PF13-10-000

CENTERPOINT ENERGY GAS TRANSMISSION COMPANY, LLC

ATTACHMENT 1

Draft Resource Report 1 – General Project Description

PUBLIC

CENTERPOINT ENERGY GAS TRANSMISSION COMPANY, LLC

CENTRAL ARKANSAS PIPELINE ENHANCEMENT PROJECT
FERC DOCKET NO. PF13-10-000

DRAFT RESOURCE REPORT NO. 1

GENERAL PROJECT DESCRIPTION

PUBLIC

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CenterPoint Energy

CENTRAL ARKANSAS PIPELINE ENHANCEMENT PROJECT

FERC DOCKET NO. PF13-10-000

RESOURCE REPORT NO. 1 – GENERAL PROJECT DESCRIPTION	
SUMMARY OF COMMISSION FILING INFORMATION	
INFORMATION	**FOUND IN**
1. Provide a detailed description and location map of the Project facilities. (§380.12(c)(1))	Section 1.1.2 and Figure 1.1-1
2. Describe any non-jurisdictional facilities that would be built in association with the Project. (§380.12(c) (2))	Section 1.8
3. Provide current original U.S. Geological Survey (USGS) 7.5-minute series topographic maps with mileposts showing the Project facilities. (§380.12(c)(3)).	Appendix 1.A
4. Provide aerial images or photographs or alignment sheets based on these sources with mileposts showing the Project facilities. (§380.12(c)(3)).	Appendix 1.A
5. Provide plot/site plans of compressor stations showing the location of the nearest noise-sensitive areas (NSA) within 1 mile. (§380.12(c)(3,4)).	Not Applicable
6. Describe construction and restoration methods. (§380.12(c) (6)).	Section 1.4
7. Identify the permits required for construction across surface waters. (§380.12(c)(9)).	Section 1.9, Table 1.9-1
8. Provide the names and addresses of all affected landowners and certify that all affected landowners will be notified as required in §157.6(d). (§§380.12(a)(4) and (c)(10)).	Appendix 1.E, filed in Volume IV (Privileged and Confidential)

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ACRONYMS AND ABBREVIATIONS

CEGT	CenterPoint Energy Gas Transmission Company, LLC
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
Commission	Federal Energy Regulatory Commission
CWA	Clean Water Act
DDCP	Directional Drilling Contingency Plan
DOT	Department of Transportation
EI	Environmental Inspector
ER	Environmental Report
ESA	Endangered Species Act
ETWS	Extra Temporary Workspaces
FERC	Federal Energy Regulatory Commission
HCA	High Consequence Area
HDD	Horizontal Directional Drill
MLV	Main Line Valve
MP	Milepost
N/A	Not applicable
NHPA	National Historic Preservation Act
NSA	Noise Sensitive Area
Plan	FERC Upland Erosion Control, Revegetation, and Maintenance Plan
Procedures	FERC Wetland and Waterbody Construction and Mitigation Procedures
Project	Central Arkansas Pipeline Enhancement Project
ROW	Right-of-Way
SPCC Plan	Spill Prevention, Control, and Countermeasure Plan
TBS	Town Border Station
U.S	United States
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey

1.0 INTRODUCTION

CenterPoint Energy Gas Transmission Company, LLC ("CEGT"), in cooperation with its affiliated natural gas distribution business, CenterPoint Energy Resources Corporation d/b/a Arkansas Gas ("CERC"), is filing an application for a certificate of public convenience and necessity with the Federal Energy Regulatory Commission ("FERC" or "Commission") for the Central Arkansas Pipeline Enhancement Project ("Project"). The Project will provide for the continued safe, reliable, and efficient transportation of natural gas to the central Arkansas cities and towns of Conway, Mayflower, Maumelle, North Little Rock, and Little Rock. CEGT currently owns and operates multiple, existing pipelines in this region, but the region has experienced substantial residential and commercial development since the original pipeline facilities were constructed. The pipeline enhancement project provides CEGT with the opportunity to install new pipeline facilities to better serve its current customers, while also laying the groundwork for additional pipeline capacity to meet future growth, as needed. As part of the Project, CEGT will also retire from service some existing pipeline assets, while realigning ownership of some other existing pipeline infrastructure to its distribution affiliate. Such realignment and repurposing of existing pipeline infrastructure will provide for cost savings and more efficient delivery of natural gas in the Project area, all of which should benefit end use customers.

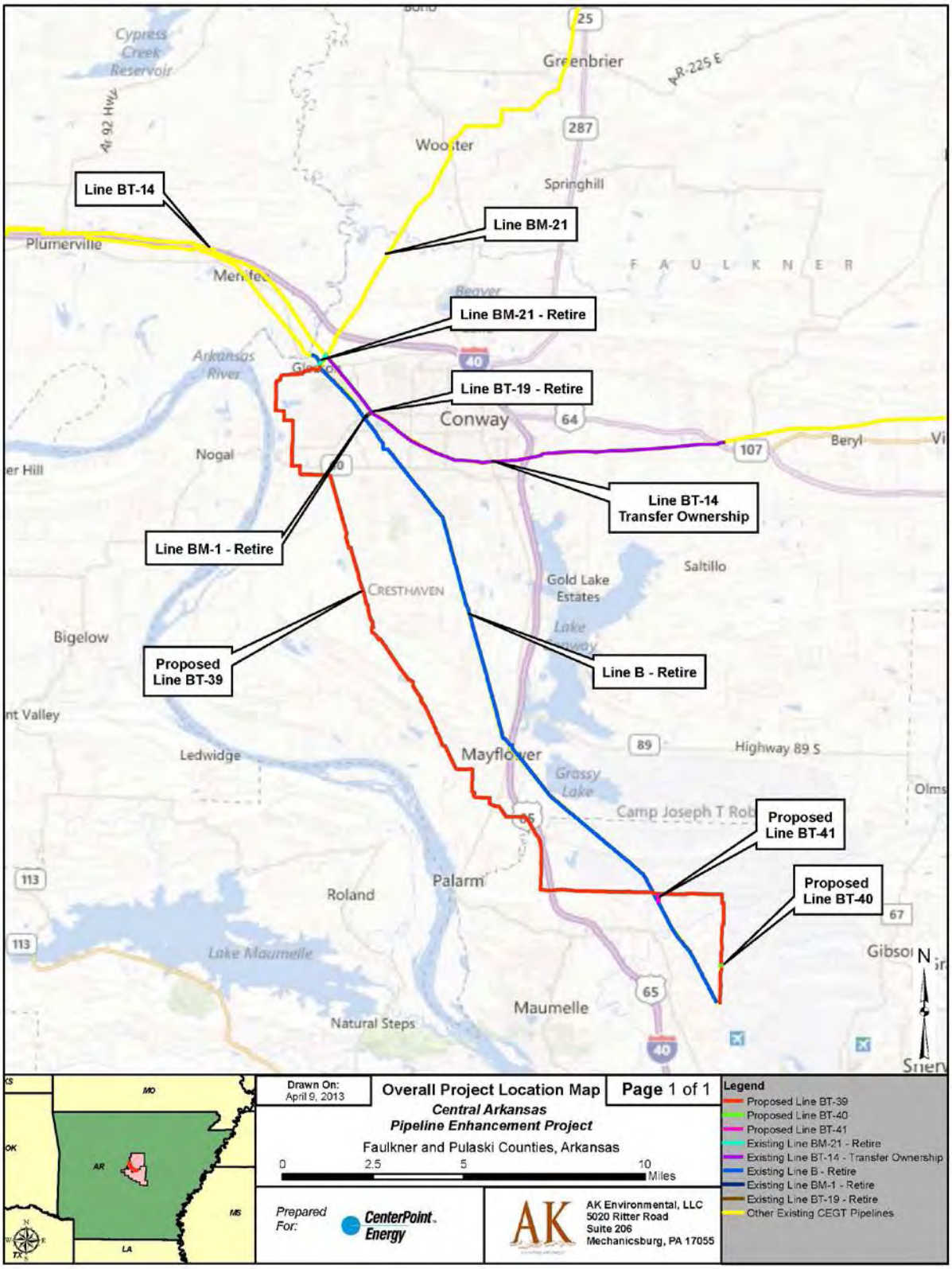
Resource Report 1 is one of thirteen resource reports that collectively constitute the Project's Environmental Report ("ER"). Resource Report 1 identifies the proposed facilities, the purpose and need for the proposed facilities, and the land requirements associated with construction and operation of the proposed Project. Additionally, Resource Report 1 discusses the proposed construction, operation, and maintenance procedures for the Project facilities, identifies regulatory permits and approvals required to construct and operate the proposed Project, and documents the need for foreseeable future expansion or abandonment of the proposed facilities.

Most of the information presented in this ER was derived from field surveys performed by CEGT and its consultants. CEGT obtained full survey permission associated with the Project, and environmental field surveys for wetlands/waterbodies and cultural resources have been completed along 100 percent of the proposed pipeline route, as well as all proposed temporary workspaces, construction access roads, meter station locations, and the pipe storage/contractor yards. These field surveys have also been completed for those work areas that would be used in association with the retirement and removal activities proposed as part of this Project. Additional information was obtained from United States Geological Survey ("USGS") topographic maps, aerial photography, online resources, and consultations with federal, state, and local agencies.

1.1 PROJECT DESCRIPTION

As part of the Project, CEGT is proposing the installation of approximately 28.5 miles of 12-inch-diameter natural gas pipeline and ancillary facilities in Pulaski and Faulkner Counties, Arkansas. The proposed pipeline, to be named Line BT-39, will be constructed primarily on new alignment, and will provide replacement transmission service for a portion of two existing CEGT natural gas pipelines (Lines B and BT-14). CEGT will also construct metering and appurtenances at seven new or modified locations along the Line BT-39 pipeline route and tie-in points to the existing Line BT-14 pipeline, as well as two 4-inch-diameter laterals (Lines BT-40 and BT-41) to provide natural gas deliveries to its distribution affiliate. As currently proposed, ownership of an approximately 12.4-mile-long segment of the existing Line BT-14 pipeline through the City of Conway would be transferred to CEGT's distribution affiliate, and an approximately 21.7-mile-long segment of the existing Line B pipeline, extending from Conway to North Little Rock, would be retired from service. Other minor ancillary facilities and small diameter pipelines (Line BM-1, Line BT-19, and a portion of Line BM-21) within the City of Conway would also be retired in association with the proposed Project. Refer to the Project locations maps (Figure 1.1-1) for a depiction of existing and proposed pipeline facilities associated with the Project.

FIGURE 1.1-1 CENTRAL ARKANSAS PIPELINE ENHANCEMENT PROJECT OVERVIEW MAP



1.1.1 Purpose and Need

The proposed Project will provide for the continued safe, reliable, and efficient transportation of natural gas to the central Arkansas cities and towns of Conway, Mayflower, Maumelle, North Little Rock, and Little Rock. CEGT currently owns and operates multiple, existing pipelines in this region, but the region has experienced substantial residential and commercial development since the original Line B and BT-14 pipeline facilities were constructed. Multiple residences, subdivisions, golf courses, commercial and industrial areas, the University of Central Arkansas campus, and the Conway Airport now encroach on these existing pipelines. The proposed Project provides CEGT with the opportunity to install new pipeline facilities to more efficiently operate its pipeline system, better serve its current customers, and remediate these encroachment issues, while also laying the groundwork for additional pipeline capacity to meet future growth, as needed.

As part of the Project, CEGT will retire from service some existing pipeline assets, while also transferring ownership of some other existing pipeline infrastructure to its distribution affiliate, CERC. Such realignment and repurposing of existing pipeline infrastructure will provide for cost savings and more efficient delivery of natural gas in the Project area, all of which should benefit end use customers.

1.1.2 Location and Description of Facilities

The proposed Project facilities to be constructed by CEGT in association with the Project include:

- Line BT-39: Construction of approximately 28.5 miles of new 12-inch-diameter natural gas pipeline, which will extend from an interconnect with CEGT's existing Lines BT-14 and BM-21 pipelines to the north of State Highway 64 in Faulkner County, Arkansas (milepost ["MP"] 0.00), to CEGT's existing Oak Grove Town Border Station ("TBS") (MP 28.5), which serves the cities of North Little Rock and Little Rock.

- Line BT-40: Construction of approximately 230 linear feet of 4-inch-diameter natural gas pipeline lateral, which will extend from a tap on the proposed Line BT-39 to a new meter station along James Road (i.e., the James Road TBS). The BT-40 pipeline will provide continued service to the area that is currently served from the Crystal Hill TBS, which is located along the segment of Line B to be retired.

- Line BT-41: Construction of approximately 1,400 feet of 4-inch-diameter natural gas pipeline, which will extend from a tap on the proposed Line BT-39 to the existing Morgan TBS, which is located along the segment of Line B to be retired.

- Aboveground facilities: Installation or modification of six aboveground facility sites along the new Line BT-39, BT-40, and BT-41 pipelines, as well as modification of an existing aboveground block valve site along CEGT's Line BT-14, including:

    - Highway 64 TBS: Installation of metering facilities and appurtenances (including pig launcher/receiver, mainline valve ("MLV"), pipeline taps, and overpressure protection) at the origin of the Line BT-39 pipeline.

    - Bryant Road TBS: Installation of metering facilities and appurtenances, as well as a new MLV setting on Line BT-39.

    - Highway 365 TBS: Installation of metering facilities and appurtenances, as well as a MLV setting on Line BT-39.

    - Morgan TBS: Expand and modify the existing TBS through installation of metering facilities and appurtenances at the terminus of the new Line BT-41 pipeline.

- James Road TBS: Installation of metering facilities and appurtenances at the terminus of the new Line BT-40 pipeline.

- Oak Grove TBS: Modification of the existing TBS through installation of metering facilities and appurtenances (including pig receiver, yard piping, valving, and a separator) at the terminus of the new Line BT-39 pipeline.

- Shoemaker Road TBS: Modification and expansion of an existing aboveground block valve site, which is located at the terminus of the segment of Line BT-14 that would be transferred to CEGT's distribution affiliate, to include pig receiver, tap, metering facilities, and appurtenances.

As part of the Project, CEGT will retire from service some existing pipeline assets, while also transferring ownership of some other existing pipeline infrastructure to its distribution affiliate. Where pipeline is proposed to be retired from service in association with the Project, it is CEGT's goal to minimize disruption to local residents and landowners by retiring the pipeline assets in place, thereby minimizing the need for excavation and disturbance of existing land use and land cover. Existing aboveground facilities along the pipeline segments to be retired will be removed. Additionally, it will be necessary to excavate and expose small sections of retired pipeline at some locations, such as improved public road and railway crossings, to facilitate grouting (i.e., injection of flowable cement) and capping of the pipeline. In general, retirement of the existing pipeline facilities will require minimal ground disturbance, and all such ground disturbing activities will be confined to CEGT's existing and maintained pipeline rights-of-way ("ROWs") or facility sites. More specifically, CEGT proposes the retirement or ownership transfer of the following existing facilities:

- Transfer ownership of approximately 12.4 miles of CEGT's existing 12-inch-diameter Line BT-14 pipeline and appurtenant facilities through the City of Conway to CEGT's distribution affiliate, CERC, for continued non-transmission natural gas transportation.

- Transfer ownership of Conway TBS No. 6, which lies along the segment of Line BT-14 that would be transferred to CERC. Aboveground metering facilities will be removed, and the meter lot will be included in the transfer to CERC.

- Retire approximately 21.7 miles of CEGT's existing 10-inch diameter Line B pipeline, extending from the crossing of Cadron Creek on the north side of Conway, to the southern terminus of the pipeline at CEGT's existing Oak Grove TBS, as well as removal of the following aboveground facilities along Line B:

    - Meter, regulation, and appurtenances at seven existing TBS's, including Oak Grove TBS, Crystal Hill TBS, Morgan TBS, Mayflower TBS, Conway TBS #7, Conway TBS #2, Conway TBS #3;

    - Meters, aboveground block valves, and appurtenances at various rural extension, master meter, and domestic tap locations; and

    - Other ancillary facilities, such as rectifiers and pipeline markers.

- Retire the entirety (approximately 1,024 linear feet) of CEGT's existing 6-inch-diameter Line BT-19, which extends between the section of Line BT-14 to be transferred and Conway TBS #1.

- Retire the entirety (approximately 567 linear feet) of CEGT's existing 6-inch-diameter Line BM-1, which extends between the section of Line B to be retired and Conway TBS #1.

- Retire and remove the aboveground check meter, overpressure protection, regulation, and measurement facilities at Conway TBS #1.

- Retire approximately 2,000 linear feet of CEGT's existing 4-inch-diameter Line BM-21 pipeline extending from the new Highway 64 TBS to the Line BM-21 interconnect with CEGT's existing Line B. (The segment of Line BM-21 to be retired parallels and lies entirely within the proposed permanent easement for the new Line BT-39 pipeline).

- Removal of overpressure protection regulation at the Line BM-21 interconnect with Line B.

1.2 LAND REQUIREMENTS

Table 1.2-1 summarizes the construction and operational land requirements for the proposed Project. Temporary land requirements during construction will total approximately 349.9 acres, including the pipeline construction ROW, extra temporary workspaces ("ETWS"), pipe storage/contractor yards, aboveground facility sites, and access roads. Of this total, approximately 142.7 acres will be retained as new, permanent easement associated with operation of the proposed replacement pipeline, aboveground facilities, and permanent access roads. The remaining 207.2 acres will be allowed to revert to pre-construction condition and use following construction. Alignment sheets depicting the temporary work areas and permanent easement are provided in Appendix 1.A. Existing land uses associated with the Project facilities are described in Resource Report 8.

TABLE 1.2-1

CENTRAL ARKANSAS PIPELINE ENHANCEMENT PROJECT
FACILITIES AND LAND REQUIREMENTS

Facility	Mile Post		Length (miles)	Land Requirements (acres)	
	Begin	End		Construction [1]	Operation [2]
BT-39 Pipeline					
Pipeline ROW	0.00	28.50	28.5	243.84	137.94
ETWS	Various	Various	N/A	29.60	0.00
Subtotal BT-39 Pipeline				**273.44**	**137.94**
BT-40 Pipeline					
Pipeline ROW	0.00	0.04	0.04	0.21	0.12
ETWS	Various	Various	N/A	N/A	N/A
Subtotal BT-40 Pipeline				**0.21**	**0.12**
BT-41 Pipeline					
Pipeline ROW	0.00	0.27	0.27	1.55	0.95
ETWS	Various	Various	N/A	0.04	0.00
Subtotal BT-41 Pipeline				**1.59**	**0.95**
Access Roads					
Line BT-39	Various	N/A	17.35	42.06	0.76
Line B	Various	N/A	4.84	11.70	0.00
Subtotal Access Roads				**53.00**	**0.76**
Aboveground Facilities					
Hwy 64 TBS	0.0	N/A	N/A	0.30	0.23
Bryant Road TBS	7.75	N/A	N/A	0.23	0.23
Highway 365 TBS	17.17	N/A	N/A	0.40	0.28

TABLE 1.2-1

**CENTRAL ARKANSAS PIPELINE ENHANCEMENT PROJECT
FACILITIES AND LAND REQUIREMENTS**

Facility	Mile Post		Length (miles)	Land Requirements (acres)	
	Begin	End		Construction [1]	Operation [2]
Morgan TBS[3]	23.62	N/A	N/A	0.21	0.13
James Road TBS	27.43	N/A	N/A	0.13	0.13
Oak Grove TBS[3]	28.5	N/A	N/A	1.74	1.74
Shoemaker Road TBS (Line BT-14)[3]	122.76	N/A	N/A	0.18	0.18
Subtotal Aboveground Facilities				**3.19**	**2.92**
Pipe/Contractor Yard					
Pipe/Contractor Yard #1	14.82	14.97	N/A	5.50	0.00
Pipe/Contractor Yard #2	N/A	N/A	N/A	2.07	0.00
Pipe/Contractor Yard #3	N/A	N/A	N/A	2.07	0.00
Subtotal Pipe/Contractor Yard				**9.64**	**0.00**
Retirement Work Areas					
TBS Sites (7 locations)	N/A	N/A	N/A	0.72	0.00
Road/Railroad Crossing Sites	N/A	N/A	N/A	5.05	0.00
Other Sites[4]	N/A	N/A	N/A	2.30	0.00
Subtotal Retirement Work Areas				**8.07**	**0.00**
Project Totals				**349.90**	**142.69**

[1] Construction acreages reflect a nominal 65- to 75-foot-wide construction ROW for Line BT-39 and a 50-foot-wide construction ROW for Lines BT-40 and BT-41, except in areas encompassed by horizontal directional drill ("HDD") crossings, which will not require clearing of a construction ROW between the HDD entrances and exits. Construction impacts include both temporary and permanent (operational) impacts.

[2] Operation acreages reflect a nominal 40-foot-wide permanent easement for Line BT-39 and a 20-foot-wide permanent easement for Lines BT-40 and BT-41. This total includes approximately 8.67 acres of permanent easement that will be retained in areas encompassed by HDD crossings; however, these areas will not require routine maintenance.

[3] Expansion/modification of existing aboveground facility.

[4] Other Sites include minor aboveground facilities to be removed, including rural extensions, domestic taps, master meters, and block valves.

N/A – Not Applicable

1.2.1 Pipeline Facilities

CEGT proposes to construct the Line BT-39 pipeline using a nominal 65 to 75-foot-wide construction right-of-way ("ROW"), composed of a 40-foot-wide permanent easement and a 25- to 35-foot-wide temporary construction ROW. Lines BT-40 and BT-41 will be constructed with a 50-foot-wide total construction ROW, consisting of a 30-foot-wide permanent easement and a 20-foot-wide temporary construction ROW.

Following construction, the temporary construction ROW will be allowed to revert to preconstruction conditions and uses, and the permanent easement will be maintained as new pipeline ROW. The ROW configuration is depicted in the Project Construction Typical Drawings provided in Appendix 1.A. CEGT anticipates that the construction ROW, along with the ETWS and access roads described in Sections 1.2.2 and 1.2.5, respectively, will provide the

workspace needed to construct the proposed pipeline safely and efficiently.

1.2.2 Extra Temporary Workspace

In addition to the construction ROW, ETWS typically will be required to facilitate construction at public road crossings; at wetland and waterbody crossings; in areas with steep side slopes; for storage of segregated topsoil; at hydrostatic test water withdrawal pump locations; at crossovers and tie-ins; and for staging and fabrication of pipeline sections. ETWS also may be required when special construction techniques will be utilized. For the proposed Project, ETWS are largely necessary for the proposed horizontal directional drills ("HDDs"), and to provide additional space for construction in hilly terrain.

ETWS are identified on the alignment sheets provided in Appendix 1.A, and a list of the required ETWS is provided in Resource Report 8.

1.2.3 Pipe Storage/Contractor Yards

CEGT has preliminarily identified three pipe storage/contractor yards, comprising a total of 9.64 acres, that may be utilized during construction of the Project. Pipe storage/contractor yard #1 is located adjacent to the proposed BT-39 corridor at approximately MP 14.82, at the intersection of the replacement pipeline route and Luker Lane. It has been sited on 5.50 acres of pasture/hay field. Pipe storage/contractor yard #2 is located on the northern end of the proposed BT-39 route. It has been sited on approximately 2.07 acres of fallow/hay field to the west of Conway, approximately 0.4 mile north of MP 5.75. Pipe storage/contractor yard #3 is located approximately 0.8 mile southwest of MP 16.40. It has been sited on approximately 2.07 acres of hay field near Faulkner Meadow Road and an existing rail line.

The pipe storage/contractor yards will be used for equipment, pipe, and material storage, as well as temporary field offices and pipe preparation/field assembly areas. The sites will require only minor modifications to the existing land use. To support equipment laydown and vehicle traffic, a portion of the yards may be graveled, and a temporary security fence may be installed. Use of these areas will be temporary. Following construction, the graveled area will be restored to preconstruction use, or as negotiated with the landowner. Construction and restoration measures within the temporary pipe storage/contractor yards will be conducted in accordance with the January 2003 versions of the FERC *Upland Erosion Control, Revegetation, and Maintenance Plan* ("Plan") and *Wetland and Waterbody Construction and Mitigation Procedures* ("Procedures").

1.2.4 Aboveground Facilities

In addition to the proposed pipelines, CEGT will install or modify six aboveground facility sites along the new Line BT-39, BT-40, and BT-41 pipelines, as well as modification of an existing aboveground facility site along CEGT's existing Line BT-14. These aboveground facilities are all Town Border Stations ("TBS"), as described below. Plot plans depicting the layout of these TBS sites are provided in Volume III of CEGT's application.

Highway 64 TBS (MP 0.00) – This facility will consist of an approximately 100-foot by 100-foot (0.23-acre) area surrounded by chain link fencing at the origin of the Line BT-39 pipeline. An additional 10 to 20-foot temporary workspace will partially surround the perimeter of the proposed facility to allow for construction activities and equipment travel along the edge of the site. The facility will consist of metering facilities and appurtenances, including one 12-inch pig launcher and receiver to allow for the maintenance, cleaning, and inspection of the pipeline. The facility will also contain a 4-inch tap on Line BT-14 for Line BM-21, pressure regulation and overpressure protection for Line BM-21, and a 6-inch tap on Line BT-39 to serve the City of Conway. The meter station will be equipped with communication equipment that will be linked into CEGT's System Control.

Bryant Road TBS (MP 7.75) – This facility will consist of an approximately 100-foot by 100-foot area surrounded by chain link fencing. The facility will include 4-inch metering facilities and appurtenances, and a new 12-inch MLV setting on Line BT-39. The meter station will be equipped with communication equipment that will be linked into CEGT's System Control. The facility will permanently occupy an approximately 0.23-acre fenced area, of which approximately 0.09 acre will overlap the proposed permanent pipeline easement.

Highway 365 TBS (MP 17.17) – This facility will consist of an approximately 100-foot by 120-foot area surrounded by chain link fencing. An additional 25-foot temporary workspace will partially surround the perimeter of the proposed facility to allow for construction activities and equipment travel along the edge of the site. The TBS will include two 2-inch metering facilities and appurtenances to serve the towns of Mayflower and Maumelle, as well as a 12-inch MLV setting on Line BT-39. The meter stations will be equipped with communication equipment that will be linked into CEGT's System Control. The facility will permanently occupy an approximately 0.28-acre fenced area, of which approximately 0.07 acre will overlap the proposed permanent pipeline easement.

Morgan TBS (MP 23.62) – In addition to removal of the existing Line B metering, regulation, and appurtenant facilities, the existing Morgan TBS will be modified through the installation of 2-inch metering facilities and appurtenances. The Morgan TBS is located at the terminus of the proposed Line BT-41 pipeline. The facility will consist of a 75-foot by 75-foot (0.13 acre) area surrounded by chain link fencing area. These modifications will require an expansion of the existing facility fence line.

James Road TBS (MP 27.43) - This facility will consist of an approximately 75-foot by 75-foot (0.13 acre) area surrounded by chain link fencing. The TBS will include a 2-inch metering facility and appurtenances at the terminus of the proposed Line BT-40 pipeline. This facility will serve to provide replacement service for the existing Crystal Hill TBS, which will be removed in association with retirement of Line B as part of the Project. The meter station will be equipped with communication equipment that will be linked into CEGT's System Control.

Oak Grove TBS (MP 28.50) – In addition to removal of the existing Line B metering, regulation and appurtenant facilities, the existing Oak Grove TBS will be modified for use on Line BT-39. This TBS is located at the terminus of the new, Line BT-39 pipeline. Modifications will include the installation of two 6-inch metering facilities, a 12-inch receiver and valving, separator, and appurtenances. This TBS occupies a 390-foot by 200-foot area (1.74 acre) area surrounded by chain link fencing. There will be no change in the existing fence line as a result of this work.

Shoemaker TBS – An existing aboveground block valve site, which is located at the terminus of the segment of Line BT-14 to be transferred to CERC, will be expanded to an 80-foot by 100-foot area surrounded by chain link fencing. The TBS will include 4-inch metering facilities and appurtenances, and a new 12-inch pig receiver. The facility will permanently occupy an approximately 0.18-acre fenced area. The meter station will be equipped with communication equipment that will be linked into CEGT's System Control.

1.2.5 Access Roads

A detailed list of the proposed access roads and their associated impacts are provided in Resource Report 8. Where possible, CEGT intends to use existing ROWs and public and private roads for access to the construction ROW. CEGT proposes to use 65 existing roads, totaling 42.06 acres, to provide access to the proposed pipeline ROWs and aboveground facilities during construction. Of these, 63 roads are temporary access roads to obtain access to the construction ROWs; one (1) is a new, permanent road constructed to provide permanent access to the Bryant Road TBS; and one (1) is an existing, permanent road that provides access to the existing Oak Grove TBS.

Associated with the Line B retirement activities, CEGT proposes to use 37 existing access roads, encompassing approximately 11.70 acres, to provide temporary access to the proposed retirement work areas during construction.

1.2.6 Retirement Work Areas

As part of the Project, CEGT will retire some existing pipeline assets (Lines BM-1, BT-19, and portions of Line B and BM-21), and CEGT will realign ownership of a segment of Line BT-14 to its distribution affiliate, as outlined in Section 1.1.2 above. The retired pipelines will be cut, capped, and grouted at improved road and railway crossings.

In general, abandonment of the existing pipeline facilities will require minimal ground disturbance at each of the locations where the pipeline will be cut, capped, and grouted (estimated at an approximately 50-foot by 50-foot work area), and all such ground disturbing activities will be confined to CEGT's existing and maintained ROW.

Existing aboveground facilities, as well as other ancillary facilities such as rectifiers and pipeline markers, along the pipeline segments to be retired will be removed. In general, removal of the existing aboveground and ancillary facilities will require minimal ground disturbance, and all such ground disturbing activities will be confined to CEGT's existing and maintained pipeline ROWs or facility sites. Approximately 8.07 acres will be temporarily disturbed for removal of these facilities. Retirement work areas are depicted on USGS topographic quadrangle maps provided in Appendix 1.A. The Project Construction Typical Drawings provided in Appendix 1.A depict the activities associated with the removal of any retirement work areas.

Following pipeline retirement activities, CEGT will retain rights to the permanent easement associated with the existing Lines B, BM-21, BM-1, and BT-19 along the full length of the retired pipelines. As with other pipeline easements held by CEGT, the permanent easements associated with these pipelines are a corporate asset, and CEGT intends to retain that easement following the proposed pipeline retirement activities. CEGT retains the right to use the easement in the future, subject to the specific terms of the associated easements and pursuant to the laws of the State of Arkansas. Because the existing Line BT-14 pipeline will be transferred to new ownership (CEGT's distribution affiliate), CEGT will relinquish all rights to the permanent easement associated with this pipeline, but the pipeline easement will continue to be used for transport of natural gas.

1.3 CONSTRUCTION SCHEDULE AND WORKFORCE

Construction of the proposed Project will commence in March 2014, subject to the receipt of necessary permits and approvals, and it is anticipated that the proposed facilities will be placed in service by October 2014.

Construction of the Project will require one to two construction spreads and will require a peak temporary workforce of approximately 150 workers. Specific numbers working at any particular time will depend on the particular mix of activities underway. During construction, non-local workers typically compose about 85 percent of the workforce, but local workers will be employed for construction when available and are anticipated to constitute about 15 percent of the required workforce. No new permanent employees are expected to be hired for operation of the Project.

1.4 CONSTRUCTION PROCEDURES

The maximum allowable operating pressure of the proposed replacement pipeline will be 901 pounds per square inch gauge. The proposed facilities will be designed, constructed, tested, operated, and maintained to conform with or exceed the requirements of the U.S. Department of Transportation ("DOT") regulations under 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*; the siting and maintenance requirements in 18 CFR 380.15; and other applicable federal and state regulations.

1.4.1 General Pipeline Construction Procedures

Construction of the proposed pipeline generally will follow industry-accepted practices and procedures, as described below. In the typical pipeline construction scenario (illustrated in the Project Construction Typical Drawings provided in Appendix 1.A), the construction spread (crew and equipment) proceeds along the pipeline right-of-way in one continuous operation. As the spread moves along, construction at any single point along the pipeline, from initial surveying and clearing to backfilling and finish grading, will last approximately 6 to 10 weeks. The entire process will be coordinated in such a manner as to minimize the total time a tract of land is disturbed and therefore exposed to erosion and temporarily precluded from normal use. Construction of the proposed Project facilities will be conducted in accordance with the January 2003 versions of the FERC Plan and Procedures and the requirements and conditions of applicable permits. CEGT will adhere to the FERC Plan and Procedures to the greatest extent possible; where deviations from the Plan and Procedures are requested, they are necessary for site-specific reasons, as described in Resource Report 7 and Resource Report 2.

1.4.1.1 Surveying and Staking

Affected landowners will be notified before the preconstruction survey and staking are conducted. After these notifications, a crew will survey and stake the centerline of the pipeline, construction ROW, feature crossings, and ETWSs. Wetland boundaries and other environmentally sensitive areas also will be marked at this time.

1.4.1.2 Clearing and Grading

Prior to the commencement of ground-disturbing activities, CEGT's contractor will coordinate with the Arkansas One-Call system to have existing underground utilities (i.e., cables, conduits, and pipelines) located, identified, and flagged to prevent accidental damage during pipeline construction. Once this process is completed, vegetation will be cut and cleared from the construction work area. Large obstacles, such as trees, rocks, brush, and logs will be removed. Timber will be removed only where necessary for construction purposes. Timber and other vegetative debris will be burned or otherwise disposed of in accordance with applicable local regulations. Burning, if used, will be conducted in such a manner as to minimize fire hazard and prevent heat damage to surrounding vegetation. Fences will be cut and braced along the right-of-way, and temporary wire gaps or gates will be installed to control livestock and limit public access.

The construction workspace then will be graded where, necessary, to create a reasonably level working surface to allow safe passage of equipment. In accordance with the FERC Plan, temporary erosion and sediment controls will be installed immediately after initial disturbance of the soils, where necessary, and will be maintained throughout construction to minimize erosion.

1.4.1.3 Trenching

The pipeline trench will be excavated with a rotary trenching machine, a track-mounted backhoe, or similar equipment. The trench will be excavated to a depth sufficient to provide the cover required by DOT specifications. Typically, the trench will be deep enough to provide a minimum of three feet of cover over the pipeline. Additional trench width may be required to maintain stability of trench walls for the safety of pipeline workers and equipment. Where actively cultivated areas are present along the route at the time of construction, depth of cover will be increased, such that the top of the pipe is a minimum of four feet below existing grade. In agricultural and residential areas, subsoil will be stockpiled separately from topsoil. Generally, conserved topsoil and excavated soils will be stockpiled along one side of the ROW (the spoil side), allowing the other side (the working side) to be used for access, material transport, and pipe assembly. In limited instances, topsoil may be stockpiled along the edge of both sides of the construction ROW.

1.4.1.4 Pipe Stringing, Bending, and Welding

Steel pipe for the pipeline will be procured in 40- to 60-foot lengths, or joints, that will be protected with a fusion-bonded epoxy external coating applied at the factory (the beveled ends will be left uncoated for welding) and shipped to the pipe/contractor yard. The individual joints of pipe will be transported to the construction ROW by truck and placed along the working side of the excavated trench (opposite the spoil side) in a single, continuous line easily accessible to construction personnel. This placement will allow the subsequent line-up and welding operations to proceed efficiently. At waterbody and road crossings, the amount of pipe required to span the crossings will be stockpiled in temporary work areas on one or both sides of the features.

Most of the pipe will be delivered to the Project site in straight sections. Some bending of the pipe will be required to allow the pipeline to follow the natural grade changes and direction changes of the right-of-way. Selected joints may be bent at the factory prior to delivery, in accordance with engineering specifications. Other pipe joints will be field bent by track-mounted hydraulic bending machines, as necessary, prior to line-up and welding.

Following stringing and bending, the joints of pipe will be placed on temporary supports adjacent to the trench. The ends will be aligned carefully and welded together using multiple passes for a full penetration weld. All welds will be x-rayed to ensure structural integrity and compliance with the applicable DOT regulations. Welds that do not meet established specifications will be repaired or removed. Once the welds are approved, the welded joints will be

coated with a protective coating, and the entire pipeline will be inspected visually and electronically for any faults, scratches, or other damage and inspected for coating defects. Any damage will be repaired before the pipe is lowered into the trench.

1.4.1.5 Lowering-In and Backfill

Prior to lowering the pipe, the trench will be inspected to ensure that it is free of rocks and other debris that could damage the pipe or its coating. The pipe and trench will be inspected to ensure that the pipe and trench configurations are compatible, after which the completed section of pipe will be lifted off the temporary supports and lowered into the trench by side-boom tractors. After the pipe is lowered in, the trench will be backfilled with previously excavated materials using bladed equipment or backhoes. Where the previously excavated material contains large rocks or other materials that could damage the pipe or coating, clean fill or protective padding will be placed around the pipe prior to backfilling. Topsoil will not be used for pipeline padding. Following backfill, a small crown of material may be left over the pipeline to account for any future soil settlement that might occur.

1.4.1.6 Hydrostatic Testing and Final Tie In

Following backfilling of the trench, the completed pipeline will be hydrostatically tested according to DOT specifications to ensure structural integrity. Each pipeline segment to be installed by HDD will be pre-tested prior to installation. Test segments of the pipeline will be capped, filled with water, and pressurized. Any loss of pressure that cannot be attributed to other factors, such as temperature changes, will be investigated. Any leaks detected will be repaired and the segment retested. Upon completion of the test, the water may be discharged, or it may be pumped to the next segment for testing.

Planned sources, volumes, and discharge locations of hydrostatic test water are provided in Resource Report 2. Upon completion of each test, the water will be discharged in accordance with applicable permits. It is anticipated that hydrostatic test water will be discharged overland along the edges of the construction right-of-way using energy dissipation devices to minimize erosion and sedimentation.

Hydrostatic test water will contact only new pipe, and no chemicals or biocides will be added to the test water. The water will be sampled prior to discharge and tested in accordance with permit requirements to determine suitability for discharge. If treatment of hydrostatic test water is found to be required, treatment procedures will be implemented prior to discharge.

Once a segment of pipe has been successfully tested and dried, the test cap and manifold will be removed, and the pipe segment will be connected to the remainder of the pipeline. After completion of hydrostatic testing, the new pipeline will be cleaned and dried using pipeline pigs that are propelled through the pipeline with compressed air. Once cleaned and purged of air, the pipeline will be packed with natural gas.

1.4.1.7 Cleanup and Restoration

After the trench has been backfilled, work areas will be final graded and restored as closely as possible to preconstruction contours, in accordance with the FERC Plan and Procedures. Surplus construction material and debris will be removed and disposed of at appropriate disposal sites. Re-establishment of vegetation will begin within six days of the completion of final grading, unless otherwise recommended by soil conservation authorities. To minimize future settling, the trench will be compacted with tracked construction equipment. Permanent erosion controls will be installed within the ROW, as needed, during the restoration phase. Private and public property, such as fences, gates, driveways, and roads, disturbed by the pipeline construction will be restored to original or better condition. Pipeline markers and/or warning signs will be installed along the pipeline centerline at specified intervals to identify the location of the pipe.

1.4.2 Special Pipeline Construction Techniques

1.4.2.1 Wetland Construction Techniques

Construction across wetlands will be in accordance with the FERC Procedures, the modifications requested by CEGT, as approved, and other applicable permits. The wetland crossing methods and mitigation measures identified in the FERC Procedures are designed to minimize the extent and duration of construction-related disturbance within wetlands. Wetlands affected by the Project are described in Resource Report 2.

Wetland boundaries will be clearly marked in the field prior to construction activities. Woody vegetation within the construction ROW will be cut off at ground level and removed from the wetlands, leaving the root systems intact. The pulling of tree stumps and grading activities will be limited to the area directly over the trench line, unless it is determined that safety-related construction constraints require grading or the removal of tree stumps from the working side of the construction ROW. Temporary erosion control devices will be installed, as necessary, immediately after initial disturbance of wetlands or adjacent upland areas to prevent sediment flow into wetlands and will be maintained until revegetation is complete. Trench plugs will be installed, as necessary, to maintain wetland hydrology. Construction equipment operating in wetland areas will be limited to that needed to clear the construction ROW, dig the trench, fabricate and install the pipeline, backfill the trench, and restore the construction ROW.

Topsoil will be stripped from the area directly over the trench line to a maximum depth of 12 inches in unsaturated soils and stockpiled separately from the subsoil. The segregated topsoil will be restored to its original location immediately following installation of the pipe and backfilling of the trench. Materials, such as timber mats, placed in the wetlands during construction will be removed during final clean-up, and the preconstruction contours of the wetland will be restored. Any required permanent erosion control measures then will be installed, and disturbed areas within the wetland will be temporarily stabilized with a cover species, such as annual ryegrass, to protect the wetland soils from erosion. Wetland areas then will be allowed to return to preconstruction conditions, using the original seed stock contained the in the conserved topsoil layer.

The specific crossing procedures used to install the pipeline across wetlands will depend on the level of soil stability and saturation encountered during construction. Construction across unsaturated wetlands (those wetlands without standing water or saturated soils) that can support construction equipment will be conducted in a manner similar to the upland construction procedures described above, with the pipeline segment to be installed through the wetland assembled adjacent to the trench (see Project Construction Typical Drawings provided in Appendix 1.A). In areas that are proposed for this conventional open ditch construction, but where site- specific conditions may not support construction equipment, construction mats will be used to minimize disturbance to wetland hydrology and maintain soil structure. The push/pull method of construction may be used in inundated or saturated conditions where the soils and hydrology cannot support conventional pipe laying equipment or in areas that have significant quantities of water that would allow for pipe to be floated through the open ditch. With this method, construction and excavation equipment will work from temporary work surfaces, and a prefabricated pipeline segment will be pulled, pushed, or floated into position.

1.4.2.2 Waterbody Crossings

CEGT will implement the FERC Procedures to minimize water quality impacts on waterbodies during construction. As detailed in Resource Report 2, which includes a list of waterbodies crossed by the proposed pipeline route, the majority of the waterbodies crossed by the proposed pipeline route are minor waterbodies (less than 10 feet wide at the water's edge). Each of these waterbodies will be crossed using the open-cut crossing method, which will be accomplished through open trench excavation with equipment operating from the banks. Backhoe-type excavators will be used to open the trench across the channel. The trench will be excavated to sufficient depth to allow for required depth of cover (generally at least 60 inches for waterbody crossings). During these operations, flow will be maintained at waterbody crossings in accordance with the FERC Procedures. At each crossing, trench spoil will be placed on the bank above the high water mark for use as backfill. A prefabricated segment of pipeline will then be placed into the trench. Concrete coating or river set-on weights will be utilized, as needed, to provide negative buoyancy. Once the trench is backfilled, the banks will be stabilized. Stabilization techniques could include seeding,

installation of erosion control blankets, or installation of riprap materials. Excavated material not required for backfill will be removed and disposed of at an upland disposal site. A typical stream crossing configuration is illustrated in the Project Construction Typical Drawings provided in Appendix 1.A.

Dry Crossings

Although dry crossing methods are not proposed for this Project, they may be considered if warranted by site-specific conditions at the time of construction. Dry crossing methods may include the flume method and the dam and pump method.

The flume crossing method involves temporarily directing the stream flow through one or more flume pipes that are placed over the area to be excavated. This method allows for trenching activities to occur under relatively dry conditions beneath the flume pipes, avoiding disruption to water flow. With this method, stream flow is directed through the flumes by constructing two bulkheads, which may consist of sand bags, plastic dams, or other materials. Following completion of pipeline installation, backfill of the trench, and restoration of the stream banks, the bulkheads and flume pipes are removed.

The dam and pump crossing method involves installing temporary dams upstream and downstream of a waterbody crossing. The dams typically are constructed of sandbags and plastic sheeting. Following installation of the dams, appropriately sized pumps are used to dewater the excavation area and to transport the stream flow around the construction work area. Intake screens are installed at the pump inlets to prevent entrainment of aquatic organisms, and energy dissipating devices are installed at the pump discharge point to minimize erosion and stream bed scour. Trench excavation and pipeline installation then take place in the dewatered portion of the waterbody channel. Following completion of pipeline installation, backfill of the trench, and restoration of stream banks, the temporary dams are removed, and flow through the construction work area is restored.

Horizontal Directional Drill (HDD) Crossings

HDD is a trenchless crossing method that typically is used to avoid direct impacts to sensitive resources (e.g., waterbodies and wetlands) or infrastructure (e.g., roads and railways) by directionally drilling beneath them (see Project Construction Typical Drawings in Appendix 1.A). HDD installation typically is carried out in three stages: (1) directional drilling of a small-diameter pilot hole; (2) enlarging the pilot hole (reaming) to a sufficient diameter to accommodate the pipeline; and (3) pulling the prefabricated pipeline, or pull string, into the enlarged bore hole. Drilling fluid, consisting of bentonite clay and water, is circulated through the bore during pilot hole drilling and the reaming process, then collected at the surface, processed to remove spoils, and reused. Excess spoils and drilling fluid will be disposed of at an approved location in accordance with regulatory requirements, agreements, and permit conditions. CEGT will not use any potentially toxic drilling fluid additives.

Table 1.4-1 summarizes the locations of the proposed HDD crossings for this Project.

TABLE 1.4-1

CENTRAL ARKANSAS PIPELINE ENHANCEMENT PROJECT
PROPOSED HORIZONTAL DIRECTIONAL DRILL LOCATIONS

Drill Location	Milepost		Length (feet)
	Entry	Exit	
Hwy 64 and Railroad	0.29	0.38	475
Tucker Creek	6.13	6.57	2,323
Luker Lane and UNT to Beaverdam Creek	14.97	15.16	1,003
Center Street and Railroad	16.23	16.32	475
Tributary to Palarm Creek	17.31	17.60	1,531
Palarm Creek	17.82	18.10	1,478
Borrow Pit	18.47	18.73	1,373
Interstate-40	20.56	20.87	1,637

For most of the proposed HDD crossings, electric-grid guide wires, which are required to guide the drill bit (by way of electromagnetic sensors), will be hand-laid along the pipeline right-of-way to help guide the drill bit along the predetermined HDD route. In thickly vegetated areas, a line approximately 2 to 3 feet wide may be cut using hand tools to lay these electric-grid guide wires, resulting in minimal ground and vegetation disturbance. No large-diameter vegetation will be cut to install the guide wire.

Although the HDD method typically avoids impacts on water quality by precluding disturbance of the waterbody bed and banks, an inadvertent release of drilling fluid (sometimes referred to as a "frac-out") could occur if drilling fluids escape the drill bore hole and are forced through the subsurface substrate to the ground surface. Frac-outs occur most often in highly permeable soils during the entrance and exit phases of the pilot hole drill, because this is when the greatest pressures are exerted on the bore walls in shallow soils. In order to minimize potential impacts of inadvertent releases of drilling fluid, CEGT has prepared a Directional Drilling Contingency Plan ("DDCP"), which is provided in Appendix 1.B. The DDCP describes the procedures that will be used to monitor, contain, and clean up any potential releases of drilling fluid. Implementation of the procedures described in the DDCP will minimize the impacts of any inadvertent release of drilling fluid.

1.4.2.3 Agricultural Areas

Where agricultural areas are present at the time of construction, CEGT will implement special construction procedures to minimize impacts in agricultural land in accordance with the FERC Plan. CEGT will perform topsoil segregation in actively cultivated agricultural lands, which include permanent or rotated croplands, hayfields, or improved pastures, and in other areas at the request of resource agencies or landowners. During construction, the natural flow patterns of fields will be maintained by providing breaks in topsoil and subsoil stockpiles. During cleanup and restoration, disturbed areas will be finish-graded and restored as closely as possible to preconstruction contours. The topsoil and subsoil in agricultural areas also will be tested for compaction, and any severely compacted areas will be repaired. Prior to construction, landowners will be contacted to locate existing drainage structures and irrigation facilities. Water flow in crop irrigation systems will be maintained, unless shutoff is coordinated with the affected parties.

1.4.2.4 Road and Railroad Crossings

Construction across roads and railways will be conducted in accordance with the FERC Plan and the requirements of applicable crossing permits and approvals. As indicated in **Table 1.4-1**, construction of the pipeline across Highway 64/Railroad, Luker Lane, Center Street/Railroad, and Interstate 40 will be conducted by HDD. Construction across other major paved highways, along which traffic cannot be interrupted, will be accomplished by horizontally

boring under the roadbed. Pipeline crossings of lightly traveled paved, unimproved rural roads, and drives typically will be accomplished by conventional, open-cut installation, then restored to preconstruction condition. If an open-cut road requires extensive construction time, provisions will be made for detours or other measures to permit traffic flow during construction. In the absence of a reasonable detour, construction across the roadway will be staged to allow at least one lane of traffic to remain open, except for the limited periods required for installing the pipeline. The pipeline will be buried to a depth of at least five feet below the road surface and will be designed to withstand anticipated external loadings.

1.4.2.5 Residential Areas

Construction near residential areas will be conducted to ensure that construction activities minimize any adverse impacts on residences and that cleanup is quick and thorough. Where there are residences in close proximity to the construction work space, CEGT will reduce pipeline offset or construction work space areas, as practicable, to minimize inconvenience to property owners. If construction requires the removal of private property features, such as gates or fences, the landowner or tenant will be notified prior to the action. Following completion of major construction, the property will be restored as requested by the landowner, insofar as the landowner's requirements are compatible with CEGT's standards regarding right-of-way restoration and maintenance. Property restoration will be in accordance with any agreements between CEGT and the landowner.

1.4.2.6 Blasting

No blasting is anticipated for this Project. In the unlikely event that blasting is necessary to excavate the trench, CEGT will conduct blasting in accordance with pertinent regulations. Care will be taken to prevent damage to underground structures (e.g., cables, conduits, and pipelines) or to springs, water wells, or other water sources. Blasting mats or soil cover will be used, as necessary, to prevent the scattering of loose rock. Any blasting will be conducted during daylight hours and will not begin until occupants of nearby buildings, stores, residences, or places of business have been notified. See Resource Report 6 for additional discussion of procedures to be used should blasting be necessary.

1.4.2.7 Rugged Terrain

In areas of side-slopes and rolling terrain, construction of some portions of the proposed Project may require specialized "two-tone" construction techniques to establish safe working conditions. Under the two-tone construction technique, the uphill side of the construction right-of-way will be cut during grading. The material removed from the cut will be used to fill the downhill side of the construction right-of-way to provide a safe and level surface from which to operate heavy equipment. The pipeline trench then will be excavated along the newly graded right-of-way. For two-toned rights-of-way, the height of the construction (side) tone is usually as close to the height of the ditch as possible and the travel tone will be higher or lower than the height of the construction tone, depending on the area's natural grade. The two-tone approach will be used to reduce the amount of dirt and rock that will be moved and the associated environmental impacts. Following backfill and final grading, the original contours will be restored as near as practicable and stabilized, following the FERC Plan and Procedures.

1.5 IMPLEMENTATION

To ensure that construction of the proposed facilities will comply with mitigation measures identified in these Resource Reports, the Commission's requirements for the proposed Project, and the requirements of other federal and state permitting agencies, CEGT will include, whenever possible, implementation details in its construction drawings and specifications. CEGT's selected contractors will receive copies of specifications and a Construction Drawing Package containing, among other things, pipeline and equipment drawings designated as being approved for construction, as well as environmental permits, certificates, and/or clearances. In order to solicit accurate bids for pipeline construction, CEGT will provide specifications and advance versions of the Construction Drawing Package to prospective pipeline contractors.

To protect surface and groundwater resources in construction areas from inadvertent releases of fuel and other mechanical fluids, CEGT environmental staff have developed a Spill Prevention, Control, and Countermeasure Plan ("SPCC Plan"), which is provided as Appendix 1.C to this Resource Report. CEGT will conduct training for its field construction personnel and construction contractor's personnel prior to and during construction of the proposed Project. This training will focus primarily on implementation of the FERC Plan and Procedures and will include instructions on the implementation of the SPCC Plan and other mitigation measures, as appropriate.

For purposes of quality assurance and compliance with mitigation measures, other applicable regulatory requirements, and CEGT specifications, CEGT will be represented by at least one Environmental Inspector ("EI") per construction spread during construction. The EI's duties will be consistent with those contained in Section II.B (Responsibilities of the Environmental Inspector) of the FERC Plan and will include verifying compliance with environmental conditions of the Commission's Certificate, CEGT's environmental designs and specifications, and environmental conditions of other permits or authorizations. An ample number of copies of the Construction Drawing Package will be distributed to CEGT's Inspectors and to the contractors' supervisory personnel. If the contractor's performance is unsatisfactory, the terms of the contract will allow CEGT to stop work in progress and cause a contractor to begin remedial work.

1.6 OPERATIONS AND MAINTENANCE

CEGT will operate and maintain the proposed Project facilities in compliance with the DOT regulations provided at 49 CFR 192, the Commission's guidance at 18 CFR 380.15, and maintenance provisions of the FERC Plan and Procedures. Operational activity on the pipeline will be limited primarily to maintenance of the ROW and inspection, repair, and cleaning of the pipeline itself.

Periodic aerial and ground inspections by pipeline personnel will identify soil erosion, which may expose the pipe, conditions of the vegetative cover and erosion control measures, unauthorized encroachment on the right-of-way, such as buildings and other substantial structures, and other conditions which could present a safety hazard or require preventative maintenance or repairs. The pipeline cathodic protection system also will be monitored and inspected periodically to ensure adequate corrosion protection. Appropriate responses to conditions observed during inspection will be taken, as necessary.

Vegetation on the permanent ROW will be maintained by mowing, cutting, and trimming. The ROW will be allowed to revegetate; however, large brush and trees will be removed periodically, because trees or deep-rooted shrubs could damage the pipeline's protective coating, obscure periodic surveillance, or interfere with potential repairs. In wetlands and in the required 25-foot vegetation maintenance buffer adjacent to waterbodies, only a 10-foot strip centered on the pipeline will be mowed. In addition, any trees that are located within 15 feet of the pipeline in wetlands and are greater than 15 feet in height will be cut and removed from the right-of-way. The frequency of vegetation maintenance will depend upon the vegetation growth rate, but vegetation maintenance will not be performed more frequently than allowed by the FERC Plan.

The pipeline facilities will be marked clearly at crossings of roads, railroads, and other key points. The markers will indicate clearly the presence of the pipeline and provide a telephone number and address where a company representative can be reached in the event of an emergency or prior to any excavation in the area of the pipeline by a third party. CEGT is a member of the One-Call and related pre-excavation notification organizations in the states in which it operates.

1.7 FUTURE PLANS AND ABANDONMENT

Portions of CEGT's existing Line B and BM-21 pipelines, as well as the entirety of CEGT's existing Lines BM-1 and BT-19, will be retired in association with the Project, and the ownership Line BT-14 will be transferred to CEGT's distribution affiliate. With these exceptions, CEGT has no foreseeable plans for future expansion or abandonment of the proposed Project facilities described in these Resource Reports. At the end of the useful life of the proposed facilities, CEGT will obtain the necessary permission to retire them.

1.8 NON-JURISDICTIONAL FACILITIES

No non-jurisdictional facilities will be constructed to support the proposed Project, nor will any be constructed or as a result of the proposed Project. Given that there are no non-jurisdictional facilities proposed as a consequence of the proposed Project, Project-related environmental impacts will be limited to those direct impacts described in these Resource Reports.

1.9 PERMITS AND APPROVALS

Construction, operation, and maintenance of the proposed Project will require permits and regulatory approvals from various federal, state, and local agencies, as well as consultations with Native American tribes and other interested parties (Table 1.9-1). Permit applications will be submitted in a timely manner, so as to provide sufficient review and processing times for the jurisdictional agencies.

Consultations have been initiated with the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, and the Arkansas Natural Heritage Commission, as well as other state and/or federal environmental agencies. These and other consultations will continue throughout the proposed Project review and permitting period. Agency correspondence to date is included as Appendix 1.D.

TABLE 1.9-1

ENVIRONMENTAL PERMITS, APPROVALS, AND CLEARANCES

Agency	Permit/Approval/Clearance	Submittal Date (Anticipated)	Approval Date (Anticipated)
Federal			
Federal Energy Regulatory Commission	Certificate of Public Convenience and Necessity under Section 7(c) of the Natural Gas Act; 60-day Prior Notice	(September 2013)	(February 2014)
U.S. Army Corps of Engineers ("USACE") – Little Rock District	Clean Water Act ("CWA") Section 404 Permit	(September 2013)	(December 2013)
U.S. Fish and Wildlife Service – Conway Ecological Services Field Office	Consultations under Section 7 of the Endangered Species Act ("ESA"); the Migratory Bird Treaty Act, Bald and Gold Eagle Protection Act, and the Fish and Wildlife Coordination Act	April 2013 – information request (July 2013 – informal consultation)	(August 2013)
U.S. Environmental Protection Agency – Region 6	Compliance with Sections 401, 402, and 404 of the CWA. Water quality certification authority has been delegated to the state.	N/A	N/A

TABLE 1.9-1

ENVIRONMENTAL PERMITS, APPROVALS, AND CLEARANCES

Agency	Permit/Approval/Clearance	Submittal Date (Anticipated)	Approval Date (Anticipated)
Arkansas			
Arkansas Department of Environmental Quality	CWA Section 401 Water Quality Certification	(September 2013)	(December 2013)
	Hydrostatic Test Water Discharge General Permit (NPDES General Permit ARG67)	(September 2013)	(May 2014)
	Short Term Activity Authorizations for in-stream construction activities	(October 2013)	(November 2014)
Arkansas Natural Resources Commission	Notifications regarding surface water withdrawals	(Following Withdrawal)	(Following Withdrawal)
Arkansas Natural Heritage Commission	Consultations regarding special status species and habitats	October 2012 – initial consult (May 2013 – updated consult)	October 2012 – initial consult (June 2013 – updated consult)
Arkansas Historic Preservation Program	Consultations under Section 106 of the NHPA	(May 2013)	(June 2013)
Native American Tribes	Tribal Consultation	December 2012	(June 2013)

1.10 LANDOWNERS

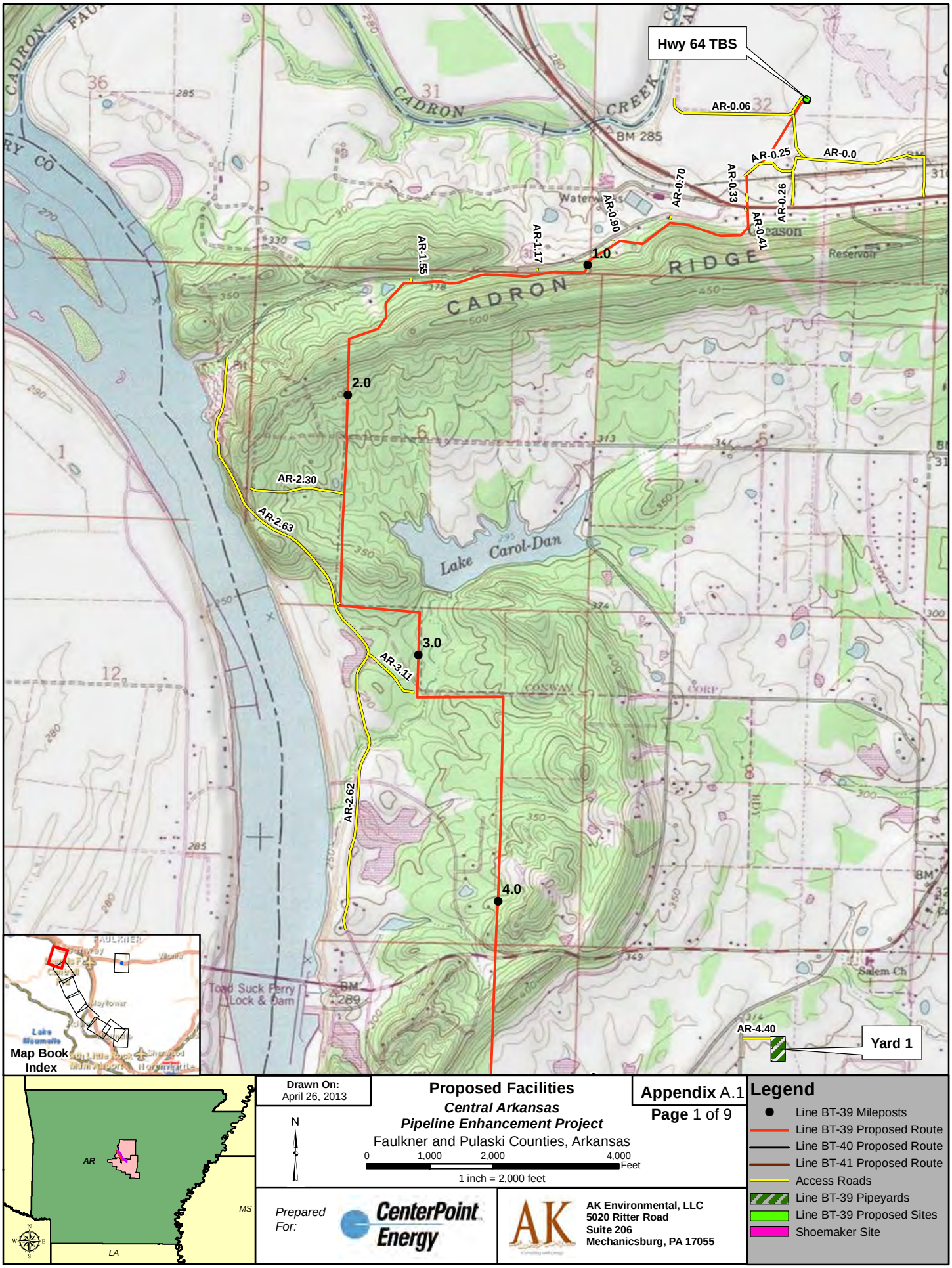
As specified in 18 CFR 157.6(d), the names and addresses of all affected landowners are included as Appendix 1.E in Volume II, filed concurrently pursuant to 18 CFR 380.12 of the Commission's regulations. CEGT has notified each affected landowner of the proposed Project. As required by section 157.6(d), CEGT will also make a good faith effort to again notify each affected landowner once the Commission issues a notice of CEGT's application for the Project.

APPENDIX 1.A

PROJECT MAPS AND DRAWINGS

- USGS Topographic Quadrangle Route Maps
- Project Alignment Sheets
- Project Construction Typical Drawings
- Aboveground Facility Station Plot Plans (filed in Volume III as Critical Energy Infrastructure Information)
- Horizontal Directional Drill Plans
- Site Specific Plans for ETWS within 50 feet of Wetlands and Waterbodies

USGS TOPOGRAPHIC QUADRANGLE ROUTE MAPS – PROPOSED FACILITIES



Drawn On: April 26, 2013

Proposed Facilities

Central Arkansas
Pipeline Enhancement Project

Faulkner and Pulaski Counties, Arkansas

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1 inch = 2,000 feet

Appendix A.1

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Prepared For: CenterPoint Energy

AK Environmental, LLC
5020 Ritter Road
Suite 206
Mechanicsburg, PA 17055

Legend

- Line BT-39 Mileposts
- Line BT-39 Proposed Route
- Line BT-40 Proposed Route
- Line BT-41 Proposed Route
- Access Roads
- Line BT-39 Pipeyards
- Line BT-39 Proposed Sites
- Shoemaker Site


AR-4.40
Yard 1
AR-4.89
5.0
AR-5.21
AR-5.50
6.0
Creek
Tucker
Ridge
Donald
7.0
Bryant Road TBS
AR-7.75
AR-7.82
8.0
AR-8.10
Tupelo
Shale Pit
Belk Corner
Trailer Park
Sewage Disposal Pond
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New Bethel Ch
Bethel Ch
Harris Cem
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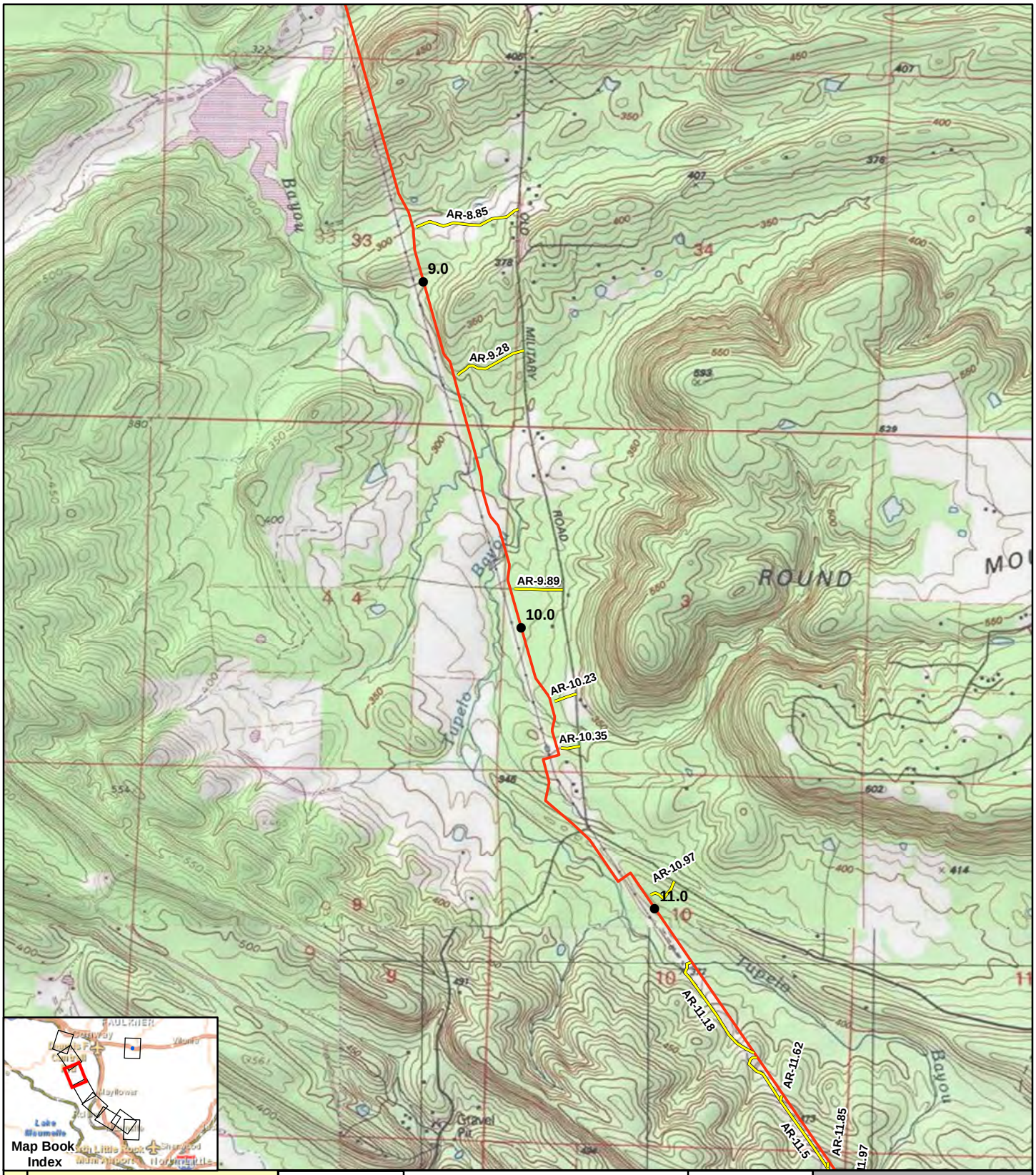

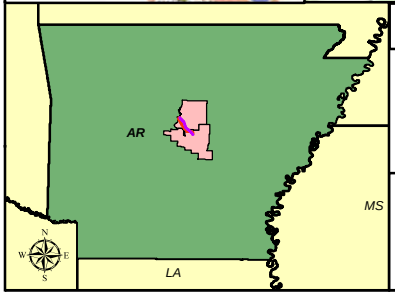

Drawn On:
April 26, 2013

Proposed Facilities
Central Arkansas
Pipeline Enhancement Project
Faulkner and Pulaski Counties, Arkansas

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1 inch = 2,000 feet

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Legend
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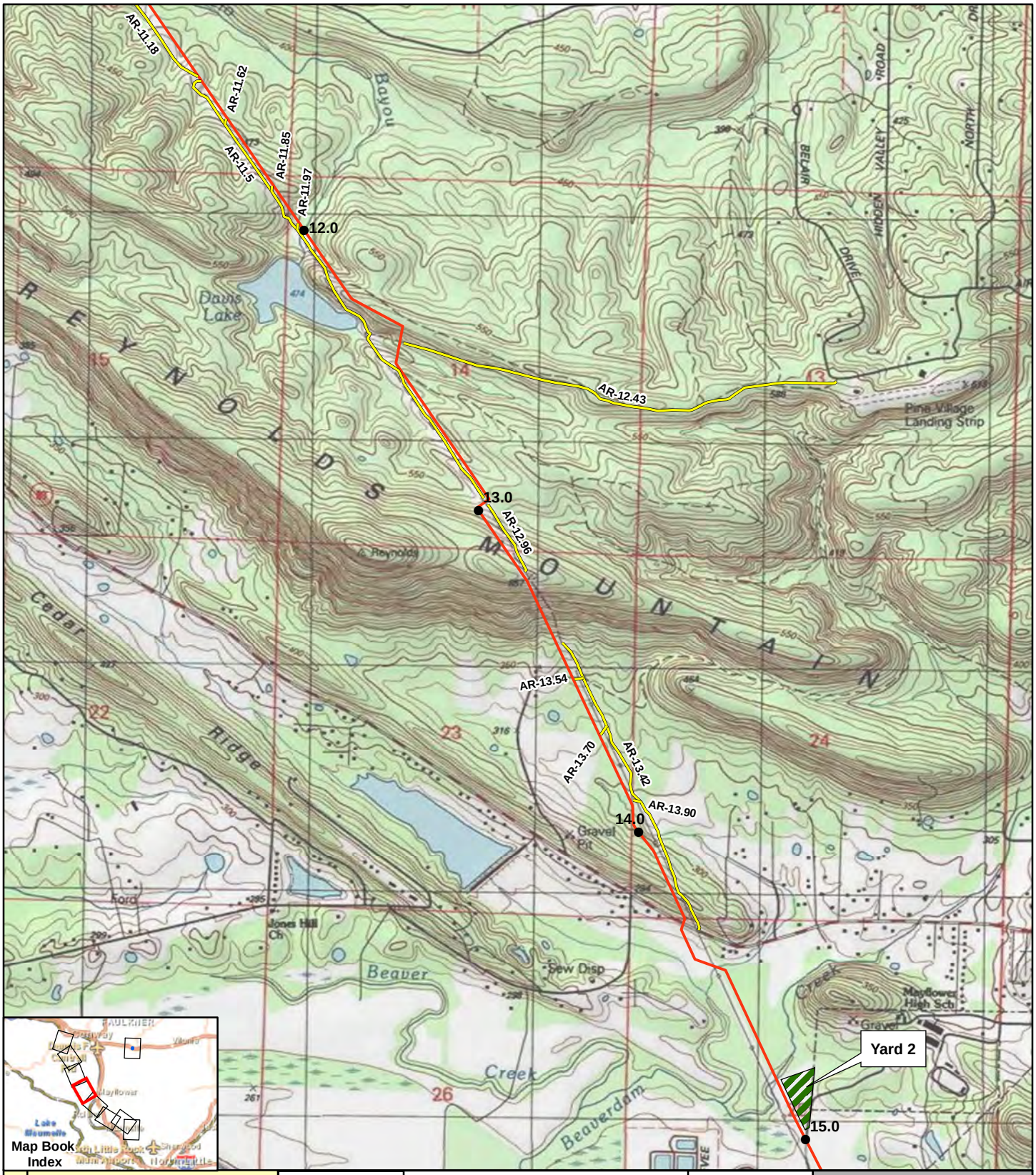

Drawn On: April 26, 2013

Proposed Facilities

Central Arkansas
Pipeline Enhancement Project
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Legend

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- Shoemaker Site

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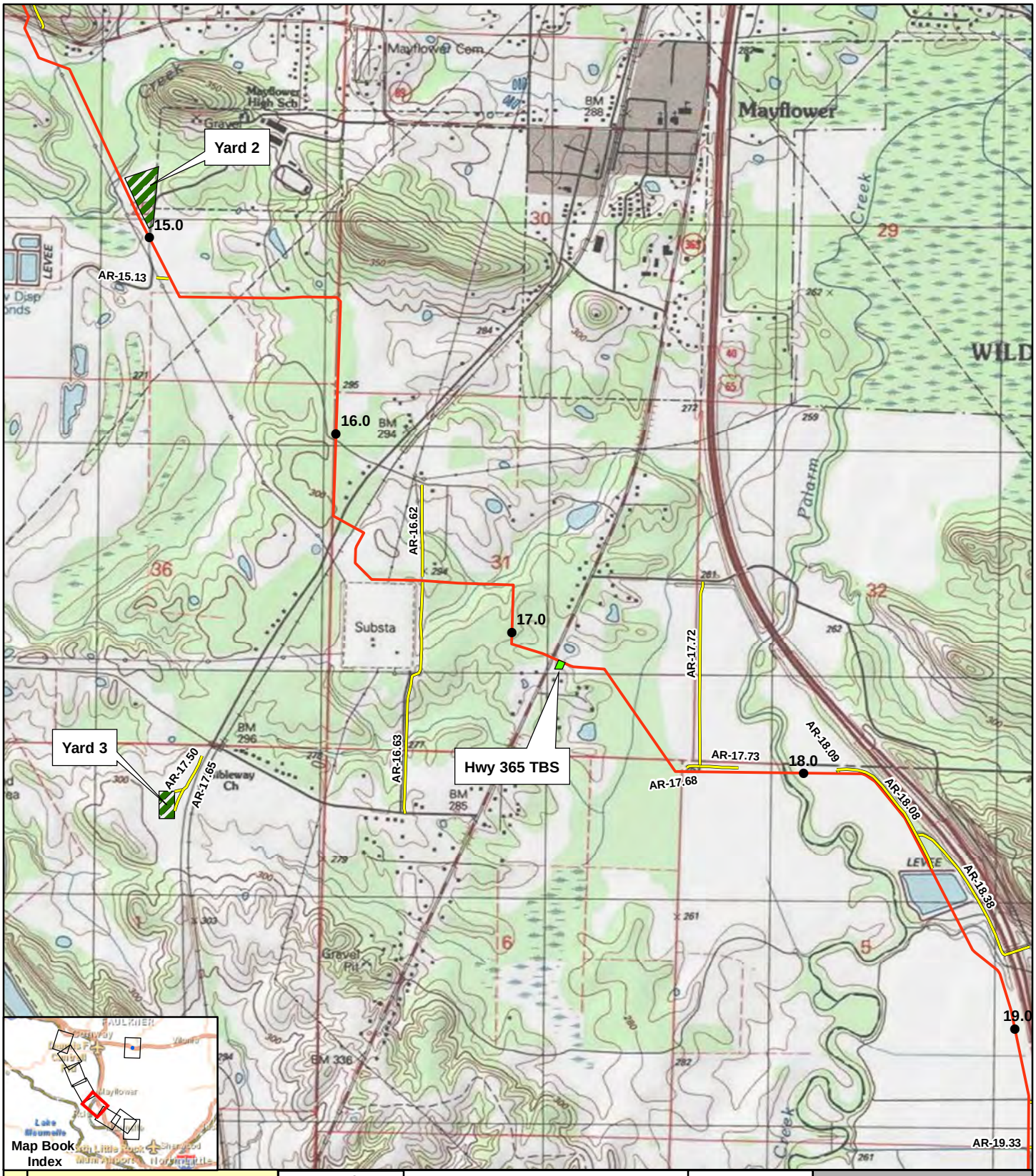

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Proposed Facilities

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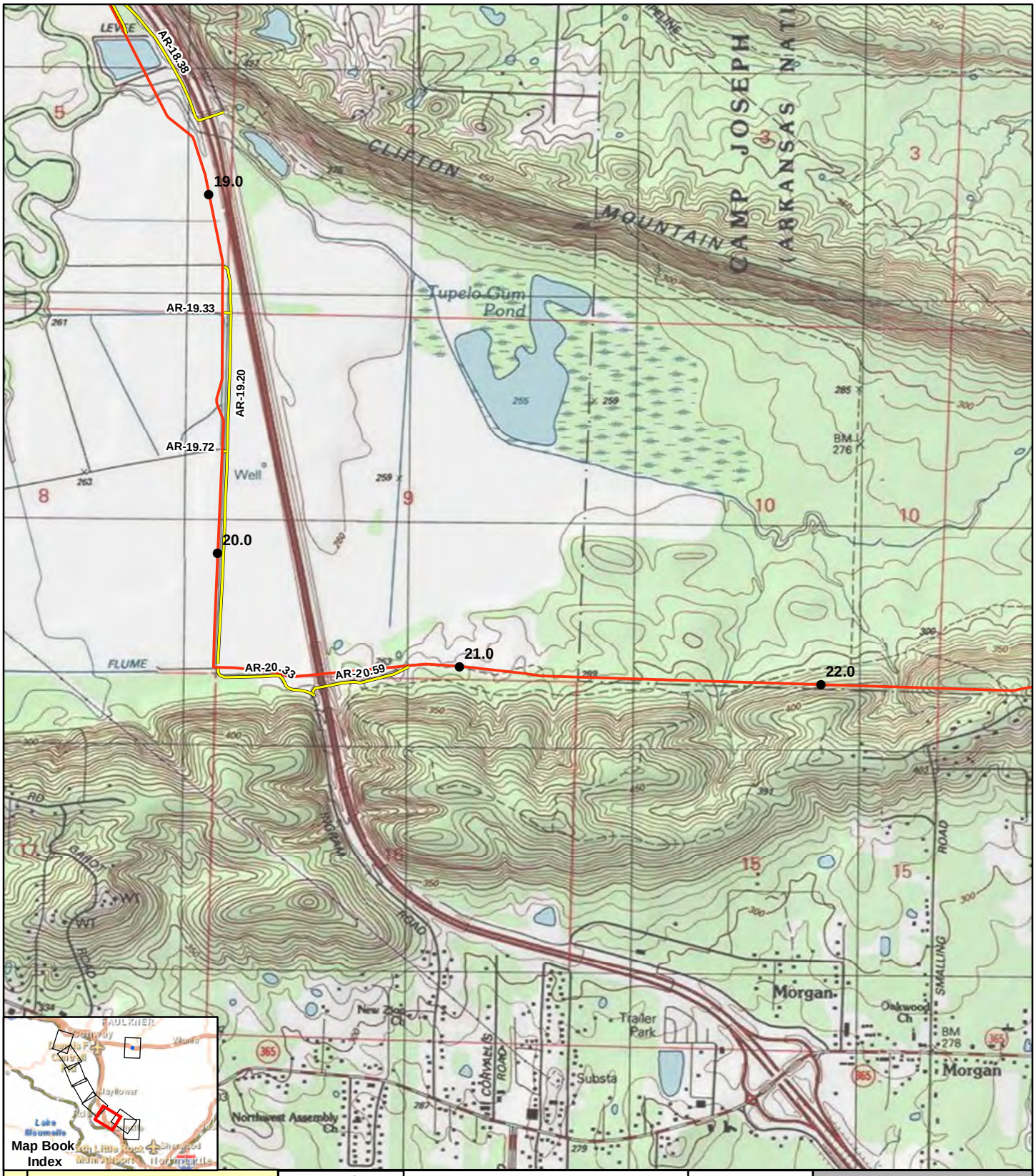

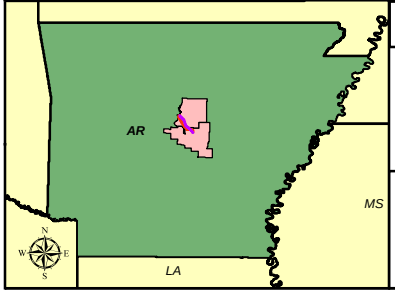

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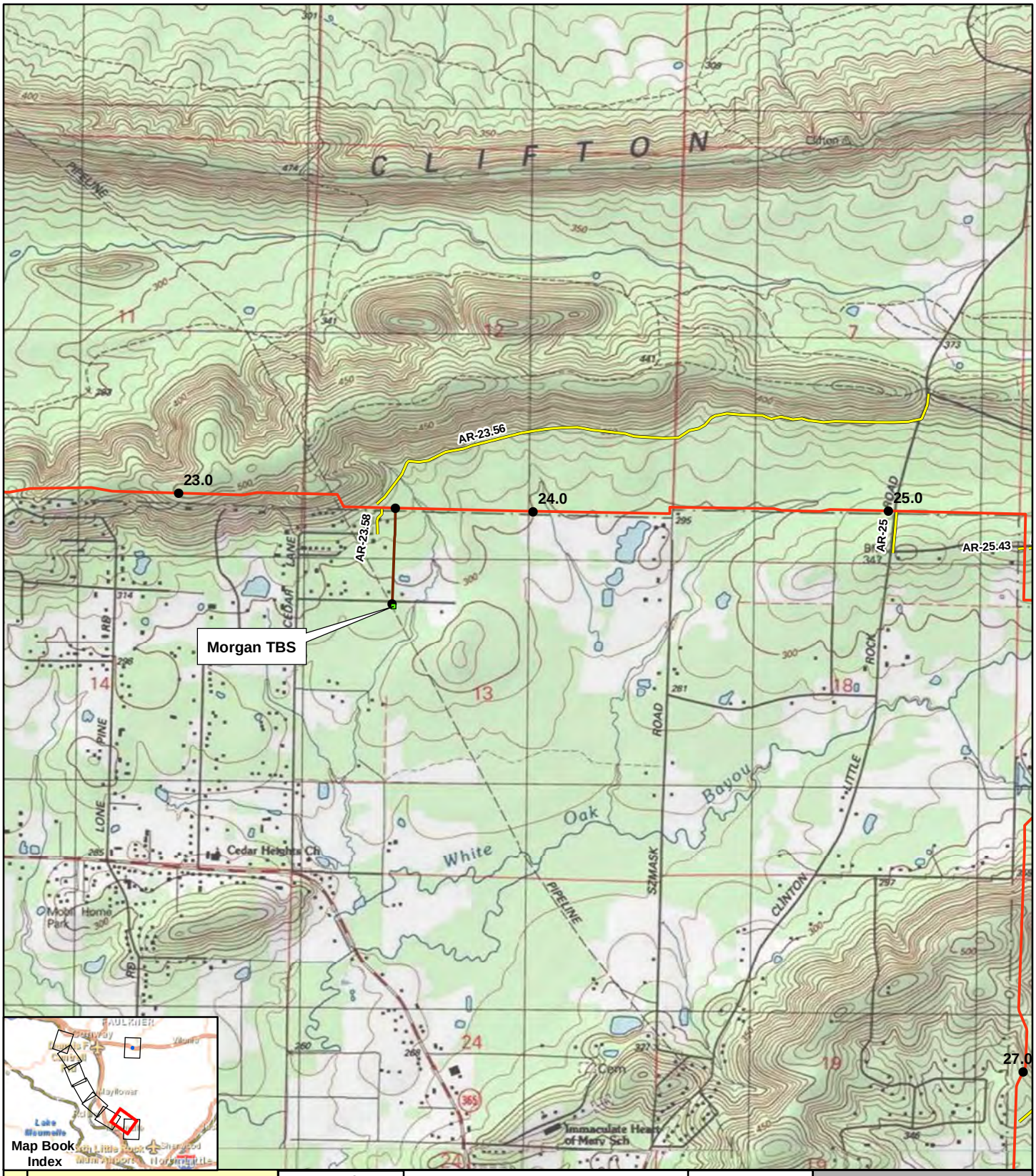

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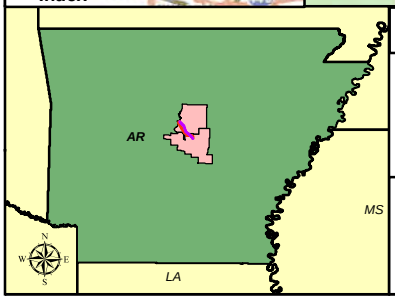

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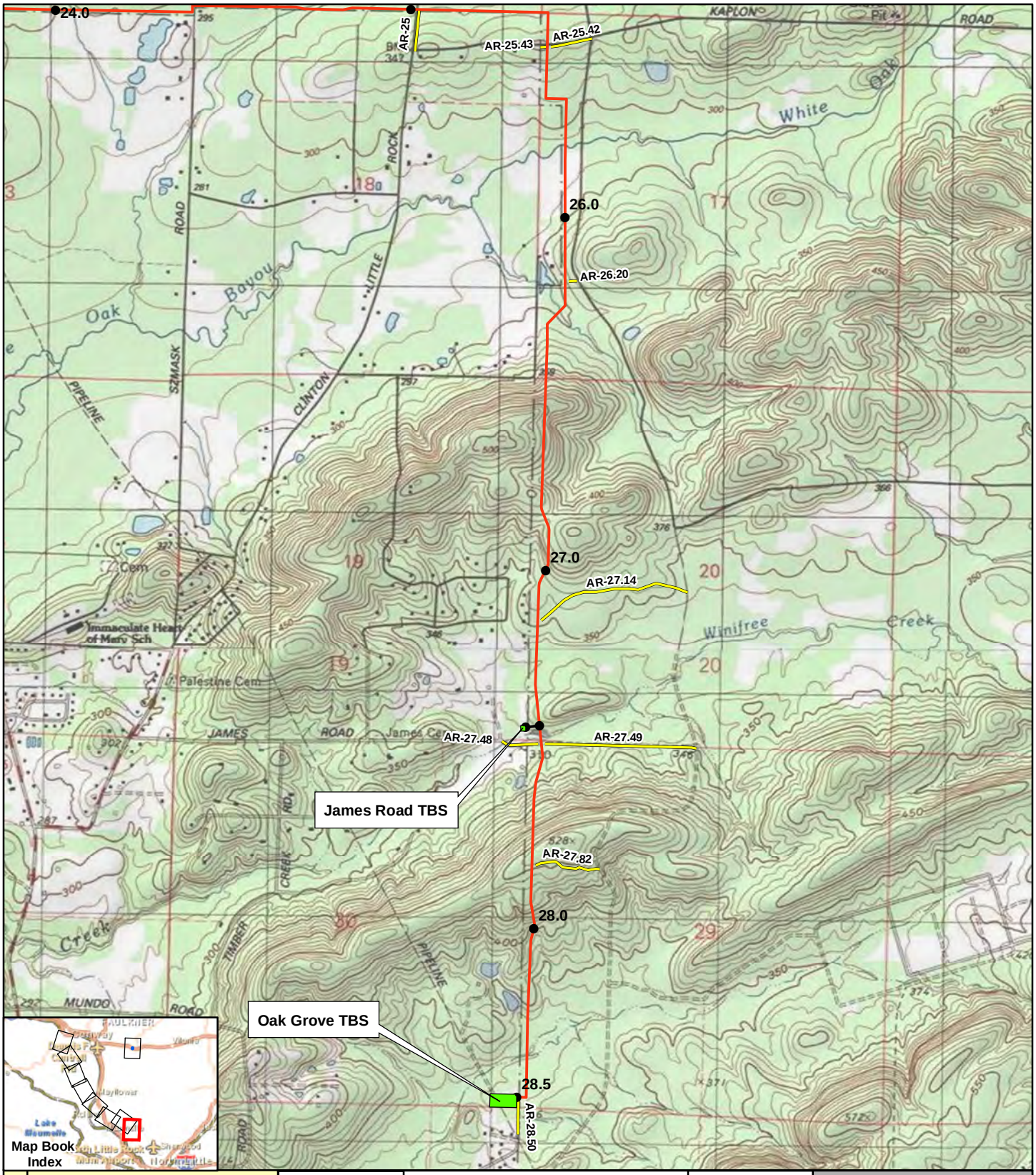
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AR-27.48
AR-27.49
James Road TBS
AR-27.82
28.0
Oak Grove TBS
28.5
AR-28.50
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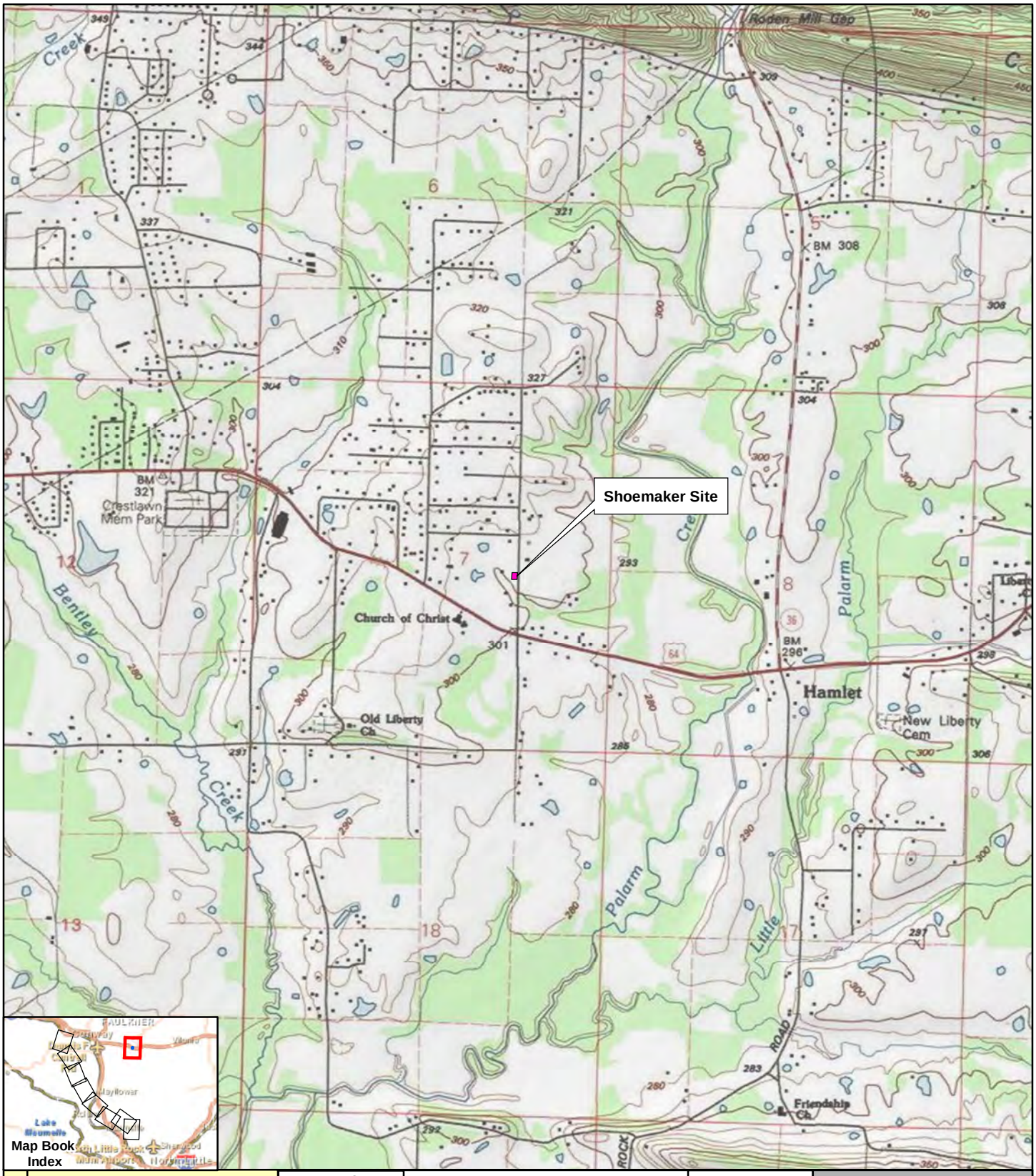

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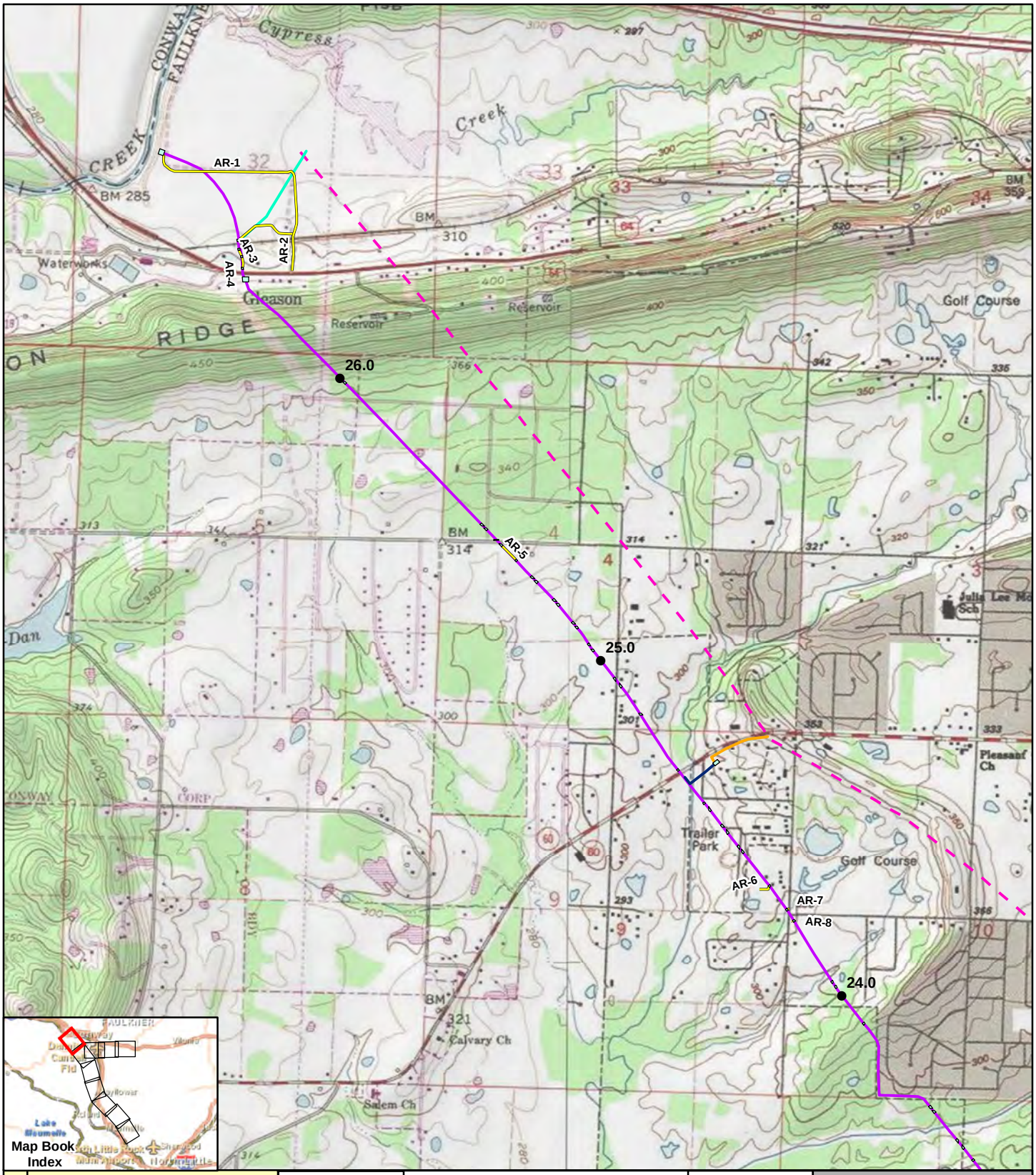
USGS TOPOGRAPHIC QUADRANGLE ROUTE MAPS – RETIREMENT FACILITIES



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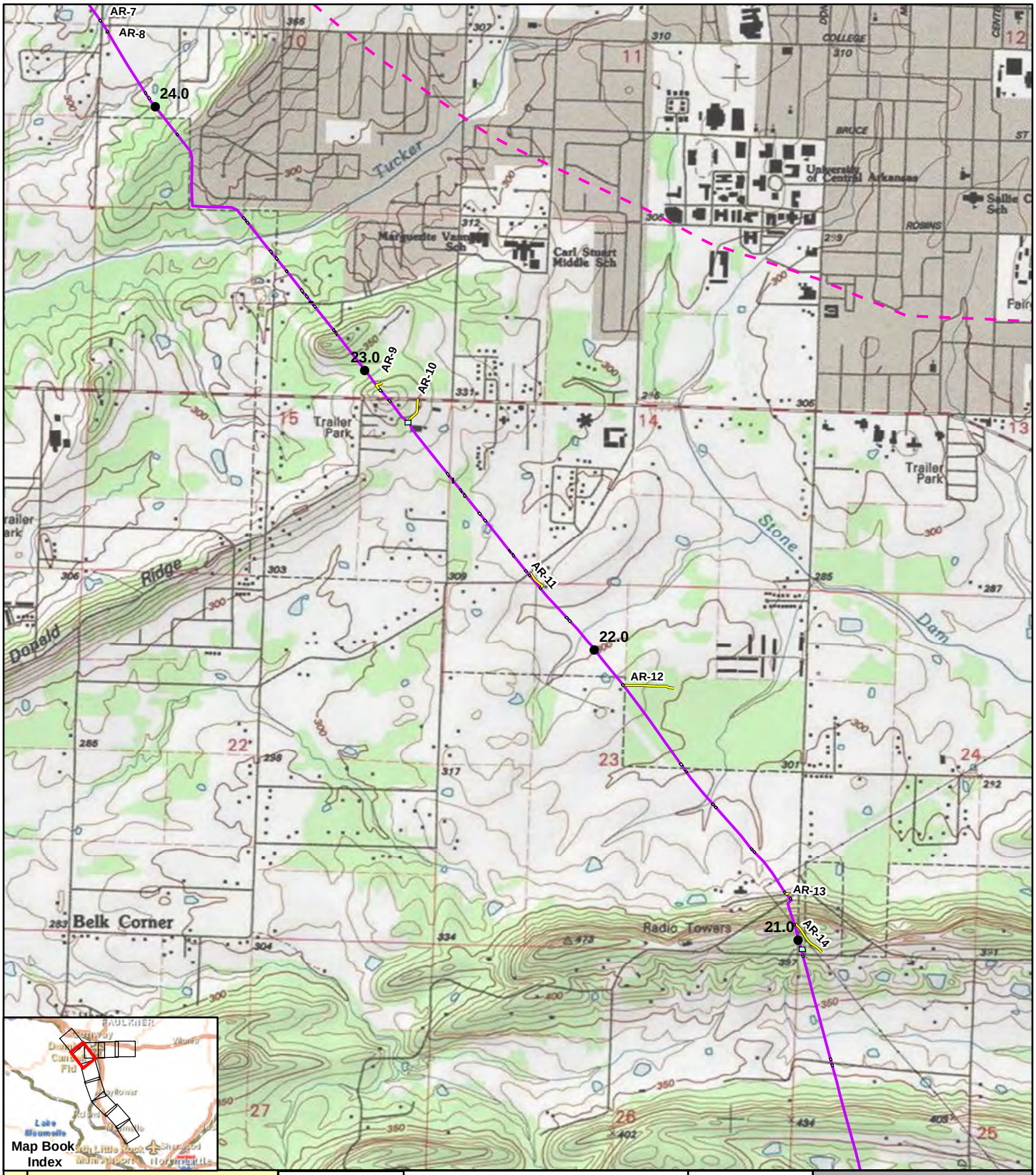

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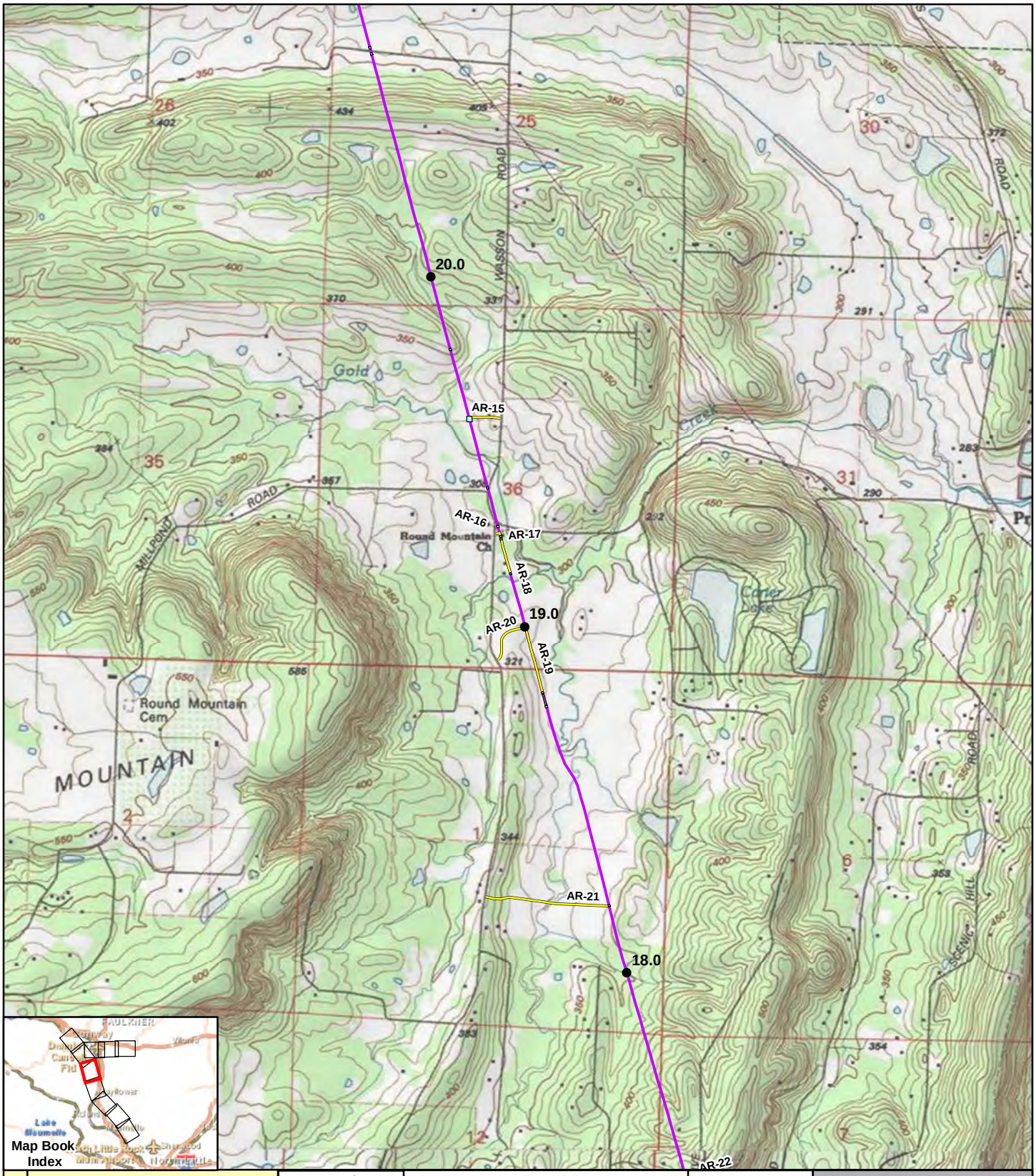

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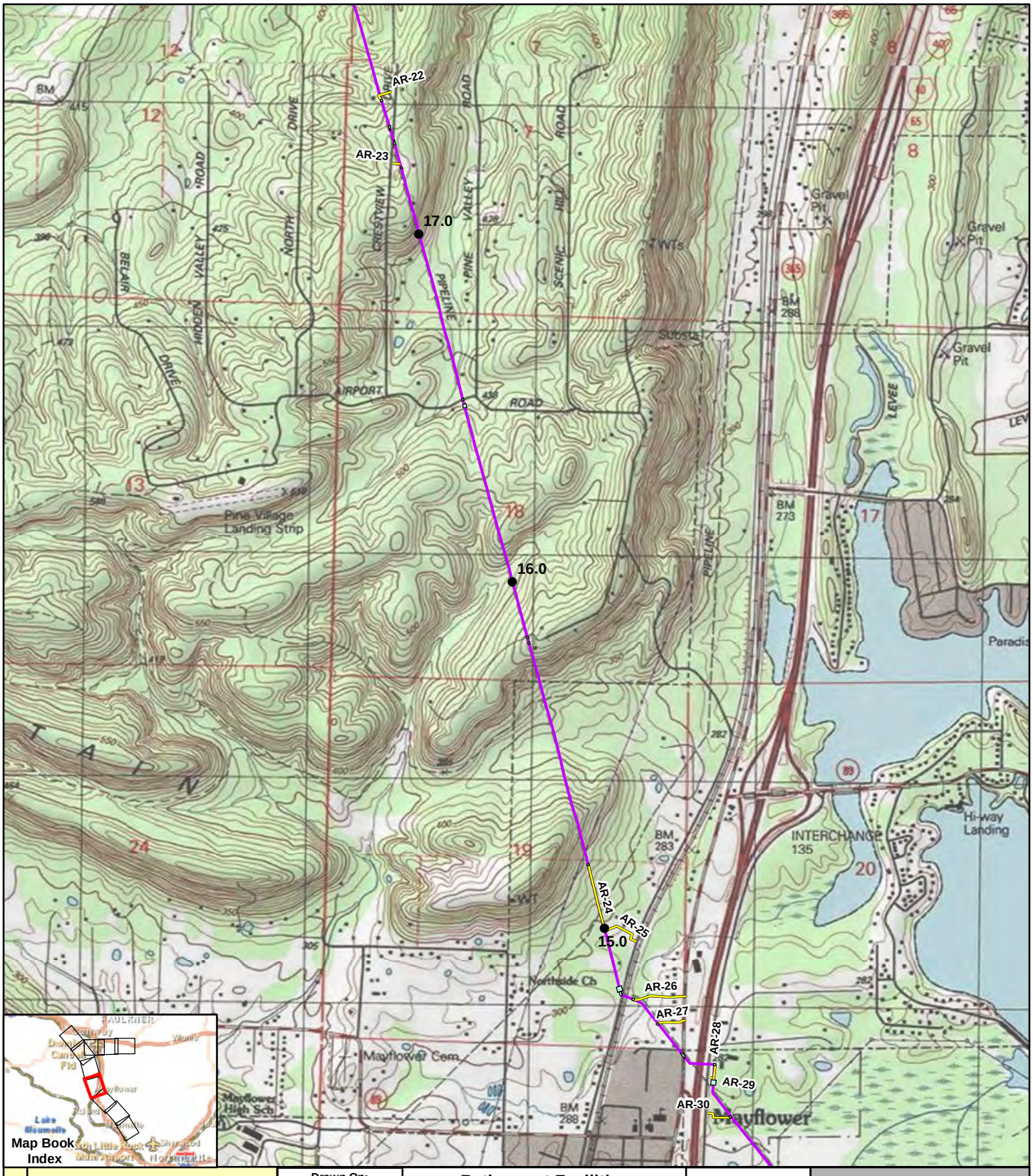

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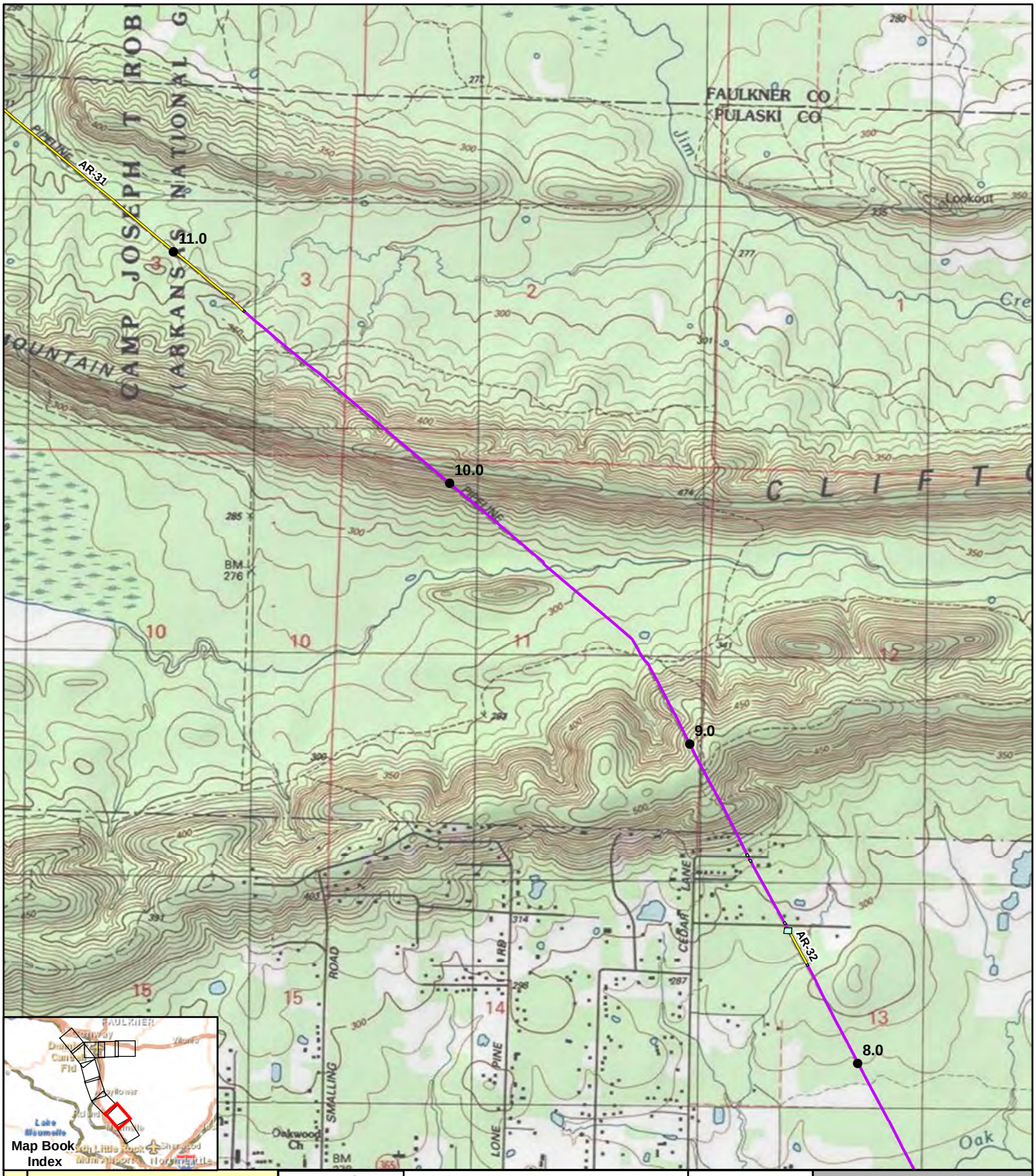

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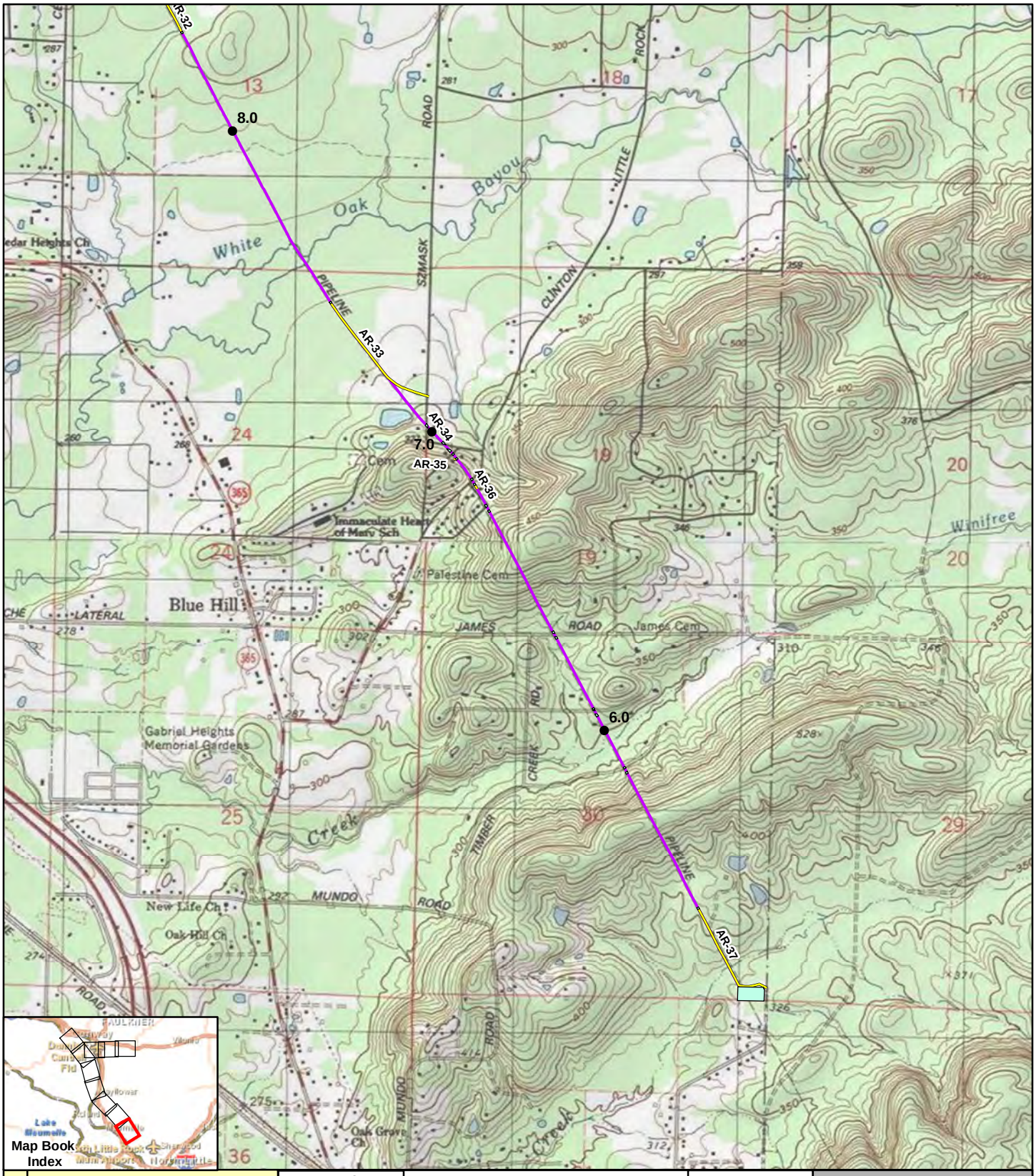

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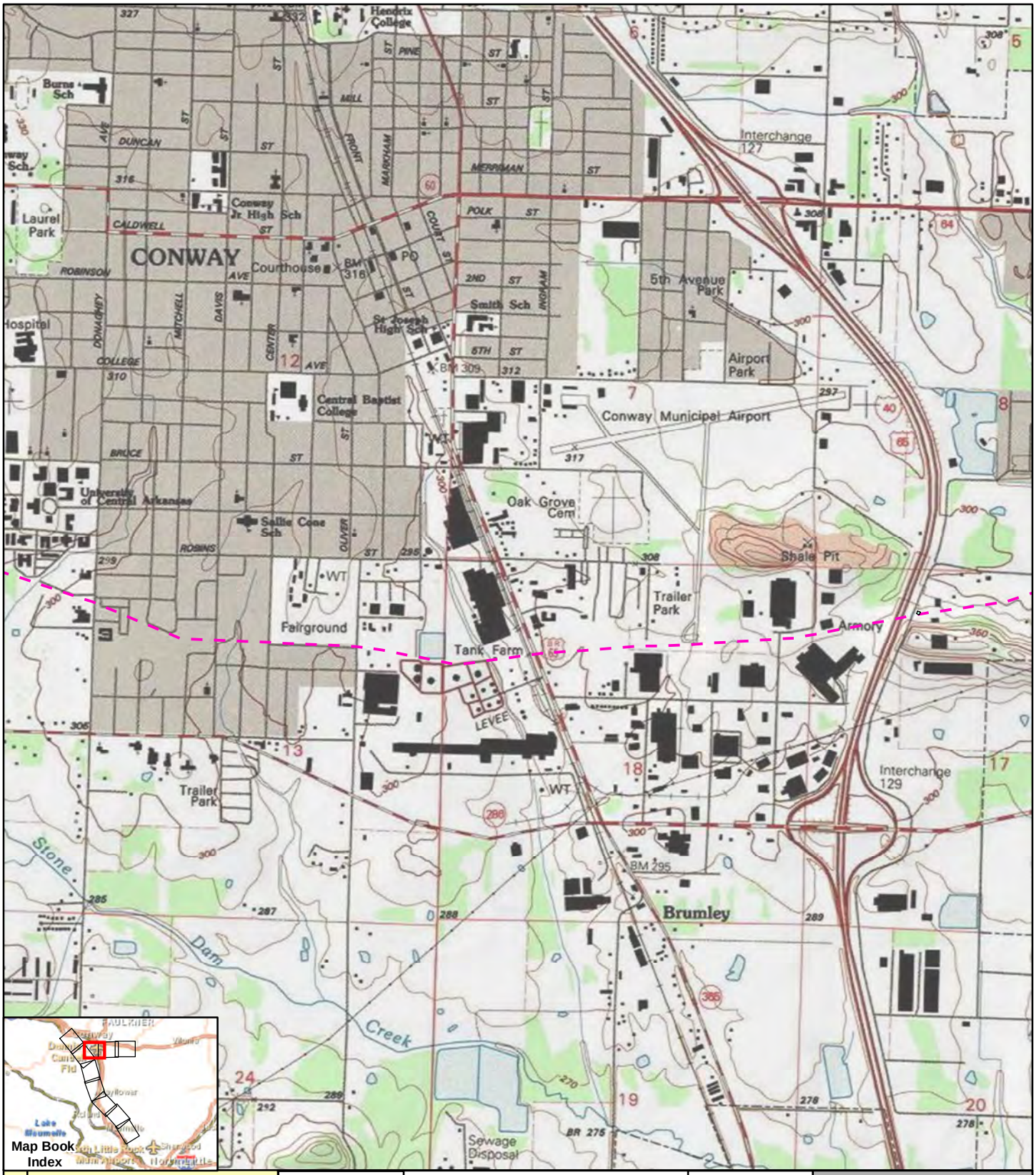

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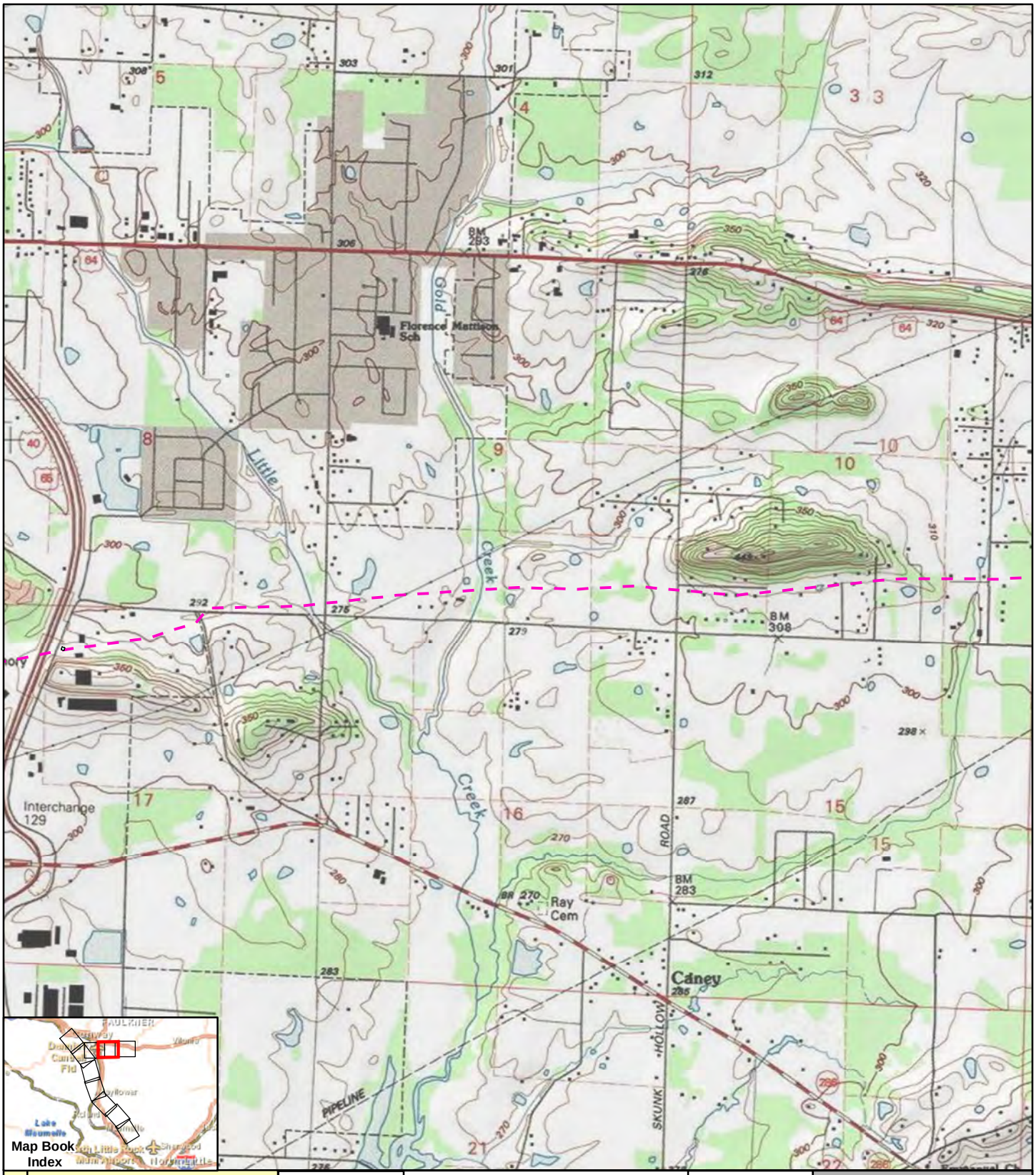

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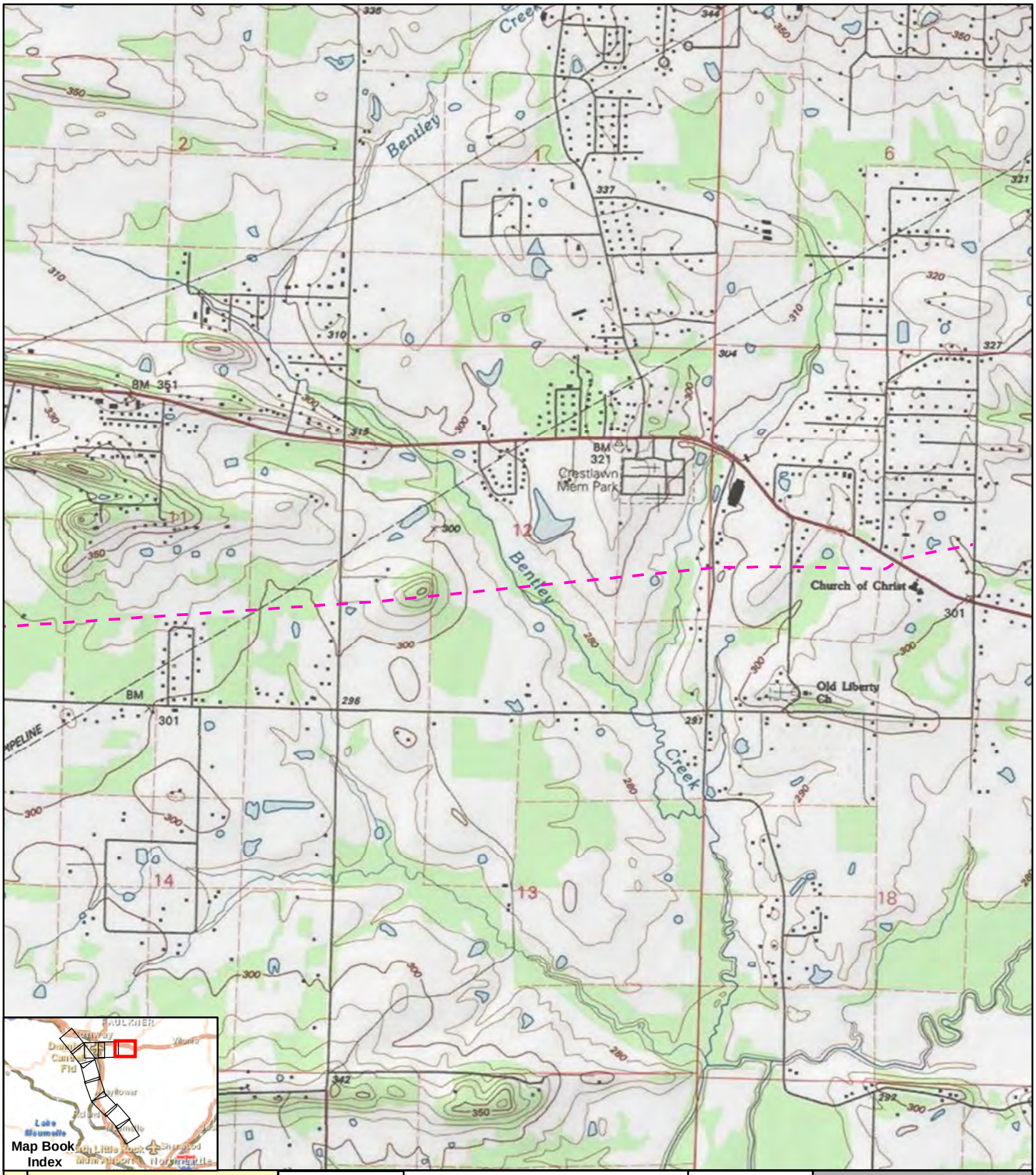

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PROJECT ALIGNMENT SHEETS

(To be provided in future drafts)

PROJECT CONSTRUCTION TYPICAL DRAWINGS

(To be provided in future drafts)

ABOVEGROUND FACILITY STATION PLOT PLANS

(CRITICAL ENERGY INFRASTRUCTURE INFORMATION - PROVIDED IN VOLUME III)

(To be provided in future drafts)

HORIZONTAL DIRECTIONAL DRILL PLANS

(To be provided in future drafts)

SITE SPECIFIC PLANS FOR ETWS WITHIN 50 FEET OF WETLANDS OR WATERBODIES

(***To be provided in future drafts)***

APPENDIX 1.B

DIRECTIONAL DRILL CONTINGENCY PLAN

(to be provided in future drafts)

APPENDIX 1.C

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

(to be provided in future drafts)

APPENDIX 1.D

AGENCY CORRESPONDENCE

APPENDIX 1.E

AFFECTED LANDOWNERS
(Filed in Volume II – Privileged and Confidential)