

**Information Book for Owners and Tenants of Property along
the Unit 48 Pipeline Route
in Dakota County, Minnesota**

Public Utilities Commission Docket No.: IP2/PPL-21-747

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**Unit 48 Pipeline for
Flint Hills Resources Pine Bend, LLC
Information Book for Owners and Tenants of Property**

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Unit 48 Pipeline for Flint Hills Resources Pine Bend, LLC

DEFINITIONS

Anhydrous – Term applied to a chemical substance free of water

Barrel – 42 gallons

BPH – Barrels per hour

CFR – Code of Federal Regulations

- 49 CFR 195 – Transportation of Hazardous Liquids by Pipeline

Flint Hills – Flint Hills Resources Pine Bend, LLC

HCA – High Consequence Area

HDD – Horizontal Directional Drill

Internal Devices - A variety of tools that are inserted into a trap and launched into the pipeline for cleaning, batch separation, or internal inspection, such as scrapers, pigs, spheres, poly pigs, caliper tools, and smart pigs/tools.

PSIG – Pounds per square inch gauge (unit of pressure)

Trap - A fabricated assembly having a pipe or fitting inlet and outlet connections, body and closure used for launching and receiving internal devices into an operational line.

INTRODUCTION

This Information Book was prepared by Flint Hills Resources Pine Bend, LLC (“Flint Hills”) and approved by the Public Utilities Commission (Commission) for landowners who may be affected by the proposed Unit 48 Liquefied Anhydrous Ammonia¹ Pipeline Project to be constructed in Dakota County, Minnesota. This Information Book was developed pursuant to the requirements of Minnesota Statutes (Minn. Stat.), Chapter 216G et seq., to provide property owners and tenants with a clear understanding of the proposed Unit 48 Pipeline (Project). Information presented in this book includes a description of the Project and associated facilities including Project location, an explanation of right-of-way easement requirements and acquisition process, a description of construction activities, legal and procedural requirements associated with construction of a pipeline, and contact information for Flint Hills.

A public meeting will be scheduled to provide interested persons with Project information and to provide the public with an opportunity to comment on the proposed Project. Notice, including the date, time, and location of the meeting, will be published in a legal newspaper of Dakota County and a newspaper of general circulation in the Rosemount, Minnesota area. Landowners who will be affected by the Project will also receive notice of the public meeting by certified U.S. Mail. A Flint Hills right-of-way agent will contact individual landowners to discuss the Project and right-of-way easement requirements. Flint Hills will not execute easement agreements with landowners

¹ Anhydrous Ammonia – The compound formed by the chemical combination of the element’s nitrogen and hydrogen in the concentration proportion of one part nitrogen to three parts of hydrogen. This relationship is shown by the chemical formula, NH₃.

until 30 days after the public meeting is held, pursuant to statutory requirements.

PROJECT-OVERVIEW

Preface

In July 2020, Flint Hills constructed a permanent anhydrous ammonia system to eliminate a temporary system. This system included the installation of a 45,000-gallon tank, currently supplied by ~12 truck deliveries per week (3 trucks per day, approximately four days a week). Anhydrous ammonia is a necessary component to producing ammonium thiosulfate (ATS). Flint Hills Resources Pine Bend's distribution terminal, coupled with new technology allows the refinery to convert a traditional source of air pollution from motor fuels (sulfur) into a valuable fertilizer product that benefits farmers and the environment. Currently, one of the largest applications of ATS technology in the world, this system also helps the refinery produce ultra-low sulfur gasoline, which lowers vehicle emissions and is better for the environment.

Delivering and storing anhydrous ammonia on-site introduces the risk of an ammonia gas release that presents a hazard to employees and society. In line with industry practice and MN Dept. of Agriculture requirements, Flint Hills installed excess flow valves and emergency isolation valves to reduce the likelihood and mitigate the consequence of a release. Other risk mitigations include leak detection, ammonia detectors, tank vapor suppression deluge and remote level monitoring.

Project Need

This project will provide Flint Hills' Pine Bend refinery with a continuous supply of anhydrous ammonia while reducing truck traffic and reducing the potential of safety events driven by accidental releases of ammonia. This reduces the probability of an anhydrous ammonia gas release from truck loading operations and operator involvement/oversight.

The pipeline will start at the CF Industries Anhydrous Ammonia Terminal located at 13040 Pine Bend Trail, Rosemount, MN and terminates at the Flint Hills' Pine Bend refinery.

Project Location

Flint Hills proposes to install an anhydrous ammonia pipeline approximately 1.6-miles in length in Rosemount, Minnesota. The pipeline originates at the CF Industries anhydrous ammonia Terminal. The pipeline crosses through Sections 17, 18, and 19 in Township (T) 115 North (N), Range (R) 18 West (W) and Section 13 in Township (T) 115 North (N), Range (R) 19 West (W) in the city of Rosemount, Dakota County, Minnesota. The pipeline terminates at Flint Hills' Pine Bend refinery. Project maps are provided in Appendix A.

Project Description

This project includes installation of a four and a half-inch (4 ½") outside diameter, welded steel, fusion bond epoxy coated pipe with a wall thickness of 0.237 inches. The pipeline will have a maximum operating pressure² of 720 psig, with typical operating pressures ranging between 250 to 355 psig. The pipeline will flow in one direction, with an anticipated flowrate range of 15 to 245 bph when transporting anhydrous ammonia from the CF Industries Anhydrous Ammonia Terminal to Flint Hills Resources' Pine Bend refinery.

² Maximum Operating Pressure (MOP) – as defined within 49 CFR 195.2, the maximum pressure at which a pipeline or segment of a pipeline may be normally operated.

A permanent 40' easement/right-of way will be required and maintained for the pipeline, 20' on each side of the pipeline centerline. A temporary 60' wide workspace will be required during construction, 30' on each side on the outside edge of the 40-foot permanent pipeline right-of-way. Exceptions are the road and railroad crossings which are HDD bores, see Appendix D for explanation of that process.

Pipeline markers will be installed as required by regulation along the entire route of the pipeline.

The pipeline will be installed with a typical depth of cover of 4-1/2 feet (or 54 inches), including where the pipeline will cross a county, town or municipal street or highway, or where the pipeline will cross a drainage ditch.

A new liquid anhydrous ammonia transfer pump will be installed at the CF Industries Anhydrous Ammonia Terminal. The pipeline will begin at a point of demarcation at the CF Industries Anhydrous Ammonia Terminal at their property line. The pipeline will have traps at both ends of the pipeline, one at the east end downstream of the demarcation line at the CF Industries Anhydrous Ammonia Terminal and one at the west end inside the property line at the Flint Hills Resources Pine Bend refinery. Automated shut off valves will be located at each trap.

High Consequence Areas

The pipeline route crosses through an Other Populated Area³, defined as a high consequence area (HCA) in 49 CFR 195.450. Additional HCAs the pipeline will be in proximity to include: an Unusually Sensitive Area⁴ and a Commercially Navigable Waterway⁵. 49 CFR 195 requires a pipeline integrity management program. This pipeline will be a part of the established Flint Hills Resources Integrity Management Program. Project maps depicting the pipeline route and showing the HCAs is provided in Appendix B.

Route Features and Impacts

The Project will cross lands consisting primarily of industrial lands owned by Flint Hills' Pine Bend refinery and CF Industries Anhydrous Ammonia Terminal. The pipeline will cross three roads: US Highway 52/Clayton Ave E, MN State Highway 55/Courthouse Boulevard, and Clark Road. The pipeline will run parallel to and cross a bike path on Flint Hills' property within Dakota County's existing right-of-way. No agricultural lands will be crossed.

For the Project, Flint Hills retained Commonwealth Heritage Group (Commonwealth) to perform an archeological review of the Project area. For this study, Commonwealth reviewed site files maintained by the Minnesota Office of the State Archaeologist and Minnesota state Historic Preservation Office to locate any previously identified archeological sites. A field survey and shovel test survey were also performed along the route. Commonwealth's report summarized the findings as follows:

"The work effort resulted in the identification of no new archaeological sites and the revisit of one previously identified archaeological alpha site (21DKak) intersecting the construction limits during the survey. As is standard practice in Minnesota, the

³ Other Populated Area – as defined within 49 CFR 195.450; a place, as defined and delineated by the Census Bureau, that contains a concentrated population, such as an incorporated or unincorporated city, town, village, or other designated residential or commercial area.

⁴ Unusually Sensitive Area – as defined within 49 CFR 195.6; a drinking water or ecological resource area that is unusually sensitive to environmental damage from a hazardous liquid pipeline release.

⁵ Commercially Navigable Waterway – as defined within 49 CFR 195.450; a waterway where a substantial likelihood of commercial navigation exists

boundary of this site is shown to be the entire section it is in but in actuality the site itself, when formally documented, would likely be much smaller than what is currently represented. The alpha site has no site form but is instead described in a Pioneer Press newspaper article. The article describes the site as being located down along the shoreline adjacent to the river. Commonwealth performed an intensive survey for the alpha site within the construction limits of the Project and found no evidence of the prehistoric site. Commonwealth is left to conclude that if 21DKak does exist in this section, it is likely located down along the river shoreline and does not intersect this Project area. Commonwealth believes that the survey is adequate and complete, and recommends the Project proceed as designed and proposed. Commonwealth suggests this investigation results in a determination of “No Historic Properties Affected” and receive no further archaeological survey work.”

Right of Way	Length (miles)	% Ownership
CF Industries	0.01	1%
Flint Hills	1.31	82%
Chicago & North Western Transportation Company	0.01	1%
Minnesota Department of Transportation	0.26	16%
	1.59	

Crossing	Description	GPS Location
#1	Chicago & Norther Western Transportation Company (railroad)	44.76492, -93.03177
#2	MN State Highway 55/Courthouse Blvd	44. 76435°, -93. 03204°
#3	US Highway 52/Clayton Ave E	44.76407°, -93.03396°
#4	Clark Road	44. 76407°, -93. 03472°

Pipeline Construction Schedule and Sequence

Construction Schedule

Flint Hills anticipates pipeline construction will commence during the Fall of 2022; likely during the months of September/October and continue through the Spring/Summer of 2023. Construction activities under the highways and Clark Road are expected to take several weeks but will have minimal to no impact on the traffic flow. Flint Hills will contact landowners prior to the start of construction activities. Once construction begins, the contractor will proceed in a timely, professional manner to complete construction across each landowner’s property and reduce inconvenience to the landowner. Restoration and clean-up activities will occur on a continuing basis for the duration of the Project.

Construction Sequence

Standard pipeline construction includes surveying and staking of the right-of-way; clearing and grading; installation of erosion and sediment control measures; trenching; pipe stringing, bending, and welding; lowering the pipeline into the trench; backfilling the trench and final grade of the construction area; hydrostatic testing; final tie-ins; commissioning; and removal of temporary erosion and sediment controls and right-of-way cleanup. A typical pipeline construction sequence drawing is illustrated in Appendix C.

Installation of the pipeline at road and drainage ditch crossings will be conducted utilizing either a bore or horizontal directional drill (HDD) method. An HDD process illustration is provided in Appendix D. Damage, if any, to drainage tiles will be repaired. During construction, temporary gates and fences may be installed at specific locations. After the pipeline is installed, temporary gates and fences will be removed, and the affected area cleaned up and restored to its prior condition. Any existing fences or gates that are removed or damaged during Project activities will be repaired or replaced, if necessary, after completion of construction.

All reasonable efforts will be made to reduce soil compaction and mixing of topsoil and subsoil. Flint Hills will utilize standardized erosion control and restoration measures to minimize and mitigate potentially adverse environmental effects resulting from right-of-way preparation, construction, operation, and maintenance of the proposed pipeline. Typical erosion control measures will be properly maintained throughout construction and reinstalled as necessary until construction is complete.

Some noise pollution will occur during construction. The noise will be the typical sounds resulting from the use of heavy construction equipment that approximates the decibel level of heavy farm machinery. The construction contractor is anticipated to work a 10 hours per day, 7 a.m. to 5 p.m., 5 to 7 days a week normally. Some activities require longer hours, but this should be limited.

Operation of Pipeline Facilities

Operational activity associated with the pipeline and aboveground facilities typically includes maintenance of the right-of-way. Periodic aerial and ground inspections by company personnel or 3rd party contract labor will identify any soil erosion that may expose the pipe; changes in vegetation that may indicate line compromises; conditions of the vegetative cover and erosion control measures; unauthorized encroachment on the right-of-way, such as buildings or other substantial structures; and other conditions that could present a safety hazard or require preventative maintenance or repairs. Appropriate responses to conditions observed during inspection will be taken.

EXPLANATION OF RIGHT-OF-WAY REQUIREMENTS, ACQUISITION PROCESS, AND RIGHTS AND ALTERNATIVES OF LANDOWNERS

Right-of-Way Requirements

Flint Hills will require one easement along the pipeline route. This easement will be between Flint Hills and CF Industries for a control valve that will be placed on CF Industries' property.

Flint Hills owns all other land in which the pipeline will run, aside from the road and railroad crossings. For these crossings, Flint Hills will seek a permit or a license as required, (see page 6).

Flint Hills personnel will mow the pipeline right-of-way and keep it clear of shrubs and trees. Within the CF Industries' Anhydrous Ammonia Terminal, the easement area will be covered with

rock, and vegetation will be prevented. Marker posts will be placed along the pipeline route for identification of the buried pipeline consistent with regulatory requirements

Acquisition Process

A Flint Hills right-of-way agent will contact individual landowners to negotiate a right-of-way easement not sooner than 30 days after the public meeting regarding the Project pursuant to Minn. Stat. 216.G05. A right-of-way agent may contact landowners prior to that time to discuss the Project and obtain permission for a survey crew to enter the property to conduct civil and environmental surveys.

Damages

Flint Hills will compensate landowners and tenants for property damages (e.g. crops, timber, fences, and drainage tiles) directly caused by construction of the pipeline.

Eminent Domain

This is a private pipeline project and therefore Flint Hills will not be using eminent domain.

PIPELINE CONSTRUCTION LEGAL REQUIREMENTS

The United States Department of Transportation, Pipeline Hazardous Materials Administration (PHMSA) and the Minnesota Department of Public Safety acting through the Minnesota Office of Pipeline Safety (MNOPS) have jurisdiction over transportation of liquefied petroleum gas by pipeline. Federal safety regulations (Title 49 of the Code of Federal Regulations Part 195) have been adopted by the State of Minnesota as minimum safety standards for design requirements, construction, hydrostatic testing, and operation and maintenance. Flint Hills' construction specifications will meet or exceed these standards. The Minnesota Office of Pipeline Safety may monitor construction of the pipeline and has an ongoing responsibility for monitoring the pipeline for compliance with applicable safety regulations.

Depth of Burial Requirements

The pipeline will be installed according to Minn. Stat. 216.G07 with a typical depth of cover of 4-1/2 feet (or 54 inches) including where the pipeline will cross a state, county, or municipal street or highway; where the pipeline will cross cultivated agricultural land; or where the pipeline will cross a drainage ditch right-of-way.

Limited Liability of Landowners or Lessees

Any owner or lessee of any real property or any person acting with the authority of that owner or lessee who, in the ordinary conduct of agricultural operations upon that property, causes any injury to any underground pipeline, will not be liable for any of the direct or incidental costs of repairing, restoring or replacing the pipeline in the absence of a showing of gross negligence or willful or wanton misconduct. The term "ordinary conduct of agricultural operations" does not include well drilling or other types of extraction. "Ordinary conduct of agricultural operations" does include installation or repair of agricultural drainage tile only if that person gives verbal or written notice to the One-Call excavation notice system.

Permit Requirements

Flint Hills will obtain all required permits or consultations from the appropriate state, county or local authorities. The proposed pipeline is less than 6” in diameter and will carry anhydrous ammonia as a liquid product; therefore, a pipeline routing permit from the Minnesota Public Utilities Commission is not required. Pursuant to Minn. Stat. 216.G03, notice of the proposed pipeline construction has been provided to the Commission and the Dakota County Board of Commissioners. The following table identifies the permits and approvals Flint Hills has obtained or may obtain to complete the pipeline Project, as appropriate.

Agency	Permit or Approval
U.S. Fish and Wildlife Services	Endangered Species Act Compliance
U.S. Fish and Wildlife Services	Migratory Bird Act Compliance
U.S. Fish and Wildlife Services	Bald and Golden Eagle Protection Act
State Historic Preservation Office	National Historic Preservation Act Compliance
Department of Natural Resources – National Heritage Information System	MN Endangered Species Law
Department of Natural Resources - Water	Water Appropriation Permit
Minnesota Pollution Control Agency	Construction Stormwater Permit Notice of Intent (NOI) & Storm Water Pollution Prevention Plan (SWPPP)
Union Pacific Railroad	Crossing License
State of Minnesota Department of Transportation	Utility Crossing Permit
City of Rosemount	Transmission and Utility, Grading, and Tree Clearing

COUNTY PROCEDURES

Inspection Fee

Minn. Stat 216.G07, subdivision 6, provides that before beginning construction Flint Hills must pay the county inspection fee to the County Treasurer of Dakota County of \$500 for each mile or fraction of a mile that will be constructed in Dakota County. The sum to be paid to Dakota County under this formula will be \$1,000.

County Inspector and Contacting the Inspector in the Event of Noncompliance with Legal Requirements

The Dakota County Board will designate an inspector to conduct on-site inspections as needed during Project construction. The county inspector will determine whether the pipeline is constructed in compliance with the provisions of Minnesota Statutes section 216.G07 and ordinances or resolutions adopted by the County. If Flint Hills or its contractors fail or refuse to comply with the Minn. Stat. 216.G07 or ordinances or resolutions, the inspector will report to the County Board that specific failure or refusal and the inspector will issue a written notice to Flint Hills and/or its contractors specifying the violation and the action to be taken. The inspector shall maintain a written log including all comments and complaints concerning the pipeline construction. The log will also note any complaints concerning failure to settle claims filed by the landowners.

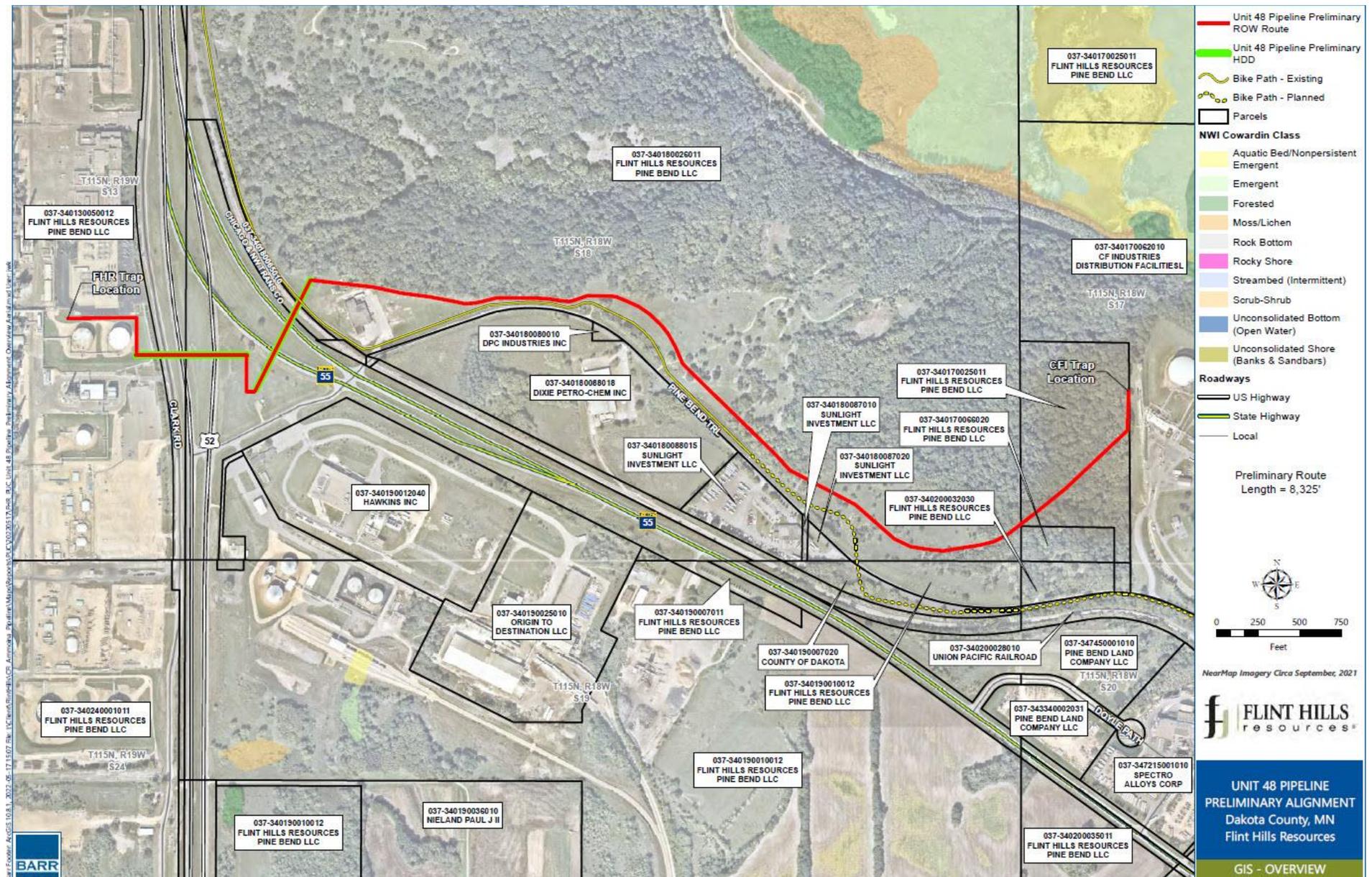
FLINT HILLS CONTACT INFORMATION

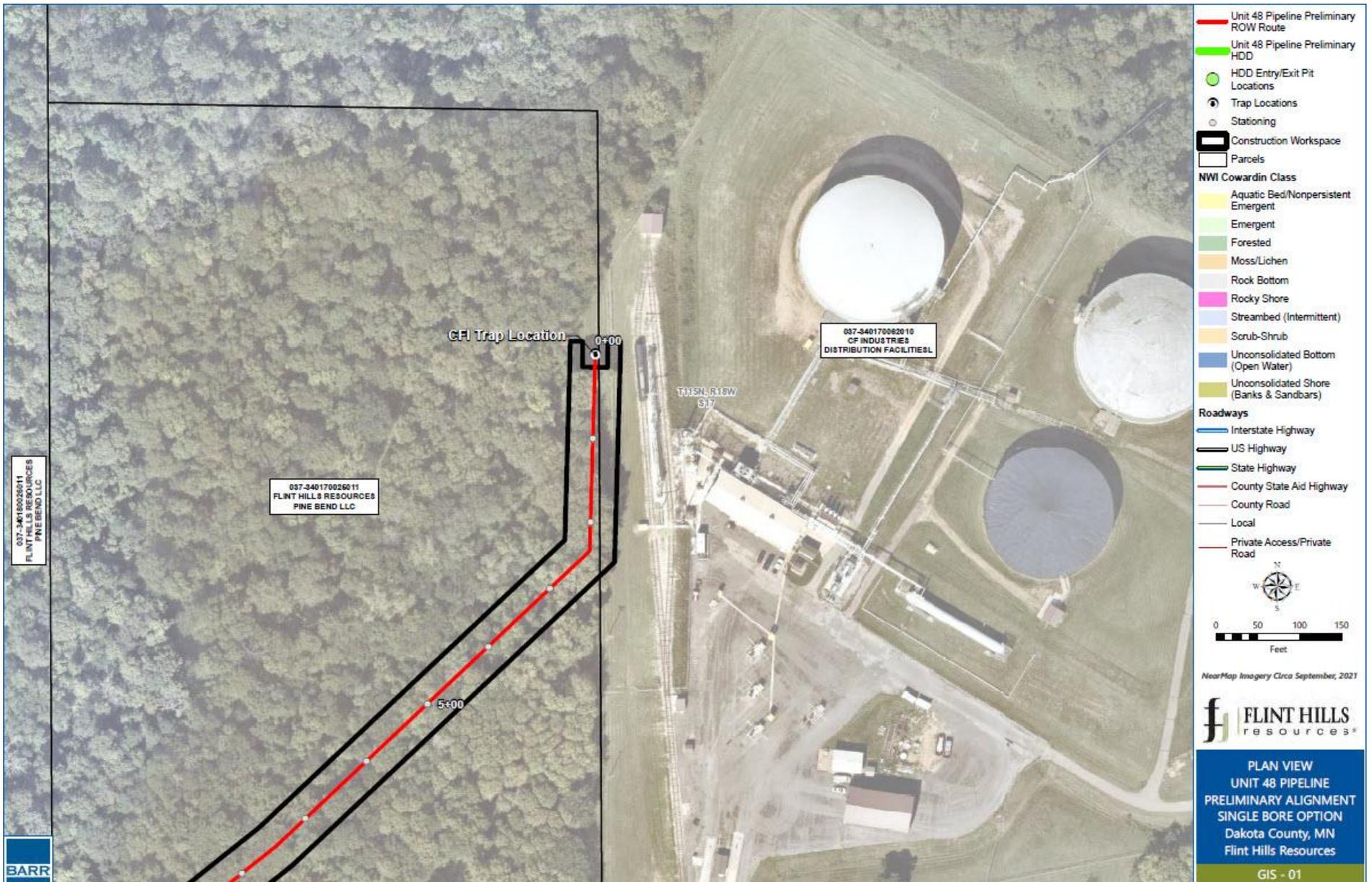
A Flint Hills right-of-way agent will be available throughout the duration of the pipeline Project to answer questions or discuss any concerns landowners and tenants may have. The agent's contact information will be provided to each landowner and tenant affected by the Project. Additionally, to obtain information or discuss concerns regarding property and right-of-way easement acquisition, landowners and tenants are encouraged to contact Holli VanOverbeke of Flint Hills at:

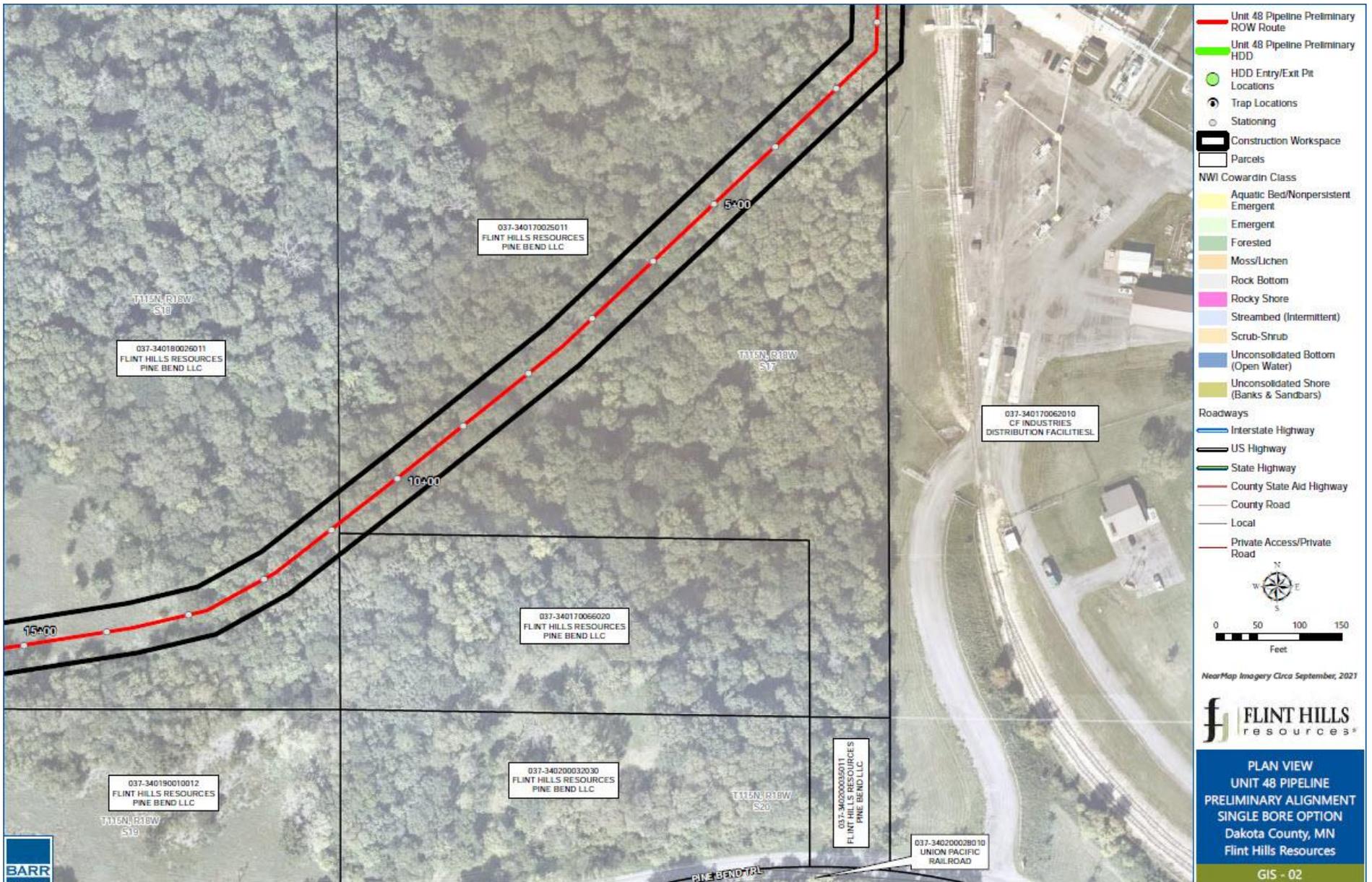
Flint Hills Resources
P.O. Box 64596
Saint Paul, Minnesota 55164
Direct Line: 651-438-5669
Email: Holli.VanOverbeke1@fhr.com

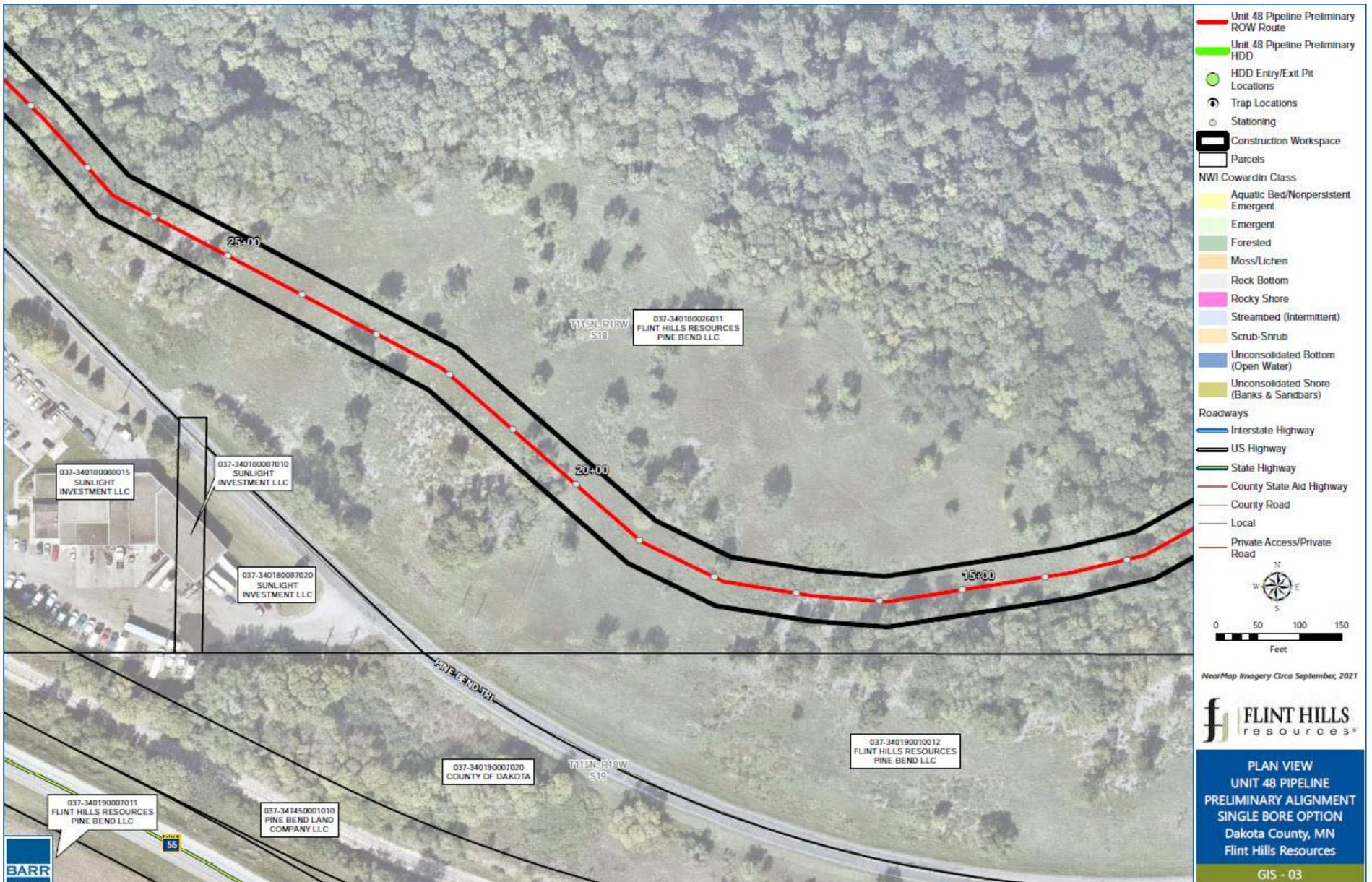
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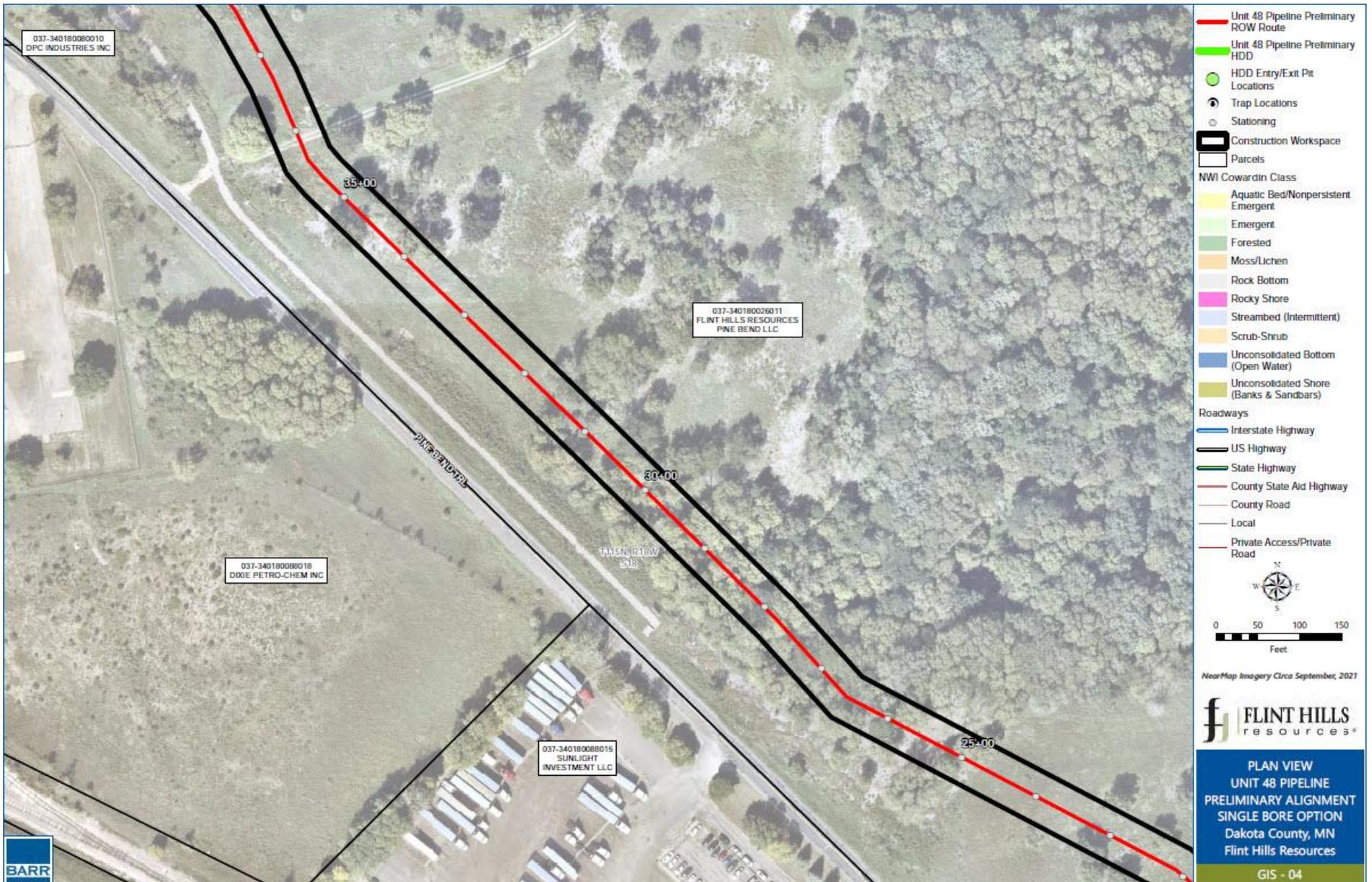
APPENDIX A: Project Location Maps

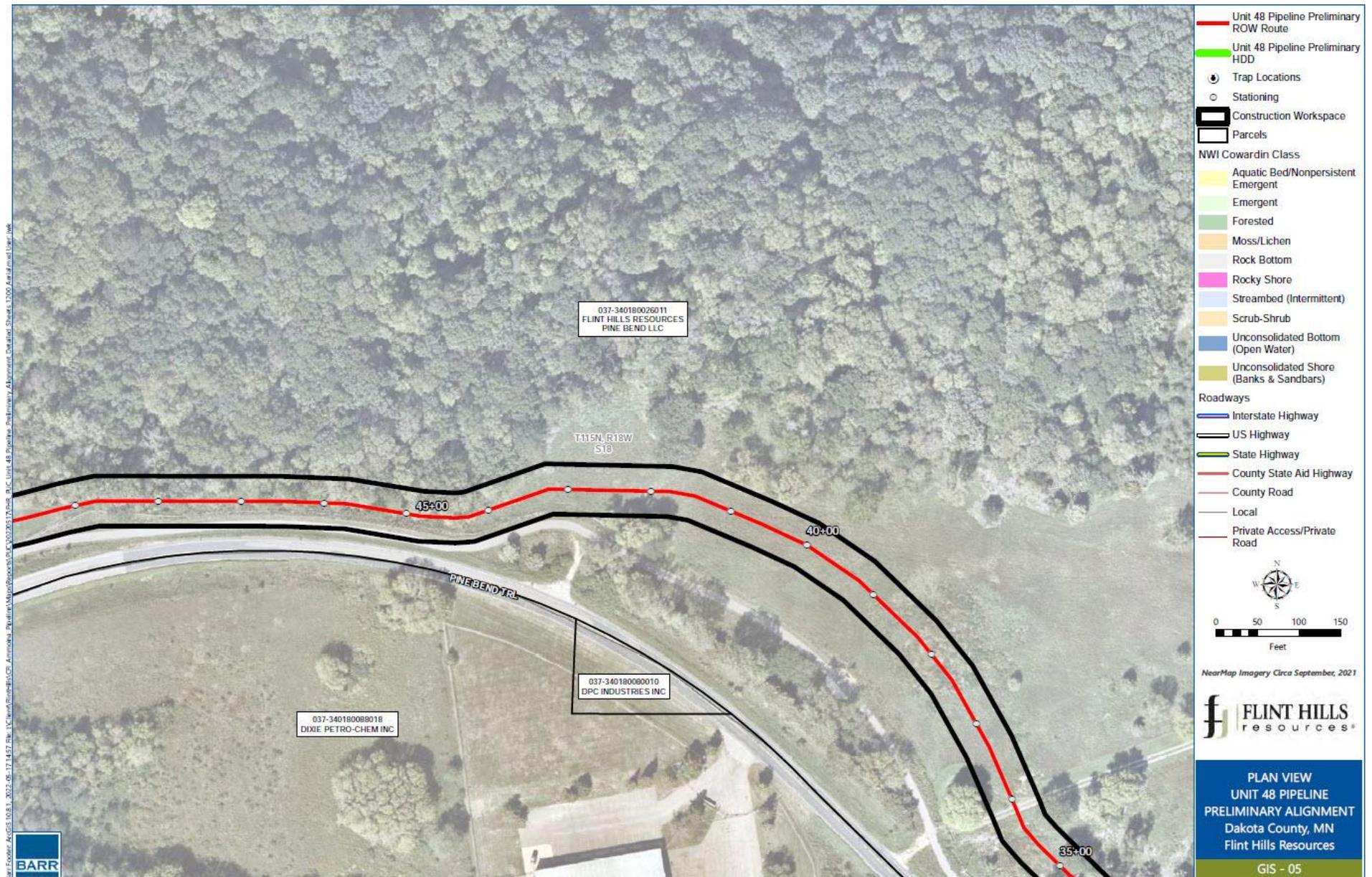




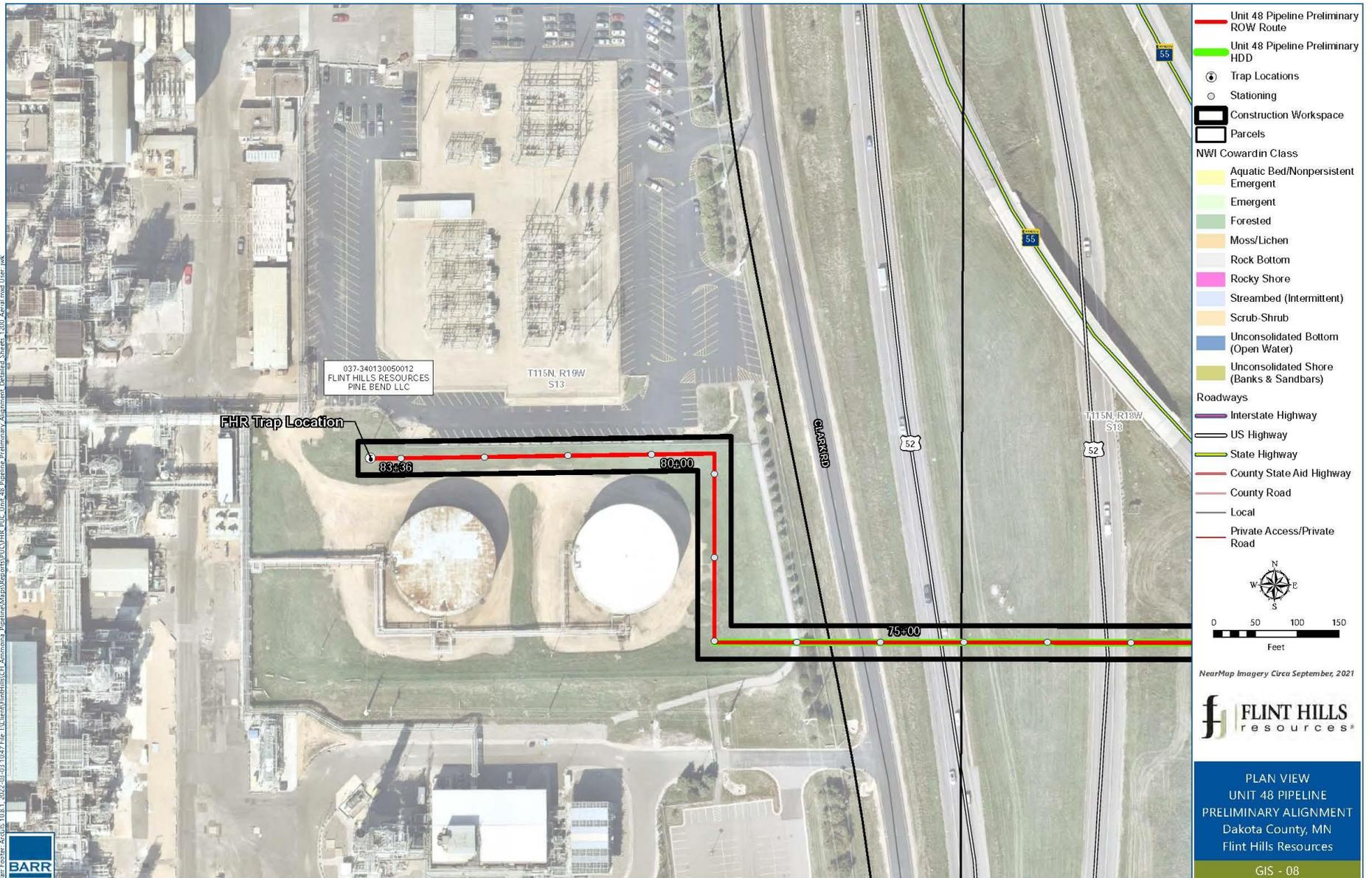






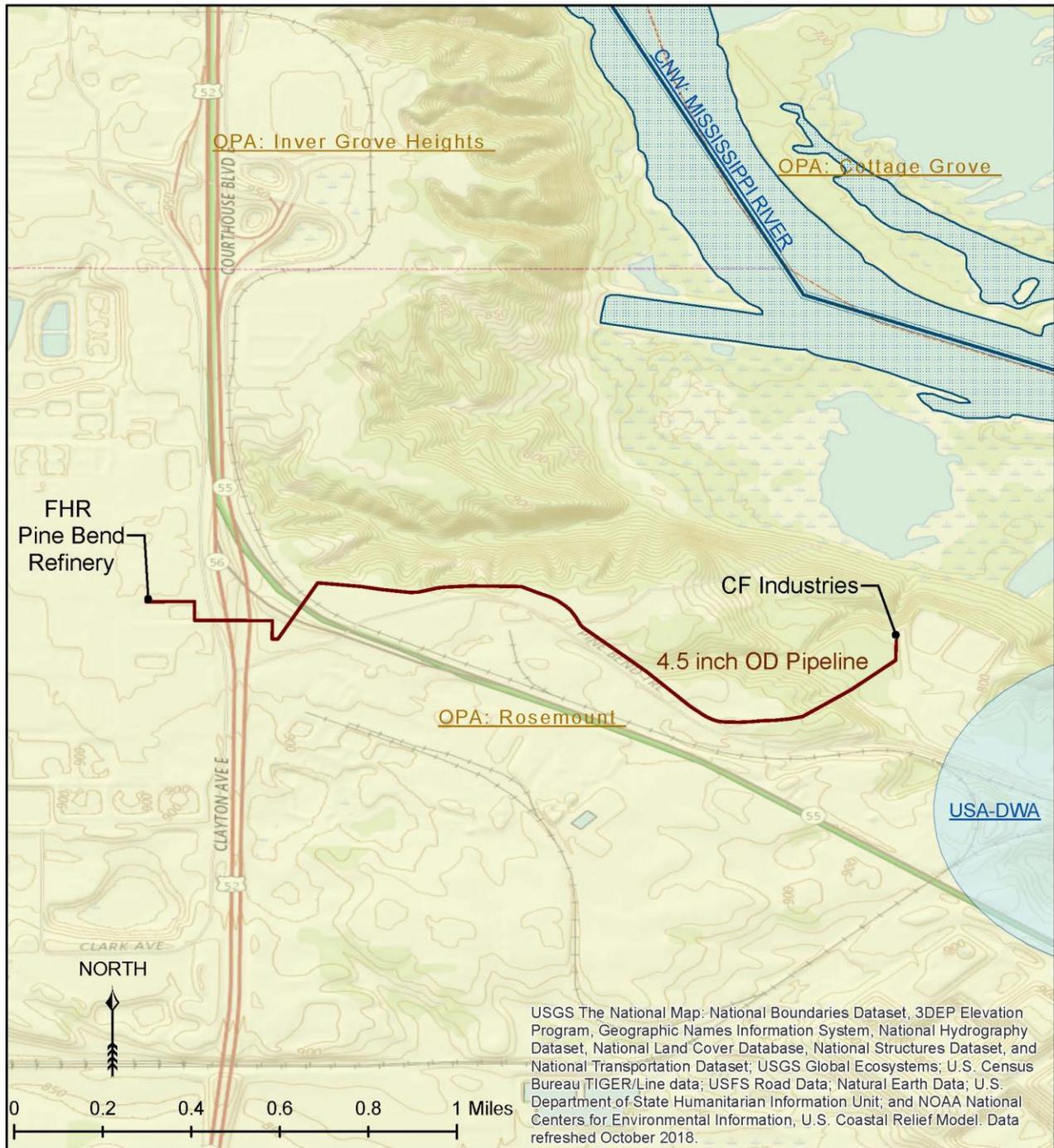






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APPENDIX B: High Consequence Area Map



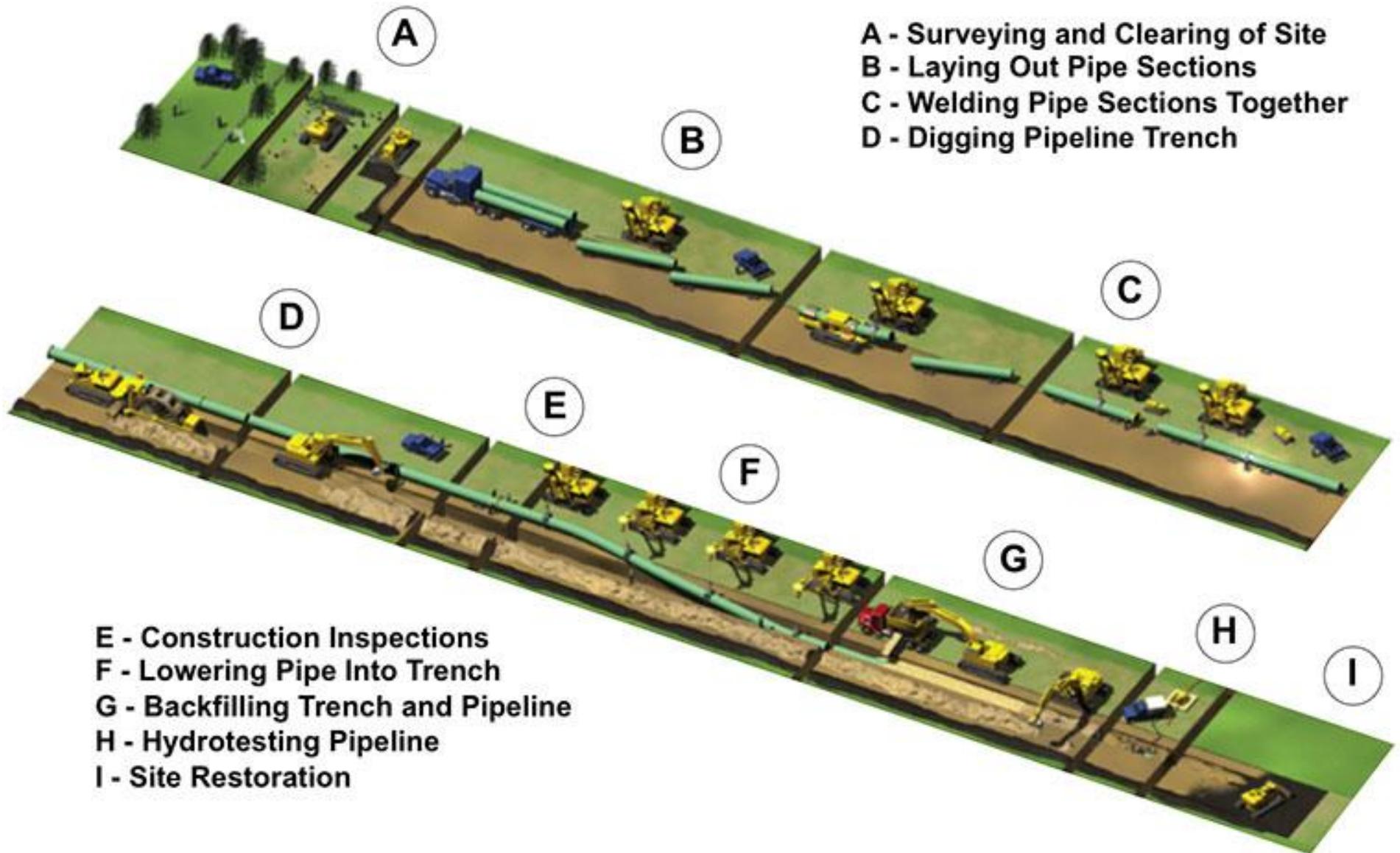
- Pipeline
- Other Population Area
- Commercially Nav. Waterway
- Unusually Sensitive Area (USA) - Drinking Water

**High Consequence Area Map Proposed
Route of 4.5 inch OD Pipeline
CF Industries to FHR Pine Bend Refinery**

Note: Unusually Sensitive Area (USA) Ecological features in the vicinity of the proposed pipeline route are not displayed due to contractual obligations. The proposed pipeline route does not traverse through any USA.

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APPENDIX C: Typical Pipeline Construction Sequence



A - Surveying and Clearing of Site
B - Laying Out Pipe Sections
C - Welding Pipe Sections Together
D - Digging Pipeline Trench

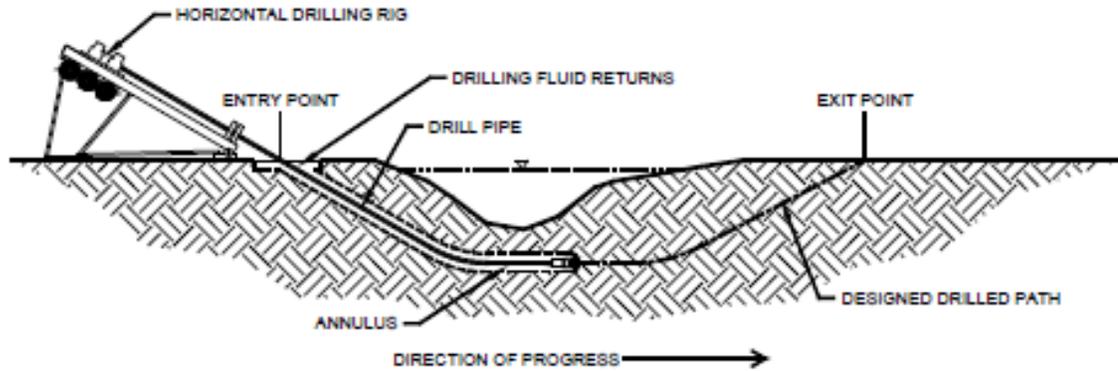
E - Construction Inspections
F - Lowering Pipe Into Trench
G - Backfilling Trench and Pipeline
H - Hydrotesting Pipeline
I - Site Restoration

- "Pipeline Construction Steps." AOPL, <https://aopl.org/page/pipeline-construction>

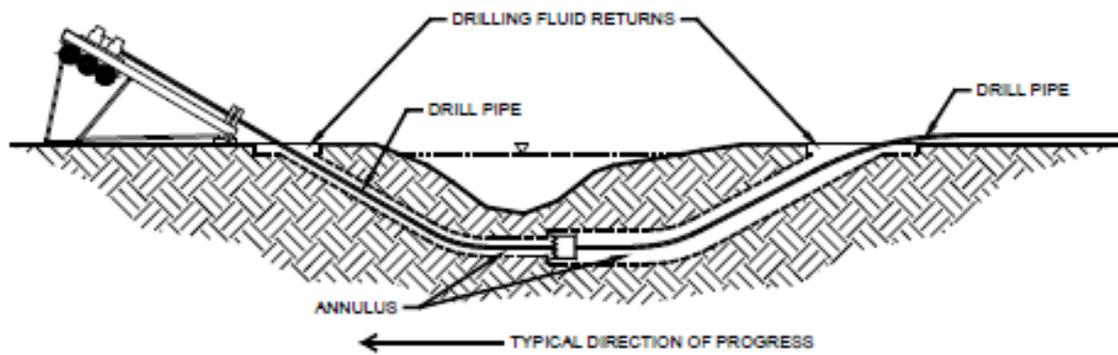
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APPENDIX D: The Horizontal Directional Drilling (HDD) Process

PILOT HOLE



PREREAMING



PULLBACK

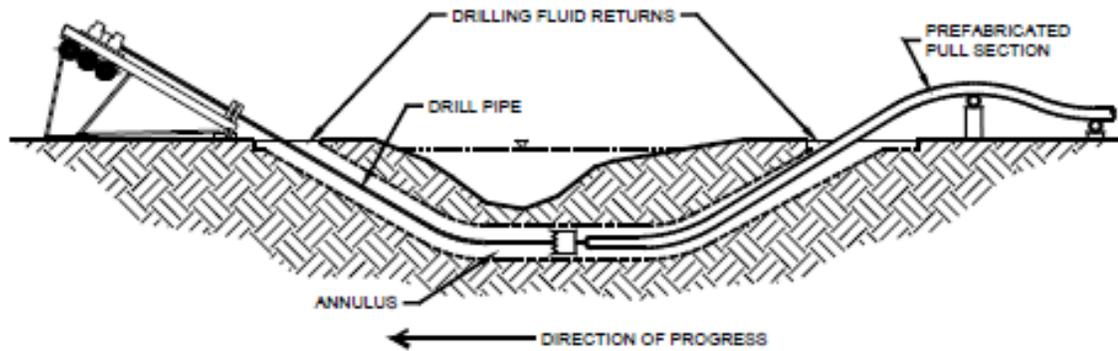


Figure 1
The HDD Process

"The Horizontal Directional Drilling Process." *The Horizontal Directional Drilling Process*, 1 Jan. 1970, penelitpipe.blogspot.com/2014/01/the-horizontal-directional-drilling.html.