-ML-057	4.5	J55C-073 HFS30919
123+78	JC/CS XR-F-ML-058	4.4	J55C-086 HFS30921
124+26	JC/CS XR-F-ML-059	4.4	J55C-102 HFS30920
124+73	JC/CS XR-F-ML-060	4.8	J55C-100 HFS30920
125+21	CH/EH XR-P-TI-002	4.2	J55C-103 HFS30921
125+69	JC/CS XR-F-ML-061	4.6	J55C-097 HFS30920
126+17	JC/CS XR-F-ML-062	4.3	J55C-099 HFS30921
126+59	JC/CS XR-F-ML-063	4.0	J55C-090 HFS30912
127+07	EV/CH XR-C-TI-006	5.0	J55C-098 HFS30921
127+40	RW/CM XR-G-ML-006	4.7	J55C-181 HFW67219
127+85	RW/CM XR-G-ML-007	4.7	J55C-188 HFT166175
128+11	RW/CM XR-G-ML-008	4.4	J55C-161 HFD82861
128+58	RW/CM XR-G-ML-009	4.1	J55C-168 HET985655
129+04	EV/CH XR-C-TI-005	5.1	J55C-141 HFS30912
129+48	JC/CS XR-G-ML-014	6.0	J55C-157 HFS30921
129+86	JC/CS XR-G-ML-013	8.7	J55C-170 HFS49867
129+99	JC/CS XR-G-ML-013	8.7	J55C-172 HFS30919



CLASS / MAOP: CLASS 4 / MAOP 1000 PSIG  
OPEN TRENCH

BURNS & MCDONNELL  
STATE LICENSE #43

AMANDA M. PALM  
01/17/2020  
KENTUCKY  
SEAL 33142  
PROFESSIONAL ENGINEER/ARCHITECT STAMP

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 04/17/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER



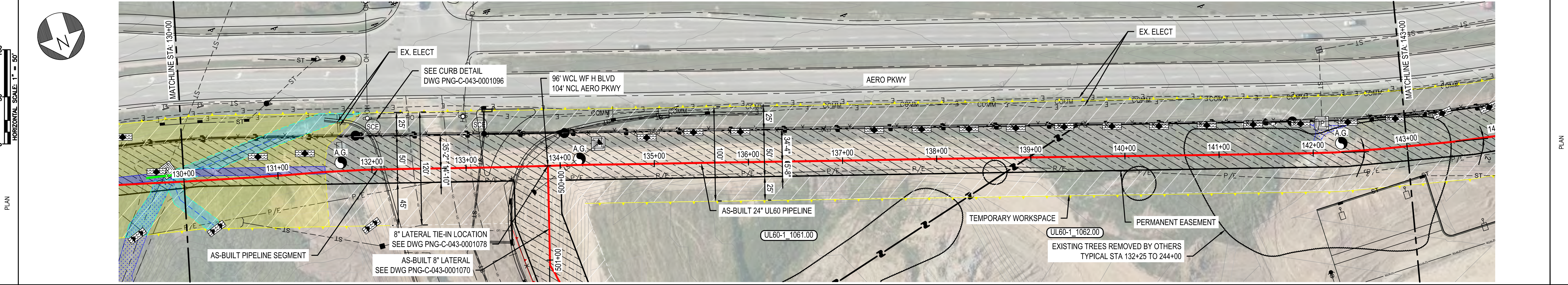
UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

REF. DWG(S)	SEE REFERENCE BAND		
SHEET(S)	11 OF 25	DWG SCALE	AS NOTED
DWG DATE	04/02/2019	SUPERSEDED	
DRAWING NUMBER	PNG C-043-0001058	REVISION	1
C/ERLANGER/UL60			

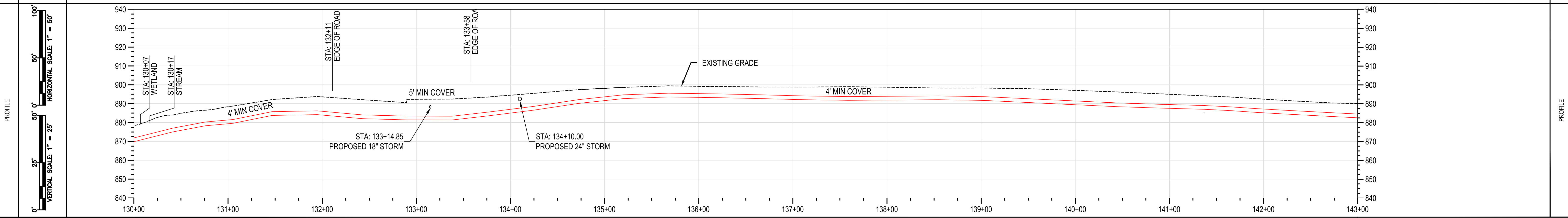


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1061.00	17.780 ACRES	PROPOSED 50' EASEMENT	UL60-1_1062.00	2.806 ACRES
	ACREAGE					
	EASEMENTS					
REF. DWG. NO.		PNG-C-043-0001096	PNG-C-043-0001078	PNG-C-043-0001070		

STATIONING	STA: 130+41 BEND 3.0" SAG (V)	STA: 130+76 BEND 6.0" OVERBEND (V)	STA: 131+05 BEND 1.0" (H-LT) 6.0" SAG (V)	STA: 131+47 BEND 2.0" (H-LT) 10.0" OVERBEND (V)	STA: 131+95 BEND 2.0" (H-LT) 6.0" OVERBEND (V)	STA: 132+15 BEND 12.50' OB (V) 3" (H-RT)	STA: 132+42 BEND 4.0" SAG (V)	STA: 132+90 BEND 2.0" SAG (V)	STA: 133+38 BEND 7.0" SAG (V)	STA: 133+77 BEND 1.0" SAG (V)	STA: 134+25 BEND 1.0" (H-LT) 1.0" SAG (V)	STA: 134+72 BEND 2.0" OVERBEND (V)	STA: 135+20 BEND 4.0" OVERBEND (V)	STA: 135+68 BEND 3.0" OVERBEND (V)	STA: 137+11 BEND 1.0" SAG (V)	STA: 137+59 BEND 1.0" SAG (V)	STA: 138+55 BEND 1.0" OVERBEND (V)	STA: 139+03 BEND 2.0" OVERBEND (V)	STA: 140+43 BEND 1.0" SAG (V)	STA: 141+37 BEND 1.0" OVERBEND (V)	STA: 141+64 BEND 1.0" OVERBEND (V)	STA: 142+24 BEND 3.0" (H-LT)	STA: 142+71 BEND 1.0" (H-LT)
------------	-------------------------------	------------------------------------	---	---	--	--	-------------------------------	-------------------------------	-------------------------------	-------------------------------	---	------------------------------------	------------------------------------	------------------------------------	-------------------------------	-------------------------------	------------------------------------	------------------------------------	-------------------------------	------------------------------------	------------------------------------	------------------------------	------------------------------



PIPE DATA (SLOPE STATIONING)		JOINT LENGTH	JOINT	HEIGHT
STA	WELD #	(FOV)		
130+43	CM/RW	42.0'	J56C172	HT530919
130+85	CM/RW	42.0'	J56C167	HT530920
131+20	CV/EH	35.3'	J56C185	HT567360
131+50	EV/CH	29.0'	J56C113	HT530920
131+82	EV/CH	42.3'	J56C198	HT567359
132+40	CM/WH	47.9'	J56C-200	HT546987
132+88	JC/CS	47.9'	J56C-183	HT546987
133+35	CV/EH	6.4'	J56C-159	HT546987
133+83	CM/WH	47.9'	J56C-180	HT530921
134+23	JC/CS	39.7'	J56C-082	HT530920
134+70	CV/EH	5.5'	J56C-188	HT567202
135+18	CV/EH	29.3'	J56C-188	HT567202
135+66	CV/EH	47.8'	J56C-209	HT567202
136+14	CV/EH	5.1'	J56C-116	HT530912
136+62	CV/EH	47.8'	J56C-214	HT567202
137+08	CV/EH	47.9'	J56C-108	HT530921
137+57	CV/EH	47.8'	J56C-223	HT567059
138+05	CV/EH	47.9'	J56C-107	HT530912
138+53	CV/EH	47.8'	J56C-208	HT567202
139+00	JC/CS	47.9'	J56C-096	HT530919
139+48	EV/CH	47.8'	J56C-233	HT566827
139+96	JC/CS	47.9'	J56C-109	HT530921
140+42	JC/CS	47.8'	J56C-224	HT567202
140+89	JC/CS	45.8'	J56C-185	HT746101
141+35	JC/CS	46.6'	J56C-128	HT530920
141+83	EV/CH	45.4'	J56C-191	HT746572
142+30	CV/EH	47.9'	J56C-106	HT546959
142+78	CV/EH	26.9'	J56C-221	HT738963
143+26	CV/EH	29.7'	J56C-204	HT746095
143+74	CV/EH	30.5'	J56C-245	HT746095
144+22	CV/EH	47.7'	J56C-237	HT768331



MATERIAL	(10)	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD		OPEN TRENCH
CLASS / MAOP		

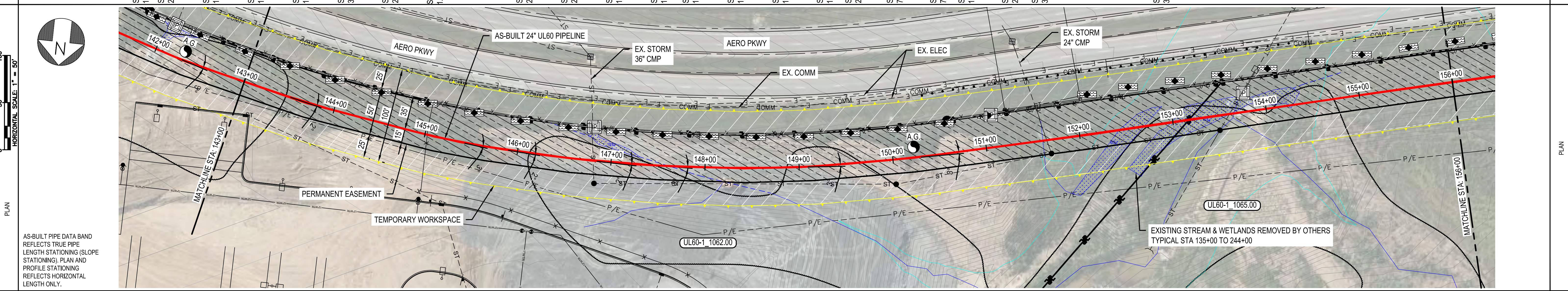
BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142	NO. DATE REVISION(S) DESCRIPTION BY CHK APPD	1 02/10/2021 ISSUED FOR AS-BUILT JXV CEB EPM	DESCRIPTION AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020	INITIALS AMP	APPROVALS REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER		<p><b>UL60 PIPELINE - PHASE 1</b>  <b>ALIGNMENT SHEET</b>  <b>BOONE COUNTY, KY</b>                  ERLANGER, KY</p>	SHEET(S) 12 OF 25 DWG DATE 04/02/2019 DWG SCALE AS NOTED SUPERSEDED DRAWING NUMBER PNG C-043-0001059 REVISION 1 C/ERLANGER/UL60
--	--	--	---	-----------------	--------------	--	--	--	---

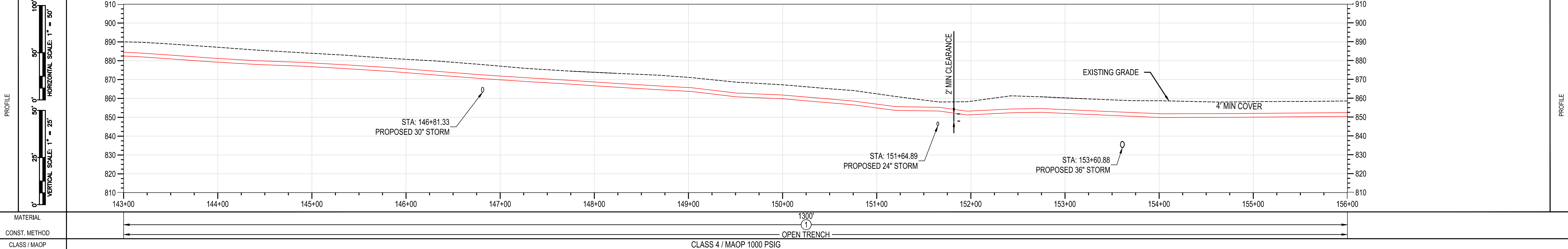


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1062.00	2.806 ACRES	PROPOSED 50' EASEMENT	UL60-1_1065.00	2.661 ACRES
	ACREAGE					
	EASEMENTS					
REF. DWG. NO.						

STATIONING	STA: 143+19 BEND 1.0° OVERBEND (V) STA: 143+46 BEND 2.0° (H/LT) STA: 143+94 BEND 1.0° (H/LT) 1.0° SAG (V) STA: 144+41 BEND 1.0° SAG (V) STA: 144+89 BEND 1.0° OVERBEND (V) STA: 145+37 BEND 3.0° (H/LT) STA: 145+84 BEND 2.0° (H/LT) STA: 146+32 BEND 1.0° (H/LT) STA: 146+79 BEND 2.0° (H/LT) 1.0° SAG (V) STA: 147+27 BEND 2.0° (H/LT) STA: 147+74 BEND 2.0° (H/LT) STA: 148+22 BEND 1.0° (H/LT) STA: 148+70 BEND 1.0° (H/LT) STA: 149+03 BEND 1.0° (H/LT) 4.0 OVERBEND (V) STA: 149+51 BEND 1.0° (H/LT) 4.0 SAG (V) STA: 149+99 BEND 1.0° (H/LT) 2.0 OVERBEND (V) STA: 140+46 BEND 1.0° (H/LT) STA: 140+76 BEND 2.0 OVERBEND (V) STA: 151+20 BEND 7.0° OVERBEND (V) STA: 151+66 BEND 7.0° OVERBEND (V) STA: 151+96 BEND 11.0° SAG (V) STA: 152+43 BEND 2.0° OVERBEND (V) STA: 152+74 BEND 3.0° OVERBEND (V) STA: 154+03 BEND 3.0° SAG (V)	STATIONING
------------	---	------------



PIPE DATA (SLOPE STATIONING)		JOINT		HEAVY
STA	WELD #	STA	WELD #	
143+17	RL/S	143+17	RL/S	HR788331
143+45	CH/EH	143+45	CH/EH	HR788331
143+82	RL/S	143+82	RL/S	HR788331
144+40	RL/S	144+40	RL/S	HR788331
144+87	RL/S	144+87	RL/S	HR788331
145+35	RL/S	145+35	RL/S	HR788331
146+83	EV/CH	146+83	EV/CH	HR788331
147+30	EV/CH	147+30	EV/CH	HR788331
147+78	EV/CH	147+78	EV/CH	HR788331
148+25	EV/CH	148+25	EV/CH	HR788331
148+73	EV/CH	148+73	EV/CH	HR788331
149+20	EV/CH	149+20	EV/CH	HR788331
149+68	EV/CH	149+68	EV/CH	HR788331
150+15	EV/CH	150+15	EV/CH	HR788331
150+62	EV/CH	150+62	EV/CH	HR788331
151+10	EV/CH	151+10	EV/CH	HR788331
151+57	EV/CH	151+57	EV/CH	HR788331
152+04	EV/CH	152+04	EV/CH	HR788331
152+51	EV/CH	152+51	EV/CH	HR788331
152+98	EV/CH	152+98	EV/CH	HR788331
153+45	EV/CH	153+45	EV/CH	HR788331
153+92	EV/CH	153+92	EV/CH	HR788331
154+39	EV/CH	154+39	EV/CH	HR788331
154+86	EV/CH	154+86	EV/CH	HR788331
155+33	EV/CH	155+33	EV/CH	HR788331
155+80	EV/CH	155+80	EV/CH	HR788331
156+27	EV/CH	156+27	EV/CH	HR788331



MATERIAL	
CONST. METHOD	
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

AMANDA M. PALM  
02/11/2020  
KENTUCKY  
SEAL 33142

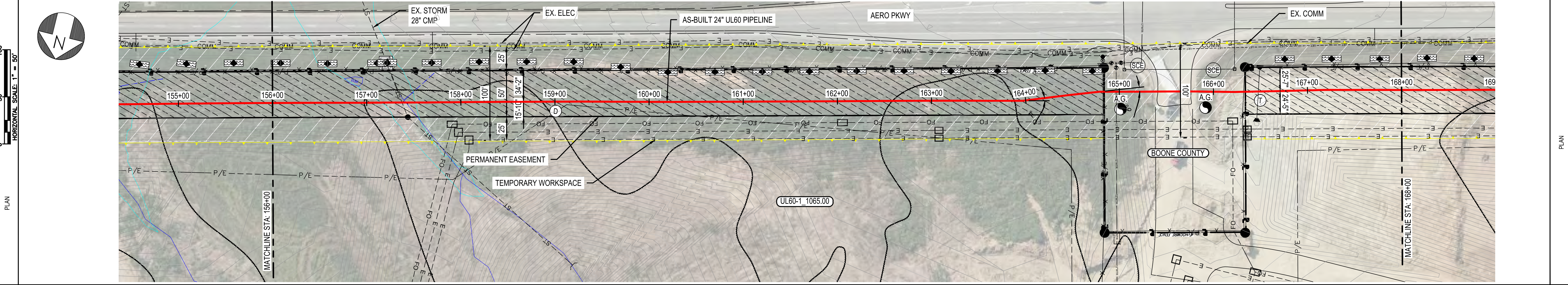
UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

SHEET(S) 13 OF 25  
DWG DATE 04/02/2019  
DWG SCALE AS NOTED  
SUPERSEDED  
DRAWING NUMBER PNG C-043-0001060  
REVISION 1

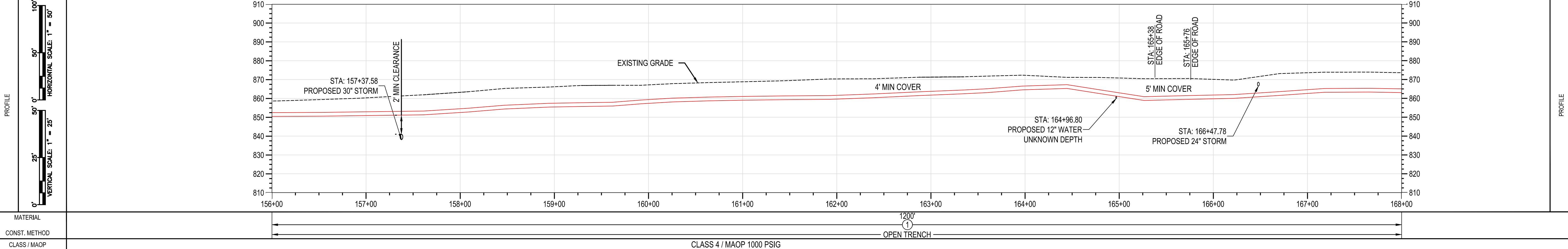


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1065.00	BOONE COUNTY	UL60-1_1065.00
	ACREAGE	2.661 ACRES	N/A	2.661 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT	N/A	PROPOSED 50' EASEMENT
REF. DWG. NO.				

STATIONING	STA: 157+61 BEND 3.0° SAG (V)	STA: 158+09 BEND 1.0° SAG (V)	STA: 158+47 BEND 2.0° OVERBEND (V)	STA: 158+95 BEND 1.0° OVERBEND (V)	STA: 159+62 BEND 4.0° SAG (V)	STA: 159+92 BEND 1.0° OVERBEND (V)	STA: 160+25 BEND 2.0° OVERBEND (V)	STA: 160+64 BEND 1.0° OVERBEND (V)	STA: 161+93 BEND 2.0° SAG (V)	STA: 162+40 BEND 1.0° SAG (V)	STA: 163+35 BEND 1.0° SAG (V)	STA: 163+60 BEND 1.0° SAG (V)	STA: 163+97 BEND 7.0° (H/LT) 3.0° OVERBEND (V)	STA: 164+45 BEND 1.0° (H/LT) 11.0° OVERBEND (V)	STA: 164+79 BEND 6.0° (H/RT)	STA: 165+26 BEND 10.0° SAG (V)	STA: 165+74 BEND 1.0° (H/RT)	STA: 166+22 BEND 2.0° (H/LT) 2.0° SAG (V)	STA: 167+18 BEND 2.0° (H/RT) 4.0° OVERBEND (V)	STA: 167+66 BEND 1.0° OVERBEND (V)
------------	-------------------------------	-------------------------------	------------------------------------	------------------------------------	-------------------------------	------------------------------------	------------------------------------	------------------------------------	-------------------------------	-------------------------------	-------------------------------	-------------------------------	--	---	------------------------------	--------------------------------	------------------------------	---	--	------------------------------------



PIPE DATA (SLOPE STATIONING)		JOINT LENGTH (CMT)	JOINT	HEAVY
STA	WELD #	STA	WELD #	
156+05	AS/RL XP-P-ML-086	47.8'	J59C-305	HT#7202
156+53	EV/CH XP-P-TL-070	47.8'	J59C-300	HT#1059
157+00	EV/CH XP-A-ML-023	47.8'	J59C-496	HT#65458
157+37	CV/CH XP-Z-ML-002	5.1'	J59C-473	HT#46274
157+70	EV/CH XP-Z-ML-003	33.3'	J59C-468	HT#18120
158+08	EV/CH XP-Z-ML-004	37.6'	J59C-364	HT#18120
158+56	EV/CH XP-P-TL-071	47.7'	J59C-490	HT#65457
158+94	EV/CH XP-Z-ML-005	38.3'	J59C-483	HT#18120
159+42	EV/CH XP-Z-ML-006	47.8'	J59C-488	HT#18120
159+75	EV/CH XP-A-ML-022	33.6'	J59C-502	HT#18120
160+09	EV/CH XP-Z-ML-008	6.0'	J59C-500	HT#186482
160+38	EV/CH XP-C-TL-018	29.7'	J59C-499	HT#18120
160+72	AS/CH XP-P-ML-189	33.4'	J59C-501	HT#63618
161+11	AS/CH XP-P-ML-188	38.8'	J59C-504	HT#18120
161+45	AS/CH XP-P-ML-187	35.2'	J59C-492	HT#65458
161+83	AS/CH XP-P-ML-186	6.3'	J59C-479	HT#65455
162+40	CV/AS XP-P-ML-185	46.6'	J59C-471	HT#18120
162+88	EV/CH XP-P-ML-186	46.5'	J59C-480	HT#67359
163+34	EV/CH XP-P-ML-184	47.8'	J59C-506	HT#65458
163+81	EV/CH XP-P-ML-185	47.8'	J59C-503	HT#08081
164+07	EV/CH XP-C-TL-019	37.1'	J59C-394	HT#65571
164+44	EV/CH XP-P-ML-197	37.7'	J59C-509	HT#46274
164+82	EV/CH XP-C-TL-020	47.3'	J59C-514	HT#65455
165+26	AS/RL XP-C-ML-018	34.8'	J59C-177	HT#32019
165+74	AS/RL XP-C-ML-019	47.9'	J59C-156	HT#32012
166+22	AS/RL XP-C-ML-020	47.9'	J59C-150	HT#32020
166+70	AS/RL XP-C-ML-021	47.9'	J59C-149	HT#32020
167+18	EV/CH XP-P-TL-072	47.8'	J59C-146	HT#32019
167+66	EV/CH XP-C-ML-012	47.8'	J59C-477	HT#18120
167+66	EV/CH XP-C-ML-012	47.8'	J59C-472	HT#65458



MATERIAL	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	

BURNS & MCDONNELL STATE LICENSE #43

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENGINEER/ARCHITECT STAMP

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

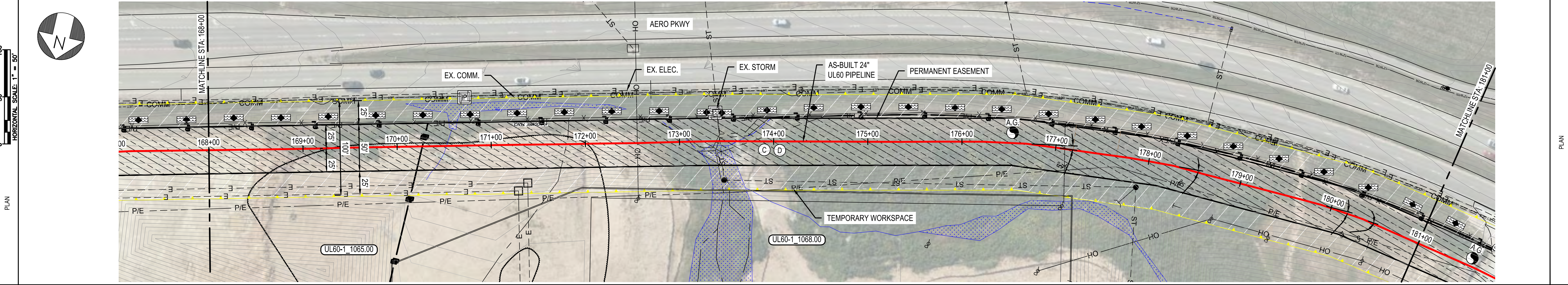
UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

SHEET(S) 14 OF 25 DWG SCALE AS NOTED  
DWG DATE 04/02/2019 SUPERSEDED  
DRAWING NUMBER PNG C-043-0001061 REVISION 1  
C/ERLANGER/UL60

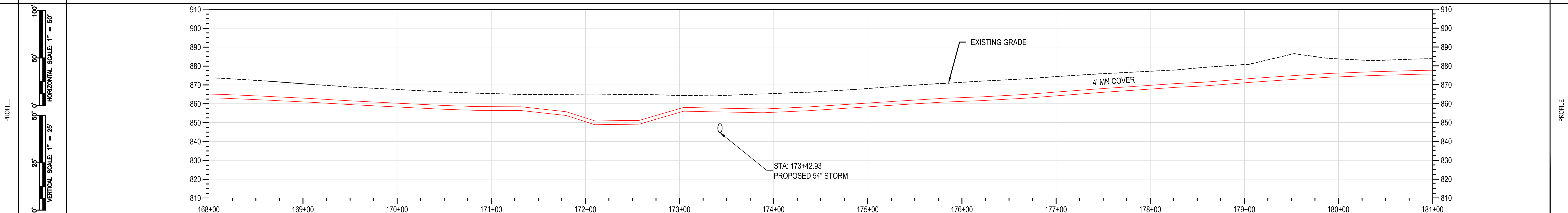


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1065.00	UL60-1_1068.00
	ACREAGE	2.661 ACRES	2.220 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT	PROPOSED 50' EASEMENT
REF. DWG. NO.			

STATIONING	STA: 168+14 BEND 2.0° OVERBEND (V) STA: 169+09 BEND 1.0° (H-LT) STA: 170+48 BEND 1.0° SAG (V) STA: 170+66 BEND 2.0° SAG (V) STA: 171+32 BEND 6.0° OVERBEND (V) STA: 171+80 BEND 1.0° (H-LT) 11.0° OVERBEND (V) STA: 172+10 BEND 1.0° (H-LT) 18.0° SAG (V) STA: 172+57 BEND 1.0° (H-LT) 16.0° SAG (V) STA: 173+04 BEND 1.0° (H-LT) 18.0° OVERBEND (V) STA: 173+41 BEND 1.0° (H-LT) STA: 173+69 BEND 4.0° SAG (V) STA: 174+37 BEND 1.0° SAG (V) STA: 175+33 BEND 1.0° (H-LT) STA: 175+79 BEND 1.0° OVERBEND (V) STA: 176+22 BEND 2.0° (H-RT) 1.0° SAG (V) STA: 176+68 BEND 5.0° (H-RT) 1.0° SAG (V) STA: 176+99 BEND 1.0° (H-RT) STA: 177+80 BEND 2.0° (H-RT) STA: 178+27 BEND 5.0° (H-LT) 1.0° OVERBEND (V) STA: 178+57 BEND 1.0° (H-LT) 2.0° SAG (V) STA: 179+05 BEND 1.0° OVERBEND (V) STA: 179+89 BEND 4.0° (H-RT) 1.0° OVERBEND (V) STA: 180+36 BEND 5.0° (H-RT) 1.0° OVERBEND (V) STA: 180+83 BEND 1.0° OVERBEND (V)	STATIONING
------------	---	------------



PIPE DATA (SLOPE STATIONING)		JOINT		HEAT #
STA	WELD #	STA	WELD #	
168+13	EV/CH XR-O-ML-011 5.3	LT	J59C-478	HTRB5465
168+61	EV/CH XR-O-ML-010 5.3	LT	J59C-474	HTRB5468
168+69	EV/CH XR-O-ML-009 5.3	LT	J59C-482	HTRB3918
168+57	EV/CH XR-P-ML-173 5.3	LT	J59C-343	HTRB7359
170+00	EV/CH XR-P-ML-173 5.0	LT	J59C-336	HTRB4081
170+49	EV/CH XR-P-ML-174 5.0	LT	J59C-288	HTRB1059
170+98	EV/CH XR-P-ML-175 5.3	LT	J59C-422	HTRB3918
171+33	EV/CH XR-P-ML-176 5.3	LT	J59C-342	HTRB4079
171+80	EV/CH XR-P-ML-177 5.3	LT	J59C-340	HTRB6823
172+28	EV/CH XR-Z-ML-001 7.5	LT	J59C-427	HTRB6175
172+98	EV/CH XR-P-ML-186 12.8	LT	J59C-385	HTRB3941
173+06	EV/CH XR-P-ML-185 12.2	LT	J59C-418	HTRB4081
173+54	EV/CH XR-P-ML-088 4.1	LT	J59C-391	HTRB6477
173+81	EV/CH XR-P-ML-182 5.0	LT	J59C-338	HTRB6175
174+38	EV/CH XR-P-ML-183 5.0	LT	J59C-400	HTRB6178
174+86	EV/CH XR-P-ML-184 5.4	LT	J59C-351	HTRB4081
175+34	EV/CH XR-P-ML-086 5.2	LT	J59C-359	HTRB6300
175+83	EV/CH XR-P-ML-180 4.8	LT	J59C-344	HTRB6823
176+28	EV/CH XR-P-ML-189 4.9	LT	J59C-385	HTRB6178
176+72	EV/CH XR-P-ML-188 5.3	LT	J59C-386	HTRB3941
177+18	EV/CH XR-P-ML-187 5.3	LT	J59C-318	HTR736883
177+48	EV/CH XR-P-ML-084 5.0	LT	J59C-386	HTRB7359
177+86	EV/CH XR-P-ML-181 5.4	LT	J59C-348	HTRB2077
178+30	EV/CH XR-P-ML-188 5.1	LT	J59C-388	HTRB4079
178+77	EV/CH XR-P-ML-189 5.0	LT	J59C-382	HTRB8842
179+07	EV/CH XR-P-ML-083 5.0	LT	J59C-346	HTRB4081
179+55	EV/CH XR-P-ML-184 5.0	LT	J59C-399	HTRB4081
180+03	EV/CH XR-P-ML-185 5.1	LT	J59C-435	HTRB3918
180+39	EV/CH XR-P-ML-186 4.9	LT	J59C-397	HTRB6179
180+86	EV/CH XR-P-ML-187 5.2	LT	J59C-389	HTRB4079



MATERIAL	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	

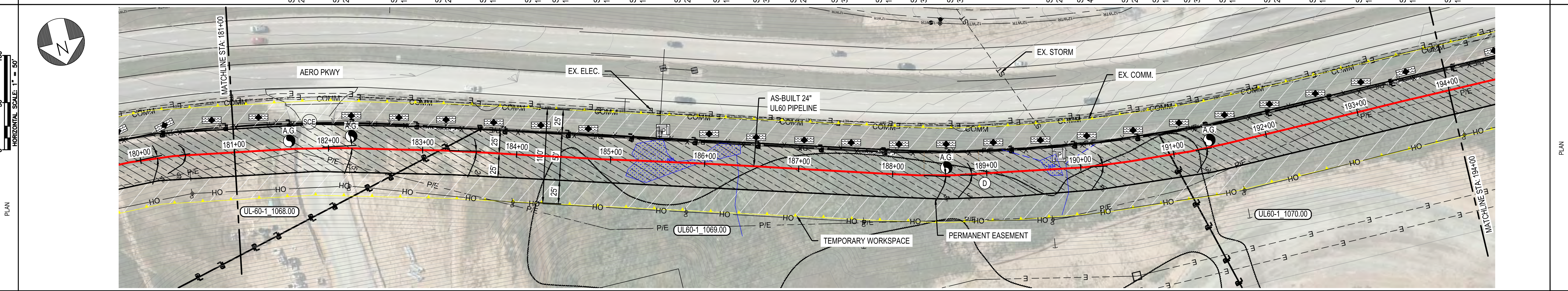
BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142 PROFESSIONAL ENGR/ARCH STAMP	NO. 1 DATE 02/10/2021 REVISION(S) DESCRIPTION ISSUED FOR AS-BUILT	BY JXV CHK CEB APPD EPM	DESCRIPTION AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020	INITIALS AMP	APPROVALS REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER		<b>UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET BOONE COUNTY, KY</b> ERLANGER, KY COPYRIGHT 2019	SHEET(S) 15 OF 25 DWG SCALE AS NOTED DWG DATE 04/02/2019 SUPERSEDED DRAWING NUMBER <b>PNG C-043-0001062</b> C/ERLANGER/UL60	AS NOTED REVISION <b>1</b>
--	---	-------------------------------	---	-----------------	--------------	--	--	---	---	----------------------------------

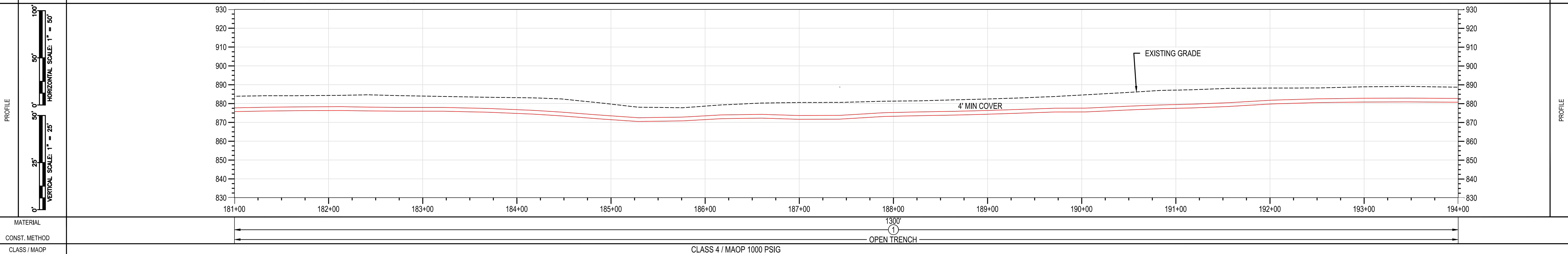


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1068.00	UL60-1_1069.00	UL60-1_1070.00
ACREAGE		2.220 ACRES	1.367 ACRES	10.553 ACRES
EASEMENTS			PROPOSED 50' EASEMENT	
REF. DWG. NO.				

STATIONING	STA: 181+66 BEND 2.0" (H-RT)	STA: 182+14 BEND 2.0" (H-RT) 1.0" OVERBEND (V)	STA: 182+75 BEND 1.0" (H-LT) 1.0" SAG (V)	STA: 183+22 BEND 2.0" (H-RT) 1.0" OVERBEND (V)	STA: 183+70 BEND 1.0" OVERBEND (V)	STA: 184+17 BEND 1.0" OVERBEND (V)	STA: 184+47 BEND 1.0" OVERBEND (V)	STA: 184+90 BEND 1.0" (H-LT)	STA: 185+29 BEND 1.0" (H-LT) 5.0" SAG (V)	STA: 185+76 BEND 2.0" SAG (V)	STA: 186+18 BEND 1.0" (H-LT) 3.0" OVERBEND (V)	STA: 186+60 BEND 3.0" OVERBEND (V)	STA: 186+99 BEND 2.0" SAG (V)	STA: 187+43 BEND 3.0" SAG (V)	STA: 187+90 BEND 1.0" (H-LT) 2.0" SAG (V)	STA: 188+27 BEND 3.0" (H-LT)	STA: 188+66 BEND 3.0" (H-LT)	STA: 189+71 BEND 2.0" OVERBEND (V)	STA: 190+04 BEND 4.0" (H-LT) 2.0" SAG (V)	STA: 190+51 BEND 2.0" (H-LT)	STA: 190+84 BEND 1.0" SAG (V)	STA: 191+17 BEND 3.0" (H-LT) 1.0" SAG (V)	STA: 191+55 BEND 1.0" (H-LT) 1.0" SAG (V)	STA: 192+03 BEND 2.0" OVERBEND (V)	STA: 192+51 BEND 1.0" OVERBEND (V)	STA: 193+00 BEND 1.0" OVERBEND (V)	STA: 193+47 BEND 1.0" OVERBEND (V)	STA: 193+94 BEND 1.0" SAG (V)
------------	------------------------------	--	---	--	------------------------------------	------------------------------------	------------------------------------	------------------------------	---	-------------------------------	--	------------------------------------	-------------------------------	-------------------------------	---	------------------------------	------------------------------	------------------------------------	---	------------------------------	-------------------------------	---	---	------------------------------------	------------------------------------	------------------------------------	------------------------------------	-------------------------------



PIPE DATA (SLOPE STATIONING)		JOINT		HEAVY
STA	WELD #	STA	WELD #	
181+33	EV/CH	181+33	EV/CH	HT184079
181+82	CV/CH	181+82	CV/CH	HT185458
182+16	EV/CH	182+16	EV/CH	HT186152
182+44	EV/CH	182+44	EV/CH	HT186759
182+82	EV/CH	182+82	EV/CH	HT187696
183+25	EV/CH	183+25	EV/CH	HT188759
183+72	EV/CH	183+72	EV/CH	HT189458
184+20	EV/CH	184+20	EV/CH	HT190722
184+68	EV/CH	184+68	EV/CH	HT191284
184+87	EV/CH	184+87	EV/CH	HT192786
185+41	EV/CH	185+41	EV/CH	HT193675
185+79	EV/CH	185+79	EV/CH	HT194230
186+27	EV/CH	186+27	EV/CH	HT195759
186+68	EV/CH	186+68	EV/CH	HT196823
187+10	EV/CH	187+10	EV/CH	HT197318
187+50	EV/CH	187+50	EV/CH	HT197824
187+93	EV/CH	187+93	EV/CH	HT198284
188+40	EV/CH	188+40	EV/CH	HT198818
188+78	EV/CH	188+78	EV/CH	HT199482
189+16	EV/CH	189+16	EV/CH	HT200284
189+54	EV/CH	189+54	EV/CH	HT201081
189+85	EV/CH	189+85	EV/CH	HT201722
190+22	EV/CH	190+22	EV/CH	HT202289
190+54	EV/CH	190+54	EV/CH	HT202850
191+02	EV/CH	191+02	EV/CH	HT203458
191+35	EV/CH	191+35	EV/CH	HT204050
191+68	EV/CH	191+68	EV/CH	HT204647
192+06	EV/CH	192+06	EV/CH	HT205219
192+53	EV/CH	192+53	EV/CH	HT205880
193+01	EV/CH	193+01	EV/CH	HT206481
193+48	EV/CH	193+48	EV/CH	HT207022
193+87	EV/CH	193+87	EV/CH	HT207599



MATERIAL	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	

BURNS & MCDONNELL STATE LICENSE #43

AMANDA PALM 02/11/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENGINEER ARCHITECT STAMP

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM

DESCRIPTION		APPROVALS	
AREA CODE	5339	DATE	INITIALS
ACCOUNT NUMBER	V8191	DATE	INITIALS
PROJECT NUMBER	G7UL02PH1	DATE	INITIALS
DRAWING BY	AKT	DATE	INITIALS
STATION ID		DATE	INITIALS
CHECKER INITIALS	CEB	DATE	INITIALS

REGIONAL ENGINEER  
MGR TECH REC & STD  
PRINCIPAL ENGINEER

DUKE ENERGY | Piedmont Natural Gas

COPYRIGHT 2019

## UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET

### BOONE COUNTY, KY

ERLANGER, KY

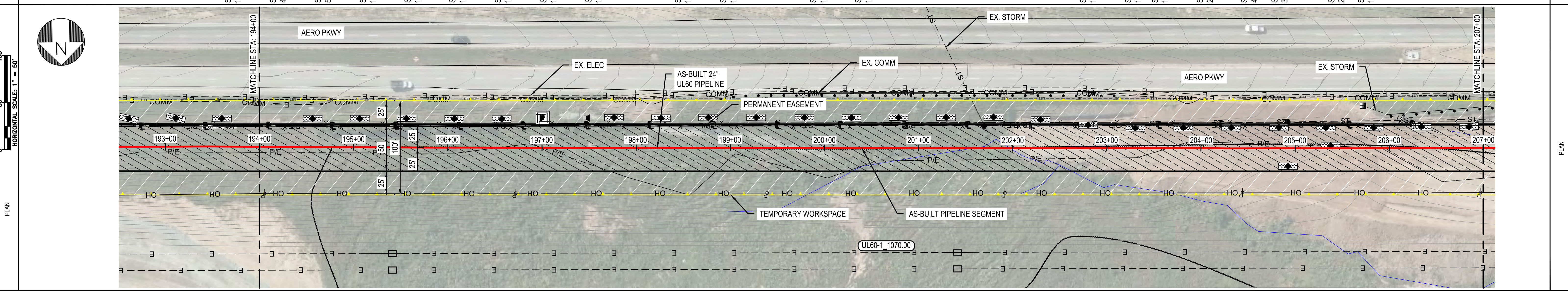
SHEET(S)	16 OF 25	DWG SCALE	AS NOTED
DWG DATE	04/02/2019	SUPERSEDED	
DRAWING NUMBER	PNG C-043-0001063		
REVISION	1		

C/ERLANGER/UL60

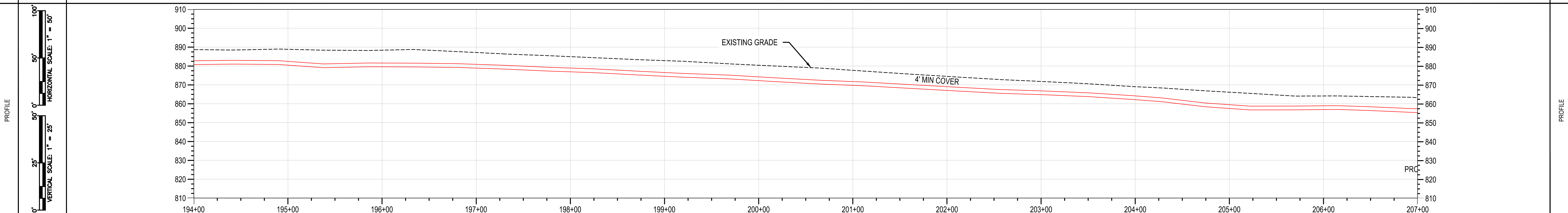


UL60-1\_1070.00  
10.553 ACRES  
PROPOSED 50' EASEMENT

RIGHT-OF-WAY	OWNERSHIP	
	ACREAGE	10.553 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT
STATIONING	STATIONING	
PLAN	PLAN	
PROFILE	PROFILE	
PIPEDATA	PIPEDATA	



STA	WELD #	JOINT	HEMT #
194+45	CV/EH	XP-P-ML-046	4.8
194+83	CV/EH	XP-P-ML-045	4.3
195+41	CV/EH	XP-P-ML-044	4.1
195+88	CV/EH	XP-P-ML-043	4.4
196+36	CV/EH	XP-P-TI-016	4.2
196+84	CV/EH	XP-P-ML-025	4.3
197+31	CV/EH	XP-P-ML-024	4.4
197+80	CV/EH	XP-P-ML-023	4.6
198+28	AC/CS	XP-P-ML-011	4.7
198+76	AC/CS	XP-P-ML-012	4.8
199+24	CV/EH	XP-P-TI-010	4.9
199+71	AC/CS	XP-P-ML-028	4.8
200+19	AC/CS	XP-P-ML-027	4.9
200+67	AC/CS	XP-P-ML-009	4.9
201+15	AC/CS	XP-P-ML-010	5.0
201+63	AC/CS	XP-P-ML-023	4.6
202+10	EV/CH	XP-P-TI-009	4.2
202+58	RL/JS	XP-P-ML-025	4.7
203+06	RL/JS	XP-P-ML-008	4.9
203+54	RL/JS	XP-P-ML-007	4.8
204+01	RL/JS	XP-P-ML-024	4.8
204+49	EV/CH	XP-P-TI-001	4.7
204+97	EV/CH	XP-P-ML-067	4.9
205+45	EV/CH	XP-P-ML-068	4.8
205+93	EV/CH	XP-P-ML-069	4.7
206+41	EV/CH	XP-P-ML-070	5.3
206+89	EV/CH	XP-P-ML-071	4.6
207+37	EV/CH	XP-P-TI-004	4.4



MATERIAL	CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD		OPEN TRENCH

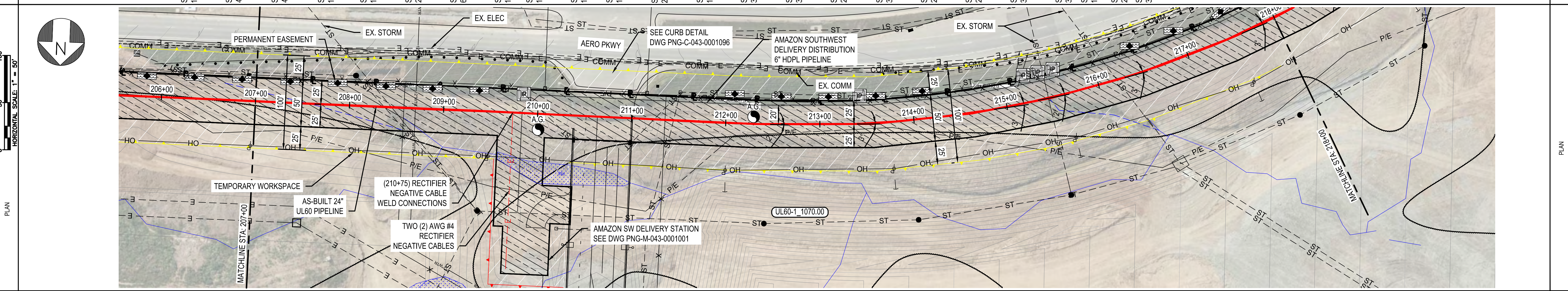
BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142 PROFESSIONAL ENGINEER/ARCHITECT	NO. DATE REVISION(S) DESCRIPTION BY CHK APPD	1 02/10/2021 ISSUED FOR AS-BUILT JXV CEB EPD	DESCRIPTION	APPROVALS	REGIONAL ENGINEER	UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET BOONE COUNTY, KY ERLANGER, KY	SHEET(S) 17 OF 25 DWG DATE 04/02/2019 DRAWING NUMBER PNG C-043-0001064 C/ERLANGER/UL60
---	--	--	-------------	-----------	-------------------	--	---



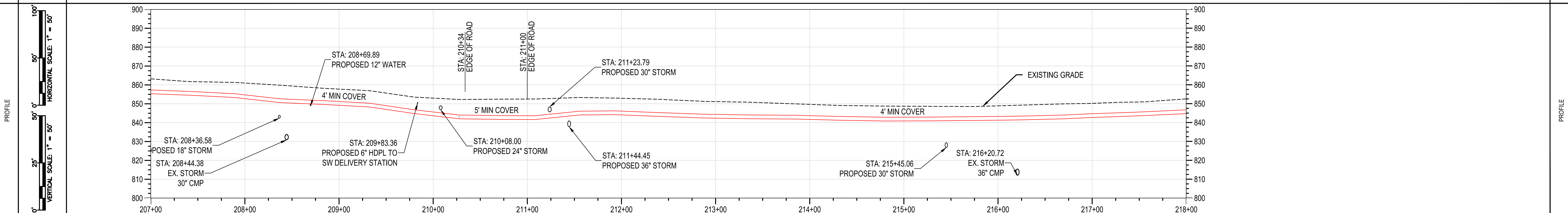
RIGHT-OF-WAY	OWNERSHIP	UL60-1_1070.00
	ACREAGE	10.553 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT
REF. DWG. NO.		PNG-M-043-0001001

STATIONING	STA: 207+42 BEND 1.0° OVERBEND (V) STA: 207+69 BEND 4.0° OVERBEND (V) STA: 208+37 BEND 4.0° SAG (V) STA: 208+84 BEND 1° OVERBEND (V) STA: 209+32 BEND 1.0° (H/LT) 5° OVERBEND (V) STA: 209+80 BEND 2.0° SAG (V) STA: 210+28 BEND 6.0° SAG (V) STA: 210+75 BEND 1.0° SAG (V) STA: 211+08 BEND 1.0° (H/LT) 6.0° SAG (V) STA: 211+56 BEND 1.0° (H/LT) 5° OVERBEND (V) STA: 211+93 BEND 1.0° (H/LT) 3° OVERBEND (V) STA: 212+41 BEND 2.0° (H/LT) STA: 212+89 BEND 1.0° SAG (V) STA: 213+36 BEND 3.0° (H/LT) 1.0° SAG (V) STA: 213+84 BEND 3.0° (H/LT) 1.0° OVERBEND (V) STA: 214+32 BEND 2.0° (H/LT) 1.0° SAG (V) STA: 214+80 BEND 3.0° (H/LT) 1.0° SAG (V) STA: 215+28 BEND 2.0° (H/LT) STA: 215+75 BEND 2.0° (H/LT) STA: 216+23 BEND 3.0° (H/LT) 1.0° SAG (V) STA: 216+71 BEND 3.0° (H/LT) 1.0° SAG (V) STA: 216+98 BEND 1.0° OVERBEND (V) STA: 217+30 BEND 2.0° (H/LT) STA: 217+56 BEND 3.0° (H/LT)	STATIONING
------------	---	------------



PIPE DATA (SLOPE STATIONING)	STA	WELD #	JOINT LENGTH (FOV)	JOINT	HEMT #
	207+45	EV/CH	4.4	XR-C-ML-002	HF330912
	207+43	EV/CH	4.9	XR-C-ML-003	HF330921
	208+40	RV/CM	4.9	XR-C-ML-004	HF330929
	208+88	JS/RL	4.3	XR-C-ML-002	HF166176
	208+35	AC/CS	4.2	XR-C-ML-003	HF166827
	208+83	JS/RL	4.5	XR-C-ML-004	HF1781059
	210+31	EV/CH	6.4	XR-P-TL-025	HF330920
	210+79	JS/RL	7.1	XR-C-ML-005	HF340882
	211+26	EV/CH	7.2	XR-C-ML-006	HF340882
	211+80	JS/RL	7.7	XR-C-ML-007	HF746101
	212+47	JS/RL	5.6	XR-C-ML-008	HF1781059
	212+45	EV/CH	5.1	XR-P-TL-030	HF746100
	212+93	JS/RL	4.8	XR-P-ML-088	HF1781059
	213+41	JS/RL	5.0	XR-P-ML-090	HF1781059
	213+88	JS/RL	4.9	XR-P-ML-091	HF1781059
	214+36	JS/RL	4.5	XR-P-ML-092	HF1781059
	214+83	EV/CH	4.1	XR-P-TL-032	HF1781059
	215+32	JS/RL	4.7	XR-A-ML-009	HF1781059
	215+79	JS/RL	4.4	XR-A-ML-010	HF1781059
	216+27	JS/RL	4.3	XR-A-ML-011	HF1781059
	216+74	CM/RW	4.7	XR-A-ML-014	HF1781059
	217+22	CH/EH	4.9	XR-P-TL-034	HF1781059
	217+49	CM/RW	4.1	XR-P-ML-015	HF1781059
	217+81	CM/RW	4.5	XR-P-ML-087	HF1781059

NOTES:  
1. EXTENSIVE DEVELOPMENT BY OTHERS FROM UL60 STA: 132+25 TO STA: 244+00 AND 8' LATERAL STA: 500+00 TO STA: 521+00. STREAMS, WETLANDS, AND WATER BODIES THROUGH AREA REMOVED BY OTHERS. GRADING SHOWN IS DESIGN. CONTOURS BY OTHERS.



MATERIAL	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	

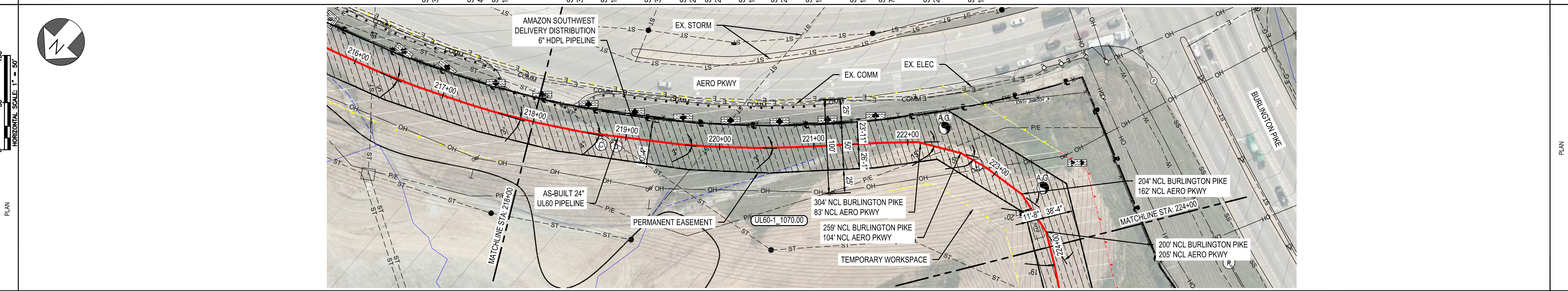
BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142	NO. DATE REVISION(S) DESCRIPTION BY CHK APPD	DESCRIPTION	APPROVALS	REGIONAL ENGINEER	UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET BOONE COUNTY, KY	SHEET(S) 18 OF 25 DWG SCALE AS NOTED DWG DATE 04/02/2019 SUPERSEDED
	1 02/10/2021 ISSUED FOR AS-BUILT JXV CEB EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 02/12/2020 INITIALS AMP	DUKE ENERGY Piedmont Natural Gas	ERLANGER, KY	DRAWING NUMBER PNG C-043-0001065 REVISION 1



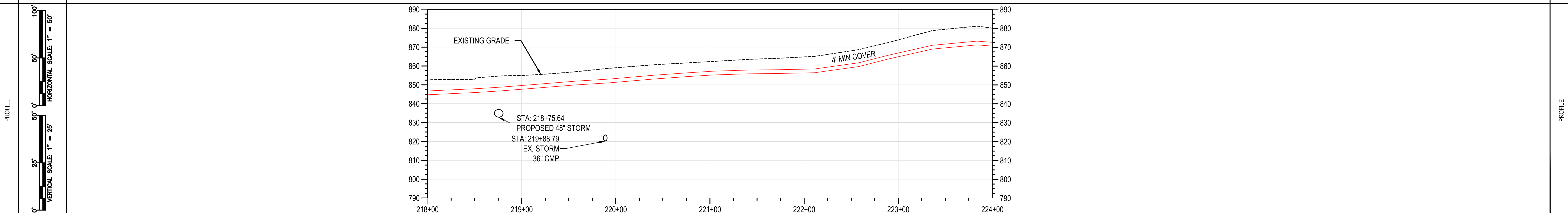
RIGHT-OF-WAY	OWNERSHIP	
	ACREAGE	10.553 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT
REF. DWG. NO.		

STATIONING	STA: 218+04 BEND 3.0° (H-LT) STA: 218+52 BEND 4.0° (H-LT) 1.0° SAG (V) STA: 218+78 BEND 1.0° (H-LT) 1.0° SAG (V) STA: 219+57 BEND 3.0° (H-LT) STA: 219+93 BEND 1.0° SAG (V) STA: 220+40 BEND 3.0° (H-LT) 1.0° OVERBEND (V) STA: 220+77 BEND 2.0° (H-LT) 1.0° OVERBEND (V) STA: 221+04 BEND 2.0° OVERBEND (V) STA: 221+40 BEND 1.0° OVERBEND (V) STA: 221+74 BEND 2.0° (H-RT) STA: 222+11 BEND 15.0° (H-RT) 7.0° SAG (V) STA: 222+58 BEND 15.0° (H-RT) 6.0° SAG (V) STA: 222+89 BEND 7.0° (H-RT) 2.0° OVERBEND (V) STA: 223+36 BEND 20.0° (H-RT) 7.0° OVERBEND (V) STA: 223+84 BEND 19.0° (H-RT) 10.0° OVERBEND (V)	STATIONING
------------	--	------------



PIPE DATA (SLOPE STATIONING)		JOINT		HEIGHT
STA	WELD #	STA	WELD #	
218+07	CM/RW	218+07	CM/RW	26.4'
218+15	CM/RW	218+15	CM/RW	47.8'
218+30	CM/RW	218+30	CM/RW	47.8'
218+45	CM/RW	218+45	CM/RW	47.8'
218+55	CM/RW	218+55	CM/RW	47.8'
219+05	CM/RW	219+05	CM/RW	47.8'
219+15	CM/RW	219+15	CM/RW	47.8'
219+25	CM/RW	219+25	CM/RW	47.8'
219+35	CM/RW	219+35	CM/RW	47.8'
219+45	CM/RW	219+45	CM/RW	47.8'
219+55	CM/RW	219+55	CM/RW	47.8'
220+05	CM/RW	220+05	CM/RW	47.8'
220+15	CM/RW	220+15	CM/RW	47.8'
220+25	CM/RW	220+25	CM/RW	47.8'
220+35	CM/RW	220+35	CM/RW	47.8'
220+45	CM/RW	220+45	CM/RW	47.8'
220+55	CM/RW	220+55	CM/RW	47.8'
221+05	CM/RW	221+05	CM/RW	47.8'
221+15	CM/RW	221+15	CM/RW	47.8'
221+25	CM/RW	221+25	CM/RW	47.8'
221+35	CM/RW	221+35	CM/RW	47.8'
221+45	CM/RW	221+45	CM/RW	47.8'
221+55	CM/RW	221+55	CM/RW	47.8'
222+05	CM/RW	222+05	CM/RW	47.8'
222+15	CM/RW	222+15	CM/RW	47.8'
222+25	CM/RW	222+25	CM/RW	47.8'
222+35	CM/RW	222+35	CM/RW	47.8'
222+45	CM/RW	222+45	CM/RW	47.8'
222+55	CM/RW	222+55	CM/RW	47.8'
223+05	CM/RW	223+05	CM/RW	47.8'
223+15	CM/RW	223+15	CM/RW	47.8'
223+25	CM/RW	223+25	CM/RW	47.8'
223+35	CM/RW	223+35	CM/RW	47.8'
223+45	CM/RW	223+45	CM/RW	47.8'

NOTES:  
1. EXTENSIVE DEVELOPMENT BY OTHERS FROM UL60 STA: 132+25 TO STA: 244+00 AND 8' LATERAL STA: 500+00 TO STA: 521+00. STREAMS, WETLANDS, AND WATER BODIES THROUGH AREA REMOVED BY OTHERS. GRADING SHOWN IS DESIGN. CONTOURS BY OTHERS.



MATERIAL	
CONST. METHOD	
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG

BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE - INITIALS - DATE - INITIALS AMP DATE 04/17/2020 INITIALS AMP

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

PROFESSIONAL ENGINEER/ARCHITECT STAMP

COPYRIGHT 2019

**UL60 PIPELINE - PHASE 1**  
**ALIGNMENT SHEET**  
**BOONE COUNTY, KY**

ERLANGER, KY

SHEET(S) 19 OF 25 | DWG SCALE AS NOTED  
 DWG DATE 04/02/2019 | SUPERSEDED  
 DRAWING NUMBER PNG C-043-0001066 | REVISION 1  
 C/ERLANGER/UL60

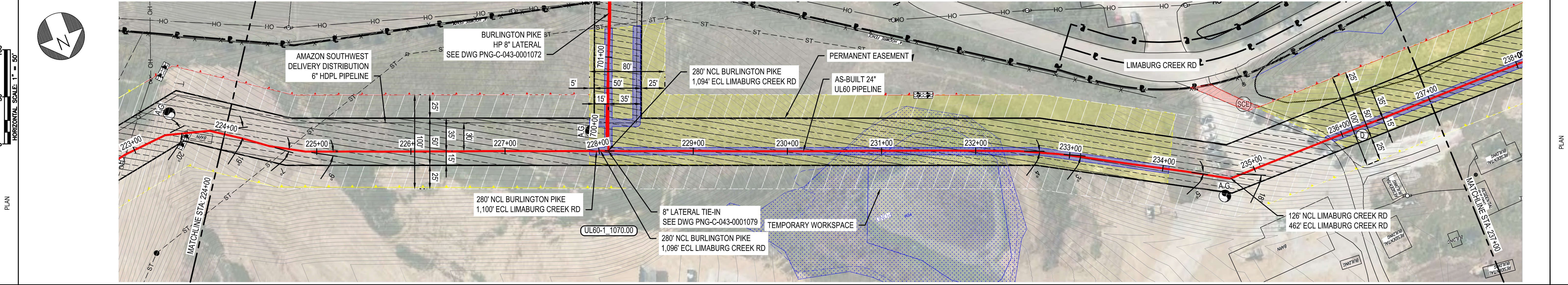


UL60-1\_1070.00

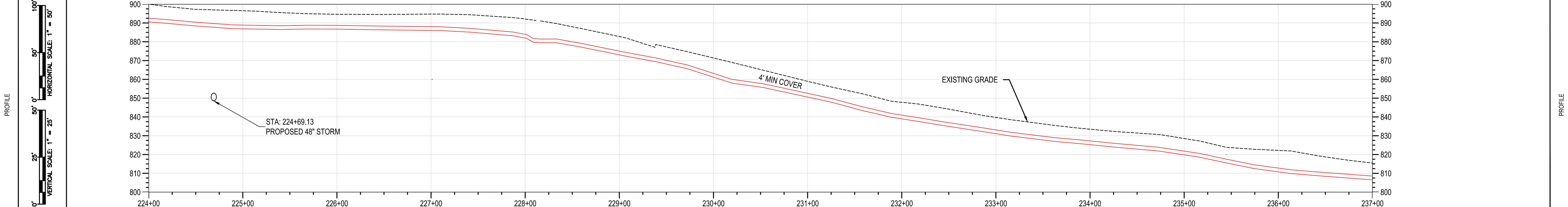
10.553 ACRES  
PROPOSED 50' EASEMENT

PNG-C-043-0001079 PNG-C-043-0001072

RIGHT-OF-WAY	OWNERSHIP	
	ACREAGE	10.553 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT
STATIONING		
REF. DWG. NO.		



PIPE DATA (SLOPE STATIONING)		JOINT		HEAVY
STA	WELD #	STA	WELD #	
224+37	EV/CH	224+37	EV/CH	HR1667202
224+74	EV/CH	224+74	EV/CH	HR1668442
225+03	AC/CS	225+03	AC/CS	HR1668331
225+43	AC/CS	225+43	AC/CS	HR1661059
225+88	AC/CS	225+88	AC/CS	HR166786
225+95	AC/CS	225+95	AC/CS	HR1667202
226+22	EV/CH	226+22	EV/CH	HR1667359
226+51	AC/CS	226+51	AC/CS	HR166176
226+89	AC/CS	226+89	AC/CS	HR1664081
227+33	AC/CS	227+33	AC/CS	HR1667202
227+63	AC/CS	227+63	AC/CS	HR1663641
227+85	EV/CH	227+85	EV/CH	HR166175
228+42	AC/CS	228+42	AC/CS	HR1662786
228+51	EV/CH	228+51	EV/CH	HR1667202
228+83	AC/CS	228+83	AC/CS	HR1663641
228+88	AC/CS	228+88	AC/CS	HR1667202
229+14	AC/CS	229+14	AC/CS	HR1663000
229+42	AC/CS	229+42	AC/CS	HR1663641
229+83	EV/CH	229+83	EV/CH	HR166827
230+27	EV/CH	230+27	EV/CH	HR1665000
230+75	EV/CH	230+75	EV/CH	HR1667202
231+09	EV/CS	231+09	EV/CS	HR1662077
231+56	EV/CS	231+56	EV/CS	HR1663641
231+82	EV/CS	231+82	EV/CS	HR1667360
232+15	CM/RW	232+15	CM/RW	HR1663350
232+46	CM/RW	232+46	CM/RW	HR1662077
232+74	RV/AC	232+74	RV/AC	HR1661347
233+03	RV/AC	233+03	RV/AC	HR1668983
233+45	RV/AC	233+45	RV/AC	HR1664079
233+73	EV/CH	233+73	EV/CH	HR166152
234+48	RV/AC	234+48	RV/AC	HR1664482
234+82	RV/AC	234+82	RV/AC	HR1663619
235+30	RV/AC	235+30	RV/AC	HR1664081
235+72	EV/CH	235+72	EV/CH	HR1663618
236+00	RV/AC	236+00	RV/AC	HR1667205
236+48	RV/AC	236+48	RV/AC	HR1667202
236+70	RV/AC	236+70	RV/AC	HR1662399
236+88	RV/AC	236+88	RV/AC	HR1663618
237+00	RV/AC	237+00	RV/AC	HR1662794



MATERIAL: CLASS 4 / MAOP 1000 PSIG  
CONST. METHOD: OPEN TRENCH

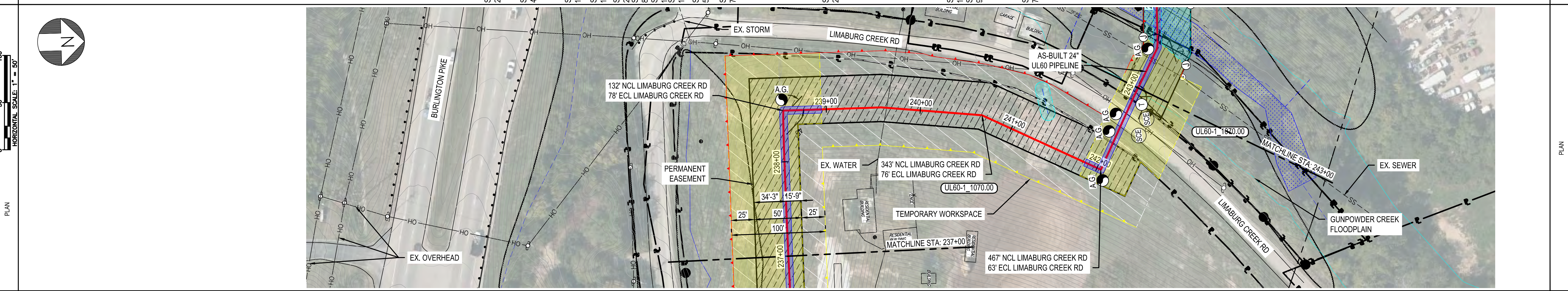
BURNS & MCDONNELL STATE LICENSE #43  
PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142	NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS	
	1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE: 5339 ACCOUNT NUMBER: V8191 PROJECT NUMBER: G7UL02PH1 DRAWING BY: AKT STATION ID: - CHECKER INITIALS: CEB	DATE: 04/17/2020	INITIALS: AMP
PROFESSIONAL ENGR/ARCH STAMP	DUKE ENERGY		Piedmont Natural Gas		UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET BOONE COUNTY, KY		SHEET(S) 20 OF 25 DWG DATE 04/02/2019 DRAWING NUMBER PNG C-043-0001067		DWG SCALE AS NOTED SUPERSEDED REVISION 1



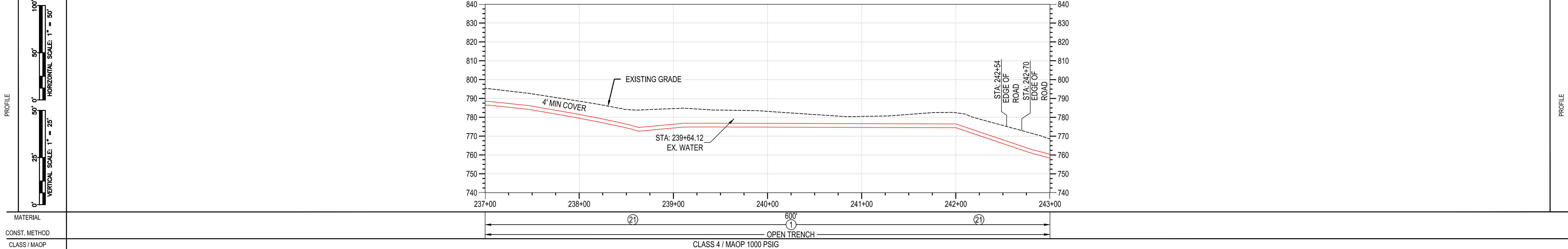
RIGHT-OF-WAY	OWNERSHIP	
	ACREAGE	10.553 ACRES
	EASEMENTS	PROPOSED 50' EASEMENT
REF. DWG. NO.		

STATIONING		



PIPE DATA (SLOPE STATIONING)	STA.	WELD #	EV/CH	JOINT LENGTH (FOOT)	JOINT	HEAD #	HEIGHT	MATERIAL	CONST. METHOD	CLASS / MAOP	REVISIONS	DESCRIPTION	BY	CHK	APPD	DATE	INITIALS	APPROVALS	REGIONAL ENGINEER	MGR TECH REC & STD	PRINCIPAL ENGINEER
	237+28	EV/CH	XP-P-TL-003	5.1	AS-BUILT	404	11.62794	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	237+45	EV/CH	XP-P-ML-136	5.2	AS-BUILT	428	11.16480	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	238+03	EV/CH	XP-P-ML-137	5.3	AS-BUILT	433	11.16278	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	238+51	EV/CH	XP-P-ML-138	5.5	AS-BUILT	434	11.16548	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	238+78	EV/CH	XP-P-TL-003	4.9	AS-BUILT	387	11.16318	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	239+02	EV/CH	XP-P-ML-141	5.3	AS-BUILT	389	11.74900	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	239+05	AS/RL	XP-P-FB-282	5.6	FITTING	410C	11.148079	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	239+14	AS/RL	XP-P-FB-281	6.3	FITTING	089	11.141088	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	239+18	EV/CH	XP-P-ML-140	6.1	AS-BUILT	410B	11.146079	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	239+45	EV/CH	XP-P-ML-139	6.1	AS-BUILT	458	11.178124	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	239+85	EV/CH	XP-P-TL-091	5.3	AS-BUILT	430	11.152221	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	240+43	EV/CH	XP-P-ML-223	5.9	AS-BUILT	535	11.1302981	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	240+81	EV/CH	XP-P-ML-224	4.9	AS-BUILT	484	11.118571	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	241+38	EV/CH	XP-P-TL-092	5.0	AS-BUILT	518	11.1302981	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	241+83	EV/CH	XP-P-ML-220	4.8	AS-BUILT	520	11.1185458	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	242+30	EV/CH	XP-P-ML-221	5.2	AS-BUILT	516	11.1185458	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	242+52	EV/CH	XP-P-FB-383	5.8	FITTING	552B	11.1302982	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	242+81	EV/CH	XP-P-ML-222	5.5	ELBOW	080	11.141088	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	242+88	EV/CH	XP-P-TL-090	5.7	AS-BUILT	537A	11.1185455	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	242+84	EV/CH	XP-P-ML-217	5.3	AS-BUILT	515	11.1302981	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				
	242+84	EV/CH	XP-P-ML-217	5.3	AS-BUILT	481	11.1185318	UL60	OPEN TRENCH	CLASS 4 / MAOP 1000 PSIG			JXV	CEB	EPM	02/10/2021	AMP				

NOTES:  
1. EXTENSIVE DEVELOPMENT BY OTHERS FROM UL60 STA: 132+25 TO STA: 244+00 AND 8" LATERAL STA: 500+00 TO 521+00. STREAMS, WETLANDS, AND WATER BODIES THROUGH AREA REMOVED BY OTHERS. GRADING SHOWN IS DESIGN. CONTOURS BY OTHERS.



MATERIAL	
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG

BURNS & MCDONNELL STATE LICENSE #43

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENG/ARCH STAMP

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	DATE	INITIALS	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339	04/17/2020	AMP	REGIONAL ENGINEER
						ACCOUNT NUMBER V8191			MGR TECH REC & STD
						PROJECT NUMBER G7UL02PH1			PRINCIPAL ENGINEER
						DRAWING BY AKT			
						STATION ID -			
						CHECKER INITIALS CEB			

UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

COPYRIGHT 2019

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 21 OF 25 DWG SCALE AS NOTED

DWG DATE 04/02/2019 SUPERSEDED

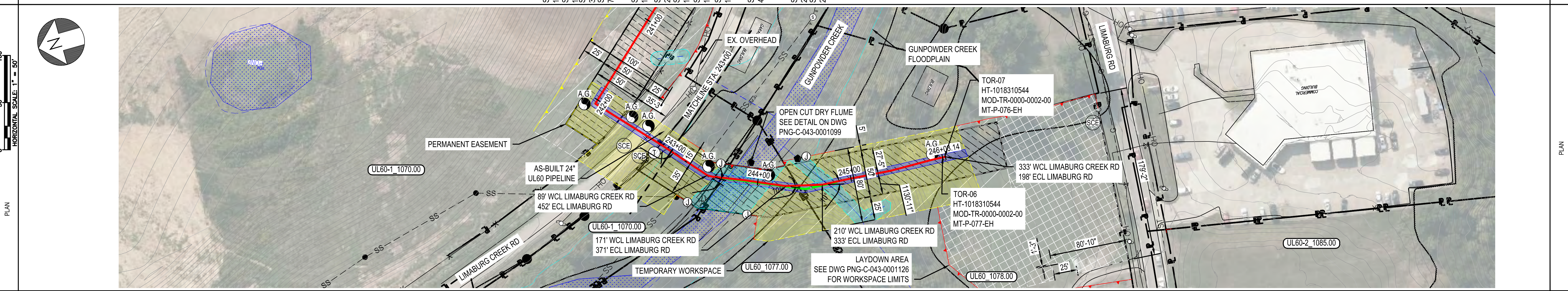
DRAWING NUMBER PNG C-043-0001068 REVISION 1

C/ERLANGER/UL60



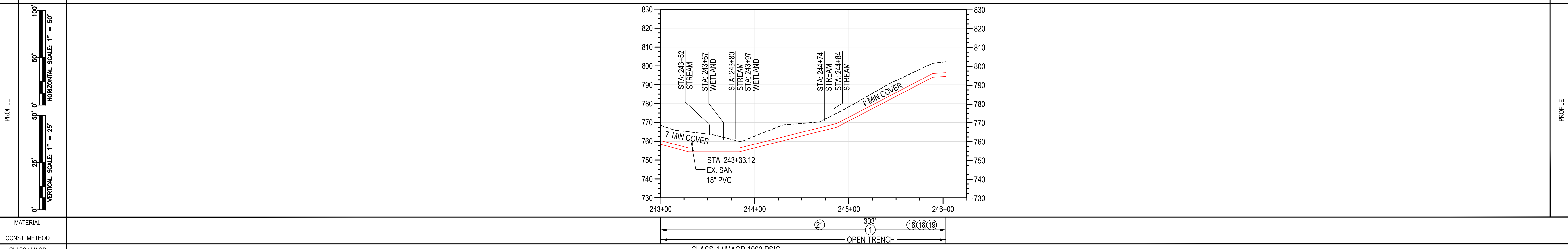
RIGHT-OF-WAY	OWNERSHIP	UL60-1_1070.00	BOONE COUNTY	UL60-1_1070.00	UL60-1_1077.00	UL60-1_1078.00
ACREAGE	10.531 ACRES	N/A	10.531 ACRES	0.141 ACRES	0.250 ACRES	
EASEMENTS	PROPOSED 50' EASEMENT	N/A	PROPOSED 50' EASEMENT		PROPOSED 50' EASEMENT	
REF. DWG. NO.	PNG-C-043-0001087		PNG-M-043-0001008		PNG-C-043-0001126	

STATIONING	STA: 243+30 BEND 11.0° SAG (V) STA: 243+46 BEND 17.0° (H-LT) STA: 243+49 BEND 3.0° (H-LT) STA: 243+52 BEND 7.0° (H-LT)	STA: 243+84 BEND 14.0° SAG (V) STA: 243+85 BEND 2.0° (H-RT) STA: 244+30 BEND 10.0° (H-LT) STA: 244+69 BEND 10.0° (H-LT) STA: 244+97 BEND 1.0° (H-LT)	STA: 245+43 BEND 4.0° (H-LT) STA: 245+89 BEND 2.0° (H-LT) STA: 246+01 BEND 2.0° (H-LT)
------------	---	---	---



PIPE DATA (SLOPE STATIONING)	JOINT LENGTH (FOOT)	JOINT	HEIGHT
STA	WELD #	STA	WELD #
243+41	EV/CH	XP-P-TL-089	HTW63818
243+47	EV/CH	XP-P-TL-086	HTW60164
243+49	EV/CH	XP-P-RB-354	HTW6176
244+02	EV/CH	XP-P-RB-355	HTW6176
244+06	EV/CH	XP-P-ML-205	HTW6282
244+39	EV/CH	XP-P-ML-204	HTW6101
244+84	EV/CH	XP-P-TL-003	HTW6281
245+24	EV/CH	XP-P-ML-014	HTW63818
245+53	EV/CH	XP-P-ML-013	HTW6545
246+01	EV/CH	XP-P-TL-087	HTW61284
246+48	EV/CH	XP-P-TL-088	HTW6547
246+61	EV/CH	XP-P-ML-218	HTW61284
246+63	EV/CH	XP-P-ML-219	HTW6108R
246+71	EV/CH	XP-P-TL-094	HTW61284
246+77	EV/CH	XP-P-MLV-002	HTW6548
247+01	EV/CH	XP-P-MLV-001	MLV-01
247+31	EV/CH	XP-P-ML-225	HTW63818
247+31.5	EV/CH	CAPPED	HTW6108R

**NOTES:**  
1. EXTENSIVE DEVELOPMENT BY OTHERS FROM UL60 STA: 132+25 TO STA: 244+00 AND 8\"/>



MATERIAL	CLASS 4 / MAOP 1000 PSIG	
CONST. METHOD	OPEN TRENCH	
CLASS / MAOP		

BURNS & MCDONNELL STATE LICENSE #43

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENG/ARCH STAMP

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID - CHECKER INITIALS CEB	DATE 04/17/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

UL60 PIPELINE - PHASE 1  
ALIGNMENT SHEET  
BOONE COUNTY, KY  
ERLANGER, KY

REF. DWG(S) SEE REFERENCE BAND

SHEET(S) 22 OF 25 DWG SCALE AS NOTED

DWG DATE 04/02/2019 SUPERSEDED

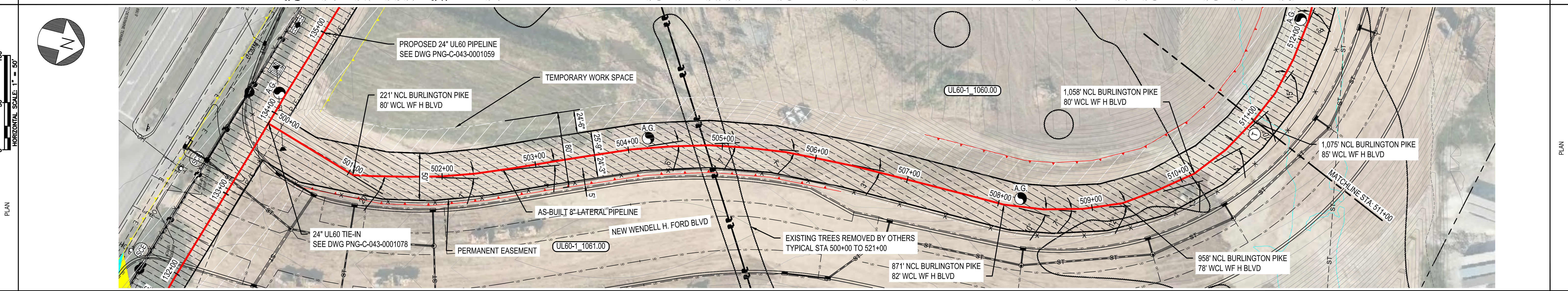
DRAWING NUMBER PNG C-043-0001069 REVISION 1

C/ERLANGER/UL60

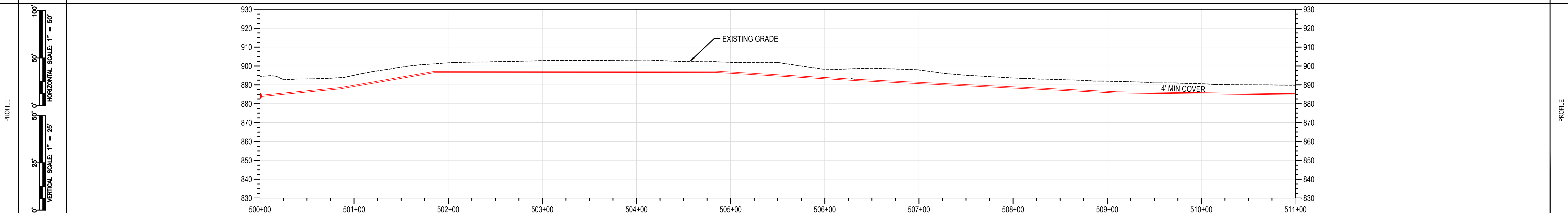


RIGHT-OF-WAY	OWNERSHIP	UL60-1_1061.00	504+92	UL60-1_1060.00	RIGHT-OF-WAY
	ACREAGE	17.780 ACRES		4.513 ACRES	
	EASEMENTS		PROPOSED 50' EASEMENT		
REF. DWG. NO.	PNG-C-043-0001059 PNG-C-043-0001078				

STATIONING	STA: 500+29 BEND 6.5° SAG (V)	STA: 500+68 BEND 4.0° OVERBEND (V)	STA: 501+03 FTG 28.0° (H-LT)	STA: 501+35 BEND 8.75° SAG (V)	STA: 501+49 BEND 7.5° OVERBEND (V)	STA: 501+85 BEND 2.0° OB (V) 7.25° (H-LT)	STA: 502+42 BEND 4.25° (H-LT)	STA: 504+13 BEND 6.0° (H-RT)	STA: 504+76 BEND 3.5° (H-RT)	STA: 504+91 BEND 3.75° (H-RT)	STA: 505+52 BEND 6.75° (H-RT)	STA: 506+32 BEND 3.0° (H-RT)	STA: 508+19 BEND 10.25° (H-LT)	STA: 508+59 BEND 7.0° (H-LT)	STA: 509+11 BEND 12.0° (H-LT)	STA: 509+40 BEND 6.75° (H-LT)	STA: 510+05 BEND 6.5° (H-LT)	STA: 510+34 BEND 14.0° (H-LT)	STA: 510+85 BEND 9.75° (H-LT)	STATIONING
------------	-------------------------------	------------------------------------	------------------------------	--------------------------------	------------------------------------	---	-------------------------------	------------------------------	------------------------------	-------------------------------	-------------------------------	------------------------------	--------------------------------	------------------------------	-------------------------------	-------------------------------	------------------------------	-------------------------------	-------------------------------	------------



PIPE DATA (SLOPE STATIONING)	STA	WELD #	JOINT LENGTH (CONV)	JOINT	HEAD #
REFERENCE PG: PNG-C-043-0001078					
500+08 EH	XR-P-TL-016	7.3	3.2	FB08-140	HF-A002278
500+16 CH/EH	XR-P-ML-029	6.7	38.4	FB08-034	HF-B2291650
500+47 CH	XR-P-TL-012	4.4	41.4	FB08-033	HF-B2291643
501+03 CH/EH	XR-P-ML-031	4.2	17.0	FB08-035	HF-B2291643
501+04 CH/EH	XR-P-ML-030	4.7	28	FITTING 153C	HF-F1613CK
501+15 CH/EH	XR-P-TL-011	5.8	10.9	FB08-035A	HF-B2291643
501+19 RW	XR-P-RB-384	5.8	3.8	BN1 SH-12138830-7	
501+23 CH/EH	XR-P-TL-010	6.0	4.0	FB08-008J	HF-A002278
501+43 CH/EH	XR-P-TL-009	5.7	36.1	FB08-051	HF-B2291643
501+88 CH/EH	XR-P-ML-028	5.9	35.5	FB08-059	HF-B2291642
502+34 CH	XR-P-TL-008	5.8	41.1	FB08-058	HF-B2291652
502+75 CH/EH	XR-P-ML-027	5.5	41.4	FB08-047	HF-B2291651
503+16 CH/EH	XR-P-ML-026	6.0	41.4	FB08-046	HF-B2291651
503+58 CH/EH	XR-P-ML-025	5.7	42.0	FB08-044	HF-B2291652
504+00 CH/WH	XR-P-TL-007	5.0	42.2	FB08-041	HF-B1986338
504+43 CH/EH	XR-P-ML-024	5.6	41.9	FB08-037	HF-B1916445
504+84 CH/EH	XR-P-ML-023	5.5	41.4	FB08-036	HF-B1916443
505+25 CH/EH	XR-P-ML-022	5.3	41.6	FB08-049	HF-B1916443
505+65 CH/EH	XR-P-ML-021	5.0	40.8	FB08-046	HF-B191650
506+00 CH/EH	XR-P-TL-006	5.2	35.3	FB08-044	HF-B2291643
506+38 CH/EH	XR-X-ML-013	5.4	38.3	FB08-043	HF-B2291647
506+81 CH/EH	XR-X-ML-012	5.3	41.7	FB08-028	HF-B2291643
507+23 CH/EH	XR-X-ML-011	5.8	42.1	FB08-001	HF-B2291642
507+65 CH/EH	XR-X-ML-010	5.5	39.5	FB08-060	HF-B2291643
508+05 CH/EH	XR-X-TL-004	5.5	42.6	FB08-066	HF-B2291652
508+47 CH/EH	XR-X-ML-008	5.4	42.4	FB08-065	HF-B191652
508+88 CH/EH	XR-X-ML-008	5.9	42.3	FB08-074	HF-B1986338
509+31 CH/EH	XR-X-ML-007	5.0	41.8	FB08-068	HF-B2291650
509+73 CH/EH	XR-X-ML-006	5.8	41.5	FB08-067	HF-B2291642
510+14 CH/EH	XR-X-ML-005	6.2	41.5	FB08-063	HF-B2291645
510+56 CH/EH	XR-X-ML-004	5.6	41.9	FB08-062	HF-B2291645



MATERIAL	(5)(1)	(6)	(3)
CONST. METHOD	OPEN TRENCH		
CLASS / MAOP	CLASS 4 / MAOP 1000 PSIG		

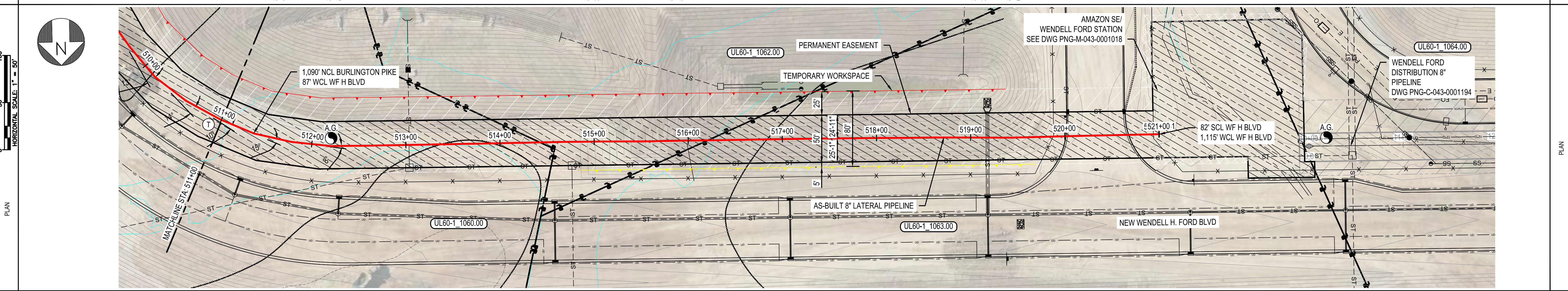
BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 02/11/2020 KENTUCKY SEAL 33142 PROFESSIONAL ENG/ARCH STAMP	NO. 1 DATE 02/10/2021 REVISION(S) DESCRIPTION ISSUED FOR AS-BUILT	BY JXV CHK CEB APPD EPM	DESCRIPTION AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	APPROVALS DATE 02/12/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER	<p>COPYRIGHT 2019 ERLANGER, KY</p>	<p>UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET - 8" LATERAL BOONE COUNTY, KY</p>	<p>SHEET(S) 23 OF 25 DWG SCALE AS NOTED DWG DATE 04/02/2019 SUPERSEDED DRAWING NUMBER PNG C-043-0001070 REVISION 1</p>
---	---	-------------------------------	---	---	--	--	--



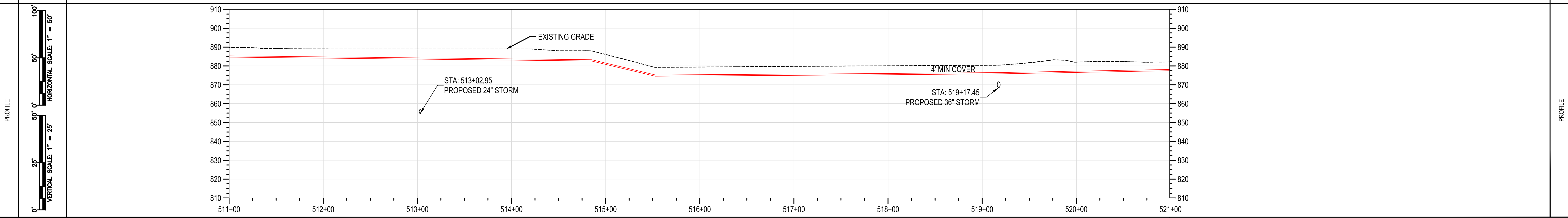
RIGHT-OF-WAY	OWNERSHIP	UL60-1_1060.00	UL60-1_1062.00	UL60-1_1063.00
	ACREAGE	4.513 ACRES	2.806 ACRES	
	EASEMENTS		PROPOSED 50' EASEMENT	
REF. DWG. NO.				PNG-M-043-0001018 PNG-C-043-0001194

STATIONING	STA: 511+49 BEND 14.75° (H-LT)	STA: 512+08 BEND 8.5° (H-LT)	STA: 514+80 BEND 3.5° OVERBEND (V)	STA: 515+69 BEND 5.75° SAG (V)	STA: 518+91 BEND 3.75° SAG (V)	STA: 519+28 BEND 0.75° OVERBEND (V)
------------	-----------------------------------	---------------------------------	---------------------------------------	-----------------------------------	-----------------------------------	--



PIPE DATA (SLOPE STATIONING)		JOINT		HEIGHT
STA	WELD #	STA	WELD #	
510+88	CV/EH	510+88	FR00-02	HF:8201645
511+36	CV/EH	511+36	FR00-05	HF:8201645
511+78	CV/EH	511+78	FR00-03	HF:8201643
512+20	CV/EH	512+20	FR00-07	HF:8201650
512+58	CV/EH	512+58	FR00-07S	HF:8201652
513+00	CV/EH	513+00	FR00-07	HF:8201650
513+45	CV/EH	513+45	FR00-07	HF:8201643
513+86	CH	513+86	FR00-03	HF:8201650
514+28	RV/CH	514+28	FR00-07S	HF:819480
514+67	CV/EH	514+67	FR00-07	HF:8201650
515+09	RV/CH	515+09	FR00-04S	HF:8201650
515+50	CV/EH	515+50	FR00-04	HF:8201645
515+92	CH	515+92	FR00-02	HF:8201643
516+12	CV/EH	516+12	FR00-09	HF:8201643
516+52	CV/EH	516+52	FR00-06	HF:8201650
516+94	CV/EH	516+94	FR00-03	HF:820318
517+37	CV/EH	517+37	FR00-03	HF:8201643
517+78	CV/EH	517+78	FR00-09	HF:8198638
518+20	CV/EH	518+20	FR00-07	HF:8201650
518+61	CV/EH	518+61	FR00-08	HF:8201650
519+01	CV/EH	519+01	FR00-06	HF:8201652
519+43	CV/EH	519+43	FR00-05	HF:8201650
519+88	CV/EH	519+88	FR00-04	HF:8201652
519+73	RV/CH	519+73	FR00-07	HF:8202278
519+75	RV/CH	519+75	INSULATION	SN-M191849
520+17	RV/CH	520+17	FR00-08	HF:8201650
520+58	RV/CH	520+58	FR00-08	HF:8201643
521+00	IS/KN	521+00	FR00-08	HF:8201652

NOTES:  
1. EXTENSIVE DEVELOPMENT BY OTHERS FROM UL60 STA: 132+25 TO STA: 244+00 AND 8" LATERAL STA: 500+00 TO 521+00. STREAMS, WETLANDS, AND WATER BODIES THROUGH AREA REMOVED BY OTHERS. GRADING SHOWN IS DESIGN. CONTOURS BY OTHERS.



MATERIAL	OPEN TRENCH
CONST. METHOD	CLASS 4 / MAOP 1000 PSIG
CLASS / MAOP	

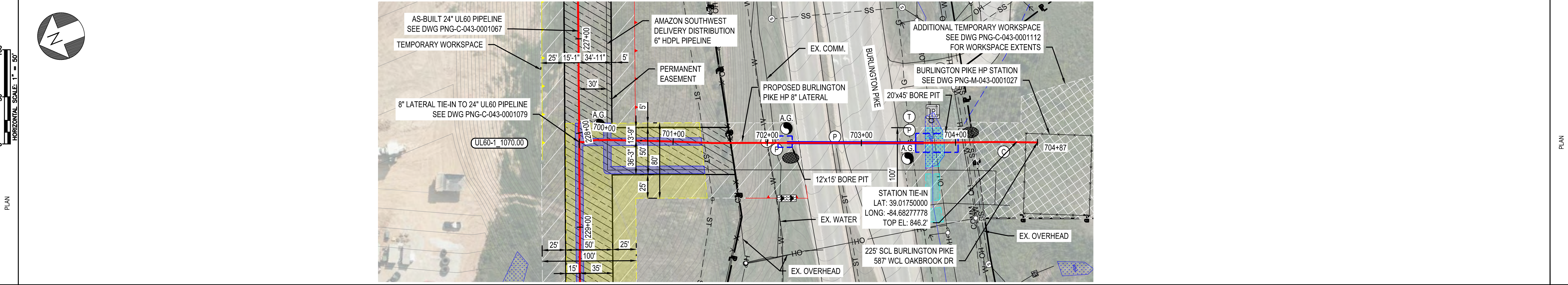
BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142 PROFESSIONAL ENGINEER/ARCHITECT	NO. DATE REVISION(S) DESCRIPTION BY CHK APPD	1 02/10/2021 ISSUED FOR AS-BUILT JXV CEB EPM	DESCRIPTION AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID CHECKER INITIALS CEB	DATE 04/17/2020	INITIALS AMP	APPROVALS REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER	DUKE ENERGY Piedmont Natural Gas COPYRIGHT 2019	UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET - 8" LATERAL BOONE COUNTY, KY ERLANGER, KY	SHEET(S) 24 OF 25 DWG DATE 04/02/2019 DRAWING NUMBER PNG C-043-0001071 C/ERLANGER/UL60	DWG SCALE AS NOTED SUPERSEDED REVISION 1
---	--	--	---	-----------------	--------------	--	---	---	---	--



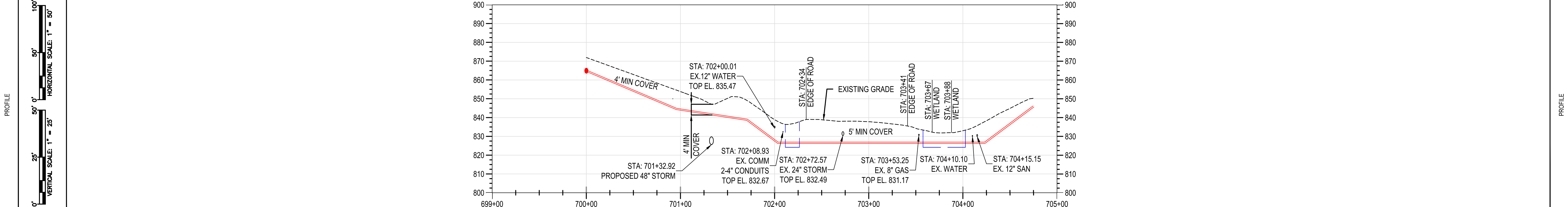
RIGHT-OF-WAY	OWNERSHIP	UL60-1_1070.00	BOONE COUNTY	049.00-00-036.02
	ACREAGE	10.531 ACRES	N/A	N/A
	EASEMENTS	PROPOSED 50' EASEMENT	N/A	N/A
REF. DWG. NO.		PNG-C-UL60-001067 PNG-C-UL60-001079	PNG-C-UL60-001086	PNG-M-043-0001027

STATIONING	STATIONING
------------	------------



PIPE DATA (SLOPE STATIONING)	JOINT	HEAVY
STA	WELD #	STA
700+01 CM/RW	XR-P-FB-190	FR-F70L1A
700+04 CM/RW	XR-P-FB-191	FR-F70L1A
700+10 EV/CH	XR-P-FB-192	FR-F70L1A
700+15 EV/CH	XR-P-FB-193	FR-F70L1A
700+17 KN	XR-P-FB-365	FR-F70L1A
700+21 EI	XR-P-FB-366	FR-F70L1A
700+29 JC	XR-P-FB-367	FR-F70L1A
700+30 RW	XR-P-FB-368	FR-F70L1A
700+33 CH	XR-P-FB-369	FR-F70L1A
700+37 CH	XR-P-FB-370	FR-F70L1A
701+06 EV/CH	XR-P-FB-001	FR-F70L1A
701+42 CH	XR-P-FB-002	FR-F70L1A
701+83 CH	XR-P-FB-003	FR-F70L1A
702+03 CM	XR-P-FB-004	FR-F70L1A
702+23 CM	XR-P-FB-005	FR-F70L1A
702+43 CM	XR-P-FB-006	FR-F70L1A
702+83 CM	XR-P-FB-007	FR-F70L1A
703+03 CM	XR-P-FB-008	FR-F70L1A
703+23 CM	XR-P-FB-009	FR-F70L1A
703+43 CM	XR-P-FB-010	FR-F70L1A
703+83 CH	XR-P-FB-011	FR-F70L1A
704+33 CH	XR-P-FB-012	FR-F70L1A
704+44 CH	XR-P-FB-013	FR-F70L1A
704+46 CH	XR-P-FB-014	FR-F70L1A
704+87 CH/EH	XR-P-FB-015	FR-F70L1A

NOTES:  
1. EXTENSIVE DEVELOPMENT BY OTHERS FROM UL60 STA: 132+25 TO STA: 244+00 AND BURLINGTON PIKE HP 8" LATERAL STA: 700+00 TO 701+30. STREAMS, WETLANDS, AND WATER BODIES THROUGH AREA REMOVED BY OTHERS. GRADING SHOWN IS DESIGN. CONTOURS BY OTHERS.



MATERIAL	CLASS 4 / MAOP 1000 PSIG
CONST. METHOD	OPEN TRENCH
CLASS / MAOP	BORE

BURNS & MCDONNELL STATE LICENSE #43  
 PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
 PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001  
 REF. DWG(S) SEE REFERENCE BAND

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142	NO. DATE REVISION(S) DESCRIPTION BY CHK APPD	1 02/10/2021 ISSUED FOR AS-BUILT JXV CEB EPM	DESCRIPTION	APPROVALS	REGIONAL ENGINEER	UL60 PIPELINE - PHASE 1 ALIGNMENT SHEET - BURLINGTON PIKE LATERAL BOONE COUNTY, KY	SHEET(S) 25 OF 25 DWG SCALE AS NOTED
PROFESSIONAL ENG/ARCH STAMP	AREA CODE 5339	ACCOUNT NUMBER V8191	PROJECT NUMBER G7UL02PH1	DRAWING BY AKT	DATE 04/17/2020	INITIALS AMP	DWG DATE 09/10/2019 SUPERSEDED
	STATION ID -	CHECKER INITIALS CEB					DRAWING NUMBER PNG C-043-0001072
							REVISION 1

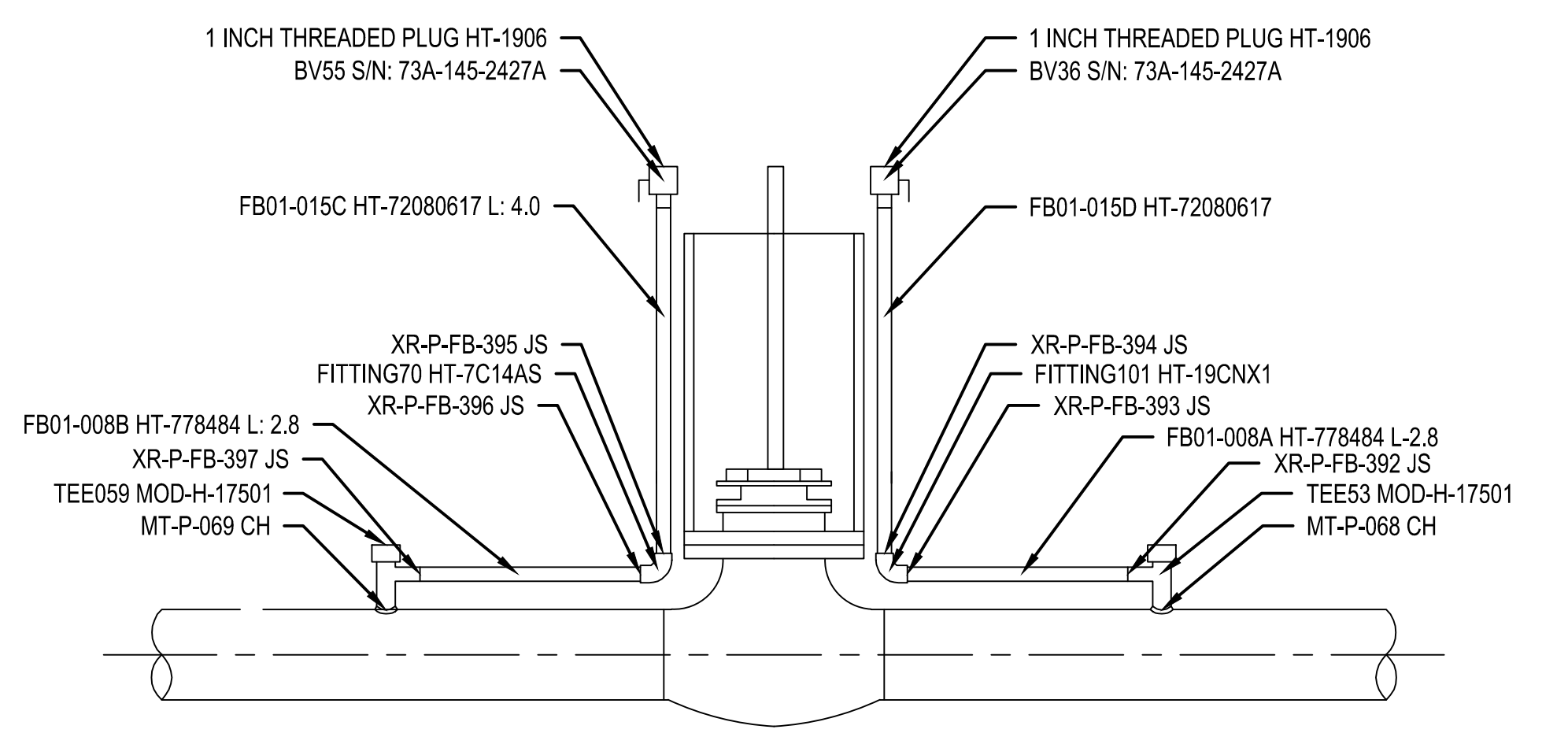
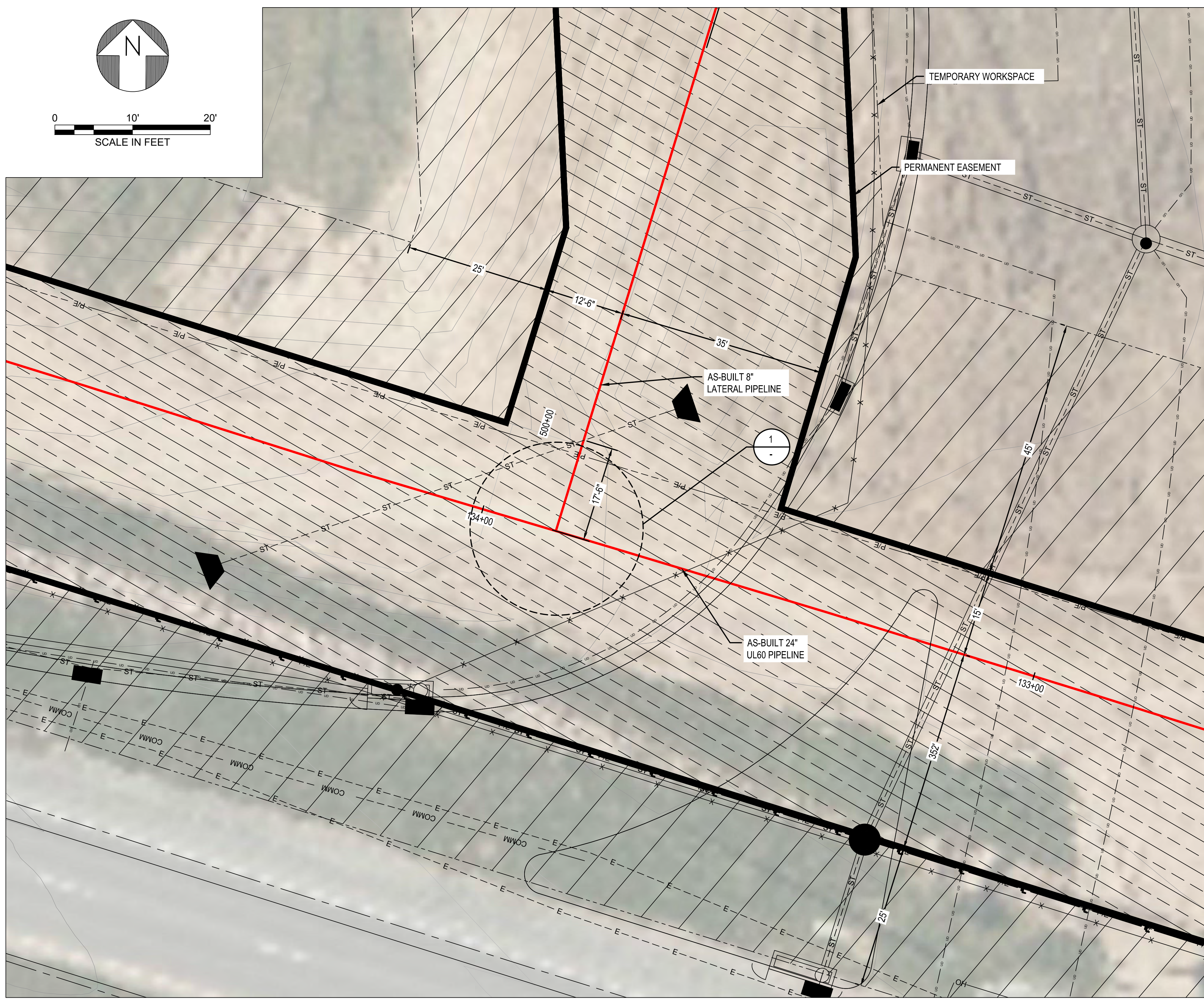
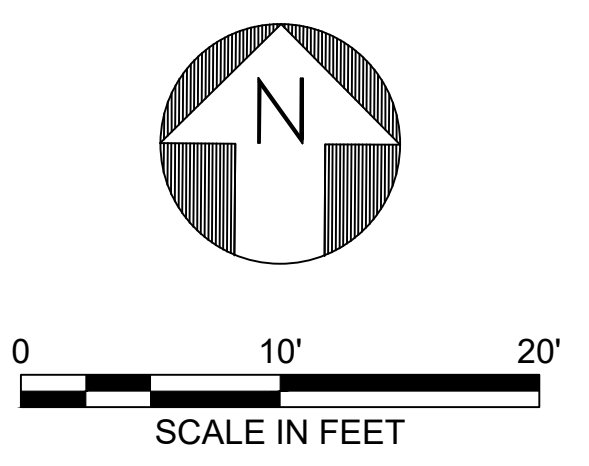


ERLANGER, KY

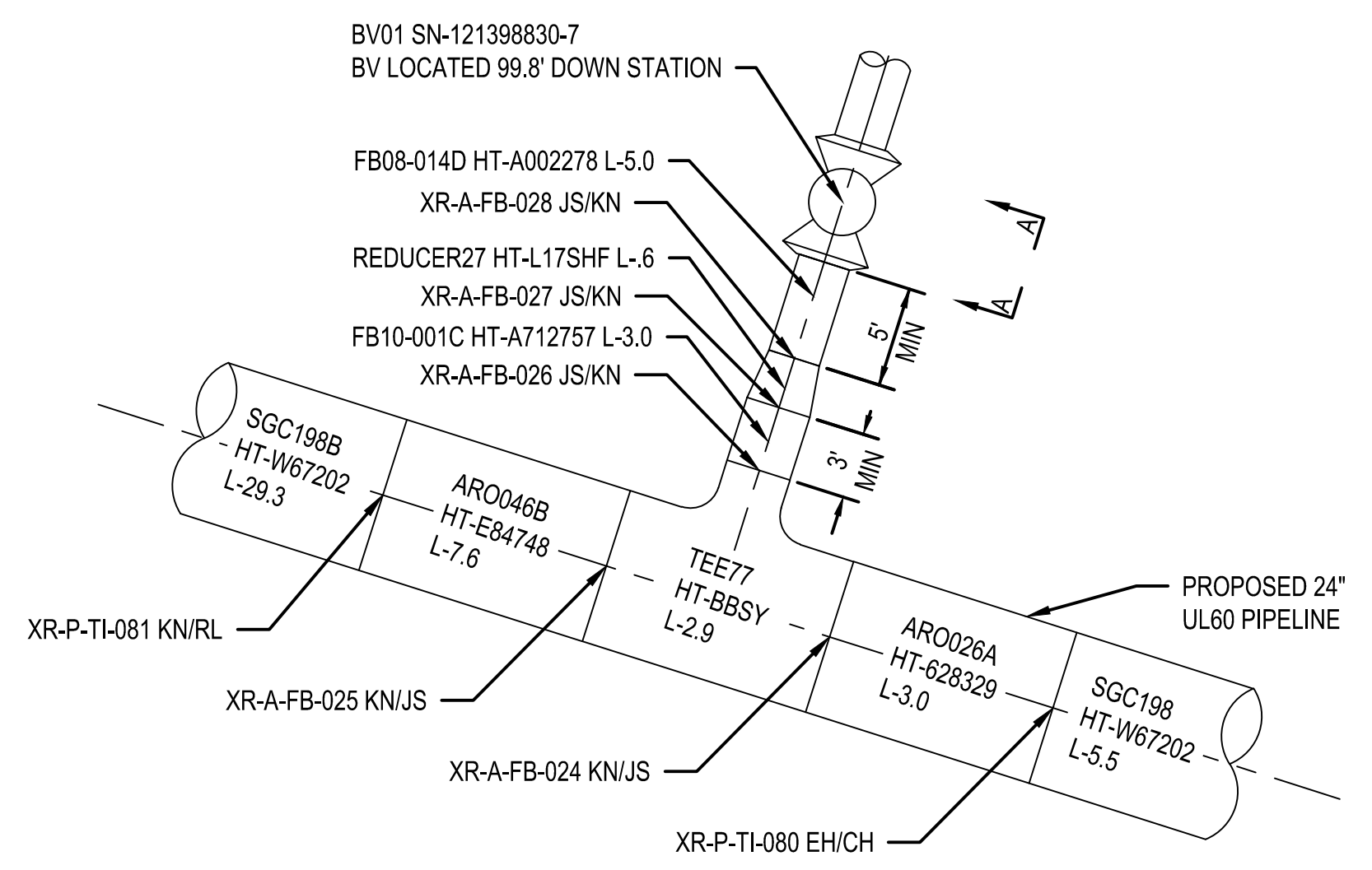
C/ERLANGER/UL60



VALVE #	UL60-0003	SIZE	8"
MANUFACTURER	CAMERON	SER. #	121398830-7
MODEL #	800602-23A-1	W.O.G./M.O.P.	1480 PSI
GATE	<input type="checkbox"/> PLUG <input type="checkbox"/> OTHER BALL		
TURNS TO OPEN	N/A		
LOCATION:	171 FT 3 IN NEOP AERO PKWY		
	139 FT 0 IN WCL TED BUSHELMAN BLVD		
	FT IN		
BOX <input checked="" type="checkbox"/> PIT <input type="checkbox"/> COVER AT MAIN	5	T	6 IN
PRESSURE STEMS LOCATED	<input checked="" type="checkbox"/> E <input checked="" type="checkbox"/> W		
REMARKS			



SECTION A  
SCALE: NTS



DETAIL 1  
SCALE: NTS

BURNS & MCDONNELL  
STATE LICENSE #43

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

PROFESSIONAL ENGINEER/ARCHITECT STAMP

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO ENSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-C-043-0001070  
PNG-C-043-0001059

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	DATE	INITIALS	APPROVALS
1	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339			
						ACCOUNT NUMBER V8191			
						PROJECT NUMBER G7UL02PH1			
						DRAWING BY JXV			
						STATION ID -			
						CHECKER INITIALS CEB	04/17/2020	AMP	

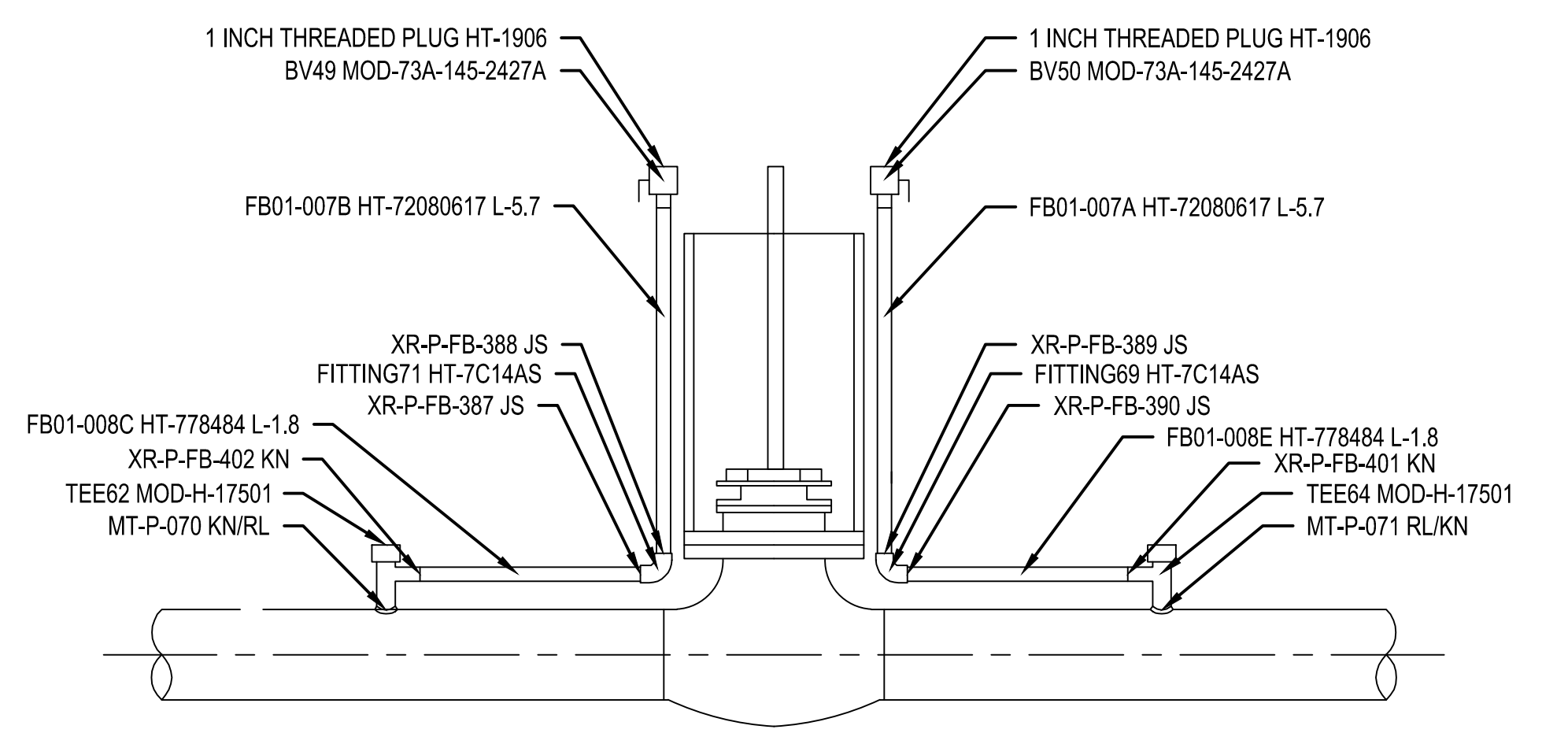
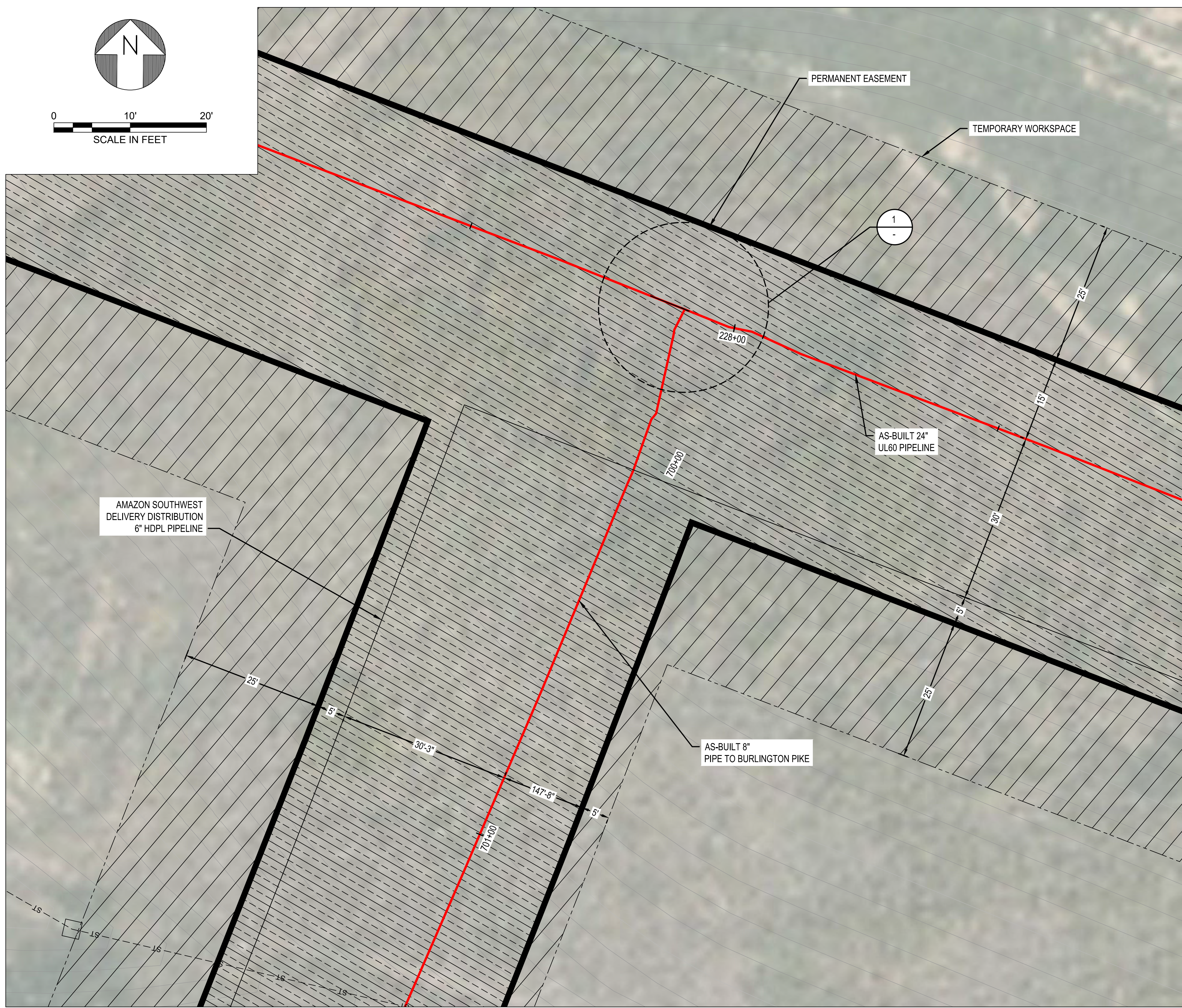
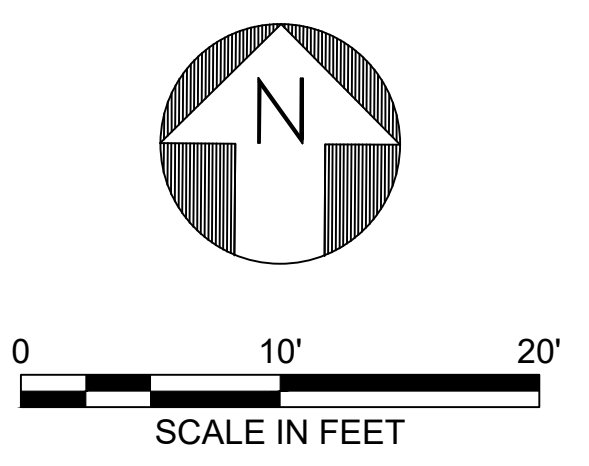
COPYRIGHT 2019

**UL60 PIPELINE**  
**PHASE 1 - 8" LATERAL TIE-IN DETAIL**  
**BOONE COUNTY, KY**  
ERLANGER, KY

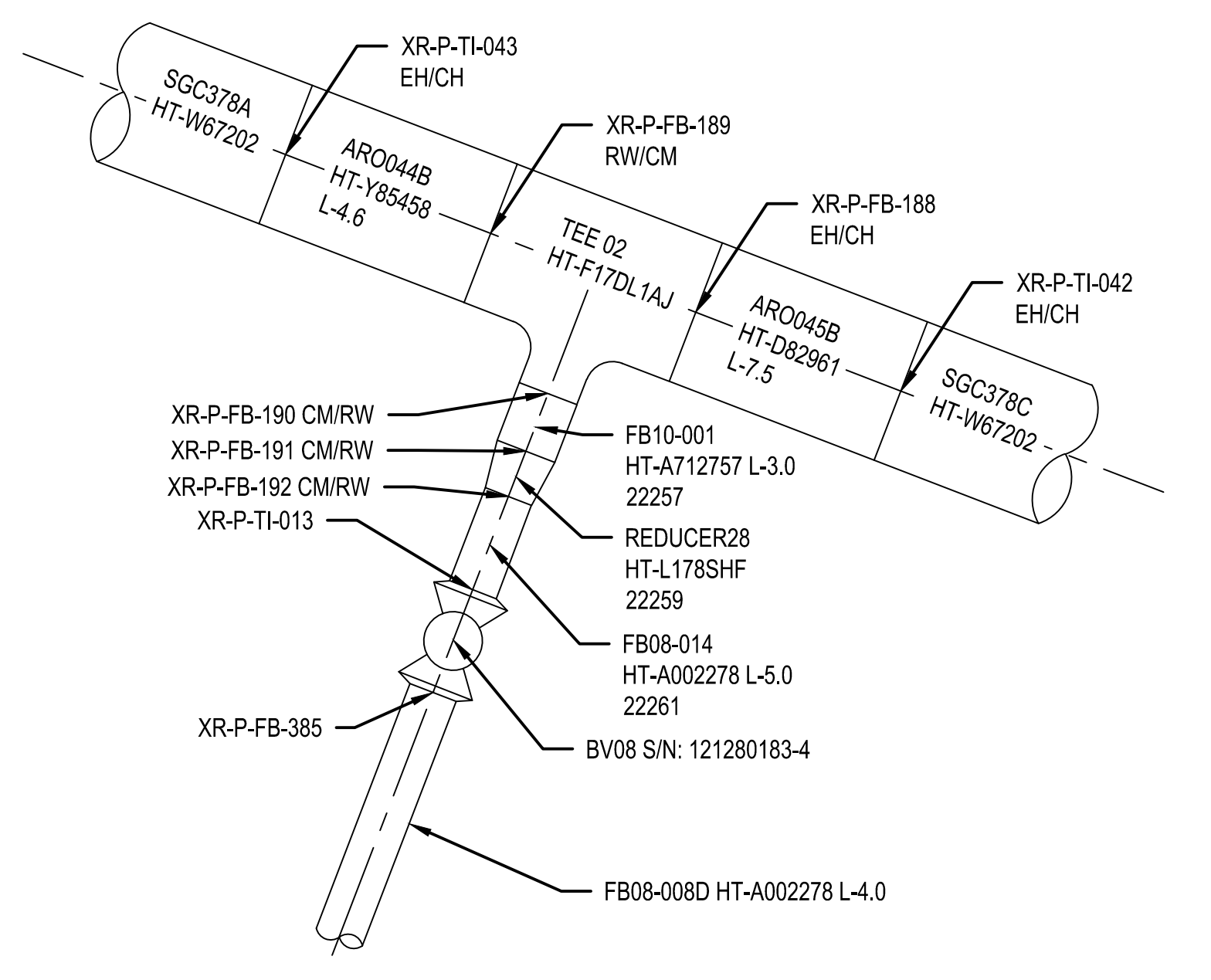
SHEET(S)	1 OF 2	DWG SCALE	AS NOTED
DWG DATE	09/09/2019	SUPERSEDED	
DRAWING NUMBER	PNG C-043-0001078		
REVISION	1		



VALVE #	UL60-0015	SIZE	8"
MANUFACTURER	CAMERON	SER. #	121280183-4
MODEL #	800602-23A-1	W.O.G./M.O.P.	1480 PSI
GATE	<input type="checkbox"/> PLUG <input type="checkbox"/> OTHER BALL		
URNS TO OPEN	N/A		
LOCATION:	595 FT 7 IN WEOP AERO PKWY		
	179 FT 4 IN NEOP BURLINGTON PIKE		
	FT IN		
BOX <input checked="" type="checkbox"/> PIT <input type="checkbox"/> COVER AT MAIN	4	T	3
PRESSURE STEMS LOCATED	Ⓝ	Ⓢ	E W
REMARKS			



**SECTION A**  
SCALE: NTS



**DETAIL 1**  
SCALE: NTS

BURNS & MCDONNELL  
STATE LICENSE #43

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO ENSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-C-043-0001067  
PNG-C-043-0001072

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	DATE	INITIALS	APPROVALS
1	01/25/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339			REGIONAL ENGINEER
						ACCOUNT NUMBER V8191			MGR TECH REC & STD
						PROJECT NUMBER G7UL02PH1			PRINCIPAL ENGINEER
						DRAWING BY JXV			
						STATION ID -			
						CHECKER INITIALS CEB	04/17/2020	AMP	



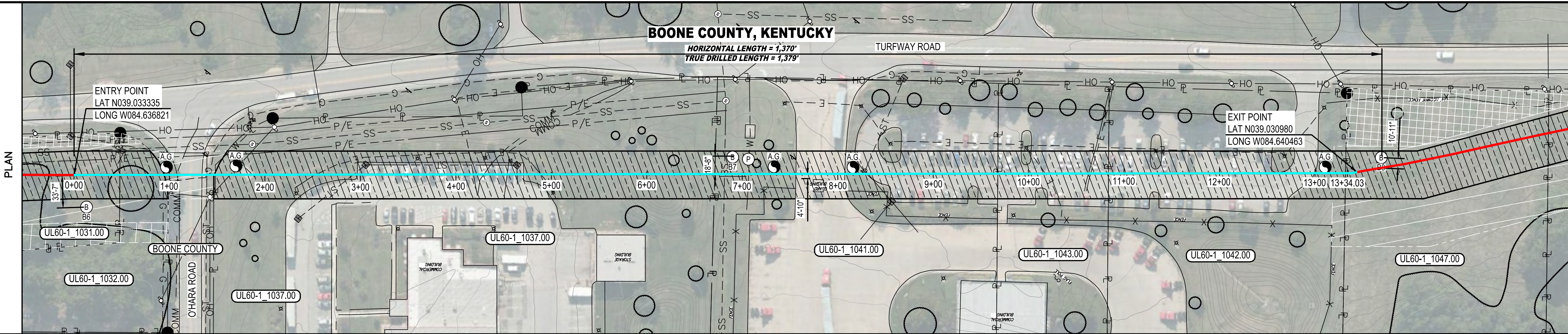
**UL60 PIPELINE**  
**PHASE 1 - BURLINGTON PIKE TEE**  
**BOONE COUNTY, KY**  
ERLANGER, KY

SHEET(S)	2 OF 2	DWG SCALE	AS NOTED
DWG DATE	09/09/2019	SUPERSEDED	
DRAWING NUMBER	PNG -C-043-0001079		
REVISION	1		



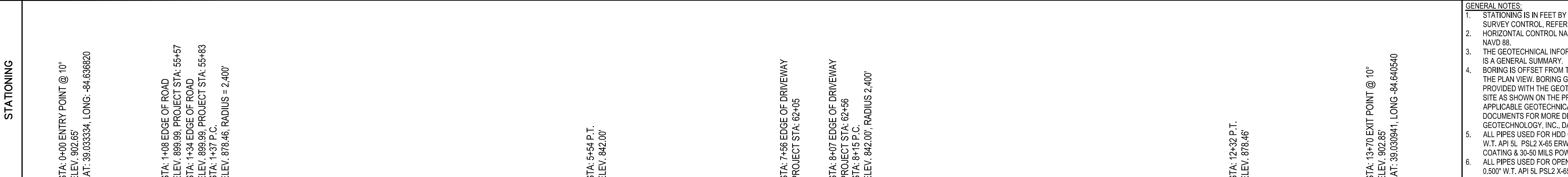
BOONE COUNTY, KENTUCKY

HORIZONTAL LENGTH = 1,370'  
TRUE DRILLED LENGTH = 1,379'



LEGEND showing symbols for PROPOSED PIPELINE, EXISTING GAS LINE, EXISTING SANITARY, EXISTING STORM, PROPERTY LINE, CL RAILROAD, EXISTING OVERHEAD LINE, EXISTING WATER, FENCE, and OWNER TAG. Includes HORIZONTAL VIEW SCALE (1"=120') and VERTICAL VIEW SCALE (1"=20').

Table with 2 columns: ITEM and TOLERANCE. Lists requirements for PILOT HOLE ENTRY LOCATION, PILOT HOLE EXIT LOCATION, MINIMUM ALLOWABLE THREE-JOINT COMBINED RADIUS, PILOT HOLE DEPTH, and PILOT HOLE ALIGNMENT.



- GENERAL NOTES: 1. STATIONING IS IN FEET BY HORIZONTAL MEASUREMENT... 2. HORIZONTAL CONTROL NAD 83... 3. THE GEOTECHNICAL INFORMATION PROVIDED ON THIS DRAWING IS A GENERAL SUMMARY... 4. BORING IS OFFSET FROM THE PIPELINE CENTERLINE... 5. ALL PIPES USED FOR HDD CONSTRUCTION ARE 24" O.D. x 0.500" W.T. API 5L PSL2 X-65 ERW OR LSAW WITH 14-16 MILS FBE COATING & 30-50 MILS POWDERCOATED COATING... 6. ALL PIPES USED FOR OPEN CUT CONSTRUCTION ARE 24" O.D. x 0.500" W.T. API 5L PSL2 X-65 ERW OR LSAW WITH 14-16 MILS FBE COATING & 24" O.D. x 0.375" W.T. API 5L PSL2 X-65 SMLS WITH 60 MILS POWDERCOATED COATING... 7. CONTRACTOR IS RESPONSIBLE FOR CALLING KENTUCKY ONE-CALL AND LOCATING ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION... 8. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM DUKE ENERGY PRIOR TO INITIATING HDD OPERATIONS... 9. THE CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND PROTECT ANY FOREIGN UTILITY THAT MAY BE AFFECTED BY THE HDD OPERATIONS... 10. ALL EQUIPMENT MUST ACCESS THE SITE ALONG THE CONSTRUCTION RIGHT-OF-WAY OR FROM APPROVED ACCESS ROADS... 11. MAXIMUM WORK SPACE LIMITS ARE DEPICTED, RESTRICT ALL CLEARING TO THE WORK SPACE INDICATED AT THE ENTRY AND EXIT POINTS AND PRODUCT PIPE STRINGING AND FABRICATION AREA ALONG THE CONSTRUCTION RIGHT-OF-WAY... 12. CONTRACTOR SHALL DISPOSE OF EXCESS FLUID IN ACCORDANCE WITH CONTRACT DOCUMENTS AND/OR PERMIT CONDITIONS... 13. WATER FOR DRILLING FLUID AND HYDROSTATIC TEST WATER SHALL BE OBTAINED FROM AN APPROVED SOURCE... 14. PRE-INSTALLATION AND POST-INSTALLATION HYDROSTATIC TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE HYDROSTATIC TEST PLAN... 15. THE HDD CONTRACTOR SHALL SUBMIT WITH THEIR HDD WORK PLAN AN ASSESSMENT OF THE POTENTIAL FOR HOLE INSTABILITY AND THEIR PROPOSED MITIGATION PROCEDURES... 16. THE HDD CONTRACTOR SHALL MAKE ALL REASONABLE ATTEMPTS TO MAINTAIN DRILLING FLUID RETURNS DURING PILOT HOLE AND REAMING OPERATIONS... 17. THE DRILLING FLUID PROPERTIES SHALL BE TESTED A MINIMUM OF THREE (3) TIMES PER SHIFT... 18. ALL DRILL PIPE UTILIZED ON THE PROJECT MUST BE INSPECTED AND DRILL PIPE INSPECTION RECORDS FURNISHED TO DUKE ENERGY PRIOR TO USE ON THE PROJECT... PILOT HOLE REQUIREMENTS: 1. AT ALL TIMES THE HDD CONTRACTOR SHALL PROVIDE AND MAINTAIN INSTRUMENTATION TO DOCUMENT AND ACCURATELY LOCATE THE PILOT HOLE... 2. AFTER SURVEYING THE SECONDARY SURVEY WIRE, THE HDD CONTRACTOR SHALL REPORT ANY LACK OF CLOSURE THAT MAY INDICATE INCORRECTLY LOCATED ENTRY AND/OR EXIT POINTS... 3. IN NO CASE WILL THE PILOT HOLE BE ACCEPTABLE IF ITS LOCATION WOULD RESULT IN THE PIPELINE BEING INSTALLED IN VIOLATION OF THE RIGHT-OF-WAY AND PERMIT STIPULATIONS... 4. PRIOR TO REAMING, THE CONTRACTOR SHALL SUBMIT AS-DRILLED DATA AND CALCULATED LOCATION TO THE COMPANY FOR APPROVAL... REAMING REQUIREMENTS: 1. AFTER COMPLETION OF THE PILOT HOLE, THE HDD CONTRACTOR SHALL MAINTAIN A CONTINUOUS STRING OF DRILL PIPE DOWNHOLE BETWEEN ENTRY AND EXIT AT ALL TIMES EXCEPT WHEN RE-ESTABLISHING A CONTINUOUS STRING OF DRILL PIPE... 2. THE HDD CONTRACTOR SHALL COMPLETE AT A MINIMUM ONE (1) SWAB PASS TO EVALUATE THE CONDITION OF THE HOLE PRIOR TO PULLBACK OPERATIONS... 3. THE MINIMUM ALLOWABLE RADIUS OF CURVATURE FOR HANDLING AND POSITIONING THE CARRIER PIPE IN PREPARATION FOR PULLBACK OPERATIONS IS 1,600-FEET... 4. THE HDD CONTRACTOR SHALL PROVIDE WITH THEIR HDD WORK PLAN THE MAXIMUM ANTICIPATED PULL FORCE REQUIRED TO INSTALL THE CARRIER PIPE AND THE MAXIMUM ALLOWABLE PULL FORCE THAT CAN BE APPLIED TO THEIR DOWNHOLE TOOLING... INSTALLATION REQUIREMENTS: 1. THE CONTRACTOR WILL BE REQUIRED TO SUPPLY A PULLBACK LIFTING PROCEDURE... 2. CONTRACTOR SHALL ASSESS THE NEED FOR AND SUPPLY APPROPRIATE BALLAST DURING PULLBACK... 3. THE MINIMUM ALLOWABLE RADIUS OF CURVATURE FOR HANDLING AND POSITIONING THE CARRIER PIPE IN PREPARATION FOR PULLBACK OPERATIONS IS 1,600-FEET... 4. THE HDD CONTRACTOR SHALL PROVIDE WITH THEIR HDD WORK PLAN THE MAXIMUM ANTICIPATED PULL FORCE REQUIRED TO INSTALL THE CARRIER PIPE AND THE MAXIMUM ALLOWABLE PULL FORCE THAT CAN BE APPLIED TO THEIR DOWNHOLE TOOLING... POST-INSTALLATION REQUIREMENTS: 1. THE HDD CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING AND SUBMITTING AN AS-BUILT DRAWING OF THE PILOT HOLE SURVEY DATA WITHIN TWO WEEKS OF THE COMPLETION OF PULLBACK OPERATIONS... 2. UPON COMPLETION OF INSTALLATION, A CALIPER PIG SURVEY SHALL BE COMPLETED IN ACCORDANCE WITH CONTRACT DOCUMENTS.

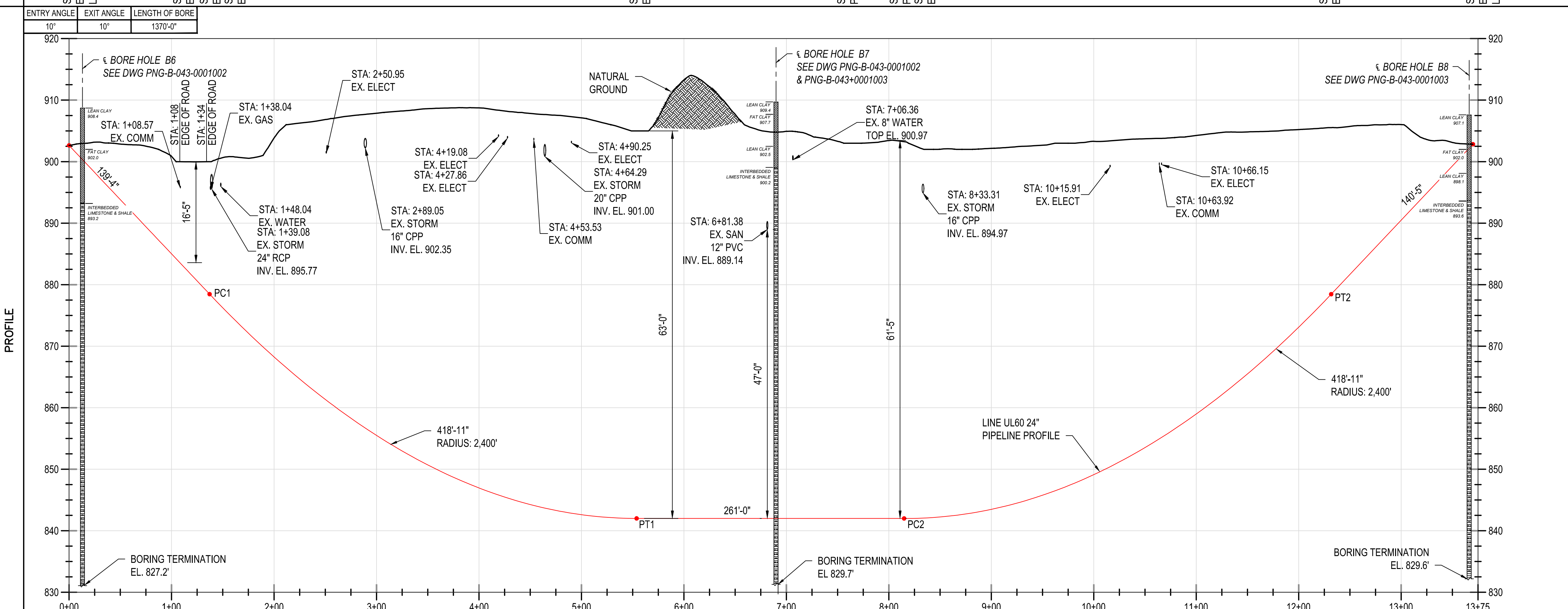


Table with 3 columns: MATERIAL, CLASS / MAOP, and LENGTH OF BORE. Shows 10 degrees for entry and exit angles, and a length of 1370 feet for the bore.

DUKE ENERGY'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

Professional Engineer/Arch Stamp for AMANDAM PALM, dated 04/17/2020, Kentucky Seal 33142. Includes a table for REVISION(S) DESCRIPTION, BY, CHK, APPD, and a table for APPROVALS with columns for REGIONAL ENGINEER, MGR TECH REC & STD, and PRINCIPAL ENGINEER.

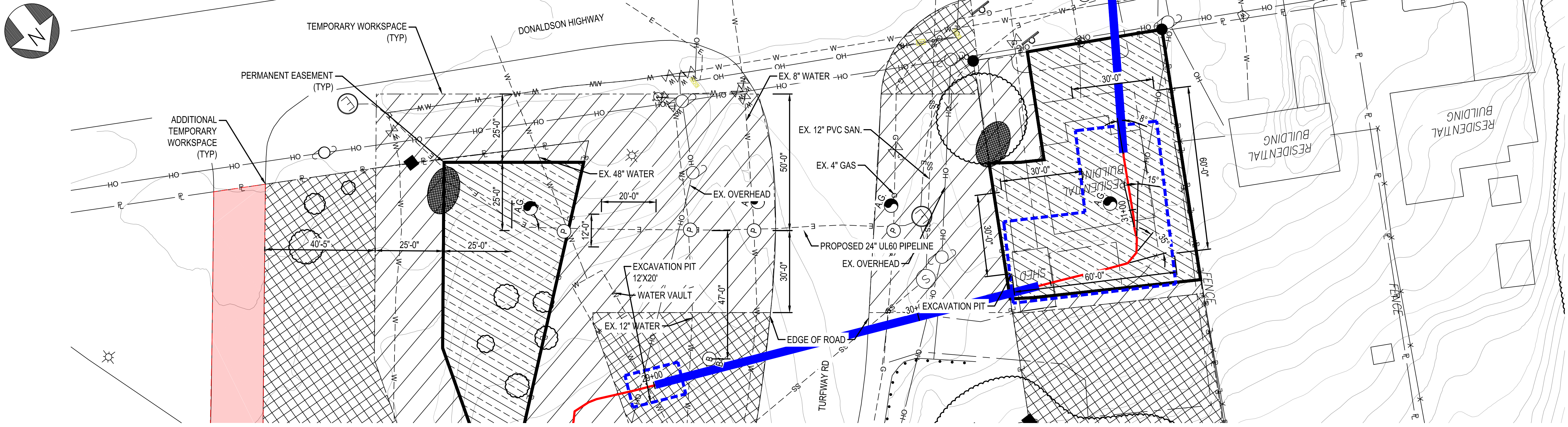
Project information including SHEET(S) 1 OF 1, DWG SCALE AS NOTED, DWG DATE 07/10/2019, SUPERSEDED, DRAWING NUMBER PNG -C-043-0001082, and REVISION 0. Includes logos for DUKE ENERGY and Piedmont Natural Gas.

UL60 PIPELINE - PHASE 1  
HDD ALIGNMENT SHEET  
BOONE COUNTY, KY

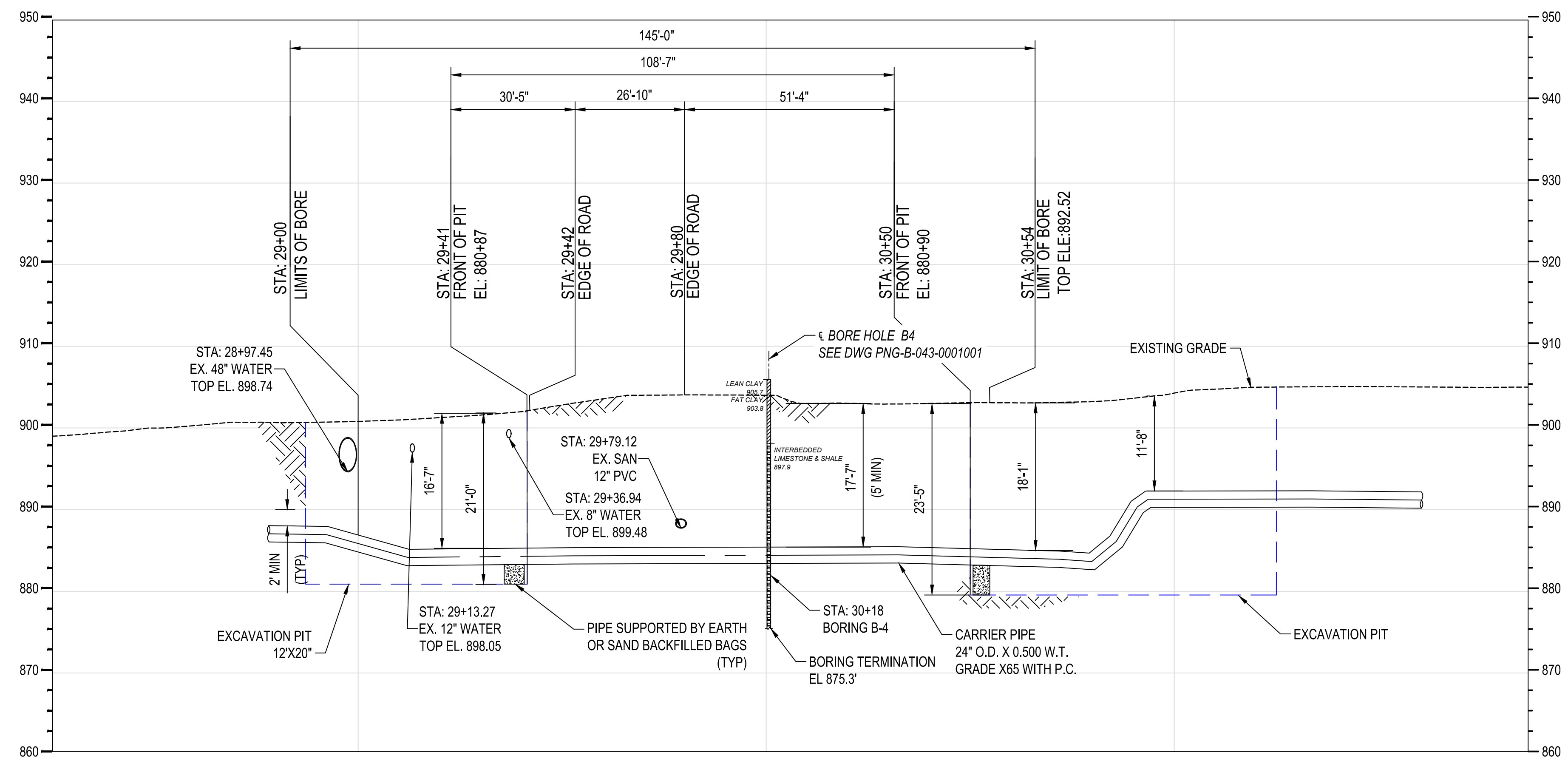
ERLANGER, KY



PLAN



PROFILE



**HORIZONTAL VIEW SCALE**  
0 20' 40'  
HORIZONTAL SCALE: 1" = 20'

**VERTICAL VIEW SCALE**  
0 10' 20'  
HORIZONTAL SCALE: 1" = 10'

BURNS & MCDONNELL  
STATE LICENSE #43

PROPRIETARY & CONFIDENTIAL ALL RIGHTS RESERVED \* DO NOT SCALE THIS DRAWING \* USE DIMENSIONS ONLY  
PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-C-043-0001049  
REF. DWG(S) PNG-C-043-0001050

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339	INITIALS -
						ACCOUNT NUMBER V8191	DATE -
						PROJECT NUMBER G7UL02PH1	INITIALS -
						DRAWING BY AKT	DATE -
						STATION ID -	INITIALS -
						CHECKER INITIALS CEB	DATE 04/17/2020



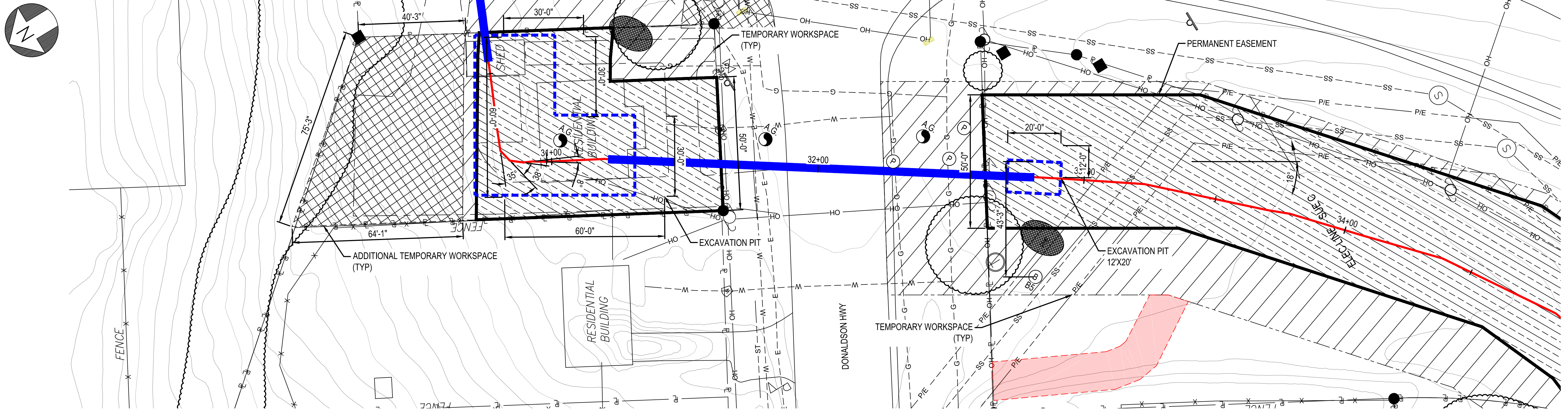
**UL60 PIPELINE - PHASE 1  
BORE CROSSING DETAIL 01  
BOONE COUNTY, KY**  
ERLANGER, KY

SHEET(S) 1 OF 4	DWG SCALE AS NOTED
DWG DATE 08/19/2019	SUPERSEDED
DRAWING NUMBER	REVISION
<b>PNG -C-043-0001084</b>	<b>0</b>
C/ERLANGER/UL60	

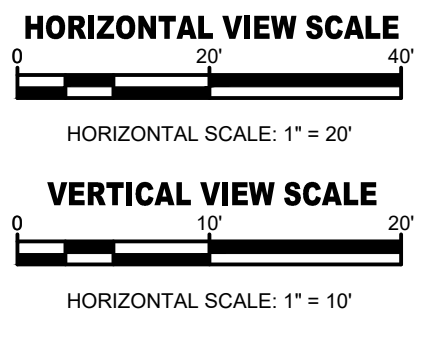
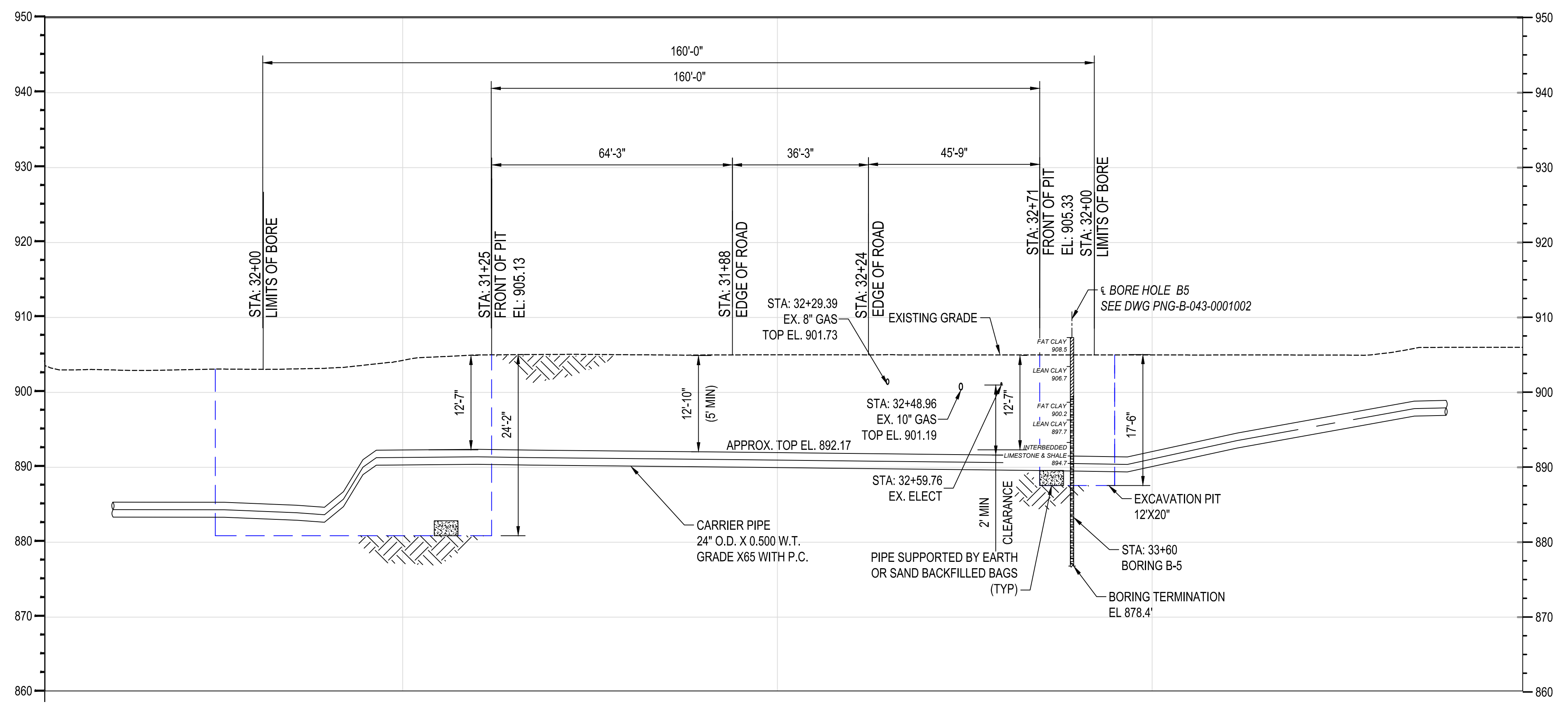
PROFESSIONAL ENG/ARCH STAMP



PLAN



PROFILE



BURNS & MCDONNELL  
STATE LICENSE #43

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-C-043-0001050

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

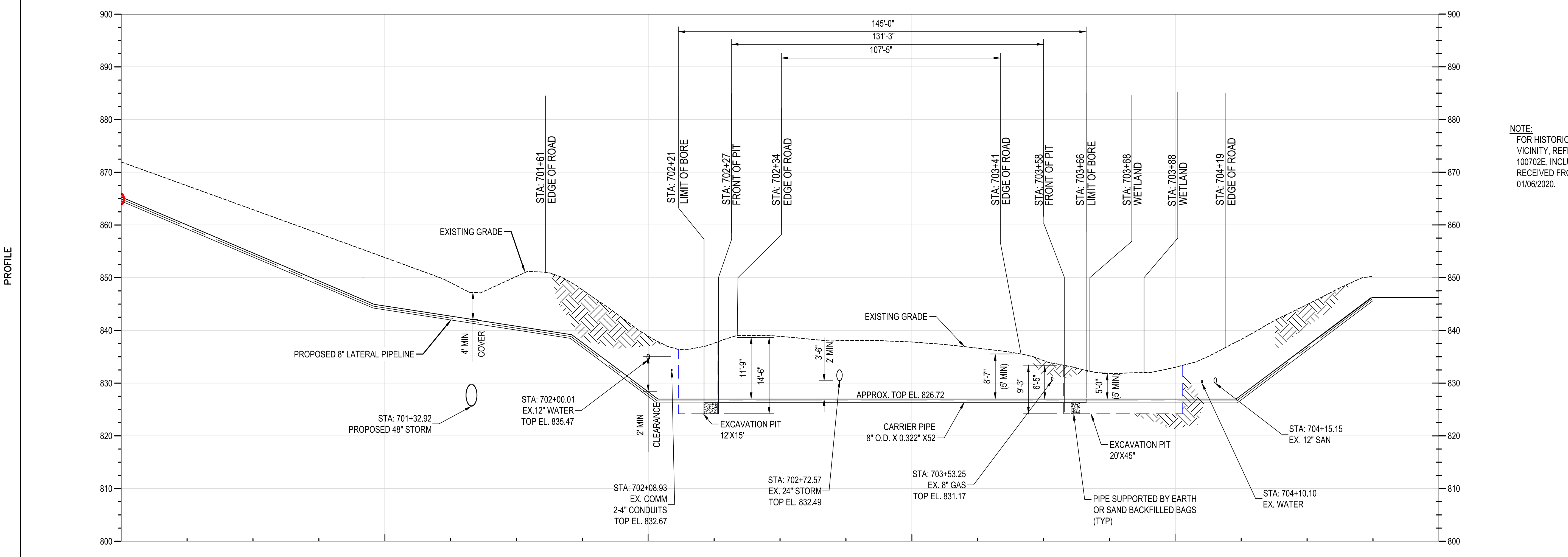
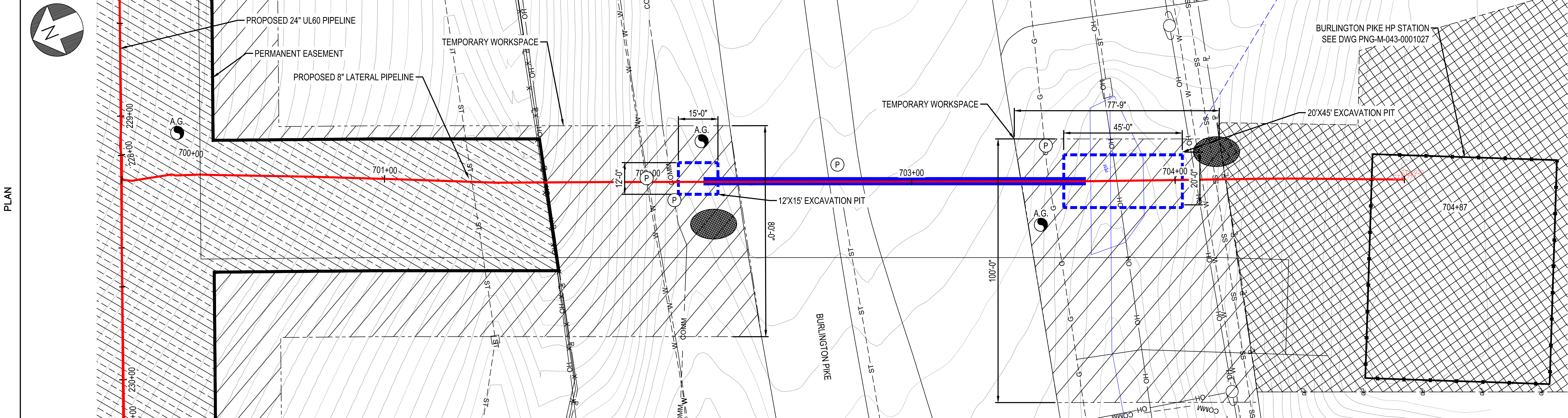
NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339	DATE: 04/17/2020, INITIALS: AMP
						ACCOUNT NUMBER V8191	REGIONAL ENGINEER
						PROJECT NUMBER G7UL02PH1	MGR TECH REC & STD
						DRAWING BY AKT	PRINCIPAL ENGINEER
						STATION ID -	
						CHECKER INITIALS CEB	



**UL60 PIPELINE - PHASE 1  
BORE CROSSING DETAIL 02  
BOONE COUNTY, KY**  
ERLANGER, KY

SHEET(S) 2 OF 4	DWG SCALE AS NOTED
DWG DATE 08/19/2019	SUPERSEDED
DRAWING NUMBER PNG C-043-0001085	REVISION 0
C/ERLANGER/UL60	





**HORIZONTAL VIEW SCALE**  
0 20' 40'  
HORIZONTAL SCALE: 1" = 20'

**VERTICAL VIEW SCALE**  
0 10' 20'  
HORIZONTAL SCALE: 1" = 10'

**NOTE:**  
FOR HISTORICAL GEOTECHNICAL INFORMATION IN VICINITY, REFER TO SOIL LOGS FROM JOB NUMBER 100702E, INCLUDED IN GEOTECHNICAL REPORT RECEIVED FROM GEOTECHNOLOGY, INC, DATED 01/06/2020.

BURNS & MCDONNELL STATE LICENSE #43

AMANDA M. PALM 04/17/2020 KENTUCKY SEAL 33142

PROFESSIONAL ENGINEER/ARCHITECT STAMP

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-C-043-0001072

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION	APPROVALS
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339 ACCOUNT NUMBER V8191 PROJECT NUMBER G7UL02PH1 DRAWING BY AKT STATION ID - CHECKER INITIALS CEB	DATE 04/17/2020 INITIALS AMP REGIONAL ENGINEER MGR TECH REC & STD PRINCIPAL ENGINEER

UL60 PIPELINE - PHASE 1  
BORE CROSSING DETAIL 03  
BOONE COUNTY, KY  
ERLANGER, KY

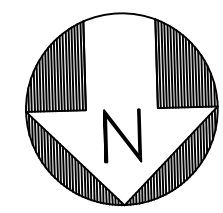
COPYRIGHT 2019

DUKE ENERGY | Piedmont Natural Gas

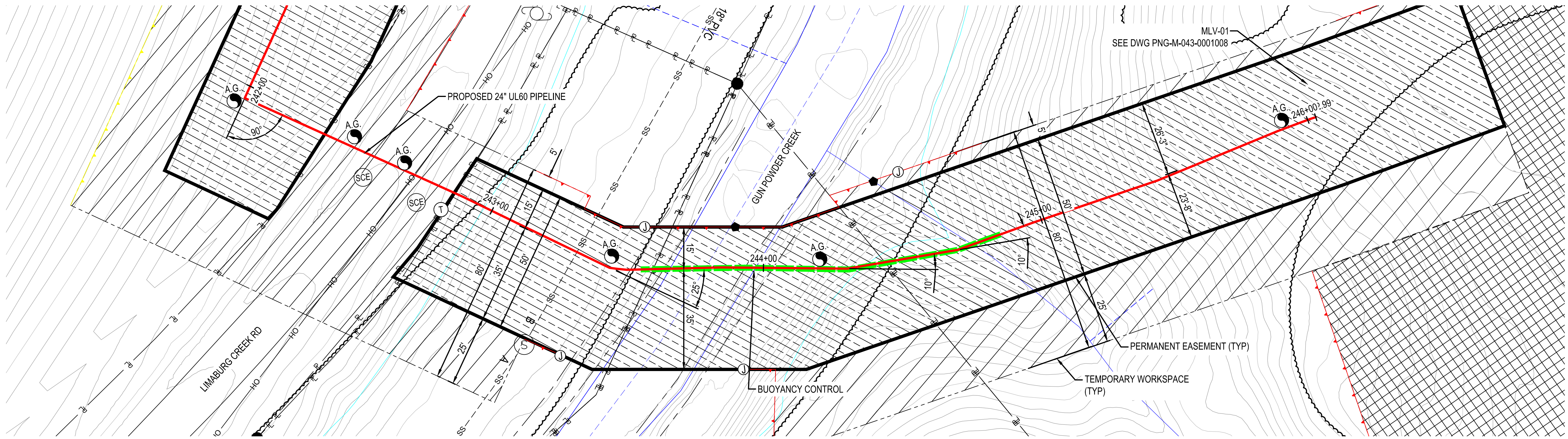
SHEET(S) 3 OF 4	DWG SCALE AS NOTED
DWG DATE 08/19/2019	SUPERSEDED
DRAWING NUMBER PNG C-043-0001086	REVISION 0

C/ERLANGER/UL60

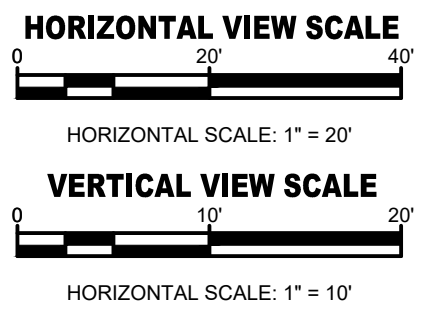
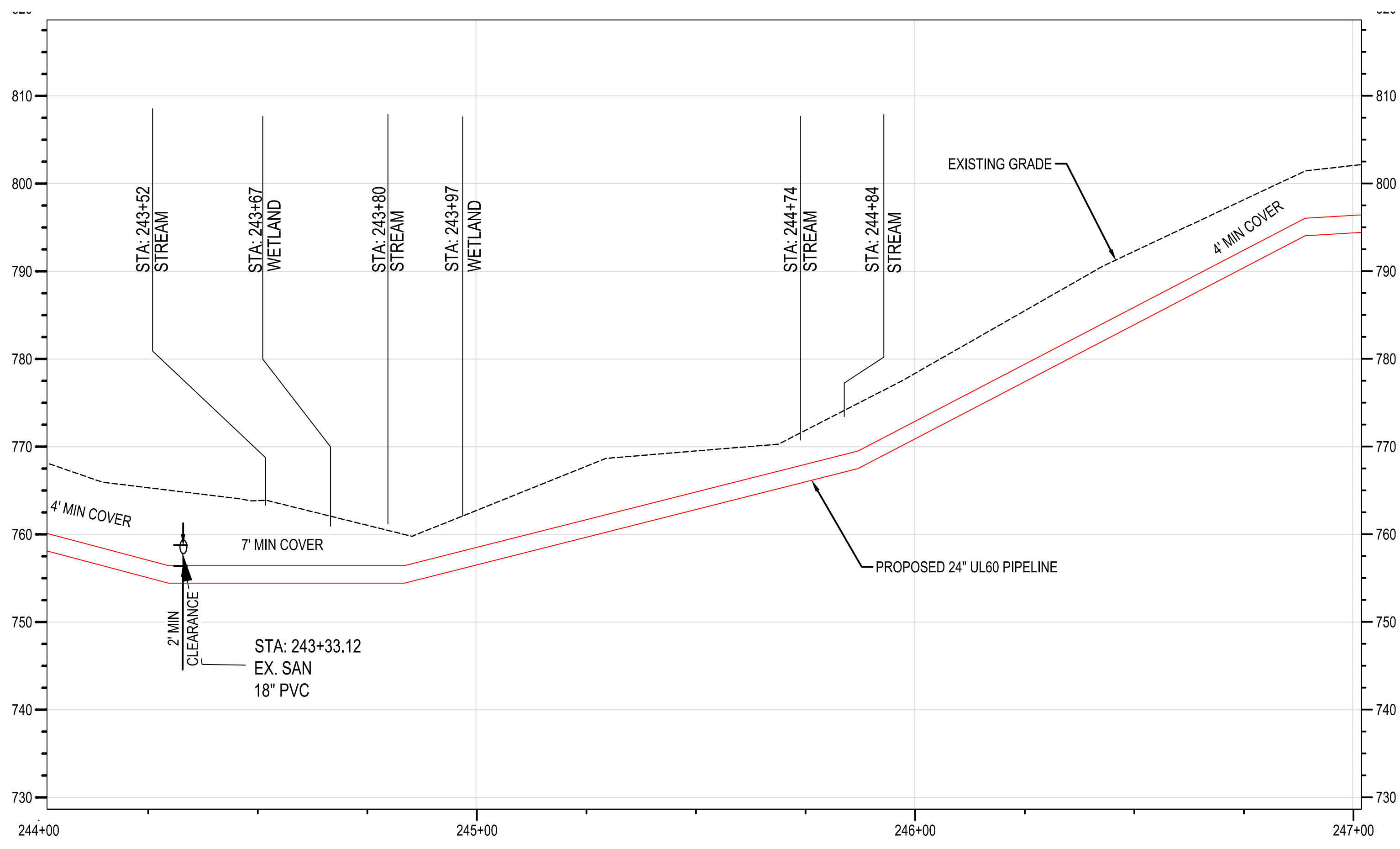




PLAN



PROFILE



BURNS & MCDONNELL  
STATE LICENSE #43

PIEDMONT'S NATURAL GAS FACILITY DRAWINGS ARE CONSIDERED CONFIDENTIAL (OM-1095) \* DRAWING IS CURRENT ONLY THROUGH THE LATEST REVISED DATE \* TO INSURE THERE IS NO RISK OF INAPPROPRIATE DISCLOSURE ALL PREVIOUS PAPER COPIES OF THIS DRAWING MUST BE DESTROYED IN ACCORDANCE WITH RECORDS & INFO. MANAGEMENT (RIM) POLICY 1001

REF. DWG(S) PNG-C-043-0001069

AMANDA M. PALM  
04/17/2020  
KENTUCKY  
SEAL 33142

NO.	DATE	REVISION(S) DESCRIPTION	BY	CHK	APPD	DESCRIPTION
0	02/10/2021	ISSUED FOR AS-BUILT	JXV	CEB	EPM	AREA CODE 5339
						ACCOUNT NUMBER V8191
						PROJECT NUMBER G7UL02PH1
						DRAWING BY AKT
						STATION ID -
						CHECKER INITIALS CEB

DATE	INITIALS	APPROVALS
02/12/2020	AMP	REGIONAL ENGINEER
		MGR TECH REC & STD
		PRINCIPAL ENGINEER

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



**UL60 PIPELINE - PHASE 1**  
**GUN POWDER CREEK CROSSING DETAIL**  
**BOONE COUNTY, KY**  
ERLANGER, KY

SHEET(S) 4 OF 4	DWG SCALE AS NOTED
DWG DATE 08/19/2019	SUPERSEDED
DRAWING NUMBER	REVISION
<b>PNG C-043-0001087</b>	<b>0</b>

PROFESSIONAL ENGINEER ARCHITECT STAMP

COPYRIGHT 2019

C/ERLANGER/UL60