UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISION

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT

DOCKET NO. CP11-_____-000

VOLUME 1

PUBLIC INFORMATION

JULY 2011

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISION

Gulf South Pipeline Company, LP	§	Docket No. CP11- -000

APPLICATION UNDER BLANKET AUTHORIZATION
PRIOR NOTICE PROCEEDINGS

Pursuant to 18 C.F.R. §§ 157.205(b), 157.208(c) and 157.210 of the Federal Energy Regulatory Commission's ("Commission") regulations and the blanket authority granted to Gulf South Pipeline Company, LP ("Gulf South") in Docket No. CP82-430-000,[1] Gulf South files this Prior Notice Request under Blanket Authorization for authorization to replace and modify approximately 3.97 miles of pipeline within the city limits of Jackson, Mississippi ("the City of Jackson Pipeline Replacement Project" or "Project"). In support of this Application, Gulf South submits the following information:

I.
APPLICANT

The exact name of Gulf South is Gulf South Pipeline Company, LP and its principal place of business is 9 Greenway Plaza, Suite 2800, Houston, Texas 77046. Gulf South is a limited partnership organized and existing under the laws of the state of Delaware and is duly authorized to do business in the States of Texas, Louisiana, Mississippi, Alabama, and Florida.

Gulf South is a natural gas company within the meaning of the NGA. It owns and operates approximately 7,850 miles of pipeline facilities extending from south Texas and

[1] *Gulf South Pipeline Company, LP*, 20 FERC ¶ 62,416 (1982).

eastern Texas then proceeding through Louisiana, Mississippi, southern Alabama, and western Florida. Gulf South has multiple interconnects with other interstate and intrastate pipelines and storage facilities, which allows it to serve various on-system and off-system markets. Gulf South is an open-access pipeline company that provides transportation and storage services pursuant to Part 284 of the Commission's regulations.

The names, titles, and mailing addresses of the persons to whom communications and correspondence regarding this filing should be addressed are:

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Each of these persons is designated to receive service in accordance with 18 C.F.R. § 385.203(b)(3). Gulf South requests the Commission place these persons on the official service list for this proceeding pursuant to 18 C.F.R. § 385.2010. Gulf South requests that the Commission waive Rule 203(b)(3) to allow designated service to each of these persons.

II.
BACKGROUND

In accordance with the U.S. Department of Transportation's (DOT) regulations in the Code of Federal Regulations ("CFR") 49 C.F.R. Part 192,[2] the Pipeline Safety Improvement Act of 2002, and Gulf South's Integrity Management Program, Gulf South performed class location studies of Index 301.[3] As a result, Gulf South is proposing to replace approximately 3.97 miles of pipeline along Gulf South's pipeline system in Hinds County, Mississippi as part of the City of Jackson Pipeline Replacement Project.

III.
DESCRIPTION OF THE PROPOSAL

In this Prior Notice Request, Gulf South request authorization to replace and modify an 18-inch diameter pipeline with 3.97 miles of 12-inch diameter pipeline commencing at a point north of the Pearl River and ending at a new aboveground valve site which is near Gulf South's existing Jackson Compressor Station at the terminus of Index 301 in Rankin County, Mississippi. Gulf South proposes to maintain service to all customers during and after construction and leave in place the existing 18-inch diameter pipeline at the end of the project. Gulf South uses this section of Index 301 to provide firm and interruptible transportation services for several customers. Total current firm delivery obligations equal 71.2 MMcf/d for points within and downstream of this replacement. Deliveries to firm and interruptible customers are from the Jackson Compressor Station, through Index 301 and downstream laterals including Index 301-12,

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[2] 49 C.F.R. Part 192.

[3] Gulf South's predecessor, United Gas Pipe Line Company, installed the Index 301 facilities under grandfather authorization granted by the Commission in Docket No. G-232 [3 FPC 863 (1942)].

Index 301-18, Index 301-22, and Index 301-27. The proposed Project would be located entirely within the city limits of Jackson, Hinds County, Mississippi. The Project will follow the existing right-of-way ("ROW") for the majority of the route, with minor deviations incorporated to provide the most direct crossings of complex roadways and urban areas of Jackson, Mississippi.

To minimize construction impacts to the landowners' property, Gulf South is proposing to install a smaller 12-inch diameter pipeline via ten horizontal directional drills ("HDDs") totaling approximately 2.82 miles (inclusive of road bores), representing 71% of the Project footprint, and approximately 1.15 miles of conventional construction techniques (mostly along the property lines of commercial properties).

Gulf South proposes to replace the existing 18-inch pipeline with a 12-inch pipeline for sound engineering reasons. The existing 18-inch pipeline was constructed in the 1940's and is not piggable since pipe is joined with Dresser Couplings instead of welded pipe connections. This connection method makes it difficult for Gulf South to efficiently conduct its ongoing Integrity Management Program on this section of Index 301. In addition, the existing 18-inch pipeline has been significantly under-utilized. For example, the current capacity of the facility is approximately 150 MMcf per day, but the largest peak day over the past 9 years was 86.2 MMcf per day. In fact, the facility is currently contracted for 71.2 MMcf per day of firm service. Replacing it with a new 18-inch pipeline would require larger construction equipment and more workspace which would be more intrusive for landowners without benefit to the natural gas market. Replacing the 18-inch pipeline with its nearest standard size – a 16-inch pipeline - would result in 216.5 MMcf per day of capacity. This would simply be more costly and would

result in over-building already surplus capacity. Gulf South concluded for these sound engineering reasons it is appropriate to design the facilities using the smaller diameter 12-inch pipeline.

The current and proposed maximum capacity of the Index 301 facilities will be:

Current facilities: 150.7 MMcf/d (summer)

Proposed facilities: 125.3 MMcf/d (summer)

See Volume 2 Attachment C

Gulf South does not propose the abandonment of any services in connection with the replacement of these facilities and Gulf South does not expect that the Project will impact its peak day or annual gas deliveries. The Project will not result in any physical change in service, and Gulf South will continue to operate the pipeline in accordance with the rates, terms and conditions set forth in Gulf South's FERC Gas Tariff.

IV.
ENVIRONMENTAL MATTERS

Pursuant to 18 C.F.R. § 157.208(c)(9), the Environmental Report (ER) for this Project is included herewith in Volume 1, Attachment A. A USGS 7-1/2 minute series topographic map depicting the location of the facilities and related construction activities is included in the Environmental Report in accordance with the requirements of 18 C.F.R. §157.208(c)(3) of the Commission's regulations. As further detailed in the ER, the proposed construction will incorporate proven construction techniques and mitigation procedures and will result in no significant impact to the quality of human health, the environment, or affected landowners. The Project will be constructed in accordance

with the FERC's Upland Erosion Control, Revegetation and Maintenance Plan. No wetlands are impacted by the Project.

Gulf South has designed the Project to minimize impact to affected landowners as discussed here and in the ER. The majority of this Project will be located within Gulf South's existing pipeline corridor and there will be only temporary disturbance of property during construction. The approximately 3.97 mile pipeline replacement Project will avoid significant ground disturbance and disruption to affected landowners because approximately 2.82 miles (71% of Project, inclusive of road bores) will be HDD construction, and 1.15 miles (29% of Project) will utilize conventional construction techniques as described in the ER.

Gulf South's plans to minimize to the extent possible noise impacts included herewith in Gulf South's detailed plan for reducing noise impacts from HDD's attached as part of the ER. Gulf South intends to comply with the intent of 18 C.F.R. § 157.206(b)(5)(iii) that HDD's which will occur between 10 p.m. and 7 a.m. must be conducted with the goal of keeping the perceived noise level from the drilling at any pre-existing noise sensitive areas at or below a night level of 55 dBA. Gulf South has been and will continue to work with all affected landowners to address their concerns and mitigate, to the extent possible, any potential adverse environmental impacts. As part of these efforts, Gulf South provided landowner notification letters to affected landowners in late May and also placed calls to landowners and made hand deliveries to landowners to discuss the proposed Project in advance of this Prior Notice request. No landowner has said they will protest the project.

V.
PUBLIC CONVENIENCE AND NECESSITY

As discussed herein, Gulf South performed class location studies of Index 301 as part of its compliance with federal pipeline safety standards due to the class location upgrades resulting from population increases in proximity to its pipeline. The Project will ensure continued safety and reliability of Gulf South's Index 301 pipeline. Gulf South has designed this Project by employing HDD techniques to miminize to the maximum extent possible the disruption or environmental consequences to those affected landowners. Therefore, the Project will only have a minor, temporary, impact on the environment and landowners

The Project will enhance Gulf South's ability to reliably and safely continue to provide service to residential and commercial/industrial customers in the Jackson area and to accommodate future growth. Also, the Project will only have a minor, temporary, impact on the environment and landowners. Gulf South has designed the Project by employing HDD techniques to minimize, to the maximum extent possible, the disruption or environmental consequences to the affected landowners. For example, HDDs will be used when crossing 52 of the 54 residences located within 25 feet of the proposed Project. Gulf South will continue to work cooperatively with all affected landowners to address their concerns and minimize any possible impact. Therefore, the Project is required by the public convenience and necessity.

VI.
OTHER PROCEDURES AND REQUIREMENTS

In accordance with 18 C.F.R. § 157.203(d)(2) of the Commission's Regulations, Gulf South will make a good faith effort to notify all affected landowners, as defined in 18 C.F.R. § 157.6(d)(2). Gulf South has provided notification letters to affected landowners in late May 2011. Furthermore, Gulf South will follow-up with an additional notification letter to provide Docket Nos. to landowners in accordance with this requirement.

Gulf South will also comply with the reporting requirements of 18 C.F.R. § 157.208(e) of the Commission's regulations. In compliance with 18 C.F.R. § 157.205(b)(4) of the Commission's Regulations, Gulf South verifies that the authorization requested herein complies with the requirements of Subpart F of 18 C.F.R. Part 157.

Pursuant to 18 C.F.R. § 157.205(b)(5) of the Commission's Regulations, a form of notice suitable for publication in the *Federal Register* is attached.

In accordance with 18 C.F.R. § 157.205(b)(6) of the Commission's Regulations, Gulf South states that it knows of no other related Applications necessary to effectuate the proposed Project, which have been or need to be filed by Gulf South or any other person.

Pursuant to 18 C.F.R. §157.208(c)(4) of the Commission's Regulations, a system map showing the pipe replacement location is provided in Volume 1, Attachment A.

Pursuant to 18 C.F.R. § 157.208(c)(6), the following is an estimate of the Project costs.

Description.	Total
Pipe, fittings, regulation equipment and structures	$ 1,463,557
Engineering, Permitting, and Construction	$ 8,513,025
Warehousing, Capital Overhead, Capitalized Interest	$ 3,532,631
	$ 13,509,213

Gulf South will finance the facilities with funds on hand.

In accordance with 18 C.F.R. § 157.208(c)(10) of the Commission's Regulations, Gulf South commits to filing the Environmental Inspector's Report with the Commission each week.

This filing is a request for authorization pursuant to §§ 157.205, 157.208, and 157.210 of the Commission's Regulations. Consistent with the requirements of these regulations, Gulf South submits the following attachments:

VOLUME 1, ATTACHMENT A - ENVIRONMENTAL REPORT

Pursuant to 18 C.F.R. § 157.208(c)(9), attached is the Environmental Report for this Project, which more fully describes the potential environmental impacts. The Environmental Report describes how the proposed facilities will comply with the State Implementation Plans developed under the Clean Air Act and contains copies of the permits necessary under the Endangered Species Act and the National Historic Preservation Act.

VOLUME 1, ATTACHMENT B – STATEMENT OF COMPLIANCE

Pursuant to 18 C.F.R. §157.205(b)(4), Gulf South provides herein a statement certifying that the proposed activities are in compliance with requirements of Subpart F of Part 157 of the Commission's Regulations.

VOLUME 2, ATTACHMENT C - FLOW DIAGRAM

Pursuant to 18 C.F.R. § 157.208(c)(2) and (c)(5), included herein is a set of flow diagrams depicting the current and proposed maximum capacity of this segment of Index 301.

VII.
CONCLUSION

Gulf South requests that the Commission accepts this prior notice request for filing, and publish notice thereof in the *Federal Register* of Gulf South's request for authorization under the Commission's blanket certificate regulations to construct, own, and operate the Project a described above.

Respectfully submitted,

Gulf South Pipeline Company, LP

M. L. Gutierrez
Director, Regulatory Affairs

Gulf South Pipeline Company, LP
Docket No. CP11- -000

ATTACHMENT A

ENVIRONMENTAL REPORT

Gulf South Pipeline Company, LP

Environmental Report

City of Jackson Pipeline Replacement Project

July 2011

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1.0 GENERAL PROJECT DESCRIPTION

1.1 PROPOSED FACILITIES

In order to comply with U.S. Department of Transportation (DOT) Code of Federal Regulations (CFR) Title 49: Transportation: Part 192. *Transportation of Natural Gas and Other Gas by Pipeline: Minimum Federal Safety Standards*; Subpart O - *Gas Transmission Pipeline Integrity Management*, Gulf South Pipeline Company, LP (Gulf South) is proposing to replace approximately 3.97 miles of 18-inch natural gas pipeline with 12-inch pipeline along Gulf South's pipeline system in Hinds County, Mississippi as part of the City of Jackson Pipeline Replacement Project (Project) (Volume 1, Attachment 3, Figure 1.1-1). The Project will follow the existing right-of-way (ROW) for the majority of the route, with minor deviations incorporated to provide the most direct crossings of complex roadways and heavily populated urban areas of Jackson, Mississippi.

Gulf South is proposing to install the 3.97 miles of pipeline with ten horizontal directional drills (HDDs) and conventional open cut construction techniques. Construction of approximately 2.82 miles (71% of Project, including road bores) will be performed using the HDD method, and only 1.15 miles (29% of Project) will be performed using the open cut method.

Gulf South has designed the Project to minimize construction impacts on landowners by using HDDs for pipeline replacements on 73.2% of residential land. Gulf South plans to use HDDs when crossing 52 of the 54 residences located within 25 feet of the proposed Project. The HDD construction method is less invasive, will result in less disruption to surface activities surrounding the Project area, and will require less temporary workspace than the open cut method. Also, the use of HDDs will result in only minimal ground disturbance and will decrease construction impacts on the surrounding areas.

Pursuant to 18 CFR §§ 157.205(b) and 157.208(c) of the Federal Energy Regulatory Commission's (FERC or Commission) regulations and the blanket authority granted to Gulf South in Docket No. CP82-430-000, Gulf South has prepared this Environmental Report (ER) in support of this Application under Blanket Authorization Prior Notice Procedures. Pursuant to Order No. 702, Critical Energy Infrastructure Information, 18 CFR § 388.112, Volume 1 will contain the ER and the publicly available attachments and Volume 2 will contain Privileged Information. Based on the information presented within this ER, the replacement and abandonment associated with the Project would not have a significant impact on the environment.

1.1.1 Purpose and Need

The Project involves the replacement of approximately 3.97 miles of Gulf South's existing 18-inch diameter natural gas pipeline system in Hinds County, Mississippi, with new 12-inch diameter pipeline as a result of the identification of seven High Consequence Areas (HCAs) along this section of the pipeline located entirely within the city limits of Jackson, Mississippi. All seven HCAs will be eliminated by this replacement Project with the replacement pipeline maintaining a maximum allowable operating pressure (MAOP) of 720 pounds per square inch gauge (psig). Additionally, approximately 3.97 miles of 18-inch pipeline will be abandoned in place.

1.1.2 Location and Description of Facilities

The proposed Project will begin approximately 422 feet southeast of the intersection of Gulf South's ROW and Quail Run Road. From there, the replacement pipeline will travel northwest for approximately 3.97 miles along Gulf South's existing, previously disturbed and maintained ROW to just south of ROW intersection with Beasley Road. The Project facilities are summarized in Table 1.1.2-1 and depicted on a topographic excerpt map (Figure 1.1.2-1) and aerial alignment sheets, provided as attachments to this ER in Volume 1, Attachment 3 and Volume 2, Attachment 1, respectively.

TABLE 1.1.2-1
Facilities to be Constructed

Facility	County, State	Begin Station	End Station	Length (miles) / Dimension
Pipeline	Hinds County, Mississippi	177+86	387+69	Approximately 3.97 miles of 12-inch pipeline
Valve Site	Hinds County, Mississippi	387+69	387+99	30 feet X 100 feet

1.2 LAND REQUIREMENTS

Construction of the proposed Project will affect a total of approximately 47.86 acres of land, and includes the use of Gulf South's existing 30-foot permanent easement as the construction ROW, as well as temporary workspace to install the replacement pipeline. In general, Gulf South proposes to install the 12-inch pipeline utilizing an off-set from the existing 18-inch pipeline of 10 feet. A combination of HDD and conventional construction techniques will be implemented. Following construction, all temporary and permanent workspaces will be restored by Gulf South to pre-construction conditions or allowed to revert to their former use. A summary of land requirements for the Project are presented in Table 1.2-1 and described in the following sections.

TABLE 1.2-1
Summary of Land Requirements Associated with the Project

Facilities	Temporary (acres)	Permanent (acres)*	Totals
Pipeline Facilities			
Pipeline	10.26	14.93	25.19
Pipe/Contractor Yard	22.60	0.00	22.60
Subtotal	**32.86**	**14.93**	**47.79**
Aboveground Facilities			
Valve Site (30 feet x 100 feet)	0.00	0.07	0.07
Subtotal	**0.00**	**0.07**	**0.07**
Project Total	**32.86**	**15.00***	**47.86**

*3.31 acres = new permanent ROW (3.24 acres pipeline ROW and 0.07 acre valve site); 11.69 acres = existing permanent ROW

1.2.1 Pipeline Facilities

Gulf South proposes to replace approximately 3.97 miles of 18-inch diameter natural gas pipeline with 12-inch natural gas pipeline from Station 177+86 to Station 387+69 within its existing 30-foot maintained ROW, which is depicted as permanent easement on the attached alignment sheets (Volume 2, Attachment 1). Gulf South proposes the use of a 10-foot offset from the existing 18-inch pipeline which will vary in orientation, as depicted in the alignment sheets. The pipeline will be installed predominantly within Gulf South's existing, previously disturbed ROW, while a minor portion of the pipeline (3.24 acres) will be installed within a newly acquired 30-foot permanent easement, thereby minimizing new permanent impacts. Additionally, Gulf South is proposing to utilize the majority of its existing pipeline ROW as workspace throughout the Project area for access and/or pipe stringing activities, thereby decreasing the need for additional temporary workspace and associated impacts.

Installation of the pipeline via HDD over 71% of the Project (including road bores) will further reduce impacts associated with the Project. The areas crossed by conventional open cut methods represent only 29% of the Project footprint. Residential areas represent 12.14 acres of the total 47.86-acre Project footprint. Further, the use of HDD installation methods will avoid significant ground disturbances such as those associated with conventional open cut construction techniques and minimize construction disturbance to the areas surrounding the Project area.

The existing 18-inch pipeline will be abandoned in place by packing the line with nitrogen and capping, with grout placed under roadways per Mississippi DOT regulations.

Temporary Workspace

Temporary workspace (TWS) will be necessary at the proposed horizontal directional drill (HDD) entry and exit points, proposed road bore entry and exit points, and for pipe pull back areas. TWS will also be used as staging areas for equipment along the construction ROW, as well as at existing road crossings for the grouting and capping activities associated with the pipeline abandonment activities. All TWS are depicted on the alignment sheets provided in Volume 2, Attachment 1.

Access Roads

Access roads allow for the passage of a wide range of vehicles, including high clearance vehicles and heavy trucks. Project access will be directly from existing public roads onto Gulf South's existing ROW. No new temporary or permanent access roads will be needed for the Project.

Pipe/Contractor Yard

Gulf South is proposing to utilize open areas of their existing Jackson Compressor Station located 3.27 miles southeast of the Project kick-off as a pipe and contractor yard for the Project.

1.2.2 Aboveground Facilities

The only aboveground facility associated with the Project is a proposed valve site (0.07 acre) located at the terminus of the Project at Station 387+69. The valve site will be within easement to be acquired by Gulf South.

1.3 CONSTRUCTION SCHEDULE AND PROCEDURES

All facilities described in this ER will be designed, constructed, tested, operated, and maintained in accordance with the U.S. DOT regulations in Title 49 CFR Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*, and other applicable federal and state regulations. Construction of the proposed Project will be performed in accordance with the 2003 versions of FERC's *Upland Erosion Control, Revegetation and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures) and Gulf South's Project-specific *Stormwater Pollution and Prevention Plan* (SWPPP). Additionally, Gulf South will implement their *Spill Prevention, Control, and Countermeasure Plan* (SPCC Plan) and *Plan for Containment of Inadvertent Release of Drilling Mud During Horizontal Directional Drilled Wetland and Waterbody Crossings* to protect resources from inadvertent releases during construction activities.

1.3.1 Construction Schedule

Construction is scheduled to begin on or near April 1, 2012, with an in-service date on or near July 31, 2012, pending FERC authorization.

1.3.2 Construction Procedures

The majority of the pipeline (71% of the Project, including road bores) will be installed via HDDs, with the remaining segments in between the HDDs being installed via conventional open-cut construction techniques. Construction activities for the Project will involve minimal clearing and grading of the Project area; trenching; pipe stringing, bending, and welding; lowering-in and backfilling; hydrostatic testing; and cleanup and restoration of the Project area. Construction will require one spread with multiple drilling crews and is anticipated to last four months, subject to weather and equipment delivery.

General

Conventional open cut pipeline construction techniques will be used for a small portion (approximately 1.15 miles or 29%) of the Project (Volume 1, Attachment 3, Figure 1). These techniques have been characterized as a moving assembly line with a construction spread (crew and equipment) proceeding along the construction ROW in a continuous operation. Due to the minimal length of the Project, Gulf South proposes to use a single construction spread to complete the installation of the pipeline.

The Project area is characterized as highly populated and urbanized. Therefore, construction will be coordinated to minimize the total time a tract of land is disturbed, reducing erosion potential and loss of normal use. Construction activities will be confined to the certificated areas of disturbance and will be conducted in accordance with the FERC Plan and Procedures.

Clearing and Grading

The construction ROW will be cleared and graded, where necessary, to provide a relatively level surface for trench-excavation equipment and the movement of other construction equipment. Large obstacles, such as trees, rocks, brush, and logs, will be cleared from all construction work areas. Timber and other vegetative debris will be disposed of in accordance with applicable local regulations and landowner requirements. As necessary, topsoil will be stripped and segregated in residential and commercial/industrial areas. Topsoil will be removed and stockpiled separately from the subsoil excavated from the pipeline trench (Volume 1, Attachment 3, Figure 2). To contain disturbed soils during clearing and grading in upland areas and to minimize erosion and sedimentation of wetlands and waterbodies, temporary erosion controls will be installed prior to initial disturbance of soils and will be maintained throughout construction.

Trenching

Trenching is necessary to bury the new pipeline, and involves the use of a trenching machine, backhoe, or similar equipment. The trench will be excavated to a depth that will allow space for the pipeline, pipeline bedding, and the minimum amount of top cover required by DOT specifications. Typically, the bottom of the trench will be excavated at least 12 inches wider than the diameter of the pipe. The sides may be sloped for safety. Excavated soils will be stockpiled along the ROW, typically on the side of the trench away from the construction traffic and pipe assembly area (the "spoil side"). Gulf South does not anticipate the need for blasting associated with trench excavation.

Pipe Stringing, Bending, and Welding

The piping work may begin in a fabrication shop offsite, or all fabrication may take place onsite if workspace permits. If offsite fabrication is employed, the prefabricated pieces will be shipped to the site and installed in place. If onsite fabrication is employed, the pipe will be field bent by track-mounted hydraulic bending machines, as necessary, prior to line-up and welding. Piping will be coated for corrosion protection prior to backfilling, and a cathodic protection system will be installed to protect underground piping.

Piping will involve welded construction, except where connected to flanged components. All welders and welding procedures will be qualified in accordance with API Standards or the ASME Boiler and Pressure Vessel code. All welds in large diameter gas piping systems will be X-rayed (or other non-destructive testing method) to ensure compliance with company and code requirements.

Lowering-in and Backfilling

The completed section of pipe will be lifted off the temporary supports and lowered into the trench by side-boom tractors, or in some cases, other equipment. Before lowering the pipe, the trench will be inspected to ensure that it is free of rock and other debris that could damage the pipe or the coating. In addition, the pipe and trench will be inspected to ensure that the pipe and trench configurations are compatible.

After the pipe is lowered into the trench, the trench will be backfilled using previously excavated materials. Excavated materials deemed unsuitable for backfill will be disposed of in accordance with applicable regulations and landowner requirements.

Hydrostatic Testing

Following backfilling of the trench, the pipeline will be hydrostatically tested to ensure it is capable of operating at the design pressure. The water will be obtained from municipal sources; no chemicals will be added. The water in the pipe will be pressurized and held for a

minimum of eight hours. 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 segments that are repaired will be retested. Upon completion of the testing, the water will generally be discharged to a well vegetated upland area through an energy-dissipating device or to a collection vessel for removal and disposal off-site.

Hydrostatic test water will generally only be in contact with new pipe. No chemicals will be added to the testing water. Once a segment of pipe has been successfully tested and dried, the test cap and manifold will be removed, and the pipe will be connected to the remainder of the pipeline.

Cleanup and Restoration

After each segment of the pipeline has been installed and backfilled, the areas disturbed by construction will be restored and graded to pre-construction conditions. Construction debris will be disposed of properly. In residential areas, compacted subsoil will be disked, and the segregated topsoil will be returned as nearly as possible to its original horizon. Permanent erosion and sediment control measures will be installed at this time. Private and public property, such as fences, gates, driveways, and roads, disturbed by pipeline construction will be restored to original or better condition.

1.3.3 Specialized Construction Procedures

In addition to conventional pipeline construction techniques, ten HDDs and four road bores will be used to install the majority of the pipeline for this Project. The HDD installation method essentially consists of directionally drilling a small diameter pilot hole, then reaming or enlarging the pilot hole to accommodate the pipeline, followed by pull-back or pulling the pre-fabricated and pre-hydrotested pipeline through the hole (Volume 1, Attachment 3, Figure 3). The pipeline is then tied into the rest of the conventionally installed pipeline. Gulf South will implement the following plans during HDD activities: *Plan for Containment of Inadvertent Release of Drilling Mud During Horizontal Directional Drilled Wetland and Waterbody Crossings* and *Plan for Reducing Noise Impacts From Horizontal Directional Drill (HDD) Operations*. The plans are provided within Volume 1, Attachment 2 of this ER.

Road bore construction techniques will also be used to cross four roads (Volume 1, Attachment 3, Figure 4). TWS will be necessary at the proposed HDD entry and exit points, proposed road bore entry and exit points, and for pipe pull back areas. Refer to Table 1.3.3-1 for more detailed information regarding the location and length of each HDD and road bore, and to Volume 2, Attachment 1 for alignment sheets depicting the location of the HDDs, road bores, and the associated TWS.

TABLE 1.3.3-1
Proposed Horizontal Direction Drill and Road Bore Locations

Crossing Type ID	Begin Station	End Station	Approximate Length (feet)
HDD 1	177+86	185+19	733
HDD 2	193+44	222+43	2,899
HDD 3	222+83	236+60	1,377
HDD 4	236+99	270+46	3,347
HDD 5	275+36	281+99	663
HDD 6	291+09	296+58	549
HDD 7	310+07	319+91	984
HDD 8	328+25	335+78	753
HDD 9	346+53	358+23	1,170
HDD 10	362+10	382+63	2,053
HDD Total			**14,528**
Road Bore 1	190+53	190+93	40
Road Bore 2	284+57	285+70	113
Road Bore 3	289+92	290+52	60
Road Bore 4	323+85	325+60	175
Road Bore Total			**388**
Project Total			**14,916**

1.3.4 Workforce

The construction of the Project will be conducted with a work force of 50 to 75 people. Because of the specialized nature of pipeline construction, the majority of the workforce to be employed for this Project is expected to be non-local. Additional construction personnel hired from outside of the Project area would include construction specialists, supervisory personnel, and inspectors who would temporarily relocate to the Project area.

1.4 IMPLEMENTATION

Gulf South will construct and operate the proposed Project in full compliance with the mitigation measures identified in this ER, FERC's analysis of the Project, and the requirements of other federal and state permitting agencies. Copies of permits and clearances associated with the Project are included in the Agency Correspondence in Volume 1, Attachment 1. Following the completion of construction, Gulf South will provide instructions and documentation in the form of a maintenance plan to Gulf South's operating personnel to address post-

construction requirements. Installation of all Project facilities will be according to Gulf South's specifications, as depicted on the aerial alignment sheets (Volume 2, Attachment 1) and all applicable permits and clearances.

To protect areas from inadvertent releases of fuel and other mechanical fluids, a Project-specific SPCC Plan will be prepared. Additionally, the following construction-related plans have been prepared in order to make prospective contractors aware of environmental requirements that apply to the Project: *Plan for the Unanticipated Discovery of Historic Properties or Human Remains During Construction*, *Plan for the Unanticipated Discovery of Contaminated Environmental Media, Plan for Containment of Inadvertent Release of Drilling Mud During Horizontal Directional Drilled Wetland and Waterbody Crossings,* and *Plan for Reducing Noise Impacts From Horizontal Directional Drill (HDD) Operations*. These plans are provided in Volume 1, Attachment 2.

Project inspectors will be drawn from Gulf South's inspector pool or, in some cases, from qualified contractors. Gulf South will conduct training for its field construction personnel and contractor's personnel before the Project kick-off and as necessary during construction. This training will focus on environmental compliance with all applicable environmental mitigation measures.

For purposes of quality assurance and compliance with mitigation measures, other applicable regulatory requirements, and Gulf South specifications, Gulf South will be represented by a Chief Inspector. The Chief Inspector will be assisted by one or more Craft Inspectors and at least one person designated as the Environmental Inspector (EI). The EI will be present throughout construction, and will have the authority to enforce permit conditions. The EI reports to Gulf South's Environmental Project Manager and has stop work authority. The EI's duties are consistent with those contained in paragraph II.B ("Responsibilities of the Environmental Inspector") of the Plan.

Adequate copies of the Construction Drawing Package will be distributed to Gulf South's inspectors and to the contractors' supervisory personnel. If the contractor's performance is unsatisfactory, the terms of the contract allow Gulf South to stop work progress and cause a contractor to begin remedial work.

The Engineering and Construction Departments are responsible for designing and constructing certificated facilities in compliance with all applicable requirements and agreements. Any issues of non-compliance with mitigation measures or other regulatory requirements that cannot be solved in the field will be addressed by the Project Manager. Operations will be responsible for long-term Project maintenance and compliance.

Routine reporting or specific communication with FERC staff regarding design, installation, and maintenance of the facilities described in this section is the responsibility of Gulf South's Environmental Affairs and Regulatory Groups. FERC staff inquiries regarding these proposed facilities should be addressed to Gulf South's Environmental Project Manager.

1.5 FUTURE PLANS AND ABANDONMENT

Gulf South has no plans outside of those presented within this ER for future expansion or abandonment of the Project facilities described in this ER. Any expansion or abandonment plans for the remainder of Gulf South's system will be addressed in subsequent filings.

1.6 PERMITS AND APPROVALS

Federal, state, and local permits, authorizations, or clearances required for the construction of the Project are listed in Table 1.6-1. Written agency correspondence and agency consultation records are provided within Volume 1, Attachment 1.

In summary, Gulf South requested concurrence with their determination of *No Effect* on Threatened and Endangered (T&E) species from the U.S. Fish and Wildlife Service (USFWS) Jackson Ecological Services Field Office on April 28, 2011; and a response of concurrence was issued May 4, 2011. Gulf South also requested concurrence with their determination of *No Effect* on T&E species from the Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) on May 18, 2011. A response from MDWFP indicating no objection with the *No Effect* determination was issued May 31, 2011. All correspondence is provided in Volume 1, Attachment 1.

Gulf South has a categorical exclusion agreement with the Mississippi State Historic Preservation Officer (SHPO) issued December 21, 2010 which authorizes disturbance of previously disturbed areas within Gulf South's existing easement without consultation. Additionally, Gulf South requested concurrence with the SHPO with its determination of no impacts to cultural resources as a result of the Project on April 28, 2011. A response indicating that the SHPO has no objections to the Project was issued on May 13, 2011. Letters were also sent to the Mississippi Band of Choctaw Indians and the Grand Village Natchez Indian Tribe on April 28, 2011. Copies of all correspondence related to SHPO and tribal consultations are included in Volume 1, Attachment 1.

A single wetland will be impacted by the proposed Project; therefore, per Section 404 of the Clean Water Act permitting for these impacts is required through the U.S. Army Corps of Engineers (USACE). Impacts to all waterbodies crossed by the Project will be avoided through the utilization of HDD and road bore construction techniques. A Pre-Construction Notification

(PCN) for coverage under Nationwide Permit (NWP) 12 – Utility Line Activities was submitted to the USACE on May 18, 2011, and is included in Volume 1, Attachment 1 of this ER. Authorization correspondence is anticipated from the USACE within 45 to 60 days of submittal, and will be provided to FERC upon receipt.

The Project is not located within the boundary of the Mississippi Coastal Zone Management Area, therefore, Gulf South did not consult with the Mississippi Department of Marine Resources (MDMR).

TABLE 1.6-1
Major Permits, Licenses, Authorizations, and Clearances Required

Agency	Permit or Approval	Status
Federal Permits		
Federal Energy Regulatory Commission	Application Under Blanket Authorization – Prior Notice Proceedings	Submitted to FERC in June 2011
U.S. Fish and Wildlife Service (USFWS), Ecological Services Field Offices Jackson	Section 7 Endangered Species Act, Threatened and Endangered Species Consultation	Concurrence request submitted to USFWS-Jackson April 28, 2011. A response of concurrence was issued May 4, 2011.
U.S. Army Corps of Engineers (USACE), Vicksburg Districts	Sections 10/404 Permit	Pre-construction notification submitted May 18, 2011. Authorization correspondence is anticipated from the USACE within 45 to 60 days of submittal
State of Mississippi Permits		
Mississippi Department of Archives and History (State Historic Preservation Office)	Section 106 National Historic Preservation Act (NHPA) Consultation	Categorical Exclusion dated December 21, 2010. Concurrence request submitted to MDAH on April 28, 2011. Concurrence received on May 13, 2011.
Mississippi Department of Environmental Quality-Water Quality Division	Hydrotestwater Discharge General Permit	Gulf South will submit within 60 days of discharge to allow for final determination of volumes, locations, and rates of discharge.
Mississippi Department of Environmental Quality -Water Quality Division	Section 401 Water Quality Certification	Automatic authorization under Nationwide Permit 12 verification.
Mississippi Department of Wildlife, Fisheries, and Parks	Section 7 Endangered Species Act, Threatened and Endangered Species Consultation	Concurrence request submitted to MDWFP on May 18, 2011. A response of concurrence was issued on May 31, 2011.
Local		
Not applicable for the scope of this Project.		

1.7 LANDOWNER NOTIFICATION

Gulf South will comply with FERC's landowner notification requirements in accordance with 18 CFR § 157.203(d). In May and June 2011, all affected landowners were contacted by mail regarding the Project. The list of affected landowners is contained in Volume 2, Attachment 2, and is considered Privileged Information pursuant to 18 CFR § 388.112 of the Commission's regulations.

1.8 NON-JURISDICTIONAL FACILITIES

There are no non-jurisdictional facilities associated with the proposed Project.

2.0 WATER USE AND QUALITY

This section provides information on water resources in the vicinity of the Project, including groundwater, surface waters, wetlands, and construction-related water use. Gulf South determined the nature and location of wells, groundwater hazards, surface waters, and wetlands by accessing publicly available sources.

2.1 GROUNDWATER RESOURCES

This section describes the existing hydrology, water quality, and use of the regional aquifers beneath the Project area, the potential for impacts from the construction of the Project on those aquifers, and measures to mitigate any identified impacts. Since the Project will involve only minor amounts of shallow excavation, impacts to groundwater resources are not anticipated.

2.1.1 Regional Aquifers

The Mississippi Embayment Aquifer System, which underlies the Project area, extends over parts of ten states and is comprised of six regional aquifers and three regional confining units (Renken, 1998). The main groundwater source for the Project area is the middle Claiborne aquifer, which is located below the Vicksburg-Jackson confining unit. Hinds County withdraws approximately 15.64 million gallons of water per day (Mgal/d) from the Mississippi Embayment Aquifer System (National Atlas, 2008). Aquifers of the Mississippi Embayment Aquifer System generally consist of poorly consolidated fluvial, deltaic, and marine deposits that are interbedded (Renken, 1998).

The Mississippi Embayment Aquifer System is recharged through direct infiltration of rainfall and recharge from incised streams in outcrop areas. Table 2.1.1-1 provides water withdrawal amounts, sources, and applications.

TABLE 2.1.1-1
Groundwater, Surface Water, and Total Withdrawals [a]

Uses	Groundwater Withdrawal (Mgal/d)	Surface water Withdrawal (Mgal/d)	Total (Mgal/d)
Public Supply	9.52	30.27	39.79
Industrial	2.25	0.00	2.25
Power Generation	0.01	0.00	0.01
Rural Domestic	3.41	0.00	3.41
Livestock	0.21	0.32	0.53
Mining Operations	0.23	0.00	0.23
General Irrigation	0.01	0.04	0.05
Aquaculture	0.00	0.00	0.00
Total	**15.64**	**30.63**	**46.27**

[a] Kenny et al., 2009

2.1.2 Sole Source Aquifers

A sole source aquifer is an aquifer designated by the U.S. Environmental Protection Agency (EPA) as the "sole or principal source" of drinking water for a given service area. This designation is given to aquifers that supply 50% or more of the drinking water for that area and for which there are no reasonably available alternative sources should the aquifer become contaminated. According to EPA, the Mississippi Embayment Aquifer System, which underlies the proposed Project area, is not designated as a sole source aquifer (EPA, 2008).

2.1.3 Public and Private Water Supply Wells

According to the Mississippi Department of Environmental Quality (MDEQ) Source Water Assessment Program (SWAP), there are no public water supply wells located within the Project area (MDEQ, 2011a). However, there is one private water well located within 150 feet of the Project area. This well is used primarily for domestic purposes, and is located at a depth of 810 feet. The shallow depth of ground disturbance associated with the Project should not impact the private well located near the Project area.

2.1.4 Wellhead Protection Areas

Wellhead protection areas have been established by the MDEQ to protect public drinking water supplies. No wellhead protection areas are located within the Project area (MDEQ, 2011a).

2.1.5 Contaminated Groundwater

Underground storage tanks (USTs) are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the respective state department responsible for administering the UST program. Gulf South searched federal and state maintained environmental databases for UST locations to determine if contaminated groundwater areas are potentially present within the Project area. A review of MDEQ's UST Inventory revealed that there are six sites with registered USTs within 500 feet of the Project area (MDEQ, 2011b). Five of the six UST sites near the Project area have had documented leaks; however, remediation for each leak has been completed. MDEQ's CERCLA/Uncontrolled Sites File List indicates that there are two CERCLA sites (one site with mercury contamination and one site with benzene contamination) within 500 feet of the Project area (MDEQ, 2011c). The two sites released chemicals into the environment; however, remediation has been completed at both sites and no further actions are required.

2.1.6 Groundwater Impact and Mitigation

Impacts to groundwater resources will be avoided or minimized by the use of standard and specialized construction techniques in accordance with the FERC Plan and Procedures and Gulf South's SWPPP. Gulf South has also prepared a *Plan for the Unanticipated Discovery of Contaminated Environmental Media* in the event that contaminated groundwater is encountered during construction of the facilities, included in Volume 1, Attachment 2. In the event of an accidental spill, Gulf South will adhere to its SPCC Plan to reduce the impacts of the spill on groundwater resources.

The proposed Project does not alter or otherwise impact existing groundwater flow, nor will it result in withdrawals of groundwater. Therefore, groundwater impacts are expected to be minimal. The Project will not cause changes in overall groundwater quantity nor the quantity of recharge to the aquifer. Gulf South does not anticipate encountering groundwater during Project execution due to the depth of the groundwater. Furthermore, Gulf South will not require blasting for the proposed Project. As a result, no blast-related impacts to wetlands, springs, water wells, or other groundwater resources are expected. Should the need for blasting arise, Gulf South will follow local and/or state requirements and use accepted safe construction blasting techniques and safeguards.

There is one private water well within or immediately adjacent to the Project area; however, no impacts are anticipated due to the scope of the Project. Should any landowners request pre- or post-construction monitoring of their drinking water, Gulf South will provide this

service on an individual basis. The scope, terms, and duration of the monitoring event(s) will be negotiated with each landowner at the time of the request.

2.2 SURFACE WATER RESOURCES

This section describes the surface water resources that are crossed by the proposed Project, regulations and special protection areas that apply to those resources, construction-related water use, and measures proposed by Gulf South to mitigate impacts to surface water resources.

2.2.1 Public Watershed Areas

The Project is located within the Middle Pearl-Strong Watershed (HUC 03180002) (EPA, 2011a). Watersheds include streams and rivers that are located within the drainage basin, as well as the land surfaces from which the water drains. The proposed Project will not impact any public watershed areas.

2.2.2 Waterbodies within Project Area

There are approximately 21 waterbodies located within the Project area. One waterbody, Hanging Moss Creek, is classified as a perennial stream. The remaining 20 waterbodies are classified primarily as ephemeral, man-made drainage ditches or canals and ephemeral creeks. A detailed description of each waterbody is provided in Table 2.2.2-1. The approximate crossing width presented in Table 2.2.2-1 and the USACE PCN refers to the length of each feature within the Project area.

TABLE 2.2.2-1
Waterbodies Crossed by the City of Jackson Pipeline Replacement Project

Feature ID	Station	Flow Regime	Approximate Crossing Width (feet)*	Construction Impacts (feet)	Proposed Crossing Method
CANAL B-1	182+08	Ephemeral	45	0	HDD
CANAL B-2	193+68	Ephemeral	31	0	HDD
CANAL B-3	194+42	Ephemeral	40	0	HDD
CANAL B-4	199+00	Ephemeral	41	0	HDD
CANAL B-5	202+67	Ephemeral	39	0	HDD
CANAL B-6	206+96	Ephemeral	38	0	HDD
CANAL B-7	206+22	Ephemeral	38	0	HDD
CANAL B-8	217+05	Ephemeral	52	0	HDD
CANAL B-9	216+00	Ephemeral	51	0	HDD
CANAL B-10	221+46	Ephemeral	34	0	HDD
CREEK B-1	226+59	Ephemeral	53	0	HDD
CREEK B-2	224+55	Ephemeral	22	0	HDD
CANAL B-11	242+31	Ephemeral	34	0	HDD

TABLE 2.2.2-1
Waterbodies Crossed by the City of Jackson Pipeline Replacement Project

Feature ID	Station	Flow Regime	Approximate Crossing Width (feet)*	Construction Impacts (feet)	Proposed Crossing Method
CANAL B-12	246+21	Ephemeral	39	0	HDD
CANAL B-13	247+63	Ephemeral	395	0	HDD
CANAL B-14	276+07	Perennial	195	0	HDD
CANAL B-15	357+65	Ephemeral	49	0	HDD
CANAL B-16	356+86	Ephemeral	49	0	HDD
CREEK B-3	376+74	Ephemeral	33	0	HDD
CANAL B-17	378+56	Ephemeral	37	0	HDD
CANAL B-18	381+54	Ephemeral	33	0	HDD
* Length of feature within the Project area.					

2.2.3 Sensitive Surface Waters

Under Section 303(d) of the Clean Water Act (CWA), states are required to identify waters that are not attaining their designated use(s) and develop total maximum daily loads (TMDL), which represent the maximum amount of a given pollutant that a waterbody can assimilate and still meet its designated use(s). According to the EPA EnviroMapper for Water, Hanging Moss Creek is a 303(d) impaired water that has TMDLs for sediment, total nitrogen, total phosphorous, and organic enrichment/low dissolved oxygen (EPA 2011a). Impacts to Hanging Moss Creek will be avoided through the use of a HDD.

A designated surface source water protection area surrounds Pearl River approximately 884 feet southeast of the southern end of the Project. However, the Project will not impact this surface water protection area, and will not impact potable surface water intakes.

The National Park Service (NPS) Nationwide Rivers Inventory (NRI) lists more than 3,400 river segments in the U.S. that "are believed to possess one or more 'outstandingly remarkable' natural or cultural values judged to be of more than local or regional significance." According to the NRI, there are no rivers that meet this qualification within the Project area (NPS, 2011b). The Pearl River, which is listed on the NPS NRI, is located approximately 1,879 feet from the southeast end of the Project; however, it will not be impacted by the Project. Wild and Scenic Rivers represent rivers that "possess outstandingly remarkable scenic recreational, geologic, fish and wildlife, historic, cultural, or other similar values, which are protected for the benefit and enjoyment of present and future generations." There are no listed Wild and Scenic Rivers within the immediate vicinity of the Project (NPS, 2011c).

2.2.4 Hydrostatic Test Water Source and Discharge

The pipeline will be hydrostatically tested in accordance with 49 CFR Part 192, Gulf South testing specifications, the FERC Plan and Procedures, and permit requirements. Gulf South will obtain hydrostatic test water from a municipal water source. A maximum of approximately 105,000 gallons of water will be required, and the test is expected to last approximately eight hours. Following testing, water may be discharged into an upland area in accordance with the FERC Plan and Procedures to prevent erosion, or may be transported to an approved disposal facility. Proper notification will be provided to MDEQ under the NPDES General Permit for the discharge of hydrostatic test waters (MSG13) prior to a discharge on-site.

2.2.5 Waterbody Construction Procedures

No waterbodies will be directly impacted by the Project due to the use of HDD and road bore pipeline installation techniques proposed for this Project. Gulf South will implement their *Plan for Containment of Inadvertent Release of Drilling Mud During Horizontal Directional Drilled Wetland and Waterbody Crossings* to protect waterbody resources located within the HDD profiles should a release occur (Volume 1, Attachment 2). Construction activities in the permanent easement and TWS situated near waterbodies within the Project area could result in temporary effects such as increased sedimentation and turbidity. However, these impacts will be minimized and mitigated through implementation of Gulf South's Procedures, which include measures for sediment and erosion control. Additional BMPs will be implemented by Gulf South to specifically address the TMDLs for 303(d) listed Hanging Moss Creek. The potential for impacts to water quality resulting from accidental spills will be minimized by implementation of Gulf South's SPCC Plan and its Procedures. Given the measures described above to avoid and minimize impacts, construction of the proposed Project will not significantly affect surface waters.

2.3 WETLANDS

Wetlands are transitional communities situated between upland and aquatic communities where the vegetation and soil substrate are influenced by intermittent to permanent saturation or flooding.

Vegetative species present within a wetland determine its classification. Palustrine emergent (PEM) wetlands are those that tend to be dominated by herbaceous vegetation that grows above the wetland's water surface. Palustrine forested (PFO) and palustrine scrub-shrub (PSS) wetlands both contain woody type vegetation, and are distinguished from one another based on vegetative heights. PFO wetlands are dominated by woody vegetation greater than

20 feet tall, while PSS wetlands contain woody vegetation less than 20 feet in height. Some wetlands are considered to be a combination of classifications based on vegetation present.

2.3.1 Wetland Summary

A single PEM wetland (0.10 acres) was identified in the Project area during field surveys conducted on January 11-13, 2011 and April 13, 2011. Vegetation associated with the wetland include: Chinese tallow-tree (*Sapium sebiferum*), American elder (*Sambucus canadensis*), southern dewberry (*Rubus trivialis*), and white-edge sedge (*Carex debilis*). A detailed description of the location, crossing width, NWI classification, and total construction impacts for the wetland is provided in Table 2.3.1-1.

TABLE 2.3.1-1
Wetlands Crossed by the City of Jackson Pipeline Replacement Project

Feature ID	Station	NWI Classification	Approximate Crossing Width (feet)	Total Construction Impacts (acres)
Wet B-1	344+49 to 345+33	PEM	84	0.10

2.3.2 Wetland Construction Procedures

Conventional pipeline construction and HDD methods will be utilized for the Project, and will result in temporary impacts to 0.10 acre PEM wetland located within the Project area. These impacts will be minimized and mitigated through implementation of Gulf South's Procedures. Gulf South will use the minimum amount of construction equipment necessary within the wetland, and timber mats will be used for heavy equipment if the wetland is saturated or inundated. The PEM wetland will revert to pre-existing conditions after construction, resulting in no permanent impacts.

2.4 WETLAND AND WATERBODY CROSSING PERMITTING

A single wetland will be impacted by the proposed Project; therefore, per Section 404 of the Clean Water Act permitting for these impacts is required through the USACE. Impacts to all waterbodies crossed by the Project will be avoided through the utilization of HDD and road bore construction techniques. A PCN for coverage under NWP 12 – Utility Line Activities was submitted to the USACE on May 18, 2011, and is included in Volume 1, Attachment 1 of this ER. Authorization correspondence is anticipated from the USACE within 45 to 60 days of submittal and will be provided to FERC upon receipt.

3.0 VEGETATION AND WILDLIFE

This section describes existing fish, vegetation, and wildlife resources directly and indirectly affected by the Project. In addition, this section identifies measures proposed to reduce these impacts, and also summarizes the status of consultations with the USFWS.

3.1 FISHERIES RESOURCES

3.1.1 Fisheries Classification

Fisheries are typically characterized according to water temperature (warmwater or coldwater), salinity (freshwater, marine, or estuarine), and type of use (commercial or recreational fishing). All of the waterbodies associated with the Project are freshwater. The perennial stream, Hanging Moss Creek, has the potential to support recreational fishing. Hanging Moss Creek is proposed for HDD, and as a result, there will be no impact to local fishery resources. Essential Fish Habitat (EFH) is defined by Congress as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. 1802 (10)). According to the National Marine Fisheries Services (NMFS), no NMFS designated EFH will be impacted by the proposed Project (NMFS, 2011).

3.2 WILDLIFE

3.2.1 Existing Resources

Game and non-game species are regulated and protected under various legislation, including: the *Endangered Species Act* of 1973, *Fish and Wildlife Conservation Act* of 1980, and the *Fish and Wildlife Coordination Act* of 1958, as well as government entities including the MDWFP. The land use type occurring within, and in the vicinity of, the Project is predominantly developed land such as commercial/industrial areas, residential areas, and transportation corridors. There are small sections along the Project area that consist of open/forested land, wetlands, and open water/canals. Impacts associated with the Project will be solely within Gulf South's maintained ROW and TWS. The residential and commercial/industrial lands consist of small open areas that may provide foraging habitat for wildlife species including sparrows, rabbits, skunks, and opossums (Sutton and Sutton, 1985).

3.2.2 Sensitive Wildlife Habitats

No areas to be affected by the Project are specifically designated as sensitive wildlife habitat. The Project will not affect any land administered by federal, state, or local agencies, or non-governmental organizations that could provide sensitive wildlife habitat.

3.2.3 Construction and Operation Impacts on Wildlife

The construction of the proposed Project could potentially affect wildlife; however, overall Project impacts on wildlife are expected to be minimal due to the highly urbanized nature of the Project area. The magnitude of impacts on wildlife resources depends upon several factors, including the type and duration of disturbance, the species of wildlife present, the time of year the Project is constructed, and the implementation of mitigation measures. Construction activities and noise could temporarily displace some wildlife from the Project area and adjacent habitats. Because similar vegetative cover and foraging habitats affected by the Project are relatively abundant in the areas adjacent to the Project and because of the small size of the Project area, impacts to wildlife will be minimal. There will be no negative population-level effects on wildlife.

3.3 VEGETATION

This section provides a detailed description of the vegetative cover types observed within the upland portions of the Project area. Wetland vegetation types are discussed in detail in Section 2.0 of this ER. For the affected land use acreage please refer to Section 8.0 of this ER.

3.3.1 Existing Vegetation Resources

The Project area is located in a highly urbanized area comprised mainly of residential and commercial/industrial lands. The Project area is vegetated primarily by the following species: live oak (*Quercus virginiana*), sweet gum (*Liquidambar styraciflua*), Chinese privet (*Ligustrum sinense*), yaupon (*Ilex vomitoria*), monkey grass (*Liriope sp.*), Bermuda grass (*Cynodon dactylon*), cat green briar (*Smilax glauca*), and Japanese honeysuckle (*Lonicera japonica*).

3.3.2 Construction and Operation Impacts on Vegetation

Construction of the proposed Project will require temporary disturbance of 32.86 acres of the total Project footprint (47.86 acres). A majority of the permanent impacts associated with the proposed Project (11.69 acres) will occur within Gulf South's existing, previously disturbed ROW. The remaining 3.31 acres of permanent impacts will occur within Gulf South's newly obtained easement. The majority of the Project will be installed via HDD, thereby limiting significant ground disturbance to open cut areas and workspaces requiring moderate grading for staging and safe operation of construction equipment. Upon completion of the Project, disturbed areas will be stabilized and reseeded in accordance with the Plan. Areas cleared of trees will be restored per agreements negotiated between Gulf South and individual land owners.

Exotic and Invasive Species

Gulf South will implement several management strategies to minimize the spread of exotic and invasive plant species following construction. Management and control measures that will be used to accomplish this goal include:

- Follow the Plan to assure that soil movement and the associated movement of non-native seeds are minimized.
- Use techniques that minimize the time that bare soil is exposed, and therefore, minimize the opportunity for exotic species to become established.
- Monitor the disturbed sites following construction to assure that revegetation of the non-graveled areas with suitable cover plant mixtures has been successful and that invasive or exotic species have not become established.

3.4 RARE, THREATENED, AND ENDANGERED SPECIES

This section identifies and discusses the presence of federally- and state-listed T&E plant and animal species that are potentially present within the general vicinity of the Project. In addition, this section identifies significant habitats such as federally-designated critical habitat and rare plant communities that are known to occur near the Project area.

3.4.1 Federally- and State-Listed Threatened and Endangered Species

According to federal sources, four animal species are federally-listed within Hinds County (USFWS, 2011). The bayou darter (*Etheostoma rubrum*), Louisiana black bear (*Ursus americaus luteolus*), and ringed map turtle (*Graptemys oculifera*) are currently federally-listed as threatened. The gulf sturgeon (*Acipenser oxyrhynchus desotoi*) is currently federally-listed as threatened with critical habitat.

According to state sources, the bayou darter, gulf sturgeon, Louisiana black bear, pyramid pigtoe (*Pleurobema rubrum*), and rabbitsfoot (*Quadrulal cylindrica cylindrical*) are all state-listed as critically imperiled because of extreme rarity, or because of some factor(s) making it vulnerable to extirpation (Carney, 2011). The ringed map turtle is state-listed as imperiled because of rarity, or because of some factor(s) making it vulnerable to extirpation.

Table 3.4.1-1 lists and summarizes the preferred habitat and Project effect determination for these federally- and state-listed species.

Table 3.4.1-1
Listed Threatened and Endangered Species Potentially Occurring within the Project Area; Hinds County, Mississippi

Common Name	Scientific Name	Federal Status*	State Status**	Preferred Habitat	Assessment Result	Potential Impact
Bayou darter	*Eheostoma rubrum*	T	S1	Prefers large streams with swift, shallow water flowing over coarse gravel. In the winter, species occupies areas with large cover objects such as logs and boulders.	The pipeline will be installed via HDD and road bore construction techniques, thereby avoiding direct impact to all waterbodies within the Project area.	No Effect
Gulf sturgeon	*Acipenser oxyrhynchus desotoi*	TCH	S1	An anadromous species that lives mainly in marine environments, and returns to freshwater to breed. Eggs are laid in running water over rubble, gravel, clay, or shell stream beds.		No Effect
Louisiana black bear	*Ursus americaus luteolus*	T	S1	Inhabits remote bottomland hardwood forest areas. Other habitat types suitable for this species include brackish, freshwater marshes, salt domes, and wooded spoil levees along canals and bayous.	The Project is located entirely within urbanized and residential areas lacking habitat suitable to support this species.	No Effect
Pyramid pigtoe	*Pleurobema rubrum*	-	S1	Typically inhabits large rivers, and prefers riffles and shoal in shallow water with moderate to swiftly flowing currents. Substrates range from coarse gravel to mud and sand.	The pipeline will be installed via HDD and road bore construction techniques, thereby avoiding direct impact to all waterbodies within the Project area.	No Effect
Rabbitsfoot	*Quadrulal cylindrica cylindrica*	-	S1	Inhabits medium-sized to large rivers in swift currents. Species lives in silt, sand, gravel, or cobble in eddies at the edge of mainstream currents.	The pipeline will be installed via HDD and road bore construction techniques, thereby avoiding direct impact to all waterbodies within the Project area.	No Effect
Ringed map turtle	*Graptemys oculifera*	T	--	Prefers riverine environments with moderate current, sandbars for nesting, and an abundance of logs, snags, etc. on which it can bask.	The Project will not impact waterbodies characterized as riverine habitat.	No Effect

T=Threatened; TCH=Listed with critical habitat
* Federal threatened and endangered species listings were obtained from the US Fish and Wildlife Service Mississippi listing available online.
** State threatened and endangered species listings were obtained from the Mississippi Natural Heritage Program's listing available online.

3.4.2 Federal and State Species Consultation Summaries

Based on the location, size and scope of the proposed Project it was determined that the bayou darter, gulf sturgeon, Louisiana black bear, pyramid pigtoe, rabbitsfoot, and ringed map

turtle would not be impacted by the Project; therefore, a *No Effect* determination was made for these species. Correspondence notifying the USFWS of the proposed Project and requesting concurrence with the *No Effect* determination was forwarded to the Jackson Ecological Services Field Office USFWS on April 28, 2011; and a response of concurrence was issued May 4, 2011. Correspondence requesting concurrence with the *No Effect* determination was sent to the MDWFP on May 18, 2011. A response from MDWFP indicating no objection with the *No Effect* determination was issued May 31, 2011. Copies of the USFWS and MDWFP correspondence are included in Volume 1, Attachment 1.

4.0 CULTURAL RESOURCES

Construction for the Project will occur predominantly within Gulf South's existing, maintained ROW, and these activities are authorized under the Mississippi Department of Archives and History (MDAH) categorical exclusion (CATEX) dated December 21, 2010. In brief, Gulf South is authorized to conduct ground disturbing activities which are taking place in an area that have been previously disturbed to the depth and extent as the proposed activity. An updated CATEX providing 2012 coverage will be provided upon receipt, which is anticipated during December 2011.

There are no known cultural sites within the Project area; therefore, no impact to cultural resources is anticipated. Correspondence requesting concurrence with the no impact to cultural resources assessment and continued coverage under the categorical exclusion for impacts within previously disturbed areas was forwarded to the State Historic Preservation Officer (SHPO) on April 28, 2011. A letter of concurrence from the SHPO was issued on May 13, 2011.

Additionally, consultations were initiated on April 28, 2011 with the Mississippi Band of Choctaw Indians and the Grand Village Natchez Indian Tribe to inform them of the scope of the Project. No responses have been received to date. Copies of the categorical exclusion, SHPO, and tribal correspondences are included in Volume 1, Attachment 1.

In the event that unanticipated cultural remains are discovered during the Project, Gulf South has developed an *Plan for the Unanticipated Discovery of Historic Properties and Human Remains During Construction* which is included in Volume 1, Attachment 2 of this ER.

Points of Contact:

Gulf South Director of Environmental Affairs	Cale LeBlanc, (985) 898-1000
Mississippi State Historic Preservation Officer, Mississippi Department of Archives and History	H.T. Holmes, (601) 576-6850

5.0 SOCIOECONOMICS

The Project does not involve the installation or modification of significant aboveground facilities. Construction activities are anticipated to require 50 to 75 people for approximately four months. The percentage of local laborers is expected to be small as the majority of workers will be skilled laborers brought in for the Project, and impacts to the local unemployment rate and economy for construction of the Project are expected to be negligible. Therefore, Section 5 describing socioeconomic conditions and potential impacts is not presented.

6.0 GEOLOGICAL RESOURCES

This section identifies and describes the geologic resources and features within the proposed Project area. In addition, this section identifies measures proposed to reduce potential hazards from, and impacts to, geological resources.

6.1 GEOLOGIC SETTING

The Project is located in the East Gulf Coastal Plain section of the extensive Coastal Plain physiographic province (USGS, 2003). The Project area is predominantly characterized as gently to moderately steep sloping uplands (USDA, 1979). The surficial geologic material within the Project area is comprised of green and gray calcareous clay containing some sand and marl. This material formed during the Eocene and is associated with the Jackson Group (Bicker, 1969).

6.2 MINERAL RESOURCES

Mississippi's economically important geologic resources include construction sand and gravel, crushed stone, clays, and gemstones (USGS, 2008a). Construction of the proposed Project is not anticipated to have an impact on exploitable oil, natural gas, or mineral resources. There are no major mineral resource operations near the Project area (National Atlas, 2008). Impacts to any potential mineral resources are not anticipated due to the minor amount of excavation within the Project area.

6.3 BLASTING

Areas characterized by shallow bedrock will not be encountered during the Project; therefore, no blasting is anticipated during construction of the Project.

6.4 GEOLOGIC HAZARDS

Geologic hazards are natural physical conditions that can, when active, result in damage to land or structures, or injuries to people. Geological hazards include: seismicity and faulting, soil liquefaction, areas of potential ground failure (subsidence and landslides), flooding, and karst terrain.

6.4.1 Seismic Hazards

The proposed Project is located in an area where seismic activity and earthquake damage are low (USGS, 2008b). Earthquakes that have occurred in this region are of low magnitude and low frequency. Most of the earthquakes occurring within Mississippi are in the northwest portion of the state, and not in the vicinity of the Project. From the period between 1990 and 2006, a total of 5 earthquakes occurred in Mississippi. The largest earthquake to ever occur in Mississippi was a magnitude 4.6 earthquake in 1931 (USGS, 2011). Minor effects of earthquakes that occur in surrounding areas, especially within the active New Madrid Seismic Zone located where Missouri, Tennessee and Arkansas state lines meet, can be felt in the region.

The shaking during an earthquake can be expressed in terms of the acceleration due to gravity (g). Based on historical seismic activity in the area, USGS (2008b) estimates that the Project area has a low peak horizontal ground acceleration of 2% g with a 10% probability of exceedance in 50 years. Slight damage to buildings or other structures is not likely to occur at ground motions of less than 10% g (Cascadia Region Earthquake Workgroup [CREW], 2008). Therefore, based on the estimated low level of ground motion predicted for the Project area, it is unlikely that the proposed replacement pipeline will be damaged by an earthquake during its operating life.

6.4.2 Active Faults

The proposed Project is located within the Gulf Coast Normal Faults area of Mississippi. It is assigned as a Class B area because of the low seismicity, and because the ability of the fault belt to generate significant seismic ruptures is unclear. It is possible that Class B faults may be decoupled from the underlying earth crust, reducing the risk of generating significant seismic disturbances that could cause damaging ground motion. These faults are less than 1.6 million years old and have a slip rate of less than 0.2 mm per year (Wheeler, 1998). According to the USGS Quaternary Fault and Fold Database, there are no significant active individual faults within this region of the United States.

6.4.3 Soil Liquefaction

Soil liquefaction is a condition that occurs when loose, cohesionless, saturated soil (typically well sorted sand) is subjected to vibration or shock waves. During liquefaction, pore water inhibits grain-to-grain contact, and the strength of the soil is greatly reduced such that soil may act like a viscous liquid with the ability to move and flow. Soil liquefaction can lead to landslides of slopes and extreme deformation of building foundations and buried pipelines.

FERC defines areas with potential for seismic soil liquefaction in the *Order Establishing Guidelines for the Submission of Required Data for Pipeline Projects* issued July 27, 1988. Based on this document, areas with the potential for soil liquefaction are:

- Where the water table occurs at 10 feet or less below the surface;
- Underlain by Holocene deposits which are likely to be non-cohesive, such as alluvial, lacustrine, and shoreline deposits; and
- Where the USGS Open File Report 82-1033 (Algermissen et al., 1982) indicates a 10% probability that horizontal ground accelerations of 10% g or greater would be exceeded in 50 years.

Soils within the Project area formed during the Eocene, and consist of green and gray calcareous clay containing some sand and marl (Bicker, 1969). The seismic risk for the Project area is low and therefore, the potential for soil liquefaction to occur is also low.

Given the low seismic risk for the Project area, Gulf South concludes that the potential for soil liquefaction does not represent a significant risk to the Project. The Project will be designed and constructed in accordance with the standards specified in 49 Code of Federal Regulations (CFR) Part 192: *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards* which should minimize the potential for impacts due to soil liquefaction, should it occur.

6.4.4 Landslides / Karst Terrain / Ground Subsidence

Landslides involve the down slope movement of earth materials under a force of gravity due to a combination of natural or man-made causes. The degree of slope, the composition of surface materials, proximity to seismic activity, and the amount of rainfall exposure are all factors related to landslide activity. The Project area is identified as having a high susceptibility and moderate incidence of landslides; however, no historical landslide events have been recorded within the Project area (National Atlas, 2008).

Subsidence is one of the most diverse forms of ground failure, ranging from small, local collapses to broad, regional lowering of the land surface. Causes of subsidence include dissolution in limestone or salt bedrock units (karst topography); past and current underground

mining, and withdrawal of fluids (groundwater and petroleum). According to the National Atlas of the U.S., there is no known natural subsidence near the Project area (2008).

Karst features such as sinkholes, caves, and caverns can form as a result of the long-term action of groundwater on soluble carbonate rocks (e.g., limestone and dolomite). Underground mining also poses risks to engineered structures due to the potential of the overlying strata to collapse into the void formed by the extraction of minerals. The Project area is an existing, maintained ROW that does not have any karst topography or subsidence issues. Gulf South does not anticipated any in the future.

Gulf South does not anticipate landslides, karst terrain, or ground subsidence to be issues during construction of the Project. Furthermore, Gulf South's proposed pipeline will be designed and constructed to meet or exceed the federal safety standards set forth in 49 CFR, Part 192, which will help ensure the integrity of the pipelines and minimize the potential for failures due to subsidence.

6.5 CONSTRUCTION IMPACTS AND MITIGATION

The proposed Project will be designed and installed in accordance with 49 CFR, Part 192. The Project will be designed and constructed to provide adequate protection from washouts, floods, unstable soils, landslides and geologic hazards that may cause the pipeline facilities to move or to sustain abnormal loads. As a result, the overall effects of construction and operation of the proposed facilities on regional or local geology will be minimal.

Based on the low probability of localized earth movements resulting from geologic hazards in the vicinity of the proposed Project areas, Gulf South does not anticipate any problems attributable to such movements. The intensity, frequency, and duration of impacts resulting from the potential hazard of minor earthquakes cannot be quantified. However, even slight damage to buildings or other structures is not likely at ground motions of less than 10% g (CREW, 2008) and maintained pipelines constructed using modern arc-welding techniques have performed well in highly active seismic areas of the U.S., such as California (O'Rourke and Palmer, 1996). Implementation of the SWPPP, which incorporates the Plan and Procedures and the SPCC Plan, will provide additional protection from the results of any land hazards during construction.

7.0 SOILS

This section identifies and describes the soils within Gulf South's Project, their associated characteristics and limitations, and the proposed mitigation for impacts.

7.1 SOIL SERIES

The characteristics of the soils underlying the Project area were identified using the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey database (NRCS 2011a). The following factors were evaluated for Project soils: slope, hydric designation, compaction potential, prime farmland designation, erodibility factors, revegetation potential, and shallow bedrock.

Details regarding the soil types and applicable characteristics at the Project site are provided in Table 7.1-1 and discussed in more depth below.

TABLE 7.1-1
Summary of Soils within the City of Jackson Pipeline Replacement Project

Soil Series Name	Map Unit Symbol	Feet Crossed / % of Project	Prime Farmland [a]	Hydric Soils [a]	Compaction Potential Soils [a]	Highly Erodible Land [a,b]	Steep Slopes [c]	Shallow Bedrock [d]	Revegetation Potential
Byram-Urban land complex, 2 to 8 percent slopes	BuC	8,309 / 39.6%	No	Partially	Severe	Moderate	No	No	Low
Calloway-Urban land complex	CuA	860 / 4.1%	No	Partially	Severe	Low	No	No	Low
Grenada silt loam, 0 to 2 percent slopes	GrA	567 / 2.7%	Yes	Partially	Severe	Low	No	No	Low
Loring-Urban land comples 2 to 8 percent slopes	LuC	4,574 / 21.8%	No	Partially	Severe	Low	No	No	Low
Riedtown silt loam	Re	2,392 / 11.4%	Yes	Partially	Severe	Low	No	No	Low
Siwell-Urban land complex, 2 to 8 percent slopes	SuC	147 / 0.7%	No	Partially	Severe	Moderate	No	No	Low
Siwell-Urban land complex, 8 to 15 percent slopes	SuD	4,134 / 19.7%	No	Partially	Severe	Moderate	Yes	No	Low

[a] As designated by USDA- Natural Resources Conservation Service (NRCS)

[b] Erosion Potential – Based on land capability class and subclass: High (subclass Ve-VIIIe), Moderate (subclass IIIe-IVe), and Low (remaining subclasses).

[c] Represent soils with slopes greater than 8%.

[d] Shallow bedrock - unconsolidated rock 60 inches or less from the surface

7.1.1 Soil Series Descriptions

The discussion below provides general information about the nature and properties of each soil type within the Project area. However, because the Project area is characterized primarily as urban land these soils are primarily covered by parking lots, roadways, sidewalks, commercial/industrial buildings, houses, and other structures. These areas have experienced a significant amount of cut and fill for development, and the natural soils likely cannot be observed. Furthermore, significant portions of the proposed Project are within land maintained as existing ROW.

Byram-Urban land complex, 2 to 8 percent slopes (BuC): Byram-Urban land complex soils are located on approximately 8,309 feet of the Project area. Byram soils consist of very slowly permeable soils that formed in a loess mantle, more than 48 inches thick, and the underlying alkaline clays. These soils are on nearly level to moderately steep uplands in the Southern Mississippi Valley Uplands Major Land Resource Area. Slopes range from 2 to 8 percent. This soil type is moderately well drained, has a depth to the water table of about 12 to 24 inches, and has a low available water capacity. Byram soils have a land capability class of 3e indicating that the soils have severe limitations due to susceptibility to erosion, and these limitations reduce the choice of plants and/or require special conservation practices. Urban land is disturbed soil material that has no identifiable soil profile, and is primarily covered by parking lots, roadways, sidewalks, commercial/industrial buildings, houses, and other structures. The revegetation potential is low for this soil type.

Calloway-Urban land complex (CuA): Calloway-Urban land complex soils comprise approximately 860 feet of the Project area. Calloway soils consist of very deep soils that formed in thick loess or water reworked loess deposits. Slopes range from 0 to 2 percent. This soil type is somewhat poorly drained, has a depth to the water table of about 7 to 18 inches, and has a low available water capacity. Colloway soils have a land capability class of 2w indicating that the soils have moderate limitations due to the presence of water, and these limitations reduce the choice of plants and/or require special conservation practices. Urban land is disturbed soil material that has no identifiable soil profile, and is primarily covered by parking lots, roadways, sidewalks, commercial/industrial buildings, houses, and other structures. The revegetation potential is low for this soil type.

Grenada silt loam, 0 to 2 percent slopes (GrA): Grenada silt loam soils comprise approximately 567 feet of the Project area. Grenada soils consist of very deep soils that formed in thick loess. Slopes range from 0 to 2 percent. This soil type is moderately drained, has a depth to the water table of about 18 to 27 inches, and has a low available water capacity.

Grenada soils have a land capability class of 2e indicating that the soils have moderate limitations due to susceptibility to erosion, and these limitations reduce the choice of plants and/or require special conservation practices. The revegetation potential is low for this soil type.

Loring-Urban land complex, 2 to 8 percent slopes (LuC): Loring-Urban land complex soils comprise approximately 4,574 feet of the Project area. Loring soils formed in loess on level to strongly sloping uplands and stream terraces. Slopes range from 2 to 8 percent. This soil type is moderately well drained, has a depth to the water table of about 12 to 14 inches, and has a low available water capacity. Loring soils have a land capability class of 3e indicating that the soils have severe limitations due to susceptibility to erosion, and these limitations reduce the choice of plants and/or require special conservation practices. Urban land is disturbed soil material that has no identifiable soil profile, and is primarily covered by parking lots, roadways, sidewalks, commercial/industrial buildings, houses, and other structures. The revegetation potential is low for this soil type.

Riedtown silt loam (Re): Riedtown silt loam soils comprise approximately 2,392 feet of the Project area. Riedtown soils consist of deep, moderately permeable soils that formed in silty alluvium deposits. Slopes range from 0 to 2 percent. This soil type is moderately well drained, has a depth to the water table of about 18 to 42 inches, and has a very high available water capacity. Riedtown soils have a land capability class of 2w indicating that the soils have moderate limitations due to the presence of water, and these limitations reduce the choice of plants and/or require special conservation practices. The revegetation potential is low for this soil type.

Siwell-Urban land complex, 2 to 8 percent slopes (SuC); Siwell-Urban land complex, 8 to 15 percent slopes (SuD): Siwell-Urban complex soils comprise approximately 4,281 feet of the Project area. Siwell soils consist of very slowly permeable soils that formed in loess and silty loess deposits. Slopes range from 2 to 8 percent for SuC soils, and from 8 to 15 percent for SuD soils. This soil type is moderately well drained, has a depth to the water table of about 24 to 36 inches, and has a high available water capacity. SuC soils have a land capability class of 3e indicating that the soils have severe limitations due to susceptibility to erosion that reduce the choice of plants and/or require special conservation practices. SuD soils have a land capability class of 4e indicating that the soils have very severe limitations due to susceptibility to erosion, and these limitations reduce the choice of plants and/or require special conservation practices. Urban land is disturbed soil material that has no identifiable soil profile, and is primarily covered by parking lots, roadways, sidewalks, commercial/industrial buildings, houses, and other structures. The revegetation potential is low for this soil type.

7.1.2 Soil Contamination at the Site

A review of MDEQ's UST Inventory revealed that there are six sites with registered USTs within 500 feet of the Project area (MDEQ, 2011b). Five of the six UST sites near the Project area have documented leaks; however, remediation for each leak has been completed. MDEQ's CERCLA/Uncontrolled Sites File List indicates that there are two CERCLA sites (one site with mercury contamination and one site with benzene contamination) within 500 feet of the Project area (MDEQ, 2011c). The two sites released chemicals into the environment; however, remediation has been completed at both sites.

7.2 CONSTRUCTION AND OPERATION IMPACTS

Significant disturbance to soils within the Project area will be minimized through the use of HDD and road bore construction techniques to install the pipeline across approximately 2.82 miles of the route; however all permanent easement and temporary workspace will be utilized as workspace resulting in temporary impacts. Potential ground disturbing activities would include spoil storage, equipment staging and pipe pullback activities. In order to minimize any impacts of Project activities on soil structure and prevent erosion, Gulf South will follow the guidelines included in its SWPPP. To prevent potential soil contamination from hazardous materials spills, such as fuels, Gulf South will also implement the measures detailed in its SPCC Plan. As a result, no permanent impacts on soils are anticipated as a result of the Project.

Excavation activities within the Project area could result in erosion from wind and water; decrease in soil revegetation capability due to compaction; and damage to soil structure from heavy equipment. Natural erosion potential is increased by clearing, excavation, and backfilling activities. Soil damage and compaction could also result from heavy equipment usage during excessively wet periods. Gulf South will follow its SWPPP to minimize impacts to soils, where earth disturbing activity will occur, and will implement dust control measures, such as water or mulch application, should wind erosion of the soil become a concern at the Project area.

Project activities are expected to result in the temporary loss of vegetation within the existing Project area. All disturbed areas will be re-seeded or otherwise revegetated using seed suggested by local resource agencies. Following clean-up activities, Gulf South will restore the area to its previous grade and establish seed beds to encourage vegetation growth. Vegetative growth of the area will be monitored after Project completion for success, and any further mitigation measures necessary to stimulate re-growth will be taken.

8.0 LAND USE, RECREATION, AND AESTHETICS

This section addresses uses of all land that will be affected by the proposed Project including above and below ground facilities, access roads, and workspaces. This section also describes potential impacts on designated recreational and special use areas, scenic rivers, public roads, and public lands.

8.1 LAND USE

The Project is located in a densely populated urban area that is comprised predominantly of commercial/industrial and residential lands. The Project area encompasses a total of 47.86 acres of land, with 3.31 acres of the Project's total acreage consisting of new permanent easement to be secured by Gulf South. Gulf South's existing permanent easement represents 11.69 acres of the Project's total acreage; while the remaining 10.26 and 22.60 acres of the Project's total acreage represent TWS and a pipe and contractor yard (Jackson Compressor Station), respectively.

Project activities will involve earth disturbance within Gulf South's new and existing maintained ROW and TWS, however much of the ROW and TWS have been previously disturbed and will avoid significant impact due to the use of HDD to install approximately 2.82 miles (71% including road bores) of the 3.97 mile Project. The Jackson Compressor Station, located approximately 3.27 miles from the southern end of the Project will be utilized as a pipe and contractor yard for the Project. All disturbed areas will be returned to pre-existing contours and reseeded. Land use categories along the Project corridor are commercial/industrial, residential, open land, wetland, open water/canals, and transportation corridors. Land requirements for the Project by land use type are provided in Table 8.1-1.

TABLE 8.1-1
Summary of Land Requirements (acres) Associated with the Proposed Project

Facility	Commercial / Industrial		Residential		Open		Wetland		Open Water / Canals		Transportation Corridors		Total	
	Perm.	Temp.	Perm.	Temp.	Perm.	Temp.	Perm.	Temp.	Perm.	Temp.	Perm.	Temp.	**Perm.***	**Temp.**
Pipeline Facilities														
Pipeline	3.91	2.50	8.32	3.82	1.37	3.42	0.00	0.10	0.00	0.00	1.33	0.42	14.93	10.26
Pipe and Contractor Yard	0.00	22.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.60
Aboveground Facilities														
Valve Site	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00
Project Totals	**3.98**	**25.10**	**8.32**	**3.82**	**1.37**	**3.42**	**0.00**	**0.10**	**0.00**	**0.00**	**1.33**	**0.42**	**15.00**	**32.86**

*71% of the permanent acreage is over HDD (including road bore) profiles, and will have little to no direct impacts.
Only 3.31 acres represent new permanent easement (3.24 acres Pipeline ROW and 0.07 acre Valve Site) and only 3.25 acres of residential land will be crossed by open cut.

8.1.1 Pipeline Facilities

The proposed Project will involve the replacement of approximately 3.97 miles of existing 18-inch diameter natural gas pipeline with 12-inch diameter natural gas pipeline in Hinds County, Mississippi. The Project will require land for the construction ROW, access roads, TWS, and a pipe and contractor yard. All areas affected by the Project (e.g. the construction ROW and TWS) will revert to pre-construction land uses and retain the current land use classification. The land uses within the Project area are described below.

Commercial / Industrial Land

Commercial/Industrial land includes utility stations, manufacturing or industrial plants, landfills, mines, quarries, and commercial retail facilities. The Project will utilize 29.08 acres of commercial/industrial land during construction of the pipeline facilities, of which 3.98 acres is depicted as permanent easement on the alignment sheets (Volume 2, Attachment 1). The proposed valve site is 0.07 acre in size and located at the terminus of the replacement. Gulf South's existing Jackson Compressor Station (22.60 acres) will be used as the pipe and contractor yard for the Project. Based upon field surveys and aerial photography, Gulf South has identified 108 structures located within 50 feet of the Project construction corridor (Volume 1, Attachment 4). A majority of these structures are located in areas where HDD techniques will be used to install the pipeline, therefore will experience minimal impacts as a result of pipeline construction activities. However, 20 structures are located in areas where traditional open cut methods will be employed.

Residential Land

Residential land is described as existing residential areas that include single and multiple family dwellings in subdivisions, as well as in rural areas. This category includes homes and landscaped areas associated with the immediate residence. A total of 12.14 acres of residential land will be crossed by the Project, of which 8.32 acres are depicted as permanent easement. The majority of the residential areas (73.2%) crossed by the Project are located within the proposed HDD profiles; thereby Gulf South will avoid significant impact to the residential areas. Only 3.25 acres of residential land will be impacted through the utilization of open cut construction methods. Residential areas are discussed in greater detail in Section 8.1.3.

Open Land

Open land consists forested and non-forested open lands. Examples of open lands include the existing pipeline ROW, parks, and undeveloped plots of land. A total 4.79 acres of

open land will be crossed by the Project, of which only 1.37 acres are depicted as permanent easement.

Transportation Corridors

Transportation corridors include all roadways, including public and private roadways, and railroads crossed by the Project. A total of 1.75 acres of transportation corridors will be crossed by the Project, of which only 1.33 acres are located within the permanent easement.

Open Water / Canals

Open water/canals include waterbodies (e.g. lakes, ponds, streams, and creeks) and drainage canals that are crossed by the Project. All waterbodies and drainage canals within the Project area are described in greater detail in Section 2.0 of this ER. Open water/canals will not be affected by the construction of the Project due to the use of HDDs and road bores to install the pipeline. TWS will be located adjacent to some waterbodies, and as a result, Gulf South will implement measures as discussed in Section 2.0 to minimize impacts to all waterbodies.

Wetlands

The Project will impact one 0.10-acre emergent wetland which is located within the TWS. Mechanized land clearing in the wetland is not proposed, and the wetland will revert to pre-existing conditions after construction, resulting in no permanent impacts. Impacts to the wetland will be minimized by Gulf South through the implementation of measures discussed in Section 2.0 of this ER.

8.1.2 Access Roads

Access roads allow for the passage of a wide range of vehicles associated with the Project, including high clearance vehicles and heavy trucks. Access to the Project area will require the use of existing public and private roadways. No new temporary or permanent roads will be needed for the Project.

8.1.3 Residential areas

Planned Residential and Commercial Areas

The Project is located in a densely populated urban area that is comprised predominantly of residential and commercial/industrial lands. Any new residential and/or commercial/industrial developments will take place on land that was previously developed.

Existing Residences and Buildings

All work associated with this Project will take place within Gulf South's maintained ROW and TWS located solely within urban and residential areas. Residences located within 50 feet of the proposed Project are presented in Volume 1, Attachment 4. Gulf South plans to use the HDD construction technique when crossing 52 of the 54 residences located within 25 feet of the proposed Project. Only two residences within 25 feet of the proposed Project construction corridor will be crossed using open cut construction methods.

Gulf South proposes to utilize their existing ROW as workspace throughout the Project area for access and/or pipe stringing activities. Impacts to existing residences could potentially include temporary removal of vegetation and landscaping within Gulf South's ROW and TWS, the increased construction-related traffic on local roads, dust generated during construction, and noise from construction equipment. Construction activities will be temporary and will take place during daytime work hours in order to minimize disturbance to surrounding landowners. Gulf South will adhere to their site-specific plans for construction activities taking place within 25 feet of existing residences, as presented within Residential Construction Drawings Package (Volume 1, Attachment 3). Additionally, landscape restoration will be implemented in accordance with agreements negotiated between Gulf South and individual land owners.

8.2 PUBLIC LAND, RECREATIONAL, AND OTHER DESIGNATED AREAS

According to an online search of the MDWFP database and other sources for information regarding natural resources, there are no state nature preserves, scenic rivers, parks or forests, unique ecological sites, or wildlife areas within the Project area (MDWFP, 2011). There are also no national parks, National Wild and Scenic Rivers, natural landmarks, or Wilderness Areas located in the vicinity of the Project (NPS, 2011a,c).

8.2.1 Public or Conservation Land

This Project will not affect any lands enrolled in the NRCS' Wetlands Reserve Program (WRP) or Conservation Reserve Program (CRP) (NRCS, 2011b). The Project area is not located within any Native American reservations, wildlife management areas, national trails, registered National or state landmarks, designated Wild and Scenic Rivers (National Atlas, 2008 and NPS, 2011a,c), national wildlife refuges (USFWS, 2011), scenic byways, campgrounds, or hunting areas.

The Project area is located adjacent to existing public roads. Therefore, no roads or transportation corridors will be created to accommodate activities associated with the Project. Any utilities located adjacent to the Project area will not be impacted by the Project.

8.2.2 Coastal Zone Management Area

According to the Mississippi Department of Marine Resources (MDMR), the Project area is located outside of the Mississippi Coastal Zone Management Area, which only includes Hancock, Harrison, and Jackson Counties (MDMR, 2011).

8.2.3 Contaminated Sites

A review of MDEQ's UST Inventory revealed that there are six sites with registered USTs within 500 feet of the Project area (MDEQ, 2011b). MDEQ's CERCLA/Uncontrolled Sites File List also indicates that there are two CERCLA sites within 500 feet of the Project area (MDEQ, 2011c), as discussed earlier in Sections 2.0 and 7.0. The EPA Toxics Release Inventory Program database has no record of any releases in the Project vicinity (2009) and the EPA's Enviromapper program showed no hazardous waste sites within 0.5 mile of the Project site (2011b). Remediation has been completed at all sites that have documented releases into the environment. Therefore impacts associated with contaminated sites are not anticipated as a result of construction of the Project.

If a contaminated site is discovered during the construction, Gulf South will stop work, notify the appropriate state and federal agencies, and proceed in accordance with local, state, and federal regulations, and implement the procedures defined in its *Plan for the Unanticipated Discovery of Contaminated Environmental Media*.

8.2.4 Special Land Use

Other designated areas include miscellaneous special use areas that may be associated with schools, parks, places of worship, cemeteries, sports facilities, campgrounds, golf courses, ball fields, maple sugar stands, orchards or other specialty crops, and other recreational areas. The Project area is located adjacent to and near lands categorized as a Special Land Use including the following: Briarwood Drive Baptist Church, Jackson Academy, Parham Bridge Park and Tennis Center, Spann Elementary School, Stronger Hope Baptist Church, and Willie Morris Branch Library. Impacts to these areas have been minimized significantly through the utilization of HDD to install the pipeline.

8.3 VISUAL RESOURCES

The proposed Project is not within any federal, state, or locally designated visual resources of significance (e.g., scenic roads/highways or National Wild and Scenic Rivers). The proposed Project is located in a densely populated, urban area; however, the Project will have minimal impact to visual resources due to the Project scope and minimal duration of approximately four months. Further, the proposed Project is the replacement of an existing pipeline utilizing existing pipeline easements and maintained rights-of-way.

8.4 APPLICATIONS FOR RIGHT-OF-WAY AND OTHER LAND USE

There are no applications for ROW or other proposed land use to be filed as part of this Project. All construction activities will occur within Gulf South's existing and proposed ROW.

9.0 AIR AND NOISE QUALITY

Possible changes in air and noise emissions resulting from proposed Project are discussed below.

9.1 GENERAL

The Project will not result in the addition of or modification of compression to Gulf South's system. In brief, the proposed Project will involve the replacement of approximately 3.97 miles of existing 18-inch natural gas pipeline with 12-inch diameter natural gas pipeline utilizing HDD and conventional pipeline installation techniques. Below is a discussion of air and noise as it relates to pipeline construction operations.

9.2 AIR QUALITY

Air emissions associated with the construction phase of the proposed Project consist of emissions from mobile construction equipment and fugitive dust; however these emissions would be short-term in nature and are not anticipated to significantly impact air quality. Typical pipeline construction (e.g. bulldozers, cranes, welding equipment, and trenching machines) and HDD equipment are sources of combustion-related emissions including nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOCs), sulfur dioxide (SO_2), inhalable particulate matter (i.e. particulate matter sized 10 microns and smaller [PM_{10}]), and small amounts of hazardous air pollutants (HAPs). Air pollutants from construction equipment would be limited to the immediate vicinity of the construction area and would be temporary. Overall, emissions will be greater during daytime hours because most, if not all, activities are being performed between 7 am and 10 pm. Fugitive dust would be greatest in areas of fine-textured soils that are subject to surface activity. Since pipeline construction is a mobile operation, influence at any one location is short, typically lasting only a few days. The ten HDDs will likely require directional drilling activities to be conducted throughout the construction timeline until tie-in.

Gulf South intends to maintain all fossil-fueled construction equipment in accordance with the manufactures' recommendations to minimize construction-related emissions. Furthermore, normal construction practices, (e.g. watering exposed soil surfaces, using soil storage piles, and

restoration and revegetation activities) would avoid or minimize impacts resulting from fugitive dust.

9.3 NOISE

Noise impacts associated with the Project will result from typical pipeline construction operations, as well as the HDDs. Due to the prevalence of residences in close proximity to the Project, mitigating noise impacts are of critical concern to Gulf South on this Project. Gulf South will make efforts to limit drilling operations to the hours of 7 a.m to 10 p.m. when possible but, based on site specific conditions and progress, HDD operations may need to continue during the night at some of the locations to increase the likelihood of success. As such, Gulf South intends to comply with the intent of 157.206(b)(5)(iii); HDD operations between 10 p.m. and 7 a.m. must be conducted with the goal of keeping the perceived noise from the drilling at any pre-existing noise-sensitive area at or below a night level (Ln) of 55 dBA. Gulf South will implement ita *Plan for Reducing Noise Impacts From Horizontal Directional Drill (HDD) Operations* should drilling operations need to proceed between 10 p.m. and 7 a.m. The plan is included as an attachment to this ER within Volume 1, Attachment 2.

10.0 ALTERNATIVES

In the development of the Project, Gulf South evaluated multiple alternatives. These alternatives include the No-Action alternative, route modifications, and major pipeline alternatives. The route selected for the Project was preferred to all other alternative routes, because it provided the least of amount of impact due to the re-use of Gulf South's existing easement through the majority of the Project route, as well as the installation of the majority of the Project by HDD. The HDD installation method will avoid significant impacts to 73.2% of the residential lands crossed by the Project and 71% of the Project footprint (inclusive of road bores) overall. As described in Section 1.0, significant land disturbance will be avoided through the use of HDD techniques due to the minimization of conventional open cut trenching required. Energy conservation and energy alternatives are not feasible alternatives to the purpose and need of maintaining natural gas deliveries to existing customers safely, and therefore were not evaluated.

10.1 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the impacts directly associated with the construction of the proposed Project (such as air and noise emissions impacts and conversion of existing land usages) would be avoided. Under the No-Action Alternative, the primary need of the Project,

elimination of HCAs and DOT compliance, would not be fulfilled. The Project is needed to maintain compliance with DOT pipeline safety regulations. The No-Action Alternative would not accomplish the objective of maintaining the nation's critical pipeline infrastructure and serving customers efficiently.

10.2 ROUTE MODIFICATIONS

The proposed Project route is a modification of an original design which would have resulted in following the existing pipeline easement in its entirety. The original design would have resulted in the pipeline crossing below or in close proximity to existing commercial buildings and properties. Additionally, the original design would have resulted in crossing U.S. Interstate-55 in a less perpendicular fashion as the resulting design, requiring a much longer drill length.

10.3 MAJOR PIPELINE ALTERNATIVES

The proposed Project will not involve the construction of major pipelines, but rather the replacement of existing facilities; therefore, Gulf South did not evaluate major pipeline alternatives.

11.0 RELIABILITY AND SAFETY

The purpose of this section is to describe Gulf South's safety programs and procedures applied to the new facilities and equipment to avoid accidents on gas pipelines. Procedures and design features used by Gulf South are based on current standard practices utilized in the industry to avoid undue hazards and effects in facilities and pipeline operations.

11.1 GAS TRANSMISSION PIPELINE SAFETY

Section 11.2 provides an overview of Gulf South's experience with pipeline safety and system reliability. The procedures and design features to ensure operational reliability and safety are described in Section 11.3. A discussion of the key safety considerations associated with the natural gas pipeline industry is presented in Section 11.4.

11.2 SYSTEM RELIABILITY AND SAFETY

The implementation of the Project will fully adhere to DOT requirements pertaining to safety. These safety requirements will be reinforced by Gulf South's comprehensive and strictly enforced company practices. The effectiveness of the federal statutes and company requirements in ensuring reliability and safety is illustrated by the following operating experience profiles. The information presented illustrates the low potential for public hazards from accidents associated with the operation of the existing facilities or the new facilities proposed in this application.

11.2.1 System Overview

Gulf South's existing natural gas pipeline system consists of over 7,850 miles of pipeline and 30 compressor stations located in Texas, Louisiana, Mississippi, Alabama, and Florida. Portions of the Gulf South pipeline system traverse through populated regions of these states in proximity to many developed areas.

11.2.2 Historical Operating Record

Gulf South and the natural gas transmission industry have an excellent record of public safety. Pipelines and related facilities are designed and maintained with strict adherence to DOT standards to ensure public safety and reliability, and to minimize the risk of system failure. Gulf South will continue to employ similar system design, construction, operation, and maintenance practices to ensure this excellent record is maintained.

11.3 MEASURES TO PROTECT THE PUBLIC

Gulf South maintains operating policies and procedures that are periodically reviewed by DOT. All operating personnel are thoroughly trained to perform their activities in accordance with these policies and procedures. These policies provide specific directions in preventive maintenance and monitoring of facilities, as well as procedures to be followed in the event of an accident or natural catastrophe.

Periodic training sessions and review of operating and emergency procedures are conducted for affected operations employees. This training includes safe operation of pipeline valves and equipment; aboveground facilities, including meter stations and compressor stations; hazardous material handling procedures; public liaison programs, and general operating procedures. The facilities will be operated and maintained in accordance with these procedures.

11.3.1 Surveys

Periodic aerial, vehicle, and pedestrian patrols of all facilities are performed along with scheduled preventive maintenance. Any unusual situation or condition is reported and investigated immediately. Gulf South performs annual leak detection surveys of its pipeline facilities. The leak surveys are instrumental in the early detection of leaks and can reduce the likelihood of pipeline failure. The facilities will be subject to similar field survey procedures.

Gulf South is also a member of "One Call" and related pre-excavation notification organizations in the states in which it operates. Through "One Call," contractors provide notification of proposed excavation to a central agency that, in turn, notifies Gulf South of the excavation locations. If Gulf South facilities are located in the area of proposed contractor

activity, they will be marked in the field and a representative of Gulf South will be present during excavation to ensure that the facility is not compromised.

11.3.2 Equipment

Gulf South's facilities include many equipment features that are designed to increase the overall safety of the system and protect the public from a potential failure of the system due to accidents or incidents beyond the company's control.

For example, cathodic protection systems are installed at various points along the facilities and pipelines to reduce corrosion of the underground facilities. The cathodic protection system imparts a low voltage current to the pipeline to offset natural soil and groundwater corrosion potential. The functional capability of cathodic protection systems is inspected frequently to ensure proper operating conditions for corrosion mitigation.

Gulf South maintains a gas control center in Owensboro, Kentucky. This control center monitors facility pressures, flows, and deliveries, and is manned 24 hours a day, 365 days a year. Data acquisition systems are present at many points along the system. If system pressures fall outside a predetermined range, an alarm is activated and notice is transmitted to the control center. The alarm provides notice that pressures at a location are not within an acceptable range. If necessary, local Gulf South personnel are dispatched in response to pressure alarms.

Gulf South has facility construction crews who are available to respond in the event of an emergency. Gulf South employs qualified and licensed personnel who can be immediately dispatched to the scene of an emergency should the need arise. Accordingly, Gulf South also operates area and sub-area offices along the pipeline route and personnel from these offices can provide the appropriate response to emergencies and direct safety operations as necessary.

11.3.3 Procedures for Coordination with Local Authorities

Gulf South maintains a program of coordination with public authorities and local utilities for all facility locations. Key components of the program consist of the following activities:

- Periodic fire fighting mock drills.
- Special informational meetings and training at the request of the municipality.
- Periodic distribution of documentation listing emergency telephone numbers and other pertinent data.

Key elements of the program, which will be used for the facilities, are as follows:

- Contact is made with the police and fire departments and/or public officials of all communities that contain Gulf South facilities in order to accomplish the following:
    - Ascertain how the officials may be able to assist during an emergency, including the determination of the jurisdiction and/or responsibility with resources that may be involved in a response to an emergency.
    - Acquaint the officials with how Gulf South responds to an emergency.
    - Notify the officials of the types of pipeline emergencies for which they may be contacted.
    - Inform them how Gulf South, in working with their departments, will cooperate in mutually assisting in protecting life or property during an emergency.
- In order to enable Gulf South to establish contact with police or fire departments and other public officials quickly in the event of an emergency, a current listing of all local contact information and telephone numbers is maintained. This listing is reviewed on a periodic basis and revised as necessary.
- Gulf South invites fire departments to participate in its periodic fire response demonstrations. Emphasis is placed in the following areas:
    - When and how to extinguish a natural gas fire during an emergency.
    - Periodic emergency simulation exercises.
- Gulf South will continue to participate, on an invitational basis, in meetings with fire departments in communities in which their facilities are located. The following subjects will be emphasized at these meetings:
    - Gulf South's role in emergencies on its pipeline system.
    - The properties of natural gas and precautionary measures to be taken before and during an emergency.
    - The local fire department's participation during an emergency.

11.3.4 Project-Specific Communications

As noted above, Gulf South already has significant existing operations in Mississippi, and will notify all state and local government agencies of the proposed Project. As summarized in Table 11.3.4-1, the contacted officials indicated adequate facilities and resources are available to respond to potential needs associated with the Project in case of injury or accident during construction or operations.

Because of the prevalence of other natural gas and liquid pipelines in these regions, many of these responders are also regularly involved in emergency response drills and

participate with industry and DOT training programs and local command centers to meet the needs for improving public and worker safety.

TABLE 11.3.4-1
Emergency Staff and Facilities in Hinds County Affected by the Project

County	Contact and Title	Phone Number	Police	Fire	Hospital
Hinds County, Mississippi	Jimmy Lewis, Mississippi Emergency Management Agency	(601) 960-1476	1 sheriff's department (601) 974-2900; 1 municipal police departments provide coverage to the Project area	1 municipal fire department in Jackson provides coverage to the Project area.	St. Dominic's Hospital, (318) 214-969 Lakeland Drive, Jackson, Mississippi 39216

11.4 NATURAL GAS PIPELINE INDUSTRY SAFETY OVERVIEW

The following information provides an overview of industry-wide operational data related to safety.

11.4.1 Pipeline Safety Hazards

The transportation of natural gas by pipeline is the safest mode of transportation in the United States; however, as with any undertaking, there is always some degree of risk.

Methane, the primary component of natural gas, is colorless, odorless, and tasteless. It is not toxic, but is classified as a simple asphyxiant, posing only a slight inhalation hazard. It is lighter than air and, therefore, tends to disperse upwards into the atmosphere rather than concentrating at ground level. Methane has an auto-ignition temperature of 1,000 degrees Fahrenheit and is flammable at concentrations between 5% and 15% in air. Unconfined mixtures of methane in air are not explosive. Methane's lighter-than-air condition does not allow it to concentrate but at a flammable concentration within an enclosed space in the presence of an ignition source it can cause explosion. The specific gravity of methane is 0.55; it is buoyant at atmospheric temperatures.

No hazards to aquatic life have been identified should a leak occur under a waterbody or wetland system. Indeed, methane is a natural by-product of the decomposition of organic material in waterbody and wetland systems.

11.4.2 Pipeline Safety Standards

The pipeline facilities will be designed, constructed, operated, and maintained in accordance with the DOT Minimum Federal Safety Standards in 49 CFR Part 192. These regulations are intended to ensure adequate protection of the public from natural gas pipeline failures. Part 192 specifies material selection and qualification, minimum design requirements, and protection from internal, external, and atmospheric corrosion.

Part 192 prescribes the minimum standards for operating and maintaining pipeline facilities, including the requirement to establish a written plan governing these activities. Under Section 192.615, each pipeline operator must also establish an emergency plan that provides written procedures to minimize the hazards from a gas pipeline emergency. Gulf South will implement the following key elements of the plan including but not limited to the following tasks:

- Receiving, identifying, and classifying emergency events—gas leakage, fires, explosions, and natural disasters.
- Establishing and maintaining communications with local fire, police, and public officials, and coordinating emergency response.
- Making personnel, equipment, tools, and materials available at the scene of an emergency.
- Protecting people first and then property, and making them safe from actual or potential hazards.
- Performing emergency shutdown of system and safely restoring service.

Under Section 192.615, each operator must establish and maintain liaison with appropriate fire, police, and other public officials to learn the resources and responsibilities of each organization that may respond to a gas pipeline emergency and coordinate mutual assistance in responding to emergencies. Each operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to appropriate public officials.

Gulf South is committed to a continuing education program for the communities in which they operate to enable customers, the public and appropriate agencies to recognize potential third-party actions that may affect pipeline integrity, recognize emergencies, and understand appropriate reporting procedures.

12.0 PCB CONTAMINATION

12.1 EXISTING CONDITIONS

A review of the MDEQ's CERCLA/Uncontrolled Sites File List and Gulf South's historical contamination records revealed no documentation on file of past or current PCB contamination in the Project area.

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Attachment 1
Agency Correspondence

United States Army Corps of Engineers

May 18, 2011

Mr. David Lofton
Section Chief, Permit Section
Vicksburg District
U.S. Army Corps of Engineers
4155 Clay Street
Vicksburg, Mississippi 39183-3435

Re: Pre-Construction Notification - Nationwide Permit 12
Gulf South Pipeline Company, LP
Index 301 Pipeline (North Section)
Hinds County, Mississippi
Gulf South Project No. 1134
Providence Project No. 196-077 (T 1.0)

Dear Mr. Lofton:

On behalf of Gulf South Pipeline Company, LP (Gulf South) Providence is submitting this Pre-Construction Notification (PCN) for Nationwide Permit (NWP) 12 – *Utility Line Activities*, for authorization to replace four miles of 18-inch-diameter pipeline with a 12-inch-diameter natural gas pipeline in Jackson, Hinds County, Mississippi. The proposed replacement will be conducted to meet current U.S. Department of Transportation (USDOT) regulations.

CONTACT INFORMATION

Applicant	Agent
Gulf South Pipeline Company, LP 111 Park Place, Suite 100 Covington, LA 70433 Attn: Cale LeBlanc	Providence 1201 Main Street Baton Rouge, LA 70802 Attn: Lee Womack

BACKGROUND

The existing Index 301 pipeline alignment is approximately 7.4 miles long spanning portions of Hinds and Rankin Counties, Mississippi. The southern 3.4 miles of the Index 301 pipeline is referred to as the “Southern Section”, while the remaining four miles is referred to as the “Northern Section”, respectively.

On March 22, 2011, Providence, on behalf of Gulf South, submitted a request for preliminary jurisdictional determination for the Southern Section (3.4 miles) of the Index 301 pipeline (MVK-2011-00306), and will subsequently file a pre-construction notification for the Southern Section as a separate submittal. The project was divided into two segments as a result of the Northern Portion being under the jurisdiction of the Federal Energy Regulatory Commission (FERC).

On April 26, 2011, Providence, on behalf of Gulf South, submitted a request for preliminary jurisdictional determination for the Northern Section of the Index 301 pipeline. This request for authorization, under NWP-12, will only address the Northern Section of the Index 301 pipeline replacement project.

The proposed work is being conducted to comply with the United States Department of Transportation, CFR Title 49: Transportation; Part 192. *Transportation of Natural Gas and Other Gas by Pipeline Minimum Federal Safety Standards*; Subpart O - *Gas Transmission Pipeline Integrity Management*. Seven High Consequence Areas (HCAs) have been identified along this four-mile section of the pipeline which is within the city of Jackson. This pipeline replacement project will eliminate all seven HCAs. The replacement will take place mostly within the existing right-of-way (ROW) which has been maintained as such by Gulf South since installation of the pipeline in 1930. However, temporary workspaces, primarily occurring in residential, commercial, industrial, and otherwise previously-disturbed areas adjacent to the existing pipeline ROW and within the city of Jackson will also be required. Impacts to jurisdictional wetlands and other waters of the United States will be both temporary and minimal.

PROJECT LOCATION & DESCRIPTION

Gulf South is proposing to replace approximately 3.97 miles of the existing 18-inch-diameter pipeline with a 12-inch-diameter pipeline. The alignment is approximately 4.9 miles northeast of the center of Jackson, Mississippi (**Figure 1**). The portion of the Index 301 pipeline proposed for replacement begins at Latitude 32°20'32.78"N; Longitude 90°9'35.18"W, north of the Pearl River, and terminates at Latitude 32°23'6.64"N; Longitude 90°9'38.15"W traversing Sections 18, 19, and 30, Township 6 North, Range 1 East, and Sections 2, 11, 12, and 13, Township 6 North, Range 2 East (**Figure 2**).

Construction will involve ten horizontal directional drills (HDDs), which will account for approximately 69 percent (2.75 miles) of the proposed replacement. The remaining approximately 1.22 miles will be installed by conventional trenching methods within existing permanent Gulf South ROW. Most of the temporary workspaces utilized for the HDDs will be sited in select, previously-disturbed residential, commercial, or industrial areas (e.g. neighborhoods, parking lots, previously-filled mowed and maintained areas, etc.) and adjacent to the existing Gulf South ROW. The temporary workspace locations and existing right-of-way are shown on attached **Figures 3a – 3p.**

Included for your review are **Figure 1** – Vicinity Map, **Figure 2** – Site Location Map, **Figure 3a – 3p** – Site Plans, and **Figure 4** – General Notes. Also include for your review are *Proposed 12" Index 301 North Pipeline Replacement Alignment Sheets 1* – 8 (**Attachment A**) that show additional details of the proposed construction,

DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

Canals and Creeks. As stated, approximately 2.75 miles of the proposed pipeline will be installed by HDD and impacts from the proposed project are anticipated to be temporary and minimal. Temporary impacts to the ROW *between drill entry and exit points* will be limited to those resulting from pipe stringing and equipment access/transport. No excavation or permanent fills will occur along these sections of the existing pipeline ROW. **Table 1** shows the canals and creeks identified in the existing ROW and temporary workspaces.

Table 1. Temporary (Construction) Impacts to Creeks and Canals. Potential Impacts from Pipe Stringing and ROW Access Only. No excavation or fill is required.

Feature Name	Classification	Length (Ft)*	Latitude	Longitude
CRK B-1	Ephemeral	53.19	32° 21' 10.60" N	90° 8' 6.13" W
CRK B-2	Ephemeral	21.98	32° 21' 9.60" N	90° 8' 5.64" W
CRK B-3	Ephemeral	33.16	32° 22' 56.78" N	90° 9' 31.17" W
CANAL B-1	Ephemeral	45.43	32° 20' 34.68" N	90° 7' 36.71" W
CANAL B-2	Ephemeral	30.98	32° 20' 44.64" N	90° 7' 44.73" W
CANAL B-3	Ephemeral	40.22	32° 20' 44.79" N	90° 7' 45.27" W
CANAL B-4	Ephemeral	41.00	32° 20' 51.70" N	90° 7' 50.79" W
CANAL B-5	Ephemeral	39.24	32° 20' 50.03" N	90° 7' 48.93" W
CANAL B-6	Ephemeral	37.83	32° 20' 55.10" N	90° 7' 53.28" W
CANAL B-7	Ephemeral	37.63	32° 20' 54.81" N	90° 7' 53.32" W
CANAL B-8	Ephemeral	52.06	32° 21' 3.21" N	90° 8' 0.33" W
CANAL B-9	Ephemeral	51.14	32° 21' 3.07" N	90° 7' 59.89" W
CANAL B-10	Ephemeral	34.46	32° 21' 6.99" N	90° 8' 3.51" W
CANAL B-11	Ephemeral	33.74	32° 21' 24.31" N	90° 8' 16.64" W
CANAL B-12	Ephemeral	38.69	32° 21' 29.23" N	90° 8' 21.06" W
CANAL B-13	Ephemeral	395.09	32° 21' 29.24" N	90° 8' 20.81" W
CANAL B-14	Perennial	194.60	32° 22' 17.95" N	90° 8' 58.84" W
CANAL B-15	Ephemeral	48.73	32° 22' 42.73" N	90° 9' 17.15" W
CANAL B-16	Ephemeral	48.50	32° 22' 42.42" N	90° 9' 16.68" W
CANAL B-17	Ephemeral	36.83	32° 22' 58.72" N	90° 9' 32.26" W
CANAL B-18	Ephemeral	33.32	32° 23' 0.92" N	90° 9' 34.02" W

*All canals and creeks will be crossed via horizontal directional drill.

Jurisdictional Wetlands. It appears that only 0.10 acre of jurisdictional wetlands may be temporarily impacted by the proposed work. Wetland classification and location are shown in **Table 2**. This acreage is associated with temporary workspace as shown on permit drawing, **Figure 3m,** attached.

Table 2. Temporary (Construction) Impacts to Potential Jurisdictional Wetlands				
Feature Name	**Classification**	**Acres**	**Latitude**	**Longitude**
Wet B-1	PEM	0.10	32° 22' 32.11" N	90° 9' 9.15" W

WETLAND DELINEATION

As mentioned, a wetland delineation for the proposed alignment was conducted on January 11-13, 2011, and April 13, 2011. Subsequently, a wetland data report and request for preliminary jurisdictional determination was submitted to the Vicksburg District's Evaluation Section for review and approval on April 26, 2011. As of the date of this request, the jurisdictional determination is pending.

THREATENED AND ENDANGERED SPECIES

Species listed in Hinds County include the gulf sturgeon (*Acipenser oxyrinchus*), Louisiana black bear (*Ursus americana luteolus*), ringed map turtle (*Graptemys oculifera*), and bayou darter (*Etheostoma rubrum*). On April 28, 2011, Providence submitted a request for concurrence of no effect to the U.S. Fish and Wildlife Service (USFWS) for the proposed replacement of the North Section of the Index 301 pipeline. By letter dated May 4, 2011, the USFWS provided concurrence that the proposed project will have no effect on federally listed species or their habitats (**Attachment B**).

ADDITIONAL ENVIRONMENTAL DOCUMENTATION

In addition to the USFWS request for concurrence letter, Providence submitted consultation requests to the Mississippi State Historic Preservation Officer (SHPO), the Mississippi Band of Choctaw Indians, and Grand Village Natchez Indian Tribe, on April 28, 2011. Responses are pending as of the date of this PCN.

Please review the provided documentation and provide the requisite authorization for the proposed project at your earliest convenience. If you have any questions about this PCN, or require additional information, please contact me at (225) 766-7400.

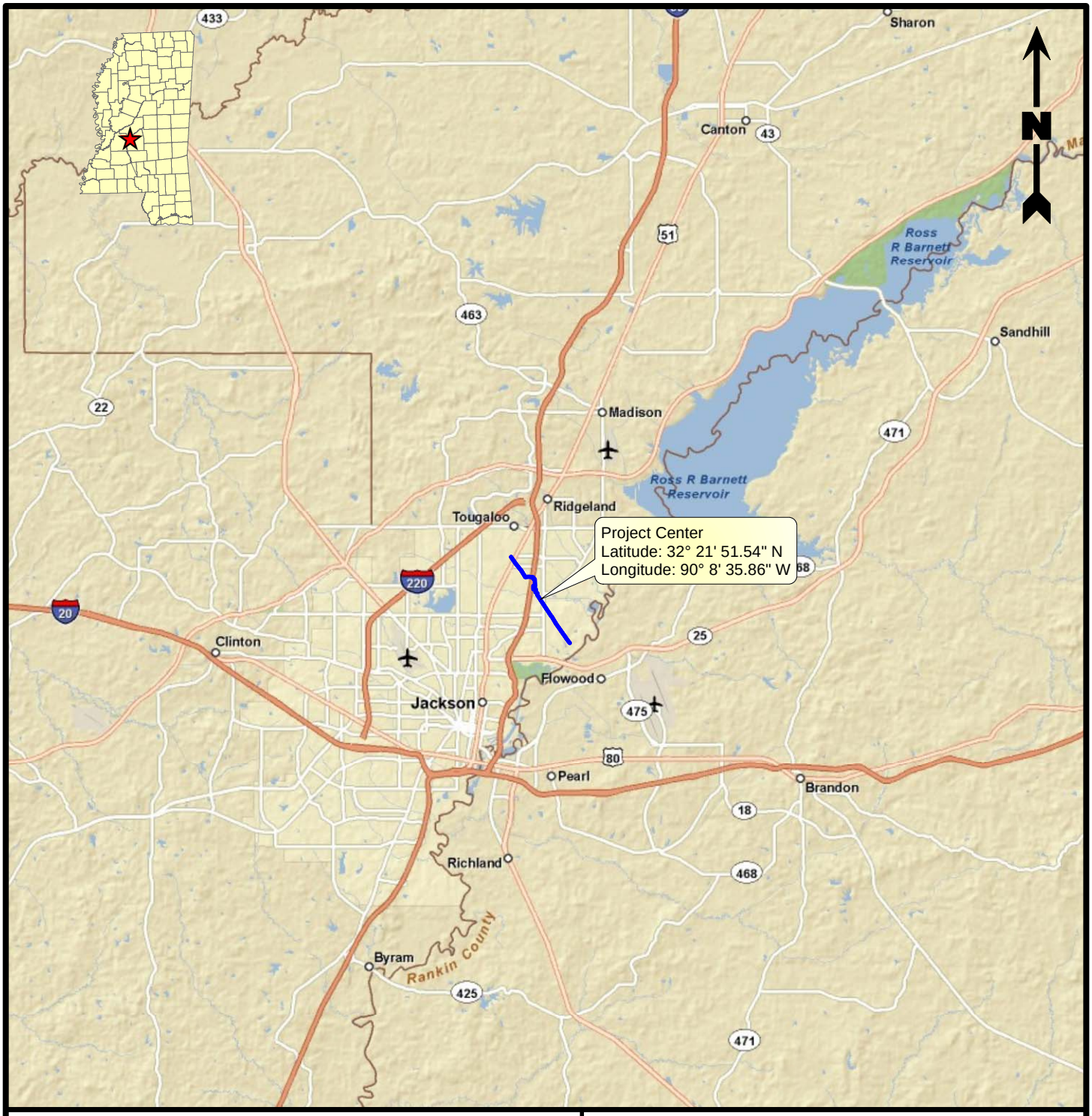
Sincerely,
Providence

Lee Womack

Lee Womack
Environmental Scientist
1201 Main Street
Baton Rouge, LA 70802

FIGURE 1

VICINITY MAP



5 2.5 0 5 Miles

Legend

Right-of-Way

Reference

Base map comprised of World StreetMap USA dataset.

Vicinity Map

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A044

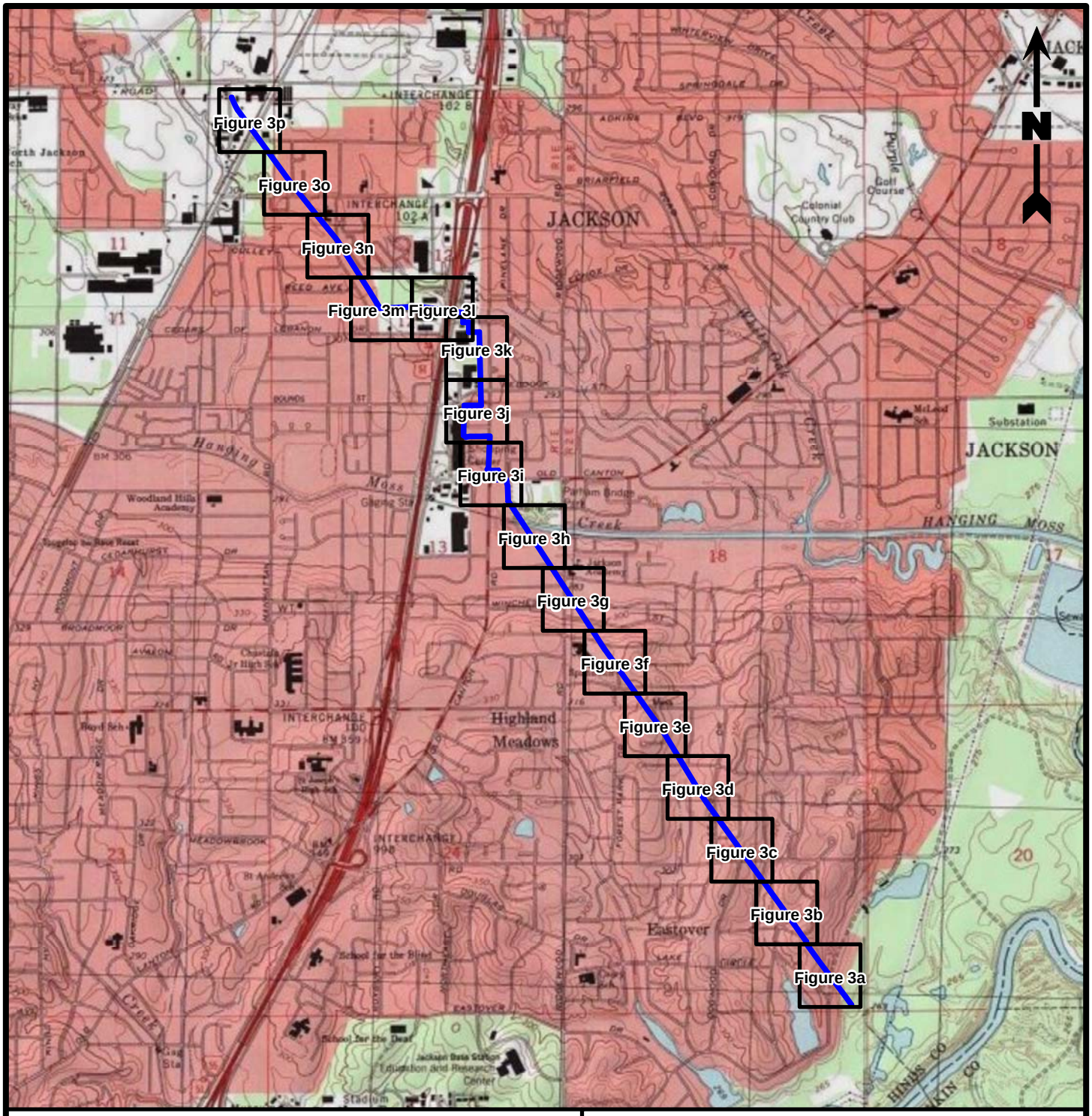
1 Figure

PROVIDENCE

Providence Engineering and Environmental Group LLC

FIGURE 2

SITE LOCATION MAP



2,500 1,250 0 2,500 Feet

Legend

Right-of-Way

Reference

Base map comprised of USGS 7.5 minute topographic maps, "Jackson, MS", "Jackson SE, MS"dated 1979 and "Madison, MS" and "Ridgeland, LA" dated 1980.

Site Location Map

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A045

2 Figure

FIGURE 3a – 3p

SITE PLANS

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A046

3a
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A047

3b
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A048

3c
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A049

3d
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A050

3e
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A051

3f
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

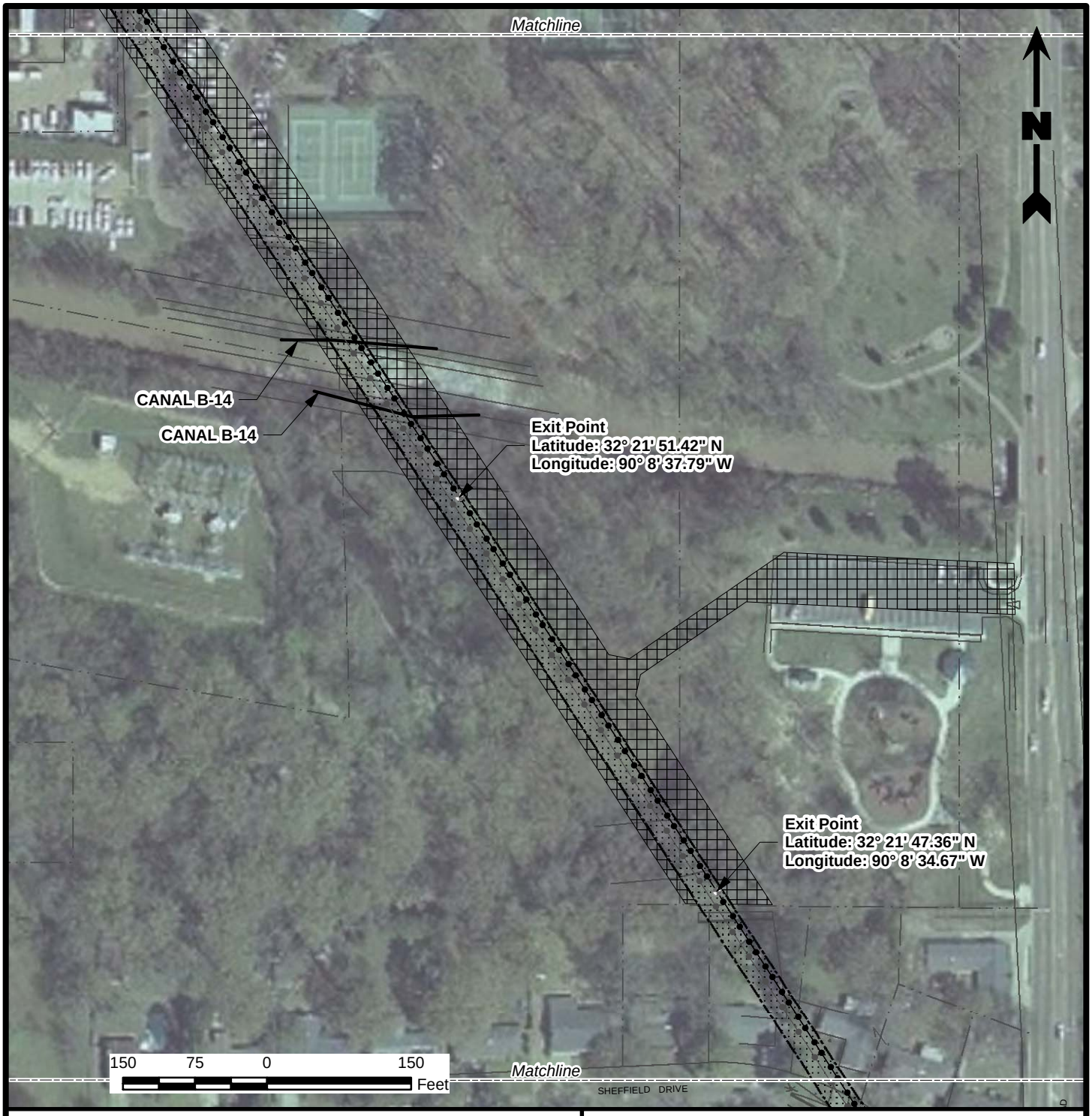
PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number 196-077

Drawing Number 196-077-A052

3g
Figure



Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

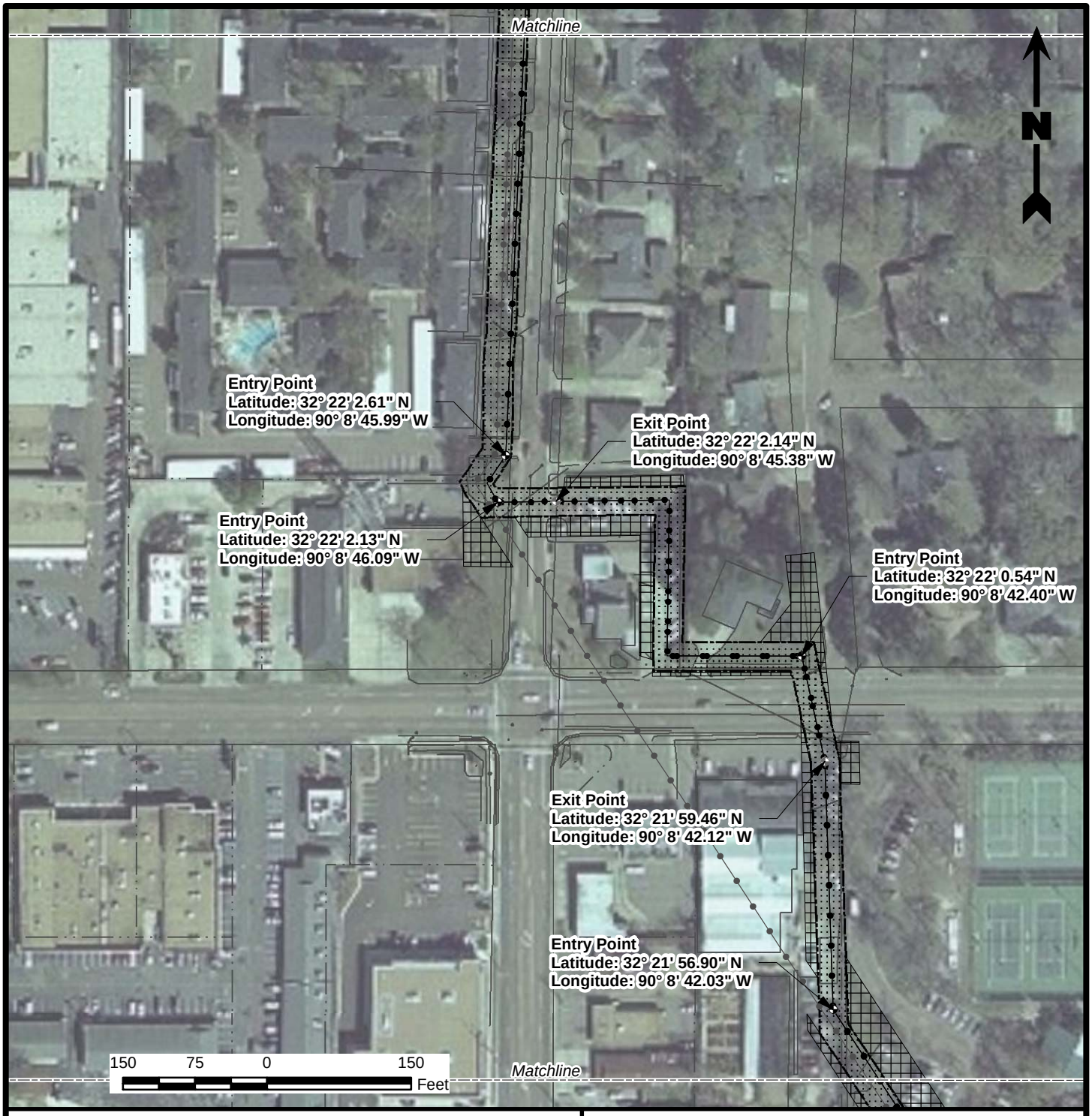
PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	04/18/11
Approved By	RPC	04/18/11

Project Number 196-077

Drawing Number 196-077-A053

3h
Figure



Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

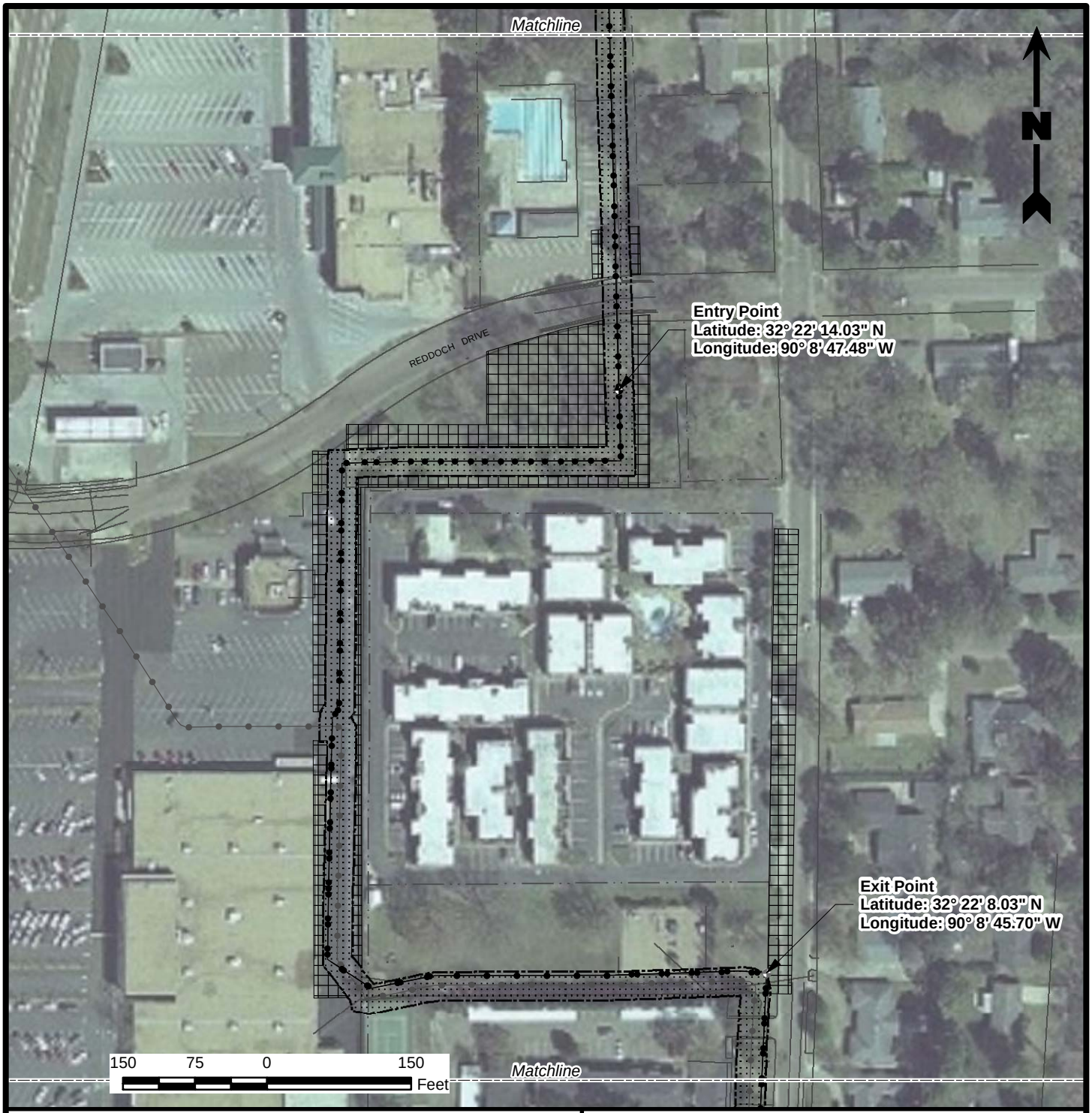
PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A054

3i
Figure



Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

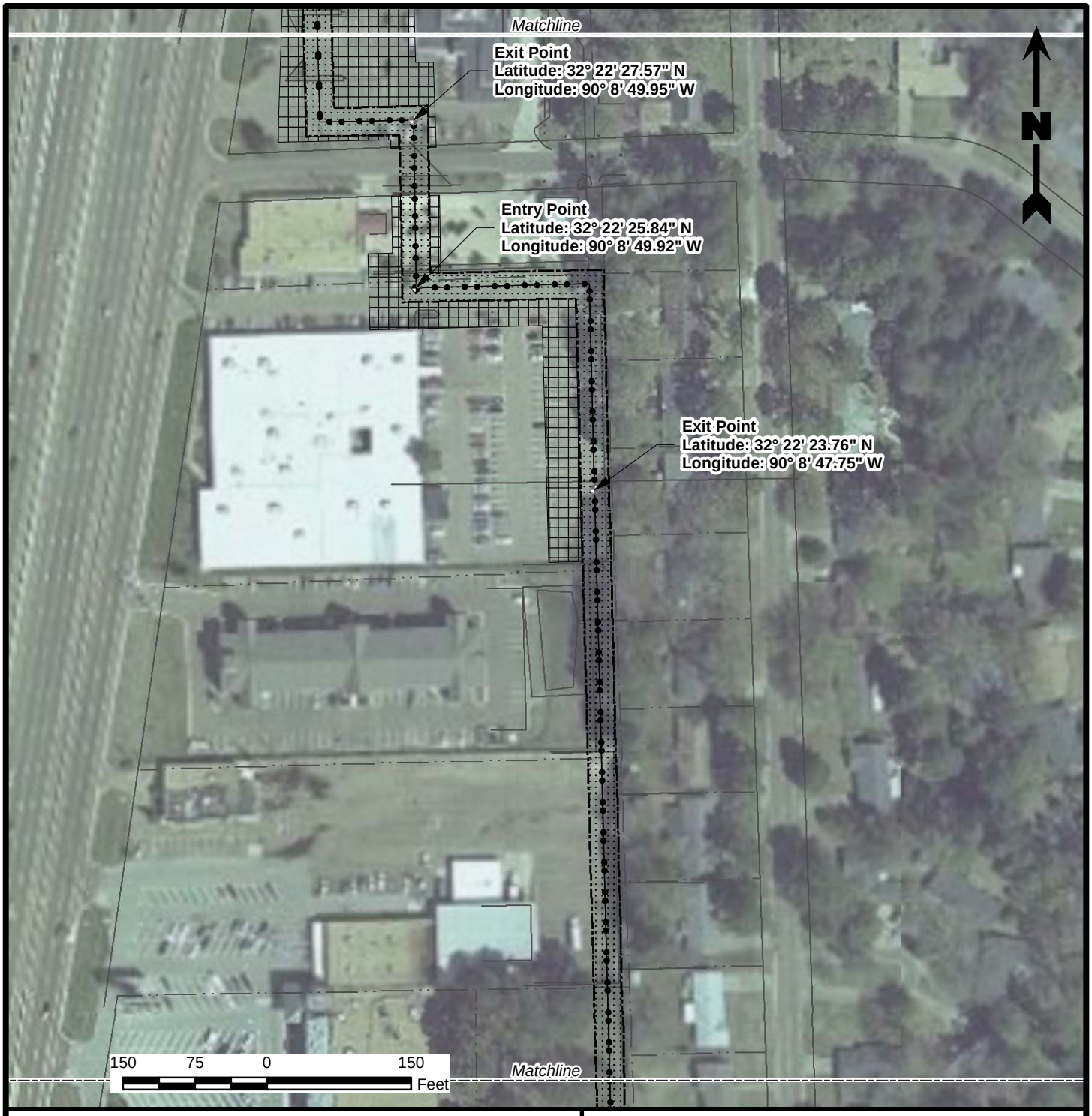
PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A055

3j
Figure



Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

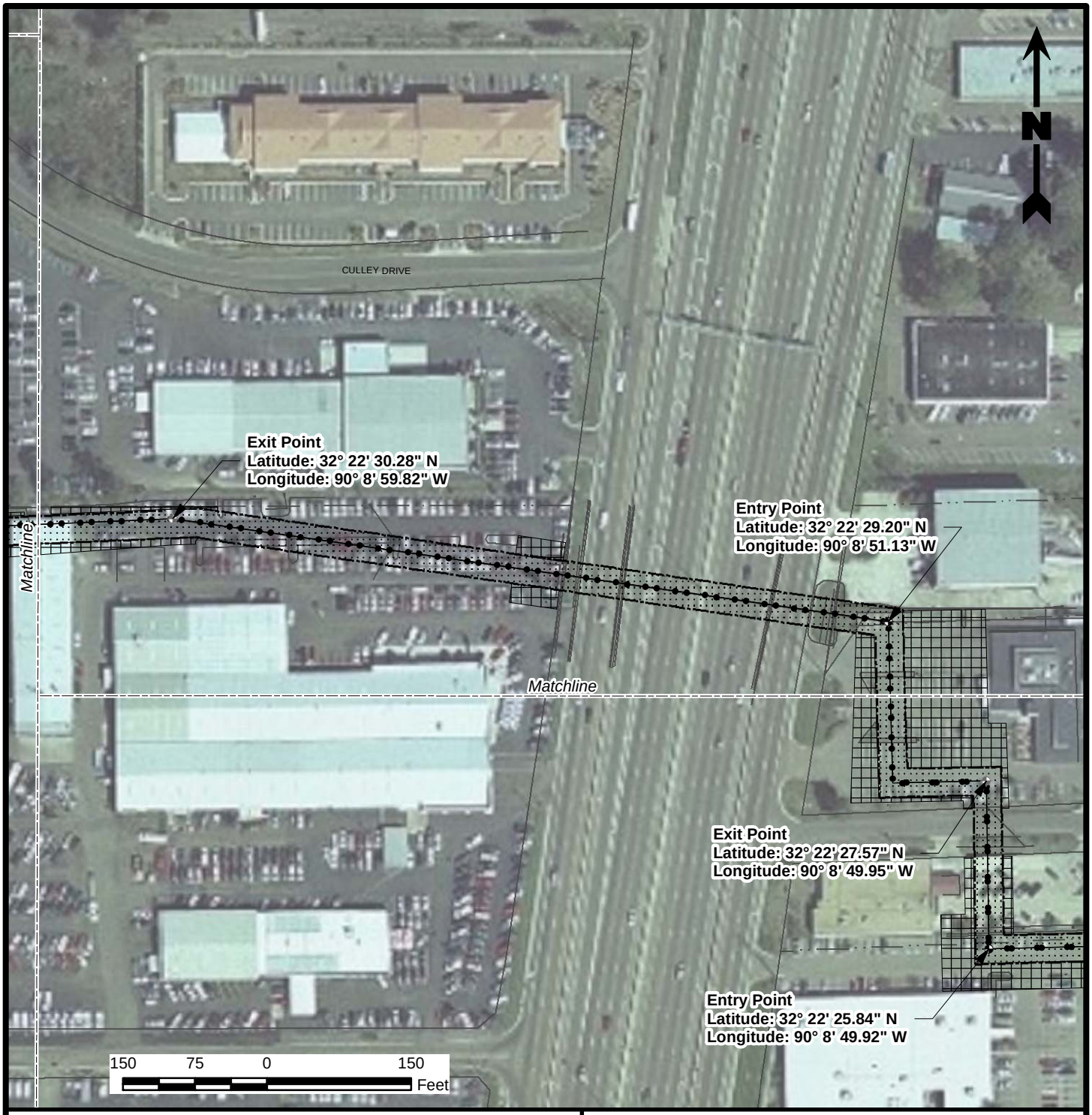
PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A056

3k
Figure



Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A057

3I
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A058

3m
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A059

3n
Figure

Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

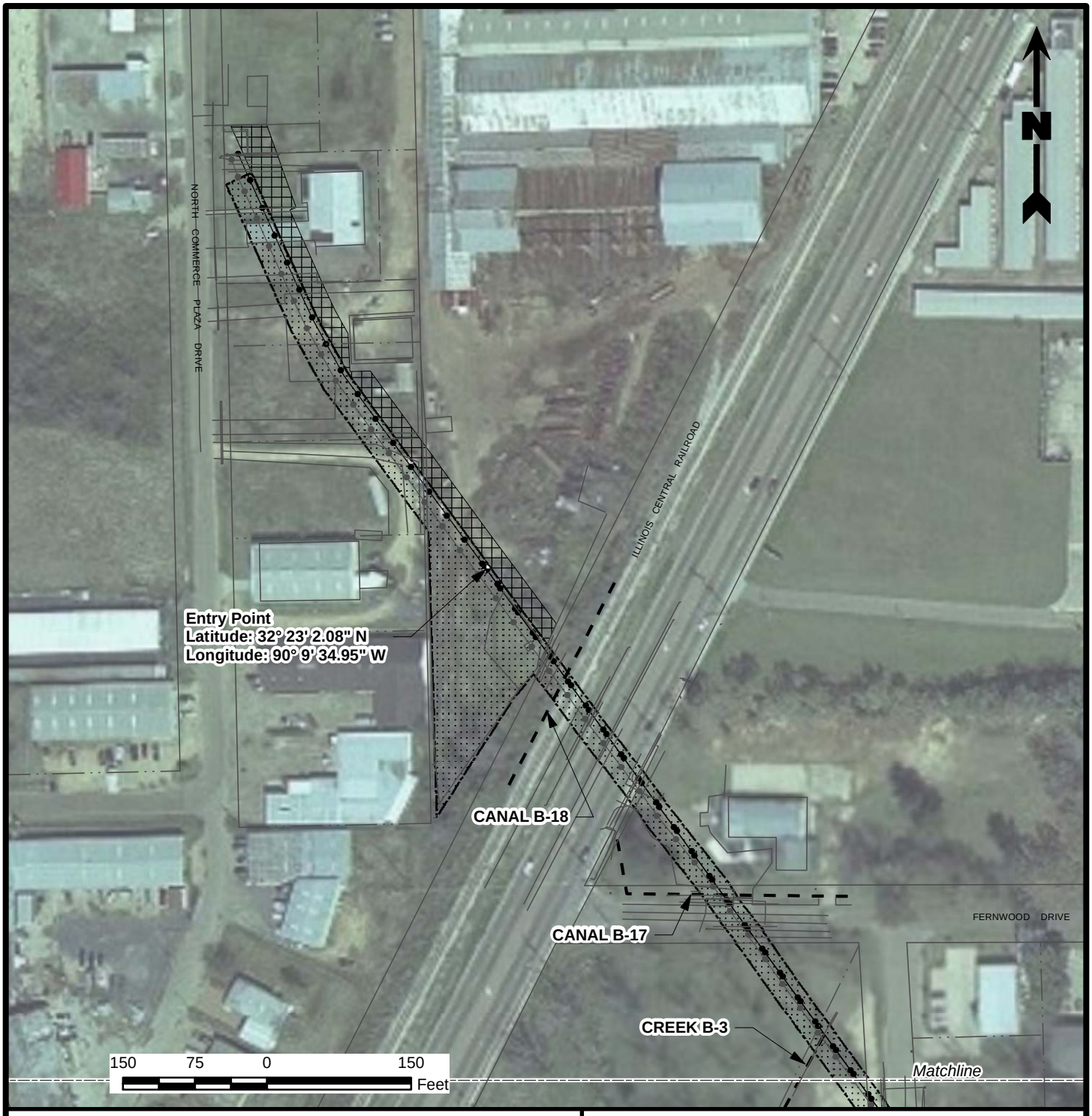
PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A060

3o
Figure



Legend

- Right-of Way Limits
- Proposed Pipeline
- Existing Pipeline
- Ephemeral Feature
- Perennial Feature
- Entry Point
- Exit Point

Wetland Classification

- Emergent (EM)
- Temporary Workspace

Note

The majority of the proposed project will be horizontally directional drilled (HDD) and associated impacts will be restricted to identified temporary workspaces.

Site Plan

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number
196-077

Drawing Number
196-077-A061

3p
Figure

FIGURE 4

GENERAL NOTES

Feature Name	Classification	Acres	Latitude	Longitude
Wet B-1	PEM	0.10	32° 22' 32.11" N	90° 9' 9.15" W

Feature Name	Classification	Length (Ft)	Latitude	Longitude
CRK B-1	Ephemeral	53.19	32° 21' 10.60" N	90° 8' 6.13" W
CRK B-2	Ephemeral	21.98	32° 21' 9.60" N	90° 8' 5.64" W
CRK B-3	Ephemeral	33.16	32° 22' 56.78" N	90° 9' 31.17" W

Feature Name	Classification	Length (Ft)	Latitude	Longitude
CANAL B-1	Ephemeral	45.43	32° 20' 34.68" N	90° 7' 36.71" W
CANAL B-2	Ephemeral	30.98	32° 20' 44.64" N	90° 7' 44.73" W
CANAL B-3	Ephemeral	40.22	32° 20' 44.79" N	90° 7' 45.27" W
CANAL B-4	Ephemeral	41.00	32° 20' 51.70" N	90° 7' 50.79" W
CANAL B-5	Ephemeral	39.24	32° 20' 50.03" N	90° 7' 48.93" W
CANAL B-6	Ephemeral	37.83	32° 20' 55.10" N	90° 7' 53.28" W
CANAL B-7	Ephemeral	37.63	32° 20' 54.81" N	90° 7' 53.32" W
CANAL B-8	Ephemeral	52.06	32° 21' 3.21" N	90° 8' 0.33" W
CANAL B-9	Ephemeral	51.14	32° 21' 3.07" N	90° 7' 59.89" W
CANAL B-10	Ephemeral	34.46	32° 21' 6.99" N	90° 8' 3.51" W
CANAL B-11	Ephemeral	33.74	32° 21' 24.31" N	90° 8' 16.64" W
CANAL B-12	Ephemeral	38.69	32° 21' 29.23" N	90° 8' 21.06" W
CANAL B-13	Ephemeral	395.09	32° 21' 29.24" N	90° 8' 20.81" W
CANAL B-14	Perennial	194.60	32° 22' 17.95" N	90° 8' 58.84" W
CANAL B-15	Ephemeral	48.73	32° 22' 42.73" N	90° 9' 17.15" W
CANAL B-16	Ephemeral	48.50	32° 22' 42.42" N	90° 9' 16.68" W
CANAL B-17	Ephemeral	36.83	32° 22' 58.72" N	90° 9' 32.26" W
CANAL B-18	Ephemeral	33.32	32° 23' 0.92" N	90° 9' 34.02" W

General Notes

Pre-Construction Notification - NWP 12
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Index 301 Northern Section (Project 1134)

PROVIDENCE

Drawn By	DRA	05/09/11
Checked By	LW	05/09/11
Approved By	RPC	05/09/11

Project Number: 196-077

Drawing Number: 196-077-A062

4
Figure

ATTACHMENT A

PROPOSED 12” INDEX 301 NORTH PIPELINE REPLACEMENT ALIGNMENT SHEETS 1 – 8

Refer to Volume 2, Attachment 1

United States Fish and Wildlife Service

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Mississippi Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

May 4, 2011

IN REPLY REFER TO:
2011-I-548

M.r Lee Womack
Providence Engineering and Environmental Group LLC
1201 Main Street
Baton Rouge, Louisiana 70802

Dear Mr. Womack:

The United States Fish and Wildlife Service (Service) has reviewed the information in your letter dated April 28, 2011, regarding the proposed repalcement of four miles of 18-inch gas pipeline by Gulf South near the City of Jackson in Hinds County, Mississippi. Our comments are submitted in accordance with the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Based on the information provided in your letter, the Service has determined that the proposed project will have "No Effect" on federally listed species or their habitats. No further consultation under the ESA is required with this office unless there are changes in the scope or location of the proposed project.

If you have any questions, please contact Daniel Gregg in our office, telephone: (601) 321-1136, or visit our website at http://www.fws.gov/mississippiES/.

Sincerely,

for Stephen M. Ricks
Field Supervisor
MS Field Office

April 28, 2011

Ms. Kathy Lunceford
Field Supervisor
Jackson Ecological Services Field Office
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213

Re: Threatened and Endangered Species Consultation
Gulf South Pipeline Company, LP
Index 301 Pipeline (North Section)
Hinds County, Mississippi
Gulf South Project No. Project # 1134
Providence Project No. 196-077

Dear Ms. Lunceford:

On behalf of Gulf South Pipeline Company, LP (Gulf South), Providence requests written documentation regarding compliance with the Federal Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) for the proposed replacement of four miles of 18-inch-diameter pipeline with a 12-inch-diameter pipeline near Jackson, Hinds County, Mississippi.

The proposed work is being conducted to comply with the United States Department of Transportation, CFR Title 49: Transportation; Part 192. *Transportation of Natural Gas and Other Gas by Pipeline Minimum Federal Safety Standards*; Subpart O - *Gas Transmission Pipeline Integrity Management*. Seven High Consequence Areas (HCAs) have been identified along this four-mile section of the pipeline. This pipeline replacement project will eliminate all seven HCAs. The replacement will take place mostly within the existing right-of-way (ROW) which has been maintained as such by Gulf South since installation of the pipeline in 1930. However, temporary workspaces, primarily occurring in residential, commercial, industrial, and otherwise previously-disturbed areas adjacent to the existing pipeline ROW and within the city of Jackson will also be required.

The proposed replacement begins at Latitude 32°20'32.78"N; Longitude 90°9'35.18"W, north of the Pearl River, and terminates at Latitude 32°23'6.64"N; Longitude 90°9'38.15"W traversing Sections 18, 19, and 30, Township 6 North, Range 1 East, and Sections 2, 11, 12, and 13, Township 6 North, Range 2 East (**Figure 1**). Construction will incorporate ten horizontal directional drills (HDDs), which will account for

approximately 66 percent (2.64 miles) of the proposed replacement. The remaining approximately 1.36 miles will be installed by conventional trenching methods within existing permanent Gulf South ROW. Most of the temporary workspaces utilized for the HDDs will be sited in select, previously-disturbed residential, commercial, or industrial areas (e.g. neighborhoods, parking lots, previously-filled mowed and maintained areas, etc.) and adjacent to the existing Gulf South ROW. The temporary workspace locations are shown on the attached **Alignment Sheets Numbers 1 through 8.**

According to the U.S. Fish and Wildlife Service *Mississippi List of Threatened and Endangered Species by County*, species listed in Hinds County include the Louisiana black bear *Ursus americana luteolus*), Ringed map turtle (*Graptemys oculifera*), Bayou darter (*Etheostoma rubrum*), and Gulf sturgeon (*Acipenser oxyrhynchus*). Based on the location, scope, and timing of the proposed work, it appears that the project will have no effect on listed species or their critical habitats.

To comply with the Federal Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), Providence is notifying your office of the above-referenced project. Providence respectfully requests that your office review the attached maps for any known federally listed endangered and/or threatened species and, if applicable, provide the requisite clearance for these activities.

If you have any questions, please call me at 225-766-7400.

Sincerely,
Providence

Lee Womack

Lee Womack
Environmental Scientist
1201 Main Street
Baton Rouge, LA 70802

Encl: As Stated

FIGURES

Refer to Mapping Volume 1, Attachment 3 and Aerial Alignment Sheets Volume 2, Attachment 1

State Historic Preservation Office

MISSISSIPPI DEPARTMENT *of* ARCHIVES AND HISTORY

MDAH

PO Box 571, Jackson, MS 39205-0571
601-576-6850 • Fax 601-576-6975
mdah.state.ms.us
H.T. Holmes, Director

December 21, 2010

Mr. Steven J. Law
Boardwalk Pipeline Partners
3800 Frederica Street
Owensboro, Kentucky 42301

Proposed Blanket Clearance for Boardwalk Pipeline Partners
Specifically: Gulf South Pipeline Co., Texas Gas Transmission LLC, and Gulf Crossing Pipeline, for minor activities in Mississippi,
MDAH Project Log # 12-008-10, Multiple Counties

Dear Mr. Law:

Thank you for submitting the proposed general clearance request for construction and maintenance activities in Mississippi dated November 30, 2010, for our review. After reviewing the proposed activities, received on December 1, 2010, we concur with its provisions regarding clearance for the minor construction projects specified in Categories 1-7 that may occur, as long as they are completely within existing rights-of way or previously disturbed areas.

There remains the possibility that unrecorded cultural resources may be encountered during these kinds of projects. Should this occur, we would appreciate your contacting this office immediately in order that we may offer appropriate comments under 36 CFR 800.13.

If you have any questions, please call me at 601-576-6940.

Sincerely,

Greg Williamson
Review and Compliance Officer

FOR: H.T. Holmes
State Historic Preservation Officer

MISSISSIPPI DEPARTMENT *of* ARCHIVES AND HISTORY

MDAH

PO Box 571, Jackson, MS 39205-0571
601-576-6850 • Fax 601-576-6975
mdah.state.ms.us
H.T. Holmes, Director

May 13, 2011

Mr. Lee Womack
Providence
1201 Main Street
Baton Rouge, Louisiana 70802

RE: Project No. 196-077; Proposed replacement of approximately four miles of 18 inch natural gas pipeline with a 12 inch natural gas pipeline by Gulf South Pipeline Company, LP, MDAH Project Log # 04-190-11-11, Hinds County

Dear Mr. Womack:

We have reviewed your request for a cultural resources assessment, received on April 29, for the above referenced project in accordance with our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After reviewing the information provided, it is our determination that no cultural resources are likely to be affected. Therefore, we have no objection with the proposed undertaking.

Should there be additional work in connection with the project, or any changes in the scope of work, please let us know in order that we may provide you with appropriate comments in compliance with the above referenced regulations.

If you have any questions, please do not hesitate to contact us at (601) 576-6940.

Sincerely,

Hal Bell

Hal Bell
Review and Compliance Assistant

FOR: Greg Williamson
Review and Compliance Officer

April 28, 2011

Mr. Greg Williamson
Review and Compliance Office
Historic Preservation Division
Mississippi Department of Archives and History
P.O. Box 571
Jackson, MS 39205-0571

Re: Cultural Resources Request for Concurrence
Gulf South Pipeline Company, LP
Index 301 Pipeline (North Section)
Hinds County, Mississippi
Gulf South Project No. Project #1134
Providence Project No. 196-077

Dear Mr. Williamson:

On behalf of Gulf South Pipeline Company, LP (Gulf South), Providence requests written documentation regarding compliance with the National Historic Preservation Act of 1966 and the Archeological and Historic Preservation Act of 1974 for the proposed replacement of approximately four miles of 18-inch-diameter natural gas pipeline (Index 301) with a 12-inch-diameter natural gas pipeline in Jackson, Hinds County, Mississippi. The proposed work is being conducted to comply with the United States Department of Transportation, CFR Title 49: Transportation; Part 192. *Transportation of Natural Gas and Other Gas by Pipeline Minimum Federal Safety Standards*; Subpart O - *Gas Transmission Pipeline Integrity Management*. Seven High Consequence Areas (HCAs) have been identified along this four-mile section of the pipeline. This pipeline replacement project will eliminate all seven HCAs. The replacement will take place mostly within the existing right-of-way (ROW) which has been maintained as such by Gulf South since installation of the pipeline in 1930. However, temporary workspaces, primarily occurring in residential, commercial, industrial, and otherwise previously-disturbed areas adjacent to the existing pipeline ROW and within the city of Jackson will also be required.

The proposed replacement begins at Latitude 32°20'32.78"N; Longitude 90°9'35.18"W, north of the Pearl River, and terminates at Latitude 32°23'6.64"N; Longitude 90°9'38.15"W traversing Sections 18, 19, and 30, Township 6 North, Range 1 East, and Sections 2, 11, 12, and 13, Township 6 North, Range 2 East (**Figure 1**). Construction will incorporate ten horizontal directional drills (HDDs), which will account for approximately 66 percent (2.64 miles) of the proposed replacement. The remaining approximately 1.36 miles will be installed by conventional trenching methods within

existing permanent Gulf South ROW. Most of the temporary workspaces utilized for the HDDs will be sited in select, previously-disturbed residential, commercial, or industrial areas (e.g. neighborhoods, parking lots, previously-filled mowed and maintained areas, etc.) and adjacent to the existing Gulf South ROW. The temporary workspace locations are shown on the attached **Alignment Sheets Numbers 1 through 8.**

As you are aware, Gulf South maintains an annual categorical/blanket clearance agreement for minor construction activities with the Mississippi Department of Archives and History (MDAH). The blanket clearance states that the MDAH should be contacted for work proposed off of existing Gulf South ROWs or existing facilities. Gulf South maintains a permanent, 30-foot ROW along this section of Index 301 and is therefore requesting clearance for those areas adjacent to the existing easement which are located off of the permanent ROW.

In addition to the referenced Alignment Sheets, attached please find the Request for Cultural Resources Assessment form. If you agree that the implementation of the proposed project will have no effect on properties listed or eligible for listing on the National Register of Historic Places, or other sensitive cultural or archeological resources, please indicate your approval and return to this document, or photocopy thereof, to Providence. We appreciate your assistance in this project and if you have any questions or require additional information, please call me at 225-766-7400.

Sincerely,
Providence

Lee Womack

Lee Womack
Environmental Scientist
1201 Main Street
Baton Rouge, LA 70802

Encl: As Stated

cc: Cale LeBlanc, Gulf South Pipeline Company, LP

FIGURES

Refer to Mapping Volume 1, Attachment 3 and Aerial Alignment Sheets Volume 2, Attachment 1

ATTACHMENT A

REQUEST FOR CULTURAL RESOURCES ASSESSMENT FORM

REQUEST FOR CULTURAL RESOURCES ASSESSMENT

Forwarding of this completed form to the Mississippi State Historic Preservation Office constitutes a request for Cultural Resources Assessment in accordance with 36 CFR 800. This assessment is required for all projects which are funded, assisted, or licensed by a Federal agency.

Applicant Gulf South Pipeline Company, LP County of project Hinds

Applicant's address 111 Park Place, Suite 100 City Covington Zip 70433

Contact person and name of organization Cale LeBlanc

Phone 985-898-1015 Cell Phone * _____

** Not required*

Contact person's address, if different from applicant Lee Womack

Street/P.O. Box 1201 Main Street City Baton Rouge Zip 70802

Federal agency involved: Federal Energy Regulatory Commission

Type of involvement *(check one):* Permit ☒ Grant ☐ Loan ☐ Other ☐

Signature of applicant or contact person requesting this assessment:

_____ Date: _____

---

1. **Project Description and Location** (If structure is involved, provide physical address)

   Index 301 Pipeline (North Section) replacement project.

   If the program involves more than one project complete *separate* assessment *for each. If a more detailed description of the proposed project is applicable, please* attach *a separate sheet.*

   - Has the identical project been previously submitted for a cultural resource assessment? If YES, enclose copy of State Historic Preservation Officer's comments, if available. YES ☐ NO ☒
   - Attach a **7.5' USGS quadrangle map,** or portion thereof, indicating the precise location and/or boundaries of the project area and the acreage involved. Please include the name of the quad map, if not otherwise indicated.
   - Approximately how many acres are in the project area? ACRE (s) 14.5
   - Please indicate the section, township, and range, if not otherwise indicated on the map provided.

     Please see attached figures

     Section _____ Township _____ Range _____
   - To your knowledge, has a cultural resources survey been conducted in the project area If YES, attach survey report.

     NO
   - Describe the present use and condition of the property.

     Existing right-of-way, commercial, or industrial property.

Please include photo(s) of the* project area, *if available, in its current condition. Use of printed digital images are acceptable.

2. Buildings and Structures

- Will the project involve an addition to, destruction, alteration, or renovation of any structure? If *NO,* proceed to Section 3. YES ☐ NO ☒
- Is affected structure 50 years old or older? If NO, proceed to Section 3. YES ☐ NO ☒
- What is the approximate date of construction of the existing structure, if known? N/A
- Have plans and specifications for the renovation, alteration, or addition been completed? YES ☐ NO ☒

  If *YES,* attach plans and specifications (plans for a new structure to replace a demolished one need not be attached). Please include photos of front and rear elevations, as well as the location of any proposed additions/alterations.

- Will construction take place adjacent to any structure which is approximately fifty years old or older? If *YES,* give address of structure(s), and date(s) of construction, if known. _____ YES ☐ NO ☒

  _____

  If the building(s) or structure(s) is located in a National Register and/or local historic district, if known, name the district. N/A

Please include photos of structure(s) and indicate on the project map the location(s) in relation to the project. Use of printed digital images are acceptable.

3. Ground Disturbing Activities

- Has the ground at the project location been previously developed, graded, or disturbed? If YES, describe the nature of the disturbed/developed portion (graded, farmed, etc.). YES ☒ NO ☐

The project will be conducted on existing right-of-way or industrial and commercial property.

- Will this project necessitate the acquisition of fill material? YES ☐ NO ☒

  If YES, approximately how many cubic yards of material will be acquired? Cu. Yds. _____
- Has the site from which fill material will be acquired been selected? YES ☐ NO ☒

  Clearly indicate borrow area(s) on project map and give approximate size in acres of each borrow site.

- Has material been taken from the borrow area(s) for other projects? YES ☐ NO ☒
- Does this project involve road/street construction? If YES, does the project involve any of the following? YES ☒ NO ☐

☒ New right-of-way ☐ New road construction ☐ Repaving ☐ Widening/change of alignment

---

Mail completed form to: **Mississippi Department of Archives and History**
Review and Compliance Officer P.O. Box 571
Jackson, Mississippi 39205 Phone: (601) 576-6940

Tribal Correspondence

April 28, 2011

Mr. Kenneth Carleton
Mississippi Band of Choctaw Indians
PO Box 6257
Philadelphia, MS 39350

Re: Gulf South Pipeline Company, LP
Index 301 Pipeline (North Section)
Hinds County, Mississippi
Gulf South Project No. Project # 1134
Providence Project No. 196-077

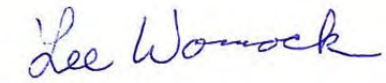
Dear Mr. Carleton:

On behalf of Gulf South Pipeline Company, LP (Gulf South), Providence is notifying you of the proposed replacement of approximately four miles of 18-inch-diameter natural gas pipeline (Index 301) with a 12-inch-diameter natural gas pipeline in Jackson, Hinds County, Mississippi. The proposed work is being conducted to comply with the United States Department of Transportation, CFR Title 49: Transportation; Part 192. *Transportation of Natural Gas and Other Gas by Pipeline Minimum Federal Safety Standards*; Subpart O - *Gas Transmission Pipeline Integrity Management*. Seven High Consequence Areas (HCAs) have been identified along this four-mile section of the pipeline. This pipeline replacement project will eliminate all seven HCAs. The replacement will take place mostly within the existing right-of-way (ROW) which has been maintained as such by Gulf South since installation of the pipeline in 1930. However, temporary workspaces, primarily occurring in residential, commercial, industrial, and otherwise previously-disturbed areas adjacent to the existing pipeline ROW and within the city of Jackson will also be required.

The proposed replacement begins at Latitude 32°20'32.78"N; Longitude 90°9'35.18"W, north of the Pearl River, and terminates at Latitude 32°23'6.64"N; Longitude 90°9'38.15"W traversing Sections 18, 19, and 30, Township 6 North, Range 1 East, and Sections 2, 11, 12, and 13, Township 6 North, Range 2 East (**Figure 1**). Construction will incoporate ten horizontal directional drills (HDDs), which will account for approximately 66 percent (2.64 miles) of the proposed replacement. The remaining approximately 1.36 miles will be installed by conventional trenching methods within existing permanent Gulf South ROW. Most of the temporary workspaces utilized for the HDDs will be sited in select, previously-disturbed residential, commercial, or industrial areas (e.g. neighborhoods, parking lots, previously-filled mowed and maintained areas, etc.) and adjacent to the existing Gulf South ROW. The temporary workspace locations are shown on the attached **Alignment Sheets Numbers 1 through 8.**

The Federal Energy Regulatory Commission (FERC) will be the lead Federal agency conducting review of the project. The purpose of this letter is to inform you of the proposed project. Should you have any questions, concerns or require additional information, please contact me at 225-766-7400.

Sincerely,
Providence



Lee Womack
Environmental Scientist
1201 Main Street
Baton Rouge, LA 70802

Encl: As Stated

Cc: Cale LeBlanc, Gulf South Pipeline Company, LP

FIGURES

Refer to Mapping Volume 1, Attachment 3 and Aerial Alignment Sheets Volume 2, Attachment 1

April 28, 2011

Grand Village Natchez Indian Tribe
400 Jefferson Davis Boulevard
Natchez, MS 39120

Re: Gulf South Pipeline Company, LP
Index 301 Pipeline (North Section)
Hinds County, Mississippi
Gulf South Project No. Project # 1134
Providence Project No. 196-077

To Whom It May Concern:

On behalf of Gulf South Pipeline Company, LP (Gulf South), Providence is notifying you of the proposed replacement of approximately four miles of 18-inch-diameter natural gas pipeline (Index 301) with a 12-inch-diameter natural gas pipeline in Jackson, Hinds County, Mississippi. The proposed work is being conducted to comply with the United States Department of Transportation, CFR Title 49: Transportation; Part 192. *Transportation of Natural Gas and Other Gas by Pipeline Minimum Federal Safety Standards*; Subpart O - *Gas Transmission Pipeline Integrity Management*. Seven High Consequence Areas (HCAs) have been identified along this four-mile section of the pipeline. This pipeline replacement project will eliminate all seven HCAs. The replacement will take place mostly within the existing right-of-way (ROW) which has been maintained as such by Gulf South since installation of the pipeline in 1930. However, temporary workspaces, primarily occurring in residential, commercial, industrial, and otherwise previously-disturbed areas adjacent to the existing pipeline ROW and within the city of Jackson will also be required.

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The Federal Energy Regulatory Commission (FERC) will be the lead Federal agency conducting review of the project. The purpose of this letter is to inform you of the proposed project. Should you have any questions, concerns or require additional information, please contact me at 225-766-7400.

Sincerely,
Providence

Lee Womack
Environmental Scientist
1201 Main Street
Baton Rouge, LA 70802

Encl: As Stated

Cc: Cale LeBlanc, Gulf South Pipeline Company, LP

FIGURES

Refer to Mapping Volume 1, Attachment 3 and Aerial Alignment Sheets Volume 2, Attachment 1

Mississippi Department of Wildlife, Fisheries, and Parks

MISSISSIPPI
DEPARTMENT OF WILDLIFE, FISHERIES, AND PARKS

Sam Polles, Ph.D.
Executive Director

May 31, 2011

Lee Womack
Providence Engineering and Environmental Group
1201 Main Street
Baton Rouge, LA 70802

Re: Gulf South Pipeline Company – Index 301 Pipeline (North Section)
Providence Project No. 196-077 **R# 8356**
Hinds County, Mississippi

To Whom It May Concern,

In response to your request for information dated May 18, 2011, we have searched our database for occurrences of state or federally listed species and species of special concern that occur within 2 miles of the site of the proposed project. Please find our concerns and recommendations below.

Scientific Name	Common Name	Federal Status	State Status	State Rank
Alosa alabamae	Alabama Shad	SC		S1
Trillium ludovicianum	Louisiana Trillium			S1?
Graptemys oculifera	Ringed Map Turtle	LT	LE	S2
Lobelia appendiculata	Appendaged Lobelia			S2S3
Spiranthes ovalis	Lesser Ladies'-tresses			S2S3
Lasiurus cinereus	Hoary Bat	PS		S3
Obovaria jacksoniana	Southern Hickorynut			S1
Acipenser oxyrinchus desotoi	Gulf Sturgeon	LT	LE	S1
Alosa alabamae	Alabama Shad	SC		S1

State Rank
S1 — Critically imperiled in Mississippi because of extreme rarity (5 or fewer occurrences or very few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.
S2 — Imperiled in Mississippi because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it vulnerable to extirpation.
S3 — Rare or uncommon in Mississippi (on the order of 21 to 100 occurrences).

State and Federal Status
LE Endangered — A species which is in danger of extinction throughout all or a significant portion of its range.
LT Threatened — A species likely to become endangered in foreseeable future throughout all or a significant portion of its range.

Based on information provided, we conclude that if best management practices are properly implemented, monitored, and maintained (particularly measures to prevent, or at least, minimize negative impacts to water quality), the proposed project likely poses no threat to listed species or their habitats.

Please feel free to contact us if we can provide any additional information, resources, or assistance that will help minimize negative impacts to this area. We are happy to work with you to ensure that our state's precious natural heritage is conserved and preserved for future Mississippians.

Sincerely,

Joelle Carney, Database Manager/Biologist
Mississippi Natural Heritage Program
(601) 354-7303

PROVIDENCE

May 18, 2011

Ms. Sherry Surrette
Mississippi Natural Heritage Program
Mississippi Museum of Natural Science
Department of Wildlife, Fisheries and Parks
2148 Riverside Drive
Jackson, MS 39202

Re: Threatened and Endangered Species Consultation
Gulf South Pipeline Company, LP
Index 301 Pipeline (North Section)
Hinds County, Mississippi
Gulf South Project No. Project # 1134
Providence Project No. 196-077

Dear Ms. Surrette:

On behalf of Gulf South Pipeline Company, LP (Gulf South), Providence requests written documentation regarding compliance with the Federal Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) for the proposed replacement of four miles of 18-inch-diameter pipeline with a 12-inch-diameter pipeline near Jackson, Hinds County, Mississippi.

The proposed work is being conducted to comply with the United States Department of Transportation, CFR Title 49: Transportation; Part 192. *Transportation of Natural Gas and Other Gas by Pipeline Minimum Federal Safety Standards*; Subpart O - *Gas Transmission Pipeline Integrity Management*. Seven High Consequence Areas (HCAs) have been identified along this four-mile section of the pipeline. This pipeline replacement project will eliminate all seven HCAs. The replacement will take place mostly within the existing right-of-way (ROW) which has been maintained as such by Gulf South since installation of the pipeline in 1930. However, temporary workspaces, primarily occurring in residential, commercial, industrial, and otherwise previously-disturbed areas adjacent to the existing pipeline ROW and within the city of Jackson will also be required.

The proposed replacement begins at Latitude 32°20'32.78"N; Longitude 90°9'35.18"W, north of the Pearl River, and terminates at Latitude 32°23'6.64"N; Longitude 90°9'38.15"W traversing Sections 18, 19, and 30, Township 6 North, Range 1 East, and Sections 2, 11, 12, and 13, Township 6 North, Range 2 East (**Figure 1**). Construction

will incorporate ten horizontal directional drills (HDDs), which will account for approximately 66 percent (2.64 miles) of the proposed replacement. The remaining approximately 1.36 miles will be installed by conventional trenching methods within existing permanent Gulf South ROW. Most of the temporary workspaces utilized for the HDDs will be sited in select, previously-disturbed residential, commercial, or industrial areas (e.g. neighborhoods, parking lots, previously-filled mowed and maintained areas, etc.) and adjacent to the existing Gulf South ROW. The temporary workspace locations are shown on the attached **Alignment Sheets Numbers 1 through 8.**

According to the U.S. Fish and Wildlife Service *Mississippi List of Threatened and Endangered Species by County*, species listed in Hinds County include the Louisiana black bear *Ursus americana luteolus*), Ringed map turtle (*Graptemys oculifera*), Bayou darter (*Etheostoma rubrum*), and Gulf sturgeon (*Acipenser oxyrhynchus*). Based on the location, scope, and timing of the proposed work, it appears that the project will have no effect on listed species or their critical habitats.

To comply with the Federal Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), Providence is notifying your office of the above-referenced project. Providence respectfully requests that your office review the attached maps for any known federally listed endangered and/or threatened species and, if applicable, provide the requisite clearance for these activities.

If you have any questions, please call me at 225-766-7400.

Sincerely,
Providence

Lee Womack

Lee Womack
Environmental Scientist
1201 Main Street
Baton Rouge, LA 70802

Encl: As Stated

FIGURES

Refer to Mapping Volume 1, Attachment 3 and Aerial Alignment Sheets Volume 2, Attachment 1

Attachment 2
Project Construction Plans

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT

PLAN FOR THE UNANTICIPATED DISCOVERY OF HISTORIC PROPERTIES AND HUMAN REMAINS DURING CONSTRUCTION

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT
Gulf South Pipeline Company, LP

PLAN FOR THE UNANTICIPATED DISCOVERY OF HISTORIC PROPERTIES AND HUMAN REMAINS DURING CONSTRUCTION

Introduction

Gulf South Pipeline Company, LP (Gulf South) has established the following procedures for recovery of previously unreported historic properties and human remains found during construction of the City of Jackson Pipeline Replacement Project (Project). Extensive historic and archaeological studies have been performed at the proposed Project location and no significant historic or archaeological sites have been identified. However, the following plan has been developed as a contingency.

Training and Identification

Prior to commencement of construction, Gulf South and contractor personnel will receive environmental training. Environmental training will include the subject of identification of historical properties and human remains as well as the procedures to follow in the event that an unanticipated discovery is made.

Historic Properties

Historic properties include prehistoric archaeological sites and districts; historic buildings and districts; and structures or objects included in or eligible for inclusion in the National Register of Historic Places. No evidence of historic properties was noted during previous cultural resource surveys in the Project area. However, personnel involved in construction shall be instructed to stop work immediately in the vicinity of the find and report to the Environmental Inspector (EI) any cultural materials, including historic and prehistoric period items such as building remnants, structures, projectile points, ceramic shards, prehistoric hearths, or other remnants of human activity encountered that are not shown on the drawings and/or were not evident during the cultural resources survey.

If the EI believes that an unanticipated discovery has been made, the EI will protect and secure the cultural materials in place by delineating the find with flagging or fencing and will minimize movement of vehicles in the area immediately surrounding the discovery.

Human Remains

Gulf South seeks to treat all human interments with respect in accordance with state and federal law as it applies to human remains. Personnel shall be provided with a description of human bones and common funerary objects to identify these finds during construction. Personnel will be instructed that upon encountering any evidence of human remains, construction is to be immediately stopped, the area cordoned off to protect the find from further construction-related impacts, and the EI notified.

Follow Up to EI Notification

Historic Properties

In the case of any unreported and unanticipated historic-aged cultural materials identified during construction, the EI will notify the Environmental Project Manager and will discuss the discovery including its use, history, and significance with the landowner. The Environmental Project Manager will speak with the archaeological consultant to assess the potential significance of the find and the potential construction impacts. After completing the initial assessment, if the archaeologist determines that the discovery is not a cultural resource, construction will resume and the non-cultural find will be documented. If the archaeologist determines that the find is potentially significant and that other significant materials may be damaged by allowing construction to continue, the Environmental Project Manager will notify FERC and the Mississippi State Historic Preservation Officer (SHPO) by telephone, fax, overnight mail, or email. The archaeologist will evaluate the find as required/approved by FERC and the SHPO.

In the case of any unreported and unanticipated prehistoric artifacts encountered during construction, the EI will contact the Environmental Project Manager from the site and discuss the object(s). The Environmental Project Manager will contact the archaeologist to assess the potential significance of the find. After completing the initial assessment, if it is determined that the discovery is not a cultural resource, construction will resume and the non-cultural find will be documented. If the archaeologist determines that the find is potentially significant and that other significant materials may be damaged by allowing construction to continue, the Environmental Project Manager will notify the FERC and the SHPO by telephone, fax, overnight mail, or email. The archaeologist will evaluate the site as required/approved by FERC and the SHPO. Each occurrence will require a separate and individual evaluation. Tribes who have expressed an interest in being notified of Project updates will also be contacted in the event that a significant site is discovered.

Human Remains

If any human remains are encountered the work will be immediately stopped in the area and the area cordoned off. The EI will contact the Environmental Project Manager who will contact the county coroner and the FERC. The Environmental Project Manager will notify the Mississippi Department of Archives and History if the burials have been interred for 75 years or longer, or the date of interment is undetermined, and follow up with the coroner in an attempt to confirm that the remains are human and establish the approximate date of interment. Follow up with the next of kin (if known) will occur. Tribes who have expressed an interest in being notified of Project updates will also be contacted in the event that a significant site is discovered.

Contacts for the Discovery of Unanticipated Cultural Resources and/or Human Remains

Gulf South will contact the following agencies that requested to be contacted in the event of discovery and/or disturbance of unanticipated cultural resources and/or human remains:

Cale LeBlanc
Director of Environmental Affairs
Gulf South Pipeline Company, LP
111 Park Place, Suite 100
Covington, LA 70433
Telephone: (985) 898-1000
Fax: (713) 544-9145

Federal Energy Regulatory Commission
Staff Archaeologist
888 First Street, N.E.
Washington, DC 20426
(202) 502-8046

Greg Williamson
Review and Compliance Officer
Mississippi Department of Archives and History
PO Box 571
Jackson, MS 39205
(601) 576-6940

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT

PLAN FOR THE UNANTICIPATED DISCOVERY OF CONTAMINATED ENVIRONMENTAL MEDIA

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT
Gulf South Pipeline Company, LP

PLAN FOR THE UNANTICIPATED DISCOVERY OF CONTAMINATED ENVIRONMENTAL MEDIA

This Plan for the Unanticipated Discovery of Contaminated Environmental Media outlines the steps Gulf South and/or its contractors will take to protect human health and the environment in the event that contaminated sediments, soils, or groundwater are encountered during construction of the City of Jackson Pipeline Replacement Project.

Construction personnel and the Environmental Inspector will observe the work area during construction activities for signs of potential contamination. In the event that contaminated sediments, soils, or groundwater are encountered during construction, as identified by evidence of subsoil discoloration, odor, sheen, or other such indicators, Gulf South and/or its contractors will implement the following measures:

- Stop work in the vicinity of suspected contamination;
- Restrict access to the suspected area;
- Immediately notify the crew foreman, the Environmental Inspector, the Spill Coordinator, and a Gulf South representative;
- Initiate measures to avoid the spread of contaminants until the nature of the contamination is verified and appropriate plans are developed. Measures to avoid potential contamination spread will vary depending on the situation. Some measures that may be implemented are:
  - If potentially contaminated soil has been excavated and stockpiled, it may be transferred to an area covered by impervious plastic and impervious plastic placed over this new stockpile.
  - If groundwater is draining from the sides of the excavation and standing in the trench, temporary trench plugs may be installed to avoid migration.
  - In the unlikely event that groundwater attempts to rise above the ground surface, berms or spill control booms will be placed around the open portion of the excavation.
  - Concurrent with installation of containment measures, characterization of the potential contaminant will begin. This will likely include sampling the suspect soils as well as any groundwater in the trench. Tests and/or laboratory analysis will be selected based on field observations and previous experience. Laboratory analysis may include: Total Petroleum Hydrocarbons, Oil & Grease, Volatile Hydrocarbons, Semi-volatile Hydrocarbons, and possibly metals.
- Depending on the nature of the contamination, notify appropriate federal, state, and local regulatory agencies, which may include, but not be limited to:

National Response Center (Washington, D.C.)
Phone: (800) 424-8802 (24 Hours)

State of Mississippi - Non-emergency
Mississippi Department of Environmental Quality
Phone: (800) 222-6362 (24 Hours)
Phone: (601) 961-5570 (Office line)

City of Jackson - Emergency
Jackson Fire Department
Phone: 911

- If there is no concern of the contaminant interfering with the Project, a plan for proceeding will be developed. It is likely that test pits or borings will be installed to assess the extent of the contamination. Once the nature and extent of the affected media is determined, a plan of special construction for the area will be developed. This could be as simple as placing spoil in a plastic lined containment area and avoiding withdrawal of water. It could also include special handling and disposal of excavated materials and the use of hauled-in clean backfill, along with staged withdrawal and disposal of standing trench water during backfilling to avoid overflow and runoff.

All plans developed will be in accordance with respective environmental regulations and approval of the plans by appropriate jurisdictional agencies will be obtained before implementation.

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT

PLAN FOR REDUCING NOISE IMPACTS FROM HORIZONTAL DIRECTIONAL DRILL (HDD) OPERATIONS

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT
Gulf South Pipeline Company, LP

PLAN FOR REDUCING NOISE IMPACTS FROM HORIZONTAL DIRECTIONAL DRILL (HDD) OPERATIONS

Due to the prevalence of residences in close proximity to the Project, mitigating noise impacts are of critical concern to Gulf South Pipeline Company, LP (Gulf South) on this Project. Gulf South will make efforts to limit drilling operations to the hours of 7 a.m to 10 p.m. when possible but, based on site specific conditions and progress, HDD operations may need to continue during the night at some of the locations to increase the likelihood of success. As such, Gulf South intends to comply with the intent of 157.206(b)(5)(iii); HDD operations between 10 p.m. and 7 a.m. must be conducted with the goal of keeping the perceived noise from the drilling at any pre-existing noise-sensitive area at or below a night level (L_n) of 55 dBA.

Prior to Construction Commencement

To evaluate the actual noise impact at the nearest noise-sensitive areas (NSAs), Gulf South will complete pre-construction NSA sound monitoring at each of the HDD entry and exit points. This site-specific data will be used to more accurately evaluate impacts and design any mitigation measures, should they be required.

During Drilling Operations

For HDD drilling activities/locations that are projected to exceed the night level (L_n) of 55 dBA, Gulf South will rely on recommendations from their professional noise consultant to design the appropriate mitigation measures required at each site. After mitigation measures are in place, Gulf South will periodically conduct sound measurements during HDD operations, utilizing hand held field equipment, to determine the effectiveness of the measures. If the sound survey indicates that noise attributable to HDD drilling activities exceeds the sound requirement, Gulf South will consult with their noise consultant and implement additional mitigation measures, as needed.

Anticipated Noise Mitigation Options

- Temporary noise barriers
- Relocation or alternate design/setup of drilling equipment
- Temporary relocation or equivalent compensation to resident

For the HDD sites where the aforementioned noise goal will likely be exceeded, one or more of the above mitigation measures will be employed prior to commencement of drilling operations. The normal sequence of decision making will be as follows:

- Gulf South will begin work during normal operating hours between 7 a.m. and 10 p.m. If site specific conditions dictate work outside of this time period recommendations from Gulf South's noise consultant will be put into place. Initially, a temporary noise barrier will be constructed around the perimeter of the HDD site. The noise barrier will be installed around two or three sides of the HDD equipment area, depending on the

location of the nearby NSAs. The temporary noise barrier will be a prefabricated product intended for this use or one constructed with 16-foot high 0.75-inch thick plywood panels or with material having similar or better acoustical attenuation/reflection characteristics. In addition, any diesel engines used to drive generators/pumps associated with HDD operations will be equipped with an adequate exhaust muffler (e.g., minimum, residential grade exhaust silencer).

- If additional noise mitigation is required, the following noise mitigation measures will be employed to meet the sound requirement: a) equipment relocation (e.g., remotely relocate mud rig); b) install a secondary partial barrier around the hydraulic power unit (e.g., cover 2 sides of the unit with an acoustical barrier that may include a roof).

Prior to the installation and operation of the HDD equipment, Gulf South will evaluate the cost of potential noise mitigation measures and reserves the right to propose a temporary relocation option or comparable monetary compensation to the affected land owner(s) in lieu of installing potentially more costly noise mitigation barriers.

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT

PLAN FOR CONTAINMENT OF INADVERTENT RELEASE OF DRILLING MUD DURING HORIZONTAL DIRECTIONAL DRILLED WETLAND AND WATERBODY CROSSINGS

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT
Gulf South Pipeline Company, LP

PLAN FOR CONTAINMENT OF INADVERTENT RELEASE OF DRILLING MUD DURING HORIZONTAL DIRECTIONAL DRILLED WETLAND AND WATERBODY CROSSINGS

TABLE OF CONTENTS

CITY OF JACKSON PIPELINE REPLACEMENT PROJECT
Gulf South Pipeline Company, LP

PLAN FOR CONTAINMENT OF INADVERTENT RELEASE OF DRILLING MUD DURING HORIZONTAL DIRECTIONAL DRILLED WETLAND AND WATERBODY CROSSINGS

1.0 INTRODUCTION

This plan provides specific procedures and steps to address inadvertent releases of drilling mud during horizontal directional drilling beneath wetlands and waterbodies. Drilling mud to be used for the City of Jackson Pipeline Replacement Project will generally consist primarily of fresh water, with a high yield bentonite added to achieve the necessary properties, such as viscosity. Bentonite is composed of clay minerals and is not considered a hazardous material by U.S. Environmental Protection Agency. Therefore, in the event of a release into a wetland or waterbody, there will be no adverse environmental impact other than a temporary increase in turbidity from the bentonite and the efforts to contain and collect the release. While drilling parameters will be established to maximize circulation and minimize risk of inadvertent releases, the possibility of lost circulation and releases cannot be eliminated. Therefore, the following plan has been prepared to address containment procedures in the event of an inadvertent release. Unless otherwise specified, Gulf South Pipeline Company, LP (Gulf South) will implement the following plan in consultation with the Contractor, Construction Inspector, and Environmental Inspector.

Elements of this plan include:

- Monitoring and Sampling Procedures;
- Notification Procedures;
- Corrective Action; and
- Abandonment.

2.0 MONITORING AND SAMPLING PROCEDURES

Horizontal directional drilling activities will be closely and continually monitored by the Contractor, the Construction Inspector, or the Environmental Inspector, or any combination of the three. Monitoring and sampling procedures will include:

- Visual inspection along the drill path, including monitoring the wetlands and waterbodies for evidence of a release.
- Continuous monitoring of drilling mud, drilling mud pressures and returns flows by the Contractor.
- Periodic recordation of drill status information regarding drill conditions, pressures, returns and progress during the course of drilling activities.

3.0 NOTIFICATION PROCEDURES

If an inadvertent release is discovered, Gulf South will contain the release as described below in the Corrective Action section (Section 4.0).

If a release occurs in a wetland or waterbody, the Contractor, Construction Inspector, or Environmental Inspector will immediately notify Gulf South's construction management personnel.

Gulf South will notify the Mississippi Department of Environmental Quality and the U.S. Army Corps of Engineers immediately upon discovery by telephone and/or facsimile of an inadvertent release in a wetland or waterbody, detailing the location and nature of the release, corrective actions being taken, and whether the release poses any threat to public health and safety.

4.0 CORRECTIVE ACTION

Gulf South will address an inadvertent release immediately upon discovery. Containment equipment including portable pumps, hand tools, sand, hay bales, silt fencing, and lumber will be readily available and stored at the drilling site. The following measures will be implemented to minimize or prevent further release, contain the release, and clean up the affected area:

Wetland or Waterbody Release:

- Inspection will be initiated to determine the potential movement of released drilling mud within the wetland or waterbody.

- Drilling mud returns will be collected at the drill entry location for future analysis, as required.

- Monitoring of the release will be documented by the Environmental Inspector. Gulf South will keep photographs of release events on record.

- The Contractor will determine and implement modifications to the drilling technique or composition of drilling fluid (e.g., thickening of mud by increasing bentonite content) as appropriate to minimize or prevent further releases of drilling mud.

- Reasonable measures, within the limitation of directional drilling technology and Contractor's capability, will be taken to re-establish drilling mud circulation.

- Gulf South will evaluate the release to determine if containment structures are warranted and can effectively contain the release. When making this determination, Gulf South will also consider if placement of containment structures will cause additional adverse environmental impact.

- Upon completion of the drilling operations, Gulf South will consult with applicable regulatory agencies to determine any final clean-up requirements for the inadvertent release.

- If public health and safety are threatened by the inadvertent release, drilling operations will be shut down until the threat is eliminated.

Upland Release:

- The Contractor will determine and implement modifications to the drilling technique or composition of drilling fluid (e.g., thickening of mud by increasing bentonite content) as appropriate to minimize or prevent further releases of drilling mud.

- Gulf South will place containment structures at the affected area to prevent migration of the release.

- If the amount of the release is large enough to allow collection, the drilling mud released into containment structures will be collected and returned to either the drilling operations or a disposal site by hose or tanker.

- If the amount of the release is not large enough to allow collection, the affected area will be diluted with fresh water and allowed to dry. Steps will be taken to prevent silt-laden water from flowing into a wetland or waterbody.

- If public health and safety are threatened by an inadvertent release, drilling operations will be shut down until the threat is eliminated.

5.0 CONTINGENCY PLAN

If the corrective actions described above do not correct the problem, Gulf South may opt to abandon the drill hole and consider alternate measures. Abandonment procedures and alternative measures both will be discussed with appropriate permitting and regulatory agencies and approvals will be secured. Abandonment procedures and alternative crossings are described in the subsequent sub-sections.

5.1 Abandonment

In the event the drill hole is to be abandoned the following procedures will be implemented:

- To seal the abandoned drill hole, drilling mud will be pumped into the hole as the drill assembly is extracted.

- At the surface (within approximately 5 feet of the surface), Gulf South will fill the drill end points with soil and grade the location to the original contour.

5.2 Alternative Crossings

Before any determination of alternative crossings an attempt will be made to identify and assess the reason for the drill failure as this may be critical for selection of the alternate. Consideration of alternatives will include but are not limited to:

- horizontal relocation of the drill hole;
- changing of the drill profile (depth of hole);
- changing drill procedures (mud viscosity/pressure/flow velocity, bit rotation/velocity, etc);
- open cut from banks with pipe pulled across;
- open cut from banks and barge with pipe lay from barge; and
- partial stream diversion using cofferdams with pipe tie-in in pit during second diversion.

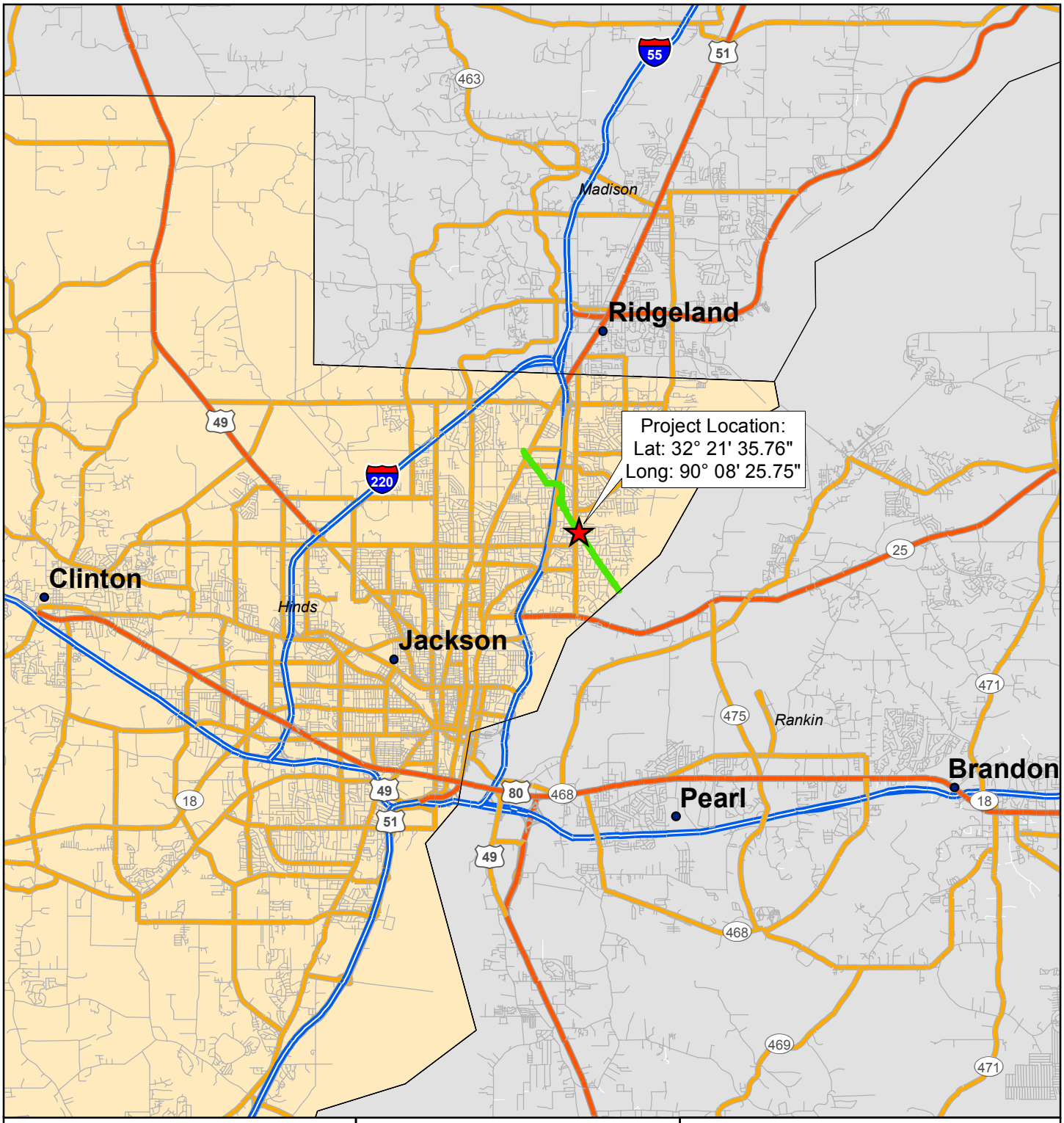
In developing the appropriate alternate, consideration will be given to:

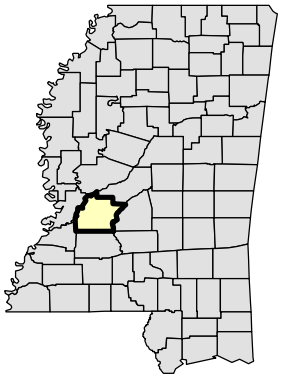
- stream bank type, flow width, depth, velocity, and flow volume;
- surrounding topography;
- condition of riparian areas;
- condition and extent of wetlands, if any, on each side;
- aquatic biota; and
- downstream water uses, needs.

These and other factors will be considered and discussed with appropriate regulatory agencies so as to minimize environmental and public convenience aspects and secure appropriate approvals. Final selection will be submitted to the Federal Energy Regulatory Commission with supporting data.

Attachment 3

Mapping and Drawing Supplement





Legend

Project Area

0 1.5 3
Miles

GULF SOUTH PIPELINE

Figure 1.1-1
Project Location Map
City of Jackson Pipeline Replacement Project
Hinds County, Mississippi

Scale: 1:190,080

Legend

Proposed Route — Existing Route

0 2,000 4,000
Feet

0 0.38 0.76
Miles

Notes:

Source: ArcGIS Online Topographic Imagery.

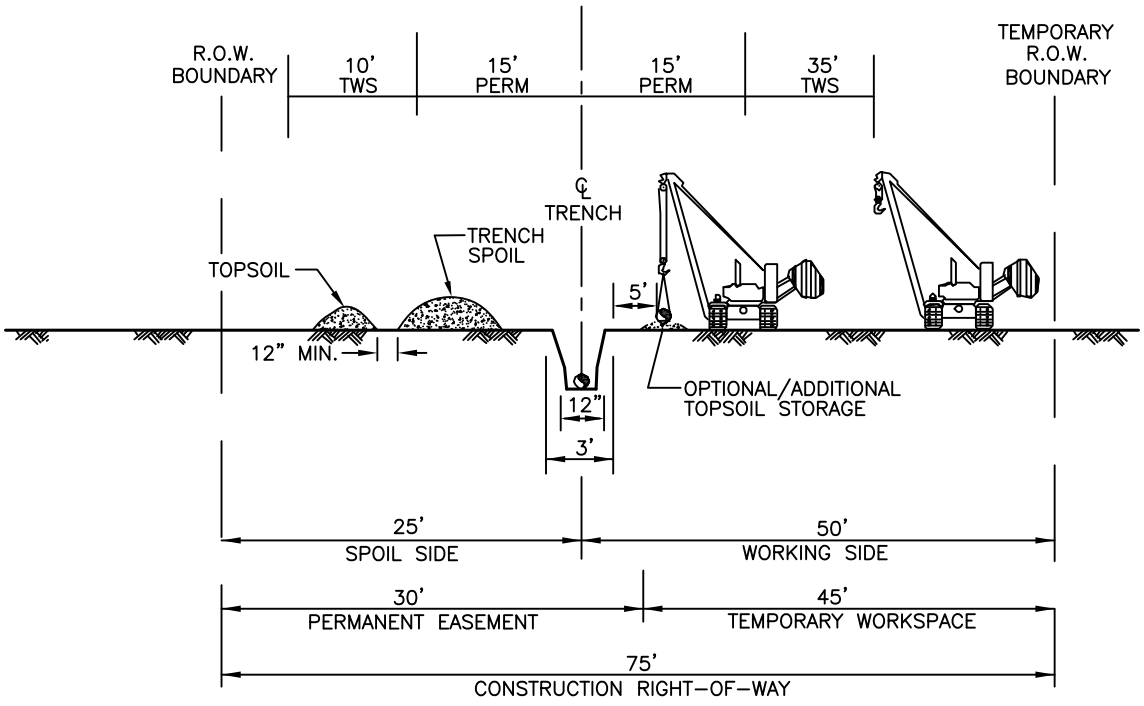
Topographic Quadrangle: Jackson, MS 1998 and Ridgeland, MS 1998.

GULF SOUTH PIPELINE

Figure 1.1.2-1
Project Topographic Excerpt Map
City of Jackson Pipeline Replacement Project
Hinds County, Mississippi

Scale = 1:24,000 | **Page 1 of 1**

Construction Typical Package



PROFILE

NOTES:

1. CONSTRUCTION RIGHT-OF-WAY WILL TYPICALLY BE 30 FEET WIDE CONSISTING OF 30 FEET PERMANENT EASEMENT. TEMPORARY WORK SPACE WILL BE NECESSARY AT MAJOR ROAD, RAIL AND RIVER CROSSINGS AND OTHER SPECIAL CIRCUMSTANCES.
2. MAINTAIN A MINIMUM 12 INCHES OF SEPARATION BETWEEN TOPSOIL AND TRENCH SPOIL PILES.

REV.	DATE	BY	DESCRIPTION	CHK.
1	5/25	ALK	FOR CALE LEBLANC	JAL
0	7/03	JAL	FOR DESIGN MANUAL	JAL

PROJECT NO.:

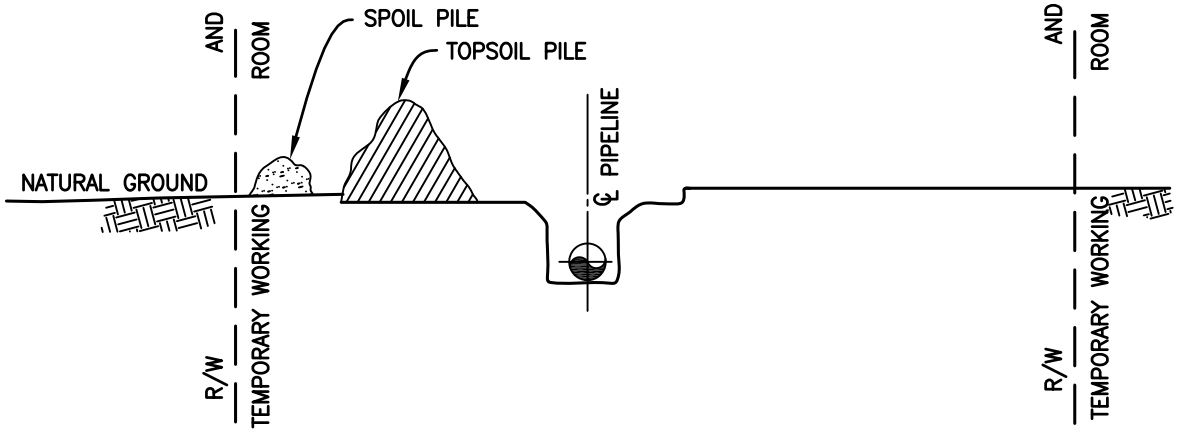
PROJECT TITLE:

GULF SOUTH PIPELINE

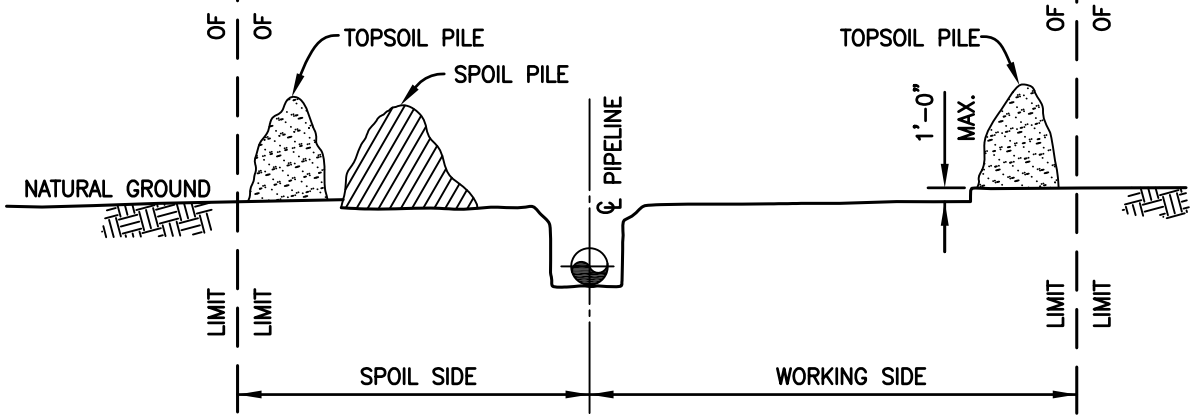
UPLAND CONSTRUCTION TYPICAL

DRAWN BY:	DATE:	DWG. NO.	REV.
CHECKED BY: JAL	DATE: 7/14/03	**Figure 1**	1
SCALE: N.T.S.	APP.: JAL		

CASE A: CONFINED TO TRENCH AND SPOIL PILE AREA



CASE B: CONFINED TO LIMITS OF RIGHT-OF-WAY AND TEMPORARY WORKING ROOM



NOTE:
1. TOPSOIL TO BE REMOVED AND STORED PRIOR TO RIGHT-OF-WAY GRADING AND TRENCHING.
2. TOPSOIL TO BE STRIPPED AS DIRECTED BY COMPANY REPRESENTATIVE, AND AS PER FERC GUIDELINES

REV.	DATE	BY	DESCRIPTION	CHK.
1	5/11	ALK	FOR CALE LEBLANC	
0	7/03	JAL	FOR DESIGN MANUAL	JAL

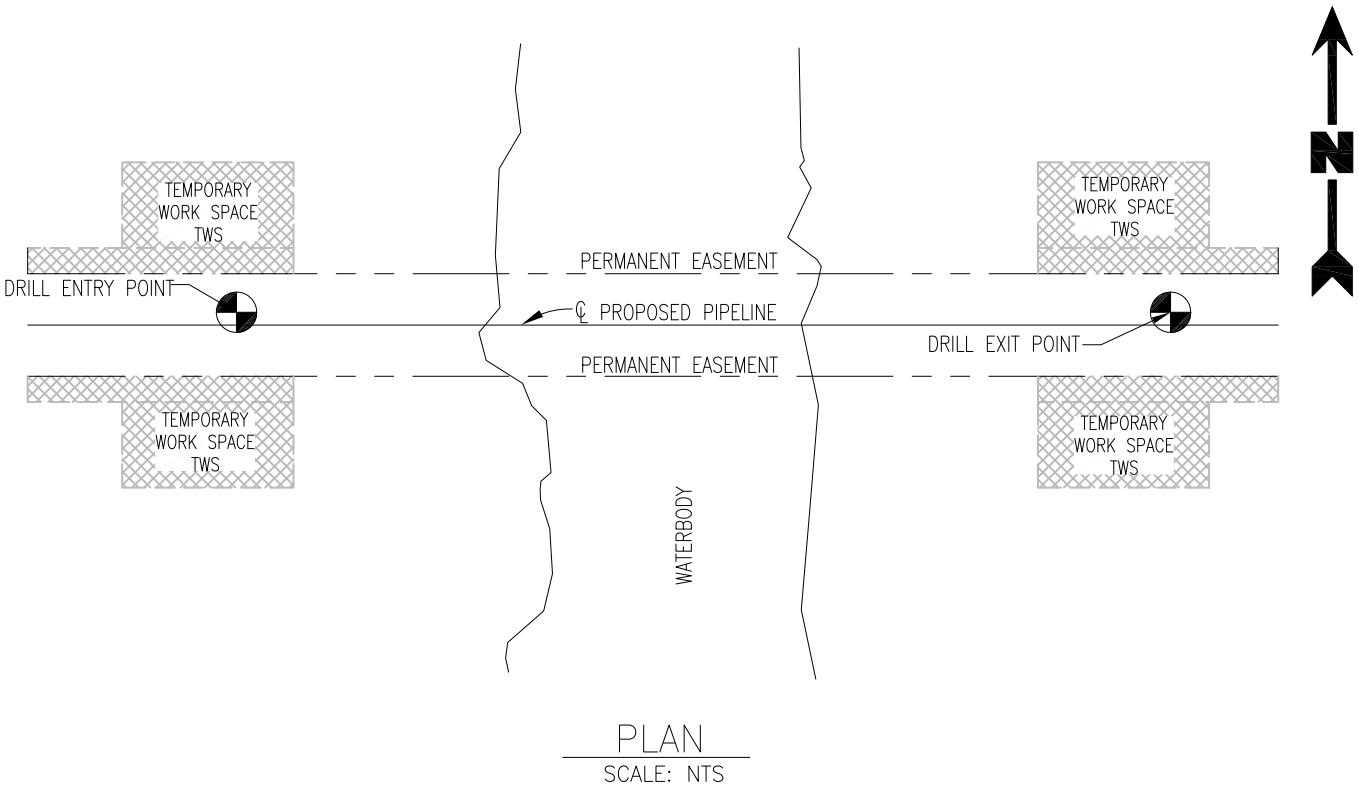
PROJECT NO.:

PROJECT TITLE:

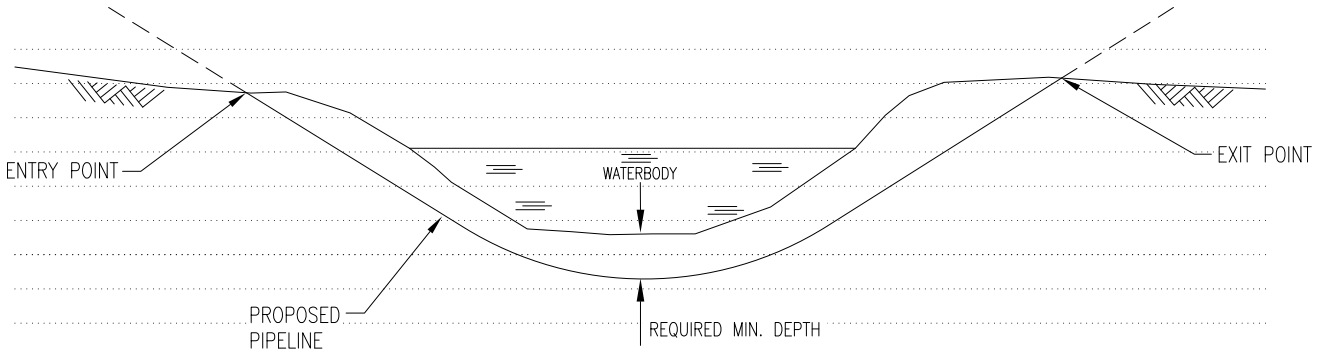
GULF SOUTH PIPELINE

TOPSOIL STRIPPING OPERATION TYPICAL

DRAWN BY:	DATE:	DWG. NO.	REV.
CHECKED BY: JAL	DATE: 7/14/03	Figure 2	1
SCALE: N.T.S.	APP.: JAL		



PLAN
SCALE: NTS



PROFILE
SCALE: NTS

Notes

1. Gulf South is proposing multiple horizontal directional drills to minimize impacts associated with residences which are in close proximity to the existing easement.
2. All waterbodies crossed by the proposed project will be captured by these horizontal directional drills.

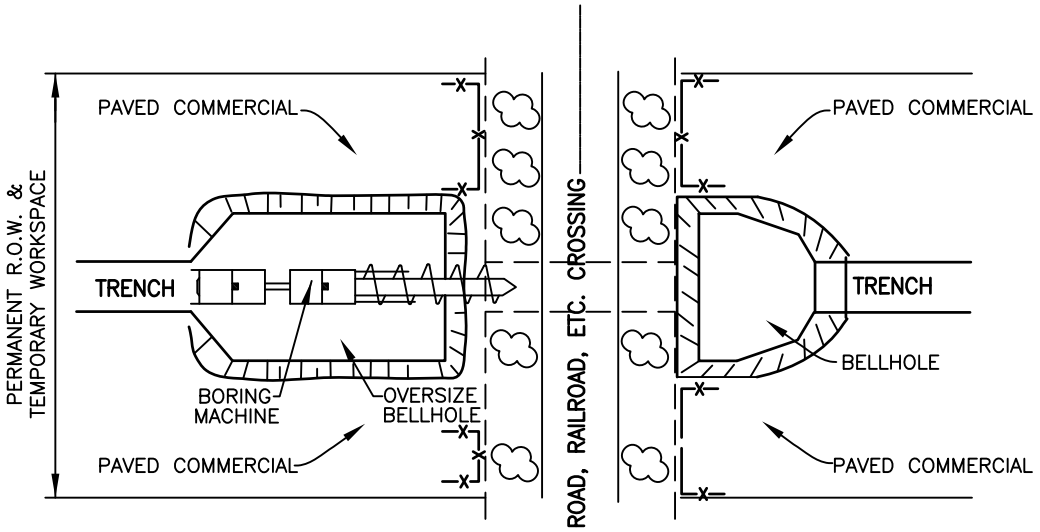
Horizontal Directional Drill Typical

Index 301 Pipeline Replacement Project
Jackson, Hinds County, Mississippi

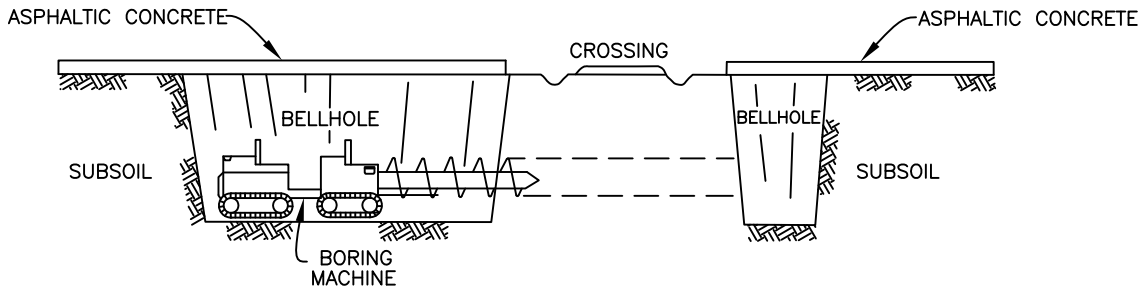
Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

Drawn By	DRA	05/24/11
Checked By	RPC	05/24/11
Approved By	RPC	05/24/11
Project Number 196-077		**Figure 3**
Drawing Number 196-077-A064		



PLAN VIEW
N.T.S.



PROFILE
N.T.S.

NOTES:

1. NO TOPSOIL IS PRESENT. SUBSOIL WILL BE STORED OFF-SITE UNTIL BACKFILLED.
2. INSTALL TEMPORARY EROSION CONTROL PROCEDURES AS SPECIFIED BY THE PIPELINE INSPECTOR.
3. SLOPE BELLHOLE WALLS TO CONFORM TO OSHA REG. 29 CFR 1926 SUBPART B

REV.	DATE	BY	DESCRIPTION	CHK.
1	5/11	ALK	FOR CALE LEBLANC	
0	9/03	JAL	FOR DESIGN MANUAL	JAL

PROJECT NO.:

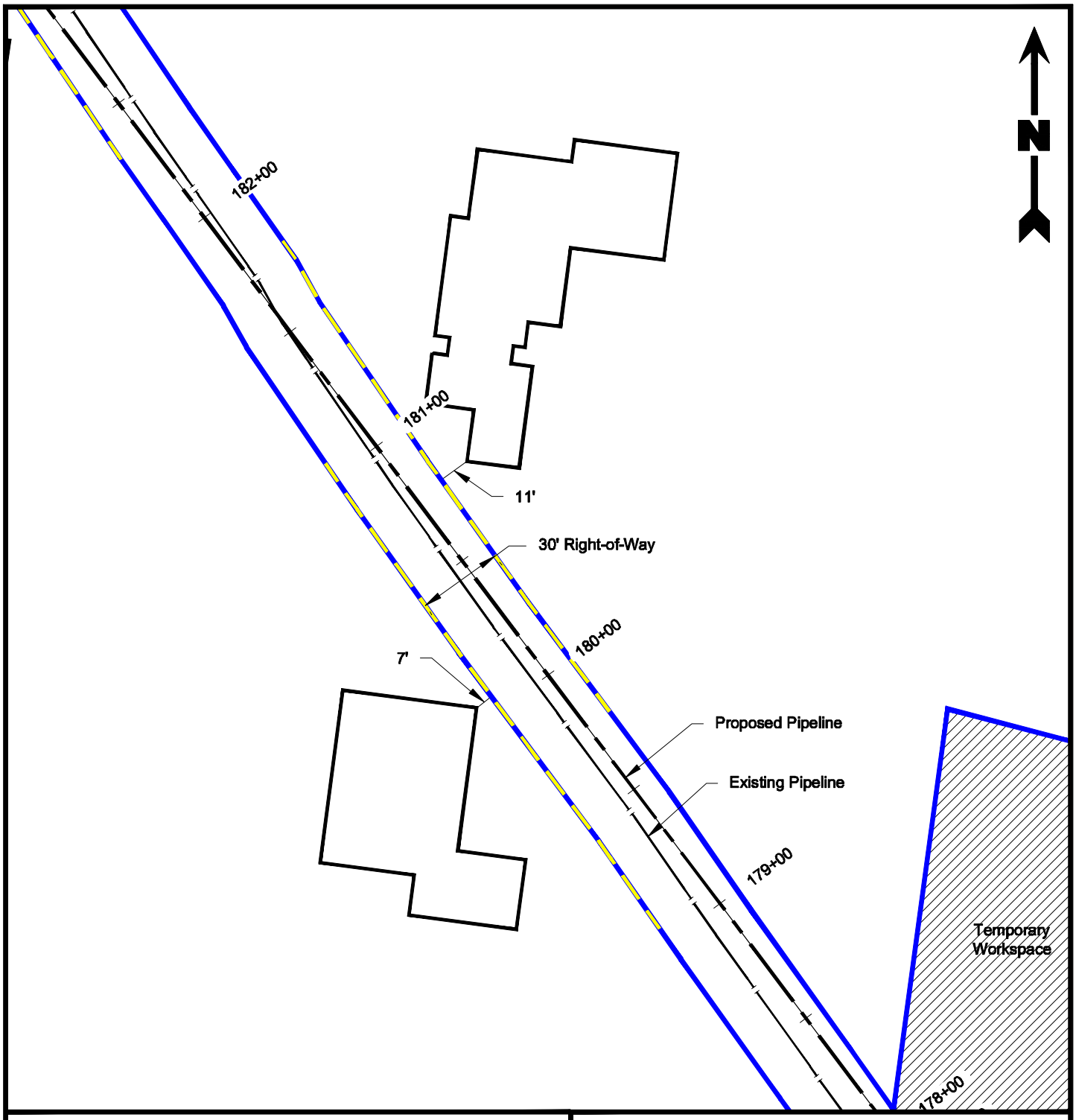
PROJECT TITLE:

GULF SOUTH® PIPELINE

TOPSOIL SALVAGE CROSSING BORE (CB) TYPICAL

DRAWN BY:	DATE:	DWG. NO.	REV.
CHECKED BY: JAL	DATE: 9/5/03	Figure 4	1
SCALE: N.T.S.	APP.: JAL		

Residential Construction Drawings Package



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 180+06 and 180+77

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

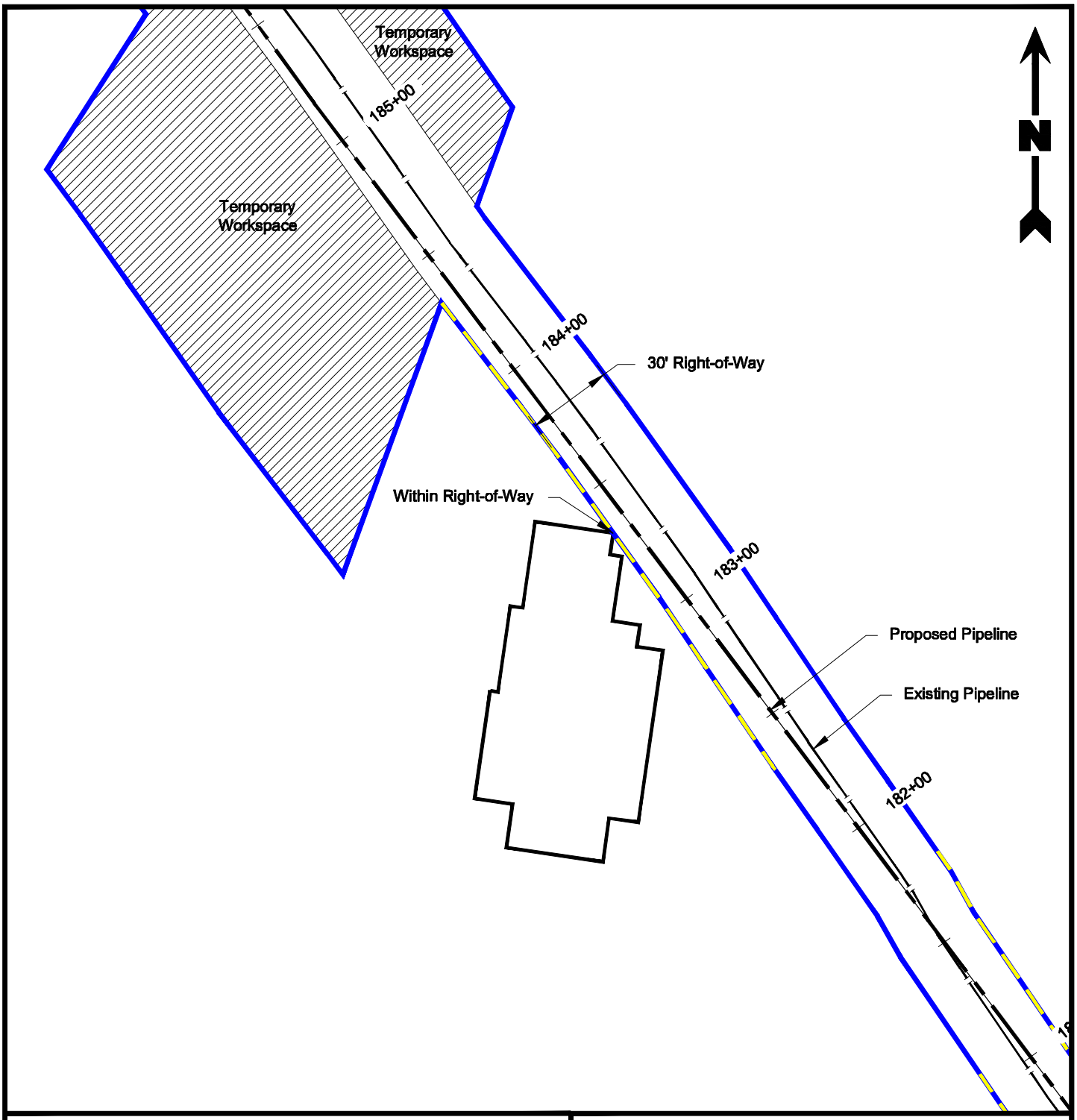
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number: 196-077

Drawing Number: 196-077-A065

Res-1
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Station 183+34

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

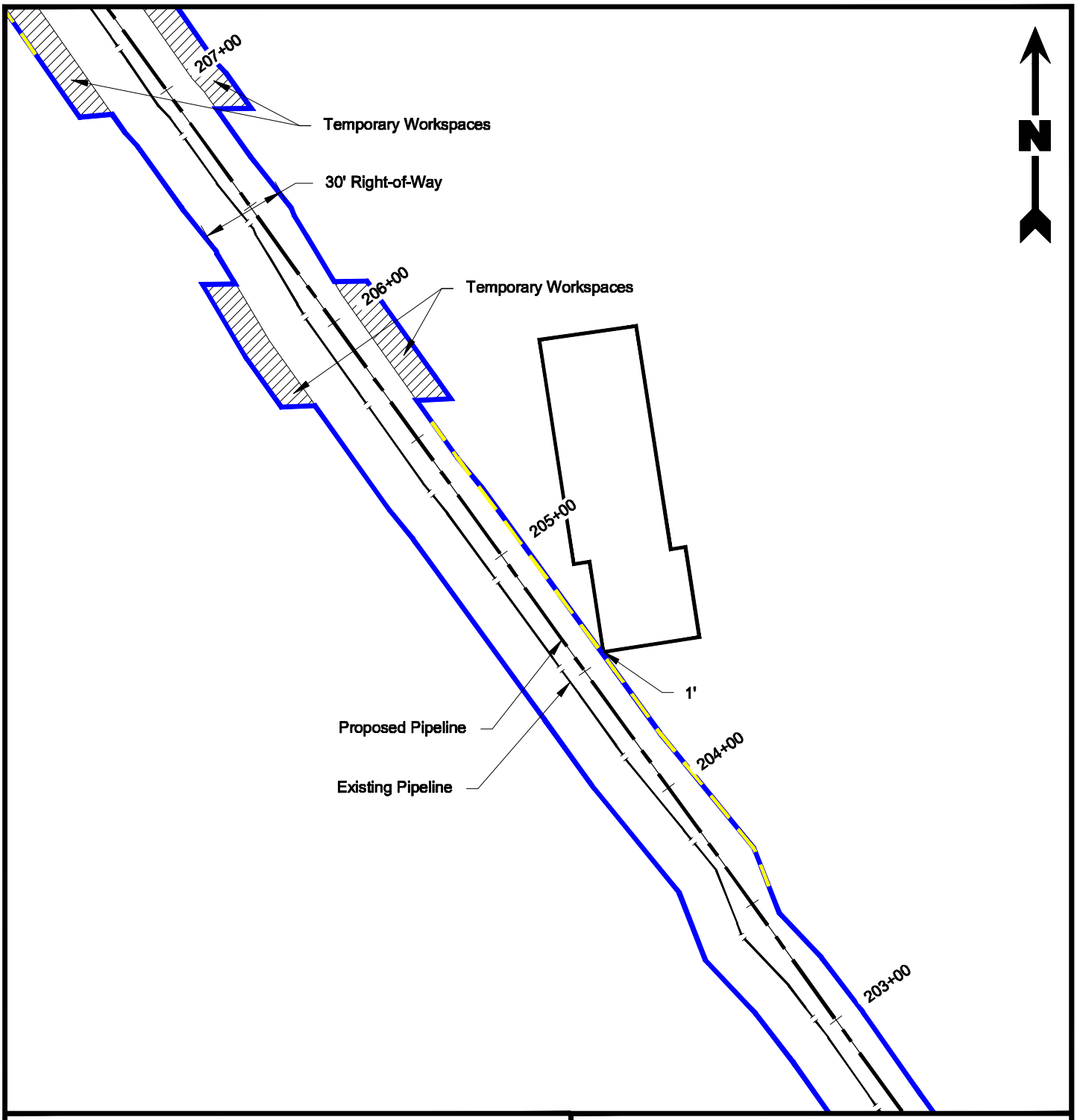
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A066

Res-2
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Station 204+52

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

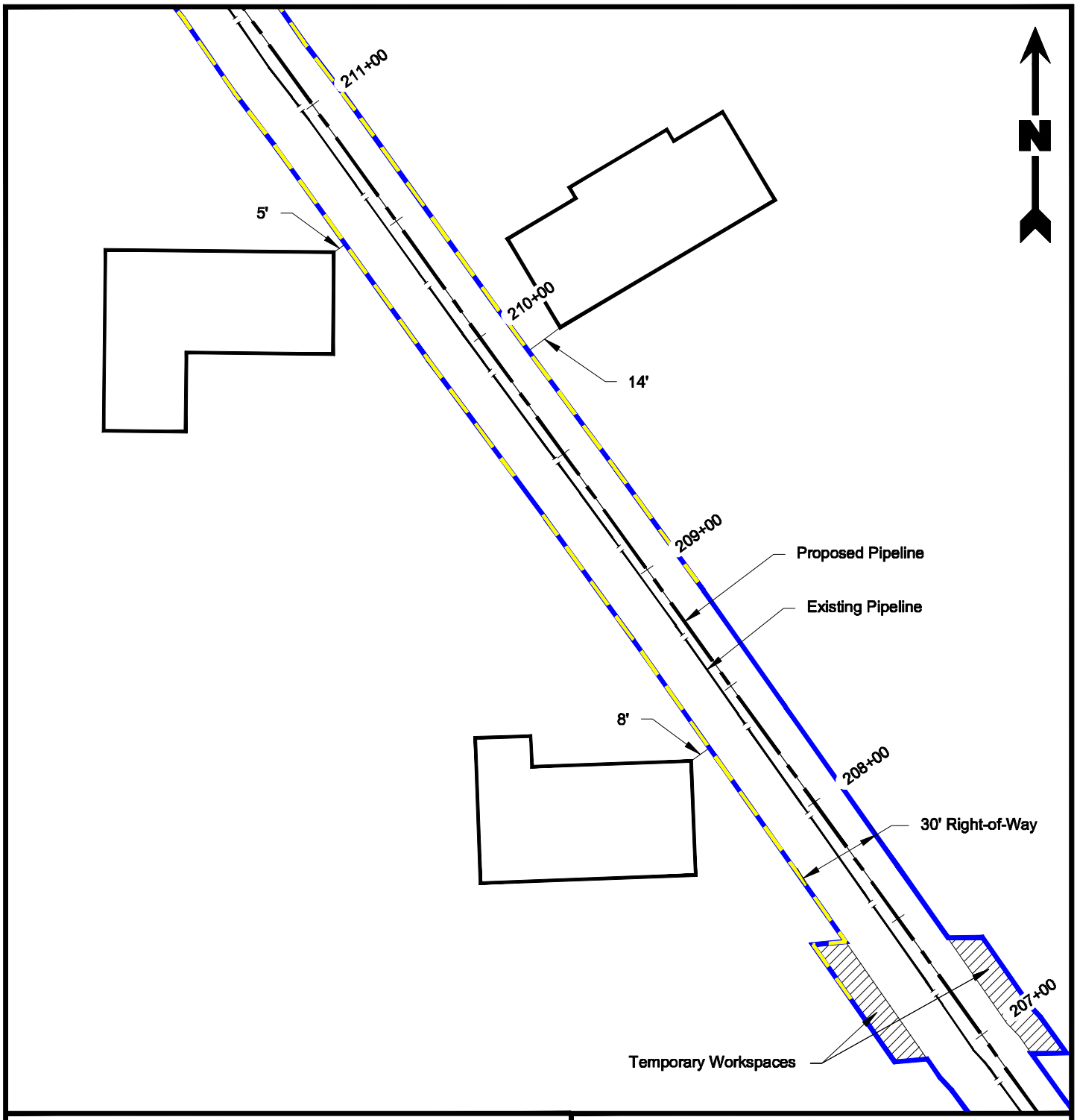
GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A067

Res-3
Figure



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 208+37, 209+86, and 210+54

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

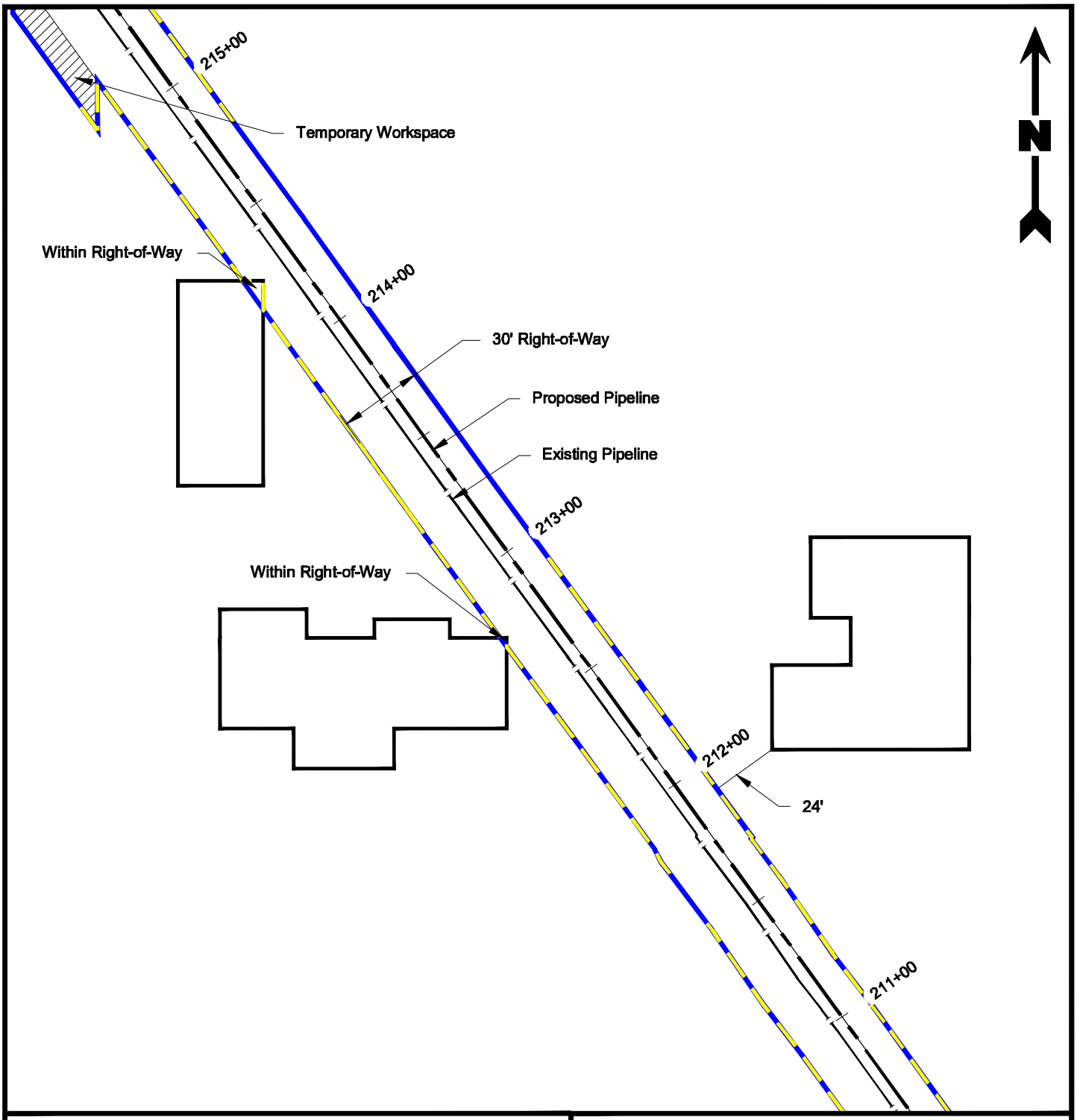
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A068

Res-4
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 211+90, 212+76, and 214+27

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

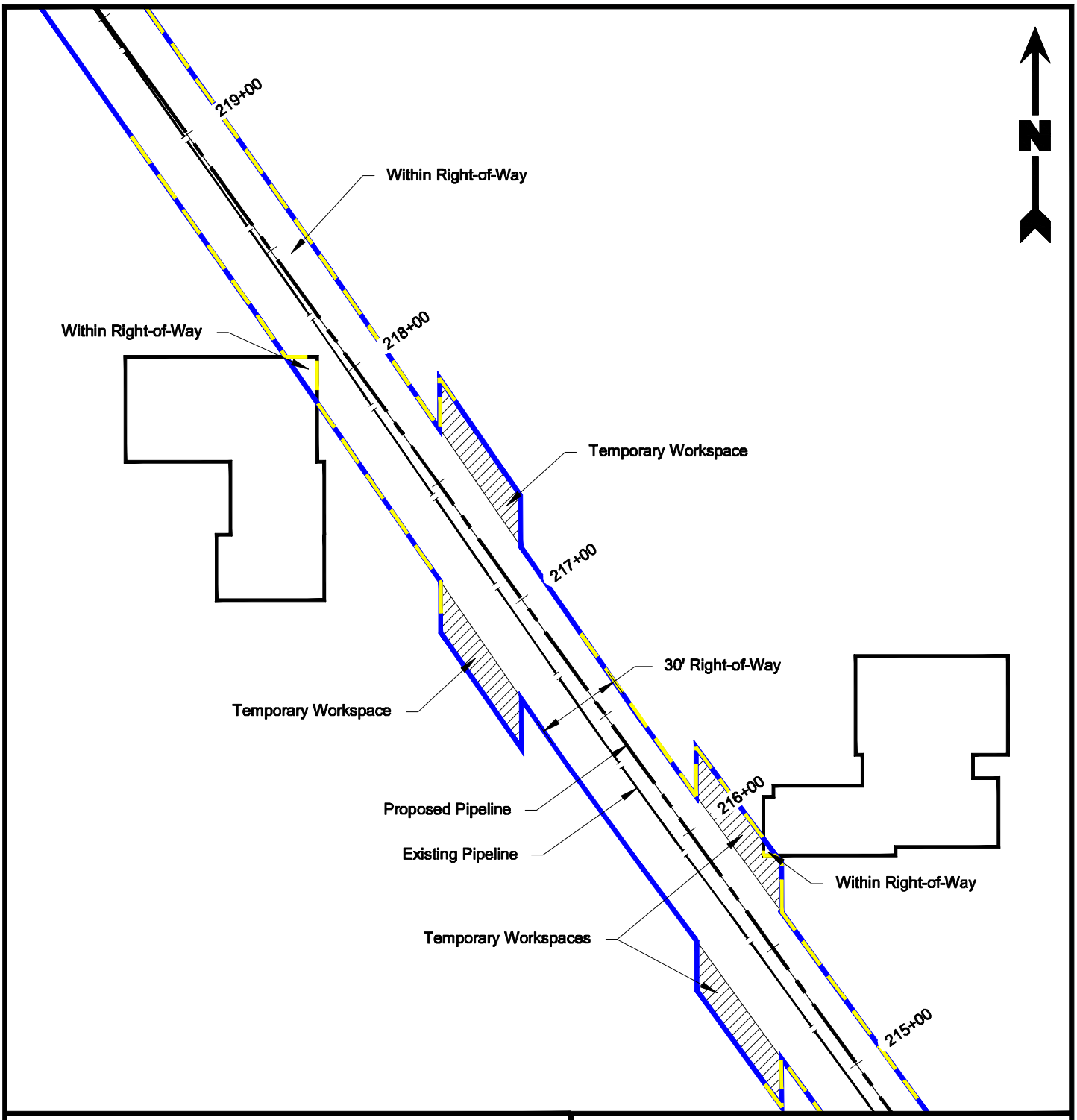
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A069

Res-5
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 215+78 and 218+10

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

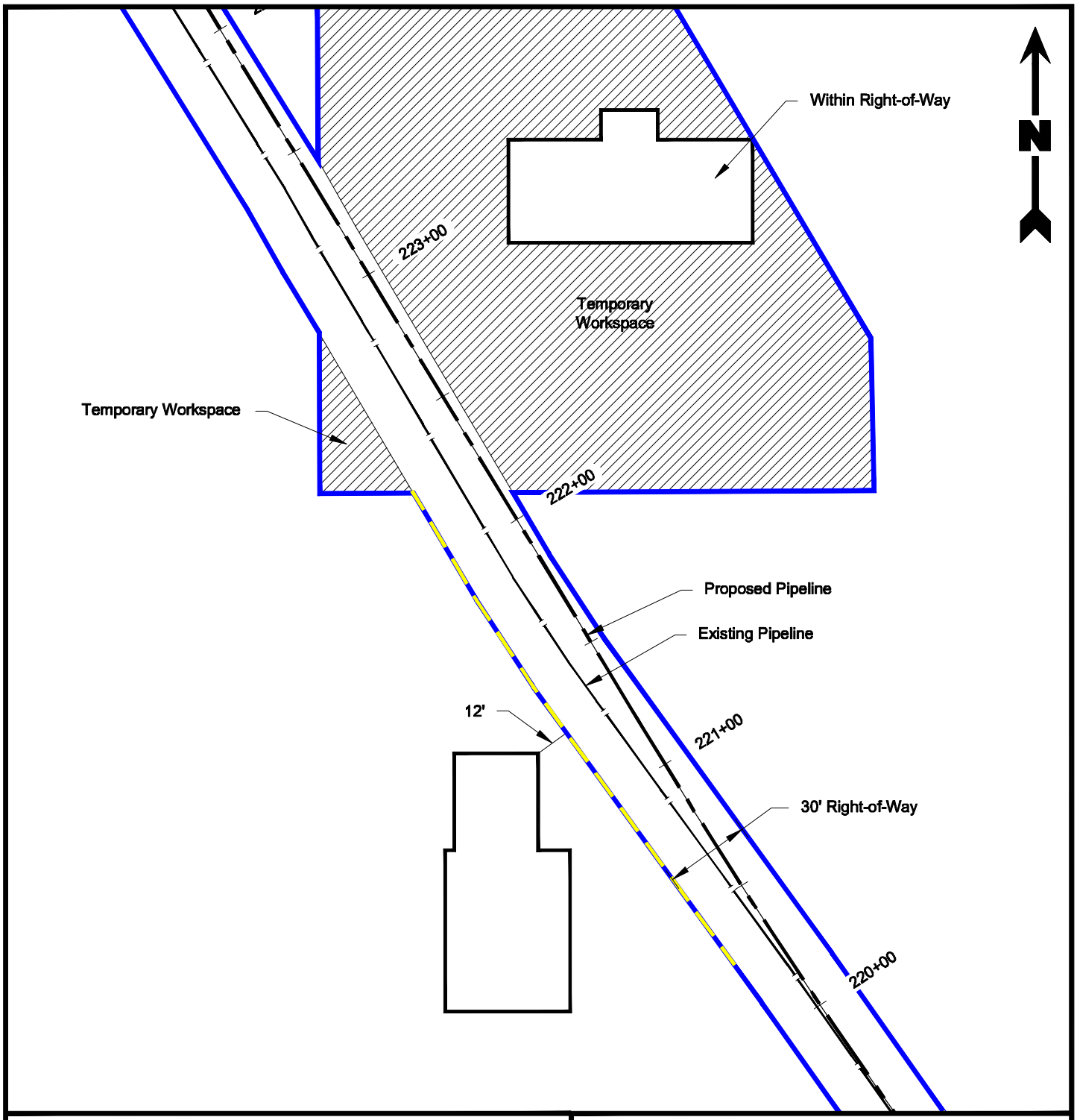
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A070

Res-6
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 221+27 and 222+84

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

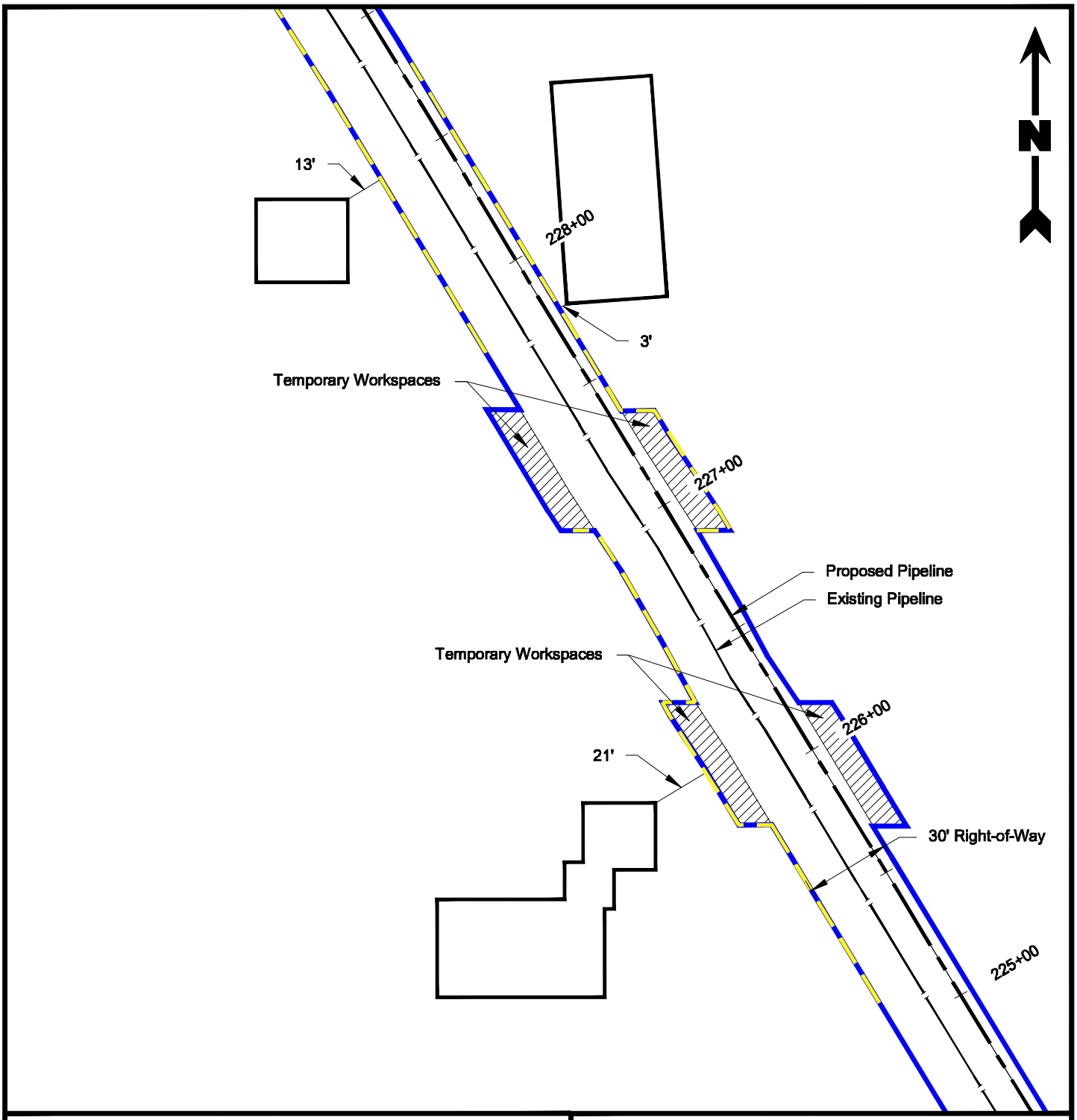
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A071

Res-7
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 226+12, 227+77, and 228+48

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

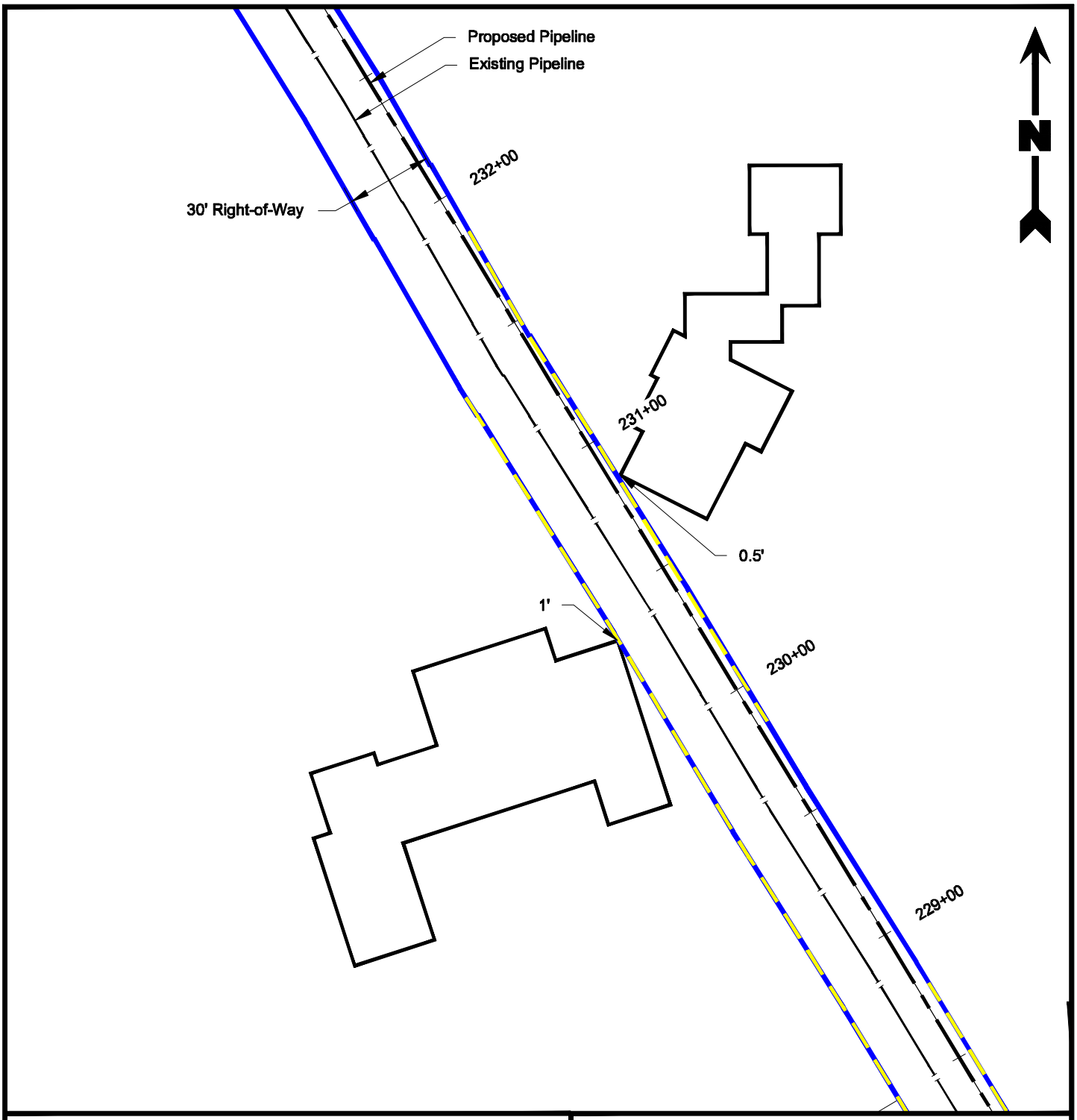
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A072

Res-8
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 230+36 and 230+85

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

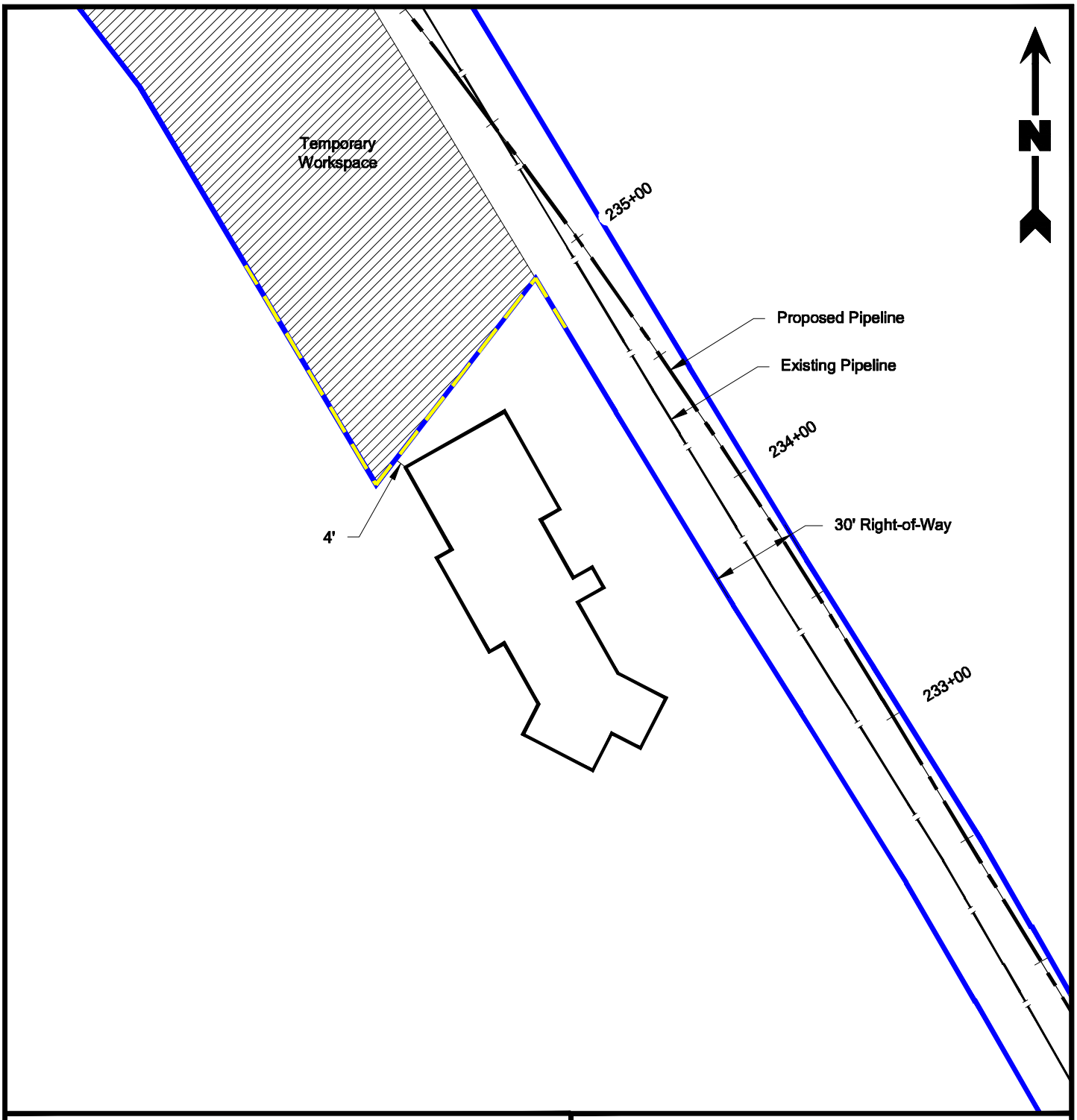
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A073

Res-9
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Station 234+69

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

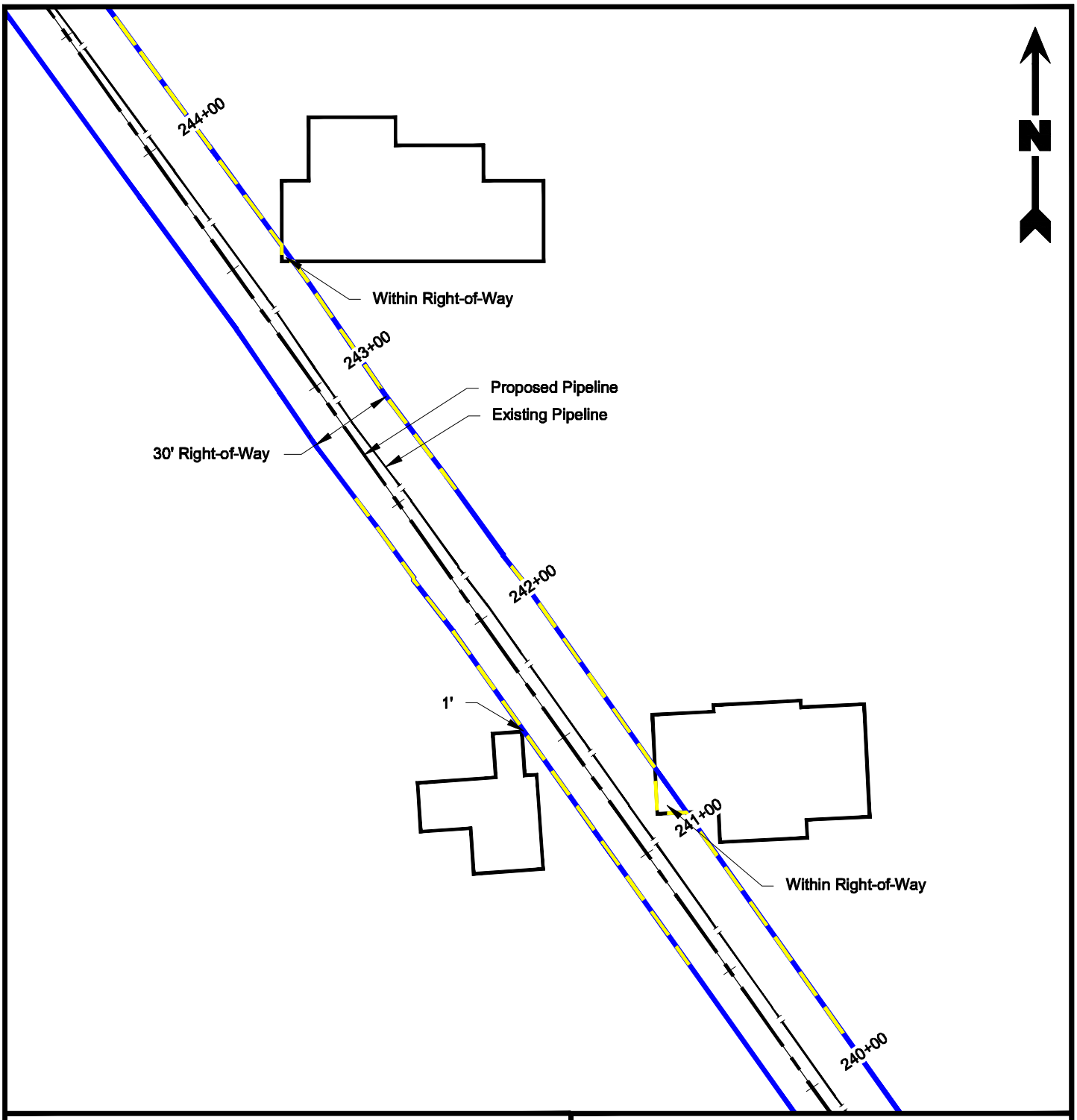
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A074

Res-10
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 241+09, 241+60, and 234+42

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

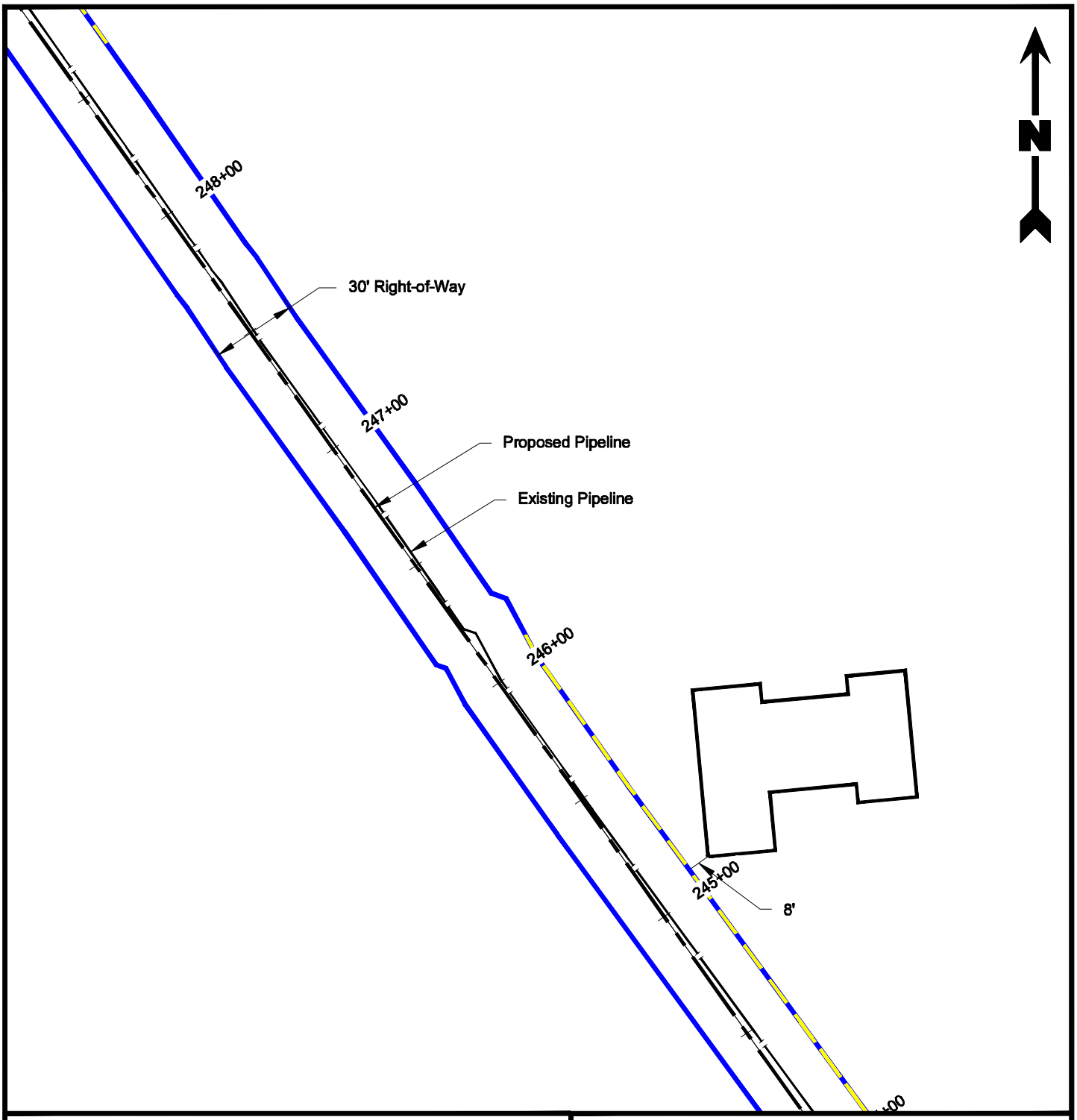
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A075

Res-11
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Station 245+08

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

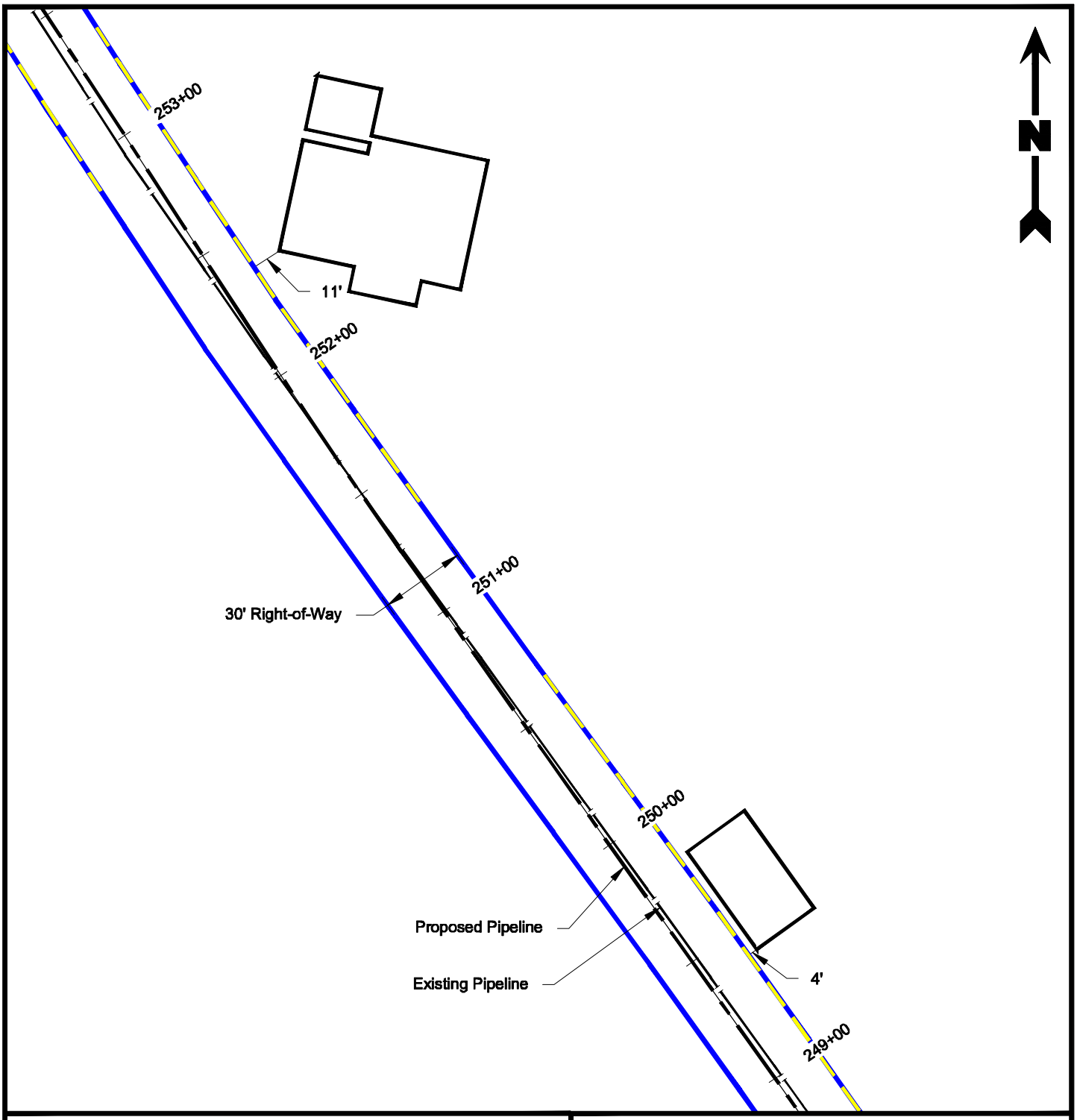
GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A076

Res-12
Figure



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 249+40 and 252+36

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

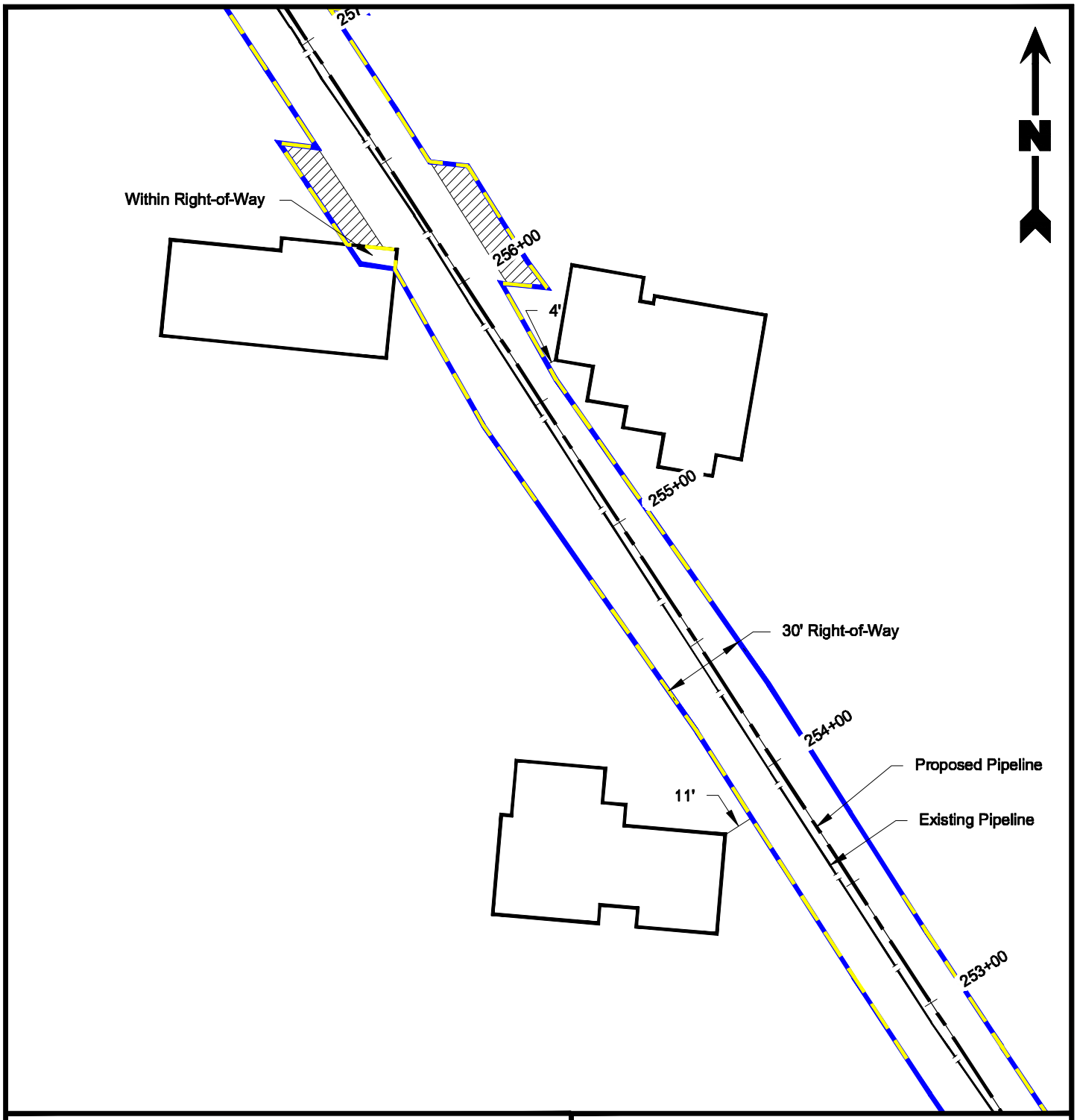
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A077

Res-13
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 253+88, 255+56, and 256+22

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

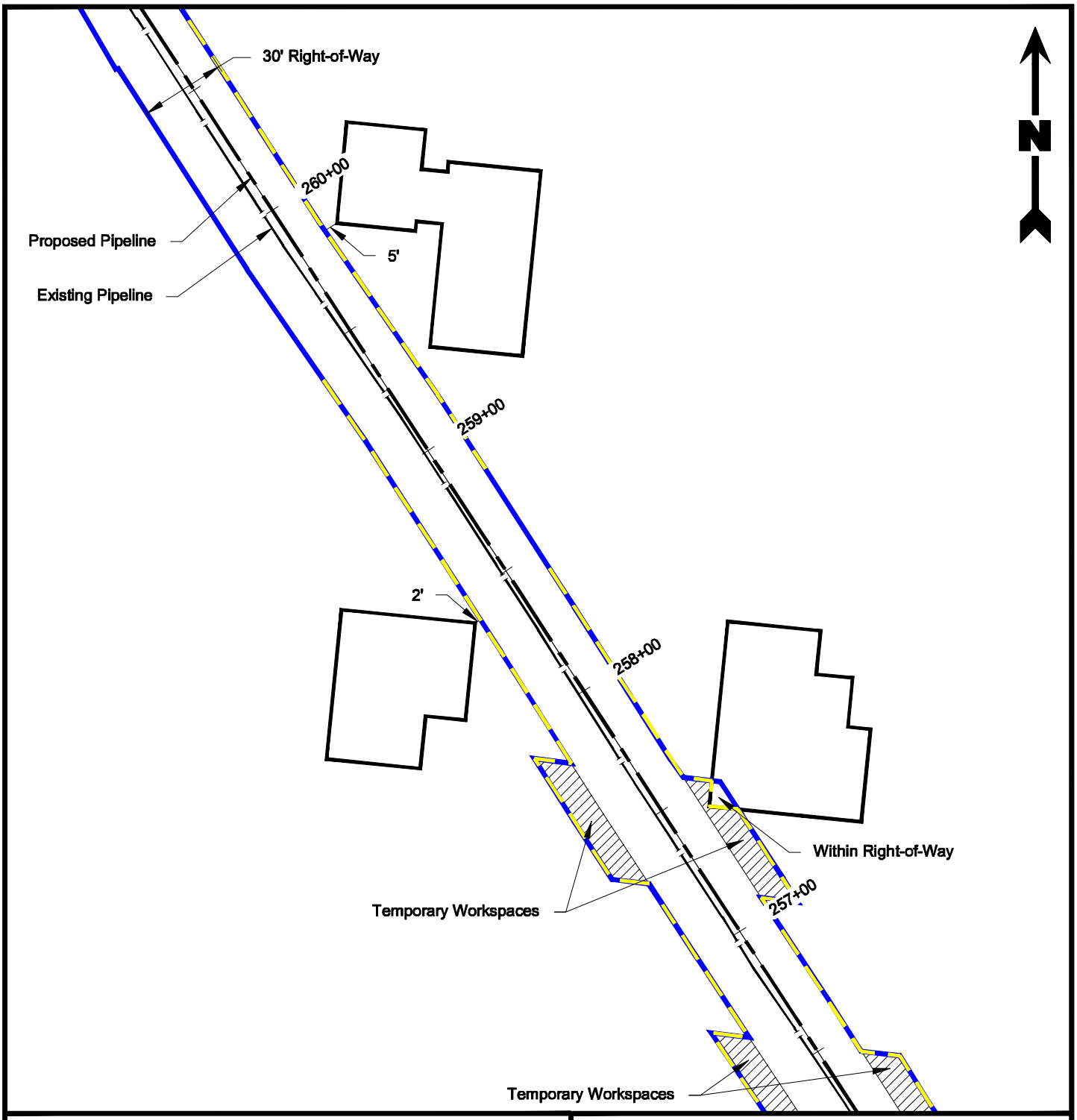
GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A078

Res-14
Figure



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 257+42, 258+40, and 259+83

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

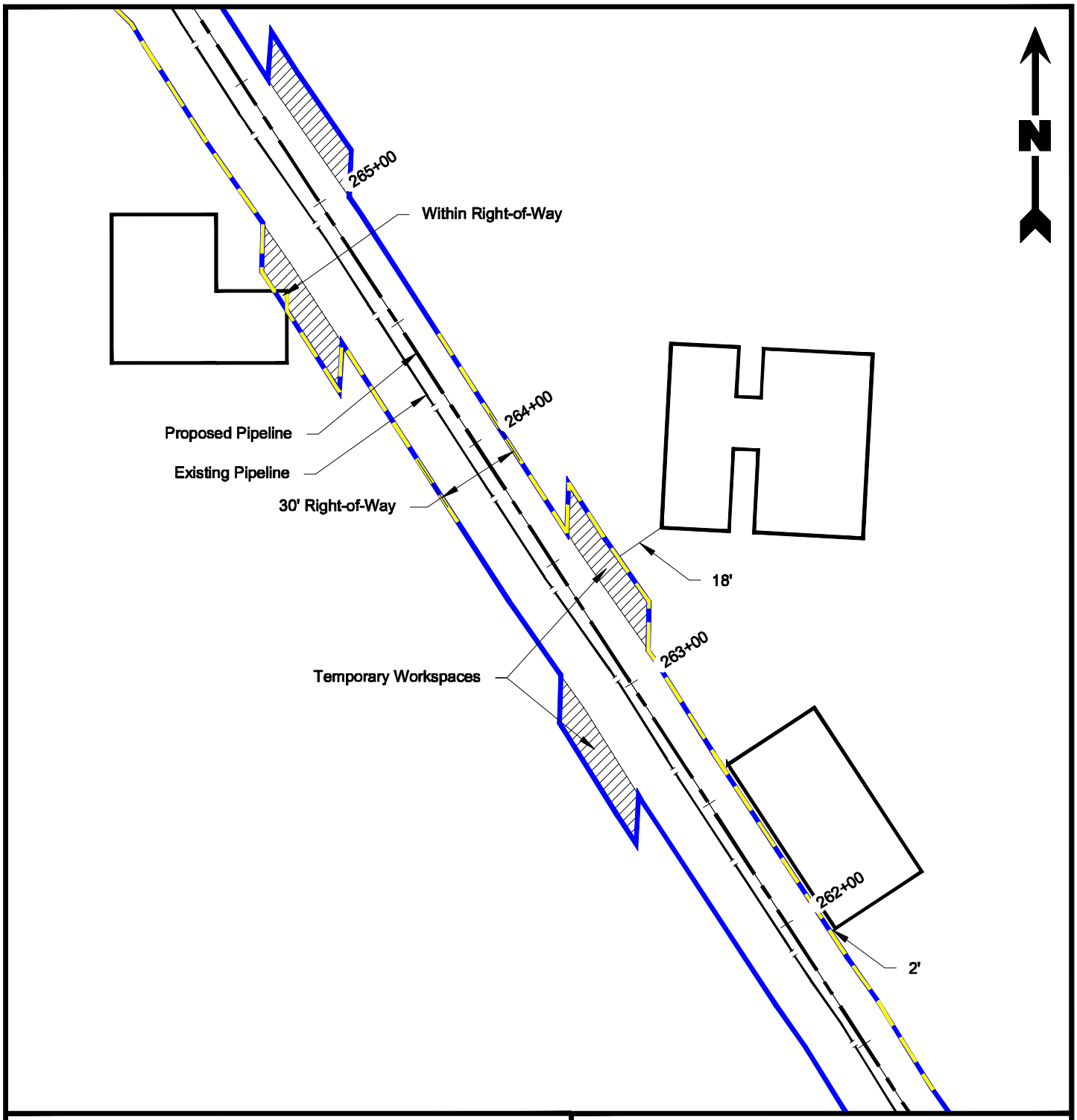
GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A079

Res-15
Figure



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 261+89, 263+40, and 264+80

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

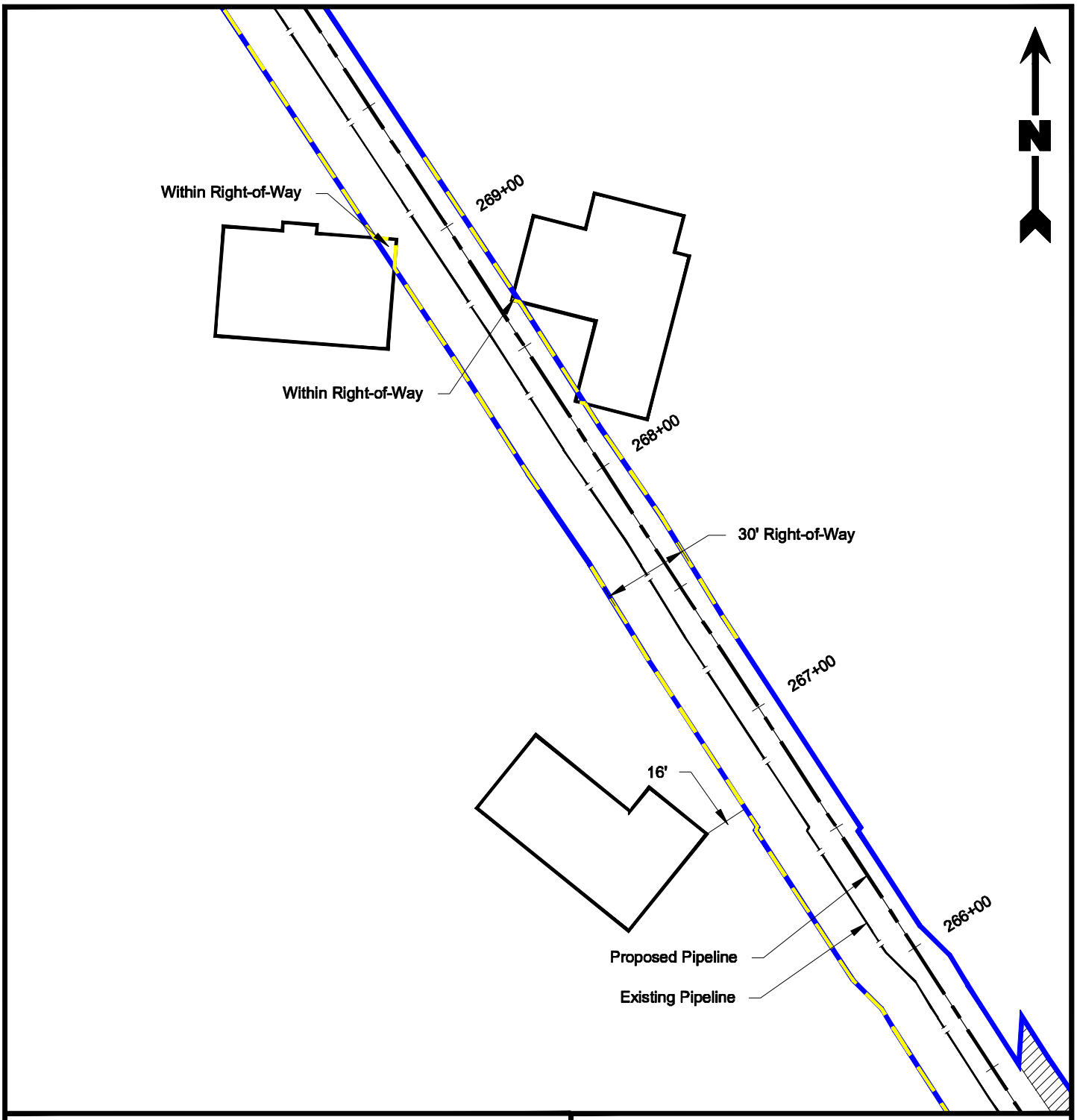
GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A080

Res-16
Figure



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 266+72, 268+24, and 269+05

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

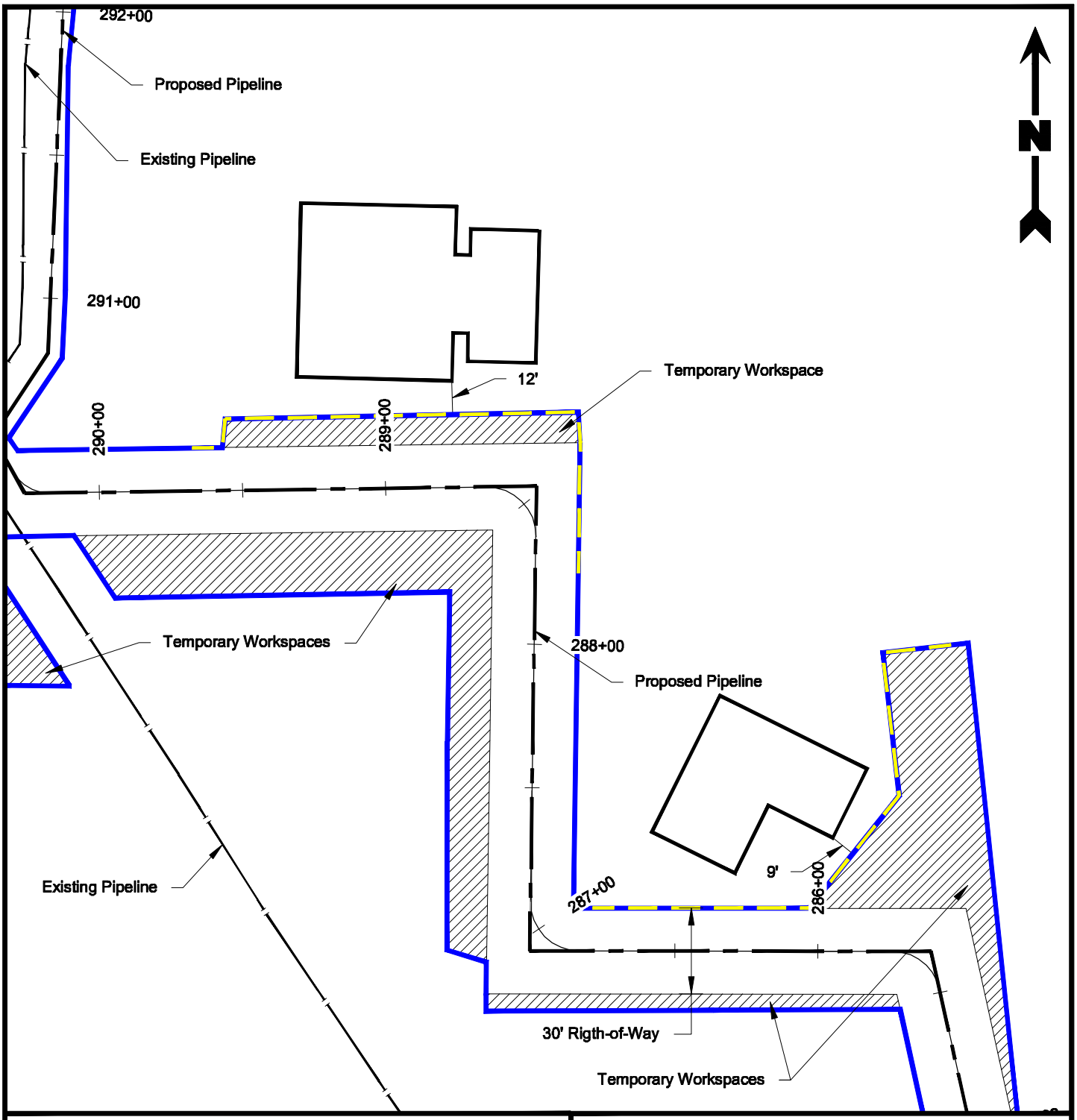
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number: 196-077

Drawing Number: 196-077-A081

Res-17
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

These residences are located within open cut construction areas.

Residential Construction Drawing

Stations 285+88 and 288+76

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

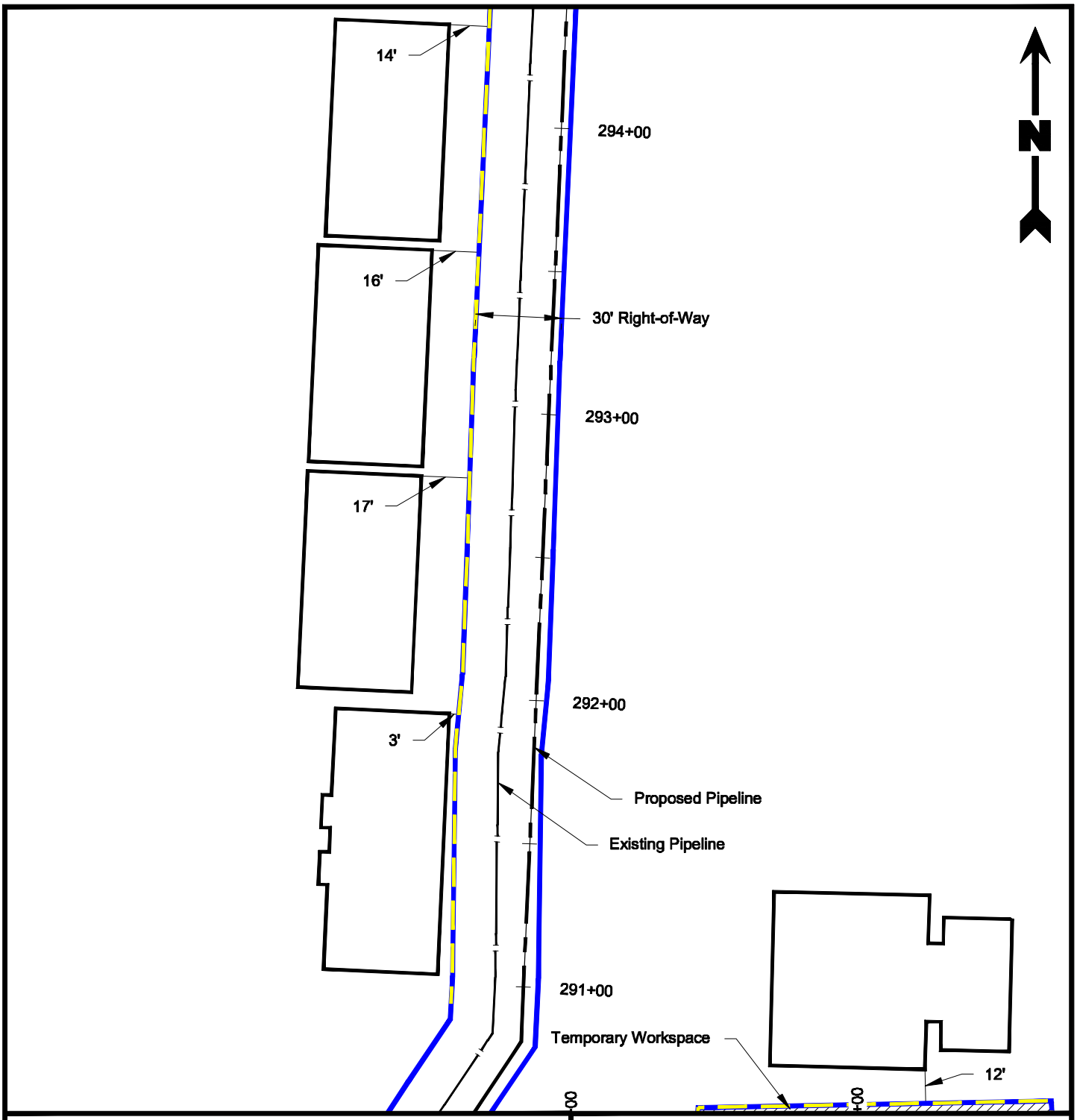
Project Number 196-077

Drawing Number 196-077-A082

Res-18

Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 288+76, 291+94, 292+76, 293+55, and 294+34

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP
Houston, Texas

GULF SOUTH® PIPELINE

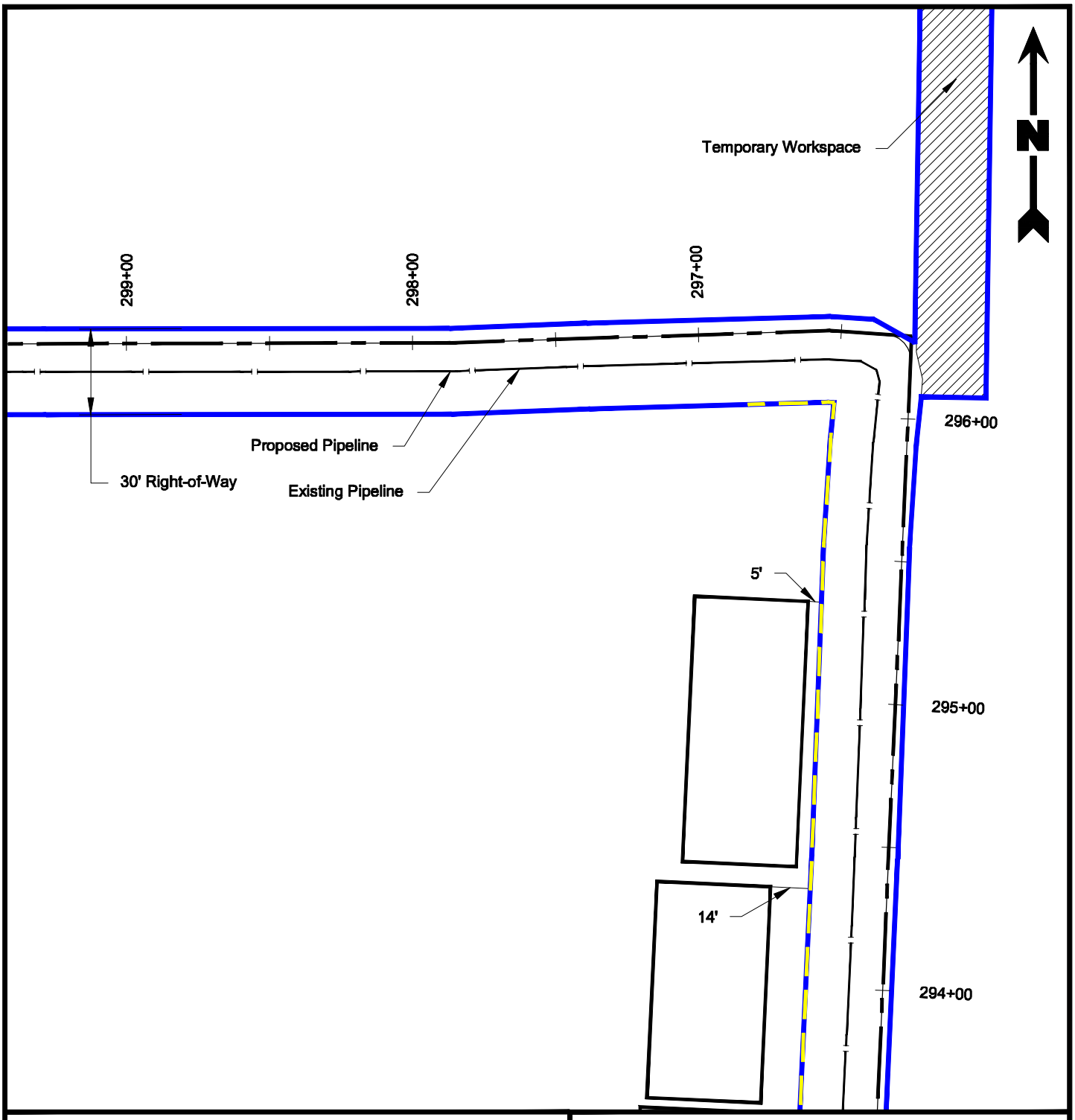
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A083

Res-19
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 294+34 and 295+34

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

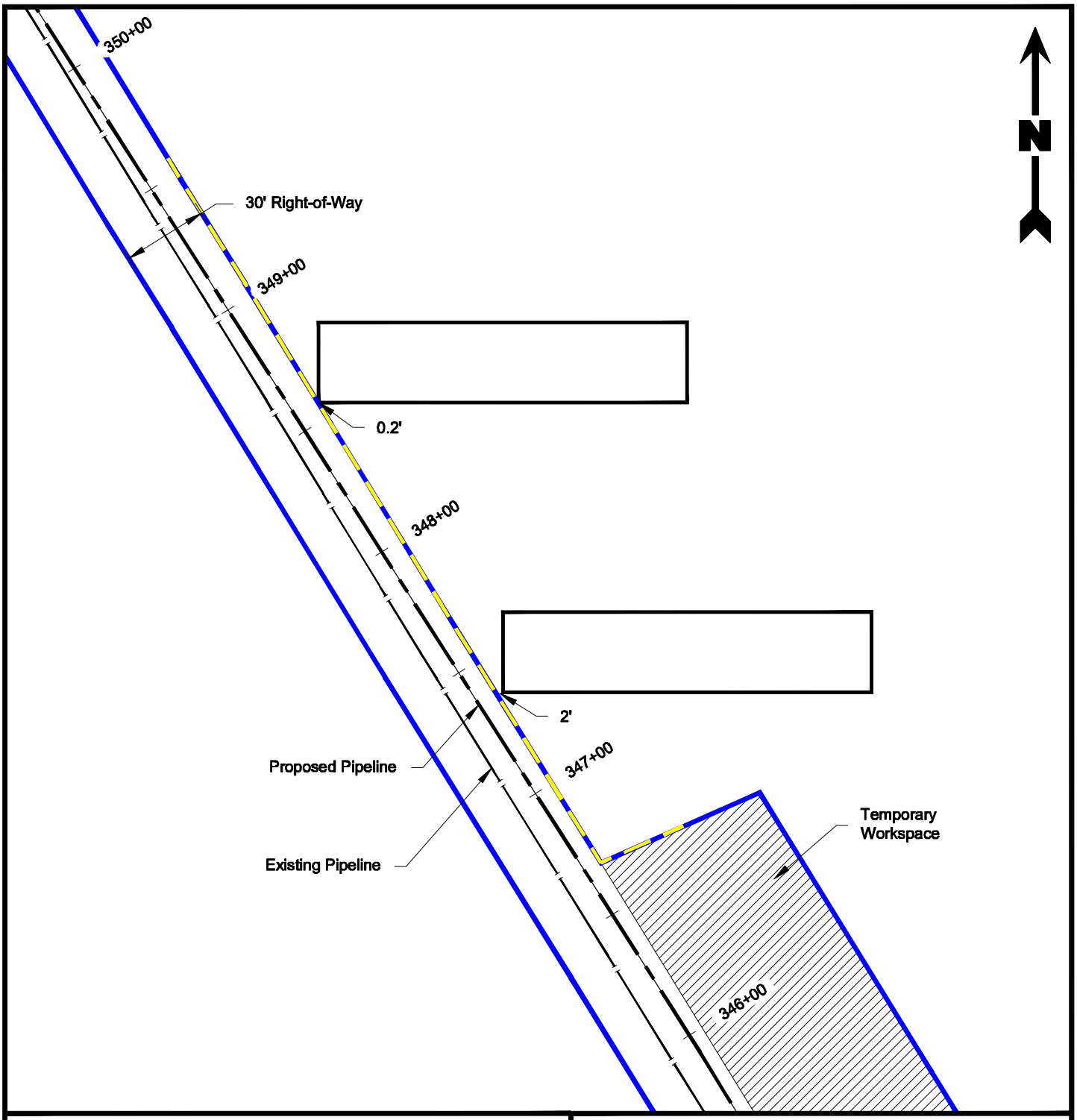
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number: 196-077

Drawing Number: 196-077-A084

Res-20
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 347+36 and 348+55

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

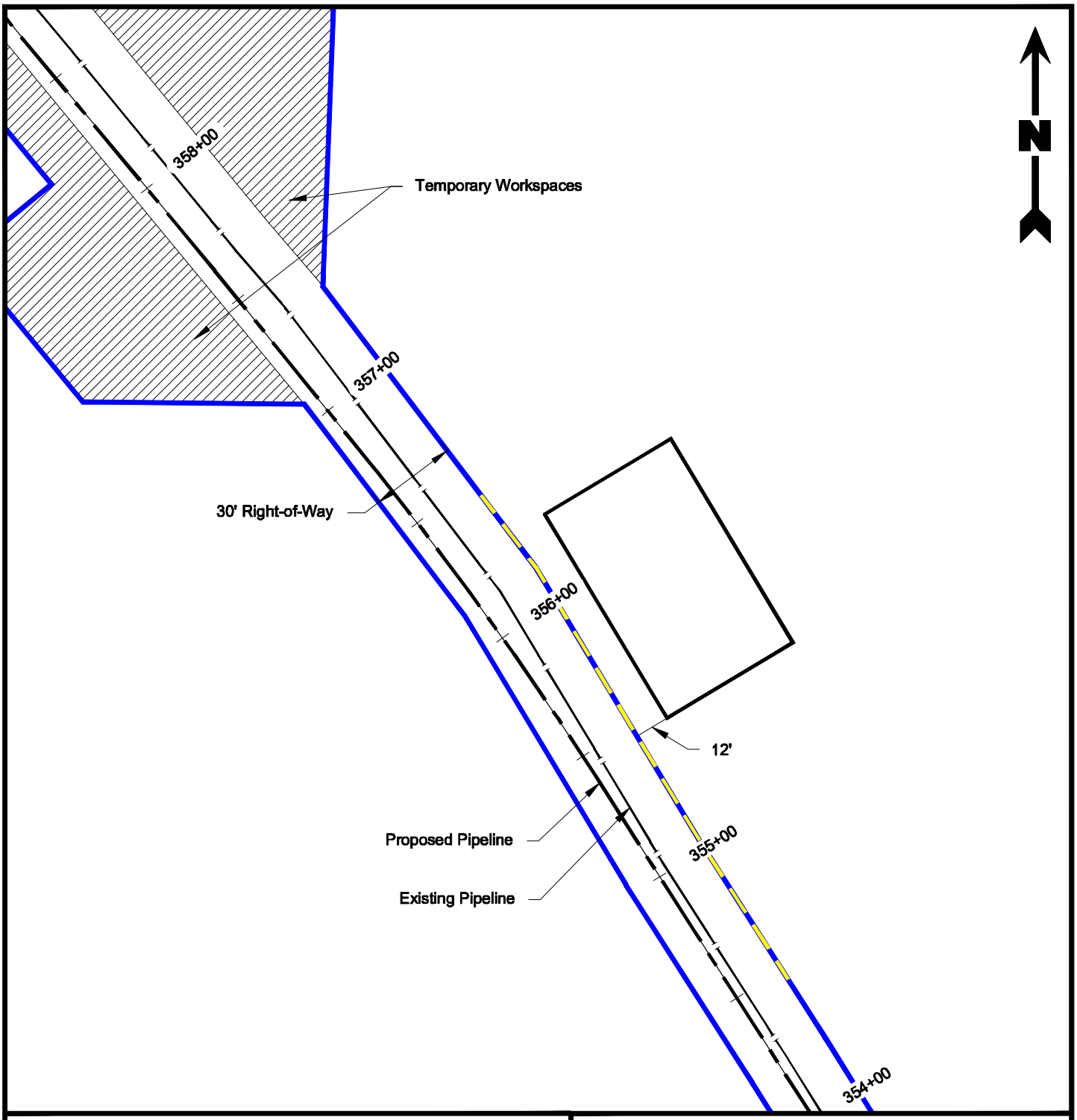
GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A085

Res-21
Figure



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Station 355+45

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

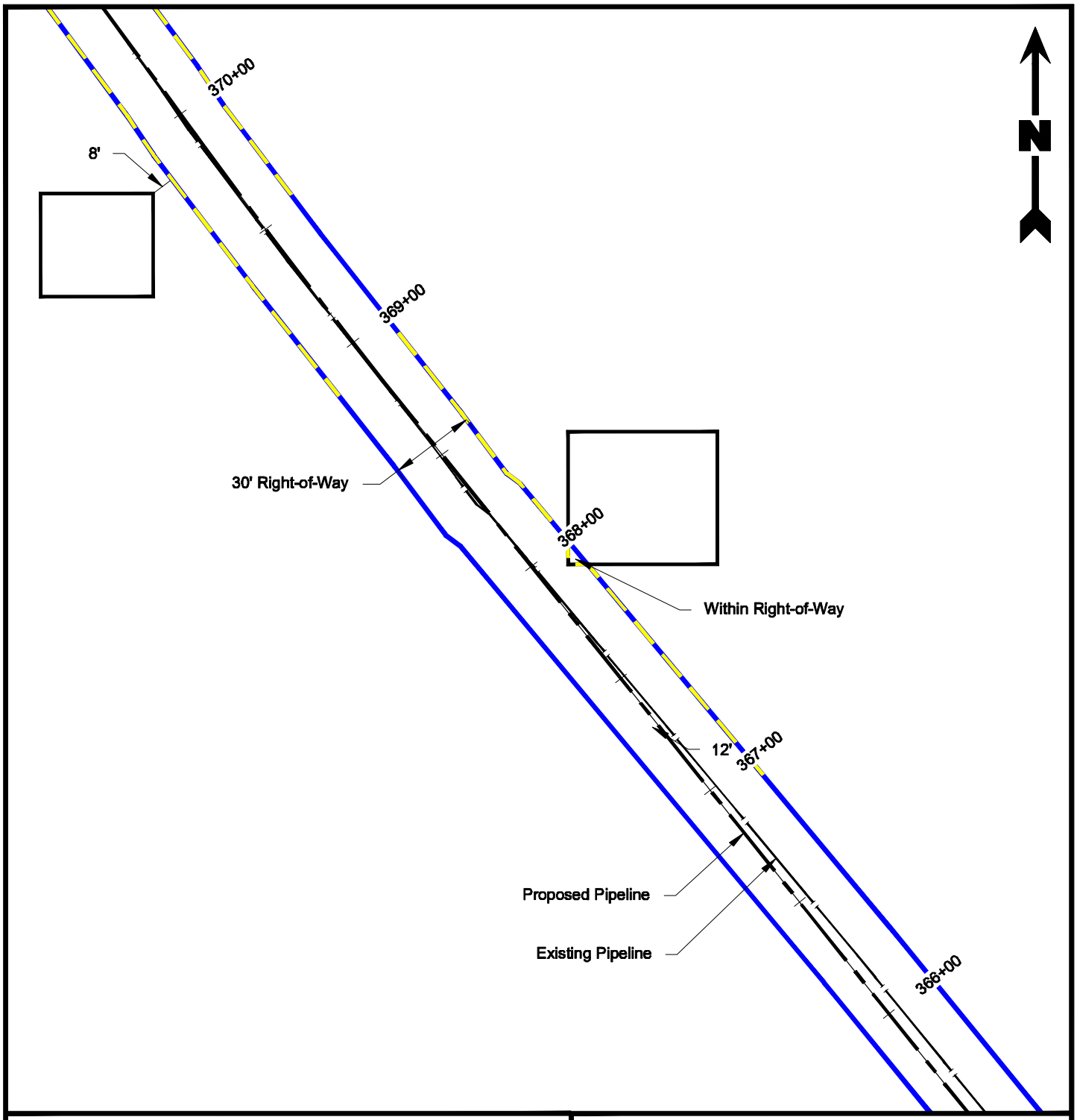
GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A086

Res-22
Figure



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 367+92 and 369+81

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

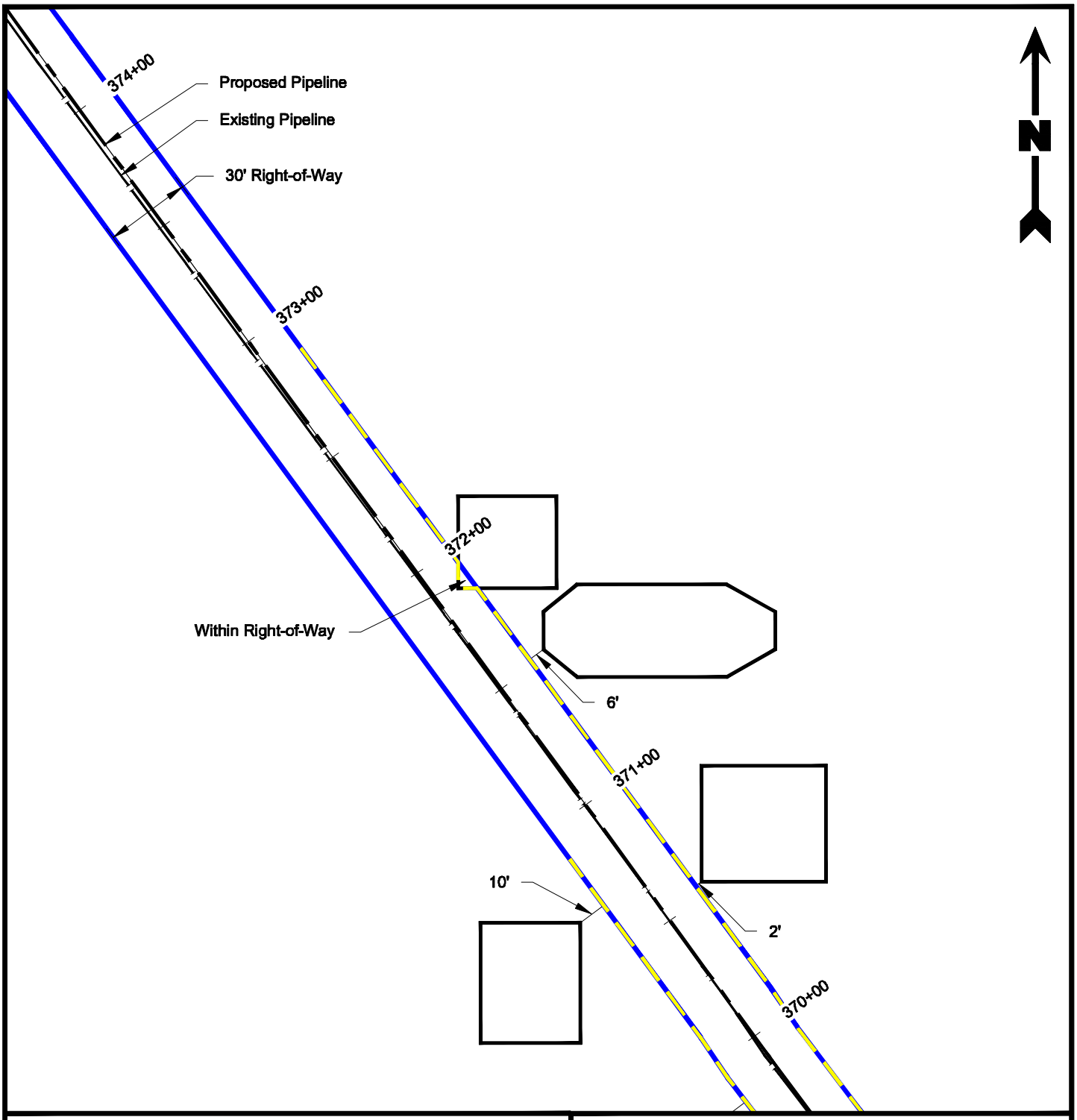
Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A087

Res-23
Figure

Providence Engineering and Environmental Group LLC



50 0 50

Scale: 1" = 50'

Legend

- Project Area
- Temporary Workspace
- Proposed Pipeline
- Existing Pipeline
- Temporary Construction Fencing

Note

This residence is between horizontal directional drill entry and exit points. However, the permanent easement may be used for access and/or pipe stringing.

Residential Construction Drawing

Stations 370+54, 370+67, 371+52, and 371+87

City of Jackson Pipeline Replacement Project
Jackson, Hinds County, Mississippi

Gulf South Pipeline Company, LP

Houston, Texas

GULF SOUTH® PIPELINE

Drawn By	LMM	05/25/11
Checked By	DRA	05/25/11
Approved By	RPC	05/25/11

Project Number 196-077

Drawing Number 196-077-A088

Res-24
Figure

Providence Engineering and Environmental Group LLC

Attachment 4

Buildings Within 50 Feet of Project Construction Corridor

Attachment 4. Buildings within 50 feet of Project Construction Corridor

Station No.	Building Description	Direction from Construction Corridor	Distance From Construction Corridor (ft)	Construction Method
180+06	Residence	Southwest	7	HDD
180+77	Residence	Northeast	11	HDD
183+34	Residence	Southwest	Within	HDD
203+36	Residence	Southwest	44	HDD
204+52	Residence	Northeast	1	HDD
207+63	Residence	Northeast	28	HDD
208+37	Residence	Southwest	8	HDD
209+86	Residence	Northeast	14	HDD
210+54	Residence	Southwest	5	HDD
211+90	Residence	Northeast	24	HDD
212+76	Residence	Southwest	Within	HDD
214+27	Residence	Southwest	Within	HDD
215+78	Residence	Northeast	Within	HDD
216+92	Residence	Southwest	46	HDD
218+10	Residence	Southwest	Within	HDD
220+17	Residence	Northeast	33	HDD
221+27	Residence	Southwest	12	HDD
221+76	Residence	Northeast	31	HDD
222+84	Residence	Southwest	Within	HDD
225+06	Residence	Northeast	38	HDD
226+12	Residence	Southwest	21	HDD
227+77	Residence	Northeast	3	HDD
228+03	Residence	Southwest	35	HDD
228+48	Residence	Southwest	13	HDD
229+10	Residence	Southwest	26	HDD
230+36	Residence	Southwest	1	HDD
230+85	Residence	Northeast	0.5	HDD
232+43	Residence	Southwest	35	HDD
234+69	Residence	Southwest	4	HDD
235+29	Residence	Southwest	27	HDD
241+09	Residence	Northeast	Within	HDD
241+60	Residence	Southwest	1	HDD
243+42	Residence	Northeast	Within	HDD

Attachment 4. Buildings within 50 feet of Project Construction Corridor

Station No.	Building Description	Direction from Construction Corridor	Distance From Construction Corridor (ft)	Construction Method
244+19	Residence	Southwest	33	HDD
245+08	Residence	Northeast	8	HDD
249+40	Residence	Northeast	4	HDD
252+36	Residence	Northeast	11	HDD
253+88	Residence	Southwest	11	HDD
255+56	Residence	Northeast	4	HDD
256+22	Residence	Southwest	Within	HDD
257+42	Residence	Northeast	Within	HDD
258+40	Residence	Southwest	2	HDD
259+83	Residence	Northeast	5	HDD
261+61	Residence	Northeast	29	HDD
261+89	Residence	Northeast	2	HDD
263+40	Residence	Northeast	18	HDD
264+80	Residence	Southwest	Within	HDD
266+72	Residence	Southwest	16	HDD
267+92	Residence	Northeast	27	HDD
268+24	Residence	Northeast	Within	HDD
269+05	Residence	Southwest	Within	HDD
280+64	Business	Southwest	46	HDD
281+91	Business	West	15	HDD
284+33	Business	West	2	Open Cut
285+88	Residence	North	9	Open Cut
287+50	Business	West	14	Open Cut
288+46	Residence	East	48	Open Cut
288+76	Residence	North	12	Open Cut
290+29	Business	Southwest	Within	Road Bore
291+94	Residence (Apts)	West	3	HDD
292+76	Residence (Apts)	West	17	HDD
293+55	Residence (Apts)	West	16	HDD
294+34	Residence (Apts)	West	14	HDD
295+34	Residence (Apts)	West	5	HDD
296+53	Residence (Apts)	West	34	HDD
296+53	Residence (Apts)	West	30	HDD

Attachment 4. Buildings within 50 feet of Project Construction Corridor

Station No.	Building Description	Direction from Construction Corridor	Distance From Construction Corridor (ft)	Construction Method
296+53	Residence (Apts)	West	31	HDD
296+53	Residence (Apts)	West	34	HDD
296+53	Residence	East	40	HDD
301+93	Residence (Apts)	East	54	Open Cut
303+42	Residence (Apts)	East	31	Open Cut
304+58	Residence (Apts)	East	31	Open Cut
304+63	Business	West	12	Open Cut
306+76	Residence (Apts)	South	27	Open Cut
308+12	Residence (Apts)	South	28	Open Cut
311+18	Residence	East	43	HDD
311+22	Club House	West	12	HDD
315+82	Residence	East	45	HDD
321+21	Residence	East	46	Open Cut
322+10	Business	North	41	Open Cut
323+31	Business	South	Within	Open Cut
323+96	Business	West	5	Road Bore
326+72	Business	East	2	Open Cut
327+66	Business	Northeast	37	Open Cut
334+67	Business	North	49	HDD
335+80	Business	South	Within	Open Cut
347+36	Residence (Apts)	East	2	HDD
348+55	Residence (Apts)	East	0.2	HDD
354+28	Residence	Southwest	35	HDD
355+45	Residence	Northeast	12	HDD
360+04	Business	Northeast	Within	Open Cut
367+92	Residence (Apts)	Northeast	Within	HDD
368+30	Residence (Apts)	Northeast	41	HDD
368+79	Business	West and East	Within	HDD
369+23	Residence (Apts)	Southwest	30	HDD
369+81	Residence (Apts)	Southwest	8	HDD
37+54	Residence (Apts)	Northeast	2	HDD
370+67	Residence (Apts)	Southwest	10	HDD
371+52	Residence (Apts)	Northeast	6	HDD

Attachment 4. Buildings within 50 feet of Project Construction Corridor

Station No.	Building Description	Direction from Construction Corridor	Distance From Construction Corridor (ft)	Construction Method
371+87	Residence (Apts)	Northeast	Within	HDD
371+85	Business	Northeast	41	HDD
372+06	Business	Southwest	Within	HDD
373+00	Business	Southwest	2	HDD
378+32	Business	Northeast	22	HDD
381+12	Business	Southwest	25	HDD
381+82	Business	Southwest	0	HDD
384+20	Business	Northeast	Within	Open Cut
386+41	Business	West and East	Within	Open Cut

Gulf South Pipeline Company, LP
Docket No. CP11- -000

ATTACHMENT B

STATEMENT OF COMPLIANCE

Gulf South Pipeline Company, LP
Docket No. CP11- -000

STATEMENT OF COMPLIANCE

As required by 18 C.F.R. § 157.205(b)(4), I, M. L. Gutierrez, Director, Regulatory Affairs for Gulf South Pipeline Company, L.P., hereby certify under oath that, to the best of my knowledge and belief, the activities proposed in the attached Prior Notice Request comply with the requirements of Subpart F of Part 157 of the Regulations of the Federal Energy Regulatory Commission.

M. L. Gutierrez
Director, Regulatory Affairs

SWORN TO AND SUBSCRIBED before me this 1st day of July, 2011.

Notary Public for the State of Texas

Linda Haughton
Printed Name

My Commission Expires:

LINDA HAUGHTON NOTARY PUBLIC STATE OF TEXAS EXPIRES 06-17-2012

Gulf South Pipeline Company, LP
Docket No. CP11- -000

ATTACHMENT C

FLOW DIAGRAMS AND FLOW DIAGRAM DATA

INFORMATION HAS BEEN REMOVED AS
CRITICAL ENERGY INFRASTRUCTURE INFORMATION

Gulf South Pipeline Company, LP
Docket No. CP11- -000

FORM OF NOTICE

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Gulf South Pipeline Company, LP Docket No. CP11-___-000

NOTICE OF REQUEST UNDER BLANKET AUTHORIZATION

(July ___, 2011)

Take notice that on July___, 2011, Gulf South Pipeline Company, LP ("Gulf South"), 9 Greenway Plaza, Suite 2800, Houston, Texas 77046, filed in Docket No. CP11-___-000, a prior notice request pursuant to Sections 157.205(b), 157.208(c) and 157.210 of the Federal Energy Regulatory Commission's regulations under the Natural Gas Act and Gulf South's blanket certificate issued in Docket No. CP82-430-000. Gulf South requests for authorization to replace approximately 3.97 miles of Gulf South's 18-inch diameter natural gas pipeline with 12-inch diameter pipeline in Jackson, Hinds County, Mississippi, and abandon in place the 18-inch pipeline, as more fully set forth in the application which is on file with the Commission and open to public inspection. The filing may also be viewed on-line at http://www.ferc.gov using the "eLibrary" link. Enter the docket number excluding the last three digits in the docket number field to access the document. For assistance, contact FERC at FERCOnlineSupport@ferc.gov or call toll-free, (886) 208-3676 or for TYY, (202) 502-8659.

Any questions regarding the application should be directed to M. L. Gutierrez, Director, Regulatory Affairs, Gulf South Pipeline Company, LP, 9 Greenway Plaza, Suite 2800, Houston Texas 77046, or call at (713) 479-8252.

Any person or the Commission's Staff may, within 60 days after the issuance of the instant notice by the Commission, file pursuant to Rule 214 of the Commission's Procedural Rules (18 C.F.R. 385.214) a motion to intervene or notice of intervention and, pursuant to section 157.205 of the Commission's Regulations under the Natural Gas Act (NGA) (18 CFR 157.205) a protest to the request. If no protest is filed within the time allowed therefore, the proposed activity shall be deemed to be authorized effective the day after the time allowed for protest. If a protest is filed and not withdrawn within 30 days after the time allowed for filing a protest, the instant request shall be treated as an application for authorization pursuant to Section 7 of the NGA.

The Commission strongly encourages electronic filings of comments, protests, and interventions in lieu of paper. using the "via the internet in lieu of paper. See 18 C.F.R. 385.2001(a) (1) (iii) and the instructions on the Commission's web site (http://www.ferc.gov) under the "e-Filing" link.

Comment Date:_____

Kimberly D. Bose
Secretary