EDF Exhibit E.01

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 190

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Biennial Consolidated Carbon Plan and Integrated Resource Plans of Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC, Pursuant to N.C.G.S. § 62-110.9 and§ 62-110.l(c)	)	**DIRECT TESTIMONY OF WILLIAM B. MCALEB ON BEHALF OF ENVIRONMENTAL DEFENSE FUND**

I. INTRODUCTION AND BACKGROUND

Q: PLEASE INTRODUCE YOURSELF, YOUR CURRENT POSITION AND BUSINESS LOCATION.

A: My name is William B. ("Bill") McAleb, and I am employed as the Chief Executive Officer and President of Rod Walker & Associates ("RWA"), a Management Consultancy and Technical Advisory firm based near Atlanta, GA.

Q: PLEASE SUMMARIZE YOUR EXPERIENCE, PROFESSIONAL AND EDUCATIONAL BACKGROUND.

A: I possess over forty years of Oil, Gas, Power and Utility industry experience and business operational knowledge, engineering, and technical expertise. Having a well-seasoned range of career executive, management, strategic and operational experience, I offer leadership, guidance, vision, corporate and board counsel, interim executive, and expert witness services. The focus of my practice is the provision of technical, financial, policy and managerial advisory and forensics services to clients engaged in the nexus between hydrocarbon fuels, electric power, transmission & distribution, energy and fuels storage, petroleum midstream, inter- and intrastate pipelines and utilities. Further, I deliver deep experience and hands-on leadership, implementation, and management relative to operations, financial and operational performance and optimization, utility and energy policy practices, process and profitability strategy and innovation. In addition, I have expertise with respect to M&A/Transactional/Transitional advisory services to financial and private equity clients as well as strategic advisory services to utility, energy, and related clients.

I have MBA and Master of Petroleum Engineering degrees from Tulane University and a Bachelor of Chemical Process Metallurgical Engineering from the University of Texas at El Paso.

I have provided expert testimony related to natural gas procurement and prudency, energy asset property tax issues, RCN analysis, operational joint-interest agreements and performance, energy market performance and forecasting, regulatory policy and practices, utility prudency determinations and economic forensics in state, federal, and regulatory venues.

My CV is attached as Exhibit EDF-E.01 to this testimony.

Q: ON WHOSE BEHALF ARE YOU APPEARING?

A: I am submitting this testimony on behalf of the Environmental Defense Fund.

Q: HAVE YOU EVER TESTIFIED BEFORE A STATE PUBLIC UTILITIES COMMISSION?

A: Yes, I have submitted and/or supported testimony before various state commissions including The New Orleans City Council's Utility Regulatory Office (the regulatory agency charged with oversight of Entergy) and the Regulatory Commission of Alaska, the state of Alaska Petroleum Tax Review and Assessment Board and the Illinois Commerce Commission. I have not submitted testimony before the North Carolina Utilities Commission.

Q: HAVE YOU PREPARED ANY ATTACHMENTS IN SUPPORT OF YOUR TESTIMONY?

A: Yes. I have included various supporting documents contained in EDF Ex. A.01 through Ex. EDF E.01 as identified below.

Exhibit No.	Description
EDF-A.01	General Electric 7HA Heavy Duty Turbine Specification Sheet
EDF-B.01	Siemens Energy HL-Class Gas Turbine Specification Sheet
EDF-C.01	TRANSCO Southeast Supply Enhancement Project - FERC
EDF-D.01	EIA Energy Monthly Table 6.07A Capacity Factors for Utility Scale Generators Using Fossil Fuels
EDF-E.01	CV of William McAleb

Table 1: List of Exhibits

Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A: The purpose of my testimony is to review and provide analysis regarding the 2023 Carbon Plan and IRP filings ("CPIRP" or "Plan") made by Duke Energy Carolinas, LLC (**"**DEC**"**) and Duke Energy Progress, LLC (**"**DEP**"**) (DEC and DEP collectively "Duke" or the **"**Companies**").** Specifically, my testimony will:

- Review the pertinent portions of the CPIRP,
- Highlight any areas of the Plan that exhibit significant future, forecasted, or proposed changes or departures from the current methods of delivering power to its customers employed by Duke to present a description of the proposed change or departure,
- Cite to any concerns related to cost, emissions, or reliability,
- Explain the foundation of any such concerns, and
- Discuss the Companies' proposed transition to both hydrogen co-firing and to the future expected use of 100% hydrogen as a power generation fuel.

In addition, my testimony will include an overview level discussion related to current examples of coal resource retirement and natural gas replacement projects initiated by the Companies and included in the CPIRP. Both discussed natural gas

fired projects are currently seeking Certificates of Public Convenience and Necessity ("CPCN").[1]

Q: PLEASE SUMMARIZE YOUR CONCLUSIONS.

A: My review and analysis of the Plan has resulted in the following broad conclusions:

- Duke's proposed CPIRP is fundamentally unambitious given the new realities of the energy generation mix and will likely fail to meet the interim 70% emissions reductions and possibly the eventual carbon neutrality requirement while still raising costs for ratepayers.
- As detailed further below, Duke's general plan to build new natural gas-firing facilities and then transition those facilities to 100% hydrogen-firing faces significant technical uncertainty, infrastructure hurdles and costs, are not necessary to maintain grid reliability, may never be co-fired with hydrogen, and will likely raise rates.

My review and analysis of the Plan resulted in the following more specific takeaways:

- The CPIRP is a comprehensive plan that considers demand growth, reliability, the policy and regulatory landscape, financial and timing impacts, technology advancements, consumer trends, emissions, and the exit from coal generation.
- The exit from coal generation appears to be of the most concern during reshaping of the Companies' power resource transition to reduced emissions through changing fuels and a greater reliance on renewable resources.

[1] See, NCUC Docket Nos. E-2, Sub 1318 & E-7, Sub 1297.

- The Plan refers to an "Orderly Energy Transition" that addresses the main objectives; Resource Diversity, Clean Resource Mix, Least Cost Planning, Execute the Plan with an eye toward the future. Considering the complexity of the overall CPIRP, flexibility, a high level of agility, and consistent mid-course plan changes will be a likely a reality over the course of the Plan period.
- Mid-course changes, coupled with the emission timeline requirements tend to point to increased program costs.
- The Companies appear focused on a variety of long-lead (and in some cases yet to be proven or implemented) technologies that will ultimately require positive technological strides forward and that will dictate that the Plan be highly flexible and agile.
- The long-lead technologies require longer planning horizons, but the Plan lacks certain details of timing, cost protections for ratepayers, and other considerations as the Companies consider how to move from "bridge" technologies to an emission-less generation stack.
- The quantity of decision paths (particularly those that are yet unproven or are dependent on other task and milestone dominos falling into place) are likely to lead to, at least, increased project management costs, if not additional funds spent for the mid-stream course corrections.
- The Companies rely on photovoltaic ("PV") solar and wind resources for improving cost-effectiveness, reliability, and, most importantly, energy conversion efficiencies, the improvement of capacity factors, and the inclusion and integration of BESS ("Battery Energy Storage System").
- The Companies rely on potential increased capacity factors that will match and, thus impact, the hydrogen production process. Each hydrogen production process

carries significant concerns and decisions that will, at least in part, determine the success of the CPIRP.

- The issues surrounding hydrogen co-firing, 100% hydrogen fueling, and infrastructure are not inconsequential. OEM manufacturers of combustion turbines have not demonstrated a firm commitment as to when, or even if, 100% hydrogen fueling of combustion turbines ("CTs") is technically and economically feasible.
- Two of the leading CT manufacturing firms currently have equipment capable of a 50% hydrogen/natural gas blended fuel, but the delivery of CT equipment with 100% hydrogen fuel capabilities stands as currently unavailable and only potentially capable sometime in or after 2030.
- A myriad of technical hurdles related to the use of hydrogen and hydrogen/natural gas blends as a primary CT and/or combined-cycle ("CC") fuel exist, including issues related to hydrogen manufacture, storage, handling, transport, and other infrastructure issues.
- While hydrogen may be worthy of consideration as a fuel for power generation, there is, however, a significant chain of hydrogen production, procurement, transportation, and safety concerns that appear understated within the CPIRP.
- The production of hydrogen is dependent on the source of the electric power being used for production. Such production energy will also need to be without carbon emissions to meet state law requirements.
- It is necessary that hydrogen production be highly reliable with a high-capacity factor to achieve the economic production of hydrogen. An acceptably high capacity factor will likely require the combining of renewable PV energy resources to achieve the desired emission reduction, while delivering reliable services to customers.

- There is no clear commitment as to timing of a fully compatible 100% hydrogen fired utility scale ("General Electric model 7HA" and/or "Siemens Energy model SGT6-9000HL") turbine at this time.
- Even if the equipment manufacturers can introduce hydrogen-capable turbines sometime in or after 2030, 100% hydrogen equipment retrofits for the then in-service turbines will require additional, and currently unknown, costs associated with the fuel technology implementation.
- The handling of hydrogen carries safety concerns. The LEL, or lower explosive/flammable limit, is the lowest volume percent in air at which the gas can flash or catch fire in the presence of heat or sparks. The LEL for hydrogen is 4%, and it remains quite flammable all the way up to 77% in air.
- Due to regional pipeline congestion, TRANSCO Zone 5 area is planned for a supply enhancement project that the Companies have subscribed to on the order of 1,000,000 Dth per day that assures natural gas deliveries into the future.
- Hydrogen embrittlement is a serious consideration. Transportation of hydrogen in carbon steel pipelines allows the hydrogen intimate contact that may cause reduced steel ductility and a lessening of load-bearing capacity of the steel pipe walls, which can lead to cracking and brittle failures at a level below the anticipated yield strength of the susceptible steel material. This embrittlement failure can lead to catastrophic results.
- From an existing natural gas pipeline conversion to hydrogen perspective, commodity quality specifications contained within each pipeline's transportation tariff specify the quality and component content of all gas transported on the company's pipeline.
- Most pipeline quality specifications for natural gas do not allow for the addition of other commodities into the pipe because of the required volume of methane, the

heating value range of the gas, and, if hydrogen is even mentioned, it is generally regulated to a maximum of 600 ppm.

- A new hydrogen transportation infrastructure of stainless steel or other material could potentially achieve the transportation goal for hydrogen at a greatly enhanced pipeline construction material cost alone.
- Hydrogen has an energy density that is approximately 3.3 times less than an equivalent volume of natural gas at equivalent pressure.
- If a conventional carbon steel pipeline was used for hydrogen transportation the pipeline would be incapable or delivering the required hydrogen fuel volume at pressure due to the energy density issue. Existing natural gas pipelines are simply not suitable for conversion to dedicated hydrogen transportation.
- With respect to issues related to addressing the containment of hydrogen in storage vessels and within the fuel processing and operational systems, it is essential to recognize that a hydrogen molecule is quite small and thus, is susceptible to leakage.
- Consistent economic and emission review of the Companies' coal generation resources impacted two generation plants (i.e., Marshall and Roxboro) that the Companies have begun the process of obtaining a CPCN to construct and replace electric generating facilities.
- The CPCNs entail the proposed construction of "hydrogen capable", advanced-class, combined-cycle gas turbine power blocks (2X1 CC) at each plant location.
- The CPCN projects consist of new, "hydrogen capable", advanced-class, combined-cycle gas turbine power blocks in a 2X1 CC configuration.
- The utility scale CTs being pursued by the Companies are only 50% "hydrogen capable" and will require retro fit to 100% hydrogen capable when or if the OEM delivers such an economical and technical capability.

- Recognizing the complexity of preparing an integrated resource plan that reduces carbon emissions, the Plan is still insufficient. Plainly stated, the Plan shortcoming and inadequacy is that the Companies fail to consider the hurdles and necessary technology and economic strides beyond its service region.
- The Companies accept into the Plan unproven technology strides and technologies as absolute, coming into the market on a timeline consistent with their Plan and legally imposed milestones timing.
- An example of inadequacy is that the Companies assume that a robust hydrogen market will just be available at the time it is needed according to the CPIRP document.
- The principal deficiency of the Companies' Plan is providing a clear, transparent assessment methodology that incorporates statistical and logic-based decision analysis.

Recommendations:

As a result of the above conclusions, I recommend that the Commission consider: The Commission direct the Companies to apply a clear, transparent, and rigorous statistical and logic-based decision analysis protocol to each of the following pointed recommendations.

Recommendation 1: 100% Hydrogen Reasonable Demonstration Study. The Commission should require the Companies to conduct an additional public-facing study and stakeholder work on their gas-to-hydrogen plans before the Commission deems it reasonable for the Companies to plan for 100% hydrogen capability and submit such study by the time of the 2025 CPIRP update. Such a study should outline, at a minimum:

- Detail the commitments made to the Companies by the manufacturers of the proposed CT and CC units relative to when the units will be 100% hydrogen capable.
- On what timeline does the company plan to convert specific combined cycle and combustion turbine units to 100% hydrogen co-firing?
- Detail the Companies' estimate of retrofit and/or modification costs to convert the existing CT and CC units, including any and all necessary upgrades, additions, and modification to existing ancillary infrastructure components, to achieve 100% hydrogen capable generation status.
- What sourcing and/or generation plus storage costs do the Companies anticipate for 100% hydrogen co-firing at its proposed new CT and CC units?
- If such volumes of green hydrogen are not available on the anticipated timeline, how will the Companies meet H951's 2050 emissions requirements?

Recommendation 2: Hydrogen Blending Study

- Before the Companies assumptions regarding hydrogen blending in existing pipeline networks are deemed reasonable, they must conduct and present to the Commission a study by the time of the 2025 CPIRP update outlining in detail what representations and/or commitments from its current gas suppliers it relies upon in assuming the availability of hydrogen blended into the existing methane pipeline network and addressing the safety and feasibility concerns raised below.

Recommendation 3: Hydrogen Reasonableness Demonstration at July 2024 Evidentiary Hearing

- The Commission should require the Companies to present evidence on the above 100% hydrogen and hydrogen blending issues at the evidentiary hearing in July of 2024 before extending the reasonableness determination from the 2022 Carbon Plan order.
- If the Companies are unable to adequately address these concerns, they should be required to model all proposed new gas as being methane-fired until such time as adequate evidence is presented to demonstrate the reasonableness of proposed hydrogen blending or 100% hydrogen sourcing.

II. CATEGORY 1: REVIEW OF THE DUKE ENERGY CARBON PLAN AND IRP FILINGS

A. Overview

Q: PLEASE PROVIDE AN OVERVIEW REVIEW OF THE DUKE ENERGY CPIRP?

On August 17, 2023, the Companies filed with North Carolina Utilities Commission their 2022-2023 Carbon Plan and Integrated Resource Plan and amended its Carbon Plan/IRP Proposal with a supplemental filing on January 31, 2024. (the August 2023 filing and the January 2024 filing, collectively, the "CPIRP" or the "Plan"). The CPIRP is a plan that develops a variety of generation resource paths the Companies intend to take, propose to take, or have taken because of what

the Companies term "a changing energy landscape."[2] In the Plan, the Companies consider demand growth, reliability, the policy and regulatory landscape, financial and timing impacts, technology advancements, consumer trends, and the exit from coal generation. It is the exit from coal generation and meeting new load that appears to be of the most concern during reshaping of the Companies' power resource transition to reduced emissions through changing fuels and a greater reliance on renewable resources.

Q: PLEASE EXPLAIN YOUR VIEW OF THE PRINCIPAL GOAL OF THE CPIRP.

A: The CPIRP is a plan or a vision for the future of power generation, and the reliable delivery of utility services to its customers that include an adherence to state and federal emissions law and an eye toward least-cost planning and affordability for the customers.

As the CPIRP terms it, the "Orderly Energy Transition" has four main objectives - Resource Diversity, a Clean Resource Mix, Least Cost Planning, and the ability to Execute the Plan with Foreseeable Conditions in mind with the foundational overriding focus on reliability and the meeting and compliance with laws and regulations. The State of North Carolina has a statutory requirement for a 70% reduction in emissions from 2005 levels in Duke's generation portfolio with the additional carbon neutrality requirement of 2050.

According to the CPIRP document, the Companies are focused on a "most reasonable, least cost" approach to the North Carolina emissions reduction

[2] CPIRP Executive Summary; page 3

requirements. Considering the complexity of the overall CPIRP, flexibility, a high level of agility, and consistent mid-course plan changes will be a likely a reality over the course of the Plan period. Consistent mid-course changes, coupled with the timeline requirements associated with the achievement of emissions targets tend to point to increased program costs that are not a current specific articulation within the Plan.

B. Concerns related to the coal resource exit transition.

Q: PLEASE DESCRIBE SPECIFIC ATTRIBUTES OF THE CPIRP AND THE APPROACH THE COMPANIES PROPOSE TO TAKE IN ITS PROSECUTION OF THE PLAN.

A: In the CPIRP, the Companies appear to take an "All of the Above" strategy toward the consideration of transitional changes to achieve the 2030 and 2050 emission targets. The Plan attempts to cover all potential possible paths to the achievement of the targets and thus creates a complicated vision of the future. In its vision of the future, Duke appears focused on a variety of long-lead (and in some cases yet to be proven or implemented) technologies that will ultimately require positive technological strides forward and that will dictate that the Plan be consistently and conscientiously managed in a highly flexible and agile manner.

Q: IN YOUR VIEW, WILL THE COMPLEXITY OF THE NUMEROUS PATHS WITHIN THE CPIRP HAVE IMPACT MOVING FORWARD?

A: Yes, as a result of my analysis of the CPIRP, it is my opinion that the quantity of decision paths (particularly those that are yet unproven or are dependent on other task and milestone dominos falling into place) are generally likely to lead to, at

least, increased project management costs, if not additional funds spent for the mid-stream course corrections that would be likely necessary.

Q: PLEASE HIGHLIGHT SOME OF THE POTENTIAL TECHNOLOGICAL CHANGES THAT ARE OF CONCERN.

A: Some of the long-lead and/or nascent technology concerns that I have identified include:

- Concerns exist for the implementation and efficient operation of PV Solar and Wind technologies to reliably run hydrogen production electrolysis via clean energy.
- Increased capacity factors that will match, and thus impact, the hydrogen production process. Whether the power used to produce hydrogen is generated as a steady-state or intermittent process impacts the cost to hydrogen production. The type of hydrogen produced is also a function of the power used. Renewable PV and Wind, hydro power, nuclear or grid power all have been ascribed different levels of emission impact and thus power type determines the lifecycle emissions characteristics of the hydrogen produced. Each hydrogen production process (as determined by its utilized power type all carry significant concerns and decisions that will, at least in part, determine the success of the CPIRP.
- The issues surrounding hydrogen co-firing, 100% hydrogen fueling, and infrastructure are issues that are not inconsequential. OEM manufacturers of combustion turbines (CT) have not demonstrated a

firm commitment as to when, or even if, hydrogen fueling of CTs is technically and economically feasible to deliver on the promise of 100% hydrogen capable equipment. According to two of the leading OEM CT manufacturing firms (i.e., Siemens and GE), utility scale CTs are currently capable of a 50% hydrogen/natural gas blended fuel, but the delivery of CT equipment with 100% hydrogen fuel capabilities stands as currently unavailable and only potentially capable sometime in or after 2030.[3] Moreover, there are a myriad of other technical hurdles related to the use of hydrogen as a primary CT and/or CC (i.e., combined cycle configured generation turbine) fuel, coupled with hydrogen production, storage, transport, and infrastructure issues are discussed further as a separate set of topics later in this testimony.

C. Issues and concerns related to hydrogen as a fuel.

Q: SINCE HYDROGEN HAS A PROMINENT PLACE IN THE CPIRP RELATIVE TO THE REDUCTION IN EMISSIONS, PLEASE PRESENT ANY CONCERNS RELATED TO THE CONSIDERATION AND/OR UNCERTAINTY IN ITS USE AS A FUEL.

A: One of the more concerning aspects of the CPIRP is its current focus on the use of hydrogen as a fuel. While it is certainly clear that hydrogen is worthy of consideration as a fuel for the operation of CTs and CCs for power generation, there is a significant chain of hydrogen production, procurement, transportation, and

[3] Exhibits EDF-A.01 and EDF-B.01

safety concerns that appear to be understated within the CPIRP. While the equipment manufacturers are currently working on hydrogen compatibility, issues surrounding hydrogen production, transportation and distribution systems, and safety have barely been recognized. These issues form the basis for whether and how a necessary hydrogen market will or could be established.

Q: PLEASE DISCUSS SOME OF THE ISSUES RELATED TO THE PRODUCTION, COMBUSTION, TRANSPORT, STORAGE AND SAFETY ASSOCIATED WITH THE POTENTIAL USE OF HYDROGEN AS A FUEL FOR POWER GENERATION.

A: Hydrogen market concerns and issues include:

- **Production**

In general, hydrogen production has historically been associated with industrial needs and uses that produced volumes of hydrogen that were generally used onsite in industrial processes that were generally co-located onsite with production facilities. Such hydrogen production generally utilized process steam to reform into hydrogen.

The historic methods of hydrogen production are, likely, not the method that will be employed in a new hydrogen marketplace. The likely method of hydrogen production will employ the polymer electrolyte membrane ("PEM") electrolysis process to produce hydrogen. It is the PEM process that will require electric power to function. The production of hydrogen and its designation as an emission-reducing fuel is dependent on the source of the electric power being used to produce the hydrogen. The fewer emissions related to the production of the electric power

used to produce the hydrogen fuel, the cleaner, more environmentally sensitive the resulting hydrogen is deemed.

It is necessary that hydrogen production be highly reliable with a high-capacity factor to achieve the economic production of hydrogen. An acceptably high capacity factor will likely require the combining renewable PV energy resources (routinely with capacity factors in the 27% neighborhood) with BESS components that improve the capacity factor to around 28 to 29% at a 2025 cost of $76.28 per MWh[4]. In comparison, offshore wind has a capacity factor of 47.8%[5] at a 2025 cost of $70.32 per MWh making the production of PEM hydrogen a concern based on capacity factor alone.

- **Combustion and Combined-Cycle Turbine Equipment**

As discussed earlier, equipment manufacturers do have the technology today to co-fire utility scale gas turbines today at a 50% hydrogen/natural gas blended fuel. However, there is no clear commitment as to timing of a fully compatible 100% hydrogen fired utility scale (General Electric model 7HA and/or Siemens Energy model SGT6-9000HL) turbine at this time. Both equipment manufacturers discussed earlier have indicated a target date for this technology sometime during 2030 or beyond.

Even if the equipment manufacturers are able to introduce hydrogen-capable turbines sometime in 2030 and are able to introduce 100% hydrogen equipment retrofits for the then in-service turbines, there will be additional (currently unknown) costs associated with the technology implementation. The installation of

[4] https://atb.nrel.gov/electricity/2023/utility-scale_pv-plus-battery (last checked May 24, 2024).
[5] https://atb.nrel.gov/electricity/2023/offshore_wind (last checked May 24, 2024).

the retrofit equipment and additional labor and likely ancillary equipment and controls costs which will impact ratepayers above and beyond the current generator replacements, in the future. This unknown ratepayer cost impact would be based on decisions made by the Companies today that have future, unknown, rate consequences in the future due to their reliance on this incipient technology. Critically, the Companies did not account for this in their Plan.

- **Handling, Transportation, Storage, and Safety**

When considering the use of hydrogen as a fuel, attention is necessary to ensure its safe handling. First, to cite a study of hydrogen by the Ira Fulton Schools of Engineering at Arizona State University, "The LEL, or lower explosive/flammable limit, is the lowest volume percent in air at which the gas can flash or catch fire in the presence of heat or sparks. The LEL for hydrogen is 4%, and it remains quite flammable all the way up to 77% in air (77% is the UEL, or upper explosive/flammable limit)." [6] This characteristic alone is the preamble to any discussion of the use, handling, transportation, storage, and safety surrounding hydrogen as a fuel.

The issues surrounding transportation (both natural gas and hydrogen), storage, and safety are potentially the most concerning of all the issues surrounding the discussion of hydrogen as a fuel and are generally overlooked within the CPIRP. The future of hydrogen as a fuel will require significant changes related to the transportation of hydrogen. Natural gas has long been a primary fuel for industrial, commercial, residential, governmental, and power generation needs and, because

[6] https://safe.engineering.asu.edu/hydrogen-gas (last checked May 24, 2024).

of that primary fuel designation has a highly integrated network of gathering systems, inter- and intrastate long-line pipeline systems that direct-connect to LDCs[7], some industrial and governmental customers and provide reliable service. The pipeline companies, regulated by either state or federal regulatory agencies, are in the private, for-profit business of transporting natural gas for their customers.

The principal natural gas pipeline transportation provider to the Southeast region of the United States is TRANSCO (Transcontinental Pipeline Company). The Companies are a significant shipper of natural gas on the TRANSCO pipeline system in the currently congested TRANSCO Zone 5 area.[8] To address the lack of excess capacity within the pipeline, on February 1, 2024, TRANSCO issued a Pre-Filing to the Federal Energy Regulatory Commission in notice of a proposed supply enhancement project targeting the Southeast region. The proposed project was named the Southeast Supply Enhancement Project that is designed to add 1,586,900 Dth[9] per day.

Due to the regional pipeline congestion that has long been a concern for all shippers of natural gas within the TRANSCO Zone 5 area, an expansion such as the one being proposed in this pre-filing is welcome news at all regional Shippers… including the Companies. In the filing, TRANSCO, in the filing's Table 1,1-1 (Exhibit EDF-C.01) illuminated all capacity subscribers to the Southeast Supply Enhancement project. The Companies have subscribed to 1,000,000 Dth per day (63% of the new available capacity) of the new pipeline capacity on TRANSCO in

[7] Local Distribution Companies

[8] Exhibit EDF-C.01 –Transcontinental Pipe Line Company – Southeast Supply Enhancement Project: Table 1.1-1; page 1-4.

[9] Dekatherm - 1 Dth is equivalent to 1MMBtu.

Zone 5. This subscription by the Companies offers a substantial backstop in terms of generation fuel assurance into the future.

Commodity quality specifications contained within each pipeline's transportation tariff specify the quality and component content of all gas transported on the company's pipeline. The quality specifications are necessary in ensure the fungibility of the natural gas commodity being transported, delivered, and, more importantly, to act to physically protect the integrity of the pipeline and safety of personnel nearby the pipeline.

Q: PLEASE DETAIL SOME OF THE CONCERNS SURROUNDING THE ISSUE OF HYDROGEN STRESS CORROSION CRACKING AND HYDROGEN EMBRITTLEMENT WITH RESPECT TO NATURAL GAS PIPELINES.

A. Natural gas pipelines are typically constructed of carbon steel that also contains welded joints that connect segments of pipe and pipe to various fittings and equipment. During the normal construction process of a pipeline, the welds made to build the pipeline heat the pipe and other metal components to their melting temperature and are then allowed to cool. The cooling process of the steel also tends to create higher stress levels adjacent to the weld, resulting in a so-called heat affected zone that contains high intergranular boundary energy areas. These areas are the most susceptible to what is known as a hydrogen stress corrosion cracking or hydrogen embrittlement.

Hydrogen embrittlement is a serious consideration in transporting hydrogen. Such transportation of hydrogen allows the hydrogen intimate contact with the heat

affected zone discussed above. The hydrogen contact may cause reduced steel ductility and a lessening of load-bearing capacity of the steel pipe walls, which can lead to cracking and brittle failures at a level below the anticipated yield strength of the susceptible steel material. It is this embrittlement failure that can lead to catastrophic results.

It is for at least this reason that any hydrogen introduced into a carbon steel pipeline is, even considering the series of investigative studies commissioned by other that are currently underway, ill advised. The existing pipeline infrastructure will be largely incapable of being utilized for hydrogen transportation. In my expert opinion and following a cursory look at a variety of regional pipeline gas quality specifications, including TRANSCO and Public Service of North Carolina that serve the Companies' service areas. That review of quality specification yielded a finding that not one natural gas pipeline reviewed is considering allowing hydrogen as a normal transport commodity. Most of the quality specification essentially exclude all commodity and components by the required volume of methane, the heating value range of the gas, and, if hydrogen is even mentioned, it is generally regulated to a maximum of 600 ppm.

The transportation of hydrogen can be achieved through proper material selection such as 316L, other types of stainless steel, or other materials not yet identified. A new hydrogen transportation infrastructure of stainless steel could potentially achieve the required transportation goal for hydrogen at a greatly enhanced pipeline construction material cost alone.

Further, hydrogen has an energy density that is approximately 3.3 times less than an equivalent volume of natural gas at equivalent pressure. This fact is meaningful in that 3.3 times the volume of hydrogen is necessary to deliver the same amount of energy to an end user. It is this fact that if a conventional pipeline is to be used for hydrogen transportation (whether utilizing existing carbon steel natural gas pipeline or transporting by similarly sized stainless steel pipeline) that the pipeline would be incapable due to its volumetric capacity to deliver the required hydrogen fuel volume to the generation resources where the hydrogen fuel is required.

Finally, with respect to storage and the potential for hydrogen leakage, I have several concerns. With respect to storage and issues related to addressing the containment of hydrogen in storage vessels and within the fuel processing and operational systems, it is also essential to recognize that a hydrogen molecule is quite small and thus, is susceptible to leakage. In the previously cited document by the Arizona State University Engineering School[10] "Not only can it [hydrogen] leak out of fittings and joints in the gas system that larger-molecule gases might not leak through, but it is small enough to pass into and through the crystal lattice of metals." Moreover, the infiltration of hydrogen into carbon steel operational and storage systems can give rise to hydrogen embrittlement, resulting in the expansion of cracks along points and welded joints of mechanical stress.

Since both atomic hydrogen and hydrogen molecules are very small and, thus are more susceptible to leakage through mechanical connections and even the walls of some piping materials.[11] For that reason, mechanical connections should generally

[10] https://safe.engineering.asu.edu/hydrogen-gas (last checked May 24, 2024).
[11] https://safe.engineering.asu.edu/hydrogen-gas (last checked May 24, 2024).

be avoided… adding additional financial pressure to project costs and limiting the reuse of existing equipment and infrastructure.

Given the propensity for leakage, storage costs are an important consideration. For example, onsite above-ground storage tanks are a potential cost consideration when choosing the pressure vessel, construction nature of the tank, and the potential for mechanical connection issues. Salt cavern storage is similarly not a good alternative for the Companies' CPIRP due to a lack of geologic structure in the Companies' service territory.

III. CATEGORY 2: CURRENT COAL REQUIREMENT PROJECTS IN LINE WITH THE CPIRP

Q: PLEASE PROVIDE A DISCUSSION OF THE FUTURE OF COAL GENERATION RESOURCES AND HOW THAT FUTURE IS BEING ADDRESSED BY THE COMPANIES.

A: In a 2019 article that appeared in Energy News[12] entitled "Coal has always been king in the South. Now that's changing" the increasing difficulties in achieving a positive economic outlook for coal generation resources are discussed. The article cites that Duke Energy's "coal fleet is running less and less." The article goes on to say that "nine of the company's 13 coal plants ran less than half the year in 2018" and that "Eight of those facilities averaged annual run times of less than 50% between 2014 and 2018." The article continues to describe that lower priced natural gas have rendered some of the older, less efficient coal units less competitive. Lower gas costs, coupled with the dispatching of more efficient units, results in the

[12] energynews.us/2019/10/03/coal-has-always-been-king-in-the-south-now-thats-changing/ (last checked May 24, 2024).

displacement inefficient coal units for the dispatch merit stack leading to disappointing operational factors and metrics. Current metrics show that there is a continued decrease in coal use coupled with rising costs.

Coal plants are generally designed for baseload use and thus, run around the clock, but plants posting sub-50% capacity factors, coupled with traditionally high operating and maintenance costs find themselves being considered for retirement and replaced by more efficient and emissions sensitive generation technologies. The Companies are consistently evaluating the economic performance of generation resources… particularly with respect to coal resources.

Utilities in general (and is certainly the case for the Companies as articulated in the CPIRP) are framing natural gas as a bridge fuel capable of reducing coal emissions. The point of the use on natural gas in the near term is essentially to "buy time" until less emission emitting generation technologies and fuels can be proven and relied upon.

The consistent economic and emission review of the Companies' coal generation resources certainly impacted two generation plants (i.e., Marshall and Roxboro) that the Companies have begun the process of obtaining a CPCN to construct electric generating facilities from the North Carolina Utilities Commission.[13]

Both CPCNs entail the proposed construction of "hydrogen capable", advanced-class, combined-cycle gas turbine power blocks (2X1 CC) at each plant location. Both the Marshall and Roxboro plants currently consist of four generation units, wherein two of the four units will be replaced with CTs. The Marshall project is

[13] NCUC Docket No. E-7, Sub 1297 for Marshall, and Docket E-2, Sub 1318 for Roxboro.

proposed to for two CTs each with an 850 MW capacity. The Roxboro project is proposed to for two CTs each with a 1360 MW capacity.

Q: PLEASE DISCUSS WHY THESE TWO PROJECTS ARE BEING DISCUSSED IN THIS TESTIMONY.

A: The previous question and response offered a bit of background concerning these two projects. These projects are important to discuss here because actions being taken by the Companies in these two currently active projects include decisions related to equipment selections covered by the CPIRP. These actions being taken underscore the some of the Companies' disregard for the implementation of unproven and potentially unavailable or underperforming technologies.

Q: PROVIDE A DESCRIPTION OF TWO COAL RETIREMENT PROJECTS THAT ARE SCHEDULED TO BE ONLINE IN 2029.

A: In each of the Projects, new, "hydrogen capable", advanced-class, combined-cycle gas turbine power blocks in a 2X1 CC configuration are being proposed. The issue of concern is the statement that the utility scale CTs being pursued by the Companies is that the CTs are "hydrogen capable." The CTs are being offered by the OEM manufacturers as 50% hydrogen capable with potential of being 100% capable by or after 2030. The CT performance specification certainly point to lower emissions (2 ppm NOx – 10ppm CO2), lower heat rates (5,331 Btu/kWh), and exceptional ramp rates (75 to 85 MW/minute) as compared to CC configurations that would likely be higher.

In general, there are only two or three OEM[14] companies that manufacture utility scale CTs that are also 50% hydrogen fuel capable. Two of the primary companies are Siemens Energy and General Electric. General specification sheets are included as Exhibits EDF-A.01 and EDF-B.01. Because both CTs in a 2X1 CC configuration are presented in Exhibits EDF-A.01 and EDF-B.01 and because the Companies have recent experience with a new Siemens SGT-9000HL facility at Lincoln County, North Carolina, there is a reasonable potential that one of the two OEMs presented will supply the CT equipment for both the Roxboro and Marshall CPCNs.

Q: WHAT ARE YOUR CONCERNS RELATED TO THE EQUIPMENT SPECIFIED FOR THE PROJECTS?

A: First, the CTs are being sourced for natural gas use initially with an apparent potential of being co-fired with a maximum of 50% hydrogen prior to 2030. No reference is made to several economic issues including:

1. Whether there is an additional OEM cost associated with the option or feature of the CTs being 50% "hydrogen capable[15]."
2. The cost associated with the retrofitting of additional CT components to render the CTs 100% "hydrogen capable" when and if that capability becomes available following 2030.
3. The cost associated with the auxiliary and ancillary equipment, coupled with pressure and/or refrigeration facilities necessary with handling,

[14] Original Equipment Manufacturer

[15] "hydrogen capable" refers to the specification sheets (Exhibits EDF-A.01 and EDF-B.01) that indicates neither OEM currently has equipment capable of being fueled by hydrogen. See Table K-1 of Appendix K of the Plan for Duke's general assumptions and omissions on facility modification costs.

storage, and/or blending of hydrogen with natural gas and compressed or liquefied hydrogen.

4. With reference to the prior discussion related to the operations of natural gas pipelines and the potential for conversion of the natural gas pipeline network to hydrogen, there was no consideration given to the non-suitable nature of natural gas pipelines for conversion.
5. The Projects lack discussion or consideration of costs and development of self-production of hydrogen fuel supplies, or the type of electricity proposed for the electrolysis of hydrogen fuels.
6. Recognition of the potential, price, market acceptance, and potential timeline for the development of even a regional hydrogen market or hub infrastructure.

Q: DO THE LISTED CONCERNS FORM A FINDING OF CONSIDERATION EXCEPTION AND A POTENTIAL FLAW TO THE CPIRP?

A: Yes, the Companies do a good job corralling a large herd of different issues and place a level of structure and limited direction into the CPIRP. However, if there was a shortcoming and inadequacy with respect to the Plan development, it would be that the Companies fail to consider the hurdles and necessary technology and economic strides beyond its service region. The Companies, in many cases, assume for example that a robust hydrogen market will just be available at the time it is needed according to the CPIRP document. It is this deficiency that forms the basis for a recommendation that the Commission direct the Companies to augment, in a clear and transparent way, its CPIRP to include discussions of infrastructural issues

foundational to the Plan, to develop a decision structure, and to include some level of statistical probability of potential outcomes and would support the work currently produced in the CPIRP.

Q: DOES THIS CONCLUDE YOUR TESTIMONY?

A: Yes, it does. However, should the Companies update or amend their discovery responses, I reserve the right to amend this testimony as necessary prior to or during the evidentiary hearing.

7HA

HEAVY DUTY GAS TURBINE

60 HZ

290-430 MW SIMPLE CYCLE OUTPUT

>64% COMBINED CYCLE EFFICIENCY

A 7HA COMBINED CYCLE PLANT, NOW CAPABLE OF >64% EFFICIENCY, PROVIDES A >50% REDUCTION IN CO_2 EMISSIONS VS. A SIMILAR SIZE COAL FIRED ASSET.

		7HA.01	7HA.02	7HA.03
SC PLANT PERFORMANCE	SC Net Output (MW)	290	384	430
	SC Net Heat Rate (Btu/kWh, LHV)	8,120	8,009	7,884
	SC Net Heat Rate (kJ/kWh, LHV)	8,567	8,450	8,318
	SC Net Efficiency (%, LHV)	42.0%	42.6%	43.3%
1X CC PLANT PERFORMANCE	CC Net Output (MW)	438	573	640
	CC Net Heat Rate (Btu/kWh, LHV)	5,481	5,381	5,342
	CC Net Heat Rate (kJ/kWh, LHV)	5,783	5,677	5,636
	CC Net Efficiency (%, LHV)	62.3%	63.4%	63.9%
	Plant Turndown – Minimum Load (%)	33.0%	33.0%	33.0%
	Ramp Rate (MW/min)	55	60	75
	Startup Time (RR Hot†, Minutes)	<30	<30	<30
2X CC PLANT PERFORMANCE	CC Net Output (MW)	880	1,148	1,282
	CC Net Heat Rate (Btu/kWh, LHV)	5,453	5,365	5,331
	CC Net Heat Rate (kJ/kWh, LHV)	5,753	5,660	5,625
	CC Net Efficiency (%, LHV)	62.6%	63.6%	>64.0%
	Plant Turndown – Minimum Load (%)	15.0%	15.0%	15.0%
	Ramp Rate (MW/min)	110	120	150
	Startup Time (RR Hot†, Minutes)	<30	<30	<30

NOTE: All ratings are net plant, based on ISO conditions and natural gas fuel. Actual performance will vary with project-specific conditions and fuel.
† Rapid Response/Hot Start

Today, more than 50 7HA gas turbines have been installed around the globe. These units support base load, load following, peaking, and cogeneration for district heating applications. The 7HA gas turbine will be a key enabler as the energy transition progresses and we move towards a world with less carbon emissions, providing the reliable and flexible power generation needed to complement renewable energy sources.

GEA32928B (09/2021)

SIEMENS energy

HL-class gas turbines

The next generation of advanced air-cooled gas turbines

The HL-class is paving the way to the next level of efficiency and performance. This evolutionary development step, derived from proven H-class technology, combines a series of new but already tested technologies. The result: A technology carrier to the next level with a combined cycle efficiency beyond 64%.

The HL-class consists of the SGT5-9000HL engine for 50 Hz and the SGT6-9000HL for 60 Hz.

Key technologies

1. Evolutionary 3D blading for higher aero-efficiency
2. Advanced combustion system for higher firing temperatures and more operational flexibility
3. Innovative multi-layer coating for better blade robustness and less cooling-air consumption
4. Ultra-efficient internal cooling features for blades and vanes for less cooling air consumption
5. Optimized sealings for inimized leakage air
6. Large free-standing turbine blade 4 for higher power output

SGT-9000HL series

Performance data for simple cycle operation

	SGT5-9000HL	SGT6-9000HL
Power output	593 MW	440 MW
Fuel	Natural gas, LNG, distillate oil, other fuels on request	
Frequency	50 Hz	60 Hz
GT ramp-up	85 MW/min	85 MW/min
Gross efficiency	>43%	>43.2%
Heat rate	<8,375 kJ/kwh (<7937 Btu/kWh)	<8,333 kJ/kwh (<7898 Btu/kWh)
Turbine speed	3,000 rpm	3,600 rpm
Pressure ratio	24.0 : 1	>24.01 : 1
Exhaust mass flow	1,050 kg/s (2,315 lb/s)	760 kg/s (1,676 lb/s)
Exhaust temperature	670 °C (1,238 °F)	675 °C (1,247 °F)
NO_x emissions	down to 2 ppm with SCR, down to 25 ppm without SCR	down to 2 ppm with SCR, down to 25 ppm without SCR
CO emissions	10 ppm	10 ppm

Performance data for combined cycle operation

	SGT5-9000HL		SGT6-9000HL	
	CC 1x1/1S	CC 2x1	CC 1x1/1S	CC 2x1
Frequency	50 Hz	50 Hz	60 Hz	60 Hz
Net plant output	880 MW	1,760 MW	655 MW	1,310 MW
Net plant efficiency	>64%	>64%	>64%	>64%
Plant turn down	<40%	<40%	<40%	<40%
Net heat rate	<5,625 kJ/kWh (<5331 Btu/kWh)	<5,625 kJ/kWh (<5331 Btu/kWh)	<5,625 kJ/kWh (<5331 Btu/kWh)	<5,625 kJ/kWh (<5331 Btu/kWh)
Number of gas turbines	1	2	1	2
Pressure/reheat	Triple/yes	Triple/yes	Triple/yes	Triple/yes
Steam temperature	>600 °C (>1,112 °F)	>600 °C (>1,112 °F)	>600 °C (>1,112 °F)	>600 °C (>1,112 °F)

Physical dimensions

	SGT5-9000HL	SGT6-9000HL
Weight (approx.)	497,000 kg (1,095,700 lb)	305,000 kg (672,400 lb)
Length	13.0 m (42.6 ft)	10.8 m (35.4 ft)
Width	5.3 m (17.4 ft)	5.0 m (14.1 ft)
Height	5.5 m (18.1 ft)	4.3 m (14.1 ft)

All ratings are gross values at ISO ambient conditions. Actual performance will vary with project-specific conditions and fuel.

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USA

For more information:

www.siemens-energy.com/gasturbines

Transcontinental Gas Pipe Line Company, LLC

Resource Report No. 1

General Project Description

Southeast Supply Enhancement Project

February 2024

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RESOURCE REPORT 1 – GENERAL PROJECT DESCRIPTION
SUMMARY OF COMMISSION FILING INFORMATION

INFORMATION	FOUND IN SECTION
FERC Filing Requirements	
1. Describe and provide location maps of all jurisdictional facilities including all aboveground facilities associated with the Project (e.g., meter stations, pig launchers/receivers, valves), to be constructed, modified, abandoned, replaced, or removed, including related construction and operational support activities and areas such as maintenance bases, staging areas, communications towers, power lines, and new access roads (roads to be built or modified). As relevant, the report must describe the length and diameter of the pipeline, the types of aboveground facilities that would be installed, and associated land requirements. It must also identify other companies that must construct jurisdictional facilities related to the Project, where the facilities would be located, and where they are in the Commission's approval process.	Section 1.1 and Section 1.2 Appendix 1A
2. Identify and describe all non-jurisdictional facilities, including auxiliary facilities that will be built in association with the Project, including facilities to be built by other companies. (i) Provide the following information: a) A brief description of each facility, including as appropriate: ownership, land requirements, gas consumption, megawatt size, construction status, and an update of the latest status of federal, state, and local permits/approvals. (b) The length and diameter of any interconnecting pipeline. (c) Current 1:24,000/1:25,000-scale topographic maps showing the location of the facilities. (d) Correspondence with the appropriate State Historic Preservation Officer (SHPO) or duly authorized Tribal Historic Preservation Officer (THPO) for tribal lands regarding whether properties eligible for listing on the National Register of Historic Places (NRHP) would be affected. (e) Correspondence with the U.S. Fish and Wildlife Service (and National Marine Fisheries Service, if appropriate) regarding potential impacts of the proposed facility on federally listed threatened and endangered species. (f) For facilities within a designated coastal zone management area, a consistency determination or evidence that the owner has requested a consistency determination from the state's coastal zone management program. (ii) Address each of the following factors and indicate which ones, if any, appear to indicate the need for the Commission to do an environmental review of project-related non-jurisdictional facilities. (a) Whether or not the regulated activity comprises "merely a link" in a corridor type project (e.g., a transportation or utility transmission project). (b) Whether there are aspects of the non-jurisdictional facility in the immediate vicinity of the regulated activity, which uniquely determine the location and configuration of the regulated activity. (c) The extent to which the entire project will be within the Commission's jurisdiction. (d) The extent of cumulative federal control and responsibility.	Section 1.9

RESOURCE REPORT 1 – GENERAL PROJECT DESCRIPTION
SUMMARY OF COMMISSION FILING INFORMATION

INFORMATION	FOUND IN SECTION
3. Provide the following maps and photos: (i) Current, original United States Geological Survey (USGS) 7.5-minute series topographic maps or maps of equivalent detail, covering at least a 0.5-mile-wide corridor centered on the pipeline, with integer mileposts identified, showing the location of the right-of way (ROW), new access roads, other linear construction areas, compressor stations, and pipe storage areas. Show nonlinear construction areas on maps at a scale of 1:3,600 or larger keyed graphically and by milepost to the ROW maps. (ii) Original aerial images or photographs or photo-based alignment sheets based on these sources, not more than one year old (unless older ones accurately depict current land use and development) and with a scale of 1:6,000 or larger, showing the proposed pipeline route and location of major aboveground facilities, covering at least a 0.5-mile-wide corridor and including mileposts. Older images/photographs/alignment sheets should be modified to show any residences not depicted in the original. Alternative formats (e.g., blue-line prints of acceptable resolution) need prior approval by the environmental staff of the Office of Energy Projects. (iii) In addition to the copy required under §157.6(a)(2) of this chapter, applicant should send two additional copies of topographic maps and aerial images/photographs directly to the environmental staff of the Office of Energy Projects.	Appendix 1A *Alignment Sheets will be filed second quarter 2024.*
4. When new or additional compression is proposed, include large-scale (1:3,600 or greater) plot plans of each compressor station. The plot plan should reference a readily identifiable point(s) on the USGS maps required in paragraph (c)(3) of this section. The maps and plot plans must identify the location of the nearest noise-sensitive areas (schools, hospitals, or residences) within 1 mile of the compressor station, existing and proposed compressor and auxiliary buildings, access roads, and the limits of areas that would be permanently disturbed.	*Plot Plans will be filed second quarter 2024.*
5. (i) Identify facilities to be abandoned and state how they would be abandoned, how the site would be restored, who would own the site or ROW after abandonment, and who would be responsible for any facilities abandoned in place. (ii) When the ROW or the easement would be abandoned, identify whether landowners were given the opportunity to request that the facilities on their property, including foundations and belowground components, be removed. Identify any landowners whose preferences the company does not intend to honor and the reasons therefore.	N/A
6. Describe and identify by milepost proposed construction and restoration methods to be used in areas of rugged topography, residential areas, active croplands, sites where the pipeline would be located parallel to and under roads, and sites where explosives are likely to be used.	Section 1.3 *Locations by milepost will be filed second quarter 2024.*
7. Unless provided in response to Resource Report 5, describe estimated workforce requirements, including the number of pipeline construction spreads, average workforce requirements for each construction spread and meter or compressor station, estimated duration of construction from initial clearing to final restoration, and the number of personnel to be hired to operate the proposed project.	*Draft RR5 will be filed second quarter 2024.*

RESOURCE REPORT 1 – GENERAL PROJECT DESCRIPTION
SUMMARY OF COMMISSION FILING INFORMATION

INFORMATION	FOUND IN SECTION
8. Describe reasonably foreseeable plans for future expansion of facilities, including additional land requirements and the compatibility of those plans with the current proposal.	Section 1.5
9. Describe all authorizations required to complete the proposed action and the status of applications for such authorizations. Identify environmental mitigation requirements specified in any permit or proposed in any permit application to the extent not specified elsewhere in this section.	Section 1.6
10. Provide the names and mailing addresses of all affected landowners specified in §157.6(d) and certify that all affected landowners will be notified as required in §157.6(d).	Section 1.7 Appendix 1E
Additional Information Often Missing and Resulting in Data Requests	
1. Describe all authorizations required to complete the proposed action and the status of applications for such authorizations, including actual or anticipated submittal and receipt dates.	Section 1.6
2. Provide plot/site plans of all other aboveground facilities that are not completely within the ROW.	*Plot Plans will be filed second quarter 2024.*
3. Provide detailed typical construction ROW cross-section diagrams for each proposed ROW showing information such as widths and relative locations of existing ROWs, new permanent ROW, and temporary construction ROW. Clearly identify any overlap of existing ROWs for projects involving collocation. Identify by pipeline facility and milepost where each ROW configuration would apply.	Appendix 1C
4. Summarize the total acreage of land affected by construction and operation of the Project.	Section 1.2
5. Describe cathodic protection system; include associated land requirements as appropriate.	Section 1.2.1 *Additional information on cathodic protection will be filed second quarter 2024.*
6. Describe construction and restoration methods for offshore facilities as well as onshore facilities.	Section 1.3
7. For proposed abandonments, describe how the ROW would be restored, who would own the site or ROW after abandonment, who would be responsible for facilities that would be abandoned in place, and whether landowners were given the opportunity to request removal.	N/A
8. If Resource Report 5, Socioeconomics, is not provided, provide the start and end dates of construction, the number of pipeline spreads that would be used, and the workforce per spread.	*Draft RR5 will be filed second quarter 2024.*
9. If the Project includes construction in the federal offshore area, include in the discussion of required authorizations and clearances the status of consultations with the Bureau of Ocean Energy Management, Regulation and Enforcement. File with the Bureau of Ocean Energy Management, Regulation, and Enforcement for ROW grants at the same time or before filing the Federal Energy Regulatory Commission (FERC) application.	N/A

RESOURCE REPORT 1 – GENERAL PROJECT DESCRIPTION
SUMMARY OF COMMISSION FILING INFORMATION

INFORMATION	FOUND IN SECTION
10. For a project involving the import or export of natural gas/liquefied natural gas and construction of liquefied natural gas facilities, include in the discussion of required authorizations and clearances the status of consultations and authorizations required from the U.S. Department of Energy, U.S. Coast Guard, and the Federal Aviation Administration, as applicable.	N/A
11. Send two additional copies of topographic maps and aerial images/photographs directly to the environmental staff of the Office of Energy Projects (OEP).	Two copies of topographic maps will be sent to OEP.
12. Provide an electronic copy of the landowner list directly to the FERC environmental staff (check with FERC staff for required format).	Section 1.7
Key: N/A = Not applicable to the Project	

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LIST OF ACRONYMS AND ABBREVIATIONS

ADECA	Alabama Department of Economic and Community Affairs
AL	Alabama
ANSI	American National Standards Institute
API	American Petroleum Institute
ASME	American Society of Mechanical Engineers
ATWS	additional temporary workspace
BMP	best management practice
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
CO_2	carbon dioxide
CWA	Clean Water Act
Dth/d	dekatherms per day
Duke	Duke Energy Carolinas
ECP	Environmental Construction Plan
EMD	electric motor-driven
FERC or Commission	Federal Energy Regulatory Commission
GA	Georgia
HDD	horizontal directional drill(ing)
HP	horsepower
INGAA	Interstate Natural Gas Association of America
ISO	International Organization Standardization
LDCs	local distribution companies
MAOP	maximum allowable operating pressure
MLV	mainline valves
MW	megawatts
NC	North Carolina
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Health and Safety Administration
PHMSA	Pipeline and Hazardous Materials Safety Administration
Project	Southeast Supply Enhancement Project
psig	pounds per square inch gauge
RCP	Residential Construction Plans
ROW	right-of-way

RR	resource report
SC	South Carolina
SHPO	State Historic Preservation Office
TBD	to be determined
THPO	Tribal Historic Preservation Office
Transco	Transcontinental Gas Pipe Line Company, LLC
Transco Plan	Project-specific Upland Erosion Control, Revegetation, and Maintenance Plan
Transco Procedures	Project-specific Wetland and Waterbody Construction and Mitigation Procedures
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	United States Geological Survey
VA	Virginia
VPDES	VA Pollutant Discharge Elimination System
Williams	The Williams Companies, Inc.

1 GENERAL PROJECT DESCRIPTION

This resource report (RR) provides information regarding the proposed Southeast Supply Enhancement Project (Project), including Project mapping, descriptions of the pipeline and aboveground facilities, construction methodologies, applicable permits, and anticipated construction schedule. The Project is currently in the development, engineering design, and data collection phase. Information pending in this RR will be submitted in a supplemental filing as noted *in grey italics with the anticipated filing date*.

Transcontinental Gas Pipe Line Company, LLC (Transco), indirectly owned by The Williams Companies, Inc. (Williams), is seeking authorization from the Federal Energy Regulatory Commission (FERC or Commission) under Section 7(c) of the Natural Gas Act for a certificate of public convenience and necessity (Certificate) to construct, own, operate, and maintain the proposed Project facilities.

The Project is an expansion of Transco's existing natural gas transmission system that will enable Transco to provide 1,586,900 dekatherms per day (Dth/d) of incremental firm transportation capacity to remove pipeline capacity constraints in Zone 5 and meet growing natural gas-fired power generation, commercial, residential, and industrial demand in the mid-Atlantic and southeast United States. The Project will consist of the following components:

Pipeline Facilities

- Approximately 30.6 miles of 42-inch-diameter pipeline in Pittsylvania County, Virginia (VA) and Rockingham County, North Carolina (NC), designated as the Eden Loop;
  - Regulator installation in Rockingham County, NC near mile post (MP) 1382.53;
  - Regulator installation in Rockingham County, NC near MP 1382.70; and
- Approximately 24.0 miles of 42-inch-diameter pipeline in Guilford, Forsyth, and Davidson Counties, NC, designated as the Salem Loop.

Compression Facilities

- The addition of two [22,500 horsepower (HP) each] compressor units at Transco's existing Compressor Station 165 located in Pittsylvania County, VA;
- The addition of one [23,465 International Organization Standardization (ISO) HP] Solar Titan 130 Turbine and two (31,871 ISO HP each) Solar Titan 250 Turbine

compressor units at Transco's existing Compressor Station 155 located in Davidson County, NC;

- The addition of one (15,900 ISO HP) Solar Mars 100 Turbine compressor unit at Transco's existing Compressor Station 150 in Iredell County, NC; and
- Demolition and removal of three (12,500 HP each) existing electric motor-driven (EMD) compressor units and replacement with three (33,000 HP each) EMD compressor units at Transco's existing Compressor Station 145 in Cleveland County, NC.

Facility Modifications

- Piping modifications at Transco's existing Compressor Station 135 in Anderson County, South Carolina (SC);
- Piping modifications at Transco's existing Compressor Station 125 in Walton County, Georgia (GA);
- Regulator installation and piping modifications at Transco's existing Compressor Station 120 in Henry County, GA; and
- Piping modifications at Transco's existing Compressor Station 105 in Coosa County, Alabama (AL).

The use of existing, improved, and new access roads and contractor yards/staging areas would also be required for the Project. Additional ancillary facilities and piping, such as mainline valves (MLVs), cathodic protection, communication facilities, and internal inspection devices (e.g., pig) launchers and receivers would be necessary to support the Project.

Subject to FERC's certification of the Project and receipt of other necessary permits and authorizations, Transco anticipates that construction of the Project would commence in the first quarter of 2026 to meet a proposed in-service date of November 1, 2027.

1.1 PROPOSED FACILITIES

1.1.1 Purpose and Need

Transco proposes to construct and operate the Project to provide an incremental 1,586,900 Dth/d of year-round firm transportation capacity from Transco's existing Station 165 Zone 5 Pooling Point and the Cherrystone Interconnect with Mountain Valley Pipeline located near MP 1413.0 in Pittsylvania County, VA. The Project capacity would be provided along four paths:

- 1,500 Dth/d originating from Transco's Station 165 Zone 5 Pooling Point and the Cherrystone Interconnect with Mountain Valley Pipeline to Transco's existing Danville Meter Station located near MP 1393.33 in Pittsylvania County, VA;
- 300,000 Dth/day originating from Transco's Station 165 Zone 5 Pooling Point and the Cherrystone Interconnect with Mountain Valley Pipeline to Transco's existing Eden Meter Station near MP 1382.5 and Transco's existing Dan River #2 Meter Station located near MP 1382.7 both in Rockingham County, NC;
- 2,000 Dth/d originating from Transco's Station 165 Zone 5 Pooling Point and the Cherrystone Interconnect with Mountain Valley Pipeline to Transco's existing Reidsville Meter Station located near MP 1377.73 in Rockingham County, NC; and
- 1,283,400 Dth/day originating from Transco's Station 165 Zone 5 Pooling Point and the Cherrystone Interconnect with Mountain Valley Pipeline to Transco's existing Station 85 Zone 4 Pooling Point located near MP 784.7 in Choctaw County, AL.

As a result of Transco's negotiations with shippers and Transco's Open Season for the Project that was held from June 19 through July 14, 2023, Transco has executed long-term, binding precedent agreements with multiple shippers for the full 1,586,900 Dth/d of firm transportation capacity under the Project (as detailed in Table 1.1-1).

The Project will provide Transco's customers and the markets they serve with increased supply from Transco's Station 165 Zone 5 Pool and the Cherrystone Interconnect with Mountain Valley Pipeline. Supply access in Zone 5 is currently constrained by existing pipeline capacity. Transco's system data from January 1, 2021, through January 15, 2024, shows that non-primary southbound capacity nominated through Transco's Station 160 constraint was restricted every day. Southbound flow was limited to natural gas quantities nominated under primary firm transportation and non-secondary reverse path rights (Transco's highest tier of non-primary transportation service) on 85% of the days in that period. By increasing primary firm pipeline capacity in Zone 5, the Project will provide shippers with firm access to competitive gas supplies and support overall reliability and diversification of energy infrastructure in the mid-Atlantic and southeast portion of the United States.

Table 1.1-1
Transco's Customers and Transportation Capacity Subscribed to the Project

Shipper	Transportation Contract Quantity (Dth/d)	End Use
Duke Energy Carolinas	1,000,000	Power Generation
Southern Company Services	400,000	Power Generation
South Carolina Public Service Authority	80,000	Power Generation
Atlanta Gas Light Company	75,000	Local Distribution
Patriots Energy Group	14,000	Local Distribution
Greer Commission of Public Works	10,000	Local Distribution
Fountain Inn	2,400	Local Distribution
Municipal Gas Authority of Georgia	2,000	Local Distribution
City of Wilson, NC	2,000	Local Distribution
City of Danville, VA	1,500	Local Distribution
Total	**1,586,900**	**-**
Key: Dth/d = Dekatherms per day		

Duke Energy Carolinas (Duke)

The 1,000,000 Dth/d capacity subscribed by Duke Energy Carolinas will support fuel supply requirements of existing and incremental natural gas power generation. The Project will increase the fuel security of the Duke Energy Carolinas and Duke Energy Progress generation fleets to meet growing electric demand and support coal retirements, as stated in their Integrated Resource Plans. As a result, the Project will contribute towards Duke's carbon dioxide (CO_2) emission reductions. More information regarding Duke's need for firm transportation capacity on interstate natural gas transmission lines may be found in Duke's *Carolinas Resource Plan*[1] and *Supplemental Planning Analysis*[2].

Southern Company Services

The 400,000 Dth/d capacity subscribed by Southern Company Services will support fuel security of existing and new natural gas power generation. In October 2023, Georgia Power, a

[1] Duke Energy. 2023. *Carolinas Resource Plan*. Available online at: https://www.duke-energy.com/our-company/about-us/irp-carolinas. Accessed January 2024.

[2] North Carolina Utilities Commission. *Verified Amended Petition for Approval of 2023-2024 Carbon Plan and Integrated Resource Plans.* Available online at: https://starw1.ncuc.gov/NCUC/PSC/PSCDocumentDetailsPageNCUC.aspx?DocumentId=2b7f861a-2c48-404d-9e75-f4e6d7142702&Class=Filing. Accessed January 2024.

subsidiary of Southern Company Services, provided updates to future load forecasts in its *2023 Integrated Resource Plan Update*[3]. Georgia Power now anticipates 6,600 megawatts (MW) in load growth, an approximately 17x multiple of its previous forecast of 400 MW through the winter of 2030/2031. This demand increase is being driven by rapid economic development.

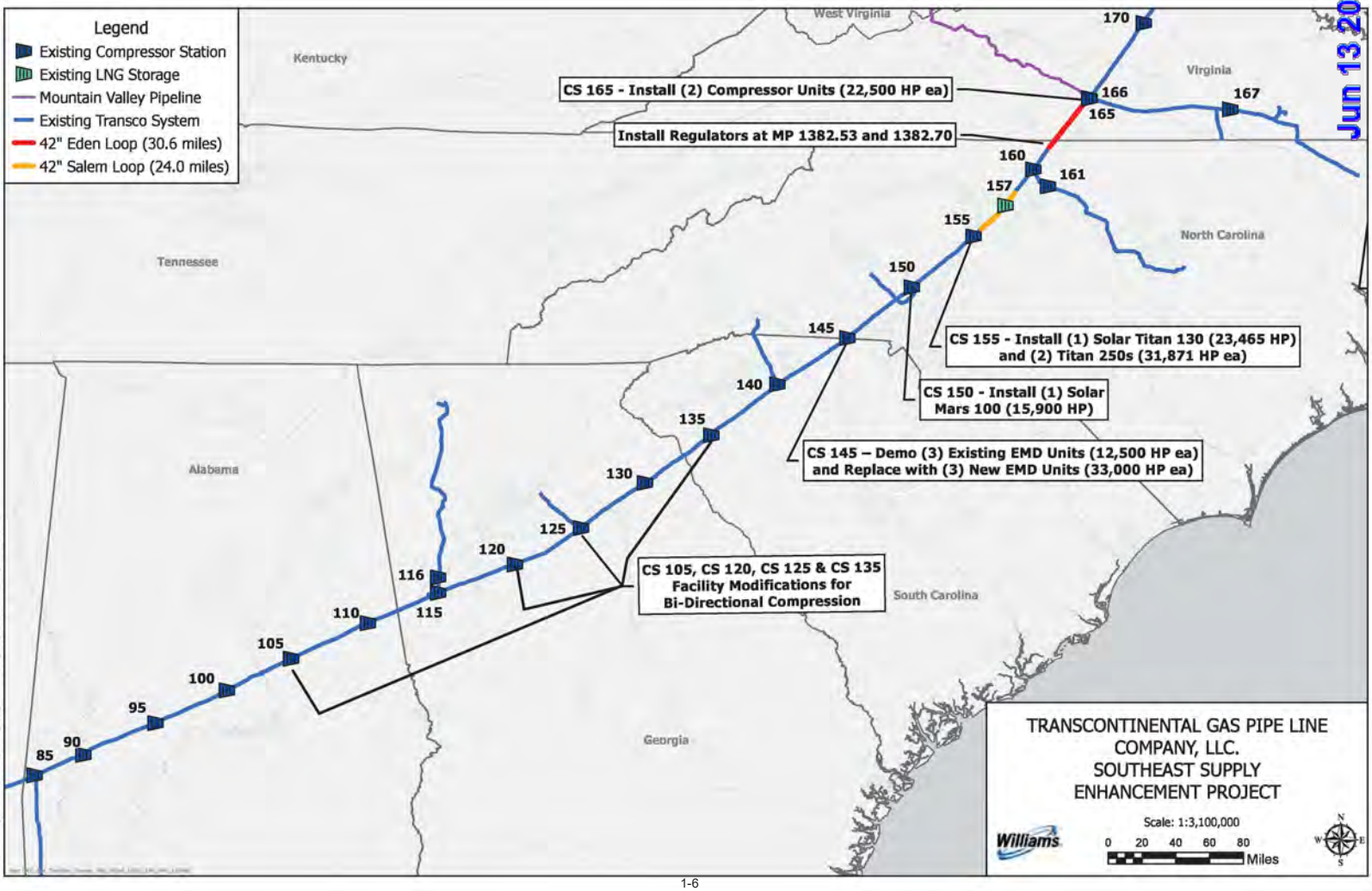
Similar to Duke, Georgia Power notes several different means to achieve this load growth, one being the construction of three new dual fuel (natural gas and fuel oil) combustion turbines at Plant Yates in Coweta County, Georgia. The new units operating on natural gas would provide an incremental 1,400 MW of capacity.

Other Project Shippers

The remaining 186,900 Dth/d of subscribed capacity will serve existing power generation load in SC, local distribution companies (LDCs), and City and Municipal shippers supporting the rapid economic growth of the areas they supply. This growth is primarily driven by an increase in residential and commercial customers as well as new industrial sites served by affordable, reliable, and clean natural gas. Many of these customers are original shippers on the Transco system and have been served by Transco for over 70 years.

The Project will not adversely affect service to Transco's existing customers, or other pipelines and their captive customers, and supports diversification of supply in the Southeast. *Transco expects to provide further details regarding customers and subscribed capacity in the draft RR filing, anticipated second quarter 2024.*

[3] Georgia Power. 2023. *2023 Integrated Resource Plan Update*. Available online at: https://www.georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/2023-irp-update-main-document.pdf. Accessed January 2024.



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1.1.2 Location and Description of Facilities

Figure 1.1-1 is a regional overview of the Project facilities. Summaries of the proposed facilities for the Project are provided in Table 1.1-2, Table 1.1-3, and Table 1.1-4.

1.1.2.1 Pipeline Facilities

Table 1.1-2 includes a summary of the proposed pipeline facilities within each county (see Figure 1.1-1).

Table 1.1-2
Summary of Project Pipeline Facilities

Facility	County	Length (miles)
Eden Loop	Pittsylvania, VA	25.7
	Rockingham, NC	4.9
	Eden Loop Total [a]	**30.6**
Salem Loop	Davidson, NC	9.7
	Forsyth, NC	9.0
	Guilford, NC	5.2
	Salem Loop Total [a]	**24.0**
	Project Total [a]	**54.5**

[a] Totals may not sum exactly due to rounding.

Eden Loop

Transco proposes to install approximately 30.6 miles of new 42-inch-diameter mainline 'E' loop in Pittsylvania County, VA and Rockingham County, NC, with a maximum allowable operating pressure (MAOP) of 1,480 pounds per square inch gauge (psig). Transco will refer to this pipeline loop as the Eden Loop. Transco developed the proposed alignment of the Eden Loop to collocate with its existing Mainline System to the extent practicable to minimize overall impacts. Where feasible, the Eden Loop will be collocated with the existing Transco mainlines between MP 1382.53 and MP 1413.15, with a nominal offset of approximately 25 feet from the existing pipelines.

Salem Loop

Transco proposes to install approximately 24.0 miles of new 42-inch-diameter mainline 'D' loop pipeline in Davidson, Forsyth, and Guilford counties, North Carolina, with a MAOP of 1,480 psig. Transco will refer to this pipeline loop as the Salem Loop. Transco developed the proposed alignment of the Salem Loop to collocate with Transco's existing Mainline System to the extent practicable to minimize overall impacts. Where feasible, the Salem Loop will be collocated with the existing Transco mainlines between MP 1331.38 and MP 1355.33, with a nominal offset of approximately 25 feet from the existing pipelines.

1.1.2.2 Aboveground Facilities

New aboveground facilities and modifications to existing aboveground facilities along the Project include:

- New regulating stations;
- New and modified ancillary facilities such as MLVs and launcher and receiver facilities;
- Additional compression and related modifications to four existing compressor stations; and
- Other station modifications.

Tables 1.1-3 and 1.1-4, and Figure 1.1-1 provide a summary, by location, of the new and modified aboveground facilities.

Table 1.1-3
Summary of New Aboveground Facilities

Facility ID	Municipality	County	State
Proposed New Regulator Stations			
Eden Regulator Station	Wentworth	Rockingham	NC
Dan River Regulator Station	Wentworth	Rockingham	NC
Proposed New Mainline Valves			
Mainline Valve 1 – Eden Loop	Wentworth	Rockingham	NC
Mainline Valve 2 – Eden Loop	*TBD*	Pittsylvania	VA
Mainline Valve 3 – Eden Loop	*TBD*	Pittsylvania	VA
Mainline Valve 1 – Salem Loop	*TBD*	*TBD*	NC
Mainline Valve 2 – Salem Loop	*TBD*	*TBD*	NC
Proposed New Launchers and Receivers			
Eden Loop Launcher/Receiver	Wentworth	Rockingham	NC
Eden Loop Launcher/Receiver	Banister	Pittsylvania	VA
Note: *Locations of mainline valves and launchers/receivers will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*			

Table 1.1-4
Summary of Proposed Modifications to Aboveground Facilities

Facility ID	Facility Type	Modifications	Municipality	County	State
Launchers and Receivers					
Salem Loop Launcher/Receiver	Launcher/ receiver site	Installation of new launcher/receiver	Arcadia	Davidson	NC
Salem Loop Launcher/Receiver	Launcher/ receiver site	Installation of new launcher/receiver	Stokesdale/ Highpoint	Guilford	NC
Compressor Stations					
Compressor Station 165	Compressor Station	Install two (2) new 22,500 HP compressor units.	Banister	Pittsylvania	VA
Compressor Station 155	Compressor Station	Install one (1) new Solar Titan 130 Turbine compressor unit with 23,465 ISO HP and two (2) new Titan 250s Turbine compressor units with 31,871 ISO HP each.	Reedy Creek	Davidson	NC
Compressor Station 150	Compressor Station	Install one (1) new Solar Mars 100 Turbine compressor unit with 15,900 ISO HP and installation of regulator facilities.	Davidson	Iredell	NC
Compressor Station 145	Compressor Station	Demolition of three (3) existing 12,500 HP each EMD compressor units and replacement with three (3) 33,000 HP each EMD compressor units.	Township 4, Kings Mountain	Cleveland	NC

Table 1.1-4
Summary of Proposed Modifications to Aboveground Facilities

Facility ID	Facility Type	Modifications	Municipality	County	State
Compressor Station 135	Compressor Station	Facility modification to revise piping for bi-directional compression.	Broadway	Anderson	SC
Compressor Station 125	Compressor Station	Facility modification to revise piping for bi-directional compression.	N/A	Walton	GA
Compressor Station 120	Compressor Station	Facility modification to revise piping for bi-directional compression and installation of regulator facilities.	N/A	Henry	GA
Compressor Station 105	Compressor Station	Facility modification to revise piping for bi-directional compression.	N/A	Coosa	AL

Key:
N/A = Not applicable. Municipality boundaries not applicable.
Note: *Locations of launchers/receivers will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

New Aboveground Facilities

Regulator Stations

Transco proposes installation of new regulator stations located approximately at MPs 1382.53 and 1382.70.

Transco continues to evaluate workspace requirements at these facilities and is determining where additional operational facility footprint may be required. Locational information and workspace requirements for these facilities will be provided to FERC in the draft RR filing, anticipated second quarter 2024.

Mainline Valve Facilities

MLV facilities are installed along natural gas pipelines to isolate gas flows along sections of a pipeline. *Transco is identifying locations and other information for the new MLV facilities associated with the Project. Additional information will be provided to FERC in the draft RR filing, anticipated second quarter 2024.* New MLV facilities will have remote-control functionality. Installation of MLV facilities will primarily occur within the proposed pipeline construction areas and permanent rights-of-way (ROWs).

Launcher and Receiver Facilities

Transco anticipates installation of new launcher and receiver facilities located at the beginning and end of the proposed Eden Loop.

Transco continues to evaluate workspace requirements at these facilities and is determining where additional operational facility footprint may be required. Locational information and workspace requirements for these facilities will be provided to FERC in the draft RR filing, anticipated second quarter 2024.

Modifications to Existing Aboveground Facilities

Launcher and Receiver Facilities

Transco anticipates installation of launcher and receiver facilities located at the beginning and end of the proposed Salem Loop adjacent to existing launcher and receiver facilities.

Transco continues to evaluate workspace requirements at these facilities and is determining where additional operational facility footprint may be required. Locational information and workspace requirements for these facilities will be provided to FERC in the draft RR filing, anticipated second quarter 2024.

Compressor Station 165

Transco proposes to expand the existing Compressor Station 165 in Pittsylvania County, VA to allow for the installation of two new 22,500 HP compressor units.

Transco plans to enter into a fee-simple purchase of land chosen for construction and operation of the proposed compressor station expansion. Based on preliminary design, the expansion at Compressor Station 165 will include the following facilities:

- A compressor building to house the compressor package;
- Seal Gas Vent Recovery Unit;
- Above and below grade piping and valving;
- Power buildings;
- Aboveground storage tanks for hydrocarbon liquids and oily water;
- Unit scrubbers;
- Unit process gas coolers;
- Unit and station blowdowns;
- One natural gas-fired emergency generator unit (size to be determined); and
- Instrument Air Skid.

If necessary, Transco will construct an on-site water well, permanent stormwater management facilities, and sanitary sewer system (e.g., on-site septic). The compressor station

will include a parking area and access roads. Transco will coordinate with local utility companies to supply electric power and communications circuits, as discussed in Section 1.8 of this RR.

The compressor station will be surrounded by a perimeter fence to provide secure access to the site. The compressor station will be capable of full-time operation and occupancy and will be designed for unattended operation via remote control from Transco's Pipeline Control, located in Houston, Texas. Transco will install an emergency shutdown system at the compressor station per 49 Code of Federal Regulations (CFR) 192. In addition, the compressor station will have a security system consisting of video cameras, door and fence gate intrusion alarms, and coded and keyed access to the facility and its building doors. The security systems will be monitored by personnel at the compressor station and remotely by Transco's Pipeline Control. Outdoor lighting for the compressor station will be limited to the minimum amount required. The security systems will incorporate outdoor video cameras that will create outdoor lighting sufficient to record clear images at night. The main gates, yards, and all building entry and exit doors will have lighting for security. These lights will have directional control, or they will be positioned in a manner that minimizes their visibility in the direction of local residences, while maintaining Occupational Safety and Health Administration (OSHA) standards for lighting. *Additional information regarding the safety and operations of the Project will be provided in Draft RR 11, anticipated for second quarter 2024.*

Compressor Station 155

Compressor Station 155 in Davidson County, NC – install three new gas-fired turbine driven compressor units (one Solar Titan 130 with approximately 23,465 HP and two Titan 250s with 31,871 HP each). *Transco continues to evaluate workspace requirements at these facilities and is determining where additional operational facility footprint may be required. Locational information and workspace requirements for these facilities will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

Compressor Station 150

Compressor Station 150 in Iredell County, NC – install one new gas-fired turbine drive compressor unit (Solar Mars 100) with 15,900 HP. *Transco continues to evaluate workspace requirements at these facilities and is determining where additional operational facility footprint may be required. Locational information and workspace requirements for these facilities will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

Compressor Station 145

Transco proposes to expand Compressor Station 145 in Cleveland County, NC for the installation of three new 33,000 HP EMD compressor units following the demolition of the three existing EMD units on site.

Transco plans to enter into a fee-simple purchase of land chosen for construction and operation of the proposed compressor station expansion. Based on preliminary design, the expansion at Compressor Station 145 will include the following facilities:

- A compressor building to house the compressor package;
- Associated aboveground and buried suction/discharge piping and auxiliary equipment/piping;
- A power building;
- A unit control building;
- Office/warehouse space;
- A communications building;
- Aboveground storage tanks for hydrocarbon liquids and oily water;
- Unit scrubber;
- Unit gas cooler;
- Unit blowdown stack and two station blowdown stacks;
- One natural gas-fired standby generator unit (size to be determined); and
- Two electric utility air compressors with one air dryer.

If necessary, Transco will construct an on-site water well, permanent stormwater management facilities, and sanitary sewer system (e.g., on-site septic). The expanded compressor station will include a parking area and access roads. Transco will coordinate with local utility companies to supply electric power and communications circuits, as discussed in Section 1.8 of this RR.

Other modifications to Compressor Station 145 will include the extension of the existing facility roads to the new site and installation of security fencing and lighting. Outdoor lighting for the compressor station will be limited to the minimum amount required.

Compressor Station 135

Facility modifications to revise piping for bi-directional compression at the existing Compressor Station 135 in Anderson County, SC. The facility modifications will occur within Transco's existing fenced facility areas and are not expected to require additional operational

facility footprint.

Compressor Station 125

Facility modifications to revise piping for bi-directional compression at the existing Compressor Station 125 in Walton County, GA. The facility modifications will occur within Transco's existing fenced facility areas and are not expected to require additional operational facility footprint.

Compressor Station 120

Facility modifications to revise piping for bi-directional compression and installation of regulator facilities at existing Compressor Station 120 in Henry County, GA. The facility modifications will occur within Transco's existing fenced facility areas and are not expected to require additional operational facility footprint.

Compressor Station 105

Facility modifications to revise piping for bi-directional compression at the existing Compressor Station 105 in Coosa County, AL. The facility modifications will occur within Transco's existing fenced facility areas and are not expected to require additional operational facility footprint.

Communication Facilities

Transco is continuing to evaluate the communication needs at the proposed Project facilities, and will provide additional information to FERC, as needed, in the draft RR filing, anticipated second quarter 2024.

1.1.3 Location Maps, Detailed Site Maps, and Plot/Site Maps

Figure 1.1-1 shows the regional location of the Project facilities. Appendix 1A includes U.S. Geological Survey topographic maps that identify the proposed pipeline routes, new compressor station locations, locations of new ancillary facilities, and locations of existing aboveground facilities that will be modified as part of the Project. Additionally, Appendix 1B includes aerial maps of the aboveground facilities. *Transco is developing aerial pipeline alignment sheets showing the construction workspace. These maps will be provided to FERC in the draft RR filing, anticipated second quarter 2024. Plot plans for the compressor stations are under development and are anticipated to be provided in second quarter 2024.*

1.2 LAND REQUIREMENTS

The workspaces for the Project will include temporary construction ROWs, additional temporary workspace (ATWS), permanent ROWs, new permanent facilities, temporary access roads, permanent access roads, and contractor yards and contractor staging areas. Only the permanent ROWs, new permanent facilities, permanent access roads, cathodic protection as applicable, and expansions to existing facilities requiring additional permanent footprint outside the existing fence line will be maintained during operation of the Project.

Construction of the Project will result in both temporary and permanent land disturbances. Following construction, Transco will restore and stabilize the pipeline ROW to approximate original contours. Recontouring will be required at the compressor stations post-construction, as applicable. Disturbed areas of the Project will be vegetated following the completion of construction activities, per landowner and applicable agency requirements. Permanently affected areas will include those needed for operation of the proposed new and expanded aboveground facilities and new permanent access roads. Table 1.2-1 provides a summary of the preliminary total land requirements for the Project facilities.

Table 1.2-1
Summary of Land Requirements for Project Facilities

Facility	Land Affected during Construction (acres)[a]	Land Affected during Operation (acres)[b]
Pipeline Facilities		
Eden Loop	371.1	185.5
Salem Loop	290.3	145.2
Pipeline Facilities Total[c, d]	**661.4**	**330.7**
Proposed New Regulator Stations		
Eden Regulator Station	*TBD*	*TBD*
Dan River Regulator Station	*TBD*	*TBD*
Proposed New Regulator Stations Total[c]	*TBD*	*TBD*
Compressor Stations		
Compressor Station 165	156.6	16.1
Compressor Station 155	45.7	0.0
Compressor Station 150	35.8	0.0
Compressor Station 145	61.7	61.7
Compressor Station 135	*TBD*	0.0
Compressor Station 125	*TBD*	0.0
Compressor Station 120	*TBD*	0.0
Compressor Station 105	*TBD*	0.0
Compressor Stations Total[c]	**299.7**	**61.7**

Table 1.2-1
Summary of Land Requirements for Project Facilities

Facility	Land Affected during Construction (acres)[a]	Land Affected during Operation (acres)[b]
Project Total[c]	**961.1**	**392.3**

[a] All areas required for construction, including areas that will be identified as permanent ROW after Project completion.
[b] Acreages are included within the reported acreage for "Land Affected during Construction." Facilities denoted as 0.0 acres do not require new or additional operational footprint.
[c] Totals may not sum exactly due to rounding.
[d] Land Affected during construction and operation for the Eden Loop and Salem Loop include acreage related to installation of proposed new MLVs, launchers and receivers, ATWS, cathodic protection, and contractor yards and staging areas.

Note: *Transco continues to evaluate workspace requirements at facilities denoted as TBD and is determining where additional operational facility footprint may be required. Workspace requirements and refinements will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

1.2.1 Pipeline Facilities

Land requirements for the proposed pipeline facilities are summarized in Table 1.2-2. Construction of the pipeline facilities will require the acquisition of temporary construction ROWs, ATWS, and permanent ROWs along the entire length of each pipeline route. Preliminary aerial route maps are provided in Appendix 1B. *Workspaces will be identified on the alignment sheets filed in the second quarter of 2024.* Typical ROW cross-section diagrams depicting the proposed construction corridor, and overlap with collocated ROWs, as applicable, are provided in Appendix 1C.

Table 1.2-2
Summary of Land Requirements for Pipeline Facilities

Facility	Land Affected during Construction (acres)[a]	Land Affected during Operation (acres)[b]
Eden Loop		
Pipeline	371.1	185.5[c]
ATWS	*TBD*	*TBD*
Access roads	*TBD*	*TBD*
Contractor yards and staging areas	*TBD*	*TBD*
MLVs	*TBD*	*TBD*
Launchers/Receivers	*TBD*	*TBD*
Cathodic Protection	*TBD*	*TBD*
Eden Loop Total[d]	**371.1**	**185.5**
Salem Loop		
Pipeline	290.3	145.2[c]
ATWS	*TBD*	*TBD*
Access roads	*TBD*	*TBD*
Contractor yards and staging areas	*TBD*	*TBD*

Table 1.2-2
Summary of Land Requirements for Pipeline Facilities

Facility	Land Affected during Construction (acres)[a]	Land Affected during Operation (acres)[b]
MLVs	*TBD*	*TBD*
Launchers/Receivers	*TBD*	*TBD*
Cathodic Protection	*TBD*	*TBD*
Salem Loop Total[d]	**290.3**	**145.2**
Pipeline Facilities Total[d]	**661.4**	**330.7**

[a] All areas required for construction, including areas that will be identified as permanent ROW after Project completion.
[b] Acreages are included within the reported acreage for "Land Affected during Construction."
[c] Operational acreages are based on a 50-foot-wide permanent easement; however, 25 feet of the permanent easement overlaps with existing Transco ROW, where collocated.
[d] Totals may not sum exactly due to rounding.

Note: *Workspaces associated with MLVs, launchers/receivers, cathodic protection, ATWS, access roads, and contractor yards and staging areas, as applicable, will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

1.2.1.1 Pipeline Rights-of-Way

Transco proposes to utilize a 100-foot-wide construction ROW, consisting of a 50-foot-wide permanent ROW and 50 feet of temporary workspace for construction and installation of the 42-inch diameter pipeline loops. ATWS areas may also be utilized, where needed.

Transco intends to collocate the Project pipeline loops with the existing Transco Mainline System to the extent practicable, therefore reducing the overall operational footprint of the Project. *Transco will provide a summary of locations where the pipelines are collocated and more details regarding collocation and overlap in the draft RR filing, anticipated second quarter 2024.* Typical drawings for areas being collocated are provided in Appendix 1C.

Table 1.2-3
Summary of Collocation of Pipeline Facilities

Collocated Utility	Begin Milepost	End Milepost	Direction to Existing ROW	Total Collocated Miles[a]
Eden Loop				
Transco Mainline System	*TBD*	*TBD*	*TBD*	*TBD*
Mountain Valley Pipeline Southgate	*TBD*	*TBD*	*TBD*	*TBD*
			Eden Loop Total	*TBD*
Salem Loop				
Transco Mainline System	*TBD*	*TBD*	*TBD*	*TBD*
			Salem Loop Total	*TBD*
			Project Total	*TBD*

[a] Mileposts for the Project are based on Transco Mainline System and do not reflect actual pipeline footage. Lengths reported in the table reflect actual pipeline length.

Transco proposes the construction ROW widths to provide for safe and efficient construction of large diameter pipeline facilities in accordance with OSHA regulations (29 CFR 1926.650-1926.652, Subpart P) and Interstate Natural Gas Association of America's (INGAA) workspace guidelines (INGAA 1999). Reductions or "neck-downs" of the construction ROW may be necessary at various locations to address specific environmental or residential issues along the proposed pipeline.

Transco will maintain additional permanent ROWs adjacent to the existing ROWs where necessary along the locations where the pipeline loops are collocated with the Mainline System to accommodate a nominal 25-foot offset between pipe centerlines.

Areas disturbed by construction that are not part of the permanent ROWs will be restored following the completion of construction activities per landowner and applicable agency requirements. Permanent ROWs will be restored to approximate original contours; however, ROWs will be maintained in an herbaceous state for the operational life of the pipelines.

Transco requires the necessary permanent easement widths to maintain the pipeline in accordance with U.S. Department of Transportation (USDOT) regulations in 49 CFR 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*, and to reduce the potential for structures to be placed near the pipelines, and the potential for trees and other large vegetation to grow too close to the pipelines.

1.2.1.2 Contractor Yards and Contractor Staging Areas

During construction of the pipeline facilities, areas off, or adjacent to, the construction ROWs will be required for contractor yards and contractor staging areas. Table 1.2-4 identifies the locations of preliminary contractor yards and contractor staging areas for the Project. Transco will use contractor yards and contractor staging areas for temporary contractor field offices, parking, equipment/pipe/material storage, equipment turn-arounds, and pipe preparation/field assembly areas. The contractor yards and contractor staging areas will be located at various points in the vicinity of the Project, and in locations with convenient and safe access to the Project components.

Upon Project completion, Transco will restore areas used for contractor yards and contractor staging areas in accordance with the landowner lease agreements and applicable agency requirements.

Table 1.2-4
Contractor Yards and Contractor Staging Areas for Pipeline Facilities

Facility/County	Type	Contractor Yard or Contractor Staging Area ID	Nearest Milepost	Total Acres[a]
Eden Loop				
TBD	Contractor Yard/Staging Area	*TBD*	*TBD*	*TBD*
			Eden Loop Total[a]	***TBD***
Salem Loop				
TBD	Contractor Yard/Staging Area	*TBD*	*TBD*	*TBD*
			Salem Loop Total[a]	***TBD***
			Total[a]	***TBD***

[a] Totals may not sum exactly due to rounding.

Note: *Workspaces and locational information associated with contractor yards and contractor staging areas for pipeline facilities will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

1.2.1.3 Access Roads

Transco will utilize existing and new roads to access Project workspaces. Temporary access roads and permanent access roads will be needed to construct and operate the Project pipelines. Temporary access roads will be used during the construction phase of the Project and will be restored to pre-construction conditions following Project completion. Transco will maintain permanent access roads for the life of the respective facility. Temporary access roads will have a typical width of up to 30 feet, with additional width as needed to support site-specific requirements. Permanent access roads will have a typical width of up to 12 feet, with additional width as needed to support site-specific requirements. *Access roads required for the Project will be identified in the draft RR filing, anticipated second quarter 2024.*

1.2.1.4 Additional Temporary Workspace

Typically, pipeline construction requires ATWS at road crossings, wetlands, waterbodies, agricultural land locations, and in areas where specialized construction techniques are required, such as on steep slopes and bedrock that needs blasting. The configurations and sizes of ATWS are site-specific and vary in accordance with the construction method, crossing type, and other construction needs. Section 1.3.3 provides descriptions of the construction techniques typically requiring ATWS. *ATWS locations will be identified in the draft RR filing, anticipated second quarter 2024.*

1.2.1.5 Cathodic Protection

A cathodic protection system will be installed adjacent to the pipeline to control corrosion. *Transco is assessing needs for cathodic protection for the Project and will provide information on*

the cathodic protection facilities in the Environmental Report filing, anticipated third quarter 2024.

1.2.2 Aboveground Facilities

Table 1.2-5 summarizes the land requirements for the new aboveground facilities and modifications to existing aboveground facilities associated with the Project.

Land requirements for new and modified ancillary aboveground pipeline facilities and modified compressor stations include the total land required for construction, as well as new land required for operation. *Transco continues to evaluate workspace requirements at these facilities and is determining where additional operational facility footprint may be required. Workspace requirements and refinements will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

Land requirements for modifications at existing aboveground facilities include the total land required for construction (which may occur both within and outside of the existing facility fence line), and additional new facility footprint, where applicable. *Transco continues to evaluate the workspace requirements for these facilities. Workspace requirements and refinements, as applicable, would be provided in the draft RR filing, anticipated second quarter 2024.*

Table 1.2-5
Land Requirements for Project Aboveground Facilities

Facility	Approximate Milepost	Municipality, County, State	Land Affected during Construction (acres) [a]	Land Affected during Operation (acres) [b]
New Aboveground Facilities				
Eden Regulator Station	1382.53	Wentworth, Rockingham County, NC	*TBD*	*TBD*
Dan River Regulator Station	1380.70	Wentworth, Rockingham County, NC	*TBD*	*TBD*
Mainline Valve 1 – Eden Loop	*TBD*	*TBD*	-	-
Mainline Valve 2 – Eden Loop	*TBD*	*TBD*	-	-
Mainline Valve 3 – Eden Loop	*TBD*	*TBD*	-	-
Mainline Valve 1 – Salem Loop	*TBD*	*TBD*	-	-
Mainline Valve 2 – Salem Loop	*TBD*	*TBD*	-	-
Eden Launcher/Receiver	*TBD*	Wentworth, Rockingham County, NC	-	-
Eden Launcher/Receiver	*TBD*	Banister, Pittsylvania County, VA	-	-
		New Aboveground Facilities Total [c, d]	*TBD*	*TBD*
Modified Aboveground Facilities				
Salem Launcher/Receiver	*TBD*	Davidson County, NC	-	-
Salem Launcher/Receiver	*TBD*	Guilford County, NC	-	-

Table 1.2-5
Land Requirements for Project Aboveground Facilities

Facility	Approximate Milepost	Municipality, County, State	Land Affected during Construction (acres) [a]	Land Affected during Operation (acres) [b]
Compressor Station 165	1413.15	Banister, Pittsylvania County, VA	156.6	16.1
Compressor Station 155	N/A	Reedy Creek, Davidson County, NC	45.7	25.1
Compressor Station 150	N/A	Davidson, Iredell County, NC	35.8	35.8
Compressor Station 145	1247.09	Township 4, Kings Mountain, Cleveland County, NC	61.7	61.7
Compressor Station 135	N/A	Broadway, Anderson County, SC	*TBD*	*TBD*
Compressor Station 125	N/A	Walton County, GA	*TBD*	*TBD*
Compressor Station 120	N/A	Henry County, GA	*TBD*	*TBD*
Compressor Station 105	N/A	Coosa County, AL	*TBD*	*TBD*
Modified Aboveground Facilities Total[c, d]			**299.7**	**138.8**
Aboveground Facilities Total[c, d]			**299.7**	**138.8**

[a] All areas required for construction, including areas that will be identified as permanent ROW after Project completion.

[b] Acreages are included within the reported acreage for "Land Affected during Construction." Facilities denoted as 0.0 acres do not require new or additional operational footprint.

[c] Totals may not sum exactly due to rounding.

[d] MLVs and launchers/receivers are included in the pipeline acreages.

Note: *Transco continues to evaluate workspace requirements at facilities denoted as TBD and is determining where additional operational facility footprint may be required. Workspace requirements and refinements will be provided to FERC in the draft RR filing, anticipated second quarter 2024. Locations of mainline valves and launchers/receivers will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

1.2.2.1 Contractor Yards and Contractor Staging Areas

During construction of the aboveground facilities, areas off, or adjacent to, the facility workspaces will be required for contractor yards and contractor staging areas. Transco will use contractor yards and contractor staging areas for temporary contractor field offices, parking, equipment/pipe/material storage, equipment turn-arounds, and field assembly areas. The contractor yards and contractor staging areas will be located at various points in the vicinity of the Project, and in locations with convenient and safe access to the Project components.

Table 1.2-6
Contractor Yards and Contractor Staging Areas for Aboveground Facilities

Facility/County	Type	Contractor Yard or Contractor Staging Area ID	Nearest Milepost	Total Acres[a]
TBD	Contractor Yard/ Staging Area	*TBD*	*TBD*	*TBD*
			Aboveground Facilities Yards Total[a]	*TBD*

[a] Totals may not sum exactly due to rounding.

Note: *Workspaces and locational information associated with contractor yards and contractor staging areas for aboveground facilities will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

1.3 CONSTRUCTION SCHEDULE AND PROCEDURES

Transco will design, construct, test, operate, and maintain all Project facilities to conform with applicable regulations, including USDOT regulations in 49 CFR Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*, and Commission regulations in 18 CFR Section 380.15: *Siting and Maintenance Requirements*. In addition, unless otherwise authorized through a modification granted by FERC, Transco will comply with the FERC Plan and FERC Procedures.

Table 1.3-1
Summary of Project-Specific Proposed Modifications to FERC Plan and Procedures

Section of FERC Plan	FERC Plan Measure	Deviation to FERC Plan and Procedures	Justification
FERC Plan			
TBD	*TBD*	*TBD*	*TBD*
FERC Procedures			
TBD	*TBD*	*TBD*	*TBD*

Note: *Requests for modifications to FERC's Plan and Procedures will be provided to FERC in the draft RR filing, anticipated second quarter 2024.*

Site-specific deviations from the FERC Plan and Procedures will be further discussed in each RR, as applicable. Transco plans to develop a Project-specific Upland Erosion Control, Revegetation, and Maintenance Plan (Transco Plan) and Project-specific Wetland and Waterbody Construction and Mitigation Procedures (Transco Procedures), which will be provided

in a supplemental filing. In addition to the Transco Plan and Procedures, Transco is developing a Project-specific Environmental Construction Plan (ECP) incorporating other Project-specific construction and compliance plans, as applicable. The Transco ECP is anticipated to include:

- Best Management Practice Figures and Typical Cross-Section Drawings;
- Transco Plan;
- Transco Procedures;
- Construction Spill Prevention and Response Procedures for Oil and Hazardous Materials;
- Transco Unanticipated Discovery of Contamination Plan;
- Transco Unanticipated Discovery Plan for Cultural Resources and Human Remains;
- Project-specific Blasting Plan;
- Winter Construction Plan;
- Traffic Management Plan;
- Fugitive Dust Control Plan;
- Invasive Species Management Plan; and
- Unanticipated Discovery Plan for Paleontological Resources.

Transco will provide the Project-specific Plan and Procedures and other Project-specific construction and compliance plans for review by the FERC with the draft RRs, which are anticipated to be filed in the second quarter of 2024.

1.3.1 Construction Schedule

If the Project is certificated by FERC and upon receipt of all necessary authorizations and permits, Transco anticipates mobilization and construction of the Project facilities in the first quarter of 2026. Construction of the proposed facilities is anticipated to be completed to meet a target in-service of November 1, 2027.

Transco will notify landowners via letters, phone, or in person of planned construction activities at least seven days prior to scheduled construction unless more advance notice is required by the landowner agreement. In general, construction activities will occur from 7:00 a.m. to 7:00 p.m. or daylight hours, Monday through Saturday. This standard daily schedule allows optimal use of daytime hours and offers safer construction conditions during the peak construction season. However, the following construction activities, once in progress, cannot be stopped at a precise time for safety, practical, or logistical reasons:

- Trenchless pipeline construction;
- Preparing for and the actual performance of strength and leak testing of pipeline segments (including blowing down, dewatering, and drying activities);
- Pipeline recompression and blowdown for line outages for the purposes of system tie-ins.
- Tie-in welds;
- X-ray of welds;
- Trench dewatering;
- Pipeline stopple and hot-taps;
- Erosion and Sediment Control maintenance, including road and site cleaning;
- Inspection activities;
- Activities during station and pipeline outages;
- Wetland and waterbody crossings;
- Trench & Excavation dewatering
- Electrical conductor installation into conduit runs and wiring raceways (compressor stations);
- Terminations and verifications of conductors (compressor stations); and
- Pre-commissioning and commissioning activities.

Transco will make every effort to schedule these activities to be completed during normal working hours; however, there will be circumstances where Transco will be unable to halt these construction activities at a precise time and work will extend into nighttime and/or Sunday hours. In that event, Transco would cease construction as soon as it could do so in a safe and responsible manner. Prior to construction, Transco will notify affected landowners that night-time work for specific activities may occur during the course of the Project. Transco will maintain a Project hotline to afford landowners the opportunity to report any issues or complaints.

Hydrostatic testing for strength and leak testing of the pipeline requires around-the-clock activities until it is complete, including welding on temporary trap and valves, cleaning runs, cutting of temporary trap/valve and welding on test manifold, filling the pipeline, conducting the hydrostatic test, blowdown from test pressure, dewatering, cutting off manifolds, drying runs, and caliper pig runs.

Additionally, there are other circumstances that necessitate unplanned construction activity outside of typical work hours, including:

- Completion of a tie-in initiated earlier in the day;
- Completion of wetland or waterbody crossing;
- Major road crossings;
- Maintenance work on construction equipment needed to be operational for the following day;
- Heating of concrete when mean temperature is below 40 degrees; and
- Idling of equipment overnight in extreme cold weather.

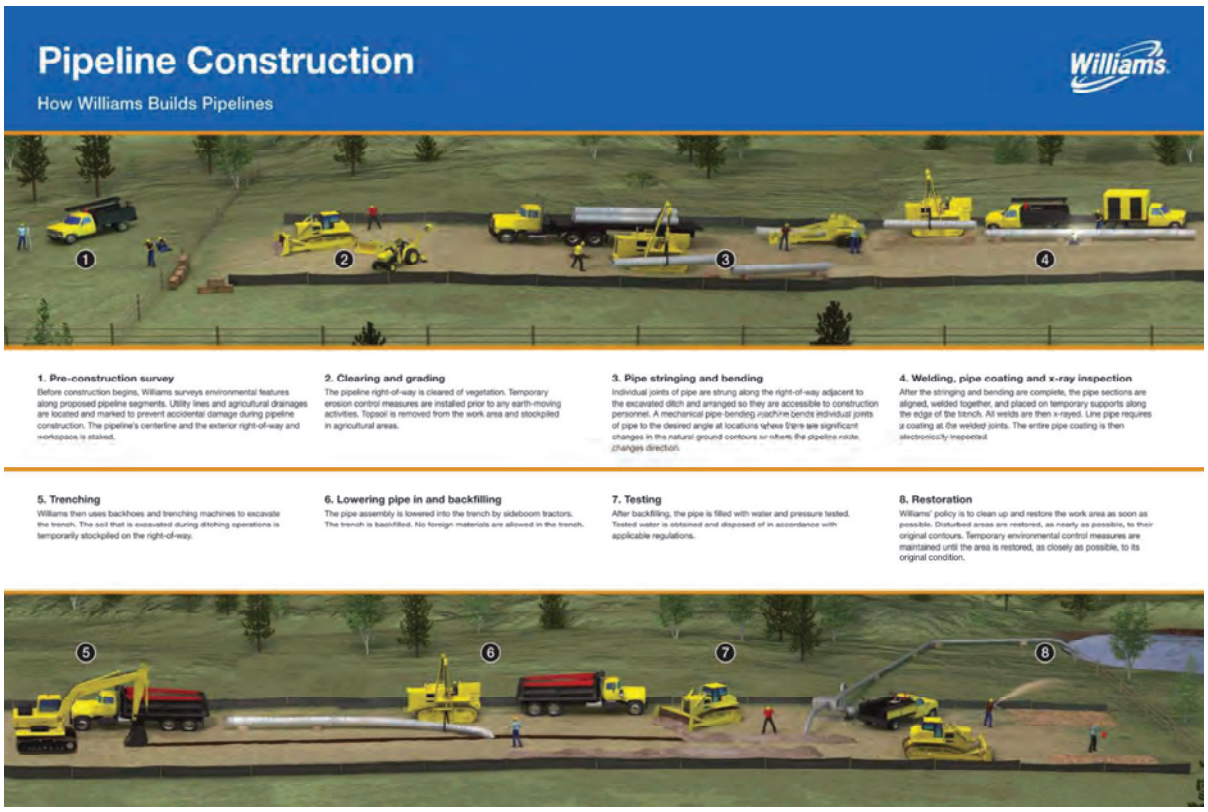
Transco values the opportunity to observe most federal holidays. However, all decisions are based on the progress of the Project and could possibly necessitate work continuance through a holiday period.

1.3.2 General Pipeline Construction Procedures

The general procedures for pipeline construction are described in this section. Transco will use conventional techniques for buried pipeline construction to support safe, stable, and reliable transmission facilities, consistent with Commission and USDOT specifications. Construction of the proposed pipelines will follow a set of sequential operations, unique to the pipeline industry, as described below and reflected in Figure 1.3-1. Transco anticipates that the Project will require multiple construction spreads that will proceed along the pipeline ROWs in one continuous operation. *Transco is evaluating the number of crews required to support aboveground facility construction.* The entire process will be coordinated in such a manner as to minimize the total time a tract of land is disturbed and, therefore, susceptible to erosion and/or temporarily precluded from its normal use.

Areas requiring special construction plans and techniques may include road or utility crossings, waterbodies and wetlands, unusual topographies associated with unstable soils and trench conditions, residential or urban areas, agricultural areas, and areas requiring rock removal, among others. Construction procedures associated with these areas are discussed in Section 1.3.3. In addition, Transco will install cathodic protection in accordance with applicable requirements and permits. *Transco is assessing needs for cathodic protection for the Project and will provide information on the cathodic protection facilities in the draft RR filing, anticipated second quarter 2024.*

Figure 1.3-1 Typical Pipeline Construction Sequence



1.3.2.1 Surveying and Staking

Transco will notify affected landowners prior to performing pre-construction surveys and staking. Following these notifications, a land survey crew will survey and stake the outside limits of the proposed construction ROWs and ATWS areas, the centerline of the pipeline and access roads, as well as drainages and highway and railroad crossings. Crews will locate existing utility lines (e.g., cables, conduits, and pipelines) and mark them with flags, stakes, or other devices to prevent accidental damage during pipeline construction.

Civil survey crews will follow environmental crews and mark or record delineated resource areas, including wetland boundaries and waterbody boundaries, as applicable, with appropriate fencing, signage, and/or flagging. The identification of these areas will be based on environmental and cultural surveys and environmental permit conditions.

1.3.2.2 Erosion and Sediment Control

Following the establishment and clearing of workspace, Transco will install temporary soil erosion and sediment control measures along the construction ROW, ATWS areas, access roads, and other work areas, as applicable, in accordance with the Transco Plan and Transco Procedures. Use of best management practices (BMPs) presented in the Transco Plan and Transco Procedures as well as state permit applications will minimize erosion of disturbed soils and prevent the transportation of sediment outside of the construction ROWs and into environmentally sensitive areas such as wetlands and waterbodies.

To ensure that appropriate erosion and sediment control measures are maintained until the construction workspace is fully stabilized, the Environmental Inspector will inspect all disturbed areas of the construction spread(s) (e.g., construction ROW and contractor yards) that have not been permanently stabilized. Inspections will occur in accordance with the following schedule: 1) on a daily basis in areas of active construction; 2) on a weekly basis in areas with no construction or equipment operation; or 3) within 24 hours of a storm event that is 0.5-inch or greater.

1.3.2.3 Clearing, Grading, and Fencing

The construction corridor will be cleared and graded to remove vegetation, brush, trees, roots, and other obstructions, such as large rocks and stumps. The ROW will be graded, where necessary, to create a level workspace to allow for safe construction conditions. Grading will be limited in wetland areas where possible. Temporary fences and gates will be installed, as needed. No cleared material will be placed within wetland areas.

Activity related to the storage of materials adjacent to wetland and waterbody locations will be limited to the temporary placement of cleared vegetation, permitted construction equipment and materials, as well as spoils generated from trenching operations. The placement of these materials in these locations will be temporary and all materials (excluding installed erosion control devices) will be removed prior to restoration.

Transco will clear the ROW of vegetation using mechanical means to the extent practicable, which may include feller-bunchers, hydro-axes, forwarders, skidders, and other appropriate equipment. Clearing by hand with chainsaws may be implemented where specific safety or environmental concerns warrant.

Disposal of trees cleared from the ROW may be accomplished using several different methods. Trees, if suitable, may be taken off-site by the clearing contractor and used for timber. Trees may be chipped on-site and removed. Chipped material not removed may be spread across the ROW within upland areas in a manner that does not inhibit revegetation. Wood chips will not be left within agricultural lands or wetlands. Also, wood chips will not be stockpiled in a manner that could result in transport into a wetland or waterbody.

Timber will be disposed of by Transco's contractor at an appropriate receiving facility (e.g., landfills, transfer stations, composting centers, and wood product processors or purveyors). Timber will not be stacked in waterways or left within wetlands.

To the extent practicable, access to the construction ROW will be obtained via public roads that intersect the ROW; however, use of temporary roads (i.e., existing private roads) and construction of new access roads will also be required. Transco will obtain permission from landowners for the use/improvement of access roads across their property to the construction ROW.

Transco will grade the construction ROW to allow for the movement of heavy equipment and the safe passage of work crews. Grading will include removing rock outcrops, tree stumps,

ridges and topographic irregularities. Generally, machinery will operate on one side of the trench (working side) and excavated materials will be stockpiled on the other (non-working side).

As appropriate, clearing and grading operations will incorporate special construction procedures, as discussed in Section 1.3.3, to minimize the amount of vegetation removed from stream banks and slopes, prevent undue disturbance of the soil profile, restore the approximate original contours of the natural ground, and prevent topsoil erosion.

1.3.2.4 Pipe Stringing

Steel pipe will be procured in nominal 40-foot lengths or joints and protected with a fusion bonded epoxy coating applied at the factory (the beveled ends will be left uncoated for welding). Stringing operations involve moving pipe sections into position along the prepared ROW. Pipe will be delivered to the Project's contractor yards, typically by truck. It will then be trucked to approved construction workspaces. Individual joints of pipe will be strung along the ROW parallel to the centerline and arranged so they are easily accessible to construction personnel. The amount of pipe necessary for waterbody or road crossings will typically be stockpiled in the approved ATWS near each crossing.

1.3.2.5 Pipe Bending

Bending of the pipe will be required to allow the pipeline to follow natural topographic grade changes and direction changes of the ROW. For this purpose, prior to line-up and welding, selected joints will be field-bent by track-mounted hydraulic bending machines. For larger horizontal changes of direction, manufactured induction bends may be used.

Pipe bending in the field will be utilized for turns involving slight deflections and/or large radii. For turns involving larger deflections and/or small radii, often related to spatial limitations due to easement and topographic constraints, prefabricated elbow fitting (ells) will be utilized, rather than pipe bending on-site.

1.3.2.6 Pipe Assembly and Welding

Following stringing and bending, the joints of pipe will be placed on temporary supports adjacent to the trench. The ends will be carefully aligned and welded together using multiple passes for a full penetration weld. Only welders qualified according to applicable American National Standards Institute (ANSI), American Society of Mechanical Engineers (ASME), or American Petroleum Institute (API) Standards will be permitted to perform the welding. A Transco-approved welding inspector will conduct the welder qualification testing and document

all test results. A welder failing to meet acceptance criteria of the Williams Company Standard Welder Qualification Test will be disqualified. Bending, welding, and coating in the field will comply with USDOT regulations (49 CFR Part 192).

1.3.2.7 X-Ray and Weld Repair

To confirm that the assembled pipe meets or exceeds the design strength requirements and to ensure weld quality and integrity, the welds will be inspected visually and tested non-destructively using radiographic (X-ray) or another approved test method, in accordance with API Standards. Welds displaying inclusions (void spaces) or other defects will be repaired or cut out (removed) and new welds will be installed and retested.

1.3.2.8 Coating Field Welds, Inspection, and Repair

Following welding, the previously uncoated ends of the pipe at the joints will be field coated with a Transco- and industry-approved anti-corrosion coating. Prior to lowering the pipe into the trench, the coating on the entire pipe section will be inspected and damaged areas repaired.

1.3.2.9 Trenching

Generally, the trench will be approximately 14 to 24 inches wider than the depth of the pipe, depending upon the nature of the substrate, with sufficient depth to allow for the minimum cover requirements to the top of the pipeline, in accordance with USDOT regulations pursuant to the Natural Gas Pipeline Safety Act of 1968.

Except as depicted on site-specific plans or as required by permit conditions, the depth of cover for the pipeline will meet or exceed the USDOT's minimum specifications in accordance with federal and/or state regulations, as applicable, as set forth in Table 1.3-2. Transco will install the pipeline with a minimum of 36 inches of cover, except where rock prevents this depth.

Table 1.3-2
Project Minimum Specifications for Pipeline Depth of Cover (inches)

Location[a]	Soil	Consolidated Rock
USDOT PHMSA Class 1	36	24
USDOT PHMSA Class 2, 3, and 4	36	24
Land in Agriculture	36 - 48[b]	N/A
USDOT Public Roads	60	N/A
Drainage ditches of public roads	36	N/A
USACE Navigable river, stream, or harbor	48	N/A

[a] As defined by USDOT PHMSA at 49 CFR 192.5.
Class 1: offshore areas and areas within 220 yards of a pipeline with ≤10 buildings intended for human occupancy.
Class 2: areas within 220 yards of a pipeline with >10 but <46 buildings intended for human occupancy.
Class 3: areas within 220 yards of a pipeline with ≥46 buildings intended for human occupancy and areas within 100 yards of either a building or a small, well defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least five days per week for 10 weeks in any 12-month period.
Class 4: areas within 220 yards of a pipeline where buildings with four or more stories are prevalent.

[b] Depending on landowner agreements.

Key:
PHMSA = Pipeline and Hazardous Materials Safety Administration
USACE = U.S. Army Corps of Engineers

1.3.2.10 Pipe Preparation and Lowering-In

Once the pipeline has been welded together, coated, and inspected, the pipe will be lowered into the trench. If the bottom of the trench is rocky, methods to protect the pipe will be used, including sandbags or support pillows at designated intervals along the trench. Trench dewatering may be required in certain locations to prevent the pipe from floating and to allow certain limited activities to be performed in the trench. Trench dewatering will be performed in accordance with BMPs.

1.3.2.11 Tie-Ins

At select locations, such as waterbody crossings, road crossings, and terrain changes along the pipeline, the pipe will be lowered into the trench in segments. The segments will then be welded together or tied-in prior to backfilling. A crew will be assigned to make these tie-ins at designated locations ahead of the backfill operations.

1.3.2.12 Padding, Backfilling, and Grade Restoration

After the pipe is lowered into the trench, the trench will be backfilled. Backfill usually consists of the material originally excavated from the trench; however, in some cases, additional backfill from other sources may be required. Transco will pad the pipe prior to conventional

backfilling operations. Padding the pipe will prevent rock material mixed with subsoil from making direct contact with the pipeline. Padding operations are anticipated to provide at least six inches of screened subsoil cover below and along the sides of the pipe, as well as 12 inches of screened subsoil cover above the pipe. Once the pipeline is adequately protected with screened subsoil, conventional backfilling operations will occur. Excess excavated materials or materials unsuitable for backfill will be handled as approved by the applicable agency or disposed of in accordance with applicable regulations. In areas where topsoil has been segregated, the subsoil will be placed in the trench second, and then the topsoil will be placed over the subsoil. Backfilling will occur to approximate grade; however, a soil crown may be placed above the trench to accommodate future soil settlement.

1.3.2.13 Clean-up and Restoration

After the completion of backfilling, disturbed areas will be graded, and remaining trash and debris will be properly disposed of in compliance with applicable regulations. The construction corridor will be protected by the implementation of permanent erosion control measures, including site-specific contouring, slope breakers, mulching, and reseeding to establish soil-holding vegetation. Contouring will be accomplished using acceptable excess soils from construction. If sufficient soils are not available, additional soil will be imported by Transco in accordance with applicable requirements.

Transco will restore the construction workspace in accordance with Transco's Plan and Procedures. Transco will seek recommendations from the applicable state or federal agencies or in accordance with state or federal requirements for the appropriate seed mixes.

In accordance with the Transco Plan, cleanup operations will begin immediately following backfill operations, or as soon as reasonably possible thereafter. Final grading, topsoil replacement, and installation of permanent erosion control structures will be completed within 20 days of backfilling the trench, and within 10 days in residential areas, or as soon as reasonably possible thereafter. If seasonal or other weather conditions or other construction conditions prevent compliance with these timeframes, Transco will maintain temporary erosion control measures until the cleanup is completed. Weather conditions that could result in a delay in cleanup operations include higher than average precipitation.

1.3.2.14 Hydrostatic Testing

The pipeline will be hydrostatically tested in accordance with USDOT regulations, 49 CFR Part 192. The pipeline will be filled with water and maintained at a test pressure for a duration of

eight hours in compliance with Transco's engineering standards and applicable federal regulations. After the completion of a satisfactory test, the water will be discharged to the ground through a dewatering structure to an approved vegetated upland area or hauled off-site to an approved disposal facility in compliance with state regulations. RR 2 will provide additional information regarding hydrostatic pressure testing of the pipeline, including anticipated water volumes. *Transco will provide this information with draft RR 2, which is anticipated to be filed in the second quarter of 2024.*

1.3.3 Specialized Construction Procedures

In addition to conventional pipeline construction techniques, specialized construction techniques will be utilized in sensitive resource areas, including waterbody and wetland crossings or in areas with construction constraints, such as residential areas, road crossings, utility crossings, areas with side slopes, and rocky areas. Specialized construction procedures are described below.

1.3.3.1 Trenchless Construction Methods

Transco is evaluating several methods of trenchless construction: conventional horizontal bore, Horizontal Directional Drill (HDD), and Direct Pipe®. These techniques may be used in an attempt to reduce impacts associated with construction in comparison with using conventional (trenching) construction techniques. Transco is evaluating the benefits, risks, and feasibility of trenchless construction methods.

Conventional Horizontal Bore

To complete a conventional horizontal bore, a pit on either side of the road or stream will be excavated to provide a working area for the equipment. A boring machine will be lowered into one pit, and a horizontal hole will be bored to a diameter slightly greater than the diameter of the pipe (or casing, if required) at the depth of pipeline installation. The pipeline section will then be pushed through the bore to the opposite pit. If additional pipeline sections are required to span the length of the bore, they will be welded to the first section of the pipeline in the bore pit prior to being pushed through. *The use and/or locations of proposed conventional bores are currently being evaluated. Transco will provide this information, if applicable, with the draft RRs, which are anticipated to be filed in the second quarter of 2024.*

Horizontal Directional Drill

The HDD method allows for trenchless construction across an area by drilling a hole significantly below conventional pipeline depth and pulling the pipeline through the pre-drilled

hole. HDD is typically used to install pipeline in areas where traditional open-cut excavations are not feasible due to sensitive resource areas or logistical reasons. While overall disturbance within a sensitive area may be minimized by HDD, a greater amount of equipment staging is typically required. The amount of workspace at the drill entry and exit locations can vary significantly based on site-specific conditions. The entry side of the drill usually consists of the drilling rig and entry hole, control cab, drill string pipe storage, site office and storage trailers, power generators, bentonite storage, bentonite slurry mixing equipment, slurry pump, cuttings separation equipment, cutting return/settlement pit, water trucks and water storage, and the heavy construction equipment necessary to support the operation.

The exit side consists of the exit hole and slurry containment pit, cuttings return/settlement pit, cuttings separation and slurry reclamation equipment, drill string pipe storage, and heavy construction equipment necessary to support the operation. In addition to the drilling operations to be conducted within the exit side workspace, ATWS is often needed adjacent to the construction ROW to provide a straight corridor for handling pipe at HDD locations where the ROW changes direction. This allows the pipeline to be prefabricated into one continuous section in preparation of the pull–back operation. Once assembled, the pipe is placed on rollers so it may be conveyed into the drill hole.

To facilitate HDD, an electric guide wire coil is typically placed along the ground surface between each HDD entry and exit point, where possible. This guide wire is used to assist in tracking of the location of the down-hole drilling equipment and to determine steering inputs during advancement of the pilot bore. Wireline guidance systems typically require two guide wires for HDD crossings that parallel the centerline of an installation with a variable spacing or offset on each side of the centerline, depending on the depth of the HDD installation.

Following the completion of the pilot hole, reaming tools will be utilized to enlarge the hole to accommodate the pipeline diameter. The reaming tools will be attached to the drill string at the exit point and will then be rotated and drawn back to incrementally enlarge the pilot hole. During this process, drilling mud consisting of bentonite clay and water will be continuously pumped into the pilot hole to remove cuttings and maintain the integrity of the hole. When the hole has been sufficiently enlarged, a prefabricated segment of pipe will be attached behind the reaming tool on the exit side of the crossing and pulled back through the drill hole towards the drill rig. In the event that a particular drill is unsuccessful, Transco will implement its HDD Contingency Plan. *The use and/or locations of proposed HDDs are currently being evaluated. Transco will provide information, if applicable, with the draft RRs, anticipated to be filed in the second quarter of 2024.*

Direct Pipe®

The Direct Pipe® method provides trenchless construction using a bore technique in one single, continuous working operation combining a pipe thruster and tunneling machine, allowing a borehole to be created and pre-fabricated pipe inserted concurrently. For the Direct Pipe® method, the pipeline is welded and tested then stored on pulley blocks on the launch side. A microtunneling machine is mounted in front of the pipeline. The pipe thruster unit then pushes the pipeline and the machine into the ground. The microtunneling machine can be fitted with different cutting tools depending on geologic conditions to allow for the machine to cut through large boulders and hard rock, as well as soft soils. Direct Pipe® construction may be shorter and shallower than HDD installations because the excavation is continuously cased, reducing the risk of hole collapse and subsequent settlement. Due to its feasibility in a variety of geological conditions, the Direct Pipe® method may be utilized in locations where an HDD may not be feasible. While Direct Pipe® methods minimize direct impacts to sensitive resources, Direct Pipe® may still require portions of the ROW to be cleared to allow safe workspace at the entry and exit points to accommodate the tunneling equipment, ancillary support equipment and pipeline staging. *The use and/or locations of proposed direct pipes are currently being evaluated. This information, if applicable, will be provided in the draft RRs, which are anticipated to be filed in the second quarter of 2024.*

1.3.3.2 Waterbody Crossing Procedures

Crossing of waterbodies will be conducted in accordance with applicable state and federal permits and Transco Procedures. Transco will utilize various methods for installation of the pipeline across waterbodies, depending on waterbody classifications and flow conditions at the time of crossing. In accordance with FERC Procedures, waterbodies will be classified as "minor," "intermediate," or "major," as follows:

- Minor waterbodies include all waterbodies less than or equal to 10 feet wide at the water's edge at the time of crossing;
- Intermediate waterbodies include all waterbodies greater than 10 feet wide but less than or equal to 100 feet wide at the water's edge at the time of crossing; and
- Major waterbodies include all waterbodies greater than 100 feet wide at the water's edge at the time of crossing.

Proposed crossing methods for each waterbody will be provided in draft RR 2, which is anticipated to be filed in the second quarter of 2024.

Dry-Ditch Crossing Methods

If a waterbody proposed to be crossed by a dry-ditch crossing method is dry or has no discernable flow at the time of construction, the conventional open-cut method will be used. Transco will be prepared to suspend conventional open-cut construction at the crossing and switch to one of the dry-crossing methods described below if there is discernible flow. Temporary diversion structures and necessary construction equipment will be on-site at proposed open-cut crossings in case it is necessary to switch to a dry-ditch crossing method. Transco will monitor weather conditions to anticipate the need for using a dry-ditch crossing method.

Dam and Pump Crossing Method

The dam and pump crossing method consists of diversion structures used to temporarily dam the waterbody, which can consist of one or more of the following: imported concrete jersey barriers, water bladder, port-a-dams, steel plates, and/or sand bags. The selection of the dam type or material depends on the stream or waterbody depth, flow velocity, channel width, and flow type.

This method for crossing streams and waterbodies temporarily diverts stream flow around construction area activities while maintaining downstream flow at all times. Damming structures will be installed upstream and downstream of the proposed trench. Pumps and hoses will be used to convey flow around the in-stream work area, discharging the water downstream of the construction site and creating a dry work area. Multiple discharge pumps may be required to keep the area dry and maintain adequate flow to avoid flooding of the waterbody upstream. Pumps and hoses will be sized to accommodate flow in accordance with the applicable regulations. The trench then will be excavated, and the pipe will be installed in the dry ditch.

While the upstream and downstream dams are being installed, the pumps will be used to divert water around the pipeline crossing and associated workspaces. The water will be discharged to the downstream area through an energy dissipating (or similar) device to prevent erosion and scouring and minimize turbidity. Once the pipe is installed, the trench will be backfilled to pre-construction contours, and stream banks will be restored prior to restoring water flow.

The following additional stipulations will apply to all dam-and-pump waterbody crossings:

- Sufficient pumps, including on-site backup pumps, will be used to maintain downstream flows;

- Dams will be constructed with materials that prevent sediment and other pollutants from entering the waterbody;
- Pump intakes will be screened to minimize entrainment of fish;
- Pump discharge location will be monitored to prevent stream bed scour; and
- Dams and pumps will be continuously monitored to ensure proper operation throughout the waterbody crossing.

Flume-Crossing Method

Flume pipe(s) will be installed over the trench prior to trenching (or during trenching if a rain event creates flow in a dry stream channel). Flume pipes will remain in place and be maintained until restoration of the waterbody is complete, and downstream flow will be maintained at all times. The size and number of flumes will be determined prior to installation based on engineering calculations and will be adequate to handle the maximum anticipated flow during the time of the crossing. Excavation equipment located on the stream banks will work around the flume pipe during excavation. The pipe will be threaded under the flume pipe, and the ditch will be backfilled while flows are maintained through the flume pipe(s) and downstream. If topographic conditions do not permit the pipe to be threaded under the flume, the flow may be temporarily pumped around the work area while the flume is temporarily moved to allow the pipe to be lowered into the ditch. Flume pipes will be permanently removed as part of restoration.

The following additional stipulations will apply to all flume waterbody crossings:

- Steel plates, sand bags, or sand bags and plastic sheeting diversion structures or equivalent will be used to develop an effective seal and to divert stream flow through the flume pipe;
- Flume pipes will be properly aligned to prevent bank erosion and stream bed scour;
- Flume pipes will not be removed during trenching, pipe laying, or initial stream bed restoration activities; and
- All flume pipes and dams that are not part of the equipment bridge will be removed as soon as final cleanup of the stream bed and bank is complete.

Temporary Diversion Channel Method (Cofferdam)

The temporary diversion channel method is another dry alternative to the conventional open-cut method in which water flow is temporarily diverted to a designated portion of the stream channel to allow construction activities to take place in the stream, along the banks, or beneath

the active channel. Using a temporary diversion channel involves installing the pipe using a phased approach as presented below:

- Phase 1: install a diversion dam;
- Phase 2: install pipeline through the dry portion of the stream bed;
- Phase 3: construct and stabilize the diversion channel;
- Phase 4: adjust diversion dams to flow into the temporary diversion channel;
- Phase 5: install pipe through the dry portion of the stream bed;
- Phase 6: complete stream bank restoration;
- Phase 7: stabilize stream channel and remove diversion dikes to restore flow; and
- Phase 8: restore the site to pre-construction conditions.

Open-Cut Wet trench Crossing Method

At this time, no open-cut wet trench crossings are proposed for the Project.

The open-cut wet trench crossing method involves the excavation of the pipeline trench across the waterbody, installation of a prefabricated segment of pipeline, and backfilling of the trench with native material. Depending upon the width of the crossing and the reach of the excavating equipment, excavation and backfilling of the trench will generally be accomplished using backhoes or other excavation equipment operating from one or both banks of the waterbody. As required by the Transco Procedures, flow will be maintained at all times. Excavated material from the trench will be placed on the bank above the ordinary high-water mark for use as backfill. The pipe segment will be weighted, as necessary, to provide negative buoyancy and placed below scour depth. Typical back fill cover requirements will be met, contours will be restored within the waterbody, and the banks will be stabilized via seeding and/or the installation of erosion control matting or riprap.

In the event that flow returns in a waterbody where a dry open-cut crossing is proposed, construction will cease until the appropriate dry crossing method (e.g., dam-and-pump, flume) is installed. Temporary diversion structures and necessary construction equipment will be on-site at proposed open-cut wet trench crossings in case it is necessary to switch to a dry crossing method. Weather events (e.g., rainfall, snowmelt) will be monitored and a dry-ditch crossing method will be used if it is likely flow could occur during construction of the crossing.

1.3.3.3 Wetland Crossing Procedures

In accordance with construction methods outlined in the Transco Procedures, the width of the construction ROW will be limited to 75 feet in wetlands, where practicable. *Requested modifications to the FERC Plan and Procedures will be outlined in Table 1.3-1 and provided in the draft RR 1 filing, anticipated second quarter 2024.*

Operation of construction equipment through wetlands will be limited to only that necessary for each stage of pipeline installation (e.g., clearing, trenching). Topsoil segregation techniques will be utilized in unsaturated wetlands to preserve the seed bank and allow for successful restoration. Wetland crossing methods will be determined based on site-specific conditions. Wetlands with soils that can support construction equipment may be crossed using the conventional open-cut method, as described below, with the use of timber mats to prevent soil rutting. In forested wetlands, Transco will minimize tree clearing to the extent practicable while maintaining safe construction conditions. Transco will utilize one of the following methods for installing the pipeline within wetlands during construction:

- Standard Pipeline Construction (non-saturated wetland);
- Conventional Wetland Construction (saturated wetland);
- Push-Pull Technique (inundated wetland); and/or
- Trenchless methods (conventional bore, HDD, or Direct Pipe®).

Inundated wetlands may require installation via the push/pull method in which the pipe is floated to the open trench. When using this method, the welded pipe is pushed along the water-filled trench until it is in place. Once in place over the trench, the floats attached to the pipe are cut and the pipe is allowed to sink into place.

Transco will submit wetland crossing locations along the pipeline and the wetland impact summary tables in draft RR 2, which is anticipated to be filed in the second quarter of 2024.

1.3.3.4 Rugged Topography

Steep Slopes

Rugged topography with steep slopes is present along portions of the pipeline routes and is summarized in Table 1.3-3. *In addition to the summary table below, Transco will submit a list of locations of steep slopes, by MP, in draft RR 6, which is anticipated to be filed in the second quarter of 2024.*

Table 1.3-3
Steep Slopes Crossed by the Project Pipelines

Project Component	Slope 15 to 30 Percent (miles)	Slopes Greater than 30 Percent (miles)	Total Distance[a] (miles)
Eden Loop	*TBD*	*TBD*	*TBD*
Salem Loop	*TBD*	*TBD*	*TBD*
Project Total[a]	***TBD***	***TBD***	***TBD***
[a] Totals may not sum exactly due to rounding			

Steep slopes require special construction procedures. In the areas where slope exceeds 30 percent (and on lesser slopes where dictated by soils, geologic hazards, and other conditions), the construction equipment must be stabilized for safety prior to operation. The preferred method will be "winching" the equipment. This process consists of placing and anchoring a piece of equipment at the top of the slope and using a winch to manipulate the construction equipment up and down the slope. Permanent trench breakers consisting of sandbags or foam will be installed in the ditch over and around the pipe in areas of slope with high erosion potential. Trench breakers also will be used to isolate wet areas and to minimize channeling of groundwater along the ditch line. In areas of rugged topography, ROW restoration will begin within 10 days of final pipeline installation to minimize potential erosion and sedimentation control problems.

Side Slopes

Rugged topography with steep side slopes is present along portions of the pipeline routes and is summarized in Table 1.3-4 and presented in RR 6. The typical workspace requirements for steep side slopes will be presented in typical drawings. *In addition to the summary table below, Transco will submit a list of locations of steep side slopes, by MP, in draft RR 6, which is anticipated to be filed in the second quarter of 2024.*

Table 1.3-4
Steep Side Slopes Crossed by the Project Pipelines

Project Component	Side Slope 15 to 30 Percent (miles)	Side Slopes Greater than 30 Percent (miles)	Total Distance (miles)
Eden Loop	*TBD*	*TBD*	*TBD*

Table 1.3-4
Steep Side Slopes Crossed by the Project Pipelines

Project Component	Side Slope 15 to 30 Percent (miles)	Side Slopes Greater than 30 Percent (miles)	Total Distance (miles)
Salem Loop	*TBD*	*TBD*	*TBD*
Project Total	***TBD***	***TBD***	***TBD***

In areas of side slopes, the upslope side of the pipeline ROW will require the "two-tone" construction technique to provide safe working conditions. In the two-tone construction technique, the uphill side of the construction ROW is cut during grading. The material removed from the cut is used to fill the downhill side of the construction ROW to provide a safe, level surface for operating heavy equipment. The pipeline trench is then excavated along the newly graded ROW. The two-tone construction technique will require ATWS for staging of additional fill material that will be needed to create a level working surface. Following pipeline installation and backfilling of the trench, excavated material is placed back in the cut and compacted to restore the approximate original surface contours.

To ensure the integrity of existing adjacent pipelines on steep and side slopes, Transco will implement safety measures that may include installation of safety fencing, sheet piles, and padding/matting.

1.3.3.5 Agricultural Lands

To preserve soil productivity in agricultural lands, up to 12 inches of topsoil will be segregated and stockpiled separately from subsoil during construction. Transco will utilize full ROW topsoil segregation within agricultural lands. Rock (four inches in size or larger) will be removed from the top 12 inches (topsoil layer) during initial cleanup such that revegetation efforts are not impacted by rock material and the conditions of the construction ROWs are similar in soil composition to surrounding areas. During the backfilling and restoration phases, topsoil will be replaced. Drain tiles or irrigation systems damaged during construction will be repaired or replaced. RR 8 will contain additional information regarding construction procedures and mitigation measures within agricultural lands crossed by the Project. *Transco will submit this information in draft RR 8, which is anticipated to be filed in the second quarter of 2024.*

1.3.3.6 Residential Areas

Residential areas crossed by the Project will be identified in draft RR 8, which is anticipated to be filed in the second quarter of 2024. RR 8 will list the residences and other structures (e.g., commercial buildings and electric transmission line towers) within 50 feet of the construction ROW for the Project. Pursuant to FERC requirements, Transco is developing Project-specific Residential Construction Plans (RCPs) for residences within 50 feet of construction workspace on the Project. *Transco will submit RCPs for occupied residential buildings within 50 feet of construction workspaces with its draft RRs, which are anticipated to be filed in the second quarter of 2024.* These drawings will identify measures to minimize disruption and maintain access to the residences. Transco will implement the following construction measures to minimize construction-related effects on residences and other structures located within 50 feet of the construction ROW:

- Attempting to maintain, where feasible, a minimum distance of 25 feet between a residence and the edge of the construction work area;
- Installing a safety fence at the edge of the construction ROW for a distance of 100 feet on either side of the residence;
- Attempting to leave mature trees and landscaping intact within the construction work area, unless the trees and landscaping interfere with the installation techniques or present unsafe working conditions; and
- Completing final cleanup, grading, and installation of permanent erosion control measures within 10 days after backfilling the trench, weather permitting.

Temporary construction impacts on residential areas could include inconvenience caused by noise and dust generated by construction equipment, construction personnel vehicles, and trenching of roads or driveways; ground disturbance of lawns; removal of trees, landscaped shrubs, or other vegetative screening between residences; damage to existing septic systems or wells; and removal of aboveground structures, such as fences, sheds, or trailers from the ROWs.

Construction through or near residential areas will be done in a manner to ensure that construction activities minimize adverse impacts on residences and that cleanup is prompt and thorough. Affected landowners will be notified at least seven days before construction is to start on their properties unless more advance notice is required by the landowner agreement. Access to homes will be maintained. Transco will implement construction measures in the Transco Plan to minimize construction-related impacts on residential areas.

Topsoil in landscaped lawns will be segregated and replaced, or topsoil will be imported. Immediately after backfilling, residential areas will be restored, and all construction debris will be removed. Rock (four inches in size or larger) will be removed during cleanup such that restoration efforts are consistent with surrounding areas. Compaction testing will be performed, and soil compaction mitigation will be performed in severely compacted areas. Lawns, ornamental shrubs, and specialized landscaping will be restored in accordance with individual landowner agreements, or compensation will be provided to the landowner. Private property, such as mailboxes, fences, gates, and other structures, that have been damaged or removed, will be restored. Sidewalks, driveways, and roads disturbed by pipeline construction will be restored as close as possible to pre-construction conditions upon completion of construction activities.

If the construction ROW crosses a private road or private driveway, Transco will maintain existing access or provide alternative access, so residents have ingress/egress to their homes. In the case of a public road crossing where the road will be open cut, one lane will remain open during construction. Traffic will be controlled with approved devices, such as flaggers and steel plates, in accordance with the applicable or state DOT regulations to accommodate emergency vehicles and school buses (when in session). Traffic will be detoured around the work area only through the use of adjacent public roadways in the event of an approved roadway closure. Traffic safety personnel will be present during construction periods, and signage and safety devices will be implemented and maintained in accordance with applicable roadway utility crossing permits. Notice of potential roadway disturbances related to construction of the Project will be made available to the public by way of the following:

- Publication in newspapers of local circulation;
- Notice provided to affected regional school districts;
- Posted on the affected town bulletins; and/or
- Posted along the affected route via electronic construction signage.

Driveways and access roads will be maintained in accordance with the applicable permits to minimize and/or eliminate the tracking of mud and water onto public roads. Vegetation will be maintained during the use of the driveway and access road in order to maintain a safe and unobstructed sight distance for vehicles entering and exiting the driveways.

Landowners whose access to their property would be affected by roadway construction will receive pre-construction notification either via letter, in-person, or via phone communications from Transco's land agents. At a minimum, Transco will attempt to provide individual notification to immediately affected landowners at least seven days before construction is to start and will attempt to provide general public notifications as early as possible or as required under permit conditions.

1.3.3.7 Stove-Pipe or Drag-Section

Transco will use specialized stove-pipe or drag-section construction in areas that may require restricted workspaces. The stove-pipe construction method typically is used when the pipeline is to be installed in proximity to an existing structure and an open trench would have an adverse impact. The technique involves installing one joint of pipe at a time, in which the welding, weld inspection, and coating activities are all performed in the open trench, thereby reducing the width of the construction ROW. *Transco is evaluating this pipeline construction technique and additional information, if applicable, will be provided with its draft RRs, which are anticipated to be filed in the second quarter of 2024.*

The drag-section construction method is another method that is used for construction in areas that may require restricted workspaces. This technique involves trenching, installing a prefabricated length of pipe containing several segments, and backfilling, as soon as practicable. *Transco is evaluating this pipeline construction technique and additional information, if applicable, will be provided with its draft RRs, which are anticipated to be filed in the second quarter of 2024.*

Both stove-pipe and drag-section methods result in the trench being backfilled and/or covered with steel plates or equipment mats or protected by fencing, as necessary, to confirm safety at the end of each day.

1.3.3.8 Utility Crossings

The Project will encounter buried utilities throughout the construction ROW. The location of buried utilities will be confirmed through potholing or other methods prior to construction of the pipeline, and, when possible, the depth and orientation of the buried utility will be determined. The Project will be designed and constructed to avoid or minimize impacts on existing utility lines; however, in some instances, utility relocation (temporary or permanent) may be required for installation of the new pipeline. Transco will coordinate necessary relocation with the affected utility.

Crossing of foreign pipelines generally requires the pipeline to be buried at greater depths, depending upon the depth of the foreign pipeline. Transco will maintain a minimum of 24 inches of clearance when crossing foreign pipelines, utilities, or other structures. Pipeline burial depths in areas requiring special construction techniques through rock will comply with USDOT requirements (49 CFR Part 192). Prior to the commencement of construction activities, Transco or contractor will contact the appropriate state's "Call Before You Dig" system as well as the national "811" call system, to identify and mark underground utilities and foreign pipelines. Trenching in the vicinity of these foreign utilities will begin only after appropriate notification procedures are complete. *Additional information regarding utilities crossed by the Project will be provided in draft RR 8, which is anticipated to be filed in the second quarter of 2024.*

1.3.3.9 Road and Railroad Crossings

Prior to road crossing construction, Transco or contractor will locate all existing underground utilities and make provisions for traffic management in work areas, as necessary. The majority of road crossings will be completed using standard open cut or trenchless methods, such as conventional bore methods as discussed in Section 1.3.3.1. Safe and accessible conditions will be maintained during construction at road crossings per the Transco Plan.

The pipeline will be buried to a depth of at least five feet below the road surface through the road ROW and will be designed to withstand anticipated external loadings. Where the ROW or access roads intersect public roads, a construction entrance will be installed for access at ROW entrances and as needed at additional access road locations. To prevent sediment from being washed from the construction ROW onto roads during a rain event, sediment barriers will be installed adjacent to paved roads. *Additional information regarding public and private roads crossed by the Project will be provided in draft RR 8, which is anticipated to be filed in the second quarter of 2024.*

Railroad crossings will typically be completed using trenchless methods depending on site conditions as discussed in Section 1.3.3.1. *Transco will submit additional information regarding the crossing of railroads associated with the Project in draft RR 8, which is anticipated to be filed in the second quarter of 2024.*

1.3.3.10 Rock Removal

Rock encountered during trenching will be removed using one of the following techniques:

- Conventional excavating with a backhoe;
- Ripping with a bulldozer, followed by backhoe excavation;
- Hammering with a pointed backhoe attachment or a pneumatic rock hammer, followed by backhoe excavation;
- Rock ripping; or
- Blasting, followed by backhoe excavation.

The technique selected will depend on rock properties, such as relative hardness, fracture susceptibility, expected volume, and location.

Transco is evaluating the Project for the need for blasting during construction. Where blasting is required, it will be performed according to strict guidelines designed to control energy release. Transco will develop a Project-specific Blasting Plan that establishes procedures and safety measures to which Transco's contractor will be required to adhere while conducting blasting activities along the pipeline ROWs during the Project. Prior to blasting activities, Transco's contractor will be required to submit a detailed Blasting Specification Plan to Transco that is consistent with the provisions of the Blasting Plan.

Proper safeguards will be taken to protect people and property in the area. *Transco will submit details relative to blasting, including a table denoting areas where the depth to rock is likely less than 84 inches based on published soil survey data in draft RR 6, which is anticipated to be filed in the second quarter of 2024.* Transco assumes that rock removal will be required at these locations. Mats made of heavy steel mesh or other materials will be used, as necessary, to prevent scattering of rock and debris. Sand and/or gravel from off-site will be utilized for packing of blast charges in all areas requiring blasting, including wetlands and waterbodies. While performing blasting activities, Transco will adhere to regulations applicable to controlled-blasting and blast vibration limits with regard to structures and underground utilities. Special care will be taken to monitor and assess blasting within 150 feet of the centerline of the pipeline to dwellings and private or public water supply wells.

Excess rock is defined as all rock that cannot be returned to the existing rock profile in the trench or graded cuts or is not needed to restore the ROW surface to a condition comparable to that found adjacent to the ROWs. Excess rock will be beneficially reused or recycled if possible and in accordance with applicable regulatory agencies. If approved for use as slope stabilization,

windrowing, or for some other use on the construction work areas approved by FERC, the landowner, and/or applicable regulatory agencies, the material will remain on-site. As a last resort, the rock will be hauled off the ROWs and disposed of at an approved disposal facility.

1.3.3.11 Trench Dewatering

Trench dewatering is required for the removal of stormwater or infiltrated water in areas of shallow groundwater or saturated wetlands. The water will be pumped from the trench to a location downgradient of the trench and in a manner that does not cause erosion and does not result in heavily silt-laden water flowing into a waterbody or wetland. The water will be discharged to an energy dissipation dewatering device, such as a hay bale structure or a filter bag. Heavily silt-laden water must first pass through a filter bag. The dewatering structure will be removed as soon as possible after completion of the dewatering activities. Trench plugs will be used where necessary to separate the upland trench from adjacent wetlands or waterbodies to prevent the inadvertent draining of the wetland or diversion of water from the waterbody into the pipe trench. Pumps will be placed in secondary containment structures.

1.3.3.12 Winter Construction

Winter construction techniques are required in some parts of the country that experience extended periods of freezing conditions or heavy snowfall events. Winter construction techniques typically include managing snow, working with frozen soils, and managing hydrostatic discharge water under freezing conditions. Winter construction techniques also include the application of temporary erosion and sediment control measures to protect against accelerated erosion during spring snowmelt and heavy spring rains. Temporary BMPs may include installation of sediment barriers, application of mulch or installation of erosion control matting, temporary seeding, and/or installation of other BMPs. These temporary controls are maintained during Project construction and reinstalled as necessary until permanent BMPs are constructed and/or permanent stabilization has occurred. *Transco's Winter Construction Plan will be submitted with its draft RRs, which are anticipated to be filed in the second quarter of 2024.*

1.3.4 Aboveground Facilities

The aboveground facilities will be constructed in accordance with Transco's specifications and USDOT requirements. The duration of construction for the aboveground facilities will vary based on the scope of the work required to construct each proposed facility.

1.3.4.1 Clearing and Grading

Aboveground facility sites will be cleared of vegetation, graded, and compacted, as necessary, to create level surfaces for the movement of construction vehicles on the sites and to prepare the areas for construction. Transco will install appropriate erosion and sediment controls around disturbed areas prior to the start of facility construction to minimize the potential for erosion and the potential for impacts on off-site wetlands and waterbodies.

1.3.4.2 Foundations

Building foundations will be constructed of reinforced concrete. Buildings and associated equipment will be placed on the foundations. Topsoil, if present, will be stripped from the area where foundations are to be constructed. Such soil may be used on-site, either for landscaping or for final site restoration. Additional soil or subsurface materials may be imported from approved sources to achieve the desired site/foundation grade.

1.3.4.3 Building Design and Construction

The building type (e.g., steel structure, concrete module) and necessity would be evaluated based on climate, operating conditions, permit conditions, and compliance with land use regulations or noise mitigation purposes. Buildings shall be adequately ventilated, equipped with lighting and insulation if required, and have a sufficient number of doorways to provide unobstructed access for personnel. Steel building structures will be painted with a durable coating system to protect them from the outside elements. During a typical building construction sequence, the pre-fabricated structural members, steel plate, steel roof decking, gutters and all associated hardware are off loaded from the transport trailer and then are installed and erected in place on the constructed foundation and/or pad. All of the building components will be appropriately connected and tied into each other according to the manufacturer's installation specifications and appropriately waterproofed.

Selection of module structures will require an appropriately sized mobile crane to lift the building module(s) off of the transport trailer and set them in place on the previously constructed foundation wall and/or pad. All of the modules will be appropriately connected and tied into each other according to the manufacturer's installation specifications and appropriately waterproofed. In addition, whether the selection is a steel structure or a concrete module, the design will include cutouts for protrusions through the structure (e.g., electrical and communications conduits and other piping) and will be flashed to confirm that the buildings will be weather-tight. Noise abatement equipment may also be installed during this phase of construction.

1.3.4.4 Pressure Testing

Prior to placing the aboveground facilities into service, Transco proposes to conduct pressure testing of the piping system. Transco will conduct this testing in accordance with applicable federal and state codes or regulatory requirements.

1.3.4.5 Infrastructure Facilities

The installation of the infrastructure facilities includes the various components of auxiliary equipment, piping, and other electrical and mechanical systems. Permanent access roads and parking areas will be constructed during construction of the aboveground facilities. *Transco anticipates submitting information related to access roads in draft RR 8, which is anticipated to be filed in the second quarter of 2024.*

1.3.4.6 Restoration

Prior to construction, Transco will develop plans for the final grading and landscaping of the areas that will be disturbed during construction, including visual screening measures that may be necessary. These final grading and landscaping plans will be consistent with the Transco Plan for the restoration of uplands. If necessary, visual screening will be incorporated into the design.. Once construction is complete, disturbed areas of aboveground facilities that are not covered with impervious surface or gravel will be finish-graded and seeded to stabilize soils. A security fence then will be constructed around the facility.

1.3.5 Environmental Compliance and Inspection

For purposes of quality assurance and compliance with mitigation measures and other applicable regulatory requirements, Transco will be represented on each construction spread by a Chief Inspector. The Chief Inspector will be assisted by one or more craft inspectors and an environmental compliance manager. Additionally, a lead Environmental Inspector will oversee several other Environmental Inspectors. The Environmental Inspectors will report directly to Transco's Construction Manager and will have stop work authority. The Environmental Inspectors' duties are consistent with those contained in paragraph III.B, *Responsibilities of the Environmental Inspector*, of the Transco Plan and will include ensuring Project compliance with environmental conditions associated with the FERC Certificate, Transco's environmental designs and specifications, and environmental conditions attached to other permits or authorizations. Prior to construction, Project Environmental Inspectors and the contractor's supervisory personnel will receive copies of the Project permits, compliance documents and the construction drawings.

Transco's engineering and construction departments are responsible for designing and constructing certificated facilities in compliance with regulatory and non-regulatory requirements and agreements. Transco's operations department will be responsible for long-term Project maintenance and regulatory compliance.

Routine reporting or specific communication with FERC staff regarding design, installation, and maintenance of the facilities described in this RR will be the responsibility of Transco's Environmental Department. FERC staff inquiries regarding these proposed facilities should be addressed to Transco's Environmental Department.

1.3.6 Training

Transco will conduct safety and specialized training for its Environmental Inspectors and general environmental awareness training for other company construction personnel and contractors regarding proper field implementation of the Transco Plan and Transco Procedures, regulatory conditions, and other mitigation measures. Transco's Operation and Maintenance Plan will include copies of pertinent permits, with particular reference to long-term permit conditions that require training.

1.4 OPERATION AND MAINTENANCE PROCEDURES

Transco will operate and maintain the proposed facilities in compliance with USDOT regulations provided in 49 CFR Part 192, the FERC guidance in 18 CFR 380.15, and maintenance provisions of the Transco Plan and Transco Procedures. The facilities will be operated and maintained in a manner such that pipeline integrity is protected to confirm that a safe, continuous supply of natural gas reaches its ultimate destination. Maintenance activities will include regularly scheduled gas-leak surveys and measures necessary to repair potential leaks. The latter may include repair or replacement of pipe segments. All fence posts, signs, marker posts, aerial markers, and decals will be painted or replaced to verify that the pipeline locations will be visible from the air and ground. The pipeline and aboveground facilities will be patrolled on a routine basis, and personnel well qualified to perform both emergency and routine maintenance on interstate pipeline facilities will handle maintenance. *Operation and maintenance considerations for the proposed facilities with regard to safety will be further described in draft RR 11, which is anticipated to be filed in the second quarter of 2024.*

1.4.1 Pipeline Facilities

Operational activity on the pipeline will be limited primarily to maintenance of the permanent ROW and inspection, repair, and cleaning of the pipeline itself. Regular pipeline

patrols will provide information on possible leaks, third party construction activities, erosion, exposed pipe, population density, possible encroachment, and other potential problems that may affect the safety and operation of the pipeline. In addition, Transco will be a participant in the "One Call" system for utility companies. Under the "One Call" system, anyone planning excavation activities must call a dedicated telephone number to alert all utility companies. Representatives of the utility companies that may be affected visit the site and mark their facilities so that the excavation can proceed with relative certainty as to the location of all underground lines. The pipeline cathodic protection system also will be monitored and inspected periodically to verify proper and adequate corrosion protection. Appropriate responses to conditions observed during inspection will be taken.

Other maintenance functions will include: 1) periodic seasonal mowing of the ROWs in accordance with the timing restrictions outlined in the Transco Plan; 2) terrace repair, backfill replacement, and drain tile repair, as necessary; 3) periodic inspection of water crossings; and 4) maintenance of a supply of emergency pipe, leak repair clamps, sleeves, and other equipment needed for repair activities. Transco will not use herbicides or pesticides within 100 feet of a wetland or waterbody unless approved by applicable regulatory agencies.

1.4.1.1 Cleared Areas

New, permanent ROW will be required for operation of the pipeline loops. The pipeline loops will be collocated with the existing Mainline ROW to the extent practicable. For portions of the pipeline loops that are collocated with the existing Mainline System, on average an additional 25 feet of permanent ROW may be cleared and maintained; the width of new ROW may vary in some areas. Maintaining a cleared ROW is necessary for the following reasons:

- Access for routine pipeline patrols and corrosion surveys;
- Access in the event that emergency repairs of the pipeline are needed;
- Visibility during aerial patrols; and
- To serve as a visual indicator to the public of an underground pipeline utility and easement.

In accordance with the Transco Plan and Transco Procedures, vegetation will be maintained within both upland and wetland portions along Transco's permanent ROW. In wetlands, maintenance will be limited to the 10-foot-wide corridor centered over the pipelines to facilitate route patrols and emergency access. However, Transco reserves the right to selectively cut and remove trees within wetlands that are larger than 15 feet in height that are located within

15 feet of the pipeline with roots that could compromise the integrity of pipeline coating. Operational vegetation maintenance within upland portions of Transco's permanent ROW will be conducted with a frequency of approximately once every three years to maintain an herbaceous cover state.

Following construction of the pipeline facilities, temporary construction workspaces and ATWS will be allowed to revert to pre-construction land use/land cover, with no further vegetation maintenance by Transco. Additionally, crop production will be allowed to continue in agricultural areas immediately following construction or during the following growing season.

1.4.1.2 Erosion Control

Erosion concerns on the pipeline ROW will be reported to the local operations supervisor. These reports may originate from landowners or Transco's routine patrol of the ROW. Corrective measures will be conducted, as needed.

1.4.1.3 Periodic Pipeline and ROW Patrols

Transco's permanent pipeline ROW will be patrolled periodically. The frequency of the patrol of the pipeline by either aerial or ground surveys will be determined in accordance with Pipeline and Hazardous Materials Safety Administration requirements by the pipeline size, operating pressure, class, terrain, weather, and other relevant factors. The interval between patrols may not be longer than prescribed in Table 1.4-1.

Table 1.4-1
Maximum Interval between Patrols

Class Location of Pipeline [a]	At Highway and Railroad Crossings	At All Other Places
1 and 2	7-1/2 months, but at least twice each calendar year	15 months, but at least once each calendar year
3	4-1/2 months, but at least four times each calendar year	7-1/2 months, but at least twice each calendar year
4	4-1/2 months, but at least four times each calendar year	4-1/2 months, but at least four times each calendar year

[a] As defined by USDOT PHMSA at 49 CFR 192.5:

Class 1: offshore areas and areas within 220 yards of a pipeline with ≤10 buildings intended for human occupancy.

Class 2: areas within 220 yards of a pipeline with >10 but <46 buildings intended for human occupancy.

Class 3: areas within 220 yards of a pipeline with ≥46 buildings intended for human occupancy; and areas within 100 yards of either a building or a small, well defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least five days per week for 10 weeks in any 12-month period.

Class 4: areas within 220 yards of a pipeline where buildings with four or more stories are prevalent.

Additional ground surveys will be conducted on an as-needed basis to respond to issues such as landowner concerns and third-party encroachments. During ROW patrols, all permanent erosion control devices that are installed during construction will be inspected to confirm that they function properly.

Additionally, attention will be given to:

- Existing stormwater outfalls along the alignment;
- Erosion and washouts along the ROW;
- Soil movement in steep slope areas;
- Water control devices, such as diversions;
- Condition of banks at drainage ditch crossings;
- Fallen timber or other threats to the pipeline;
- Shrubs and other vegetation planted during construction;
- Other conditions that could endanger the pipeline; and
- The local operations supervisor will be notified of conditions that need attention. Corrective measures will be performed, as needed.

1.4.2 Aboveground Facilities

Transco will operate and maintain the proposed aboveground facilities in accordance with standard procedures designed to verify the integrity of the facilities and to provide its customers and the general public with a safe and dependable natural gas supply. The facilities will be designed, constructed, and operated in accordance with requirements of the Commission, USDOT, industry-proven practices and techniques, and other regulatory requirements, as applicable.

In accordance with USDOT regulations (49 CFR Part 192), the facilities will be inspected regularly for leakage as part of scheduled operations and maintenance. Standard operations at aboveground facilities include activities, such as the calibration, maintenance, and inspection of equipment; the monitoring of pressure, temperature, and vibration data; and traditional landscape maintenance, such as mowing. Standard operations also include the periodic checking of safety and emergency equipment and cathodic protection systems.

Project facilities will be marked and identified in accordance with applicable regulations. Liaison will be maintained with the public and government agencies. Overall, maintenance activities will be in compliance with requirements of the Transco Plan, as well as other applicable regulatory requirements. The aboveground facilities will be linked to Transco's information and

data software networks and infrastructure that monitor the pipeline system on a 24-hour-per-day basis.

1.5 FUTURE PLANS AND ABANDONMENT

Transco currently has no plans for future expansion or abandonment of the Project facilities described in this Application. At the end of the useful life of the pipeline and aboveground facilities, Transco would obtain the necessary authorizations to abandon its facilities. Abandonment of the Transco facilities would require prior authorization from FERC. Transco would submit to FERC the appropriate application under the Commission's regulation at 18 CFR 157.18 seeking abandonment authorization and would comply with applicable FERC regulations existing at the time of abandonment.

As an open access pipeline, Transco's FERC Gas Tariff, consistent with Commission policy, provides a process by which shippers may request additional interconnections with Transco's pipeline system. Additional requests for interconnections on the Transco system will be processed separately from the Project facilities, according to applicable Commission regulations and policies governing interconnections. If requests are made, Transco will design facilities needed for a future expansion (which may consist of pipeline looping, compression, and/or cooling facilities) to be compatible with Transco's existing facilities, including the Project facilities, and will undergo the applicable regulatory review (including the necessary approvals from the Commission) for any such future expansion.

1.6 PERMITS AND APPROVALS

The Project will comply with federal environmental and energy policies and regulations and with state environmental regulations to the extent that they are consistent with the FERC approval, once issued, and do not prohibit or unreasonably delay the construction and operation of the facilities approved by FERC. The anticipated environmental permits, licenses, approvals, and certificates that have been identified to date and will be sought for the Project are identified in Table 1.6-1. Transco and its representatives have and will continue to consult federal, state, and local regulatory officials and government agencies regarding this Project. *A table summarizing agency correspondence completed to date will be provided as Appendix 1F in the draft RR filing, anticipated second quarter 2024. Copies of agency consultation will be included in their respective RRs by subject matter (e.g., cultural resource related correspondence is provided in RR 4) with the draft RR filing, anticipated second quarter 2024.*

FERC is the designated lead agency for the Project for purposes of coordinating all applicable federal authorizations and for the purposes of complying with the National Environmental Policy Act, 15 U.S.C. § 717n(b)(1). The Natural Gas Act requires each federal and state agency considering an aspect of an application for a federal authorization to cooperate with FERC and comply with the deadlines established by FERC, 15 U.S.C. § 717n(b)(2). The purpose of this is to "ensure expeditious completion" of the review of all federal authorization applications, 15 U.S.C. § 717n(c)(1). In accordance with FERC's regulations, each federal or state agency responsible for a federal authorization, including agencies presented in Table 1.6-1 below, must file with FERC within 30 days of the date of receipt of a request for a federal authorization notice of, among other things, whether the application is ready for processing, and if not, what additional information or materials will be necessary to assess the merits of the request, 18 CFR 385.2013. Each federal or state agency must also provide, within 30 days of the date of receipt of a request for a federal authorization, notice to FERC of the anticipated date of the agency's final decision, 18 CFR 385.2013.

Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Project

Permit/Approval	Administering Agency	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
Federal				
Certificate of Public Convenience and Necessity (Certificate)	FERC	*(September 2024)*	*(February 2026)*	Pre-filing February 2024 - May 2024; Certificate application in development.
Clean Water Act (CWA) Section 404 Permit/ Section 10 River and Harbor Act	USACE Norfolk District	*(4th Quarter 2024)*	*(1st Quarter 2026)*	-
CWA Section 404 Permit/ Section 10 River and Harbor Act	USACE Wilmington District	*(4th Quarter 2024)*	*(1st Quarter 2026)*	-
CWA Section 404 Permit/ Section 10 River and Harbor Act	USACE Charleston District	*(4th Quarter 2024)*	*(1st Quarter 2026)*	Permit not anticipated.
CWA Section 404 Permit/ Section 10 River and Harbor Act	USACE Savannah District	*(4th Quarter 2024)*	*(1st Quarter 2026)*	Permit not anticipated.
CWA Section 404 Permit/ Section 10 River and Harbor Act	USACE Mobile District	*(4th Quarter 2024)*	*(1st Quarter 2026)*	Permit not anticipated.
Consultation for: Threatened and Endangered Species; Migratory Bird Treaty Act; and Bald and Golden Eagle Protection Act	USFWS Virginia Field Office	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-
Consultation for: Threatened and Endangered Species; Migratory Bird Treaty Act; and Bald and Golden Eagle Protection Act	USFWS Raleigh Field Office	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-
Consultation for: Threatened and Endangered Species; Migratory Bird Treaty Act; and Bald and Golden Eagle Protection Act	USFWS Asheville Field Office	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-
Consultation for: Threatened and Endangered Species; Migratory Bird Treaty Act; and Bald and Golden Eagle Protection Act	USFWS South Carolina Field Office	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-

Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Project

Permit/Approval	Administering Agency	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
Consultation for: Threatened and Endangered Species; Migratory Bird Treaty Act; and Bald and Golden Eagle Protection Act	USFWS Georgia Field Office	(*1st Quarter 2024*)	*2nd Quarter 2025*)	-
Consultation for: Threatened and Endangered Species; Migratory Bird Treaty Act; and Bald and Golden Eagle Protection Act	USFWS Alabama Field Office	(*1st Quarter 2024*)	*2nd Quarter 2025*)	-
Virginia				
Subaqueous Lands Bottom Permit	Virginia Marine Resource Commission	*(4th Quarter 2024)*	*(4th Quarter 2025)*	Crossings of streams greater than five square miles of watershed in size.
Clean Water Act (CWA) Section 401 Water Quality Certification – Individual Virginia Water Protection Permit	Virginia Department of Environmental Quality	*(4th Quarter 2024)*	*(4th Quarter 2025)*	Due to § 7(c) authorization and greater than 36-inch diameter, Project requires Individual Virginia Water Protection Permit and Upland Certification Application; standard Joint Permit Application for Individual Virginia Water Protection Permit.
CWA Section 401 Water Quality Certification – Upland Certification		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Must submit separate Upland Certification Application at the same time as standard Joint Permit Application.
Erosion and Sediment Control and Stormwater Management		*(4th Quarter 2024)*	*(4th Quarter 2025)*	-
Stormwater Variance Request		*(4th Quarter 2024)*	*(4th Quarter 2025)*	-
Stormwater Deviation Request		*(4th Quarter 2024)*	*(4th Quarter 2025)*	-
CWA Section 402 NPDES – Hydrostatic Test Water Discharge Permit/Approval (VPDES VAG83)		*(4th Quarter 2024)*	*(4th Quarter 2025)*	-

Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Project

Permit/Approval	Administering Agency	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
Stormwater Exception Request Pursuant to Title 9 Virginia Administrative Code		*(4th Quarter 2024)*	*(4th Quarter 2025)*	-
Air Permit – *TBD*		*(3rd Quarter 2025)*	*(4th Quarter 2025)*	-
Consultation for: rare, threatened, and endangered species	Virginia Department of Conservation and Recreation	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-
Consultation for: rare, threatened, and endangered species	Virginia Department of Wildlife Resources	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-
Consultation for: rare, threatened, and endangered species	Virginia Department of Agriculture and Consumer Services and Virginia Department of Health	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-
Section 106, National Historic Preservation Act Consultation	Virginia Department of Historic Resources	*(1st Quarter 2024)*	*(1st Quarter 2025)*	-

Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Project

Permit/Approval	Administering Agency	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
North Carolina				
CWA Section 401 Water Quality Certification	North Carolina Department of Environmental Quality	*(4th Quarter 2024)*	*(4th Quarter 2025)*	-
Isolated Wetlands/Water Permit		*(4th Quarter 2024)*	*(4th Quarter 2025)*	-
Buffer Authorization or Variance		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Salem Loop Crosses Jordan Lake Riparian Protection Buffer and Randleman Lake Riparian Protection Buffer.
General Permit NCG010000: Stormwater Discharges from Construction Activities and Erosion and Sedimentation Plan Control Approval		*(4th Quarter 2024)*	*(4th Quarter 2025)*	-
Air Permit – Minor Modification		*(3rd Quarter 2025)*	*(4th Quarter 2025)*	-
Consultation for: rare, threatened, and endangered species	North Carolina Natural Heritage Program; Natural and Cultural Resources	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	
Consultation for: rare, threatened, and endangered species	North Carolina Wildlife Resources Program	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	
Section 106, National Historic Preservation Act Consultation	North Carolina Department of Natural and Cultural Resources	*(1st Quarter 2024)*	*(2nd Quarter 2025)*	-
	North Carolina State Historic Preservation Office	*(1st Quarter 2024)*	*(1st Quarter 2025)*	-
South Carolina				
CWA Section 401 Water Quality Certification	South Carolina Department of Health and Environmental Control (SCDHEC)	*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
NPDES General Permit for Stormwater Discharges from Construction Activities (SCR100000)		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
NPDES Hydrostatic Test Water Discharges		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design

Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Project

Permit/Approval	Administering Agency	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
Surface Water Withdrawal Permit		(*1st Quarter 2025*)	(*4th Quarter 2025*)	Pending Design
Consultation for: rare, threatened, and endangered species	South Carolina Department of Natural Resources	(*1st Quarter 2024*)	(*2nd Quarter 2025*)	-
Section 106, National Historic Preservation Act Consultation	South Carolina Archives and History Center	(*1st Quarter 2024*)	(*1st Quarter 2025*)	-
Georgia				
CWA Section 401 Water Quality Certification	Georgia Department of National Resources – Environmental Division	*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
Hydrostatic Test Water Uptake and Discharge Permit		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
Stream Buffer Variance Permit		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
NPDES Permit for Stormwater Discharges (Permit No. GAR100001)		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
Consultation for: rare, threatened, and endangered species (including Natural Heritage Inventory and Coldwater Fisheries Review)	Georgia Department of Natural Resources – Wildlife Resource Division	(*1st Quarter 2024*)	(*2nd Quarter 2025*)	-
Section 106, National Historic Preservation Act Consultation	Georgia State Historic Preservation Office	(*1st Quarter 2024*)	(*1st Quarter 2025*)	-
Alabama				
CWA Section 401 Water Quality Certification	Alabama Department of Environmental Management	*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
NPDES General Permit No. ALR100000 for Stormwater Discharges from Construction Activities		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
NPDES General Permit No. ALG670000 for Hydrostatic Test Discharges		*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design

Table 1.6-1
Anticipated Permits, Licenses, Approvals, and Consultations to be Applied for/Requested for the Project

Permit/Approval	Administering Agency	(*Anticipated*) Filing Date	(*Anticipated*) Receipt Date	Status
Consultation for: rare, threatened, and endangered species	Alabama Department of Conservation of Natural Resources – Wildlife and Freshwater Fisheries Division	(*1st Quarter 2024*)	(*2nd Quarter 2025*)	-
Water Withdrawal Authorization	ADECA – Office of Water Resources	*(4th Quarter 2024)*	*(4th Quarter 2025)*	Pending Design
Section 106, National Historic Preservation Act Consultation	Georgia State Historic Preservation Office	(*1st Quarter 2024*)	(*1st Quarter 2025*)	-
Local				
TBD	*TBD*	*TBD*	*TBD*	*TBD*

Key:
ADECA = Alabama Department of Economic and Community Affairs
NPDES = National Pollutant Discharge Elimination System
USFWS = U.S. Fish and Wildlife Service
VPDES = VA Pollutant Discharge Elimination System

Note: *Additional information regarding anticipated permits, licenses, approvals, and consultations to be applied for/requested for the Project denoted as TBD will be provided in the draft RR filing, anticipated second quarter 2024.*

1.6.1 Federal Energy Regulatory Commission Pre-Filing

Pursuant to Section 7(c) of the Natural Gas Act, the Commission will determine whether the Project is in the public convenience and necessity. On February 1, 2024, Transco submitted its request to participate in the Commission's pre-filing review process, pursuant to the Commission's regulations at 18 CFR 157.21. The purpose of the pre-filing process is to involve interested stakeholders early in the Project planning process and to identify and resolve issues prior to filing the Certificate application as discussed in Section 1.7.

1.7 PROJECT OUTREACH

Transco began efforts to inform the public, including governmental officials, about the Project in November 2023. The objective in implementing a comprehensive stakeholder outreach strategy is to educate and build relationships with interested stakeholders and communities. Transco began its outreach efforts by contacting state legislative officials and subsequently contacted other interested stakeholders, including landowners; local, state, and federal agencies; and state, county, and municipal governmental officials within the Project. Transco has attempted and will continue to attempt to identify and resolve issues raised by stakeholders. Outreach efforts are ongoing.

Transco's outreach strategy seeks to:

- Personalize the company. In order to carry out public outreach activities in the pre-siting stage, Transco works with stakeholders including potentially impacted communities and local officials to communicate with them on a personal level.
- Build relationships. Transco researches a variety of different sources to develop a list of stakeholder contacts. An essential key to managing the flow of information to the public, communities, emergency responders and other stakeholders is to first develop and maintain a stakeholder database.
- Conduct early meetings with key stakeholders. Listen to the stakeholders' thoughts, questions or concerns and proactively work with them to reach win-win solutions.
- Educate stakeholders. It is critical that stakeholders understand: (1) the FERC certificate process; and (2) the company's plans and timelines related to the execution and construction of the Project and the economic benefits that could accrue to the local communities as a result of the Project.

- Maintain openness. By making stakeholders aware of new developments and providing them with timely information, they will begin to perceive Transco as an important information source. The absence of information from the company could lead to speculation and misinformation.
- Build trusted third-party endorsement. Earning endorsements from trusted persons and groups lends credibility to the pipeline company and its intentions to develop and construct the Project.
- Support local communities. Transco is committed to being a good neighbor by putting safety, environmental stewardship, and community support at the heart of its operations.
- Provide communication channels. Transco will implement methods to ensure the public, affected landowners, and community stakeholders have viable and effective means to communicate with Transco regarding the Project.

For the Project, Transco has proposed facilities that seek to balance landowner and community concerns, environmental resource issues, and Project requirements. In accordance with the guidelines adopted by the Commission, Transco encourages landowners; federal, state, county, and municipal government officials; environmental groups; environmental justice stakeholders; and other stakeholders to discuss their concerns with Transco, as well as the Commission, and to provide input on the most appropriate location for the pipelines and related facilities associated with the Project. Stakeholders identified to date are provided in Appendix 1D.

1.7.1 Public Participation

Beginning in November 2023, Transco has contacted (a) federal, state, county, and municipal government officials; (b) state legislators in the communities located along the Project facilities; (c) state executive offices, state administration officials, state legislative leadership; (d) U.S. Congressional delegations and their staffs; and (e) local organizations and environmental justice stakeholders regarding the Project. Periodic updates will be provided to governmental officials and other stakeholders until construction of the Project is complete. Land agents will continue to be available to address issues through construction and until the Project is in service.

In summary, Transco's community outreach program will include the following elements:

- Open house schedule mailed to affected parties;
- Newspaper advertisements of open houses placed in newspapers of general circulation in the Project area;

- Open houses (virtual and in-person) held in the county of each major Project scope item;
- Newspaper advertisements prior to commencement of construction, which will be placed in those same publications;
- Notification to businesses potentially affected by construction;
- Designation of a point of contact for stakeholder communication;
- A Project toll free telephone number for public inquiries; and
- A Project website with periodic updates of relevant information.

1.7.1.1 Public Open Houses

As part of the public outreach process, Transco will provide information regarding the Project as well as the Commission's regulatory process. The open house process will include:

- In-person open houses; and
- A virtual open house held online.

In-Person Open Houses

Transco will hold meetings along the pipeline routes (in Pittsylvania County, VA, Davidson County, NC, Forsyth County, NC, Guilford, NC, and Rockingham County, NC). An open house will also be held in Cleveland County, NC. The dates when the open house meetings will occur are identified in Table 1.7-1. During the in-person open houses, information will be shared including:

- An overview of the Project;
- Information regarding the FERC process and how to participate;
- A review of maps associated with the Project in each county; and
- The ability for participants to ask questions.

Table 1.7-1
In-Person Open Houses

Project Component	County/State	Date	Location	Time
Eden Loop and Associated Facilities & Compressor Station 165	Pittsylvania County, VA	Wednesday, March 6	Pittsylvania Community Center Grand Hall	5:00 – 7:00pm eastern
Eden Loop and Associated Facilities	Rockingham County, NC	Thursday, March 7	Vera Holland Community Center	5:00 – 7:00pm eastern

Table 1.7-1
In-Person Open Houses

Project Component	County/State	Date	Location	Time
Salem Loop	Forsyth County, NC	Monday, March 11	Benton Conference Center	5:00 – 7:00pm eastern
Salem Loop	Guilford County, NC	Tuesday, March 12	Guilford Convention Center	5:00 – 7:00pm eastern
Salem Loop and Compressor Station 155	Davidson County, NC	Wednesday, March 13	Robbins Rec Center Meeting Room	5:00 – 7:00pm eastern
Compressor Station 150	Iredell County, NC	Tuesday, March 19	Statesville Civic Center	5:00 – 7:00pm eastern
Compressor Station 145	Cleveland County, NC	Thursday, March 14	Grover Town Hall / Municipal Complex	5:00 – 7:00pm eastern

Virtual Open House

In addition to the in-person open houses, Transco will hold a virtual open house, namely to accommodate landowners, stakeholders and members of the public who are unable, or not inclined to attend an in-person event.

The virtual open house will be held via an online platform, allowing participants to access information about the Project during the designated session listed in Table 1.7-2 below. During the virtual session, information will be shared including:

- An overview of the Project;
- Information regarding the FERC process and how to participate;
- A review of maps associated with the Project in each county; and
- The ability for participants to ask questions, which will be responded to via a Frequently Asked Questions document.

The virtual open house will be hosted via an enterprise level online webinar platform with the ability to accommodate participants via a browser-based attendee experience.

Table 1.7-2
Virtual Open House

Project Component	County/State	Date	Location	Time
All Project Facilities	All Project states and counties	Monday, March 18	Online Virtual Session	6:00pm eastern

1.7.1.2 Landowner Consultations

The names and addresses of potentially affected landowners are provided in Appendix 1E. Potentially affected landowners were contacted beginning in December 2023 to request access for civil and environmental surveys (wetland/waterbody delineation, habitat evaluations, cultural resources) for the pipeline route, access roads, contractor yards, contractor staging areas, and aboveground facility sites. Field work for the Project facilities is anticipated to begin in February 2024. Surveys will continue through 2024 during the appropriate survey windows. RR 2, RR 3, and RR 4 will provide details regarding biological and cultural resource survey status, survey windows, protocols, and findings.

In accordance with Section 157.6(d) of the Commission's regulations (18 CFR 157.6(d)), Transco will provide notification of the Project to affected and abutting landowners within three business days following the date that the Commission issues a notice of the Certificate Proceeding for the Project. In addition, within three business days of the date that the Commission assigns a docket number to the Certificate application, a copy of the Certificate application will be placed in public libraries across the Project area. Transco also will have a public notice of the filing of the Certificate application published twice in a daily or weekly newspaper of general circulation across the Project area no later than 14 days after the Commission assigns a docket number to the Certificate application.

Transco's land representatives follow the guidelines listed in the INGAA publication entitled *American's Natural Gas Transporters' Commitment to Landowners* (INGAA 2019). Transco will implement a Landowner Complaint Resolution Procedure for construction-related landowner complaints. *Transco will provide its Landowner Complaint Resolution Procedure with a subsequent version of draft RR1, which is anticipated to be filed in the second quarter of 2024.*

1.7.1.3 Environmental Justice Communities

As a part of public outreach efforts, Transco will engage with community-based organizations affected by the Project. Transco is assessing the potential economic benefits of the proposed Project, and is identifying local, county and regional benefits. In Project areas in which the demographics indicate the presence of an environmental justice community, Transco is working to specifically engage community, civic and business leaders to ensure there is broad awareness of the anticipated scope and economic benefits of the Project. Transco is encouraging its contractors to hire local employees and to use local businesses for their needs. The effort seeks to support the equitable distribution of benefits in the Project area. *Environmental justice community stakeholder contacts will be provided in the Stakeholder List, included as Appendix*

1D, as part of the draft RR filing, anticipated second quarter 2024.

1.7.2 Agency Consultation

In addition to public outreach efforts with landowners and governmental officials described in Section 1.7.1, Transco is in the process of conducting an extensive planning and consultation process with federal and state regulatory agencies, resource agencies, Native American Tribes, and other groups with a stake in the Project. The consultation process will involve briefings, meetings, letter requests for resource information, telephone discussions, and email correspondence. *A table summarizing agency correspondence completed to date will be provided as Appendix 1F in the draft RR filing, anticipated second quarter 2024. Copies of agency consultation will be included in their respective RRs by subject matter (e.g., cultural resource related correspondence is provided in RR 4) with the draft RR filing, anticipated second quarter 2024.*

1.7.2.1 Interagency and Other Review/Resource Agency Meetings

Transco intends to contact federal and state regulatory agencies with respect to the relevant permitting requirements for the Project. Through this contact, Transco will provide preliminary information regarding the Project, including a Project overview map, and will advise these agencies of Transco's use of the Commission's pre-filing process. Transco regularly communicates with agencies as the Project is refined and for permitting and clearance authorizations. *A table summarizing agency correspondence completed to date will be provided as Appendix 1F in the draft RR filing, anticipated second quarter 2024. Copies of agency consultation will be included in their respective RRs by subject matter (e.g., cultural resource related correspondence is provided in RR 4) with the draft RR filing, anticipated second quarter 2024.*

1.7.2.2 Local Government Agency Meetings

Transco initiated outreach to local, county, and state government agencies beginning in November 2023. This outreach included contacting county, municipality, and government agencies in VA, NC, SC, GA, and AL to introduce the Project, provide details on the proposed facilities and routing, explain the Commission's regulatory process, and solicit feedback. Local officials in these areas will receive the notification of Transco's acceptance into pre-filing as required by FERC regulations, including a letter describing the Project and the FERC process, as well as an overview map. *Notification to emergency responders will be discussed in draft RR 11, which is anticipated to be filed in the second quarter of 2024.*

1.8 NON-JURISDICTIONAL FACILITIES

Transco is continuing to evaluate requirements for non-jurisdictional facilities and will submit details on non-jurisdictional facilities in a subsequent version of draft RR 1, which is anticipated to be filed in the second quarter of 2024.

1.9 CUMULATIVE IMPACTS

The potential cumulative impacts associated with the Project may result from the impacts of construction and operation of the Project facilities combined with the impacts of other proposed major developments occurring within the vicinity of the Project. To review potential cumulative impacts, Transco considered recently completed, current, and reasonably foreseeable future major projects and other human-related activities near the Project facilities. The basic assumption of the cumulative impacts analysis was that if other activities were deemed to have minor or insignificant impacts, the cumulative impacts resulting from the activities and Project would also be considered minor or insignificant.

Cumulative impacts associated with the Project may result from impacts of construction and operation of the Project facilities when combined with the impacts of other major developments occurring in the vicinity of the Project. To review potential cumulative impacts, Transco considered recently completed, current, and reasonably foreseeable future projects and other human-related activities (collectively "activities") near the Project facilities. The basic assumption of the cumulative impacts analysis was that if the activities were deemed to have minor or insignificant impacts, the cumulative impacts resulting from the activities and the Project also would be minor or insignificant.

Transco will submit a summary of cumulative impacts in a subsequent version of draft RR 1, which is anticipated to be filed in the second quarter of 2024.

1.10 REFERENCES

Energy Information Administration (EIA). 2023a. Annual Energy Outlook 2023. March 2023. Available at: https://www.eia.gov/outlooks/aeo/. Accessed December 2023.

Interstate Natural Gas Association of America (INGAA). 2019. *America's Natural Gas Transporters' Commitment to Landowners*. Available online at: https://ingaa.org/americas-natural-gas-transporters-commitment-to-landowners/. Accessed December 2023.

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Transcontinental Gas Pipe Line Company, LLC

Resource Report No. 1

General Project Description

Appendix 1A – U.S. Geological Survey Topographic Maps

Southeast Supply Enhancement Project

February 2024

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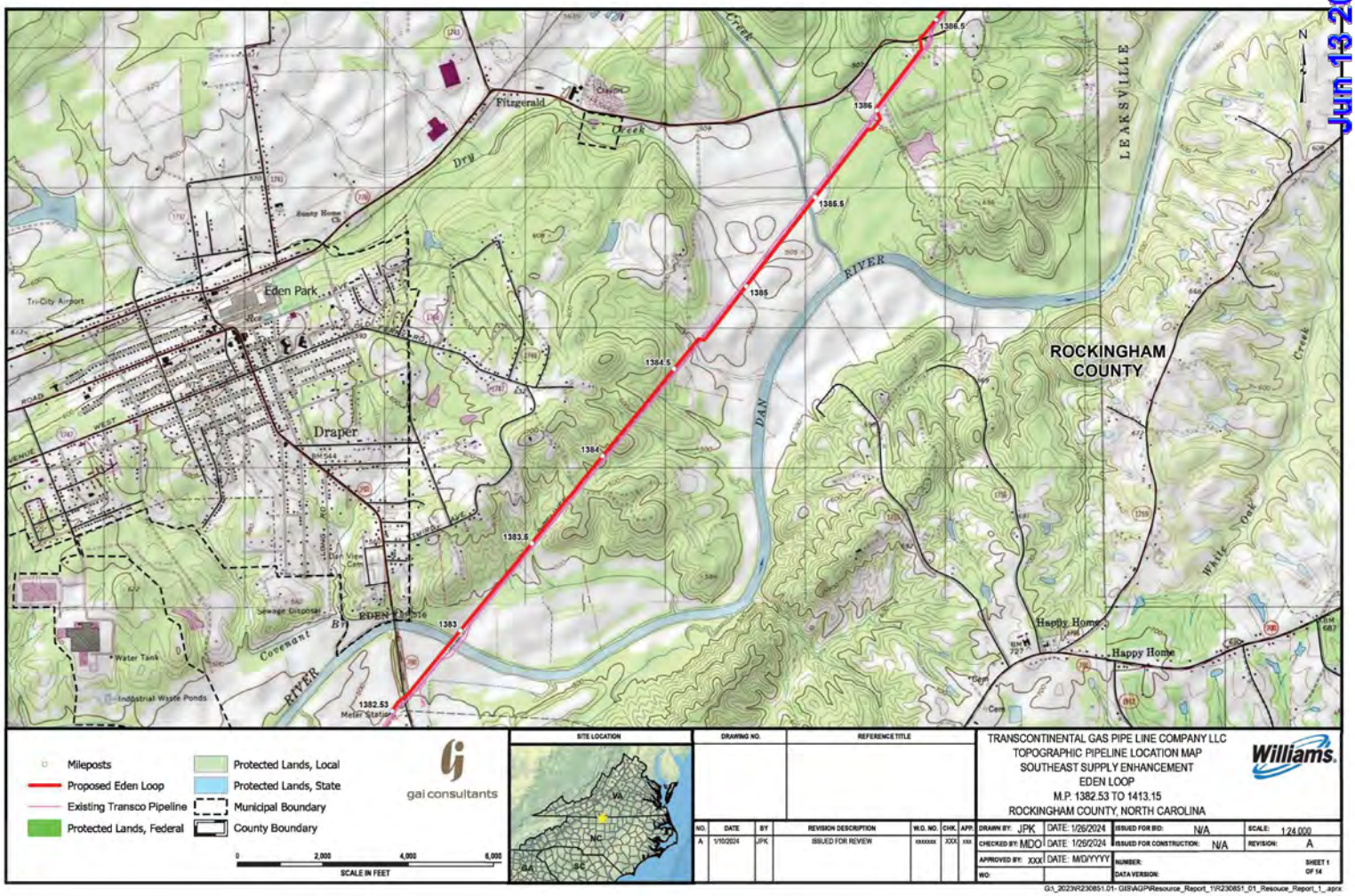

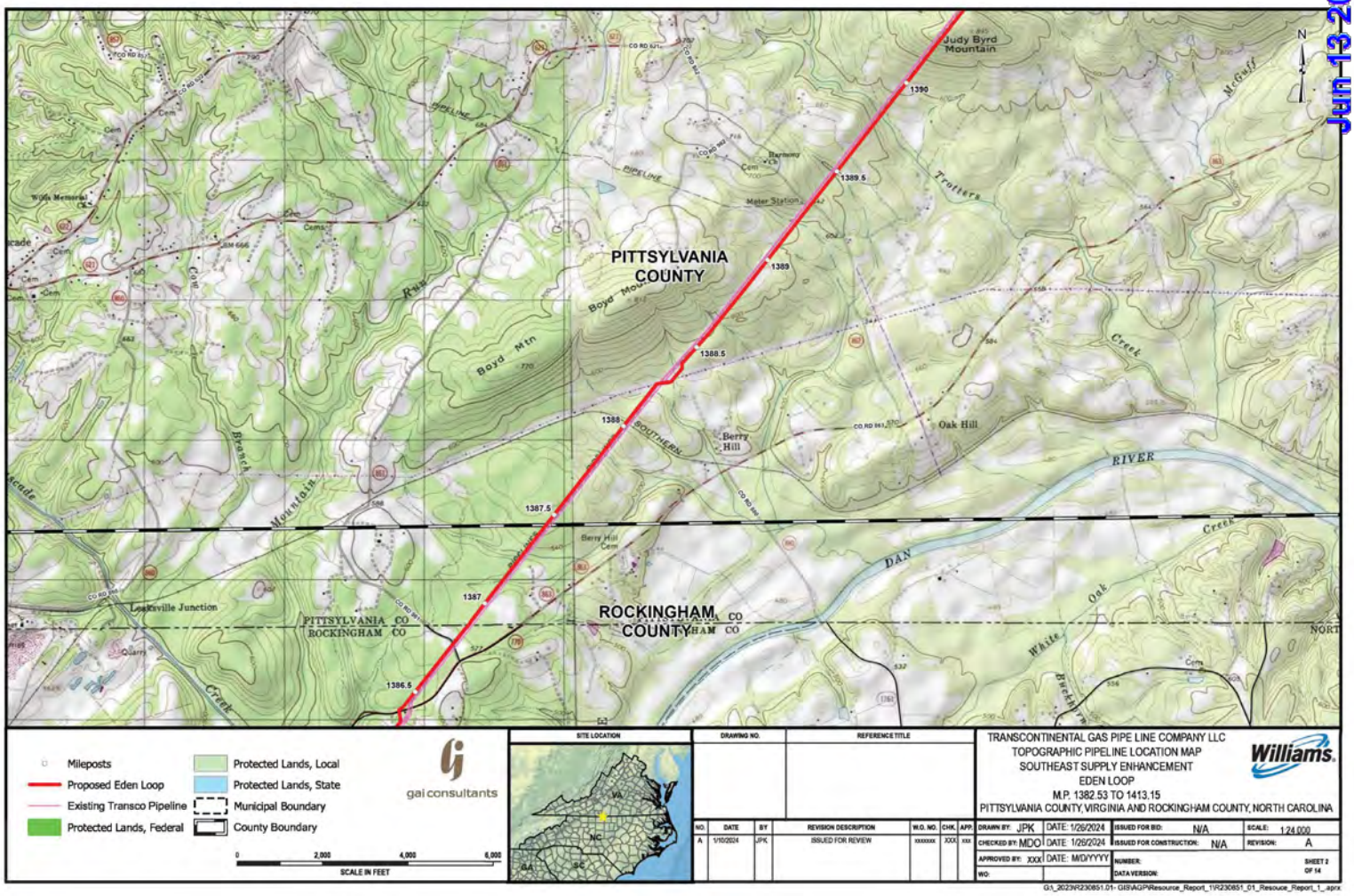

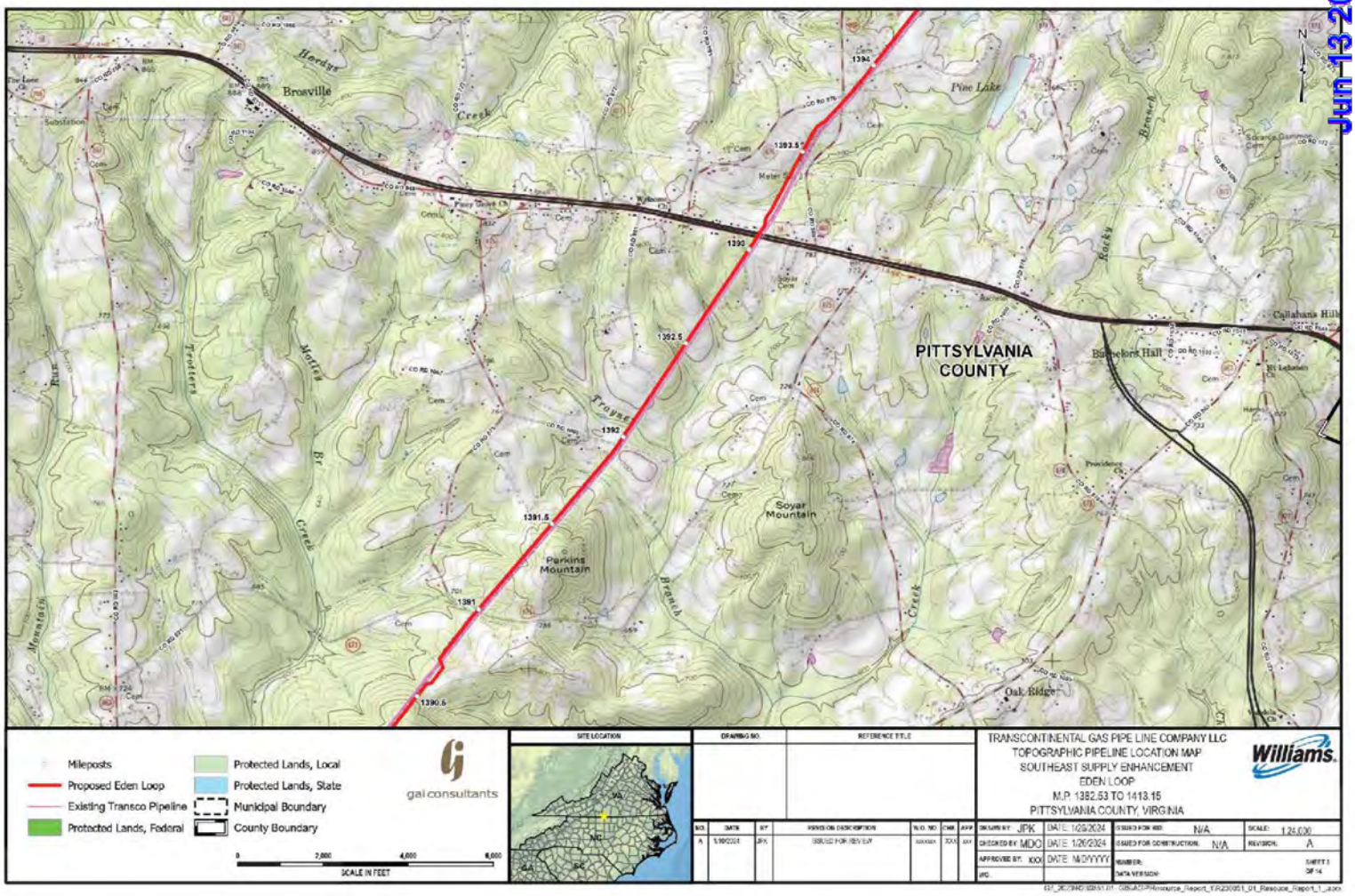

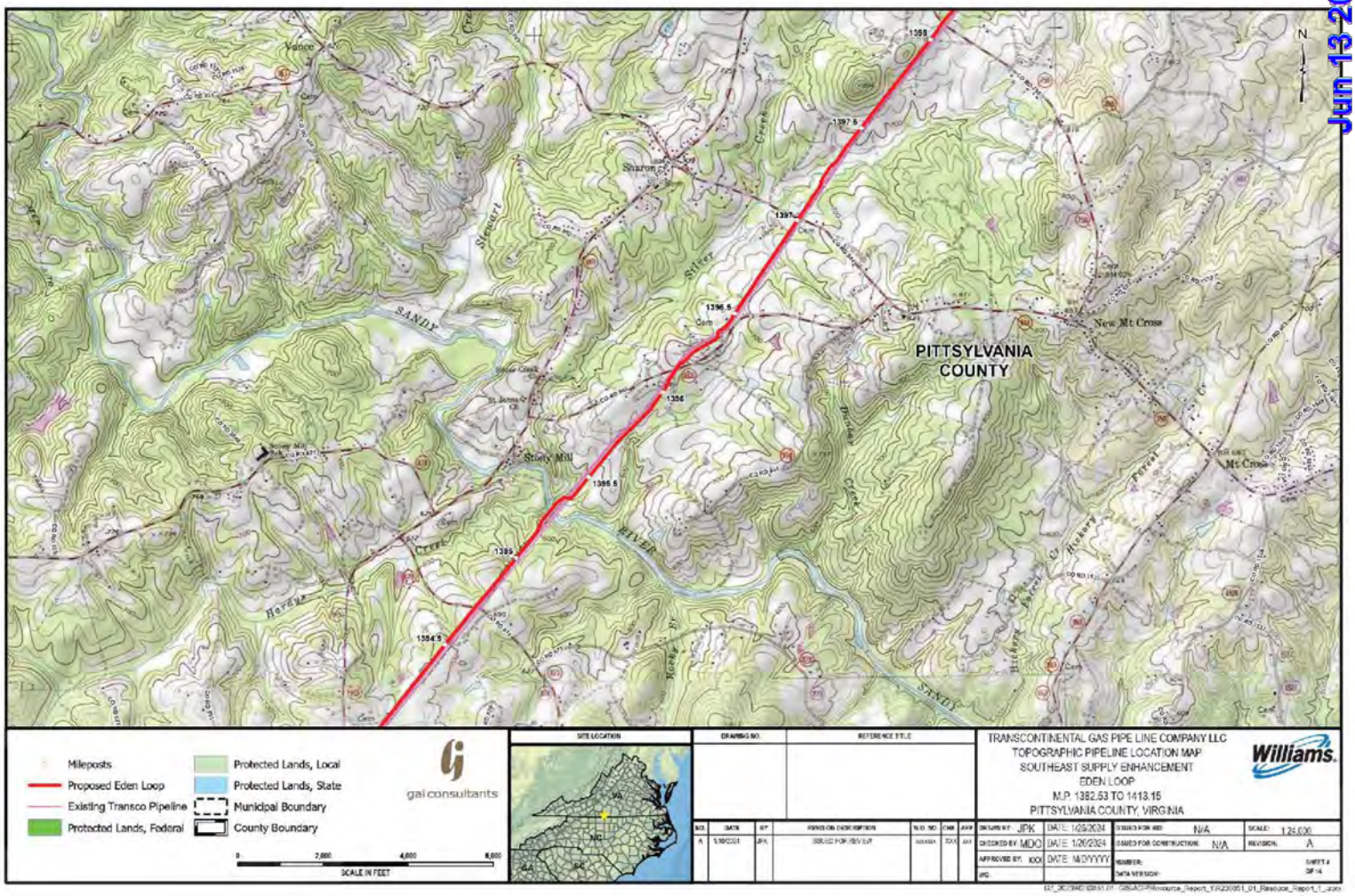

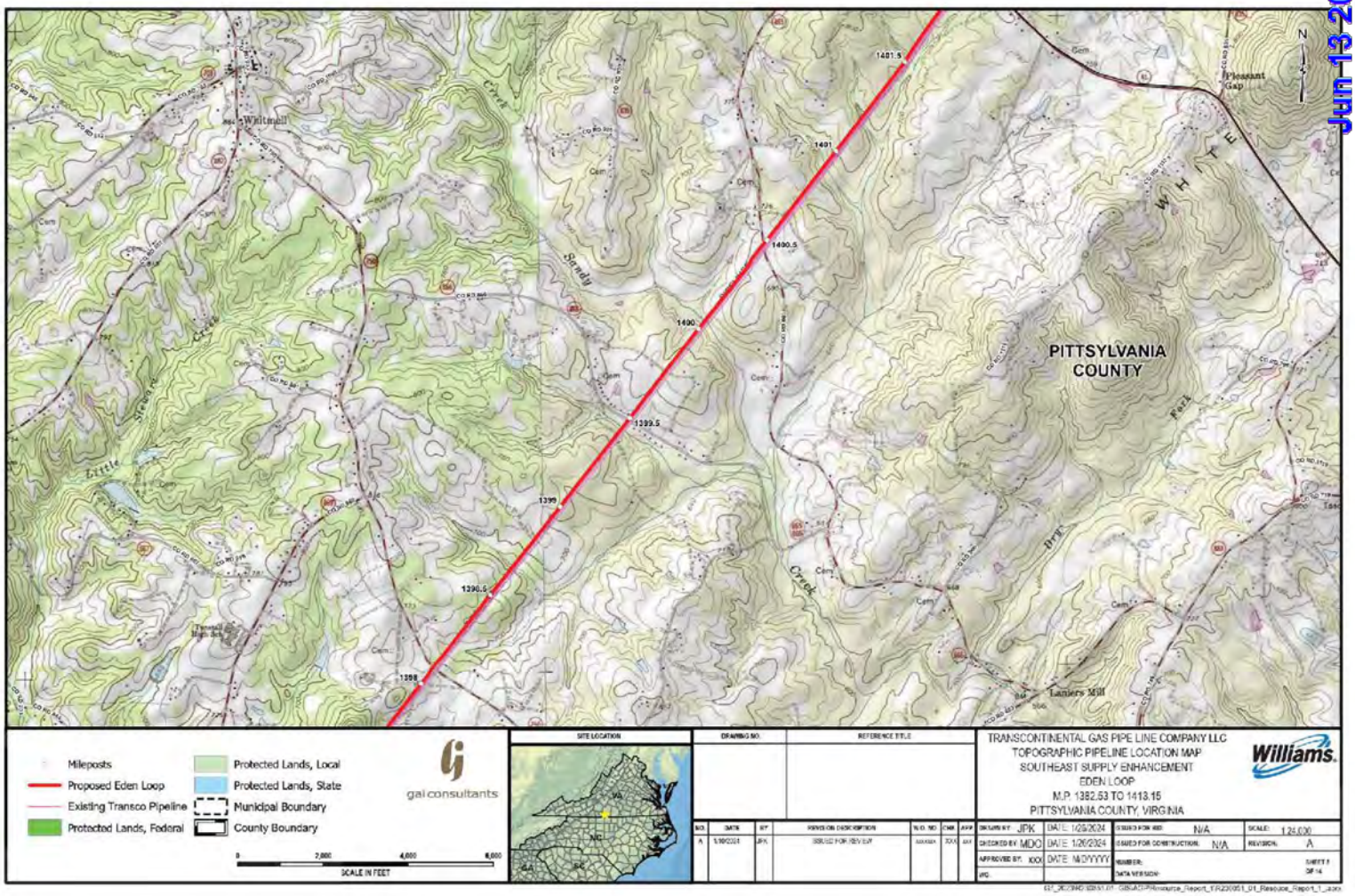

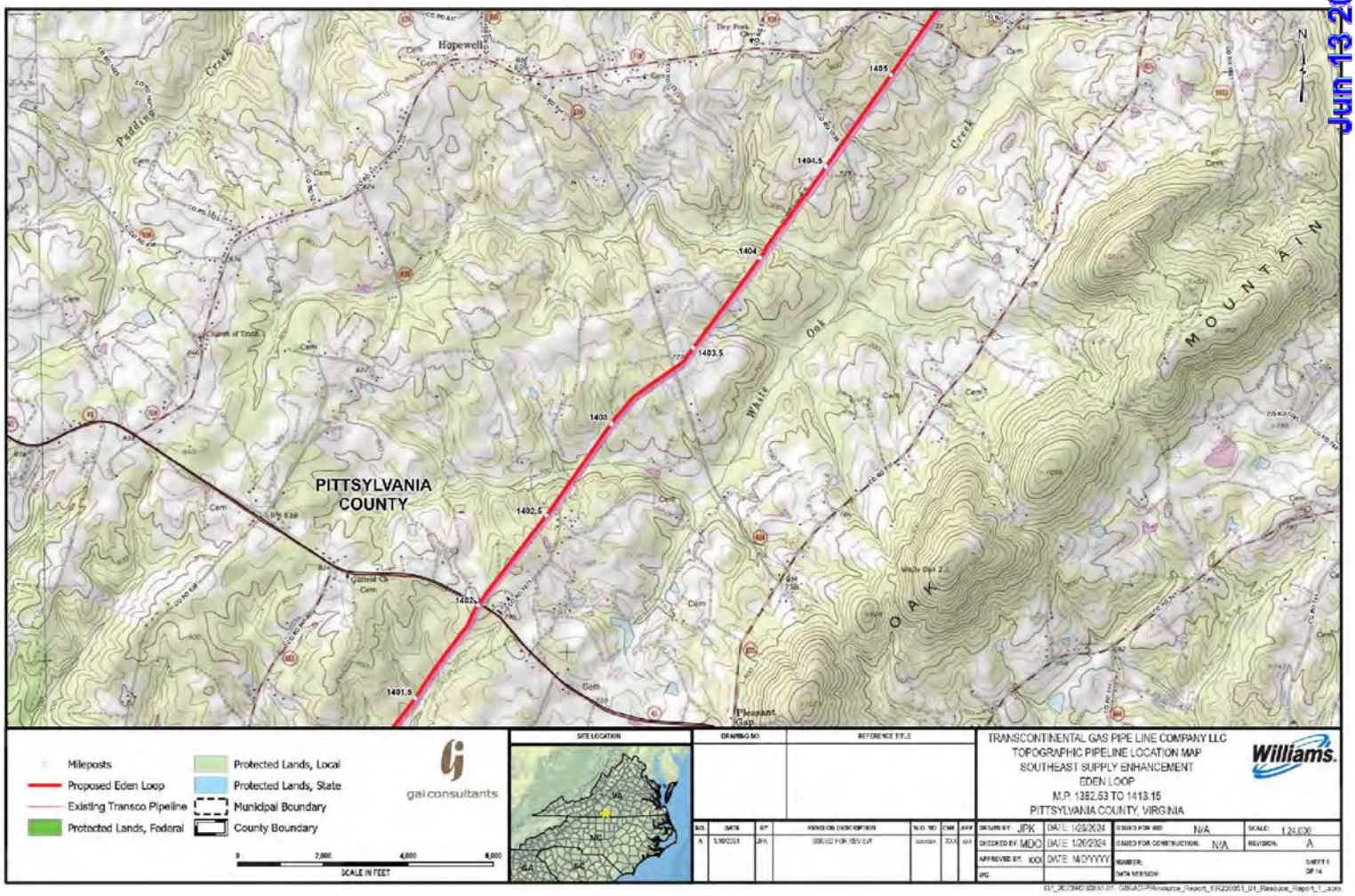

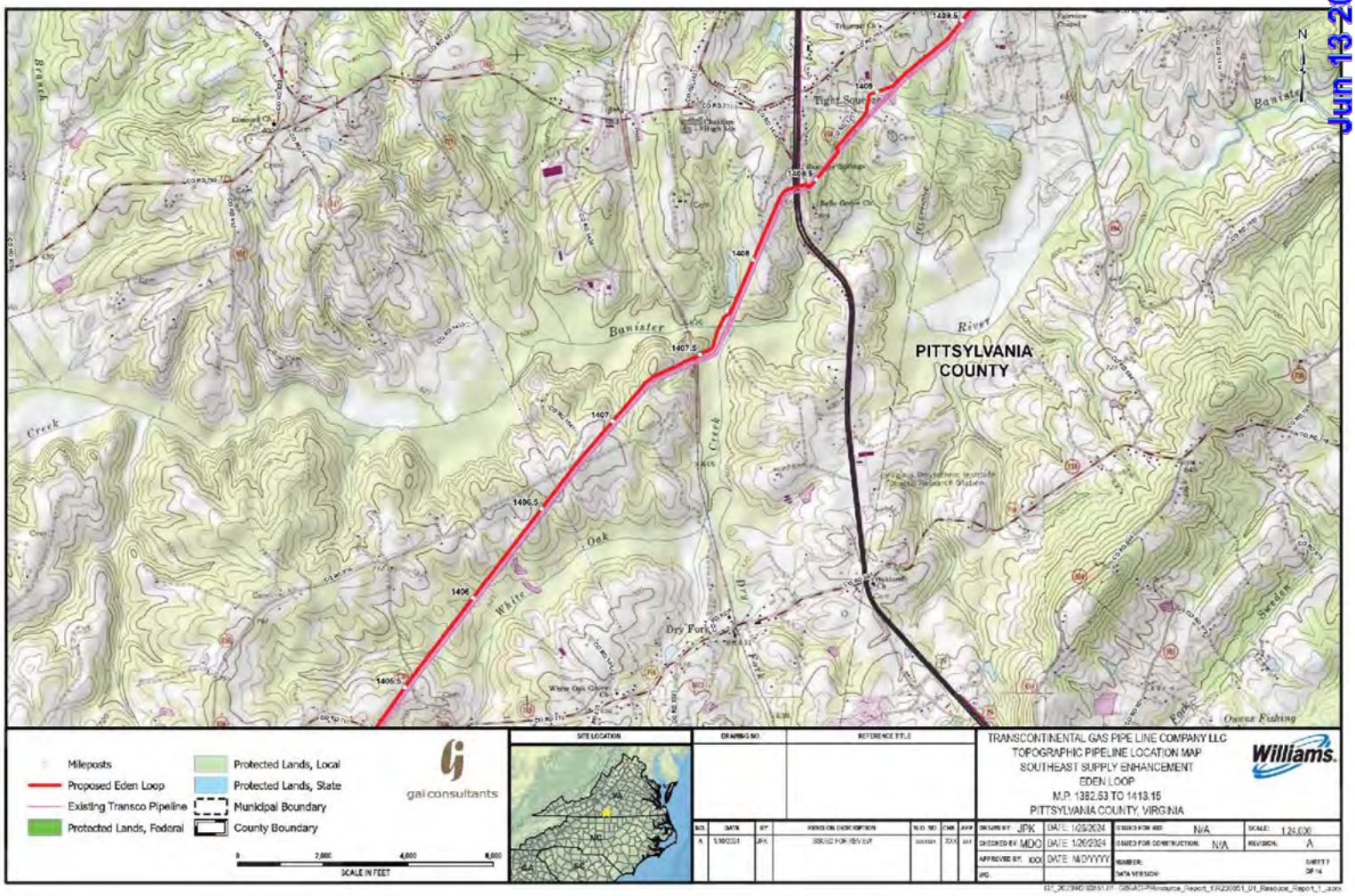

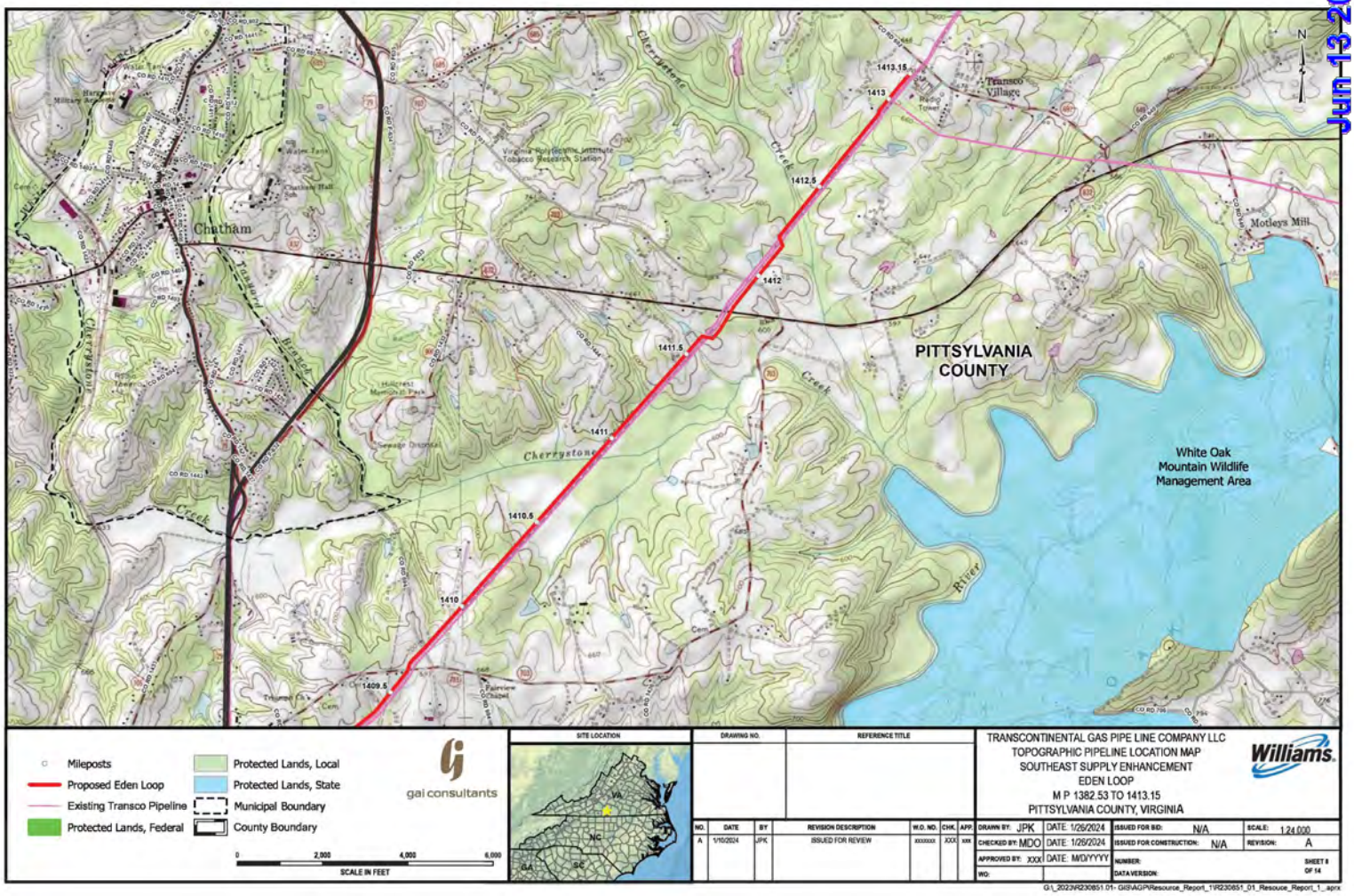

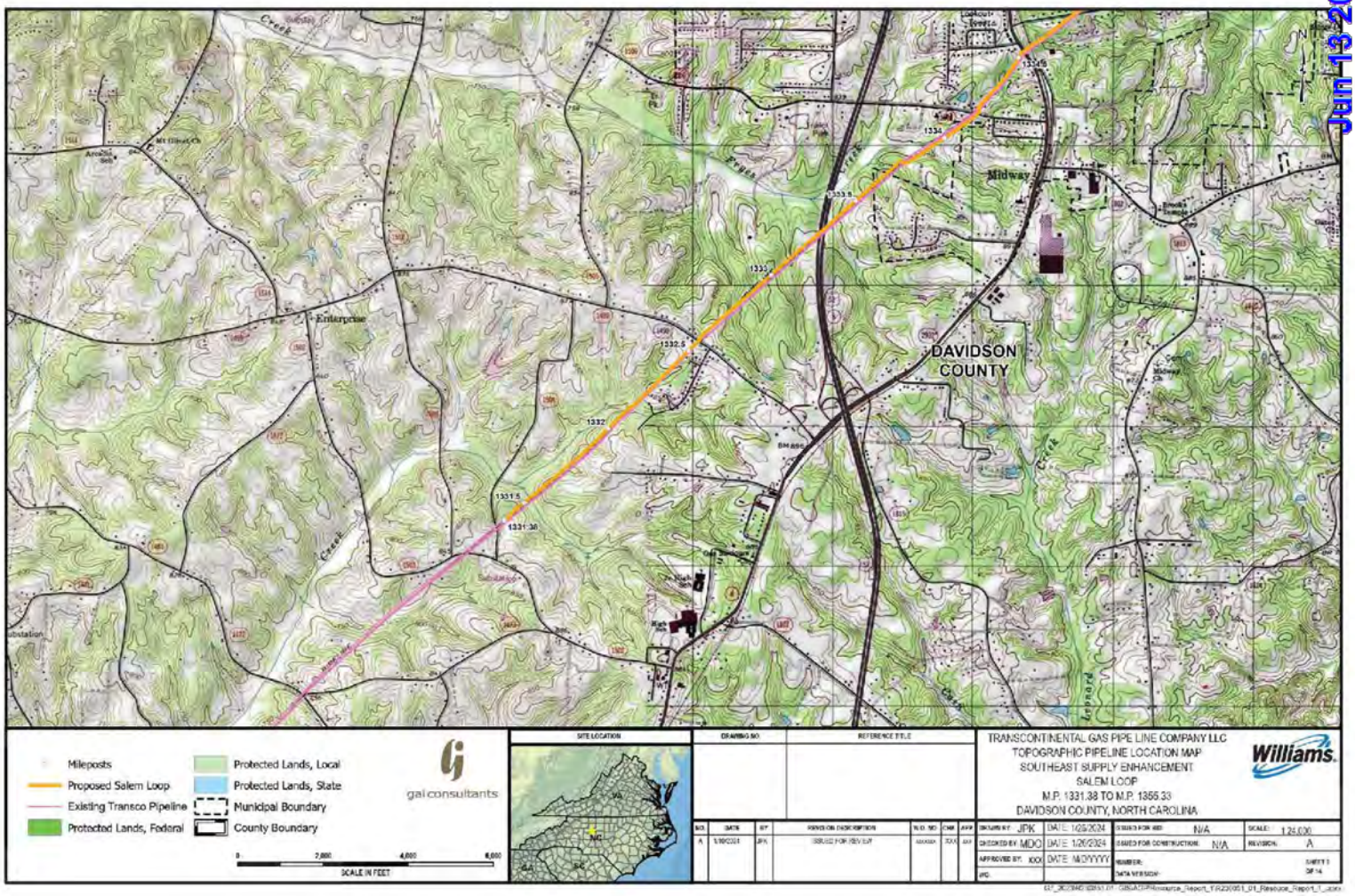

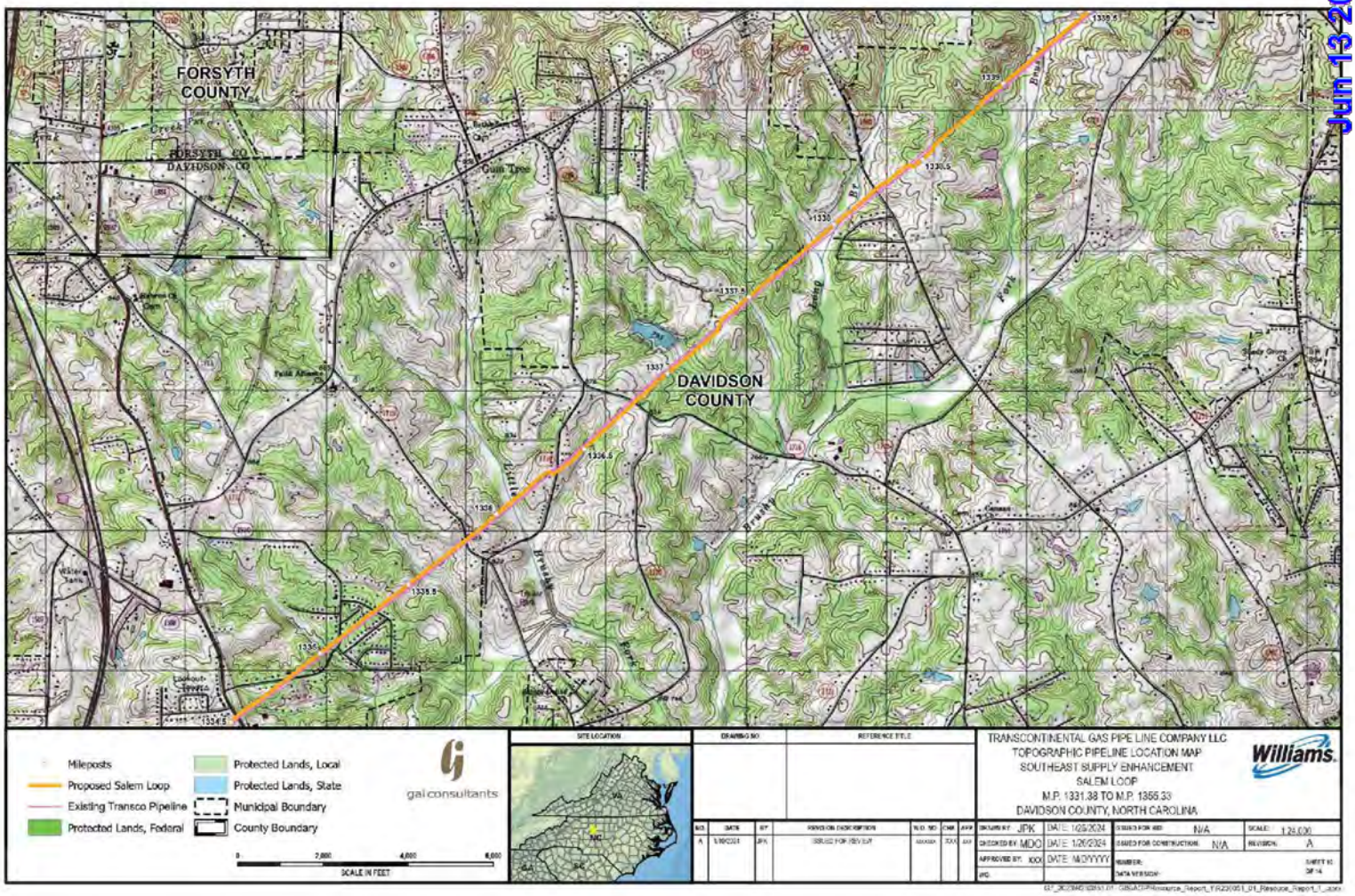

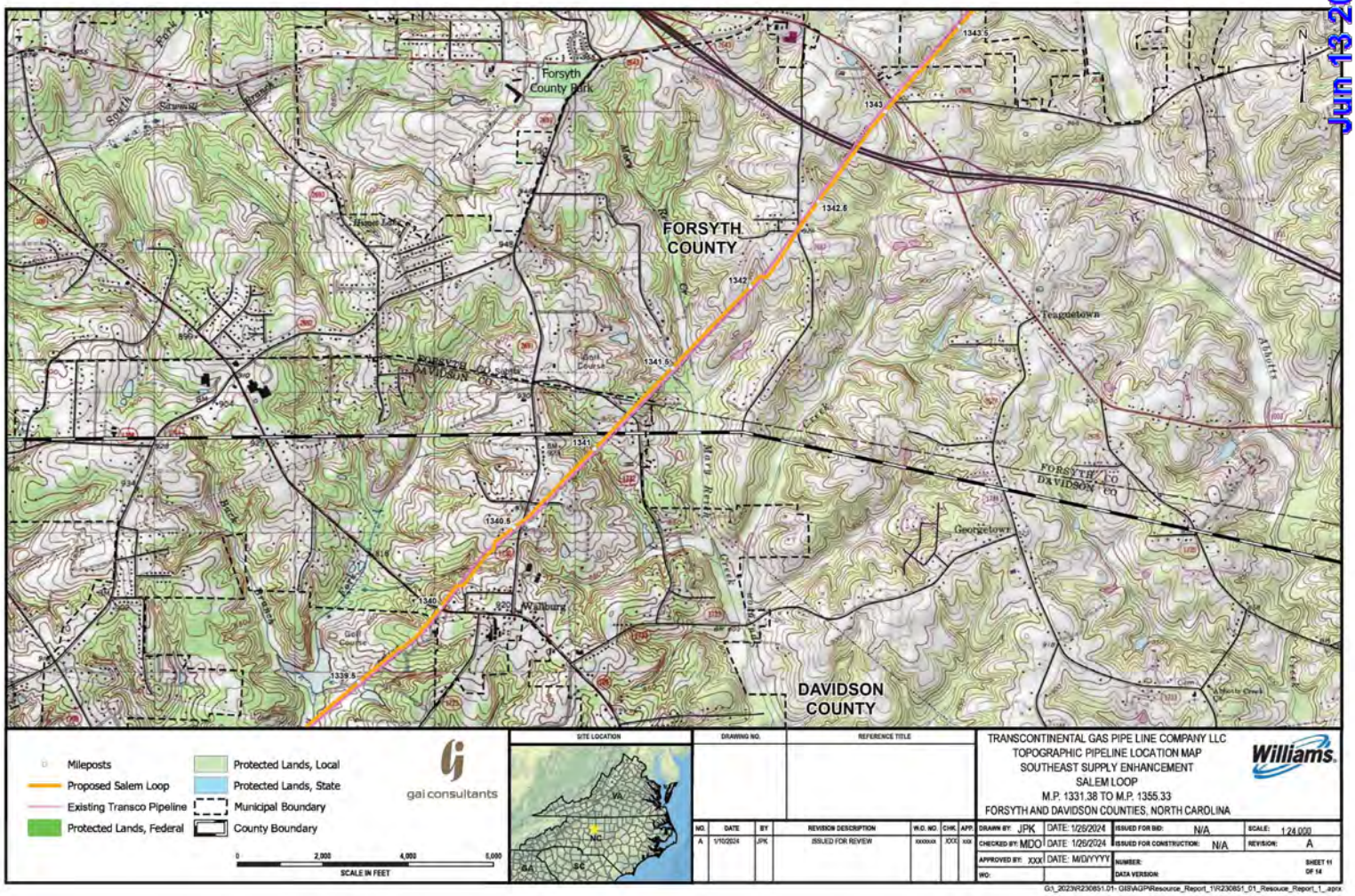

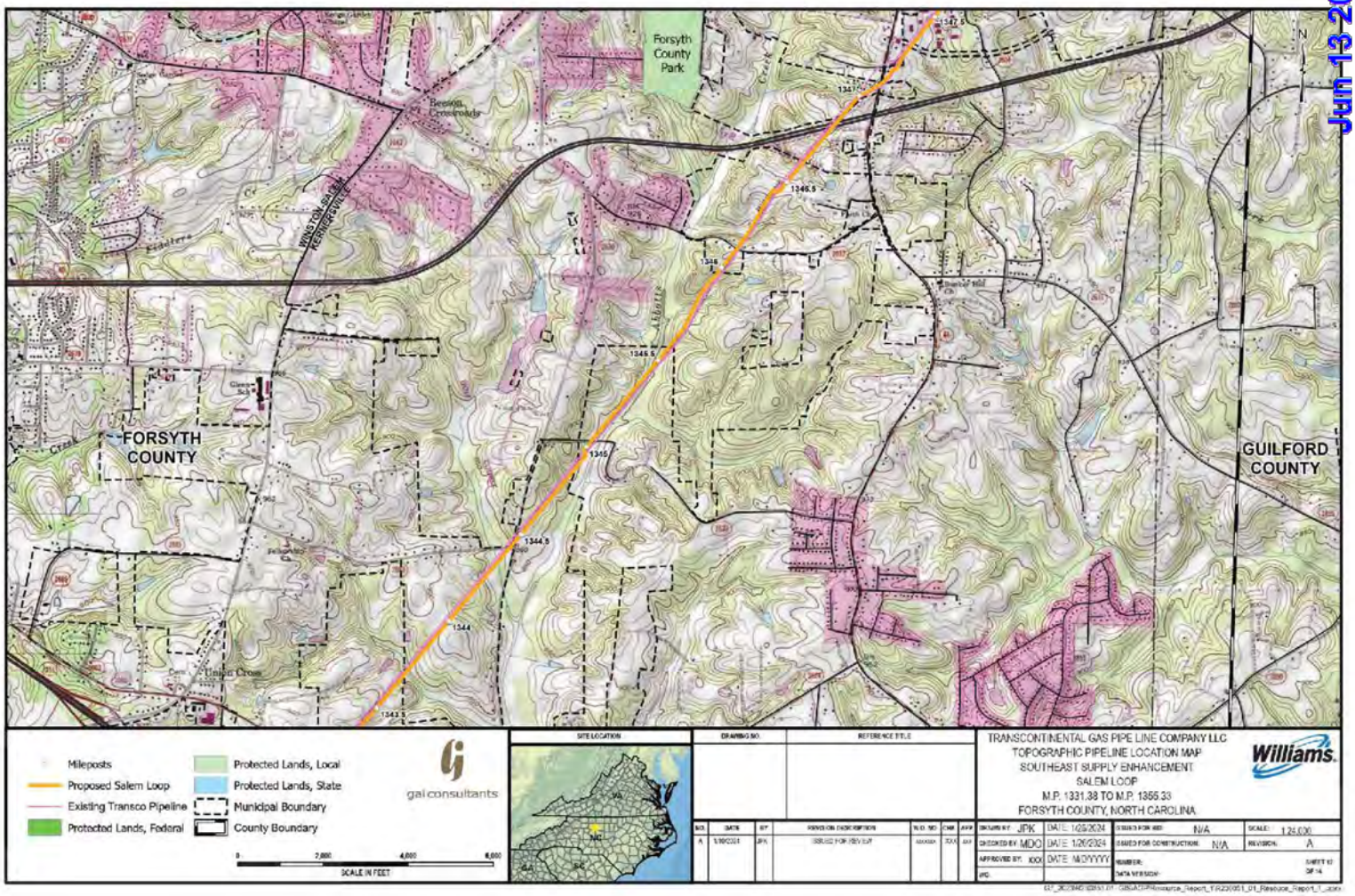

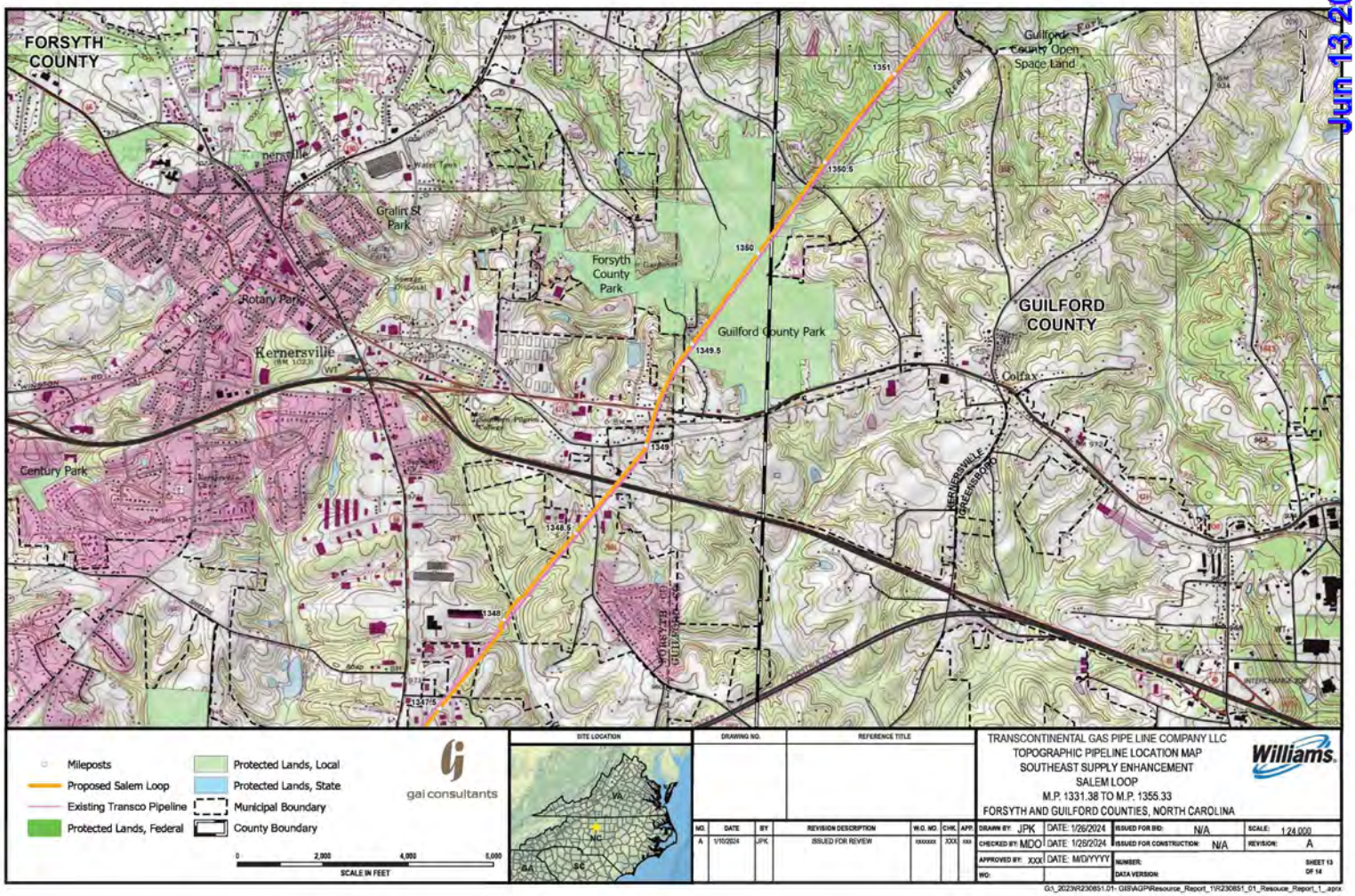

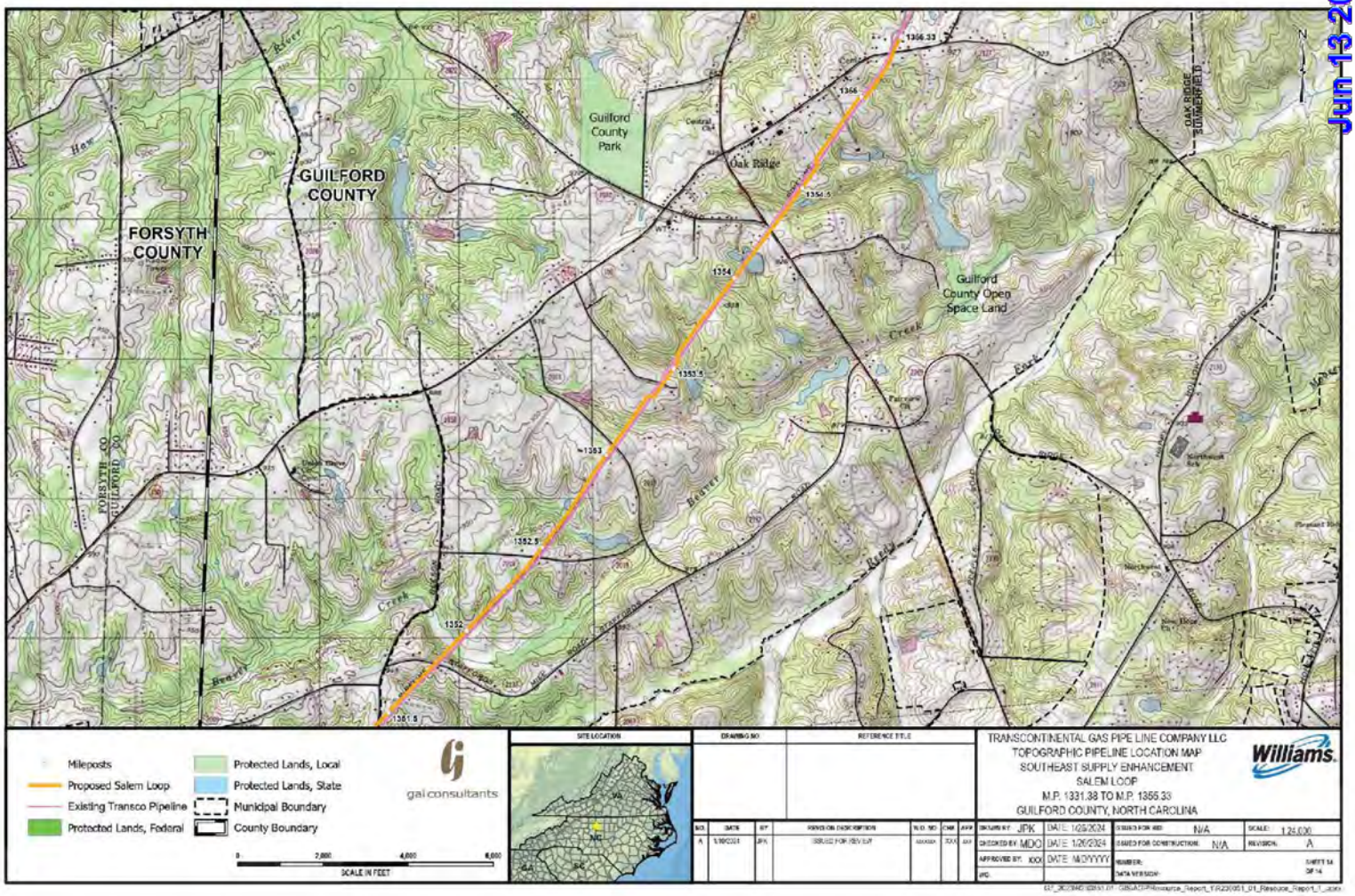

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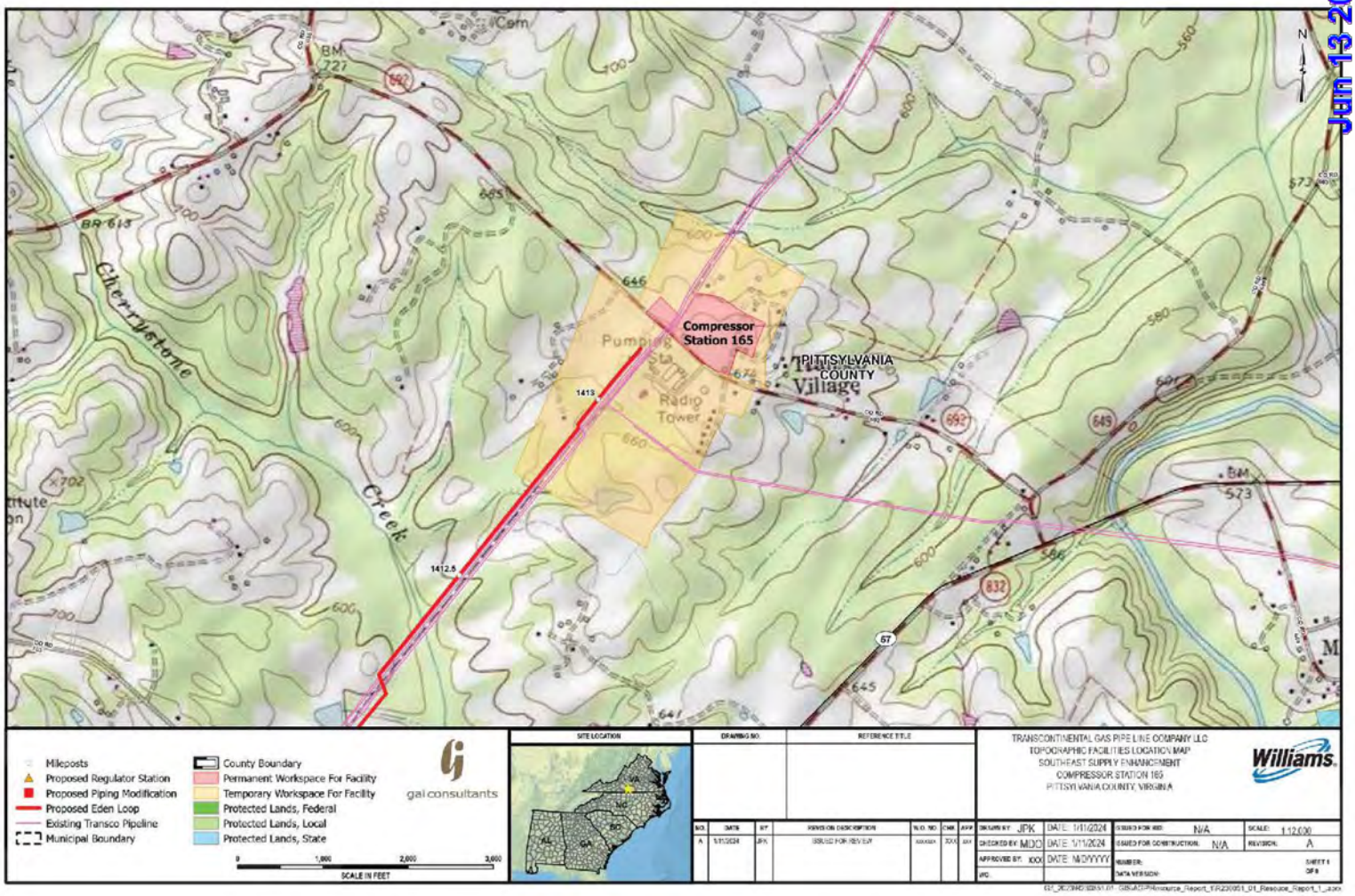

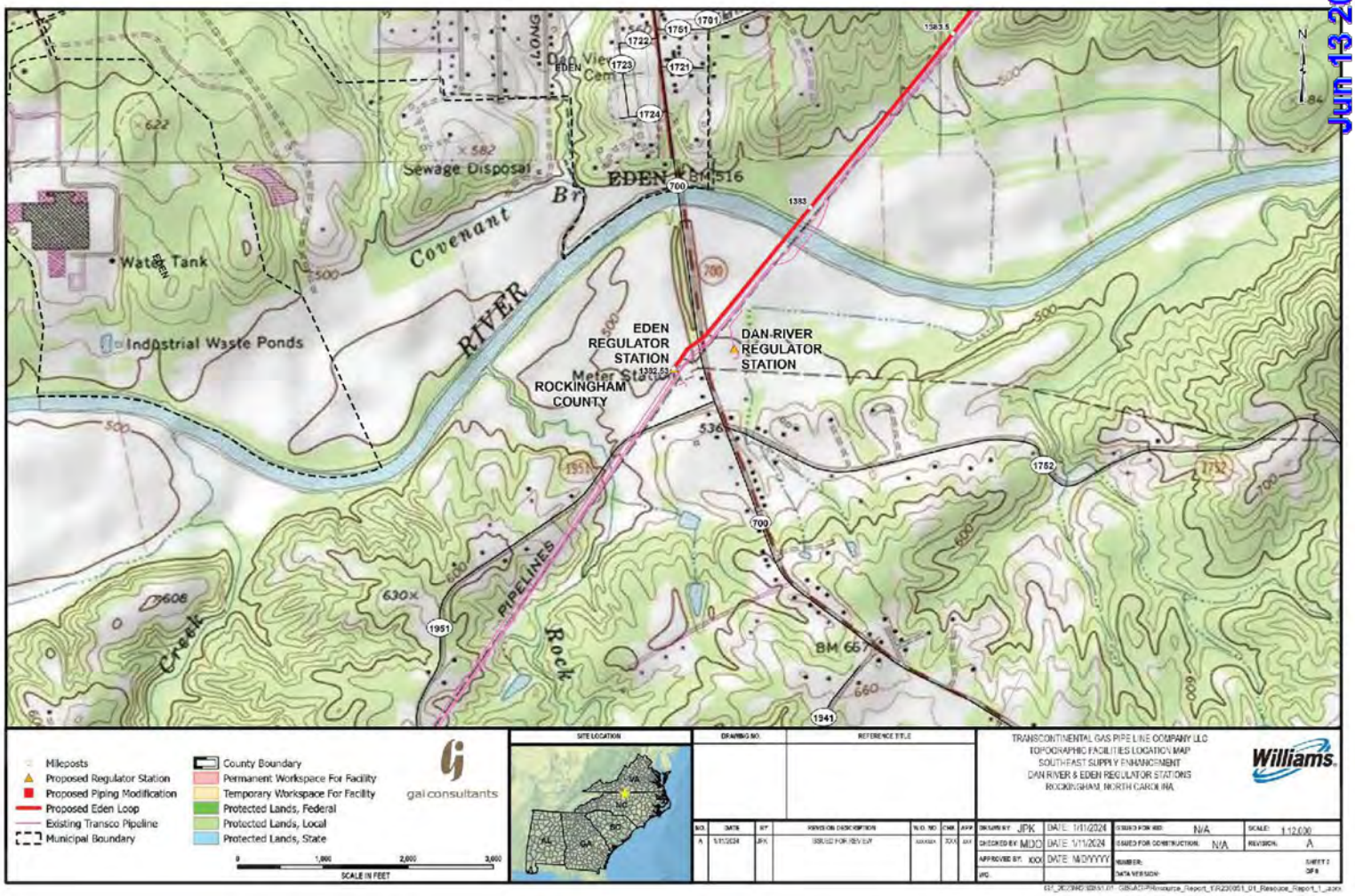

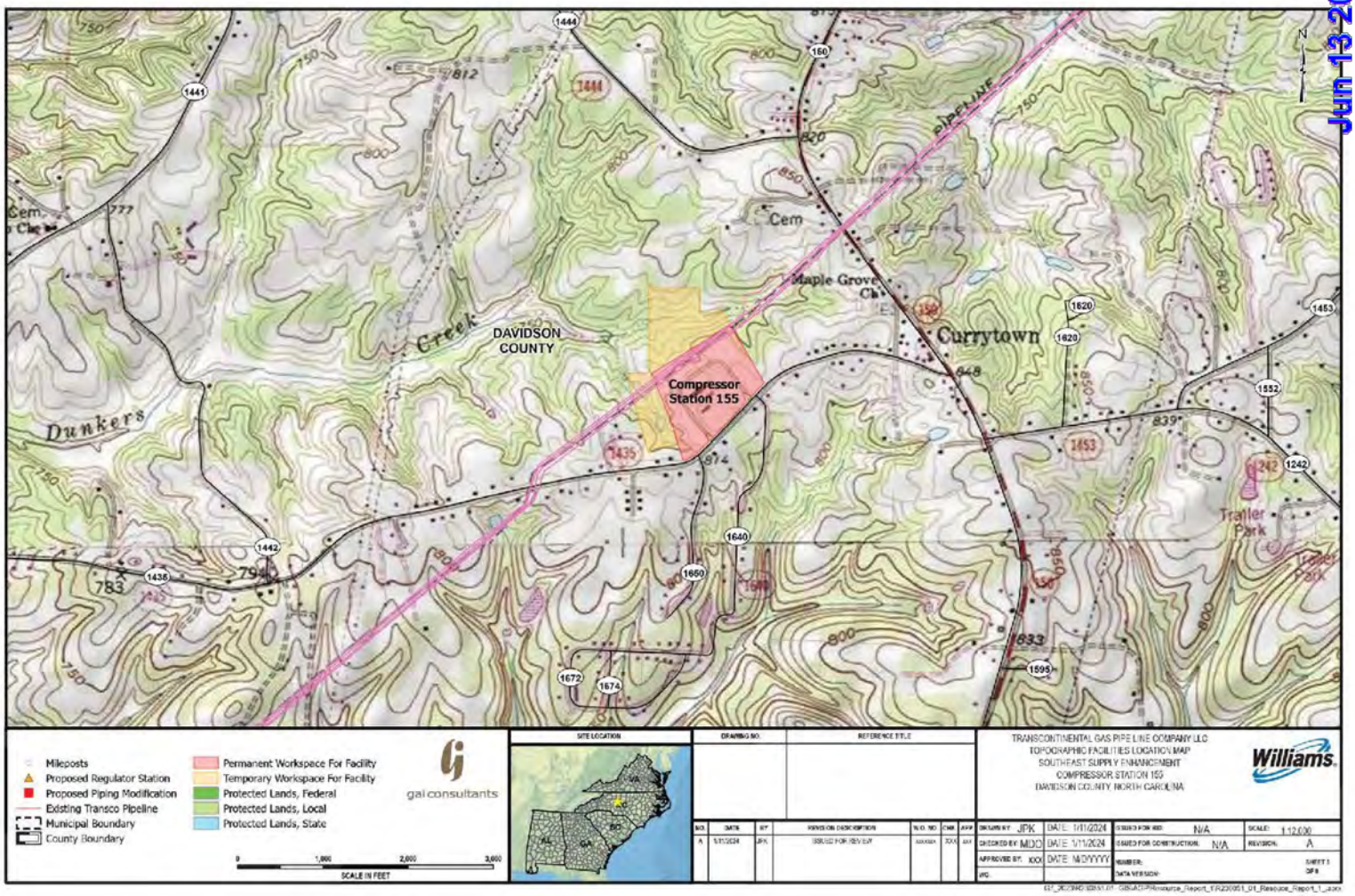

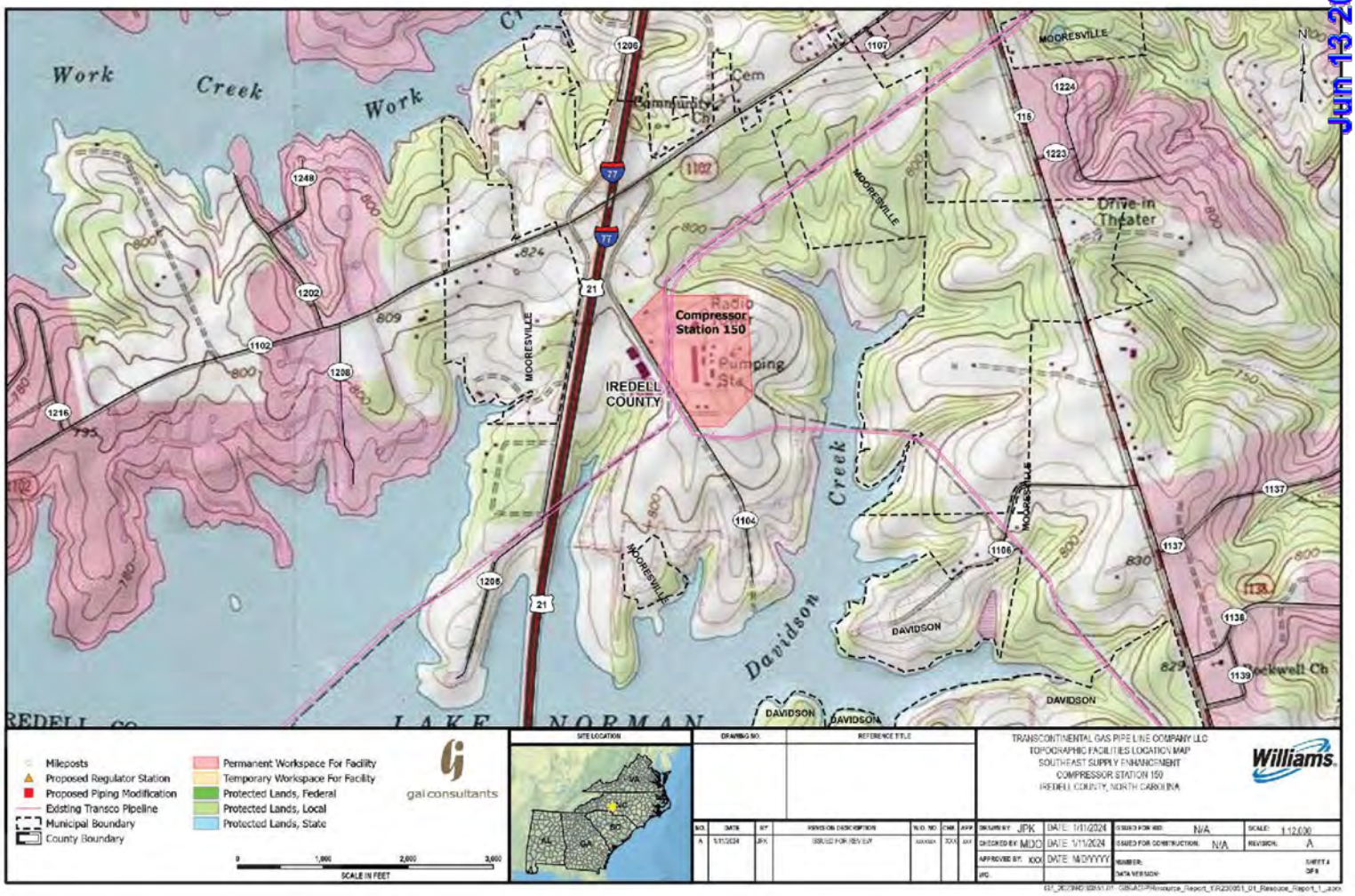

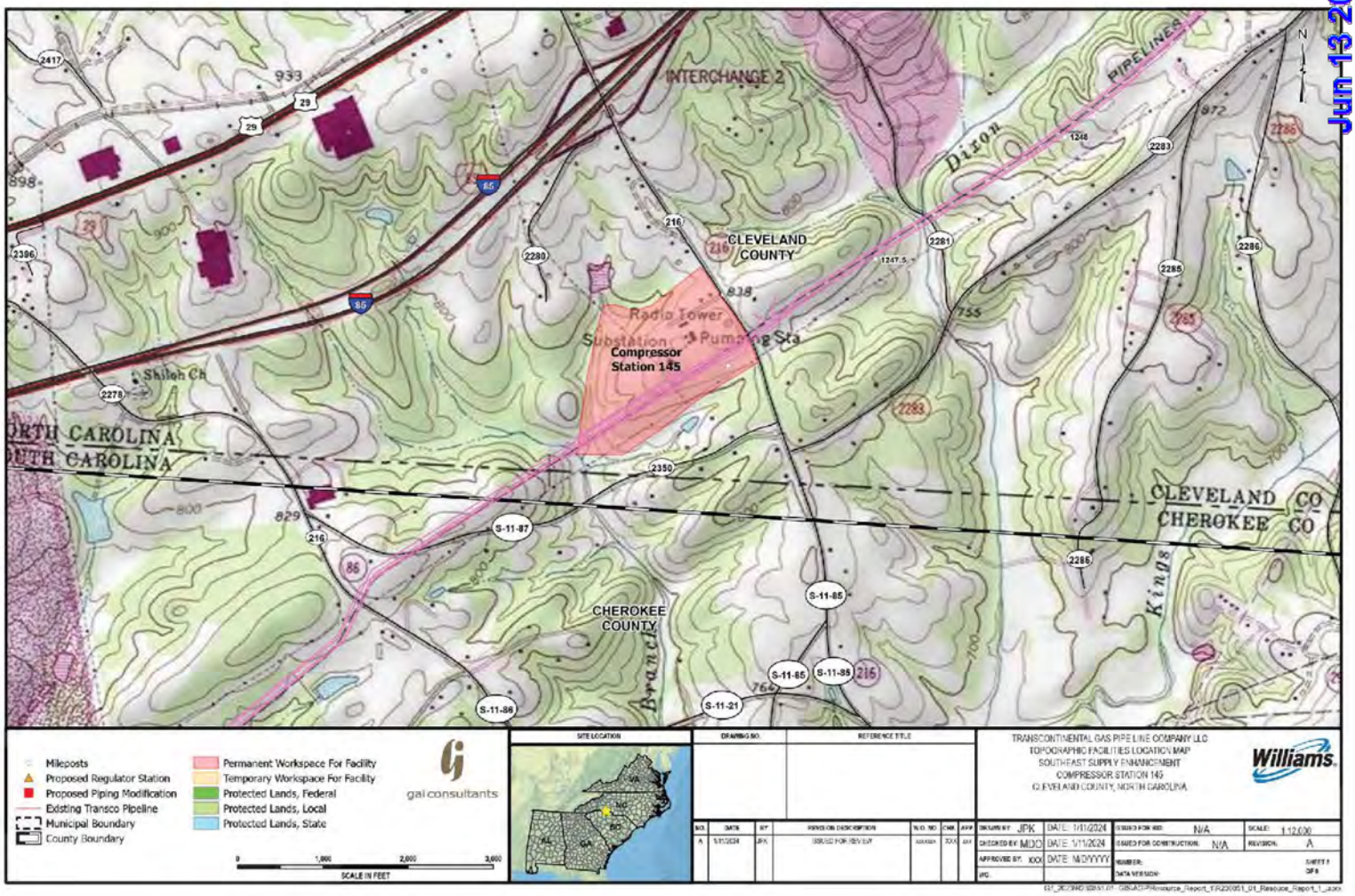

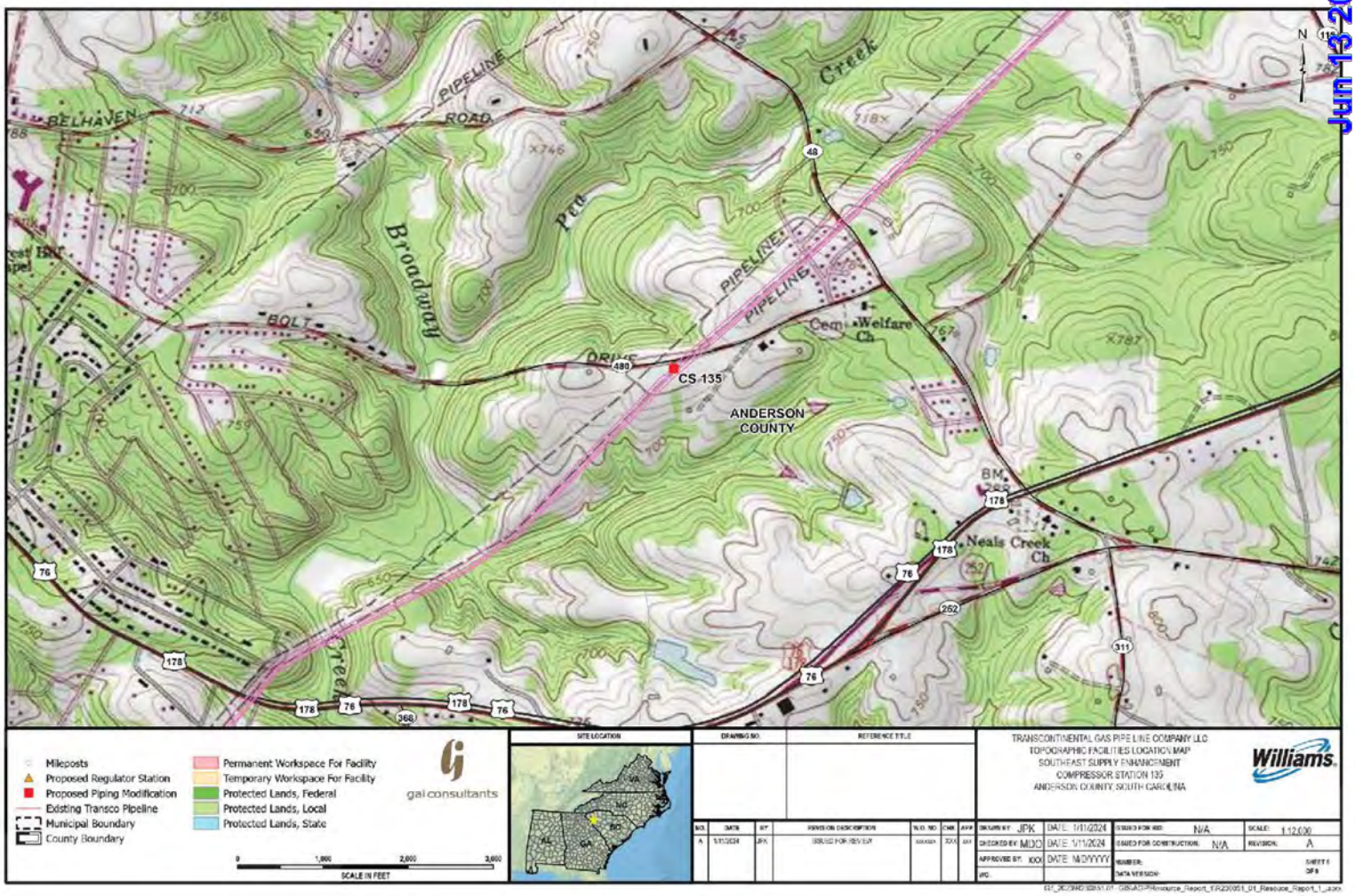

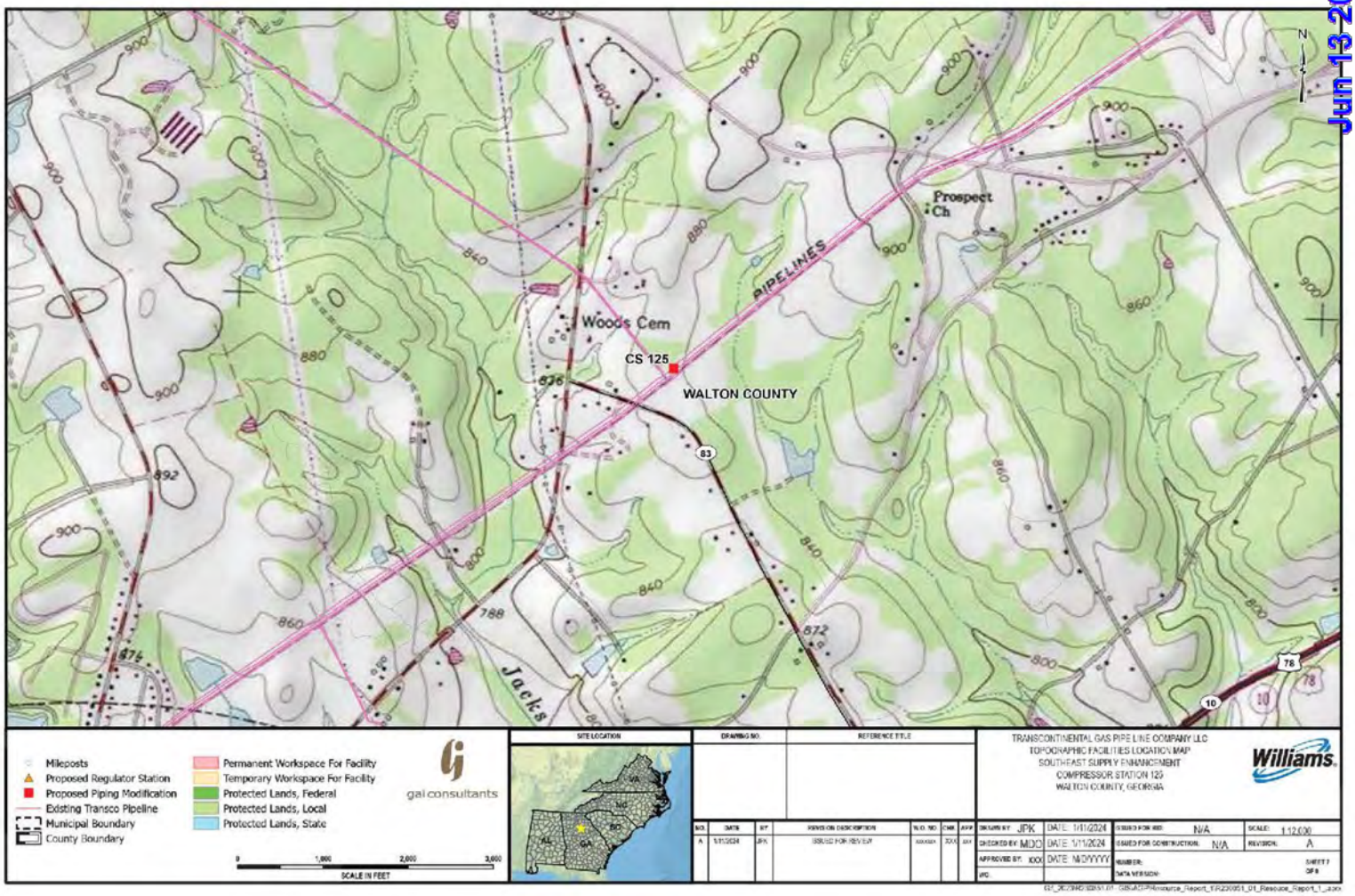

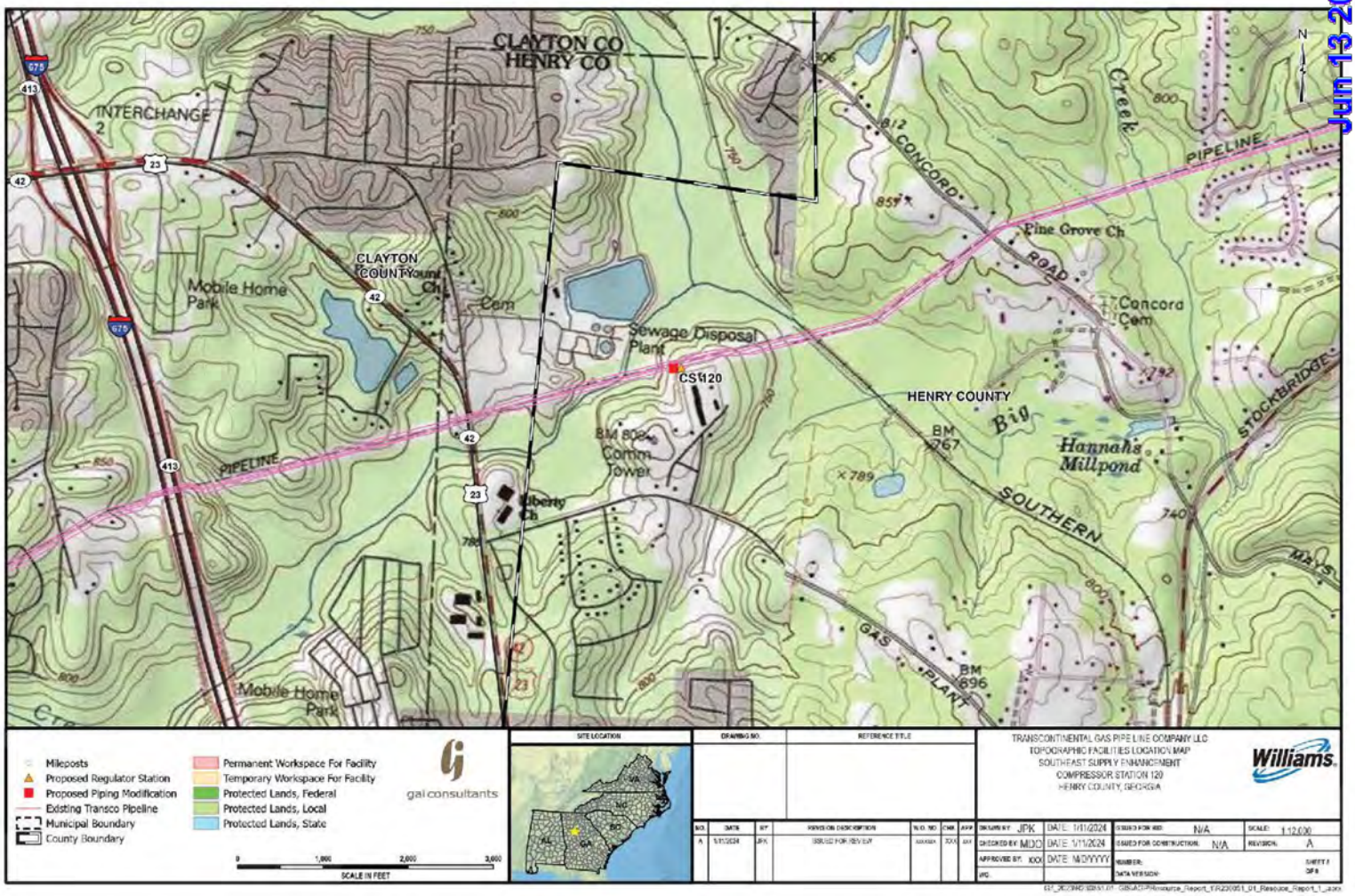

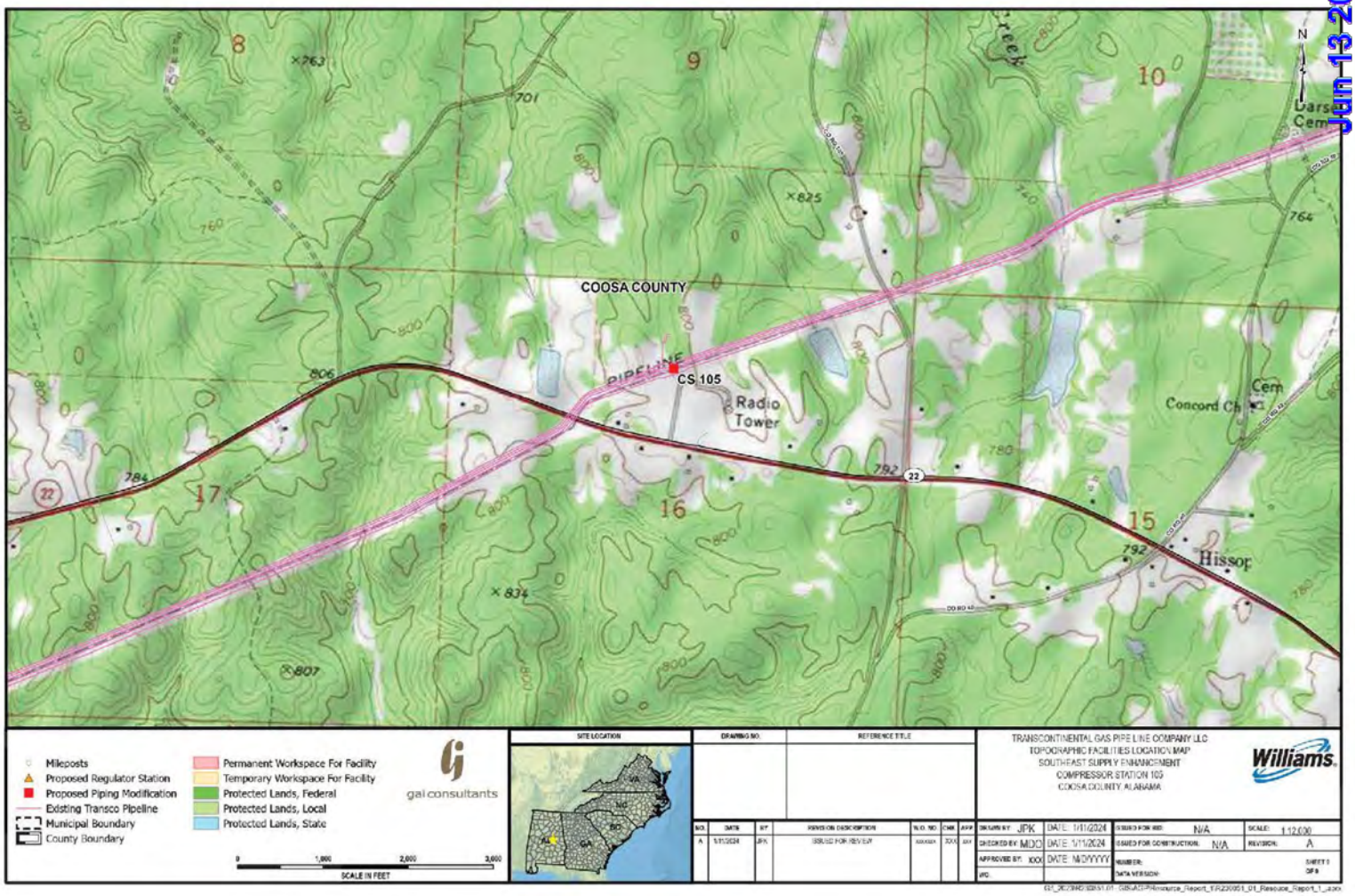

Transcontinental Gas Pipe Line Company, LLC

Resource Report No. 1

General Project Description

Appendix 1B – Aboveground Facility Aerial Maps

Southeast Supply Enhancement Project

February 2024

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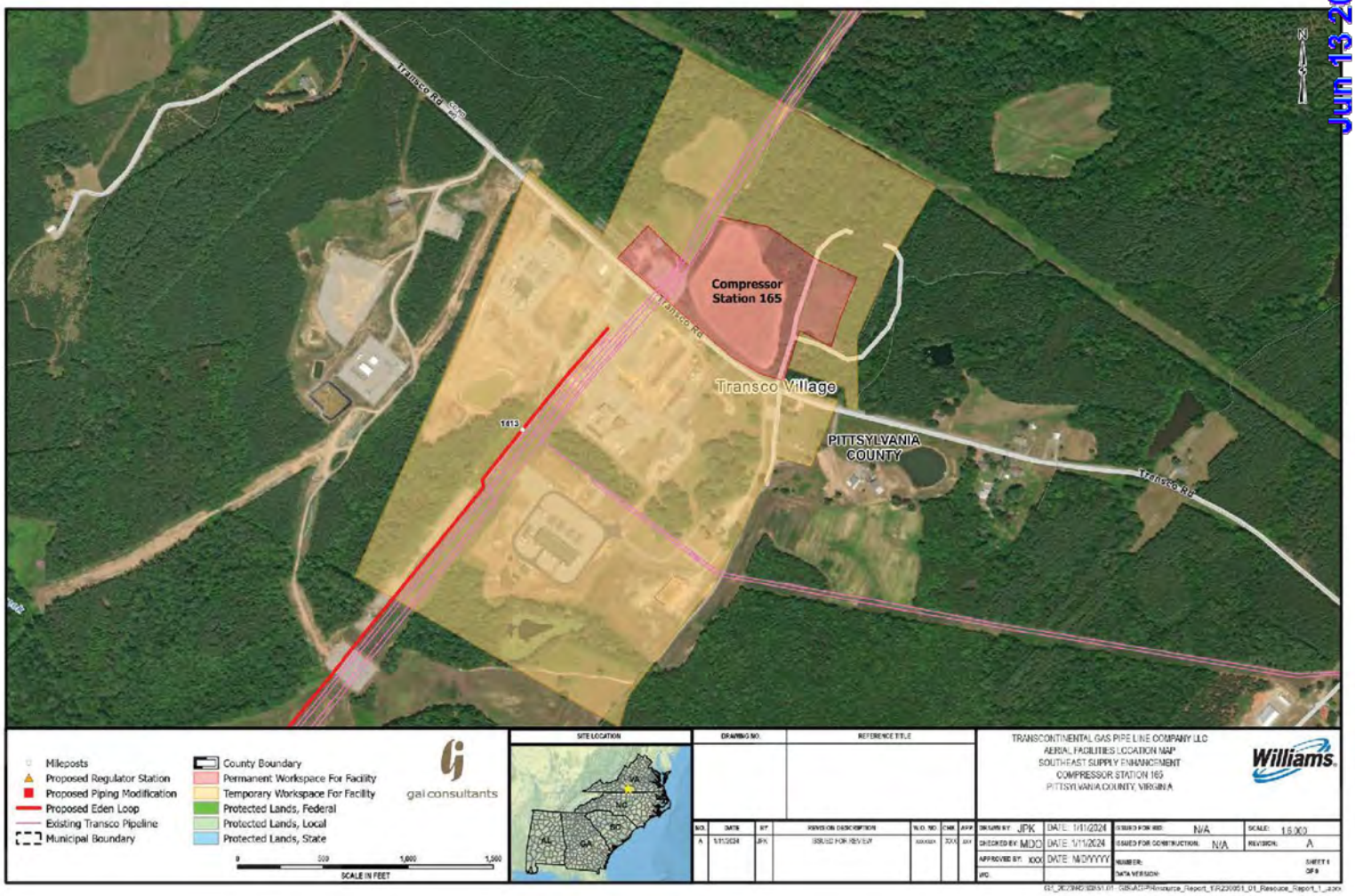

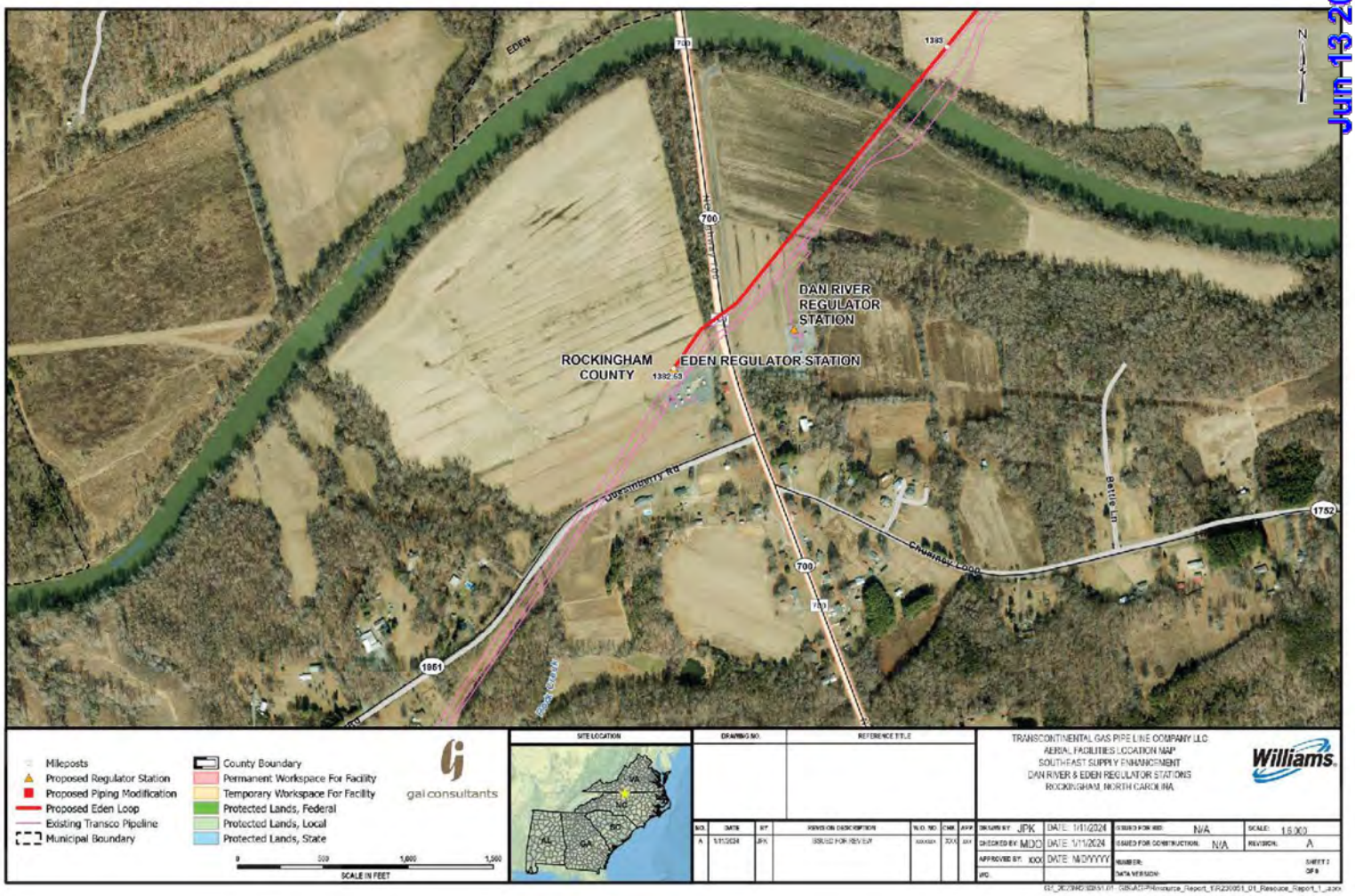

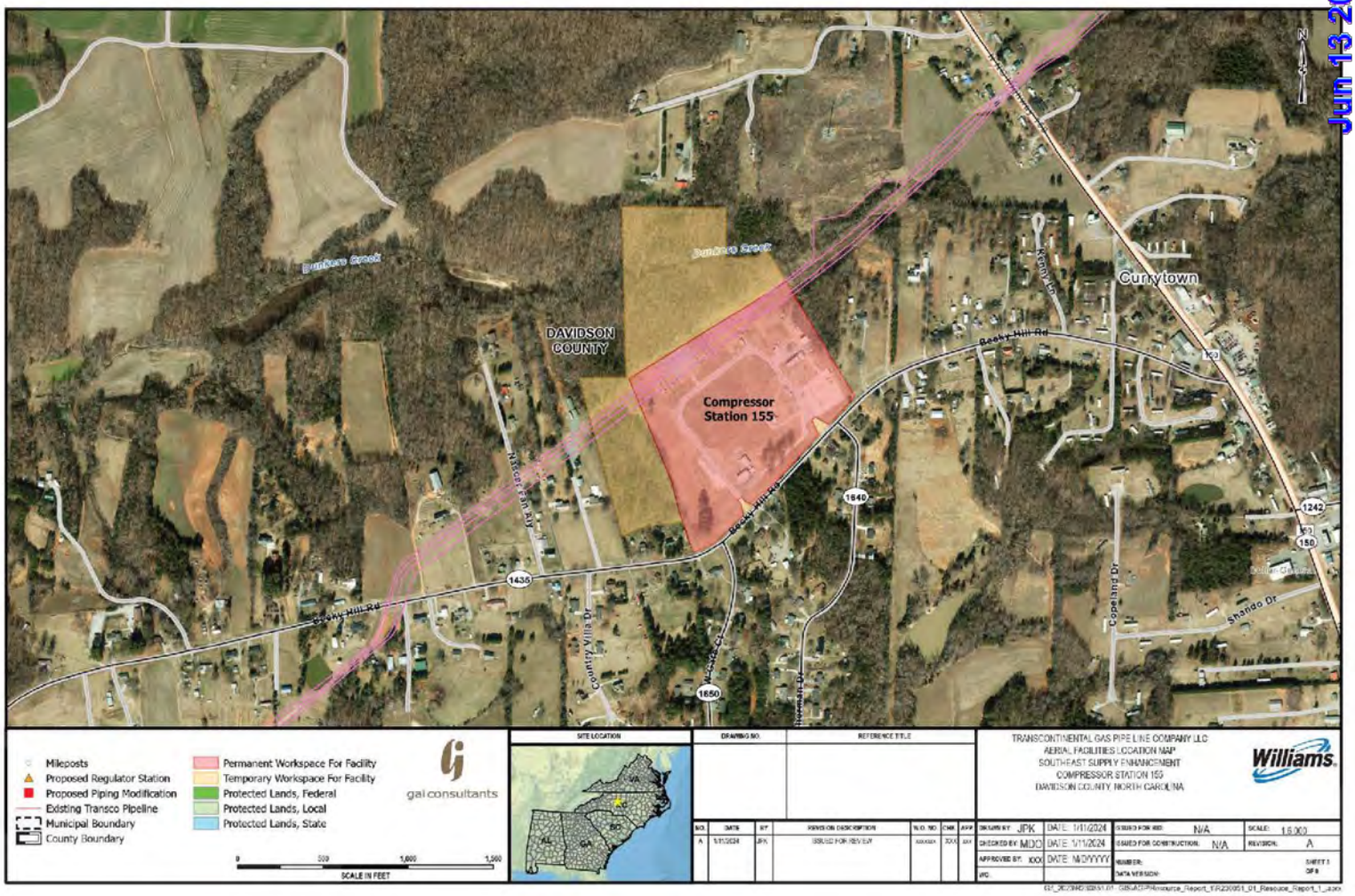

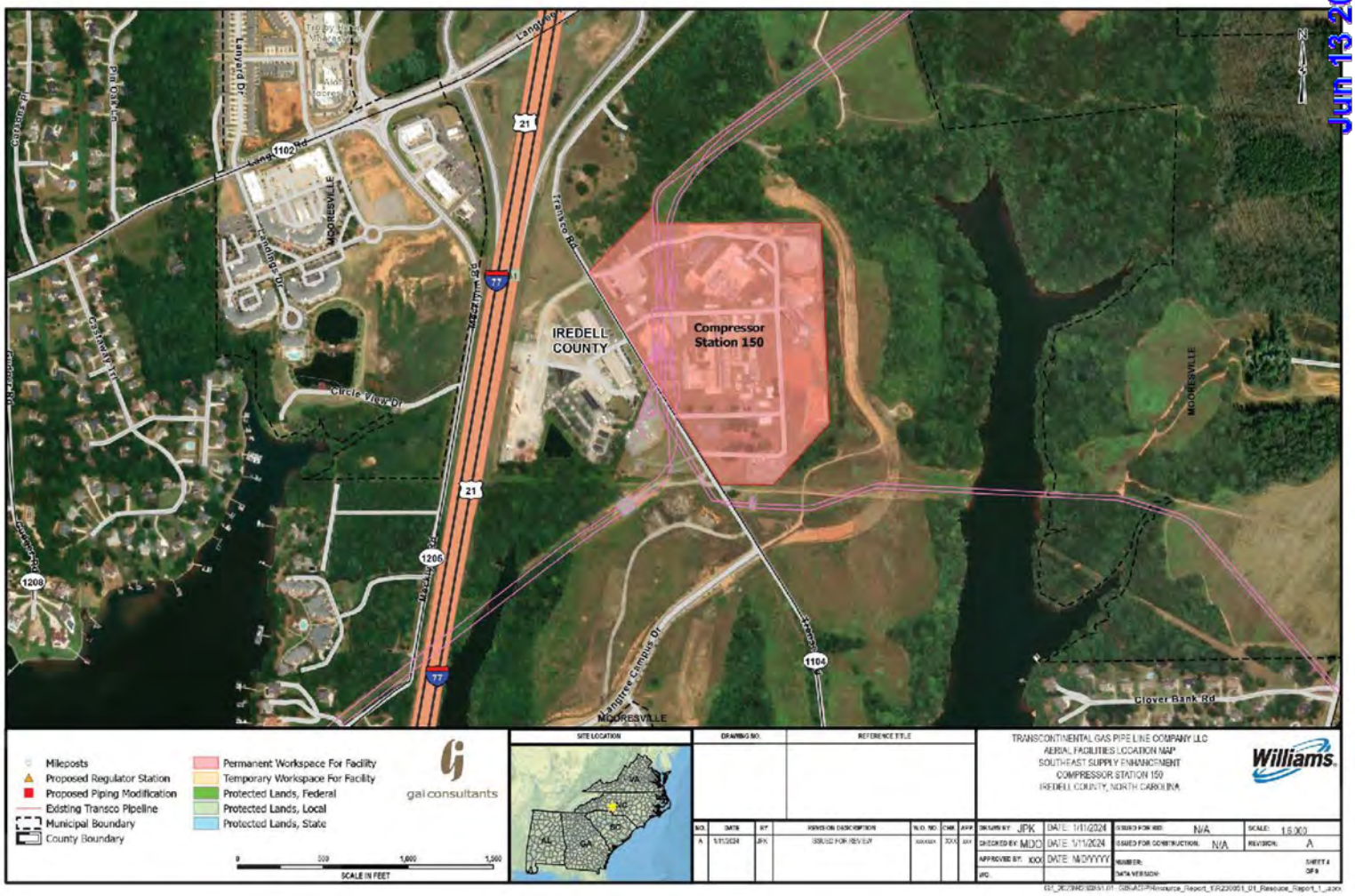

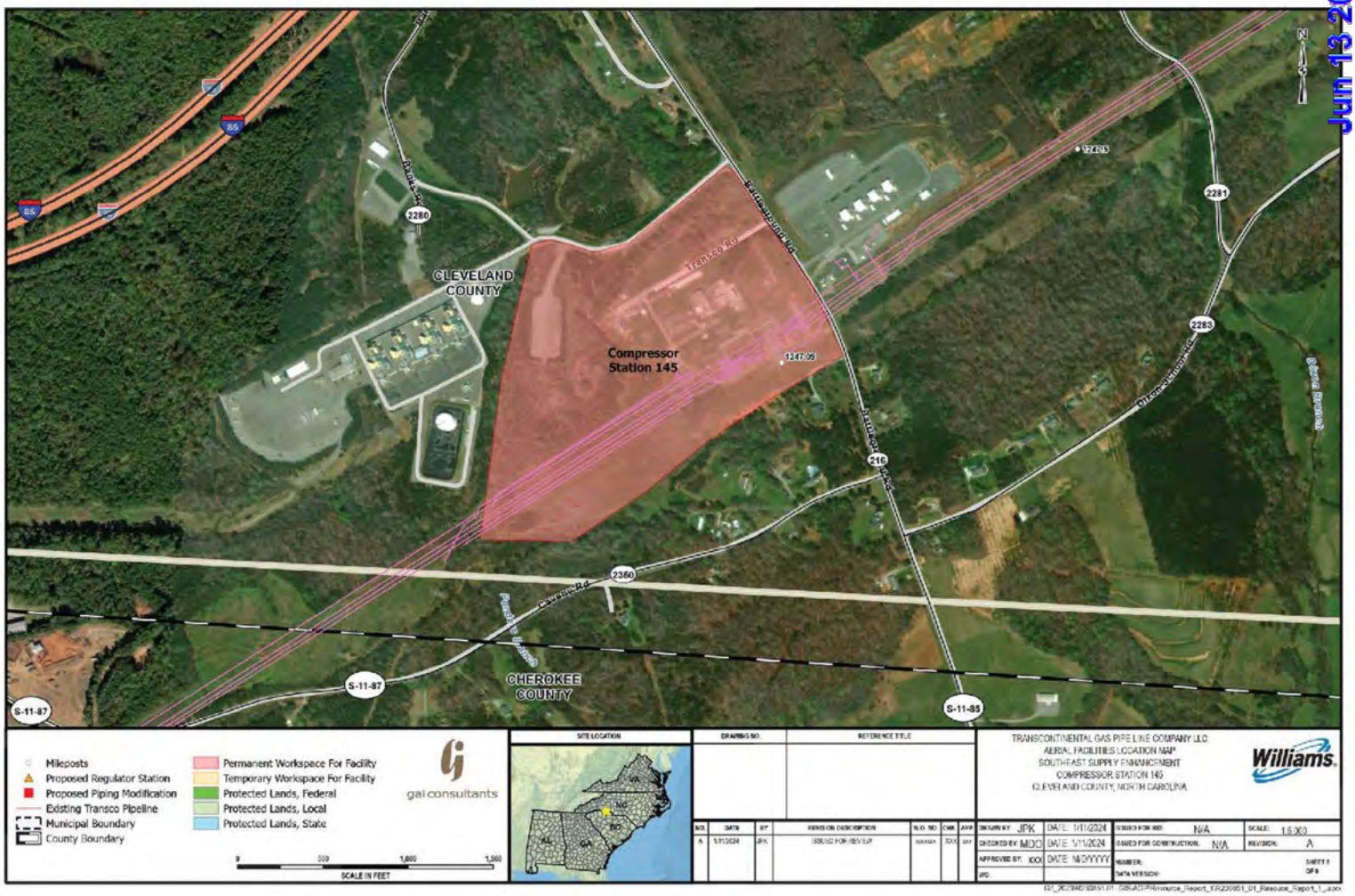

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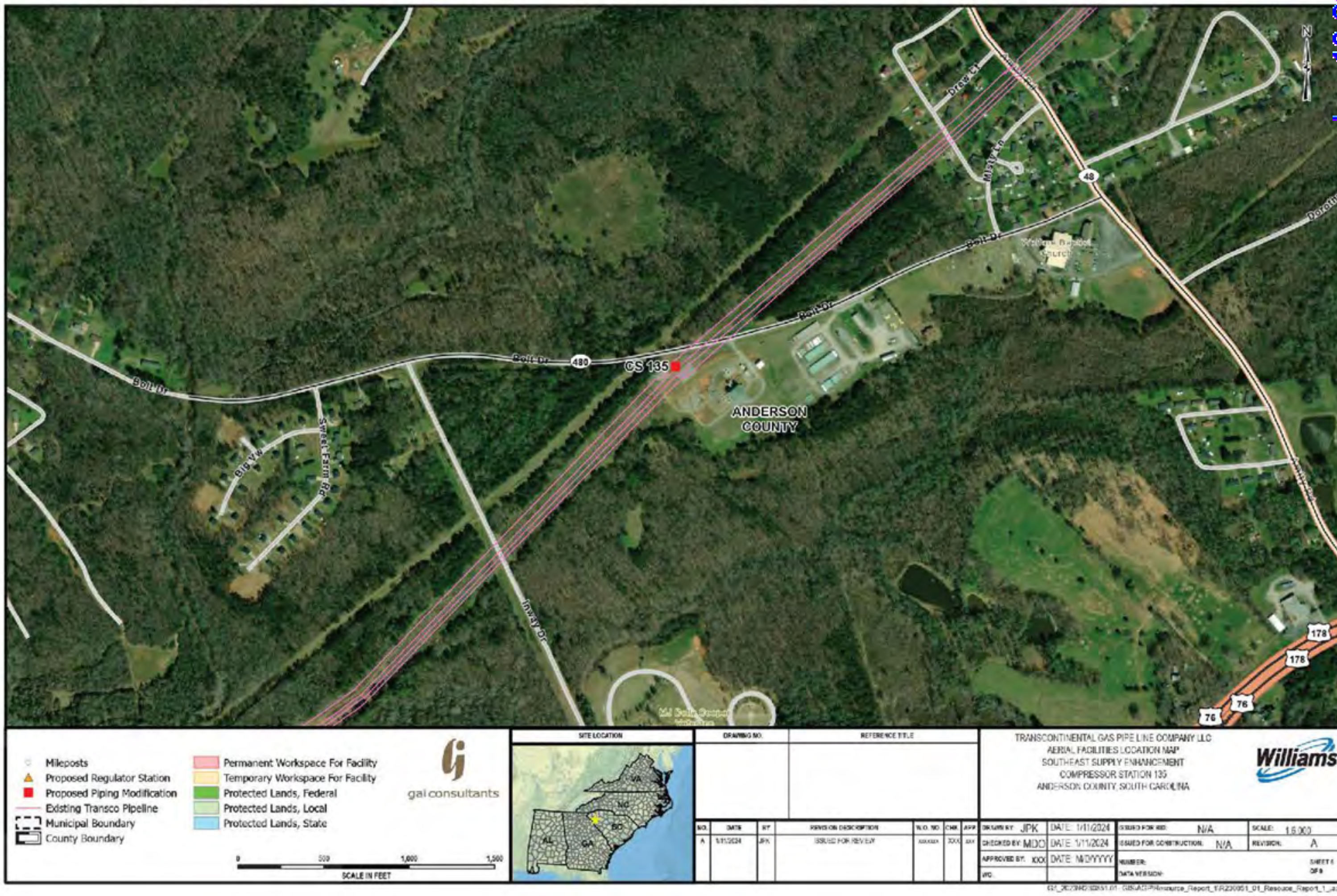

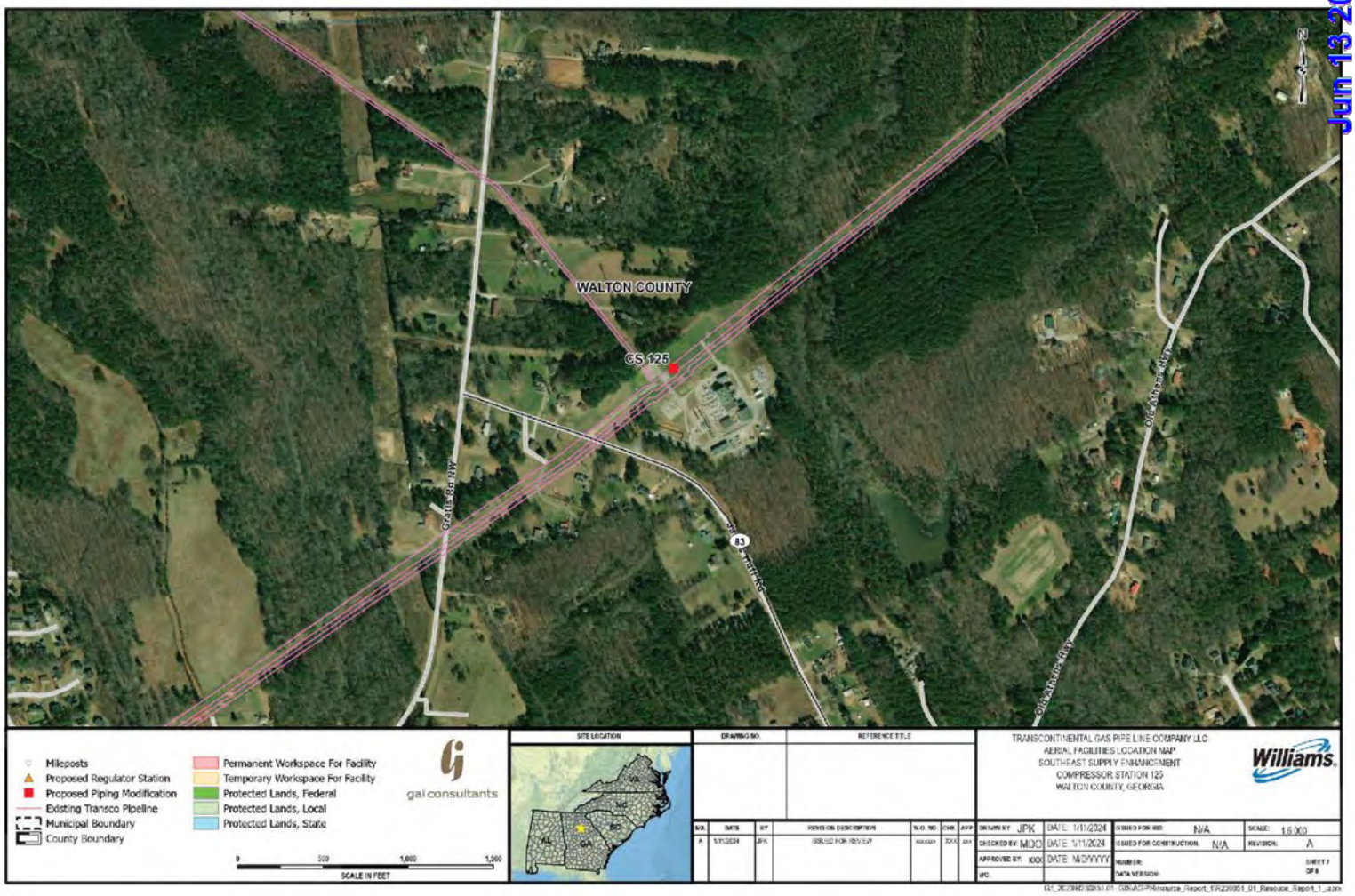

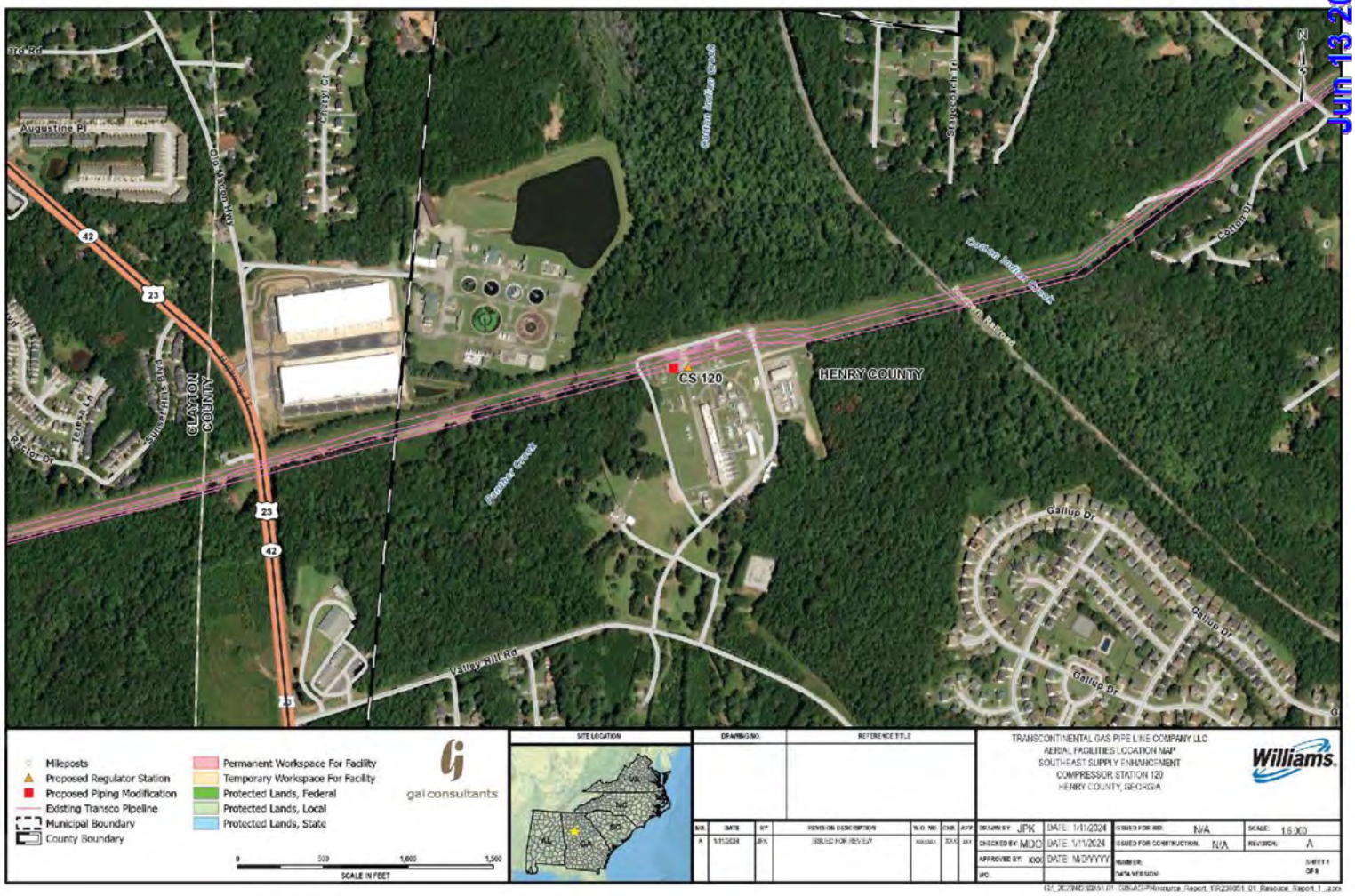

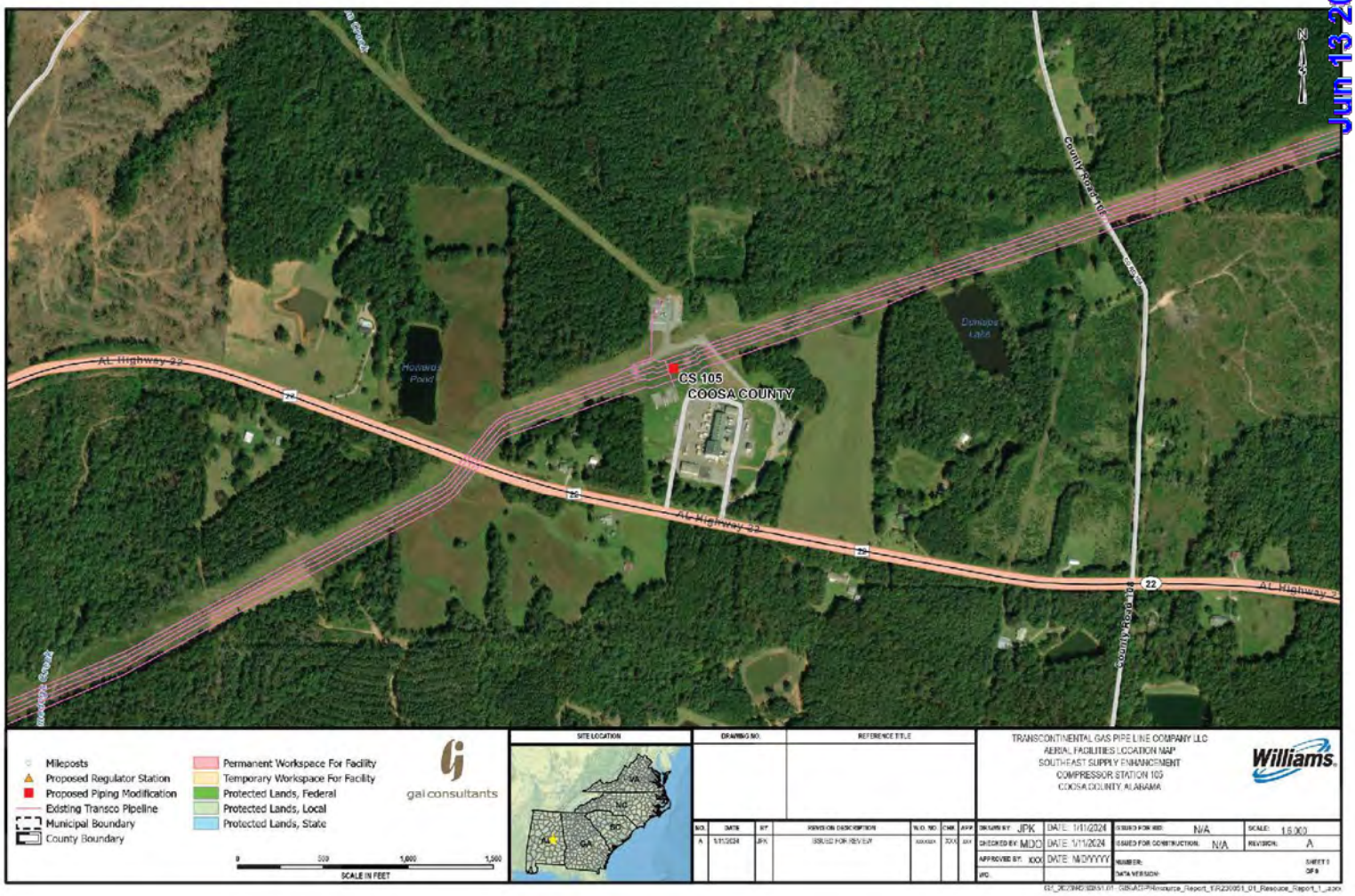

Transcontinental Gas Pipe Line Company, LLC

Resource Report No. 1

General Project Description

Appendix 1C – Typical Right-of-Way Cross Section Drawings

Southeast Supply Enhancement Project

February 2024

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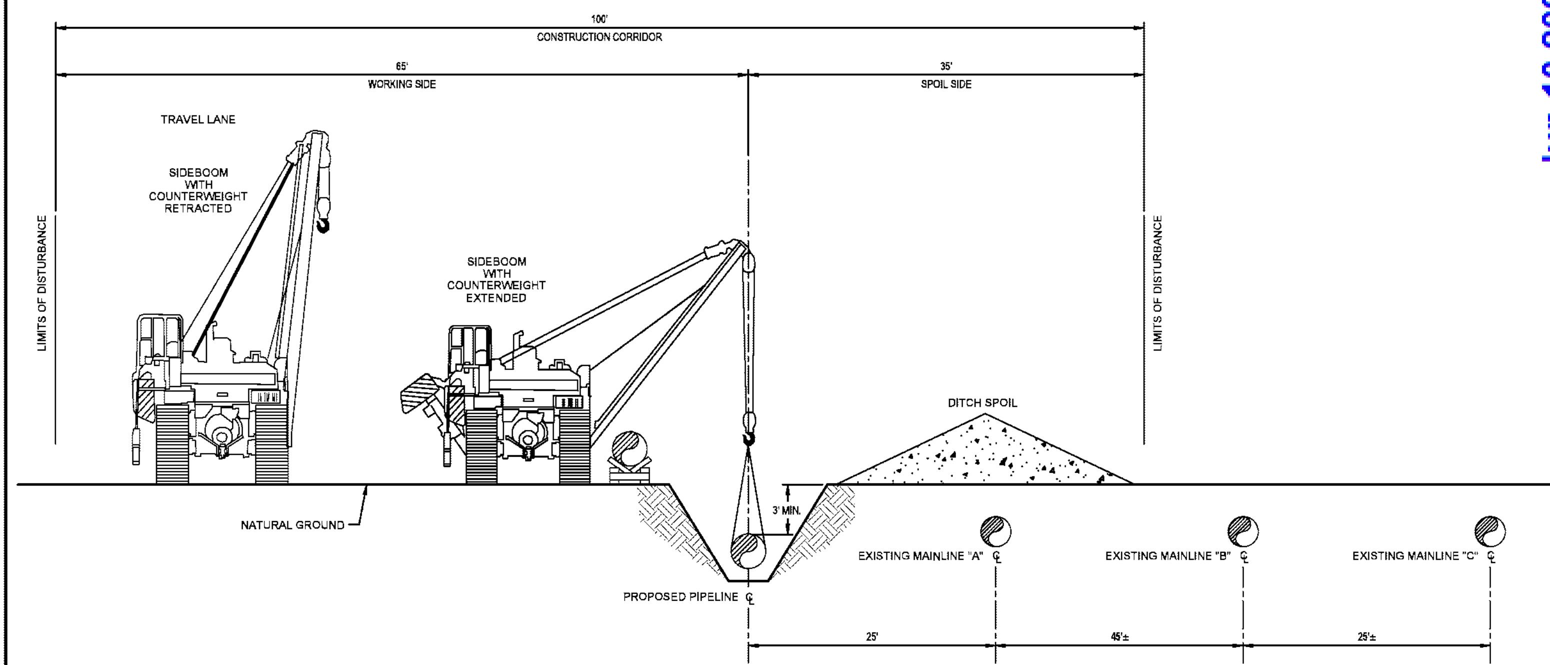

TYPICAL CROSS SECTION NO. 1

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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CHECKED BY: NB	DATE:	ISSUED FOR CONSTRUCTION:	REVISION: A
APPROVED BY: HP	DATE:	DRAWING NUMBER: FP-SSE-MAIN-E_XS-01	SHEET 1
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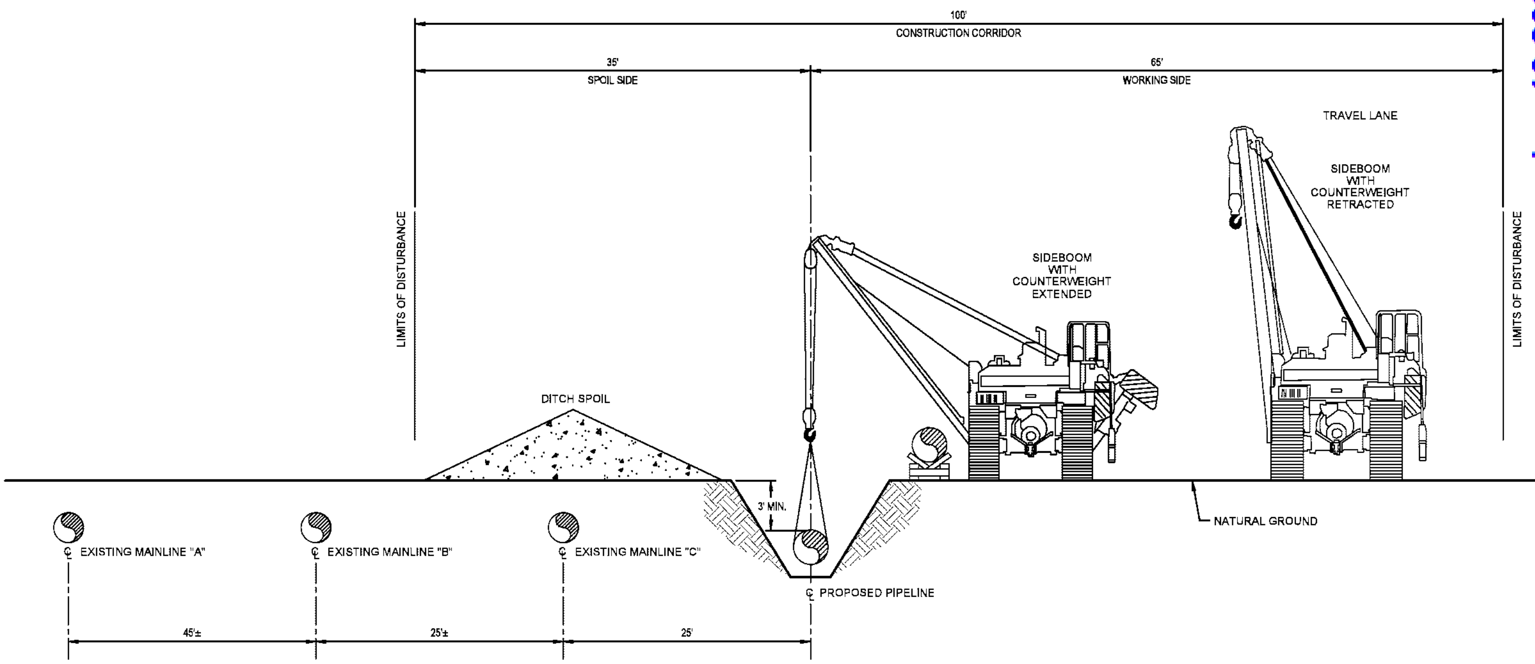

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STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

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TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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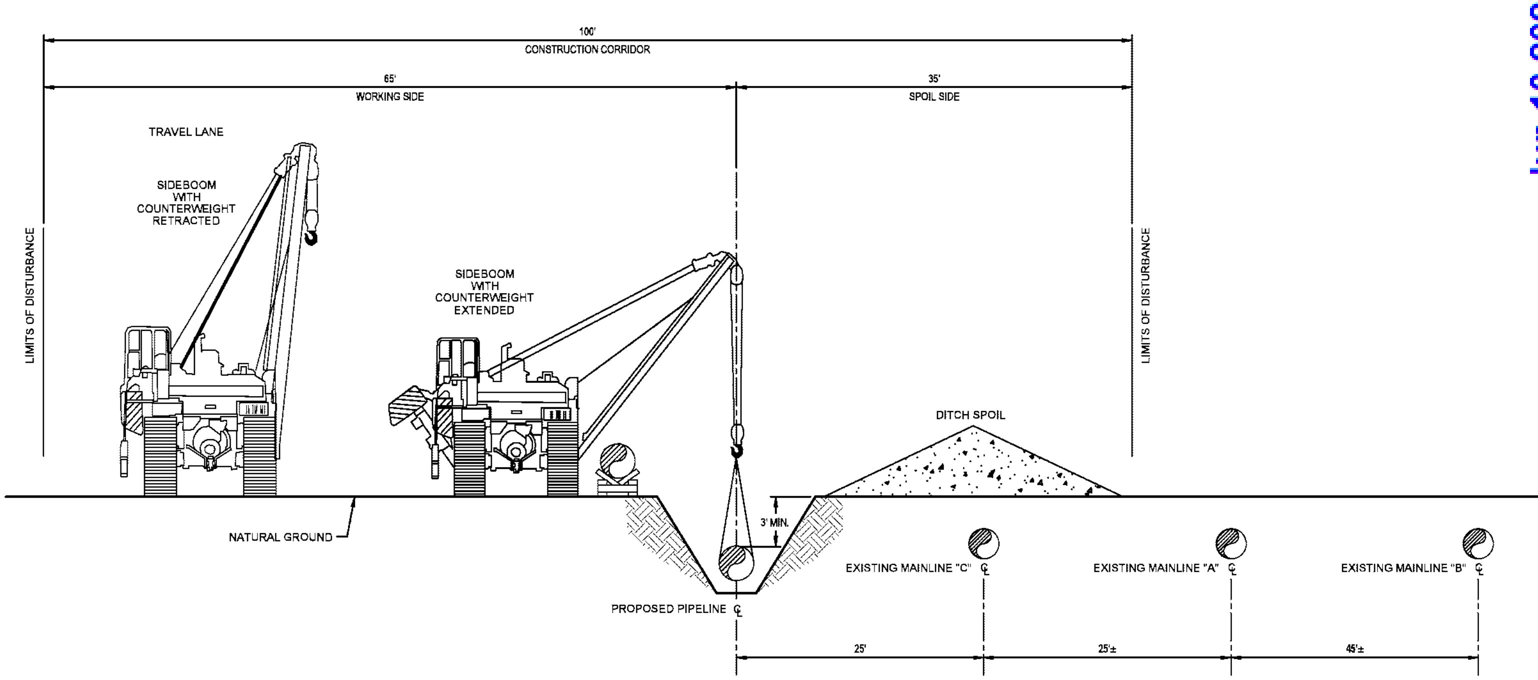

TYPICAL CROSS SECTION NO. 3

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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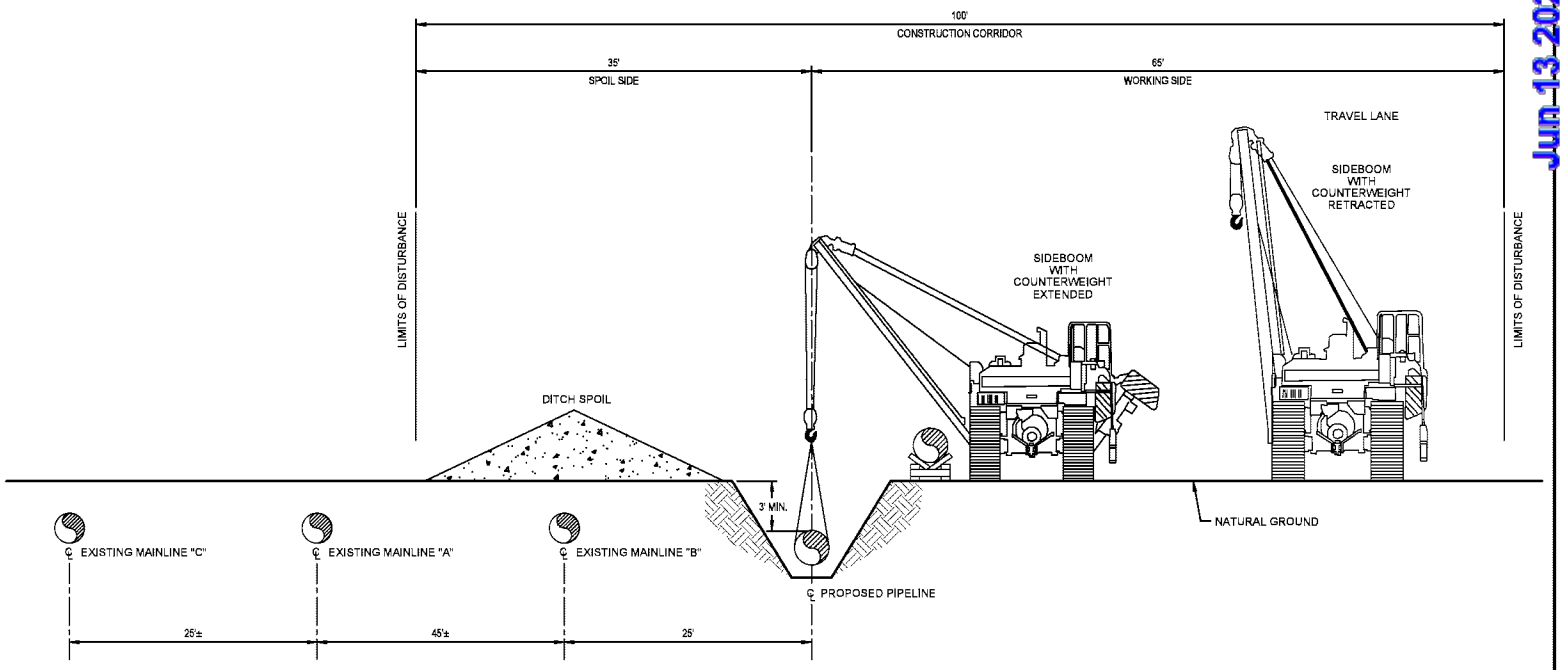

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STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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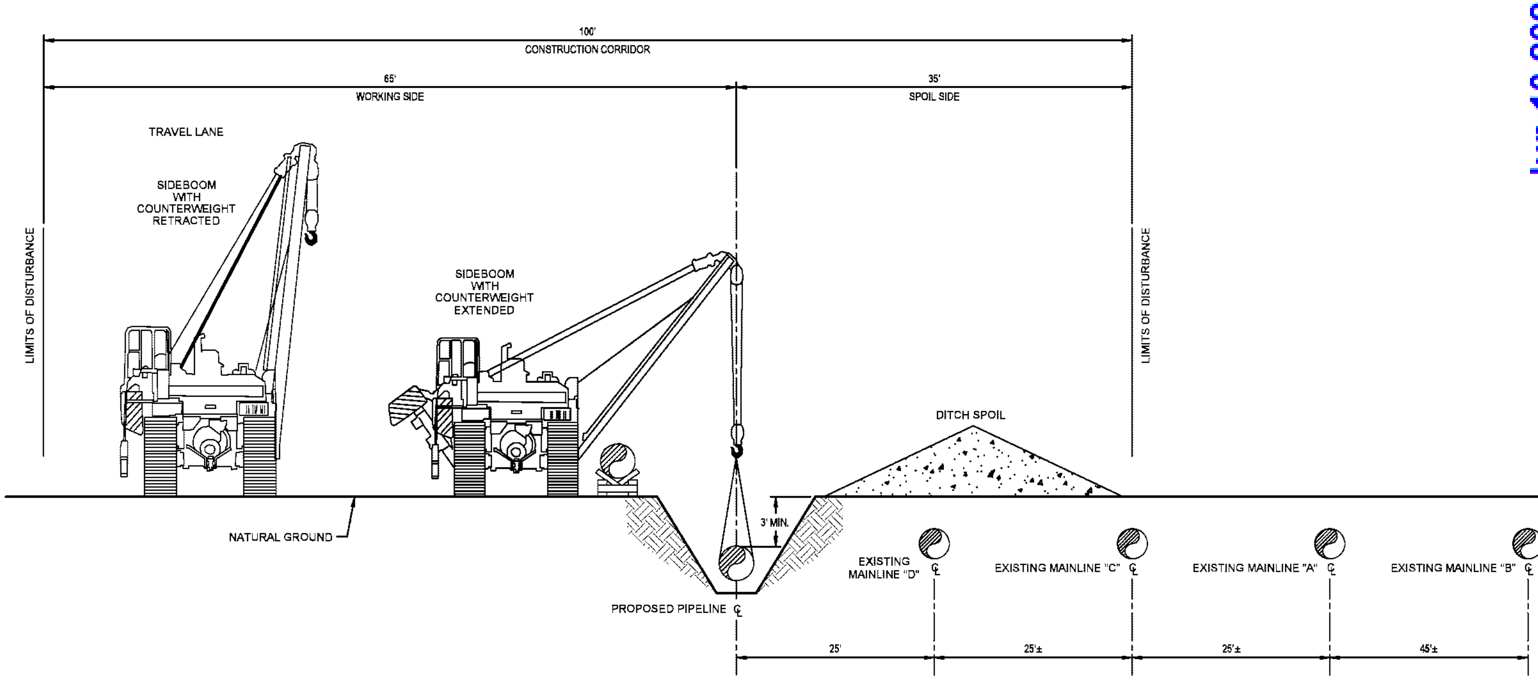

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STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO. | REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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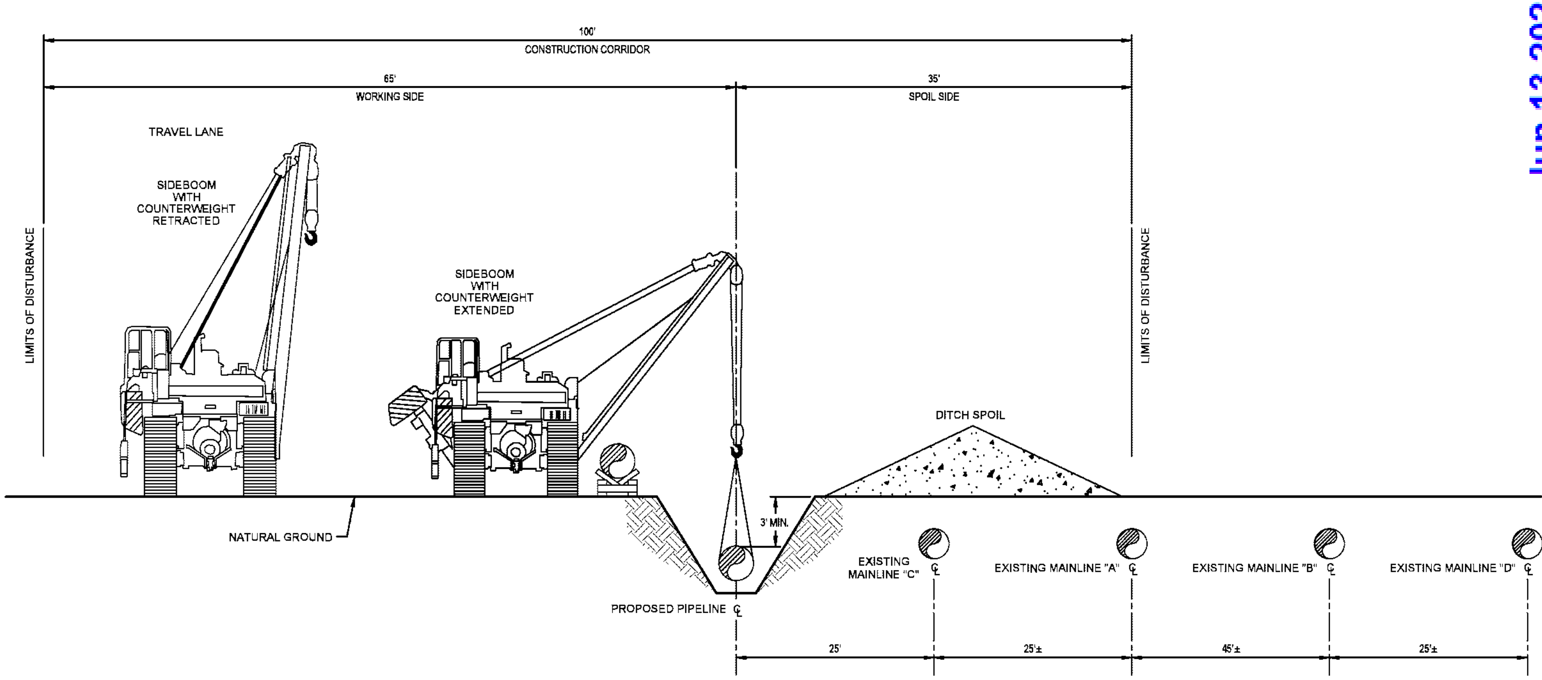

TYPICAL CROSS SECTION NO. 6

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

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TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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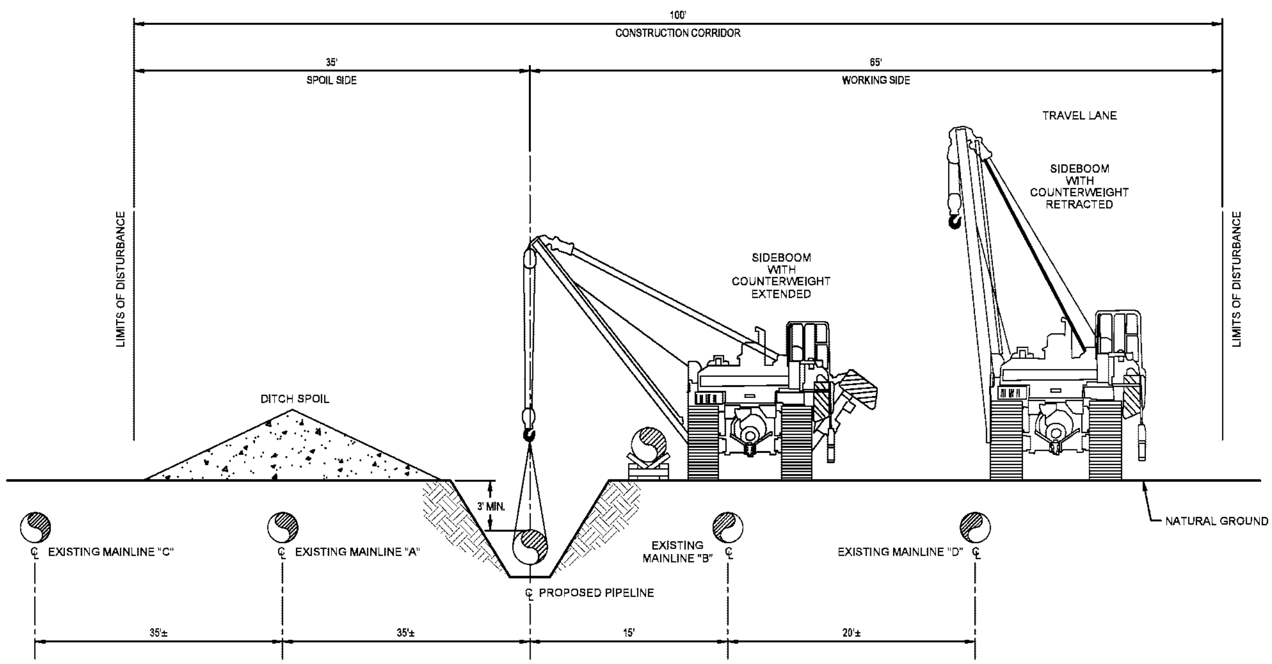

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STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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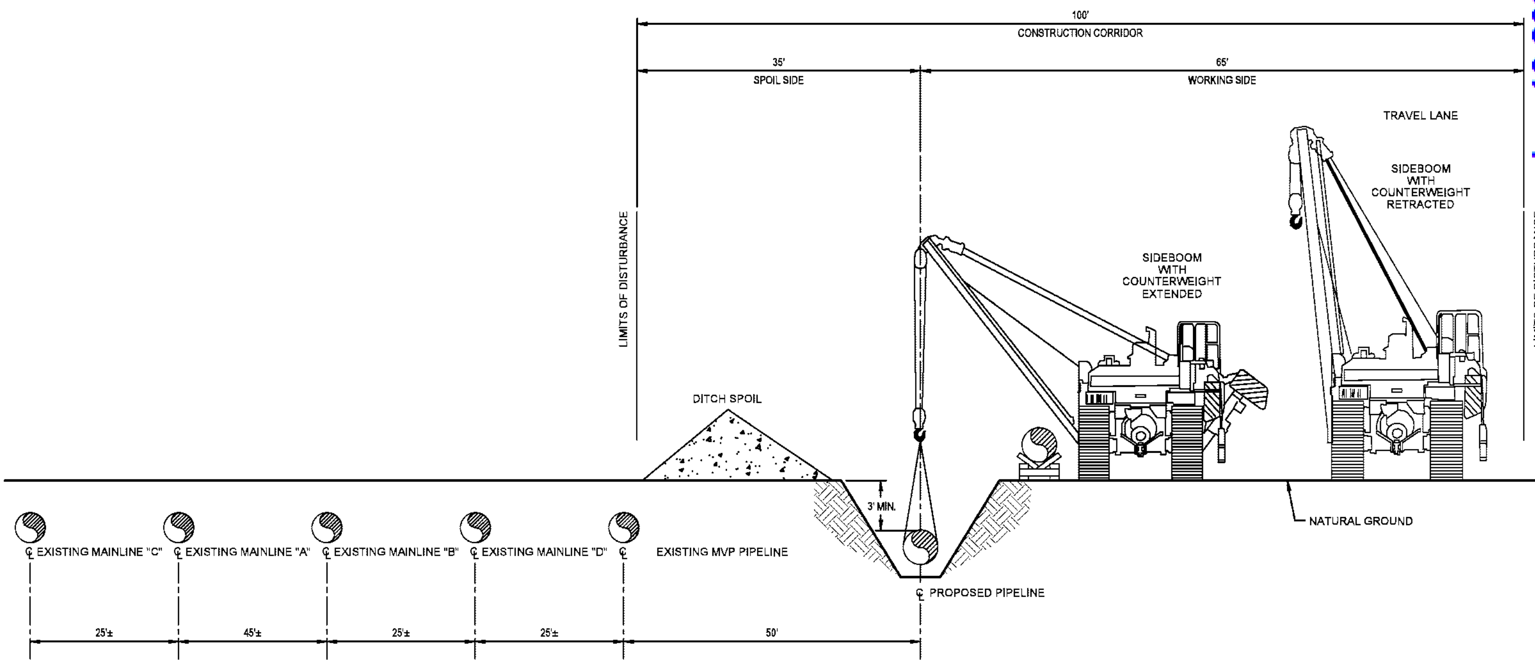

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STANDARD WORK CORRIDOR
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TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" EDEN LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1382.53 TO M.P. 1413.15

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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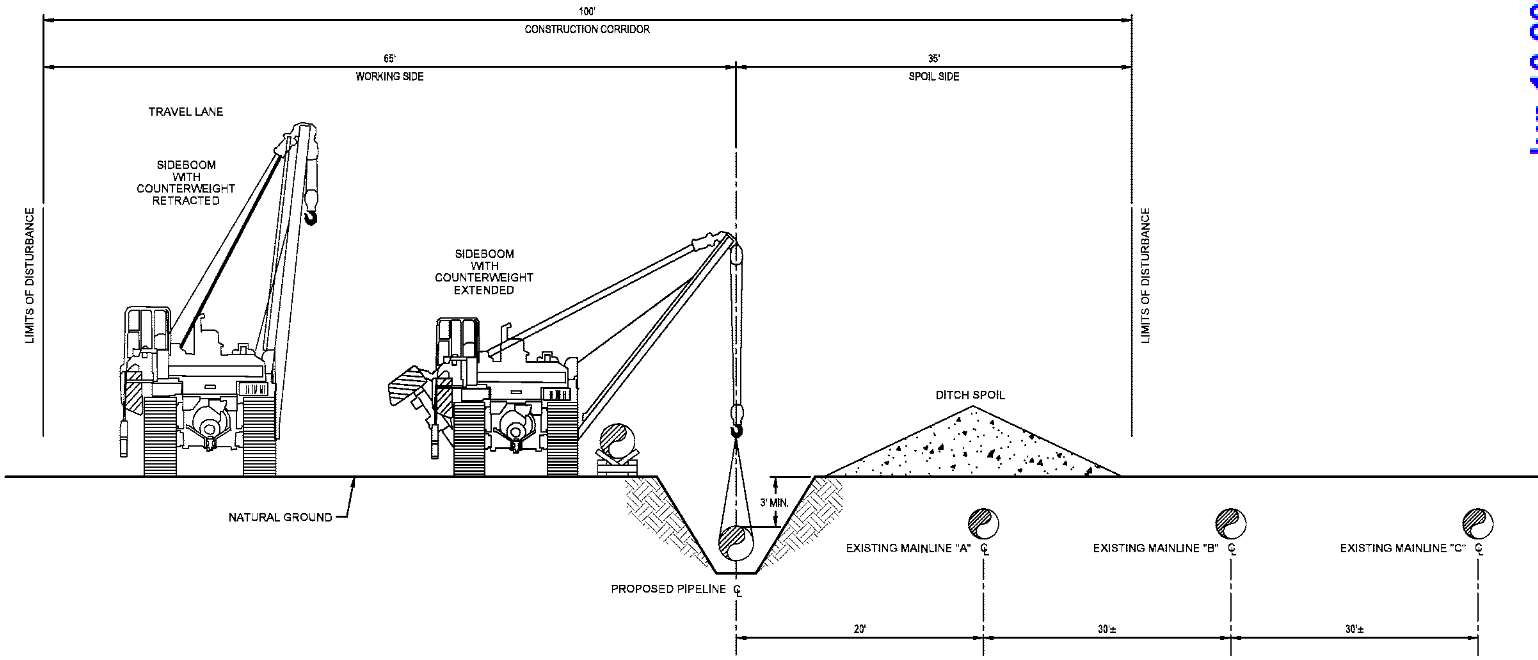

TYPICAL CROSS SECTION NO. 1

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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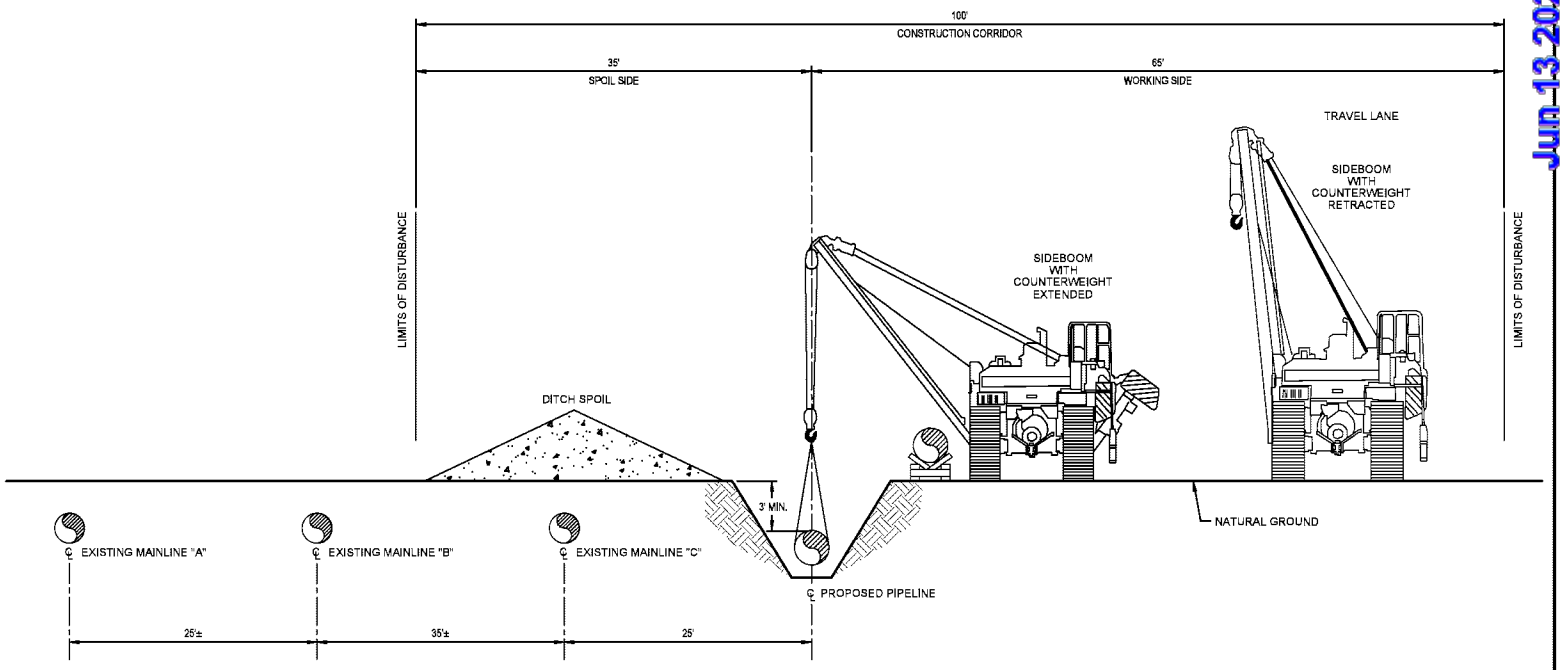

TYPICAL CROSS SECTION NO. 2

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

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TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

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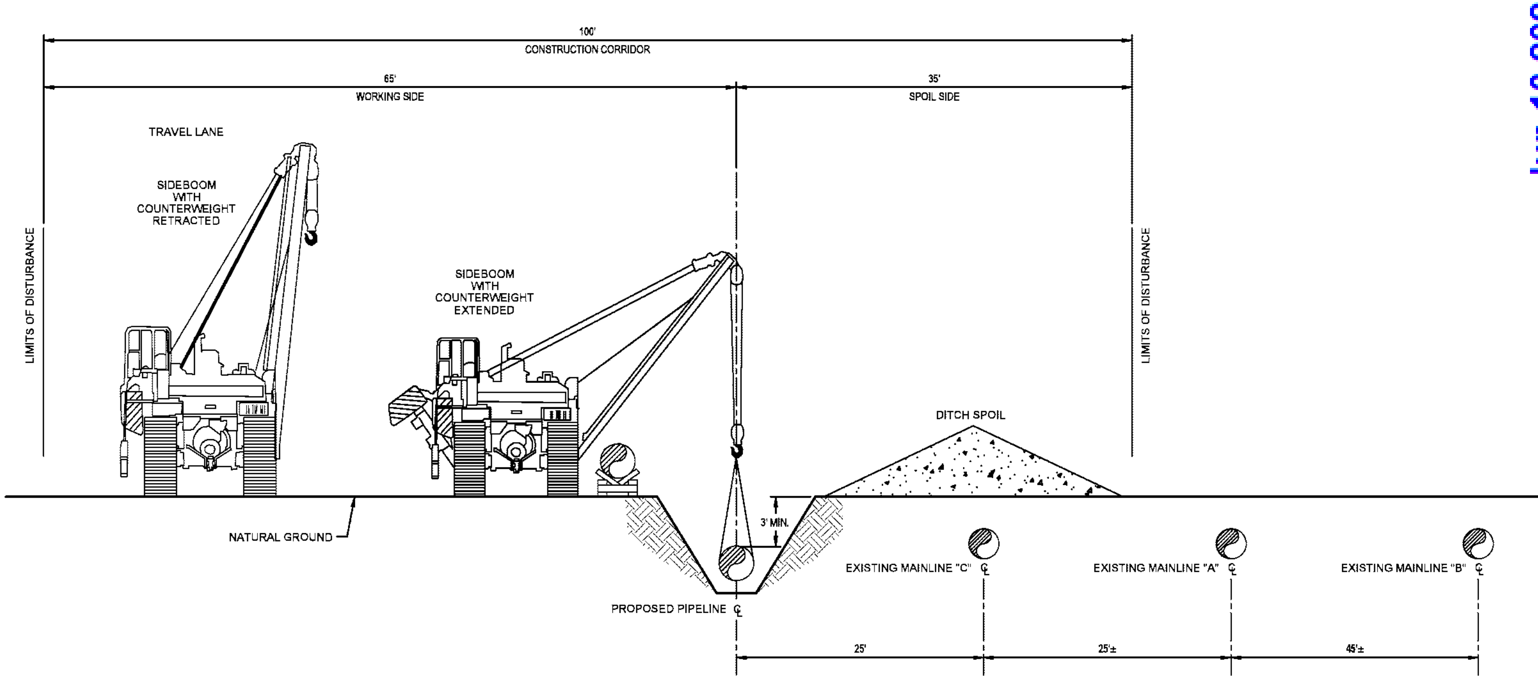

TYPICAL CROSS SECTION NO. 3

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

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TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

Williams.

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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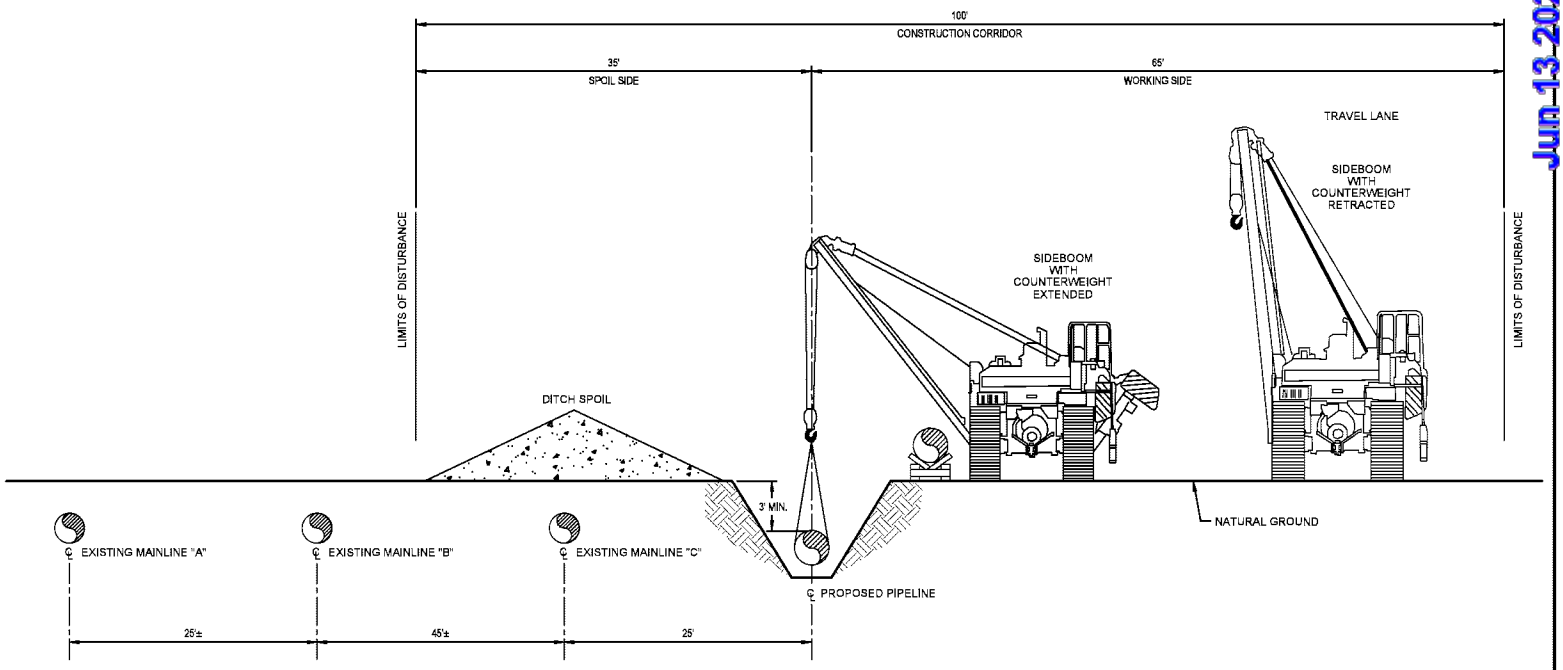

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STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

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TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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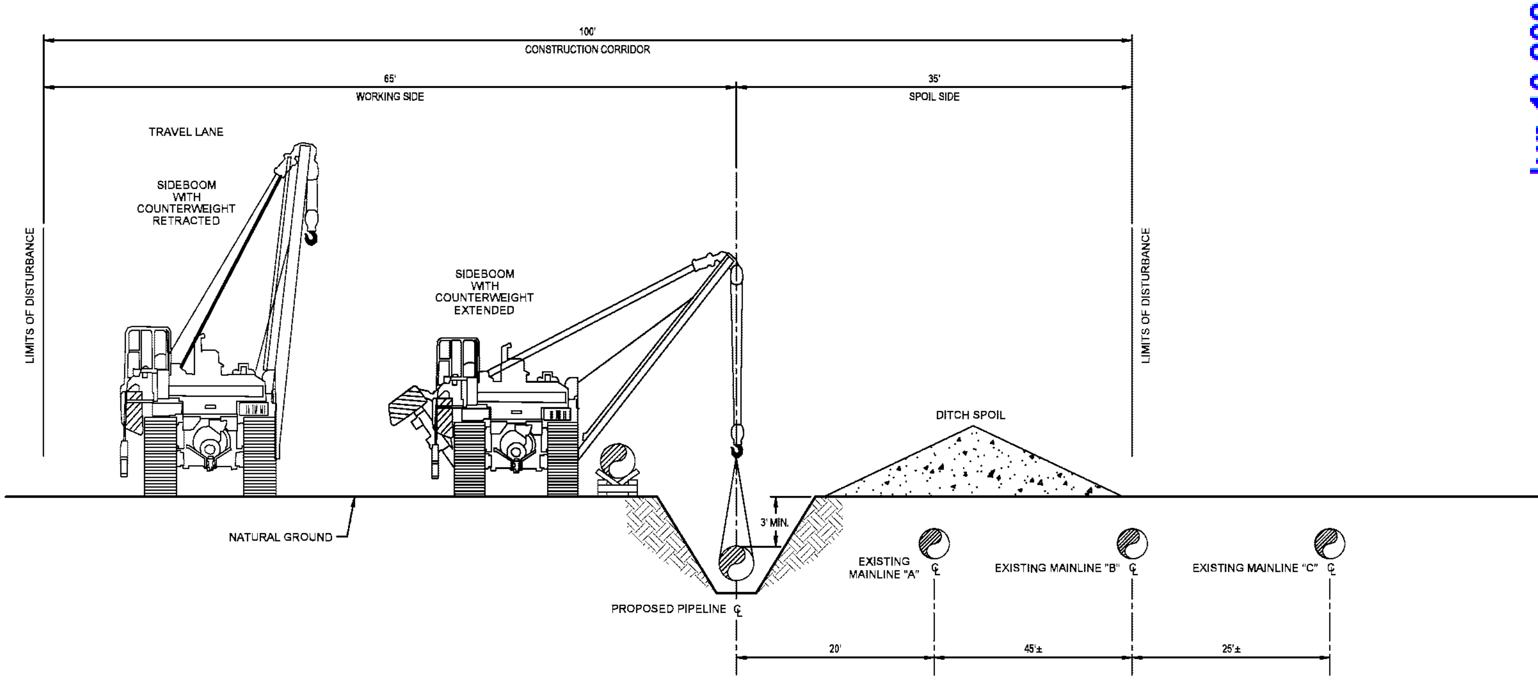

TYPICAL CROSS SECTION NO. 5

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

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TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

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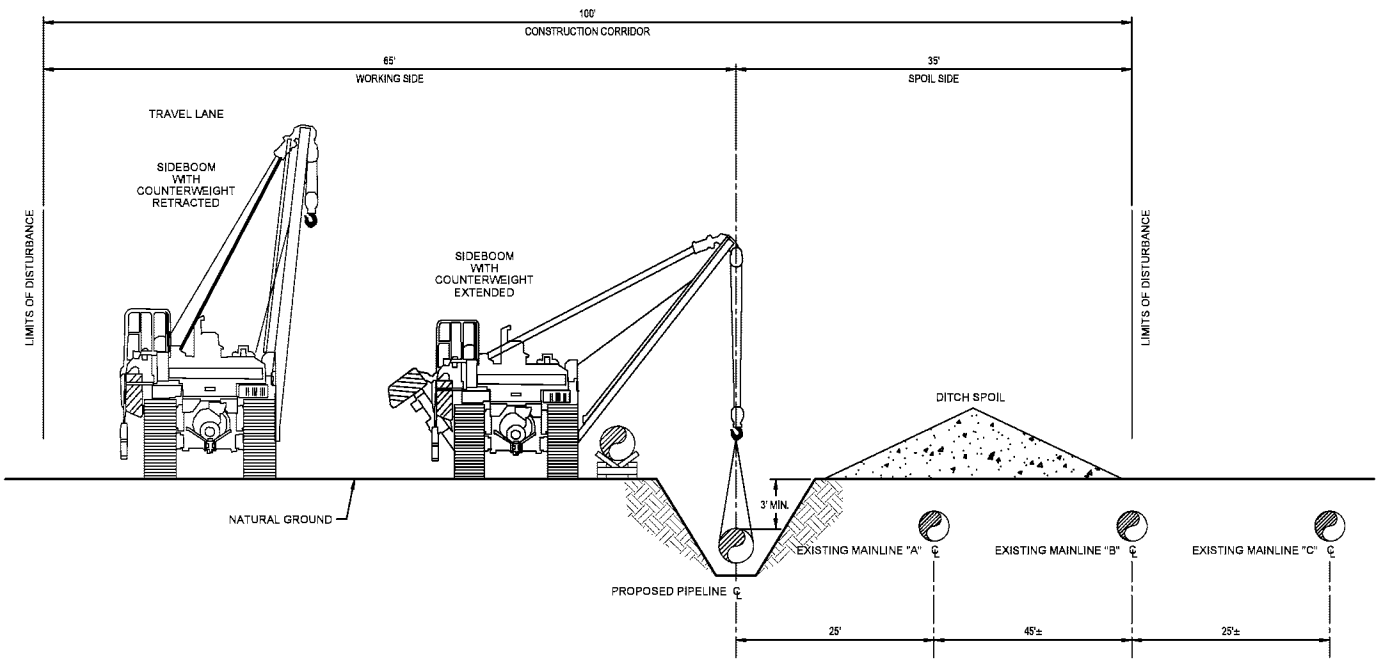

TYPICAL CROSS SECTION NO. 6

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
A	12/13/2023	WMB	ISSUED FOR REVIEW	F1000021	NB	HP

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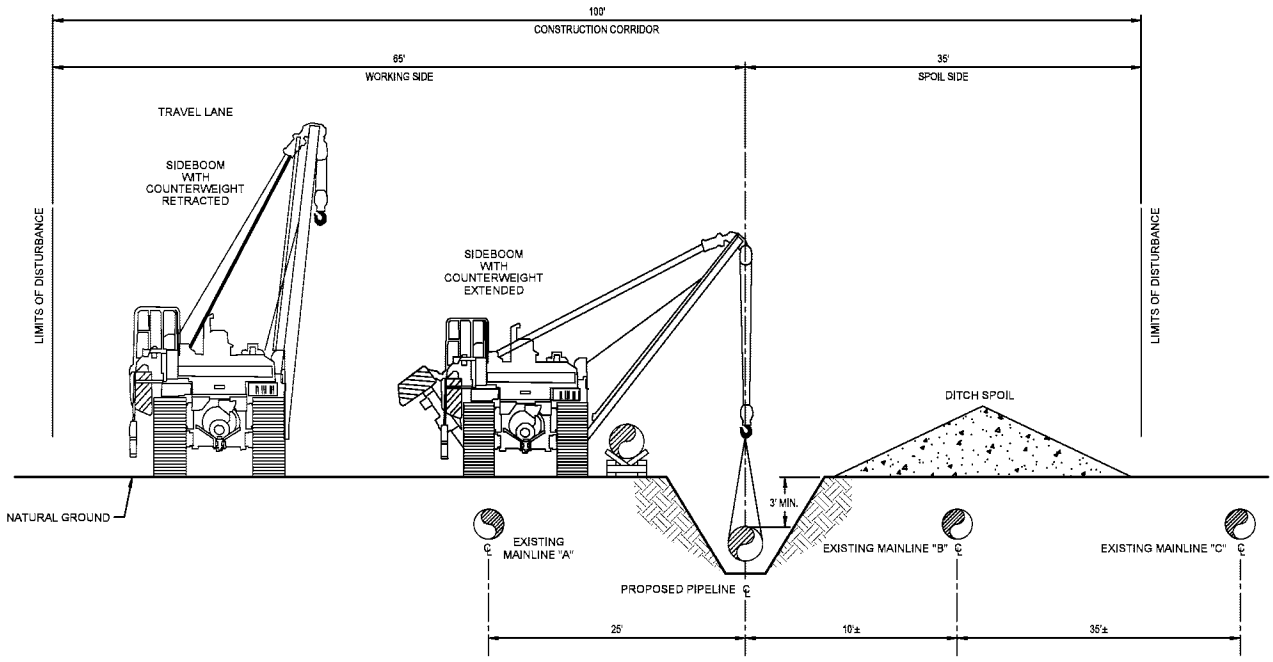

TYPICAL CROSS SECTION NO. 7

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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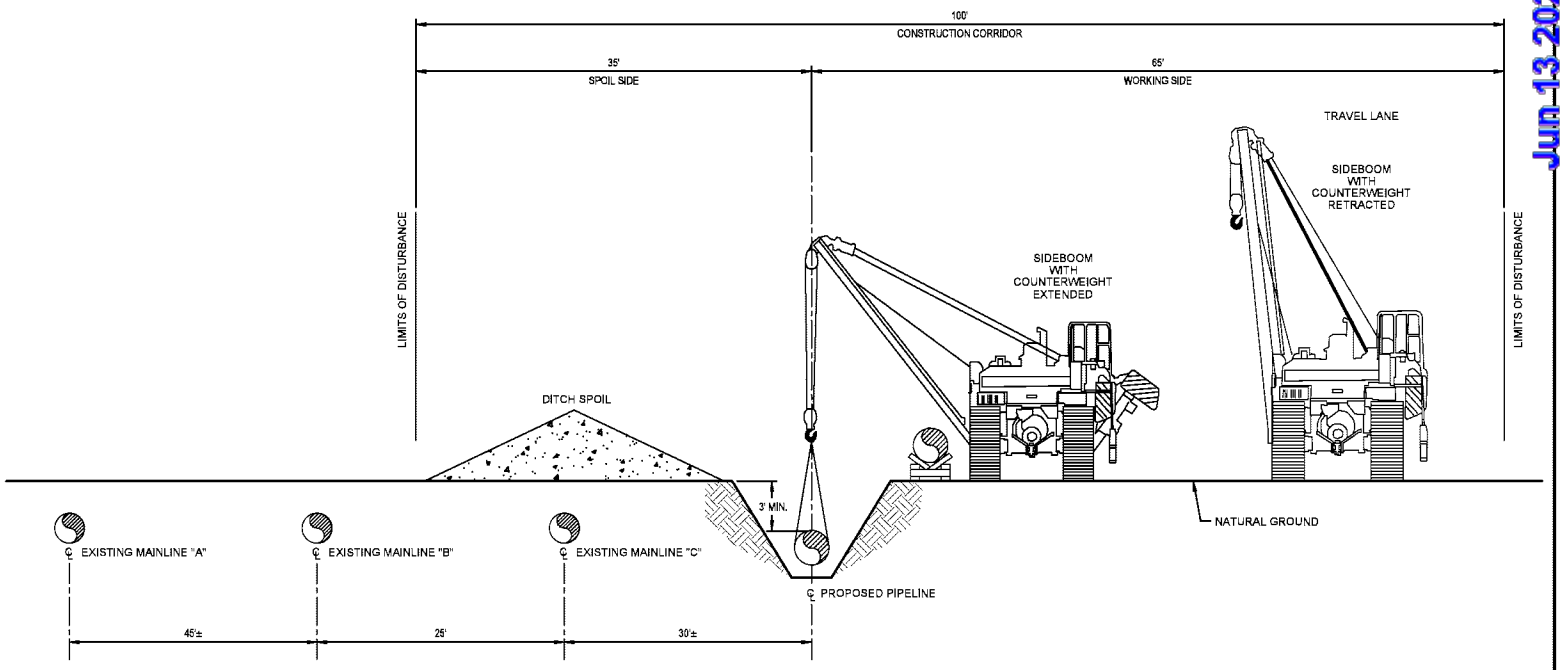

TYPICAL CROSS SECTION NO. 8

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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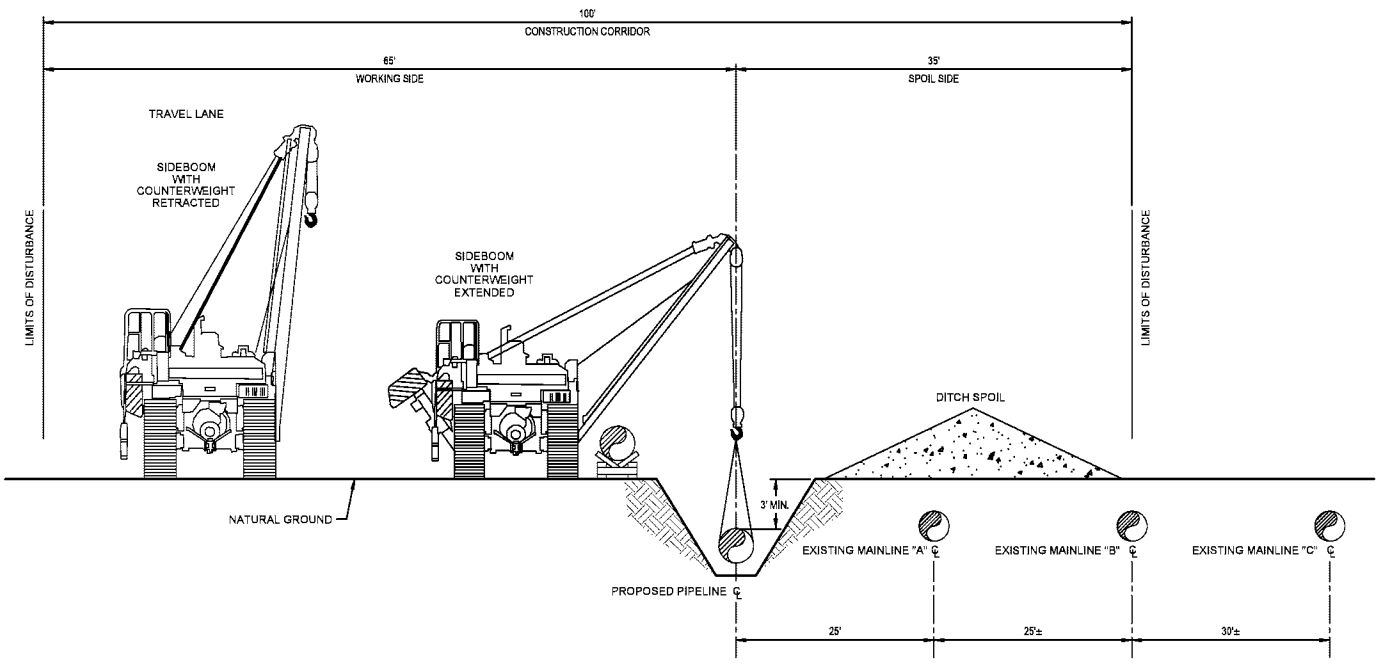

TYPICAL CROSS SECTION NO. 9

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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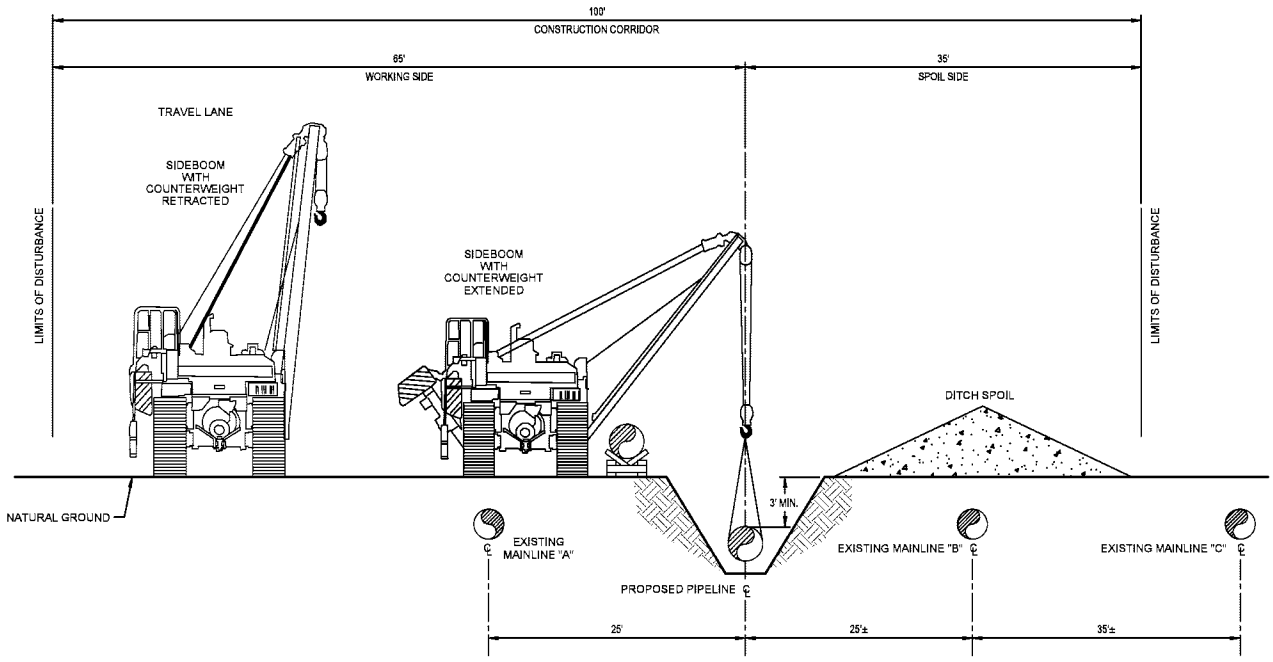

TYPICAL CROSS SECTION NO. 10

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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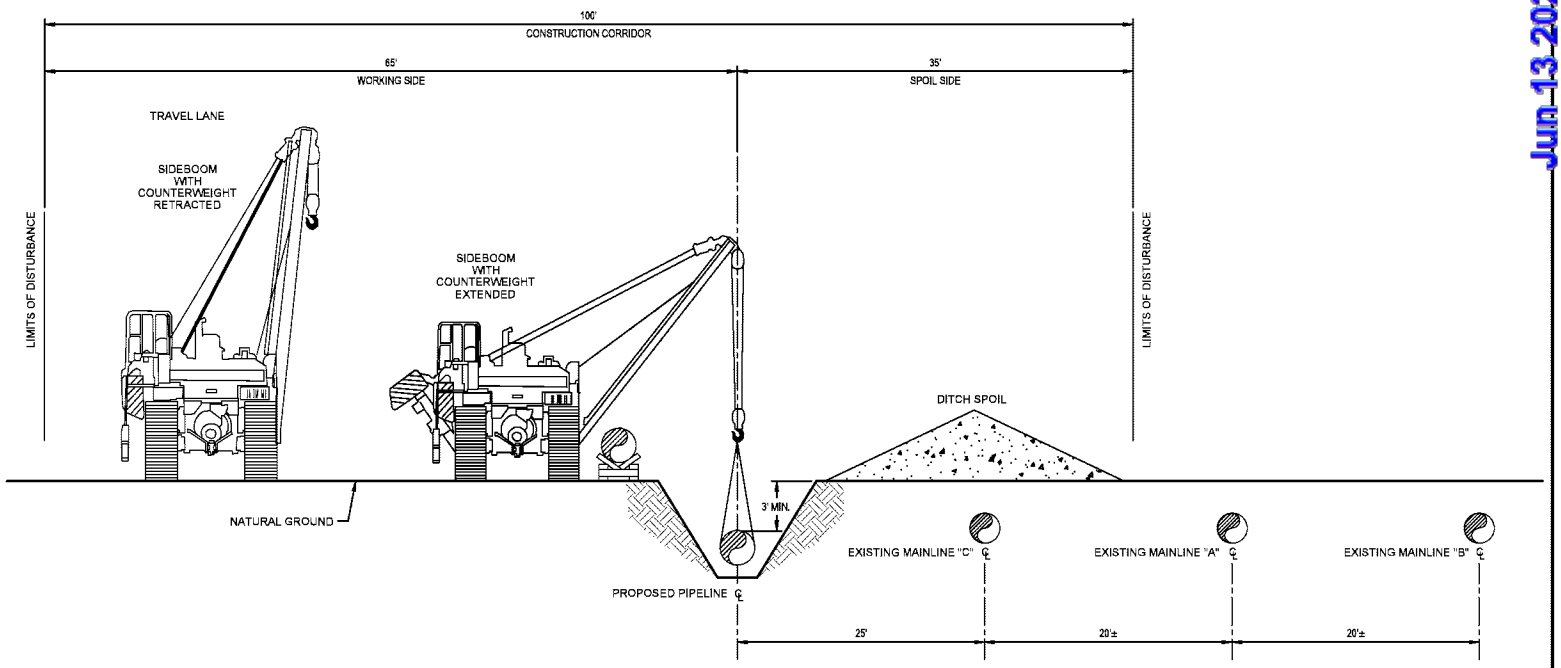

TYPICAL CROSS SECTION NO. 11

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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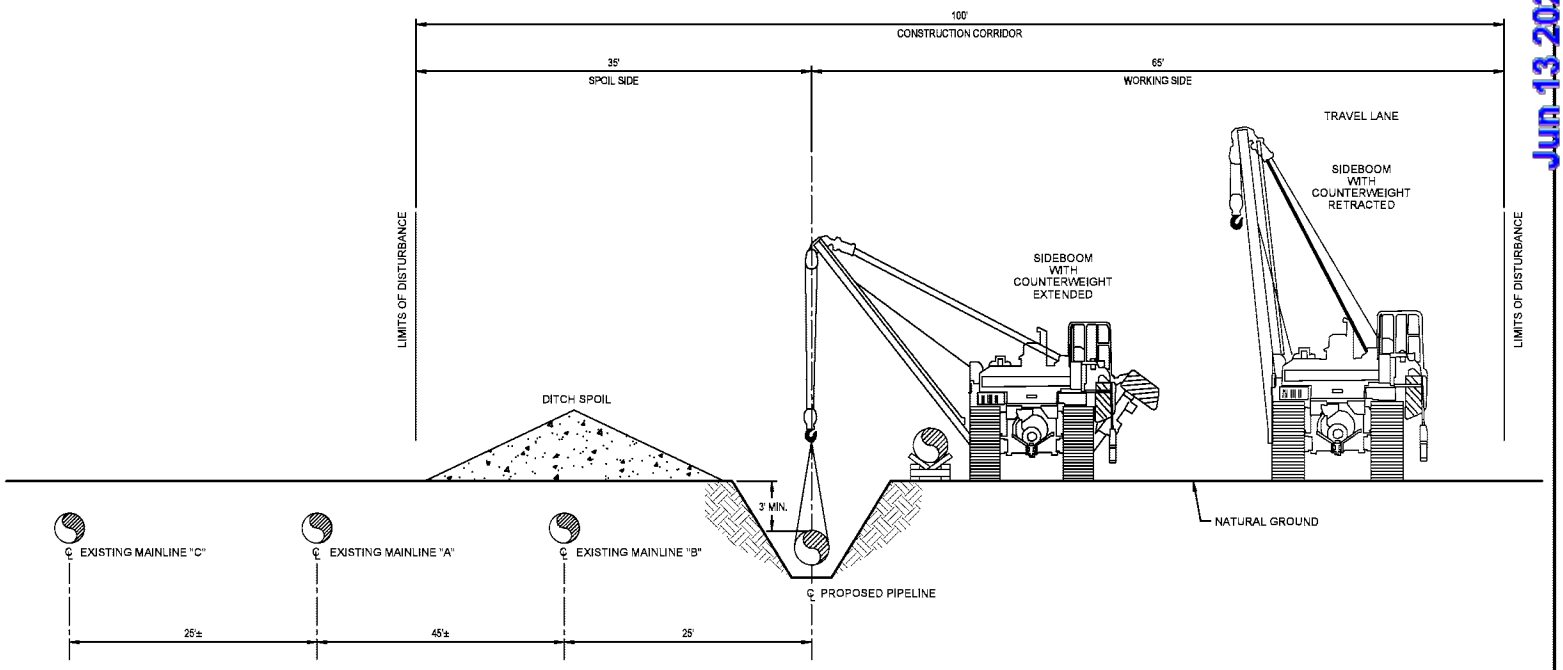

TYPICAL CROSS SECTION NO. 12

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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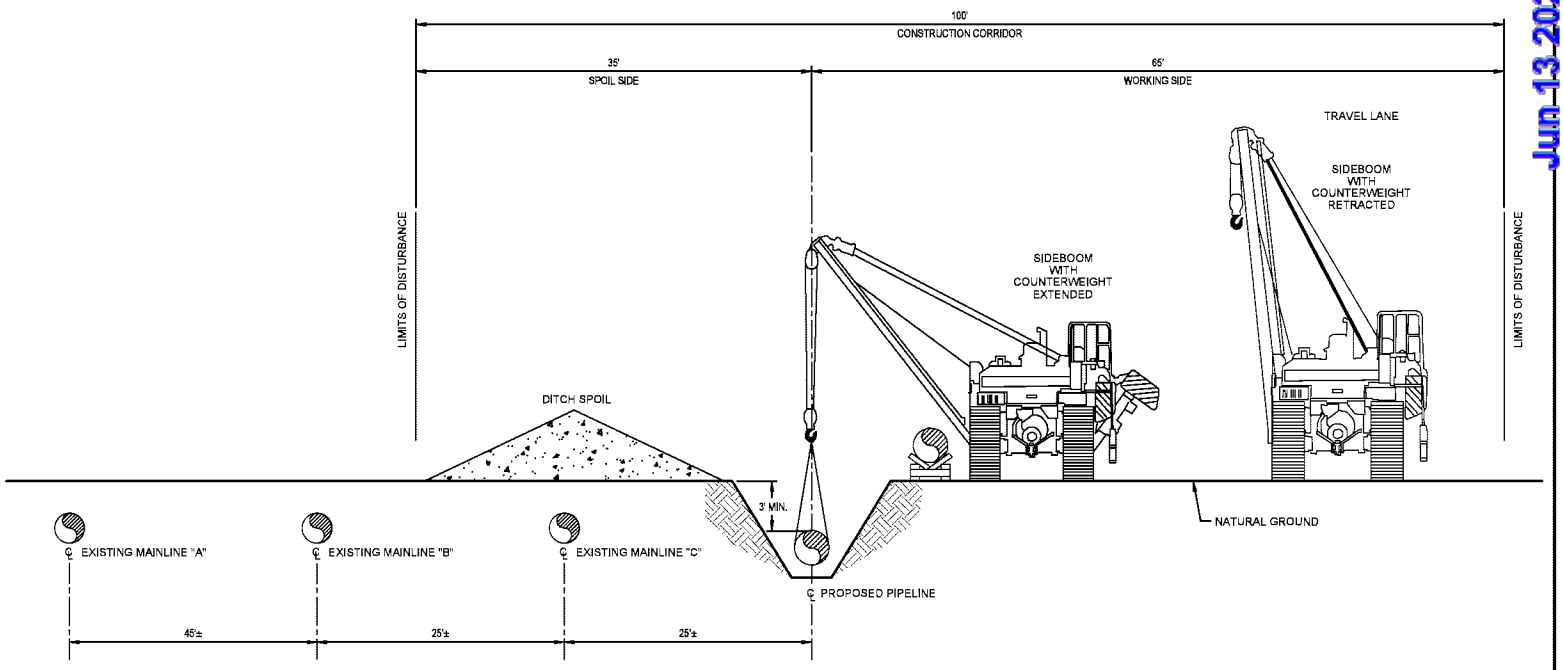

TYPICAL CROSS SECTION NO.13

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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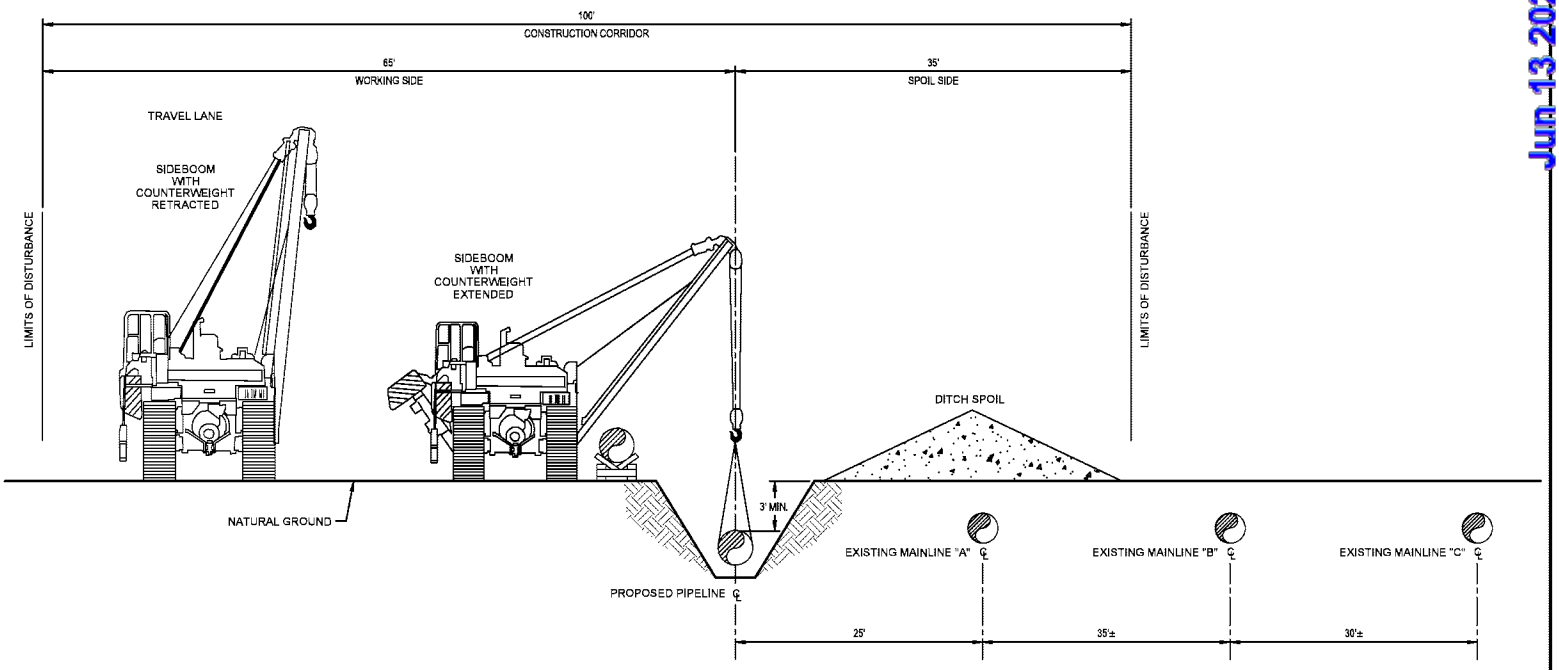

TYPICAL CROSS SECTION NO. 14

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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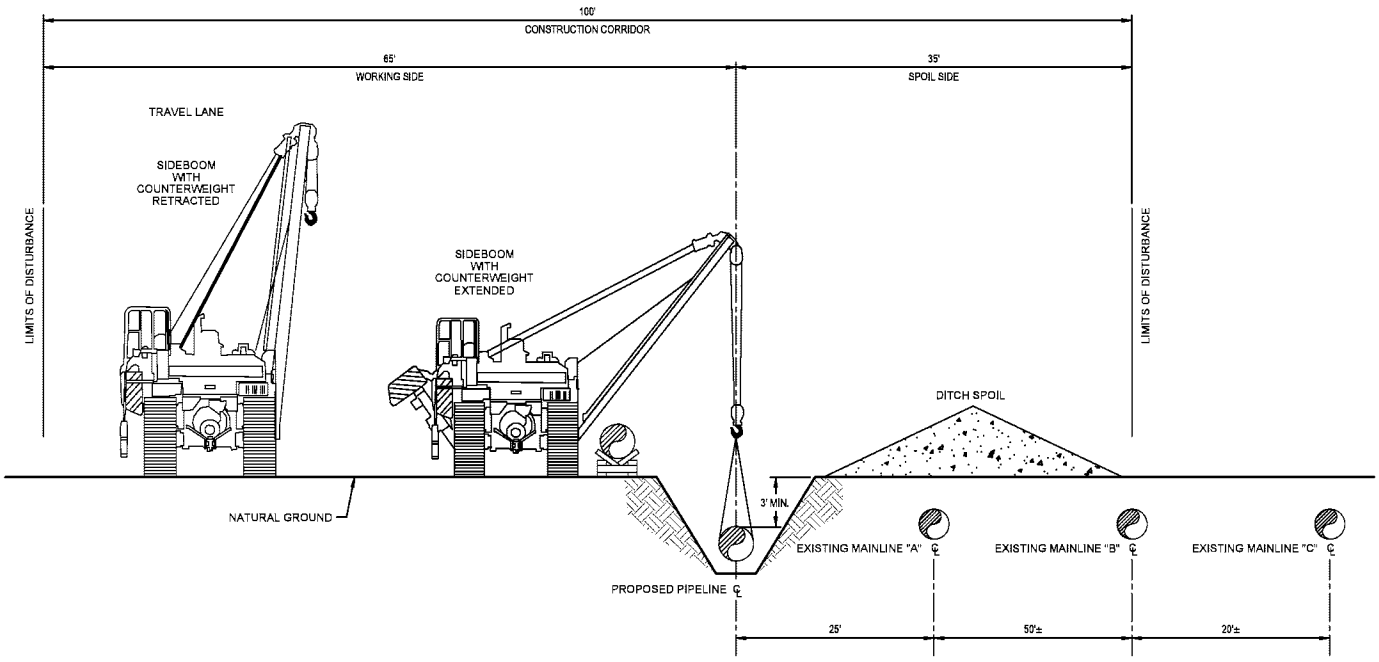

TYPICAL CROSS SECTION NO. 15

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
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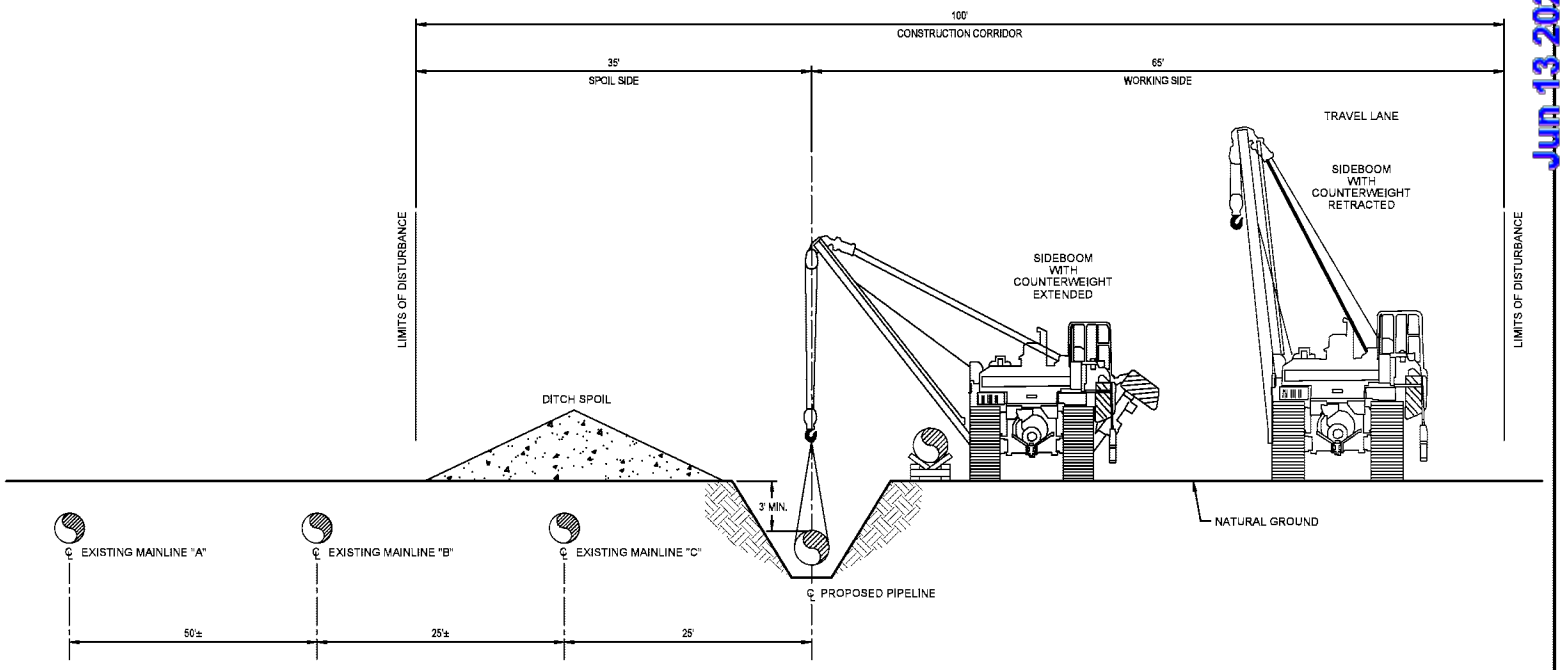

TYPICAL CROSS SECTION NO. 16

STANDARD WORK CORRIDOR
CO-LOCATED WITH EXISTING PIPELINES

DRAWING NO.	REFERENCE TITLE

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
TYPICAL RIGHT-OF-WAY CROSS SECTION
PROPOSED 42" SALEM LOOP
SOUTHEAST SUPPLY ENHANCEMENT
M.P. 1331.38 TO M.P. 1355.33

Williams

NO.	DATE	BY	REVISION DESCRIPTION	W.O. NO.	CHK.	APP.
A	12/13/2023	WMB	ISSUED FOR REVIEW	F1000021	NB	HP

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WO: F1000021	RID:	11:58:15 AM PHUMPHREY 1/10/2024	

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Transcontinental Gas Pipe Line Company, LLC

Resource Report No. 1

General Project Description

Appendix 1D – Stakeholder List

Southeast Supply Enhancement Project

February 2024

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Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leadership	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
AL		Upgrades at Compressor Station 105	State	Kay Ivey		Governor	Alabama Office of the Governor		600 Dexter Avenue		Montgomery	AL	36130		334-242-7100
AL		Upgrades at Compressor Station 105	Federal	Tommy Tuberville		US Senator	United States Senate		Russell Senate Office Building	Suite 455	Washington	DC	20510		202-224-4124
AL		Upgrades at Compressor Station 105	Federal	Katie Britt		US Senator	United States Senate		502 Hart Senate Office Building		Washington	DC	20510		202-224-5744
AL		Upgrades at Compressor Station 105	Federal	Mike Rogers		Congressman - District 3	United States House of Representatives		2469 Rayburn House Office Building		Washington	DC	20515		202-225-3261
AL		Upgrades at Compressor Station 105	State	Clyde Chambliss		Senator - District 50	Alabama State Senate		11 S. Union Street	Suite 725	Montgomery	AL	36130		
AL		Upgrades at Compressor Station 105	State	Ben Robbins		Representative District 33	Alabama State House of Representatives		29 West 3rd St.	Suite C	Sylacauga	AL	35150	ben.robbins@alhouse.gov	205-907-5991
AL	Coosa	Upgrades at Compressor Station 105	County	John Forbus		Commissioner - District 1	Coosa County Commission		9709 U.S. Highway 231		Rockford	AL	35136		256-377-2420
AL	Coosa	Upgrades at Compressor Station 105	County	Brandon Davis		Commissioner - District 3	Coosa County Commission		9709 U.S. Highway 231		Rockford	AL	35136		256-377-2420
AL	Coosa	Upgrades at Compressor Station 105	County	Ronnie Joiner		Commissioner - District 4	Coosa County Commission		9709 U.S. Highway 231		Rockford	AL	35136		256-377-2420
AL	Coosa	Upgrades at Compressor Station 105	County	Anita Sorrey		Circuit Clerk	Coosa County Courthouse		9709 U.S. Highway 231		Rockford	AL	35136		256-377-2420
AL	Coosa	Upgrades at Compressor Station 105	County	Jeffrey Alan Willis		District Attorney	Coosa County Courthouse	P.O Box 688			Ashland	AL	36251		256-354-2578
AL	Coosa	Upgrades at Compressor Station 105	County	Debra Lambert		Revenue Commissioner	Coosa County Courthouse		9709 U.S. Highway 231		Rockford	AL	35136		256-377-4916
AL	Coosa	Upgrades at Compressor Station 105	Emergency Responder	Michael Howell		Sheriff	Coosa County Sheriff's Office		296 School Street		Rockford	AL	35136	sheriff@coosaso.com	256-377-4922
AL	Coosa	Upgrades at Compressor Station 105	Emergency Responder	Sheldon Hutchinson		Emergency Management	Coosa County Courthouse		9709 U.S. Highway 231		Rockford	AL	35136	coosaema1@gmail.com	256-935-5484
AL	Coosa	Upgrades at Compressor Station 105	Emergency Responder	Amanda Robinson		E911 Director	E911 Office	P.O Box 159			Rockford	AL	35136	coosacounty911@yahoo.com	256-391-2080
AL	Coosa	Upgrades at Compressor Station 105	Business Organization	Director		Director	Coosa County Chamber of Commerce	P.O Box 25			Rockford	AL	35136		256-537-3004
AL	Coosa	Upgrades at Compressor Station 105	County	Denise Wallis		Executive Director	Lake Martin Area Economic Development Alliance		9709 U.S. Highway 231		Rockford	AL	35136	dwallis@lakemartinrwda.com	256-750-5253
AL	Coosa	Upgrades at Compressor Station 105	Newspaper	Christa Jennings		Senior Staff Reporter	Coosa County News	P.O Box 99			Rockford	AL	35136	christa@thecoosacountynews.com	256-377-2525
AL	Coosa	Upgrades at Compressor Station 105	Library	Librarian		Librarian	Horseshoe Bend Regional Library		207 N. West St.		Dadeville	AL	36853	horseshoebend@bellsouth.net	256-825-9232
GA		Upgrades at Compressor Stations 120 and 125	State	Brian Kemp		Governor	Georgia Office of the Governor		206 Washington St.	Suite 203	Atlanta	GA	30334		404-656-1776
GA		Upgrades at Compressor Stations 120 and 125	Federal	Raphael Warnock		US Senator	United States Senate		Russell Senate Office Building	Suite 416	Washington	DC	20510		
GA		Upgrades at Compressor Stations 120 and 125	Federal	Jon Ossoff		US Senator	United States Senate		Hart Senate Office Building	Suite 303	Washington	DC	20510		
GA		Upgrades at Compressor Stations 120 and 125	Federal	Mike Collins		Congressman - District 10	United States House of Representatives		1229 Longworth House Office Building		Washington	DC	20515		202-225-4101
GA		Upgrades at Compressor Stations 120 and 125	Federal	David Scott		Congressman - District 13	United States House of Representatives		408 Cannon House Office Building		Washington	DC	20515		202-225-2939
GA		Upgrades at Compressor Stations 120 and 125	State	Bill Cowsert		Senator - District 46	Georgia State Senate	P.O Box 512			Athens	GA	30603		706-543-7705
GA		Upgrades at Compressor Stations 120 and 125	State	Emanuel Jones		Senator - District 10	Georgia State Senate	P.O Box 370244			Decatur	GA	30037		404-656-0502
GA		Upgrades at Compressor Stations 120 and 125	State	Bruce Williamson		Representative District 112	Georgia State House of Representatives	P.O Box 430			Monroe	GA	30655	brucewilliamson@house.ga.gov	770-267-0586
GA		Upgrades at Compressor Stations 120 and 125	State	Angela Moore		Representative District 91	Georgia State House of Representatives		2724 Wesley Chapel Rd.	Suite 391731	Decatur	GA	30034	angela.moore@house.ga.gov	678-824-0790
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Emergency Management		Emergency Management	1 Haul Transportation Ambulance		68 New Hope Drive		McDonough	GA	30252		678-814-4827
GA	Henry	Upgrades at Compressor Station 120	County	Nnat Robinson		Commissioner District 2	Henry County		140 Henry Parkway		McDonough	GA	30253	nrobinson@co.henry.ga.us	770-288-6001
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Emergency Management		Emergency Management	Ambistran Medcen Transport of Stockbridge		525 Corporate Center Drive 108		Stockbridge	GA	30281		678-782-5211
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Emergency Management		Emergency Management	Stockbridge City EMS		9150 Pendel Parkway		Stockbridge	GA	30281		770-389-5130
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Mark Amerman		Police Chief	Henry County		140 Henry Parkway		McDonough	GA	30253		
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Jonathan Barnette		Fire Chief	Henry County		140 Henry Parkway		McDonough	GA	30253		
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Reginald Soentrett		Sheriff	Henry County Sheriff's Office		120 Henry Parkway		McDonough	GA	30253	sheriff@co.henry.ga.us	
GA	Henry	Upgrades at Compressor Station 120	Municipality	Anthony S. Ford		Mayor	Town of Stockbridge		4640 North Henry Boulevard		Stockbridge	GA	30281		(770) 389-7910
GA	Henry	Upgrades at Compressor Station 120	Municipality	LaKeisha T. Gantt		Councilwoman, District 1	Stockbridge City Council		4640 North Henry Boulevard		Stockbridge	GA	30281		
GA	Henry	Upgrades at Compressor Station 120	Municipality	Alphonso Thomas		Councilman, District 2	Stockbridge City Council		4640 North Henry Boulevard		Stockbridge	GA	30281		
GA	Henry	Upgrades at Compressor Station 120	Municipality	John Blount		Councilman, District 3	Stockbridge City Council		4640 North Henry Boulevard		Stockbridge	GA	30281		
GA	Henry	Upgrades at Compressor Station 120	Municipality	Yolanda Barber		Councilwoman, District 4	Stockbridge City Council		4640 North Henry Boulevard		Stockbridge	GA	30281		
GA	Henry	Upgrades at Compressor Station 120	Municipality	Elton Alexander		Councilman, District 5	Stockbridge City Council		4640 North Henry Boulevard		Stockbridge	GA	30281		

Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
GA	Henry	Upgrades at Compressor Station 120	Business Organization	Joseph B. Henning, IOM, CAE		President & CEO	Henry County Chamber of Commerce		1709 Highway 20 West		McDonough	GA	30253		
GA	Henry	Upgrades at Compressor Station 120	Business Organization	Cory Sparrow		Director of Membership	Henry County Chamber of Commerce		1709 Highway 20 West		McDonough	GA	30253		
GA	Henry	Upgrades at Compressor Station 120	County	F.J "Josh" Fenn		Executive Director	Henry County Development Authority		125 Wentridge Industrial Blvd.		McDonough	GA	30253	info@chooseHenry.com	770-288-8000
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Director		Director	Georgia Forestry Commission Forest Fire Protection-Butts		1396 Georgia 42		Newnan	GA	30263		770-254-7217
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Jonathan Burnette		Fire Chief	Henry County Fire Department		110 South Zack Hinton Parkway		McDonough	GA	30253		770-604-2238
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Jonathan Burnette		Fire Chief	Henry County Fire Department Station 1		644 Industrial Boulevard		McDonough	GA	30253		770-288-6660
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Dave Williams		Fire Chief	McDonough Fire Department Station HQ		88 Keys Ferry Street		McDonough	GA	30253		770-288-6600
GA	Henry	Upgrades at Compressor Station 120	Emergency Responder	Dave Williams		Fire Chief	McDonough Fire Department Station 52		1060 Industrial Parkway		McDonough	GA	30253		770-957-1333
GA	Henry	Upgrades at Compressor Station 120	Library	Dr. Adam Townes		Assistant Director	Cochran Public Library		4692 N. Henry Boulevard		Stockbridge	GA	30281		770-957-0827
GA	Henry	Upgrades at Compressor Station 120	Library	Dr. Adam Townes		Assistant Director	Fortson Public Library		14 Old Griffin Road		Hampton	GA	30228		404-781-6948
GA	Henry	Upgrades at Compressor Station 120	Library	Dr. Adam Townes		Assistant Director	Locust Grove Public Library		3918 Highway 42		Locust Grove	GA	30248		404-782-1672
GA	Henry	Upgrades at Compressor Station 120	Library	Dr. Adam Townes		Assistant Director	McDonough Public Library		1001 Florence McGarity Parkway		McDonough	GA	30252		404-787-0034
GA	Walton	Upgrades at Compressor Station 125	County	Devid Thompson		Chairman	Walton County		303 South Hammond Drive	Suite 330	Monroe	GA	30236	davisg.thompson@co.walton.ga.us	770-267-1301
GA	Walton	Upgrades at Compressor Station 125	County	Lee Bradford		Commissioner District 4	Walton County		303 South Hammond Drive	Suite 330	Monroe	GA	30236	bradford4walton@gmail.com	770-267-1301
GA	Walton	Upgrades at Compressor Station 125	County	Jeremy Adams		Commissioner District 5	Walton County		303 South Hammond Drive	Suite 330	Monroe	GA	30236	jadams@co.walton.ga.us	770-267-1301
GA	Walton	Upgrades at Compressor Station 125	County	Kimlyn Dixon		Commissioner District 6	Walton County		303 South Hammond Drive	Suite 330	Monroe	GA	30236	kimlyn.dixon@co.walton.ga.us	770-267-1301
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder			Emergency Management	Walton County Emergency Medical Services Med 1		139 South Madison Avenue		Monroe	GA	30655		770-267-1315
GA	Walton	Upgrades at Compressor Station 125	Municipality	Lee Malcom		Monroe City Council	District 1		215 N. Broad Street		Monroe	GA	30655	lmalcom@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Municipality	Myeshia Crawford		Monroe City Council	District 2		215 N. Broad Street		Monroe	GA	30655	mcrawford@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Municipality	Charles Boyce		Monroe City Council	District 3		215 N. Broad Street		Monroe	GA	30655	cboyce@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Municipality	Larry Bradley		Monroe City Council	District 4		215 N. Broad Street		Monroe	GA	30655	lbradley@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Municipality	Norman Garrett		Monroe City Council	District 5		215 N. Broad Street		Monroe	GA	30655	ngarrett@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Municipality	Tyler Gregory		Monroe City Council	District 6		215 N. Broad Street		Monroe	GA	30655	tgregory@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Municipality	Nathan Little		Monroe City Council	District 7		215 N. Broad Street		Monroe	GA	30655	nlittle@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Municipality	Devin Dickinson		Monroe City Council	District 8		215 N. Broad Street		Monroe	GA	30655	ddickinson@monroega.gov	
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Fire Chief		Fire Chief	City of Monroe		138 South Madison Ave.		Monroe	GA	30655		770-267-4448
GA	Walton	Upgrades at Compressor Station 125	Municipality	John Howard		Mayor	City of Monroe		215 N. Broad Street		Monroe	GA	30655	jhoward@monroega.gov	770-267-3429
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Robert Wells		Police Chief	City of Monroe		140 Blaine Street		Monroe	GA	30655	rwells@monroega.gov	770-267-7579
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Joe Chapman		Sheriff	Walton County Sheriff's Office		1425 S Madison Avenue		Monroe	GA	30655		770-267-6557
GA	Walton	Upgrades at Compressor Station 125	Business Organization	Bennie Haynes		Chairman	Walton County Chamber of Commerce		207 North Wayne Street		Monroe	GA	30655		770-267-6594
GA	Walton	Upgrades at Compressor Station 125	Business Organization	Nathan Franklin		Chair-Elect	Walton County Chamber of Commerce		207 North Wayne Street		Monroe	GA	30655		770-267-6594
GA	Walton	Upgrades at Compressor Station 125	Business Organization	Annie Elliott		Past Chair	Walton County Chamber of Commerce		207 North Wayne Street		Monroe	GA	30655		770-267-6594
GA	Walton	Upgrades at Compressor Station 125	Business Organization	Blake Wells		Vice Chair of Operations	Walton County Chamber of Commerce		207 North Wayne Street		Monroe	GA	30655		770-267-6594
GA	Walton	Upgrades at Compressor Station 125	County	Morris Jordan		Chairman	Development Authority Walton County		132 E. Spring Street		Monroe	GA	30655	morris.jordan@walton.ga.us	770-290-4459
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Fire Chief		Fire Chief	City of Social Circle Fire Department		166 East Hightower Trail		Monroe	GA	30656		770-267-1315
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Director		Director	Georgia Forestry Commission Forest Fire Protection-Morgan/Walton Unit		5091 Georgia 83		Loganville	GA	30052		770-466-6222
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Fire Chief		Fire Chief	Jersey Volunteer Fire Department		100 Saratoga Street		Jersey	GA	30018	library.director@dacnopolitical.gov	334-269-1595
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Jason Cain		Fire Chief	Loganville Fire Department		789 Lee Byrd Road		Loganville	GA	30052		334-295-2248
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Andrew Dykes		Fire Chief	Monroe Fire Department		139 South Madison Avenue		Monroe	GA	30655	andrewdykes@yahoo.com	334-663-2632
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Jimmy Robinson		Fire Chief	Social Circle Department of Public Safety		166 East Hightower Trail		Social Circle	GA	30025		770-963-2509
GA	Walton	Upgrades at Compressor Station 125	Emergency Responder	Kevin Hanley		Fire Chief	Walton County Fire Department		303 South Hammond Drive		Monroe	GA	30655		770-253-3623

Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
GA	Walton	Upgrades at Compressor Station 125	Library	Stacy Brown		Executive Director	Monroe-Walton County Library		217 West Spring Street		Monroe	GA	30656		706-342-6974 ext 1010
GA	Walton	Upgrades at Compressor Station 125	Library	Stacy Brown		Executive Director	O'Kelly Memorial Library		363 Conyers Road		Loganville	GA	30052		706-342-6974 ext 1010
GA	Walton	Upgrades at Compressor Station 125	Library	Stacy Brown		Executive Director	W.H. Stanton Memorial Library		1045 West Hightower Trail		Social Circle	GA	30025		706-342-6974 ext 1010
GA	Walton	Upgrades at Compressor Station 125	Newspaper	Patrick Graham		Proprietor	The Walton Tribune		121 S. Broad St.		Monroe	GA	30655		770-267-8371
SC		Upgrades at Compressor Station 133	State	Henry McMaster		Governor	South Carolina Office of the Governor		State House 1100 Gervais Street		Columbia	SC	29201		(803) 734-2100
SC		Upgrades at Compressor Station 135	Federal	Lindsey Graham		US Senator	United States Senate		211 Russell Senate Office Building		Washington	DC	20510		(202) 224-5972
SC		Upgrades at Compressor Station 135	Federal	Tim Scott		US Senator	United States Senate		104 Hart Senate Office Building		Washington	DC	20510		(202) 224-6121
SC		Upgrades at Compressor Station 139	Federal	Jeff Duncan		Congressman - District 3	United States House of Representatives		2229 Rayburn House Office Building		Washington	DC	20515		202-225-5301
SC		Upgrades at Compressor Station 135	State	Michael W. Gambrell		Senator - District 4	South Carolina State Senate		504 Dreisella		Columbia	SC	29202		803-212-6082
SC		Upgrades at Compressor Station 135	State	John Taliaferro West IV		Representative - District 7	South Carolina State House of Representatives		5165 Blatt Bldg.		Columbia	SC	29201		803-212-6954
SC	Anderson	Upgrades at Compressor Station 135	County	John E. Wright, Jr.		Council Member, District 1	Anderson County Council	P.O Box 8002			Anderson	SC	29624	johnw@mccaywright.com	864-224-3803
SC	Anderson	Upgrades at Compressor Station 139	County	Glenn A. Davis		Council Member, District 2	Anderson County Council	P.O Box 8002			Anderson	SC	29624		
SC	Anderson	Upgrades at Compressor Station 139	County	Greg Elgin		Council Member, District 3	Anderson County Council	P.O Box 8002			Anderson	SC	29624		
SC	Anderson	Upgrades at Compressor Station 135	County	Brett Sanders		Council Member, District 4	Anderson County Council	P.O Box 8002			Anderson	SC	29624		
SC	Anderson	Upgrades at Compressor Station 139	County	Tommy Dunn		Council Member, District 5	Anderson County Council	P.O Box 8002			Anderson	SC	29624		
SC	Anderson	Upgrades at Compressor Station 135	County	Jimmy Davis		Council Member, District 6	Anderson County Council	P.O Box 8002			Anderson	SC	29624		
SC	Anderson	Upgrades at Compressor Station 139	County	M. Cindy Willam		Council Member, District 7	Anderson County Council	P.O Box 8002			Anderson	SC	29624		
SC	Anderson	Upgrades at Compressor Station 139	County	Rennie D. Watts		Clerk to Council	Anderson County Council	P.O Box 8002			Anderson	SC	29624	rdwatts@andersoncountysc.org	864-260-1036
SC	Anderson	Upgrades at Compressor Station 135	County	Rusty Burns		County Administrator	Anderson County	P.O Box 8002			Anderson	SC	29624	rburns@andersoncountysc.org	864-260-4031
SC	Anderson	Upgrades at Compressor Station 135	Emergency Responder	Steven Kelly		EMS Director	Anderson County EMS		200 Beckley Street		Anderson	SC	29625	skelly@andersoncountysc.org	864-844-4131
SC	Anderson	Upgrades at Compressor Station 135	Emergency Responder	Major Cory Freeman		Operations Manager	Anderson County EMS		200 Beckley Street		Anderson	SC	29625	cfreeman@andersoncountysc.org	864-332-6739
SC	Anderson	Upgrades at Compressor Station 139	Library	Director		Director	Anderson County Public Library		300 N. McDuffie St.		Anderson	SC	29621	administration@andersonlibrary.org	864-260-4500
SC	Anderson	Upgrades at Compressor Station 139	Emergency Responder	Chad McBride		Sheriff	Anderson County Sheriff's Office		306 Clemson Rd.		Anderson	SC	29625		864-260-4400
SC	Anderson	Upgrades at Compressor Station 135	Newspaper	Editor		Editor	Anderson Independent Mail Newspaper		1000 Williamston Road		Anderson	SC	29621		
SC	Anderson	Upgrades at Compressor Station 133	Business Organization	Pamela L. Christopher		President and CEO	Anderson Area Chamber of Commerce		402 N. Main St.		Anderson	SC	29621	pchristopher@andersonschamber.com	864-226-3454
SC	Anderson	Upgrades at Compressor Station 135	Business Organization	Jonathan Southon		VP of Investor Relations	Anderson Area Chamber of Commerce		402 N. Main St.		Anderson	SC	29621	jsouthon@andersonschamber.com	
SC	Anderson	Upgrades at Compressor Station 135	Business Organization	Brandie Greer		Director of Programs and Events	Anderson Area Chamber of Commerce		402 N. Main St.		Anderson	SC	29621	bgreer@andersonschamber.com	
SC	Anderson	Upgrades at Compressor Station 139	Business Organization	Daisy Bryant		Manager of Marketing	Anderson Area Chamber of Commerce		402 N. Main St.		Anderson	SC	29621	dbryant@andersonschamber.com	
SC	Anderson	Upgrades at Compressor Station 133	County	Burriss Nelson		Director of Economic Development	Anderson County Economic Development		1428 Pearman Dairy Road		Anderson	SC	29625		864-260-4388
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	State	Roy Cooper		Governor	North Carolina Office of the Governor		20301 Mail Service Center		Raleigh	NC	27699		(919) 814-2000
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	Federal	Todd Budd		US Senator	United States Senate		304 Russell Senate Office Building		Washington	DC	20510		202-224-3154
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	Federal	Thom Tillis		US Senator	United States Senate		113 Dirksen Senate Office Building		Washington	DC	20510		(202) 224-6342
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	Federal	Dan Bishop		Congressman - District 8	United States House of Representatives		2459 Rayburn House Office Building		Washington	DC	20515		202-225-1976
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	Federal	Jeff Jackson		Congressman - District 14	United States House of Representatives		1315 Longworth House Office		Washington	DC	20515		202-225-5634
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	Federal	Kathy Manning		Congresswoman - District 6	United States House of Representatives		307 Cannon House Office Building		Washington	DC	20515		202-225-3065
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	State	Phil Berger		Senator - District 26	North Carolina State Senate		16 West Jones Street	Room 2007	Raleigh	NC	27601	Phil.Berger@ncleg.gov	919-733-5708
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	State	Joyce Krawiec		Senator - District 31	North Carolina State Senate		300 N. Salisbury Street	Room 306	Raleigh	NC	27603	Joyce.Krawiec@ncleg.gov	919-733-7650
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	State	Steve Jarvis		Senator - District 30	North Carolina State Senate		300 N. Salisbury Street	Room 410	Raleigh	NC	27603	steve.jarvis@ncleg.gov	919-733-5743
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	State	Ted Alexander		Senator - District 44	North Carolina State Senate		300 N. Salisbury Street	Room 521	Raleigh	NC	27603	ted.alexander@ncleg.gov	919-715-0590
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	State	Vickie Sawyer		Senator - District 37	North Carolina State Senate		300 N. Salisbury Street	Room 312	Raleigh	NC	27603	vickie.sawyer@ncleg.gov	919-715-3038
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155,	State	John Faircloth		Representative - District 62	North Carolina State House of Representatives		4456 Orchard Knob Lane		High Point	NC	27265	john.faircloth@ncleg.gov	919-733-5877

Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155.	State	A. Reece Pyrtle, Jr.		Representative - District 66	North Carolina State House of Representatives		300 N. Salisbury Street	Room 416B	Raleigh	NC	27603	Reece.Pyrtle@ncleg.gov	919-733-5779
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155.	State	Donny Lambeth		Representative - District 75	North Carolina State House of Representatives		4527 S. Main St.		Winston-Salem	NC	27127	Donny.Lambeth@ncleg.gov	919-733-5747
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155.	State	Larry W. Potts		Representative - District 81	North Carolina State House of Representatives		373 Weitman Rd.	Room 307B	Raleigh	NC	27603	larry.potts@ncleg.gov	919-715-0873
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155.	State	Sam Watford		Representative - District 60	North Carolina State House of Representatives		16 West Jones Street	Room 2121	Raleigh	NC	27601	sam.watford@ncleg.gov	919-715-2628
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155.	State	Tim Moore		Representative - District 111	North Carolina State House of Representatives		16 West Jones Street	Room 2304	Raleigh	NC	27601	tmoore@ncleg.gov	919-733-3451
NC		Eden Loop, Salem Loop and upgrades at Compressor Stations 145, 150, 155.	State	Grey Mills		Representative - District 05	North Carolina State House of Representatives	P.O Box 4552			Mooresville	NC	28117	grey.mills@ncleg.gov	704-664-0983
NC	Cleveland	Upgrades at Compressor Station 145	County	Phyllis Rowden, NCCCC		Clerk to the Board	Cleveland Board of County Commissioners		311 E. Marion Street		Shelby	NC	28150	phyllis.rowden@clevelandcountync.gov	704-484-4786
NC	Cleveland	Upgrades at Compressor Station 145	County	Kevin Gordon		Chairman	Cleveland Board of County Commissioners	P.O Box 340			Waco	NC	28169	kevin.gordon@clevelandcountync.gov	704-470-5378
NC	Cleveland	Upgrades at Compressor Station 145	County	Ronnie Whetstine		Vice Chairman	Cleveland Board of County Commissioners	P.O Box 966			Shelby	NC	28151	ronnie.whetstine@clevelandcountync.gov	704-477-7594
NC	Cleveland	Upgrades at Compressor Station 145	County	Johnny Hutchins		Commissioner	Cleveland Board of County Commissioners		1436 Phifer Road		Kings Mountain	NC	28086	johnny.hutchins@clevelandcountync.gov	
NC	Cleveland	Upgrades at Compressor Station 145	County	Deb Hardin		Commissioner	Cleveland Board of County Commissioners	P.O Box 1210			Shelby	NC	28151		704-472-1626
NC	Cleveland	Upgrades at Compressor Station 145	County	Doug Bridges		Commissioner	Cleveland Board of County Commissioners	P.O Box 1210			Shelby	NC	28151		
NC	Cleveland	Upgrades at Compressor Station 145	Emergency Responder	Perry Davis		Fire Marshal / Director	Cleveland County Emergency Management	P.O Box 2232			Shelby	NC	28151		980-484-4841
NC	Cleveland	Upgrades at Compressor Station 145	Emergency Responder	Alan Norman		Sheriff	Cleveland County Sheriff's Office		100 Justice Place		Shelby	NC	28150		704-484-4888
NC	Cleveland	Upgrades at Compressor Station 145	Library	Librarian		Librarian	Cleveland County Library		104 Howie Drive		Shelby	NC	28150		704-487-9089
NC	Cleveland	Upgrades at Compressor Station 145	County	David Cotton		County Manager	Cleveland County Government	P.O Box 1210			Shelby	NC	28150		704-484-4900
NC	Cleveland	Upgrades at Compressor Station 145	County	Tony Willis		Mayor	Town of Grover		207 Mulberry Rd.		Grover	NC	28073	twillis@townofgrovenc.com	704-937-9990
NC	Cleveland	Upgrades at Compressor Station 145	County	Bill Willis		Finance Officer	Town of Grover Council		207 Mulberry Rd.		Grover	NC	28073	b.willis@townofgrovenc.com	
NC	Cleveland	Upgrades at Compressor Station 145	County	Margaret Ledford		Commissioner	Town of Grover Council		207 Mulberry Rd.		Grover	NC	28073	m.ledford@townofgrovenc.com	
NC	Cleveland	Upgrades at Compressor Station 145	County	Richard Smith		Commissioner	Town of Grover Council		207 Mulberry Rd.		Grover	NC	28073	r.smith@townofgrovenc.com	
NC	Cleveland	Upgrades at Compressor Station 145	County	Kathryn Roberts		Commissioner	Town of Grover Council		207 Mulberry Rd.		Grover	NC	28073		
NC	Cleveland	Upgrades at Compressor Station 145	Emergency Responder	Dell Garner		Chief	Town of Grover Police Department		207 Mulberry Rd.		Grover	NC	28073		704-937-9901
NC	Cleveland	Upgrades at Compressor Station 145	Municipality	James M. Palenick		City Manager	City of Kings Mountain	P.O Box 429			Kings Mountain	NC	28086	jm.palenick@cityofkm.com	704-734-0333
NC	Cleveland	Upgrades at Compressor Station 145	Municipality	Rob Wagman		Mayor	City of Kings Mountain		101 West Gold Street		Kings Mountain	NC	28086	rob.wagman@cityofkm.com	
NC	Cleveland	Upgrades at Compressor Station 145	Municipality	David Allen		Council Member - At Large	City of Kings Mountain City Council		101 West Gold Street		Kings Mountain	NC	28086	david.allen@cityofkm.com	
NC	Cleveland	Upgrades at Compressor Station 145	Municipality	Tommy Hawkins		Council Member - Ward 3	City of Kings Mountain City Council		101 West Gold Street		Kings Mountain	NC	28086	thawkins@cityofkm.com	
NC	Cleveland	Upgrades at Compressor Station 145	Municipality	Annie Thombs		Council Member - Ward 1	City of Kings Mountain City Council		101 West Gold Street		Kings Mountain	NC	28086	annie.thombs@cityofkm.com	
NC	Cleveland	Upgrades at Compressor Station 145	Municipality	Thomas Herman		Fire Chief	City of Kings Mountain Fire Department	P.O Box 429			Kings Mountain	NC	28086	704-734-0535	
NC	Cleveland	Upgrades at Compressor Station 145	Municipality	Gerald Childress		Chief of Police	City of Kings Mountain Police Department	P.O Box 7			Kings Mountain	NC	28086	gerald.childress@cityofkm.com	704-734-0444
NC	Cleveland	Upgrades at Compressor Station 145	Library	Librarian		Library Director	Mauney Memorial Library		100 S. Piedmont Ave.		Kings Mountain	NC	28086	info@mauneylibrary.org	704-739-2371
NC	Cleveland	Upgrades at Compressor Station 145	Business Organization	Christine Crisp		President and CEO	Cleveland County Chamber of Commerce		200 Lafayette St.		Shelby	NC	28150	christine@clevelandchamber.org	704-487-5521
NC	Cleveland	Upgrades at Compressor Station 145	Business Organization	April Fryer		Administrative and Marketing Assistant	Cleveland County Chamber of Commerce		200 Lafayette St.		Shelby	NC	28150		704-487-5521
NC	Cleveland	Upgrades at Compressor Station 145	County	Brandon Ruggs		Executive Director	Cleveland County Economic Development Partnership		137 S. Post Rd.		Shelby	NC	28152	bramdon@ccedp.com	704-669-6703
NC	Mecklenburg	Upgrades at Compressor Station 150	County	Dena R. Diorio		County Manager	Charlotte-Mecklenburg Government Center		600 E. 4th St.	11th Floor	Charlotte	NC	28202	Dena_Diorio@MeckNC.gov	980-314-2900
NC	Mecklenburg	Upgrades at Compressor Station 150	Emergency Responder	Robert Graham		Emergency Manager	Charlotte-Mecklenburg Government Center		600 E. 4th St.	11th Floor	Charlotte	NC	28202	rgraham@ci.charlotte.nc.gov	704-336-2413
NC	Mecklenburg	Upgrades at Compressor Station 150	Business Organization	William E. Russell, CCE, IOM		President and CEO	Lake Norman Chamber of Commerce		19900 W. Catawba Ave.	Suite 101	Cornelius	NC	28031	russell@lakenormanchamber.org	704-892-1922 Ext. 209
NC	Mecklenburg	Upgrades at Compressor Station 150	Business Organization	Leslie Reid		Vice President	Lake Norman Chamber of Commerce		19900 W. Catawba Ave.	Suite 101	Cornelius	NC	28031	leslie@lakenormanchamber.org	704-892-1922 Ext. 204
NC	Mecklenburg	Upgrades at Compressor Station 150	Business Organization	Laura Rizzetta		Executive Vice President	Lake Norman Chamber of Commerce		19900 W. Catawba Ave.	Suite 101	Cornelius	NC	28031	Laura@lakenormanchamber.org	704-892-1922 Ext. 201
NC	Iredell	Upgrades at Compressor Station 150	County	Amy Anderson		Clerk to the Board	Iredell County Commissioners		200 S. Center St.	Room 101	Statesville	NC	28677		704-878-3058
NC	Iredell	Upgrades at Compressor Station 150	County	Nancy Keith		County Extension Director	Iredell County Center		444 Bristol Dr.	Room 110	Statesville	NC	28677	nancy_keith@ncsu.edu	704-8783186
NC	Iredell	Upgrades at Compressor Station 150	County	Melissa Keaster		Chairman	Iredell County Commissioners		200 S. Center St.	Room 101	Statesville	NC	28677		704-878-3058

Southeast Supply Enhancement Project
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State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
NC	Iredell	Upgrades at Compressor Station 150	County	Bert Connolly		Vice-Chairman	Iredell County Commissioners		200 S. Center St.	Room 101	Statesville	NC	28677		704-878-3058
NC	Iredell	Upgrades at Compressor Station 150	County	Brad J. Stroud, Sr.		Commissioner	Iredell County Commissioners		200 S. Center St.	Room 101	Statesville	NC	28677		704-878-3058
NC	Iredell	Upgrades at Compressor Station 150	County	Gene Houpe		Commissioner	Iredell County Commissioners		200 S. Center St.	Room 101	Statesville	NC	28677		704-878-3058
NC	Iredell	Upgrades at Compressor Station 150	County	Steffie Brown		Commissioner	Iredell County Commissioners		200 S. Center St.	Room 101	Statesville	NC	28677		704-878-3058
NC	Iredell	Upgrades at Compressor Station 150	County	Jim Mixon		Clerk of Superior Court	Iredell County Superior Court		229 Stockton St.		Statesville	NC	28677		704-832-8600
NC	Iredell	Upgrades at Compressor Station 150	County	Beth Mull		County Manager	Iredell County Government Center	P.O Box 788			Statesville	NC	28687		
NC	Iredell	Upgrades at Compressor Station 150	Emergency Responder	Darren Campbell		Sheriff	Iredell County Sheriff's Office	P.O Box 759			Statesville	NC	28687		704-878-3180
NC	Iredell	Upgrades at Compressor Station 150	Library	Director		Director	Iredell County Public Library		201 N. Tradd Street		Statesville	NC	28677		704-878-3090
NC	Iredell	Upgrades at Compressor Station 150	Emergency Responder	Kent Greene		Director	Iredell Fire Services and Emergency Management		434 Bristol Dr.		Statesville	NC	28677		704-832-2154
NC	Iredell	Upgrades at Compressor Station 150	Emergency Responder	Deyle Southey		Fire Marshal	Iredell Fire Marshal's Office		404 Bristol Dr.		Statesville	NC	28677		
NC	Iredell	Upgrades at Compressor Station 150	Municipality	Chris Carney		Mayor	Town of Mooresville		413 North Main Street		Mooresville	NC	28115	ccarney@mooresvillenc.gov	704-799-4210
NC	Iredell	Upgrades at Compressor Station 150	Municipality	Lisa Qualls		Commissioner - Ward 4	Town of Mooresville Board of Commissioners		413 North Main Street		Mooresville	NC	28115	lqualls@mooresvillenc.gov	704-799-4214
NC	Iredell	Upgrades at Compressor Station 150	Municipality	Tommy DeWeese		Commissioner - Ward 3	Town of Mooresville Board of Commissioners		413 North Main Street		Mooresville	NC	28115	tdeweese@mooresvillenc.gov	704-799-4213
NC	Iredell	Upgrades at Compressor Station 150	Municipality	Gary West		Commissioner - At Large	Town of Mooresville Board of Commissioners		413 North Main Street		Mooresville	NC	28115	gwest@mooresvillenc.gov	704-799-4218
NC	Iredell	Upgrades at Compressor Station 150	Municipality	William Ayen		Commissioner - Ward 2	Town of Mooresville Board of Commissioners		413 North Main Street		Mooresville	NC	28115	wayen@mooresvillenc.gov	704-799-4212
NC	Iredell	Upgrades at Compressor Station 150	Municipality	Eddie Dingler		Commissioner - Ward 1	Town of Mooresville Board of Commissioners		413 North Main Street		Mooresville	NC	28115	edingler@mooresvillenc.gov	704-799-4211
NC	Iredell	Upgrades at Compressor Station 150	Municipality	Eddie Kemker		Commissioner - At Large	Town of Mooresville Board of Commissioners		413 North Main Street		Mooresville	NC	28115	ekemker@mooresvillenc.gov	704-799-4219
NC	Iredell	Upgrades at Compressor Station 150	Municipality	Jim Lemon		Interim Town Manager	Town of Mooresville		413 North Main Street		Mooresville	NC	28115		
NC	Iredell	Upgrades at Compressor Station 150	Emergency Responder	Curt Deaton		Fire Chief	Town of Mooresville Fire Department		457 North Main Street		Mooresville	NC	28115		704-664-1339
NC	Iredell	Upgrades at Compressor Station 150	Emergency Responder	Jason Workman		Fire Marshal	Town of Mooresville Fire Department		413 North Main Street		Mooresville	NC	28115	jworkman@mooresvillenc.gov	704-860-7110
NC	Iredell	Upgrades at Compressor Station 150	Emergency Responder	Rob Campuzano		Police Chief	Town of Mooresville Police Department		2847 Charlotte Highway		Mooresville	NC	28117		704-664-3311
NC	Iredell	Upgrades at Compressor Station 150	Library	Librarian		Library Director	Mooresville Public Library		304 South Main St.		Mooresville	NC	28115		704-664-2927
NC	Iredell	Upgrades at Compressor Station 150	Newspapar	LaAnna Dunlap		Advertising Director	Mooresville Tribune	P.O Box 968			Hickory	NC	28603	ldunlap@mooresvilletribune.com	828-775-2908
NC	Iredell	Upgrades at Compressor Station 150	Business Organization	Shannon Viera, IOM		President	Greater Statesville Chamber of Commerce		118 North Center St.		Statesville	NC	28677		704-873-2892
NC	Iredell	Upgrades at Compressor Station 150	Business Organization	Kim Ballard		President	Mooresville- South Iredell Chamber of Commerce		149 E. Iredell Ave.		Mooresville	NC	28115	kim@mooresvillenc.org	704-664-3696
NC	Iredell	Upgrades at Compressor Station 150	Business Organization	Deb Pierce		Communications	Mooresville- South Iredell Chamber of Commerce		149 E. Iredell Ave.		Mooresville	NC	28115	info@mooresvillenc.org	704-664-3696
NC	Iredell	Upgrades at Compressor Station 150	Business Organization	Ashton Bathrick		Marketing Coordinator	Mooresville- South Iredell Chamber of Commerce		149 E. Iredell Ave.		Mooresville	NC	28115	ashton@mooresvillenc.org	704-664-3696
NC	Iredell	Upgrades at Compressor Station 150	County	Jenn Bowser		President	Iredell Economic Development Corp.		118 N. Center Street		Statesville	NC	28677	info@iredelledc.com	704-883-1688
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Tommy Michael		Town Manager	Town of Midway NC		429 Dumbree Road		Winston-Salem	NC	27107	tmichael@midway-nc.gov	336-764-5455
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	John Byrum		Mayor	Town of Midway NC		429 Dumbree Road		Winston-Salem	NC	27107	jbyrum@midway-nc.gov	336-764-5455
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Mike McAlpine		Mayor Pro Tem	Town of Midway NC		429 Dumbree Road		Winston-Salem	NC	27107	mmcalpine@midway-nc.gov	336-764-5455
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Keith Leamon		Councilor	Town of Midway Town Council		429 Dumbree Road		Winston-Salem	NC	27107	kleamon@midway-nc.gov	336-764-5455
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Bentley Alcorn		Councilor	Town of Midway Town Council		429 Dumbree Road		Winston-Salem	NC	27107	balcorn@midway-nc.gov	336-764-5455
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Jackie Edwards		Councilwoman	Town of Midway Town Council		429 Dumbree Road		Winston-Salem	NC	27107	jedwards@midway-nc.gov	336-764-5455
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Robin Moon		Councilor	Town of Midway Town Council		429 Dumbree Road		Winston-Salem	NC	27107	rmoon@midway-nc.gov	336-764-5455
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Emergency Responder	Michael Craft		Fire Chief	Midway Fire and Rescue		226 Midway School Rd.		Lexington	NC	27295		336-764-9920
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Allen L. Todd		Mayor	Town of Wallburg	P.O Box 907			Wallburg	NC	27373		336-934-7355
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Zane Hedgecock		Mayor Pro Tem	Town of Wallburg		1404 Wallburg-High Point Rd.		High Point	NC	27265		336-934-7355
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Danner Fowler		Council Member	Town of Wallburg Council		6602 N. NC Hwy 109		Winston-Salem	NC	27107		336-934-7355
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Cindy B. Johnson		Council Member	Town of Wallburg Council		6228 N NC Hwy 109		Winston-Salem	NC	27107		336-934-7355
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Lynn Nixson		Council Member	Town of Wallburg Council		6515 N. NC Hwy 109		Winston-Salem	NC	27107		336-934-7355

Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Municipality	Steve Yoseley		Council Member	Town of Wallburg Council		241 Stoney Ridge Rd.		Winston-Salem	NC	27107		336-934-7355
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Fred McClure		Chairman	Davidson County Commissioners	P.O Box 1067			Lexington	NC	27292		336-242-2200
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Todd Yates		Vice Chairman	Davidson County Commissioners	P.O Box 1067			Lexington	NC	27292		336-242-2200
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Chris Elliott		Commissioner	Davidson County Commissioners	P.O Box 1067			Lexington	NC	27292		336-242-2200
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Matt Mizell		Commissioner	Davidson County Commissioners	P.O Box 1067			Lexington	NC	27292		336-242-2200
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Steve Shell		Commissioner	Davidson County Commissioners	P.O Box 1067			Lexington	NC	27292		336-242-2200
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	James Shores		Commissioner	Davidson County Commissioners	P.O Box 1067			Lexington	NC	27292		336-242-2200
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Karen Watford		Commissioner	Davidson County Commissioners	P.O Box 1067			Lexington	NC	27292		336-242-2200
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Emergency Responder	Richie T. Simmons		Sheriff	Davidson County Sheriff's Office		2911 E. Highway 64		Lexington	NC	27292		(336) 242-2100
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Library	Allen Barnhardt		Library Manager III	Lexington Public Library		602 S. Main Street		Lexington	NC	27292		336-242-2040
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Emergency Responder	Donny Ward		Fire Marshal	Davidson County Fire Marshals		913 Greensboro Street		Lexington	NC	27292		336-242-2270
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Emergency Responder	Larry James		Emergency Management Director	Davidson County Emergency Management		935 N. Main Street		Lexington	NC	27292		336-242-2270
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Casey Smith		County Manager	Davidson County		913 Greensboro Street		Lexington	NC	27292		336-242-2000
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Troy Coggins		County Extension Director	Davidson County Center		301 E. Center St.		Lexington	NC	27292	troycoggins@ncsu.edu	336-242-2081
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Johnnie Taylor		City Manager	City of Lexington City Hall		28 West Center St.		Lexington	NC	27292	JFTaylor@lexingtonnc.gov	336-243-2489
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Jason Hayes		Mayor	City of Lexington		28 West Center St.		Lexington	NC	27292	MayorHayes@LexingtonNC.gov	336-243-2489 Ext. 2990
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Jim Myers		Councilor - Ward 2	City of Lexington City Council		28 West Center St.		Lexington	NC	27292	CouncilorMyers@LexingtonNC.gov	336-239-7700
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Matt Welborn		Councilor - Ward 3	City of Lexington City Council		28 West Center St.		Lexington	NC	27292	CouncilorWelborn@LexingtonNC.gov	336-407-5204
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Joe Watkins		Mayor Pro Tem	City of Lexington City Council		28 West Center St.		Lexington	NC	27292	CouncilorWatkins@LexingtonNC.gov	336-470-9743
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Emergency Responder	Paul Jarrett		Fire Chief	City of Lexington Fire Department		28 West Center St.		Lexington	NC	27292		336-248-3935
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Emergency Responder	Laura Ryggs		Fire Marshal	City of Lexington Fire Department		28 West Center St.		Lexington	NC	27292		336-243-2489 Ext.3239
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Library	Jordan Freeman		Librarian	Lexington Public Library		602 S. Main Street		Lexington	NC	27292		336-242-2040
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Emergency Responder	Robby Rummage		Chief of Police	Lexington Police Department		28 W. Center St.		Lexington	NC	27291		(336) 243-3302
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Business Organization	Joe Wallace		President and CEO	Lexington Area Chamber of Commerce		507 E. Center St.		Lexington	NC	27292	chamber@lexington.net	336-248-5929
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Business Organization	Laura Baker		Member Service Manager	Lexington Area Chamber of Commerce		507 E. Center St.		Lexington	NC	27292	chamber@lexington.net	336-248-5929
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Business Organization	Ashley Lay		President	North Davidson County Chamber of Commerce		5968 Old US Hwy. 52	Suite B	Lexington	NC	27295		336-893-4400
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Business Organization	Sharon McGee		Vice President	North Davidson County Chamber of Commerce		5968 Old US Hwy. 52	Suite B	Lexington	NC	27295		336-909-4108
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Business Organization	Keith Tobin		President	Thomasville Chamber of Commerce		914 Randolph St.		Thomasville	NC	27361	keith.tobin@thomasvillechamber.net	336-475-6134
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	County	Craig Goodson		President	Davidson County Economic Development		119 West Center Street	Suite 200	Lexington	NC	27292		336-243-1900
NC	Forsyth	Salem Loop	County	Tonya D. McDaniel		Commissioner, District A	Forsyth County Commissioners		201 North Chestnut Street		Winston-Salem	NC	27101		336-703-2020
NC	Forsyth	Salem Loop	County	Malishai Woodbury		Commissioner, District A	Forsyth County Commissioners		201 North Chestnut Street		Winston-Salem	NC	27101		336-703-2020
NC	Forsyth	Salem Loop	County	Richard V. Linville		Commissioner, District B	Forsyth County Commissioners		201 North Chestnut Street		Winston-Salem	NC	27101		336-703-2020
NC	Forsyth	Salem Loop	County	Don Martin		Commissioner, District B	Forsyth County Commissioners		201 North Chestnut Street		Winston-Salem	NC	27101		336-703-2020
NC	Forsyth	Salem Loop	County	David R. Plyler		Commissioner, District B	Forsyth County Commissioners		201 North Chestnut Street		Winston-Salem	NC	27101		336-703-2020
NC	Forsyth	Salem Loop	County	Gloria D. Whisenhunt		Commissioner, District B	Forsyth County Commissioners		201 North Chestnut Street		Winston-Salem	NC	27101		336-703-2020
NC	Forsyth	Salem Loop	County	Dan Besse		Commissioner, At-Large	Forsyth County Commissioners		201 North Chestnut Street		Winston-Salem	NC	27101		336-703-2020
NC	Forsyth	Salem Loop	County	Dudley Watts		County Manager	Forsyth County		201 North Chestnut Street		Winston-Salem	NC	27101	fcmanager@forsyth.cc	336-917-7070
NC	Forsyth	Salem Loop	Emergency Responder	August Vernon		Emergency Management Director	Forsyth County Emergency Services		911 East Fifth Street		Winston-Salem	NC	27101		336-703-2750
NC	Forsyth	Salem Loop	Emergency Responder	Fire Chief		Chief	Forsyth County Fire Department		3000 Aviation Drive		Winston-Salem	NC	27105		336-703-2850
NC	Forsyth	Salem Loop	Emergency Responder	Bobby E. Kimbrough, Jr.		Sheriff	Forsyth County Sheriff's Office		301 North Church Street		Winston-Salem	NC	27101		336-917-7001
NC	Forsyth	Salem Loop	Library	Yolanda Bolden		Library Director	Forsyth County Public Library		660 W 5th Street		Winston-Salem	NC	27101	boldenyl@forsyth.cc	336-703-2665

Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
NC	Forsyth	Salem Loop	Library	Director		Director	Forsyth County Central Library		660 W. 5th Street		Winston-Salem	NC	27101		
NC	Forsyth	Salem Loop	Municipality	Dawn H. Morgan		Mayor	Town of Kernersville	P.O Box 728			Kernersville	NC	27284	dmorgan@toknc.com	336.995.5843
NC	Forsyth	Salem Loop	Municipality	Curtis Swisher		Town Manager	Town of Kernersville	P.O Box 728			Kernersville	NC	27284		
NC	Forsyth	Salem Loop	Municipality	Bill Apple		Alderman	Town of Kernersville Board of Aldermen		445 Bird Creek Trail		Kernersville	NC	27284	bapple@toknc.com	336-894-4578
NC	Forsyth	Salem Loop	Municipality	John Barrow		Alderman	Town of Kernersville Board of Aldermen		118 W. Mountain Street		Kernersville	NC	27284	jbarrow@tokrn.com	336-648-0988
NC	Forsyth	Salem Loop	Municipality	J.R Gorham		Alderman	Town of Kernersville Board of Aldermen		604 Wood Dale Drive		Kernersville	NC	27284	jrgorham@tokrc.com	336-813-5111
NC	Forsyth	Salem Loop	Municipality	Joe L. Primm, Jr.		Alderman	Town of Kernersville Board of Aldermen	PO BOX 878			Kernersville	NC	27285	jprimm@tokrc.com	336-676-6004
NC	Forsyth	Salem Loop	Municipality	Chris Thompson		Alderman	Town of Kernersville Board of Aldermen	PO BOX 351			Kernersville	NC	27285		336-345-3679
NC	Forsyth	Salem Loop	Emergency Responder	R. Scott Alderman, EFO, CFO		Fire Rescue Chief	Town of Kernersville Fire Rescue Department	P.O Box 728			Kernersville	NC	27284	rsa@tokrc.com	336-996-5121
NC	Forsyth	Salem Loop	Emergency Responder	Suzanne Murray, CFI		Fire Marshal	Town of Kernersville Fire Rescue Department	P.O Box 728			Kernersville	NC	27284	sfm@tokrc.com	336-996-4555
NC	Forsyth	Salem Loop	Newspaper	Meredith Harrell		Editor	Kernersville News	P.O Box 337			Kernersville	NC	27285	meredith@kernersvillenews.com	336-993-2181
NC	Guilford	Salem Loop	County	Melvin "Skip" Alston		Board Chair	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401	Salston1@guilfordcountync.gov	336-324-3015
NC	Guilford	Salem Loop	County	J. Carlvena Foster		Vice-Chair, District 1	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401	cfoster@guilfordcountync.gov	336-389-0892
NC	Guilford	Salem Loop	County	Kelly "Kay" S. Cashion		Member At-Large	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401	kcashion@guilfordcountync.gov	336-274-6272
NC	Guilford	Salem Loop	County	Carly Cooke		Commissioner, District 5	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401	Ccooke@guilfordcountync.gov	336-252-8788
NC	Guilford	Salem Loop	County	Frankie T. Jones, Jr.		Commissioner, District 7	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401	frankiejones@guilfordcountync.gov	336-404-7097
NC	Guilford	Salem Loop	County	Mary Beth Murphy		Commissioner, District 4	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Alan Perdue		Commissioner, District 2	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Pat Tillman		Commissioner, District 3	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Brannon Gray		Commissioner, District 6	Guilford County Board of Commissioners		301 W. Market St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Michael Halford		County Manager	Guilford County		301 W. Market St.		Greensboro	NC	27401	mhalford@guilfordcounty.com	336-641-2278
NC	Guilford	Salem Loop	Emergency Responder	Steven Grose		Emergency Management Director	Guilford County		301 W. Market St.		Greensboro	NC	27401	sgrose@guilfordcounty.com	336-451-4850
NC	Guilford	Salem Loop	Emergency Responder	D.H Rogers		Sheriff	Guilford County Sheriff's Office		400 W. Washington St.		Greensboro	NC	27401		336-641-3894
NC	Guilford	Salem Loop	Emergency Responder	Fire Marshal		Fire Marshal	Guilford County Fire Marshal's Office		301 W. Market St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Director		Director	Guilford Metro 911		1903 Midway Street		Greensboro	NC	27406		27406
NC	Guilford	Salem Loop	County	J. Leslie Bell		Director	Guilford Economic Development		301 West Market Street		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	T. Dianne Bellamy Small		District 1	Guilford County School Board		712 N. Eugene St.		Greensboro	NC	27401	tsmall@gcsnc.com	336-580-4555
NC	Guilford	Salem Loop	County	Crissy Pretz		District 2	Guilford County School Board		1717 Lacy Ln.		High Point	NC	27265	pretzc2@gcsnc.com	410-598-8099
NC	Guilford	Salem Loop	County	Michaell Logan		District 3	Guilford County School Board		712 N. Eugene St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Linda Welborn		District 4	Guilford County School Board		4903 Warfield Drive		Greensboro	NC	27406		336-674-8504
NC	Guilford	Salem Loop	County	Deborah Napper		District 5	Guilford County School Board		5816 Tivoli Dr.		Greensboro	NC	27455		336-202-2139
NC	Guilford	Salem Loop	County	Khemi Irby		District 9	Guilford County School Board		712 N. Eugene St.		Greensboro	NC	27401		336-402-3987
NC	Guilford	Salem Loop	County	Bettye T. Jenkins		District 7, Vice Chair	Guilford County School Board		712 N. Eugene St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Deena A. Hayes		District 8, Chair	Guilford County School Board		712 N. Eugene St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	County	Alan Shemwell		At-Large	Guilford County School Board		712 N. Eugene St.		Greensboro	NC	27401		
NC	Guilford	Salem Loop	Municipality	Ken Gibson		Fire Chief	Town of Oak Ridge Fire Department		8325 Linville Road		Oak Ridge	NC	27310		336-643-3783
NC	Guilford	Salem Loop	Municipality	Bill Bruce, AICP		Town Manager	Town of Oak Ridge	P.O. Box 374			Oak Ridge	NC	27310		(336) 644-7009
NC	Guilford	Salem Loop	Municipality	Jim Kinneman		Mayor	Town of Oak Ridge		8602 Hollow River Court		Oak Ridge	NC	27310	james.kinneman@gmail.com	336-207-7186
NC	Guilford	Salem Loop	Municipality	Mike Stone		Mayor Pro Tem	Town of Oak Ridge		8112 Herring Cog Road		Oak Ridge	NC	27310	mjstone@triad.rr.com	336-402-0144
NC	Guilford	Salem Loop	Municipality	Michael Greeson		Council Member	Town of Oak Ridge Council		8888 Cravenwood Drive		Oak Ridge	NC	27310	mgreeson@yahoo.com	336-841-0154
NC	Guilford	Salem Loop	Municipality	Jim Harden		Council Member	Town of Oak Ridge Council		8601 Pepper Road		Oak Ridge	NC	27310	jamesmharden@gmail.com	609-510-8670

Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
NC	Guilford	Salem Loop	Municipality	Ann Schneider		Council Member	Town of Oak Ridge Council		8026 Rosedale Drive		Oak Ridge	NC	27310	aschneider.nc@gmail.com	336-554-2125
NC	Guilford	Salem Loop	Newspaper	Editor		Editor	NW Observer	P.O Box 291			Oak Ridge	NC	27310	info@nwobserver.com	336-644-7035
NC	Rockingham	Eden Loop	Emergency Responder	Chris White		Fire Chief	City of Eden Fire Department		135 E. Stadium Drive		Eden	NC	27288		336-623-2110
NC	Rockingham	Eden Loop	Emergency Responder	Paul Moore		Police Chief	City of Eden Police Department		308 E. Stadium Drive	Suite B	Eden	NC	27288		336-623-9750
NC	Rockingham	Eden Loop	Municipality	Neville Hall		Mayor	City of Eden		308 E. Stadium Drive		Eden	NC	27288		336-623-2110
NC	Rockingham	Eden Loop	Municipality	Gerald Ellis		Council Member - Ward 7	City of Eden City Council		308 E. Stadium Drive		Eden	NC	27288		336-635-1789
NC	Rockingham	Eden Loop	Municipality	Greg Light		Council Member - Ward 6	City of Eden City Council		308 E. Stadium Drive		Eden	NC	27288		336-613-8488
NC	Rockingham	Eden Loop	County	Mark Richardson		Chairman	Rockingham County Board of Commissioners		4798 Ellisboro Road		Stoneville	NC	27048	mrichardson@co.rockingham.nc.us	336-549-0288
NC	Rockingham	Eden Loop	County	Charlie G. Hall, III		Vice Chairman	Rockingham County Board of Commissioners		221 Calvary Road		Stoneville	NC	27048	cghall@co.rockingham.nc.us	336-932-2491
NC	Rockingham	Eden Loop	County	Kevin Berger		Commissioner	Rockingham County Board of Commissioners		371 Hush Hickory Trace		Reidsville	NC	27320	kberger@co.rockingham.nc.us	336-932-4787
NC	Rockingham	Eden Loop	County	Don Powell		Commissioner	Rockingham County Board of Commissioners		636 King Street		Reidsville	NC	27320	dpowell@co.rockingham.nc.us	336-669-3931
NC	Rockingham	Eden Loop	County	Houston Barrow		Commissioner	Rockingham County Board of Commissioners		349 Garden Road		Eden	NC	27288	hbarrow@co.rockingham.nc.us	336-347-8009
NC	Rockingham	Eden Loop	County	Lance Metzler		County Manager	Rockingham County Governmental Center	P.O Box 101			Wentworth	NC	27375		336-342-8101
NC	Rockingham	Eden Loop	Emergency Responder	Rodney Cates		Director	Rockingham County Emergency Operations Center	P.O Box 66			Wentworth	NC	27375		336-634-3000
NC	Rockingham	Eden Loop	Emergency Responder	Melissa Joyce		Fire Marshal	Rockingham County Fire Marshal's Office	P.O Box 66			Wentworth	NC	27375		336-634-3003
NC	Rockingham	Eden Loop	Library	Rhonda Hooker		Director	Rockingham County Library Administration		527 Boone Rd.		Eden	NC	27288		336-627-1108
NC	Rockingham	Eden Loop	Emergency Responder	Samuel Scott Page		Sheriff	Rockingham County Sheriff's Office		371 NC Highway 65		Reidsville	NC	27320		336-342-8100
NC	Rockingham	Eden Loop	Emergency Responder	Jay Brooks		Emergency Management Director	Rockingham County	P.O Box 101			Wentworth	NC	27375	jbrooks@co.Rockingham.nc.us	336-634-3004
NC	Rockingham	Eden Loop	Business Organization	Kristi N. King		President and CEO	Richmond County Chamber of Commerce		505 Rockingham Road		Rockingham	NC	28380	kristi@richmondcountychamber.com	910-895-8058
NC	Rockingham	Eden Loop	Business Organization	Carson Rhyne		Director of Marketing	Richmond County Chamber of Commerce		505 Rockingham Road		Rockingham	NC	28380	carson@richmondcountychamber.com	910-895-8058
NC	Rockingham	Eden Loop	County	Leigh Cockram		Director	Rockingham County Center for Economic Development		45 NC 65		Reidsville	NC	27320		336-342-8138
VA		Eden Loop and upgrades at Compressor Station 165	State	Glenn Youngkin		Governor	Virginia Office of the Governor	P.O Box 1475			Richmond	VA	23219		804-786-2211
VA		Eden Loop and upgrades at Compressor Station 165	Federal	Tim Kaine		US Senator	United States Senate		231 Russell Senate Office Building		Washington	DC	20510		(202) 224-4024
VA		Eden Loop and upgrades at Compressor Station 165	Federal	Mark R. Warner		US Senator	United States Senate		703 Hart Senate Office Building		Washington	DC	20510		202-224-2023
VA		Eden Loop and upgrades at Compressor Station 165	Federal	Bob Good		Congressman - District 5	United States House of Representatives		461 Cannon House Office Building		Washington	DC	20515		202-225-4711
VA		Eden Loop and upgrades at Compressor Station 165	State	Daniel W. Marshall, III		Delegate - 46th District	Virginia House of Delegates							DelDMarshall@house.virginia.gov	804-698-1046
VA		Eden Loop and upgrades at Compressor Station 165	State	Eric Phillips		Delegate - 48th District	Virginia House of Delegates		201 North 9th Street, General Assembly Building	Room 1004	Richmond	VA	23219	DelEPhillips@house.virginia.gov	(804) 698-1048
VA		Eden Loop and upgrades at Compressor Station 165	State	Tammy Brankley Mulkin		Senator - District 9	Virginia State Senate	P.O. Box 396			Richmond	VA	23218		
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Stuart Tuckle, Jr.		County Administrator	Pittsylvania County		1 Center Street		Chatham	VA	24531		434-432-7710
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Darrell Dalton		Chairman	Pittsylvania Board of Supervisors		1 Center Street		Chatham	VA	24531		434-432-7700
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Tim W. Dudley		Vice-Chairman	Pittsylvania Board of Supervisors		1 Center Street		Chatham	VA	24531		434-432-7700
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Nancy Eleves		Member	Pittsylvania Board of Supervisors		1 Center Street		Chatham	VA	24531		434-432-7700
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Robert Warren		Member	Pittsylvania Board of Supervisors		1 Center Street		Chatham	VA	24531		434-432-7700
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Ronald Shelton		Member	Pittsylvania Board of Supervisors		1 Center Street		Chatham	VA	24531		434-432-7700
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	William V. Ingram		Member	Pittsylvania Board of Supervisors		1 Center Street		Chatham	VA	24531		434-432-7700
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Robert M. Tucker, Jr.		Member	Pittsylvania Board of Supervisors		1 Center Street		Chatham	VA	24531		434-432-7700
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Kaylyn McDuffie		Deputy Clerk	Pittsylvania County Government		1 Center Street		Chatham	VA	24531		434-432-1987
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Michael W. Taylor		Sheriff	Pittsylvania County Sheriff's Office		21 N. Main Street		Chatham	VA	24531		
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Business Organization	Barry DuVal		President and CEO	Virginia Chamber of Commerce		919 E. Main Street	Suite 930	Richmond	VA	23219	B.DUVAL@VACHAMBER.COM	804-237-1460
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Business Organization	Keith Martin		Executive Vice President	Virginia Chamber of Commerce		919 E. Main Street	Suite 930	Richmond	VA	23219	K.MARTIN@VACHAMBER.COM	804-237-1458
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Business Organization	Ethan Betterton		Manager of Public Policy	Virginia Chamber of Commerce		919 E. Main Street	Suite 930	Richmond	VA	23219	E.BETTERTON@VACHAMBER.COM	804-237-1456

Southeast Supply Enhancement Project
Initial Government Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Business Organization	Anne Moore Sparks		CEO	Danville Pittsylvania Chamber of Commerce		152 Slayton Ave.		Danville	VA	24540		434-836-6990
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Connie Teague Bibbs		Director	City of Danville + Pittsylvania County Offices of Economic Development	P.O Box 3300			Danville	VA	24543		434-793-1753
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	County	Matt Rowe		Director	City of Danville + Pittsylvania County Offices of Economic Development	P.O Box 428			Chatham	VA	24531		434-797-6906
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Kasey Seay		Division Chief	Mount Hermon Fire and Rescue		4268 Franklin Turnpike		Danville	VA	24631		
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Kasey Seay		Division Chief	Chatham Fire Department		39 Depot Street		Chatham	VA	24531		
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Christopher Key		Public Safety Director	Pittsylvania Emergency Management		110 Old Chatham Elem Lane		Chatham	VA	24531		
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Noah Robbins		Fire Marshal	Pittsylvania County Fire Marshals Office		110 Old Chatham Elem Lane		Chatham	VA	24531		434-432-7907
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Library	Rhonda Griffin		Director	Pittsylvania County Public Library		24 Military Drive		Chatham	VA	24531		434-432-3271
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Newspaper	Bobby Allen Roach		Editor	Chatham Star Tribune		30 N. Main Street		Chatham	VA	24531		434-432-2791
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	David Dalley		Fire Chief	Danville Fire Department	P.O Box 3300			Danville	VA	24543		
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Chris Wiles		Chief of Police	Danville Police Department	P.O Box 3300			Danville	VA	24543		434-799-6510
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Michael S. Mondul		Sheriff	Danville Sheriff's Office	P.O Box 3405			Danville	VA	24541		
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Ken Larking		City Manager	Danville City Manager		427 Patton Street		Danville	VA	24543		434-799-5100
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Earl Reynolds		Dept. City Manager	Danville City Manager		427 Patton Street		Danville	VA	24543		434-799-5100
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Jason Grey		Director of Utilities	City of Danville		311 Memorial Drive		Danville	VA	24541		434-799-5155
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Alonzo Jones		Mayor	Danville City Council	P.O Box 3300			Danville	VA	24543	alonzo.jones@danvilleva.gov	434-797-5928
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Gary P. Miller MD		Vice Mayor	Danville City Council	P.O Box 3300			Danville	VA	24543		434-799-0908
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	James Buckner		Councilman	Danville City Council	P.O Box 3300			Danville	VA	24543	james.buckner@danvilleva.gov	434-688-1889
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Lawrence G. Campbell, Jr.		Councilman	Danville City Council	P.O Box 3300			Danville	VA	24543	larry.campbell@danvilleva.gov	434-793-8493
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Bryant Hood		Councilman	Danville City Council	P.O Box 3300			Danville	VA	24543	bryant.hood@danvilleva.gov	434-429-5898
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Barry Mayo		Councilman	Danville City Council	P.O Box 3300			Danville	VA	24543	barry.mayo@danvilleva.gov	434-792-1041
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Sherman M. Saunders		Councilman	Danville City Council	P.O Box 3300			Danville	VA	24543	sherman.saunders@danvilleva.gov	434-799-8737
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	L. Lee Vogler		Councilman	Danville City Council	P.O Box 3300			Danville	VA	24543	Lee.Vogler@danvilleva.gov	434-549-0326
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Madison Whittle		Councilman	Danville City Council	P.O Box 3300			Danville	VA	24543	madison.whittle@danvilleva.gov	434-251-0928
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Alex B. Davis		Mayor	Town of Chatham	P.O Box 370			Chatham	VA	24531	Adavis@Chatham-VA.gov	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Janet R. Bishop		Council Member	Town of Chatham Town Council	P.O Box 370			Chatham	VA	24531	jrbish01@hotmail.com	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	William P. Black		Council Member	Town of Chatham Town Council	P.O Box 370			Chatham	VA	24531	wblack@chathamhall.org	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Irvin W. Perry		Council Member	Town of Chatham Town Council	P.O Box 370			Chatham	VA	24531	iperry@chatham-va.gov	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Robert B. Thompson		Council Member	Town of Chatham Town Council	P.O Box 370			Chatham	VA	24531	rbthompson@verizon.net	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Teresa Easley		Council Member	Town of Chatham Town Council	P.O Box 370			Chatham	VA	24531	teresaeasley51@gmail.com	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Henry Hunt		Council Member	Town of Chatham Town Council	P.O Box 370			Chatham	VA	24531	hhunt@chatham-va.gov	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Municipality	Nicholas Nemo		Town Manager	Town of Chatham	P.O Box 370			Chatham	VA	24531	mtownmgr@chatham-va.gov	434-432-8153
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Randy Lawson		Police Chief	Chatham Police Department	P.O Box 370			Chatham	VA	24531	chiefdlawson@chatham-va.gov	434-432-8121
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Emergency Responder	Bobby Higgins		Fire Chief	Chatham Volunteer Fire Department	P.O Box 192			Chatham	VA	24531		434-432-1919

Southeast Supply Enhancement Project
Initial Agency Stakeholder List - 1-31-2024

Contact Name	Contact Title	Stakeholder Name	P.O. Box	Address Line 1	Address Line 2	City	State	Zip 1	Zip 2	Phone	Email
Adam Ortiz	Regional Administrator	US Environmental Protection Agency, Region 3 (VA)		Four Penn Center 1600 JFK Blvd.		Philadelphia	PA	19103	2029	215-814-5000 or 800-438-2474 in Region 3 states	
Jeaneanne Gettle	Acting Regional Administrator	US Environmental Protection Agency, Region 4 (NC, SC, GA, AL)		61 Forsyth street SW		Atlanta	GA	30303		404-562-9900 or in the Region 4 states, 800-241-1754	
Col. Brian P. Hallberg	District Commander	U.S. Army Corps of Engineers Norfolk District, Regulatory Branch		803 Front St		Norfolk	VA	23510		804-823-3762	dll-cenao-pa@usace.army.mil
Jennifer Serafin	Chief, Western Section (Roanoke)	U.S. Army Corps of Engineers Norfolk District, Regulatory Branch		Richard H. Poff Federal Building, 210 Franklin Road, SW	Room 749	Roanoke	VA	24016		540-344-1498	Jennifer.M.Serafin@usace.army.mil
Col. Brad A. Morgan	District Commander	U.S. Army Corps of Engineers Wilmington District, Regulatory Branch (Raleigh, Charlotte, Etc.)		3331 Heritage Trade Drive	Suite 105	Wake Forest	NC	27587		252-740-5719	
Jean Gibby	Field Office Chief	U.S. Army Corps of Engineers Wilmington District, Regulatory Branch (Raleigh)		3331 Heritage Trade Drive	Suite 105	Wake Forest	NC	27587		919-554-4884 Ext. 24	jean.b.gibby@usace.army.mil
Dicky Harmon	Rockingham County Regulator; AFWEI	U.S. Army Corps of Engineers Wilmington District, Regulatory Branch (Raleigh); Amec Foster Wheeler Environmental & Infrastructure, Inc.		3331 Heritage Trade Drive; 4021 Stirrup Creek Drive	Suite 105; Suite 100	Wake Forest; Durham	NC	27587; 27703		Regional Office 919-724-5873; AFWEI 919-801-8990	Richard.G.Harmon@usace.army.mil; Richard.harmon@amecfw.com
Laura Meyer	Guilford County Regulator	U.S. Army Corps of Engineers Wilmington District, Regulatory Branch (Raleigh)		3331 Heritage Trade Drive	Suite 105	Wake Forest	NC	27587		919-834-1595	laura.j.meyer@usace.army.mil
Jennifer Lawrence	Forsyth, Cleveland, and Davidson County Regulator	U.S. Army Corps of Engineers Wilmington District, Regulatory Branch (Charlotte)		8430 University Executive Park Drive	Suite 615	Charlotte	NC	28262		980-392-6980	Jennifer.L.Lawrence@usace.army.mil
Lt. Col. Robert Nahabedian	Commander and District Engineer	U.S. Army Corps of Engineers Charleston District, Regulatory Branch		69A Hagood Ave.		Charleston	SC	29403		843-329-8044	CESAM-RD@usace.army.mil
N/A	N/A	U.S. Army Corps of Engineers Charleston District, Regulatory Branch (Greenville)		705 Executive Center Drive	Suite 103	Greenville	SC	29615		864-609-4326	SAC.RD.Greenville@usace.army.mil
Colonel Jeremy J. Chapman	Commander and District Engineer	U.S. Army Corps of Engineers Mobile District, Regulatory Branch	2288	N/A		Mobile	AL	36628	0001	251-690-2658	CESAM-RD@usace.army.mil
N/A	N/A	U.S. Army Corps of Engineers Mobile District, Regulatory Branch		218 Summit Parkway	Suite 222	Homewood	AL	35209		251-690-2658	CESAM-RD@usace.army.mil
Col. Ronald J Sturgeon	Commander and District Engineer	U.S. Army Corps of Engineers Savannah District, Regulatory Branch		100 W. Oglethorpe Ave		Savannah	GA	31401	3604	678-422-2735	cesas-rd@usace.army.mil
N/A	Savannah District Regulatory Branch	U.S. Army Corps of Engineers Savannah District, Regulatory Branch		100 W. Oglethorpe Ave		Savannah	GA	31401	3604	912-652-5893	cesas-rd@usace.army.mil
N/A	Piedmont Regulatory Branch	U.S. Army Corps of Engineers Savannah District, Regulatory Branch		4751 Best Road	Suite 140	College Park	GA	30337	5600	678-422-2735	CESAS-RD-P@usace.army.mil
Kyla Hastie	Acting Regional Director- Northeast Region	USFWS Migratory Bird Permit Office Region 5		300 Westgate Center Drive		Hadley	MA	01035	0779	413-253-8643	PermitsR5MB@fws.gov
Pam Toschik	Assistant Regional Director- Migratory Birds	USFWS Migratory Bird Permit Office Region 5		300 Westgate Center Drive		Hadley	MA	01035	0779	413-253-8610	
Mike Oetker	Regional Director- Southeast Region	USFWS Migratory Bird Permit Office Region 4		1875 Century Blvd. NE		Atlanta	GA	30345		404-679-7070	PermitsR4MB@fws.gov
Dr. Bill Uihlein	Assistant Regional Director- Southeast Region- Migratory Birds	USFWS Migratory Bird Permit Office Region 5		1875 Century Blvd. NE		Atlanta	GA	30345		601-218-1195	
Cindy Schulz	VA Field Office Supervisor	USFWS Section 7 Endangered Species Consultation- Ecological Services Field Office		6669 Short Lane		Gloucester	VA	23061	4410	804-905-6983	
Pete Benjamin	Raleigh- Eastern Field Office Supervisor	USFWS Section 7 Endangered Species Consultation- Ecological Services Field Office		551 Pylon Drive	Suite F	Raleigh	NC	27606	1487	984-308-0802	
Janet Mizzi	Asheville Field Office Supervisor	USFWS Section 7 Endangered Species Consultation- Ecological Services Field Office		160 Zillicoa St.		Asheville	NC	28801		828-215-1741	
Thomas (Tom) D. McCoy	Field Office Supervisor	USFWS Section 7 Endangered Species Consultation- Ecological Services Field Office		176 Croghan Spur Road	Suite 200	Charleston	SC	29407	7558	843-727-4707 ext. 40431	
Peter Maholland	Field Office Supervisor	USFWS Section 7 Endangered Species Consultation- Ecological Services Field Office Athens/North GA		355 East Hancock Ave	Room 320	Athens	GA	30601		706-535-2099	GAES_Assistance@FWS.gov
William Pearson	Field Office Supervisor	USFWS Section 7 Endangered Species Consultation- Ecological Services Field Office		1208 B Main Street		Daphne	AL	36526	4419	251-441-5181	
Rachel Peabody	Director of coastal policy, restoration and resilience	Virginia Marine Resources Commission Main Office		380 Fenwick Road	Building 96	Ft. Monroe	VA	23651		757-247-2269	Rachael.Peabody@mrc.virginia.gov
Mike Johnson	Habitat Management	Virginia Marine Resources Commission Main Office		2600 Washington Ave	3rd floor	Newport News	VA	23607		757-247-2255	mike.johnson@mrc.virginia.gov
Mike Rolband	Director	Virginia DEQ		1111 East Main Street	Suite 1400	Richmond	VA	23219		804-698-4020	Michael.Rolband@DEQ.Virginia.gov
Robert Weld	Regional Director	Virginia DEQ Water Quality Certification Blue Ridge District		901 Russell Drive		Salem	VA	24153		540-562-6700	Robert.Weld@DEQ.Virginia.gov
Jay Roberts	Construction Stormwater/VWP Manager- Blue Ridge District	Construction Stormwater/VWP		901 Russell Drive		Salem	VA	24153		(540) 494-4252	Jay.Roberts@DEQ.Virginia.gov
Mark Bushing	Water Permitting Manager	Virginia DEQ		901 Russell Drive		Salem	VA	24153		(540) 524-8150	Mark.Bushing@DEQ.Virginia.gov
Matthew Wells	Director	Virginia Department of Conservation and Recreation		600 E Main St		Richmond	VA	23219	2440	804-786-6124	matthew.wells@dcr.virginia.gov
Jason Bulluck	Natural Heritage Director	Virginia Department of Conservation and Recreation		600 E Main St	24th Floor	Richmond	VA	23219	2440	804-786-8377	jason.bulluck@dcr.virginia.gov
Timothy Hatton	Office Manager, Natural Heritage	Virginia Department of Conservation and Recreation		600 E Main St	24th Floor	Richmond	VA	23219	2440	804-786-7951	timothy.hatton@dcr.virginia.gov
Joseph Weber	Chief of Biodiversity/ Information Manager	Virginia Department of Conservation and Recreation		600 E Main St	24th Floor	Richmond	VA	23219	2440	804-371-2545	joseph.weber@dcr.virginia.gov

Southeast Supply Enhancement Project
Initial Agency Stakeholder List - 1-31-2024

Contact Name	Contact Title	Stakeholder Name	P.O. Box	Address Line 1	Address Line 2	City	State	Zip 1	Zip 2	Phone	Email
Rene Hypes	Environmental Review Coordinator	Virginia Department of Conservation and Recreation		600 E Main St	24th Floor	Richmond	VA	23219	2440	804-371-2708	rene.hypes@dcr.virginia.gov
Ryan Brown	Executive Director	Virginia Department Of Game and Inland Fisheries	90778	7870 Villa Park Drive		Henrico	VA	23228		804-367-9231	Ryan.Brown@dwr.virginia.gov
Sergio Harding	Non-Game Bird Conservation Biologist	Virginia Department Of Game and Inland Fisheries	90778	7870 Villa Park Drive		Henrico	VA	23228		804-367-0143	Sergio.Harding@DWR.virginia.gov
Brian Watson	Malacologist/Aquatic Invertebrates Biologist	Virginia Department Of Game and Inland Fisheries	90778	7870 Villa Park Drive		Henrico	VA	23228		434-525-7522	Brian.Watson@DWR.virginia.gov
Mike Pinder	Ichthyologist	Virginia Department Of Game and Inland Fisheries	90778	7870 Villa Park Drive		Henrico	VA	23228		540-961-8387	Mike.Pinder@DWR.virginia.gov
Rick Reynolds	Mammalogist	Virginia Department Of Game and Inland Fisheries	90778	7870 Villa Park Drive		Henrico	VA	23228		540-248-8360	Rick.Reynolds@DWR.virginia.gov
Joseph Guthrie	Commissioner	Virginia Department of Agriculture and Consumer Services	1163, Richmond, VA 23218	102 Governor Street		Richmond	VA	23219		804-786-3501	vdacs.commissioner@vdacs.virginia.gov
Charles Green	Deputy Commissioner	Virginia Department of Agriculture and Consumer Services	1163, Richmond, VA 23218	102 Governor Street		Richmond	VA	23219		804-786-3501	
Roger Kirchen	Director, Review & Compliance Division	Virginia Department of Historic Resources		2801 Kensington Avenue		Richmond	VA	23221		804-482-6091	roger.kirchen@dhr.virginia.gov
Elizabeth S. Beier	Secretary	North Carolina Department of Environmental Quality		217 West Jones Street		Raleigh	NC	27603		919-707-8602	elizabeth.beier@deq.nc.gov
David Lambert	Project Liaison	North Carolina Department of Environmental Quality		217 West Jones Street		Raleigh	NC	27603		919-707-8585	david.lambert@deq.nc.gov
Michael Pietrzyk	Deputy Director of Water Resources	North Carolina Department of Environmental Quality-Section 401		217 West Jones Street		Raleigh	NC	27603		919-820-6603	michael.pietrzyk@deq.nc.gov
Jenny Gnazisk	Assistant Regional Supervisor- Winston-Salem Regional Office	North Carolina Department of Environmental Quality - Water Quality Regional Operations Section		217 West Jones Street		Raleigh	NC	27603		336-776-9695	jenny.gnazisk@deq.nc.gov
Lori Snider	Regional Supervisor- Winston-Salem Regional Office	North Carolina Department of Environmental Quality-Isolated Wetlands and Buffer		217 West Jones Street		Raleigh	NC	27603		336-776-9700	lori.snider@deq.nc.gov
Julie Grzyb	Deputy Director of Water Resources Winston Salem Regional Office	North Carolina Department of Environmental Quality-Stormwater Discharge (NPDES)		217 West Jones Street		Raleigh	NC	27603		919-707-3605	julie.grzyb@deq.nc.gov
Tamera Eplin	Engineering Supervisor II- Winston-Salem Regional Office	North Carolina Department of Environmental Quality Division of Energy, Mineral and Land Resources-ESCP, Stormwater		217 West Jones Street		Raleigh	NC	27603		336-776-9654	tamera.eplin@deq.nc.gov
Ray Stewart	Regional Supervisor- Wrestco-Salem Regional Office	North Carolina Department of Environmental Quality-Air Quality		217 West Jones Street		Raleigh	NC	27603		336-776-9697	ray.stewart@deq.nc.gov
Mark Yoder	Air Quality Analyst Supervisor	North Carolina Department of Environmental Quality-Air Quality		217 West Jones Street		Raleigh	NC	27603		919-707-8724	mark.yoder@deq.nc.gov
Brad Howard	Division Chief, Wildlife Management	North Carolina Wildlife Resources Commission	ATTN: Wildlife Management 1722 Mail Service Center	1751 Varsity Dr		Raleigh	NC	27606		919-707-0050	brad.howard@ncwildlife.org
Shannon Deaton	Division Chief, Habitat Conservation	North Carolina Wildlife Resources Commission	ATTN: Wildlife Management 1721 Mail Service Center	1751 Varsity Dr		Raleigh	NC	27606		919-707-0222	shannon.deaton@ncwildlife.org
Renee Gledhill-Earley	Environmental Review Coordinator	North Carolina State Historic Preservation Office		109 East Jones Street	Room 258	Raleigh	NC	27601		919-814-6579	renee.gledhill-earley@ncdcr.nc.gov
John Poole	Stormwater Permitting Section Manager- Bureau of Water	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-3678	poolejw@dhec.sc.gov
Angela Kennedy	Stormwater Permitting Permit Coordinator- Bureau of Water	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-4234	kennedad@dhec.sc.gov
Morgan Amedee	401- Project Manager-Bureau of Water	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-4179	amedeemd@dhec.sc.gov
Jennifer R. Hughes	Assistant Chief of Eater	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-1992	hughesjr@dhec.sc.gov
Susan Weldner	303d/TMDL Coordinator- Bureau of Water	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-3460	weldnesa@dhec.sc.gov
Leigh Anne R. Monroe	Hydrogeologist, Surface Water-Bureau of Water	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-2415	monroela@dhec.sc.gov
Michael Mattocks	Director- Division of Air Quality Analysis	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-0992	mattocm@dhec.sc.gov
Alyson Hayes	Section Manager-Air Quality (Permits, Air)	South Carolina Department of Health and Environmental Control (SCDHEC)		2600 Bull Street		Columbia	SC	29201		803-898-3808	hayesam@dhec.sc.gov
Robert Boyles	Director SCDNR	South Carolina Department of Natural Resources		1000 Assembly Street		Columbia	SC	29201		803-734-4007	
Emily Cope	Deputy Director of Wildlife and Freshwater Fisheries Division	South Carolina Department of Natural Resources		1000 Assembly Street		Columbia	SC	29201		803-734-3886	CopeE@dnr.sc.gov
Billy Dukes	Chief of Wildlife	South Carolina Department of Natural Resources		1000 Assembly Street		Columbia	SC	29201		803-734-3939	DukesB@dnr.sc.gov
Ken Rentiers	Deputy Director of Land, Water and Conservation	South Carolina Department of Natural Resources		1000 Assembly Street		Columbia	SC	29201		803-734-9335	RentiersK@dnr.sc.gov
Elizabeth Johnson	Director of Historical Services, Deputy SHPO	South Carolina State Historic Preservation Office		8301 Parkland Road		Columbia	SC	29223		803-896-6166	ejohnson@scdah.sc.gov
Lorianne Riggin	Director of Environmental Program	South Carolina Department of Natural Resources		1000 Assembly Street		Columbia	SC	29201		803-734-4199	RigginL@dnr.sc.gov
Tom Daniel	Inland Environmental Project Manager- NPDES, Stormwater, 401	South Carolina Department of Natural Resources		1000 Assembly Street		Columbia	SC	29201		803-734-3756	DanielT@dnr.sc.gov

Southeast Supply Enhancement Project
Initial Agency Stakeholder List - 1-31-2024

Contact Name	Contact Title	Stakeholder Name	P.O. Box	Address Line 1	Address Line 2	City	State	Zip 1	Zip 2	Phone	Email
Anna Truszczynski	Watershed Protection Branch-Branch Chief	Georgia Department of Natural Resources- Watershed Division		2 Martin Luther King Jr. Drive SE	Suite 1456 (East Tower)	Atlanta	GA	30334		470-524-0051	
Veronica Craw	Non-Point Source Program (Stormwater)-Project Manager 2	Georgia Department of Natural Resources- Watershed Division		2 Martin Luther King Jr. Drive SE	Suite 1463 (East Tower)	Atlanta	GA	30334		470-938-3384	
Veronica Craw	Watershed Protection Branch (Hydrostatic Test Water and Discharge)-Project Manager II	Georgia Department of Natural Resources- Watershed Division		2 Martin Luther King Jr. Drive SE	Suite 1462 (East Tower)	Atlanta	GA	30334		470-938-3385	
Brian Kent	Watershed Protection Branch (Stream Buffer Variance Permit)-Acting Manager	Georgia Department of Natural Resources- Watershed Division		2 Martin Luther King Jr. Drive SE	Suite 1462 (East Tower)	Atlanta	GA	30334		470-934-6419	brian.kent@dnr.ga.gov
Jim Boylan	Branch Chief- Air Protection Branch	Georgia Department of Natural Resources- Air Division		2 Martin Luther King Jr. Drive SE	Suite 1462 (East Tower)	Atlanta	GA	30334		404-363-7000	
Headquarters	Wildlife Division-Fisheries	Georgia Department of Natural Resources- Wildlife Division		2067 US Highway 278 SE		Social Circle	GA	30025		706-557-3213	
Region 2 Walton County	Wildlife Division-Fisheries	Georgia Department of Natural Resources- Wildlife Division		2150 Dawsonville Highway		Gainesville	GA	30501		770-535-5498	
Region 1- Henry County	Wildlife Division-Fisheries	Georgia Department of Natural Resources- Wildlife Division		2650 Floyd Springs Road		Armuchee	GA	30105		706-295-6102	
Jennifer Dixon	Environmental Review and Preservation Planning Program Manager	Georgia Historic Preservation Division		60 Executive Park South		Atlanta	GA	30329		404-679-4840	Jennifer.Dixon@dca.ga.gov
Jeff Kitchens	Chief- Water Division	Alabama Department of Environmental Management		1400 Coliseum Blvd		Montgomery	AL	36610		334-271-7822	jwk@adem.alabama.gov
Chris Johnson	Water Quality	Alabama Department of Environmental Management		1400 Coliseum Blvd		Montgomery	AL	36610		334-271-7827	cjohnson@adem.alabama.gov
Danielle Oates	Stormwater Management Branch- Manager (NPDES 401)	Alabama Department of Environmental Management		1400 Coliseum Blvd		Montgomery	AL	36610		334-274-4166	Danielle.oates@adem.alabama.gov
Ron Gore	Chief-Air Division	Alabama Department of Environmental Management		1400 Coliseum Blvd		Montgomery	AL	36610		334-2717868	rwg@adem.alabama.gov
Doug Carr	Energy-Air Division	Alabama Department of Environmental Management		1400 Coliseum Blvd		Montgomery	AL	36610		334-271-7889	dac@adem.alabama.govmn
Keith Gauldin	Chief- Wildlife Section	Alabama Department Conservation and Natural Resources	301457	64 North Union Street	Suite 584	Montgomery	AL	36130	1457	334-242-3469	DCNR.Wildlife@dcnr.alabama.gov
Steven Mitchell	Supervising Wildlife Biologist- District 2	Alabama Department Conservation and Natural Resources		4101 Alabama Highway	21 North	Jacksonville	AL	36265		256-435-5422	
Chris Greene	Chief- Fisheries Section	Alabama Department Conservation and Natural Resources		64 North Union Street	Suite 551	Montgomery	AL	36104		334-242-3471	
Headquarters	Office of Water Resources	Alabama Department of Economic and Community Affairs	5690	401 Adams Avenue		Montgomery	AL	36103		334-242-5499	water@adeca.alabama.gov
Amanda McBride	Environmental Review Coordinator, Section 106 Coordinator	Alabama State Historic Preservation Office		468 South Perry Street	P.O. Box 300900	Montgomery	AL	36130	-0900	334-230-2692	amanda.mcbride@arc.alabama.gov

Southeast Supply Enhancement Project
Initial Native American Tribes Stakeholder List - 1-31-2024

Contact Name	Contact Title	Stakeholder Name	P.O. Box	Address Line 1	Address Line 2	City	State	Zip 1	Zip 2	Phone	Email
FEDERALLY-RECOGNIZED											
Ms. Devon Frazier	THPO	Absentee Shawnee Tribe of Indians of Oklahoma		2025 S. Gordon Cooper Drive		Shawnee	OK	74801		405-275-4030, ext. 6243	dfrazier@astribe.com
Dr. Wenonah Haire	THPO	Catawba Indian Nation		1536 Tom Steven Road		Rock Hill	SC	29730		803-328-2427, ext. 224	wenonah.haire@catawba.com
Ms. Elizabeth Toombs	THPO	Cherokee Nation of Oklahoma	PO Box 948			Tahlequah	OK	74465		918-453-5389	elizabeth-toombs@cherokee.org
Mr. Stephen R. Adkins	Chief/Tribal Administrator	Chickahominy Indian Tribe		8200 Lott Cary Road		Providence Forge	VA	23140		804-829-2027	stephen.adkins@chickahominytribe.org
Ms. Penny Wynn	Tribal Administrator	Chickahominy Indian Tribe Eastern Division		2895 Mt. Pleasant Road		Providence Forge	VA	23140		804-966-7815	info@cit-ed.org
Mr. Russell Townsend	THPO	Eastern Band of Cherokee Indians	P.O. Box 455			Cherokee	NC	28719		828-554-6851	syerka@nc-cherokee.com
Mr. Paul Barton	THPO	Eastern Shawnee Tribe of Oklahoma		70500 East 128 Road		Wyandotte	OK	74370		918-238-5151	thpo@estoo.net
Mr. Mark T Fallingstar Custalow	Chief	Mattaponi Tribe		1314 Mattaponi Reservation Circle		West Point	VA	23181		804-353-5908	mattaponi@mattaponination.com
Ms. Diane Shields	Tribal Chief	Monacan Indian Nation		111 Highview Drive		Madison Heights	VA	24572		434-363-4864	Chief@MonacanNation.gov
Mr. Keith Anderson	Chief	Nansemond Indian Nation		1001 Pembroke Lane		Suffolk	VA	23434		757-255-9317	Chief@Nansemond.gov
Mr. Robert Gray	Chief	Pamunkey Indian Tribe		1054 Pocahontas Trail		King William	VA	23086		804-843-2393	pamunkeytribe@pamunkey.org
Ms. Anne Richardson	Chief	Rappahannock Tribe		5036 Indian Neck Road		Indian Neck	VA	23148		804-769-0260	arichardson@rappahannocktribe.org
Ms. Tonya Tipton	THPO	Shawnee Tribe of Oklahoma	P.O. Box 189	29 South Highway 69a		Miami	OK	74355		918-542-2441	tonya@shawnee-tribe.com
Mr. Bryan Printup	Representative	Tuscarora Nation of New York		5226 Walmore Road		Lewiston	NY	14092		716-264-8011	bprintup@hetf.org
Ms. Acee Watt	THPO	United Keetoowah Band of Cherokee Indians	PO Box 746			Tahlequah	OK	74465		918-871-2852	awatt@ukb-nsn.gov
Mr. W. Frank Adams	Chief	Upper Mattaponi Tribe		13476 King William Road		King William	VA	23086		804-769-0041	info@umtribe.org
Mr. Turner Hunt	THPO	Muscogee (Creek) Nation	PO Box 580			Okmulgee	OK	74447		918-732-7758	section106@muscogeenation.com
Ms. Stephanie A. Bryan	Tribal Chair	Poarch Creek Indians		5811 Jack Springs Road		Atmore	AL	36502		251-368-9136	communicationsinfo@pci-nsn.gov
Mr. Ben Yahola	THPO	Alabama-Quassarte Tribal Town	PO Box 187			Wetumka	OK	74883		405-452-3889	ben.yahola@alabama-quassarte.org
Mr. Kristian Poncho	THPO	Coushatta Tribe of Louisiana	PO Box 10			Elton	LA	70532		337-275-1350	kponcho@coushatta.org
Mr. Bryant Celestine	THPO	Alabama-Coushatta Tribe of Texas		571 State Park Road 56		Livingston	TX	77351		936-563-1181	celestine.bryant@actribe.org
STATE-RECOGNIZED											
Mr. Walt Brown	Chief	Cheroenhaka (Nottoway) Indian Tribe [VA]	P.O. Box 397	27345 Aquia Path		Courtland	VA	23837		757-562-7760	wdbrownii@aol.com
Mr. Greg Jacobs	Tribal Administrator	Coharie Tribe [NC]		7531 N US Hwy 421		Clinton	NC	28328		910-564-6909	greg_jacobs53@yahoo.com
Dr. Brucie Ogletree Green Richardson	Chief	Haliwa-Saponi Tribe [NC]	P.O. Box 99			Hollister	NC	27844		252-586-4017	borichardson@haliwa-saponi.org
Mr. John L. Lowery	Chairman	Lumbee Tribe of North Carolina		6984 NC Hwy 711		West Pembroke	NC	28372		910-521-7861, Ext. 201 or 290	bbrewer@lumbeetribe.com
Mr. Jonathan Caudill	Chief	Meherrin Indian Tribe [NC]	P.O. Box 274			Ahoskie	NC	27910			communications@meherrinnation.org
Ms. Lynette Allston	Chief	Nottoway Indian Tribe [VA]	PO Box 248			Capron	VA	23829			nottowayofva@aol.com
Mr. William Anthony Hayes	Tribal Chairperson	Occaneechi Band of the Saponi Nation [NC]	P.O. Box 356			Mebane	NC	27302		336-738-3432	obsntribe@gmail.com
Mr. Charles Bullock	Chief	Pataworneck Indian Tribe [VA]		538 Kings Highway		Fredericksburg	VA	22405		540-225-3900	PataworneckTribalCenter@gmail.com

Southeast Supply Enhancement Project
Initial Native American Tribes Stakeholder List - 1-31-2024

Contact Name	Contact Title	Stakeholder Name	P.O. Box	Address Line 1	Address Line 2	City	State	Zip 1	Zip 2	Phone	Email
Ms. Dorothy Stewart Yates	Chairperson	Sappony Tribe [NC]		4281 Virgilina Road		Virgilina	VA	24598		434-585-3352	sappony@msn.com
Mr. Michael Jacobs	Chief	Waccamaw Siouan Indians [NC]		7239 Old Lake Road		Bolton	NC	28423		910-655-8778	siouan@aol.com

Southeast Supply Enhancement Project
Initial Environmental Justice Stakeholder List - 1-31-2024

State	County	Project Component(s)	Stakeholder Type	Contact Name	Leave Blank	Contact Title	Stakeholder Name	Contact PO Box	Contact Street	Contact Street2	Contact City	Contact State	Contact Zip	Contact Email	Contact Phone
AL	Coosa	Upgrades at Compressor Station 105	Environmental Justice	President		President	Sylacauga Rotary Club		315 W Hickory St		Sylacauga	AL	35150	Secretary.SylRotary@gmail.com	256-249-8338
GA	Henry	Upgrades at Compressor Station 120	Environmental Justice	Rick Perry		President	Henry County Rotary Club	P.O. Box 2555			McDonough	GA	30253	henrycountyrotary.org	
GA	Walton	Upgrades at Compressor Station 125	Environmental Justice	Ray Lane		President	Rotary Club of Loganville	P.O. Box 2287			Loganville	GA	30052		
SC	Anderson	Upgrades at Compressor Station 135	Environmental Justice	Liz Brock		President	Rotary Club of Anderson	PO Box 434			Anderson	SC	29622		
NC	Iredell	Upgrades at Compressor Station 150	Environmental Justice	Brenda Hawkins		President Elect	Mooresville Rotary Club	PO Box 854			Mooresville	NC	28115		704-682-3672
NC	Iredell	Upgrades at Compressor Station 150	Environmental Justice	Curtis Johnson		Member	South Iredell NAACP	P.O Box 3671			Mooresville	NC	28117		980-434-8913
NC	Davidson	Salem Loop and upgrades at Compressor Station 155	Environmental Justice	James Justice		President	Rotary Club of Davidson	PO Box 1367			Davidson	NC	28036-1367		
NC	Guilford	Salem Loop	Environmental Justice	Ron Pierce		President	Guilford Rotary Club		223 North Edgeworth Street		Greensboro	NC	27401		
NC	Guilford	Salem Loop	Environmental Justice	Amos L. Quick, III		Pastor Representative	Friendship Baptist Church		520 Cotton Grove Rd.		Lexington	NC	27292		336-249-1067
NC	Guilford	Salem Loop	Environmental Justice	Shane Beal		President	Merchants of Oak Ridge	P.O Box 871			Oak Ridge	NC	27310	info@merchantsofoakridgenc.com	
NC	Rockingham	Eden Loop	Environmental Justice	President		President	Madison Mayodan Rotary Club		144 New Market		Madison	NC	27025	mmrotaryclub@gmail.com	
NC	Rockingham	Eden Loop	Environmental Justice	President		President	Reidsville Branch NAACP		1302 US 29 Business		Reidsville	NC	27320		336-342-0078
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Environmental Justice	Robert Bennett		President	Virginia State NAACP - Danville		1214 W. Graham Road		Richmond	VA	23222	president@naacpva.org	804-321-0676
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Environmental Justice	Anita Royston		President	Virginia State NAACP - Pittsylvania	P.O Box 1572			Chatham	VA	24531	naacpittsva@gmail.com	
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Environmental Justice	Warnick Scott		Founder	Wendell Scott Foundation	P.O box 3734			Danville	VA	24543	Warrick@wendellscott.org	
VA	Pittsylvania	Eden Loop and upgrades at Compressor Station 165	Environmental Justice	Chris Lund		President	Rotary Club of Chatham Virginia		340 Whitehead St.		Chatham	VA	24531	christopherlund@hotmail.com	

Transcontinental Gas Pipe Line Company, LLC

Resource Report No. 1

General Project Description

Appendix 1E – Landowner List

Southeast Supply Enhancement Project

February 2024

Privileged Information – Under Separate Cover

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Transcontinental Gas Pipe Line Company, LLC

Resource Report No. 1

General Project Description

Appendix 1F – Agency Correspondence Summary Table

Southeast Supply Enhancement Project

February 2024

To Be Provided in Draft Filing, Anticipated Second Quarter 2024

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Table 6.07.A. Capacity Factors for Utility Scale Generators Primarily Using Fossil Fuels

Year/Month	Coal		Natural Gas								Petroleum					
			Combined Cycle		Gas Turbine		Steam Turbine		Internal Combustion		Steam Turbine		Gas Turbine		Internal Combustion	
	Time Adjusted Capacity (MW)	Capacity Factor	Time Adjusted Capacity (MW)	Capacity Factor	Time Adjusted Capacity (MW)	Capacity Factor	Time Adjusted Capacity (MW)	Capacity Factor	Time Adjusted Capacity (MW)	Capacity Factor	Time Adjusted Capacity (MW)	Capacity Factor	Time Adjusted Capacity (MW)	Capacity Factor	Time Adjusted Capacity (MW)	Capacity Factor
Annual Data																
2014	299,064.7	60.5%	224,183.2	48.6%	124,736.9	8.3%	75,049.1	10.3%	3,026.7	10.8%	18,057.0	13.0%	16,791.5	1.2%	5,011.3	2.1%
2015	286,082.7	54.3%	231,467.5	55.8%	123,444.3	9.8%	80,348.0	11.3%	3,507.8	11.9%	14,965.4	14.0%	16,122.8	1.3%	5,075.2	2.1%
2016	269,477.1	52.8%	236,442.8	55.4%	125,148.4	11.0%	81,225.1	12.3%	3,684.3	11.5%	13,993.7	12.2%	15,114.0	1.3%	5,082.8	2.3%
2017	259,930.2	53.1%	242,839.1	51.2%	125,806.6	9.6%	79,149.4	10.7%	4,225.5	11.6%	13,290.9	13.7%	14,275.3	1.0%	5,153.3	2.1%
2018	246,866.8	53.6%	254,403.3	55.1%	126,763.4	11.9%	76,177.8	12.6%	4,446.6	13.0%	13,300.1	14.2%	14,234.9	1.3%	5,289.7	1.9%
2019	235,089.3	47.5%	266,846.5	57.4%	128,832.5	11.4%	72,797.3	14.1%	4,848.3	15.3%	11,214.7	12.8%	14,009.7	1.0%	5,287.8	2.0%
2020	220,623.2	40.5%	274,300.4	57.1%	129,085.6	11.6%	75,462.3	14.2%	5,123.0	15.1%	8,443.3	13.9%	13,875.8	1.2%	5,300.7	1.8%
2021	212,587.0	49.1%	277,618.5	55.0%	130,103.4	11.7%	74,003.4	12.5%	5,171.8	18.2%	8,385.5	14.2%	13,729.8	1.6%	5,522.7	1.8%
2022	196,396.3	48.4%	286,467.1	56.6%	130,170.6	12.9%	77,518.8	15.6%	5,526.9	18.1%	9,839.0	13.2%	15,005.7	1.6%	5,407.0	1.8%
2023	183,856.3	42.1%	292,741.1	58.8%	131,118.7	14.1%	76,591.4	17.1%	5,637.3	20.9%	8,430.0	11.2%	14,402.3	1.9%	5,401.3	2.1%
Year 2022																
January	202,043.3	57.4%	284,236.2	55.6%	129,881.8	11.3%	78,088.0	14.8%	5,454.3	16.0%	9,839.0	19.6%	15,279.8	1.4%	5,401.4	2.2%
February	202,013.8	52.2%	284,236.2	52.4%	129,967.8	9.6%	78,088.0	11.7%	5,454.3	14.8%	9,839.0	15.3%	15,279.8	0.9%	5,402.0	1.8%
March	200,821.8	41.0%	284,247.2	46.6%	130,009.3	8.3%	77,514.0	8.5%	5,484.9	13.6%	9,839.0	9.8%	15,245.8	1.0%	5,392.6	1.7%
April	200,376.8	38.5%	284,450.3	44.2%	130,070.8	9.6%	77,514.0	9.6%	5,486.4	13.5%	9,839.0	10.1%	15,119.1	0.9%	5,395.3	1.7%
May	198,851.8	42.1%	283,899.1	49.6%	130,070.8	12.5%	77,514.0	14.6%	5,544.4	14.7%	9,839.0	12.0%	15,119.1	1.4%	5,399.7	1.8%
June	195,863.8	52.5%	286,389.0	61.2%	130,127.6	16.9%	77,510.0	20.2%	5,546.0	18.8%	9,839.0	12.2%	14,947.1	1.8%	5,407.0	1.9%
July	195,881.8	59.6%	287,485.0	70.5%	130,274.1	20.2%	77,510.0	28.1%	5,549.7	23.0%	9,839.0	10.3%	14,947.1	2.5%	5,410.4	1.7%
August	194,856.8	59.2%	288,566.5	72.4%	130,035.1	18.6%	77,379.0	22.4%	5,563.9	25.1%	9,839.0	11.8%	14,947.1	2.2%	5,410.7	1.7%
Sept	192,425.8	47.3%	288,493.5	63.9%	130,259.8	13.9%	77,374.0	16.3%	5,559.0	21.7%	9,839.0	13.1%	14,858.1	1.7%	5,409.2	1.8%
October	192,425.8	38.7%	288,458.5	53.0%	130,348.7	10.3%	77,374.0	13.3%	5,558.0	17.9%	9,839.0	12.3%	14,817.2	1.4%	5,413.1	1.8%
November	192,271.3	40.9%	288,485.6	52.0%	130,380.6	11.3%	77,379.8	13.7%	5,555.9	17.9%	9,839.0	13.6%	14,789.6	1.0%	5,420.9	1.6%
December	189,316.3	51.4%	288,504.6	56.8%	130,606.5	12.5%	77,026.8	14.1%	5,560.7	19.3%	9,839.0	18.2%	14,735.6	2.8%	5,421.2	2.2%
Year 2023																
January	186,891.9	44.3%	288,850.7	56.8%	131,147.9	9.3%	77,794.4	9.9%	5,581.3	17.2%	8,430.0	9.9%	14,223.6	1.0%	5,401.4	1.8%
February	186,881.3	37.1%	289,082.7	56.6%	131,147.9	8.9%	77,794.4	10.0%	5,583.9	16.7%	8,430.0	11.6%	14,223.6	0.9%	5,399.4	1.4%
March	186,881.3	35.9%	290,371.7	52.8%	130,957.7	10.4%	77,708.4	11.5%	5,585.4	19.1%	8,430.0	10.1%	14,223.6	1.1%	5,398.8	2.1%
April	186,881.3	30.4%	290,932.7	47.4%	130,957.7	12.2%	77,708.4	13.4%	5,586.9	17.5%	8,430.0	9.3%	14,223.6	1.7%	5,398.8	2.4%
May	185,392.9	32.4%	292,840.3	52.2%	130,438.2	13.7%	76,918.4	15.5%	5,583.8	17.5%	8,430.0	8.2%	14,619.5	2.0%	5,398.3	2.3%
June	183,239.7	44.1%	292,928.0	62.7%	130,652.7	17.0%	76,604.4	21.0%	5,583.8	22.8%	8,430.0	11.3%	14,471.1	2.3%	5,385.1	2.5%
July	182,590.8	58.0%	294,152.4	72.5%	130,816.5	23.2%	76,604.4	30.6%	5,583.8	30.1%	8,430.0	16.3%	14,471.1	3.2%	5,398.9	2.4%
August	181,977.5	57.7%	294,152.4	72.8%	131,479.5	22.5%	76,604.4	29.6%	5,715.4	30.4%	8,430.0	15.2%	14,471.1	3.5%	5,398.1	2.5%
Sept	181,977.5	46.1%	294,152.4	64.9%	131,479.5	15.2%	75,568.4	21.6%	5,709.5	22.6%	8,430.0	16.4%	14,471.1	2.0%	5,407.2	1.8%
October	181,492.5	38.3%	294,811.3	52.6%	131,466.5	14.2%	75,568.4	16.4%	5,709.5	20.2%	8,430.0	10.2%	14,471.1	2.1%	5,407.2	2.1%
November	181,492.5	39.4%	294,811.3	54.0%	131,462.5	12.3%	75,568.4	14.2%	5,709.5	18.9%	8,430.0	8.4%	14,471.1	1.2%	5,407.2	2.3%
December	180,810.5	41.7%	295,513.1	59.1%	131,423.5	9.9%	74,741.4	10.8%	5,710.4	17.1%	8,430.0	8.1%	14,471.1	1.3%	5,415.3	1.5%
Year 2024																
January	178,304.4	56.4%	295,113.0	62.7%	131,399.5	14.1%	75,710.6	16.6%	5,817.7	21.1%	8,423.7	10.5%	14,482.6	2.4%	5,416.9	1.8%
February	177,943.3	35.8%	293,365.4	56.1%	131,431.3	10.3%	75,757.0	11.1%	5,847.3	17.5%	8,728.7	8.0%	14,480.6	1.3%	5,429.2	1.9%

William B. McAleb

CEO – Rod Walker & Associates Consultancy
Oil & Gas / Energy Industry Expert

Mr. McAleb brings over 40 years of Oil, Gas, Power & Energy industry and business knowledge and experience. He delivers critical insight to C-suite executives in markets where disruptive technologies create challenges when developing a clear market and implementation strategy.

Throughout the course of his career, he has been responsible for a number of P&Ls… several with revenues in excess of $100M, demonstrating exceptional results. For example, in just over six years, Mr. McAleb had the privilege of leading a subsidiary LLC team to a business revenue growth of 7X, improving on operational efficiency to a 70% Gross Margin level producing an EBITDA of in excess of 40%.

Having a well-seasoned variety of career executive, management and operational experience, Mr. McAleb offers guidance, vision, counsel, interim executive and expert witness services, deep experience and hands-on implementation and management related to operational excellence, financial performance, organizational optimization, process and profitability innovation, structured project finance, opportunity exploitation, business architecture, M&A advisory, business transformation and strategic advisory services.

With the continuing interest and acceptance of machine learning in the Oil, Gas and Petrochemical industry, Mr. McAleb led the penetration of predictive and prescriptive services and analytics into the upstream, midstream, and downstream segments of the Oil & Gas industry, as well as into the Oil Country equipment and product manufacturing and the wind segment of the renewable power industry. The early results of applied machine learning have been extraordinary and continue to exhibit growing accretive benefits for clients.

Mr. McAleb excels in the provision of strategic, technical, economic, financial, and managerial advisory and forensics services to clients engaged in the nexus between hydrocarbon fuels, electric power, transportation, distribution and utility services, hydrocarbon storage enterprises, petroleum midstream, utility and pipelines. He offers counsel related to operational excellence, process/project development, construction and budgeting, financial optimization, structured project finance, M&A activities and business transformation.

Mr. McAleb's career experiences have served to cultivate an ability to develop and implement an organizational vision that integrates key goals, priorities and values, balances change and continuity, while fostering an attractive business/personal life balance among his team. The foundation of his business acumen is to continually strive to improve customer service, deliver quality market offerings and exemplary plan performance; to create a work environment that encourages creative thinking and; the ability to maintain focus, intensity and persistence, even under adversity. Key characteristics of his management philosophy include:

- Exercising leadership and motivating managers to incorporate vision fostering commitment
- Team spirit, pride, trust, and group identity
- Strategic planning and the incorporation of quality management into the full range of an organization's activities
- Encouraging creative thinking and innovation
- Influencing others toward a spirit of commitment to service
- Designing and implementing new and cutting-edge plans, insights and processes that focus on maximizing enterprise value.

720.219.1043
bmcaleb@rwalkerconsultancy.com

Primary expertise	Related experience	Qualifications	Representative Clients
• Transactional / Transitional Advisory • Interim Executive • Strategic / Innovation Advisory • Financial / Operational Forensics & Efficiency • Operations & Organizational Design • Machine Learning & Digital Twins • ML / AI Integrated Operations • Business Rationalization • Commodity Markets • Senior Management Analysis • Infrastructure Reviews	• Capital Project Prioritization & Oversight • Turnaround/ Restructuring Advisory • O&M / OPEX Reviews & Improvement Planning • Efficiency Advisory • Field Development • Expert Witness • Due Diligence • Performance Metrics • Tariffs & Quality Banks • Technical Infrastructure Analysis • Utility Operational Review • Utility Infrastructure	• MBA - Finance A.B. Freeman School of Business Tulane University • ME Petroleum Engineering Tulane University • BS Chemical Process Met. Engineering University of Texas El Paso	• Alinda Capital • ACTIS • KKR • First Reserve • Macquarie • ING Capital • IFM • Morgan Stanley • PEMEX • CFE • Repsol • Repsol-Sinopec • JP Morgan • BP • EQT • Council Utility Regulatory Office of New Orleans

Primary Expertise

Mr. McAleb focuses on advisory activities and is a recognized expert in process/profitability innovation and transformation, infrastructure taxation and royalty, capital project valuation, oversight, prioritization, and evaluation of capital programs and projects, market opportunity exploitation, business development architecture, regulatory policy analysis, transport capacity analytics, forensics and damage calculations, energy prudence determinations and energy/fuel/transport contract development and negotiation. Mr McAleb also has extensive experience relating to process facility, utility infrastructure, system and pipeline design, construction and operations, as well as analysis of economic issues surrounding the entire oil, natural gas, fuels and clean petroleum products (CPP), electric power industry and the LNG marketplace.

Mr.McAleb, as a result of representing entities that span the entire LNG-related value chain (including facility owners and developers, pipelines, marketing firms and market participants, end users and utilities, power generation entities, private equity firms, investors and other financial entities), has an expert foundation and understanding of market function, business understanding, review, analytics, and strategic advisory for clients related to LNG markets, both domestically and internationally. He has provided strategic market analysis, gas portfolio reviews and development, as well as opinions of business value as related to LNG.

Mr. McAleb is also experienced in the development and review of infrastructure replacement programs necessary to address utility and pipeline system upgrades and aging leak prone pipe from his work in industry and consulting associated with due diligence reviews and expert witness work.

His fundamental understanding of key financial metrics, industry revenue drivers, regulatory insight and market direction instincts afford Mr. McAleb the ability to render and deliver innovative, line-of-sight advisory and counsel to his clients. His practice emphasis is delivering actionable advisory services through the development of insightful business models, innovative and exploitive strategies and an in-depth understanding of financial cause and effect metrics related to the oil & gas/energy industry.

Mr. McAleb has sponsored testimony, in a variety of forums, on issues related to operational and decision prudence, energy asset value, royalty issues, infrastructure valuation and operations, business turnaround management, creditor advisory, construction, operational and financial forensics, as well as competitive

restructuring. He is also experienced in the delivery of litigation support in the areas of issue identification, exploitation framing strategies and expert testimony.

Representative Key Engagement & Experience Achievements

Executive Policy and Technical Advisor to the Council Utility Regulatory Office of New Orleans in the regulatory oversight of the provision of utility services by Entergy New Orleans. Provide technical and policy advisory related to gas distribution and transmission system engineering, system planning, modelling, operational design, and major construction oversight of gas utility infrastructure. Additionally responsible for the natural gas procurement oversight and upstream transportation prudency.

Executive Advisor - Repsol… a Spanish global energy company – related to the current and forecasted future supply/demand balance and commodity pricing relative to the global, North American and European market demand for LNG, coupled with the strategic analysis and situational determination of one of the Company's global LNG regasification terminals. The strategic analysis included a forward-looking expectation for the LNG terminal in its existing configuration and the turning around and making the terminal an LNG liquefaction facility servicing other areas of the globe.

Resulting from the Mexican Constitutional change acted as the **Principal Executive Advisor** for the first two preferred funding projects floated as a sale-leaseback of refinery units and offshore infrastructural assets between PEMEX and two separate international private equity firms totalling in excess of $4.8B.

Principal Executive Advisor to **PEMEX** in the in the development and implementation of the PEMEX crude oil pipeline and gathering system Quality Bank – an algorithm-based process and system that divides the value of combined crude oil flow streams into components that properly and accurately recognize the value of various shippers component crude streams introduced into the pipeline.

Executive Advisor to the U.S. State Dept. related to industry operations and financial review and assessment and performance assessment of the natural gas production and processing capabilities and infrastructure condition related to the Ukrainian national gas company in support of underpinning potential US aid to Ukraine.

Interim Executive Vice President, COO and BOD Advisor for Peregrine Midstream Partners, an EQT Infrastructure investment entity, relative to the development, construction, development modification, facilities enhancements, start-up and operation of a highly complex natural gas liquids production, gas pipeline blending facility, system and delivery pipelines and a cryogenic nitrogen rejection unit plant associated with a natural gas reservoir storage facility in south-western Wyoming.

Executive Advisor/Program Executive– Advanced Artificial Intelligence and Machine Learning Application – North Sea Oil Production on behalf of Repsol-Sinopec in the North Sea that resulted an improvement in field production of 20% in the first year, 60% reduction on operational maintenance, 40% reduction in major equipment spares and 40% reduction in lease operating expenses (LOE).

Executive Advisor & Interim Executive Vice President - Construction & Operational on behalf of Arcadia Petroleum- Parnon Energy Trading relative to a 3Mbbl crude oil storage and blending terminal in Cushing, Oklahoma

Executive Transactional Advisor – UIL… a Connecticut utility holding company in its successful entrance into the LDC market by acquiring the assets of a Spanish energy holding company - three separate regional natural gas LDCs - for $1.2B

Executive Advisor & Start-up Executive – Construction, Start-up & Operational on behalf of Gavilon Energy Trading relative to a 5Mbbl crude oil storage and blending facility in Cushing, Oklahoma

Executive Advisor – Advanced Artificial Intelligence and Machine Learning Application – Port Arthur Refinery on behalf of Motiva associated with charge pumps in the primary Hydro-Cracker Unit with accretive reliability and resilience results leading to savings in operational maintenance, reduction in major equipment spares and overall unit uptime.

Executive Advisor/ Program Executive – Advanced Artificial Intelligence and Machine Learning Application – Synthetic Industrial Diamond Production on behalf of DeBeers relative to the improvement in overall manufacturing production and product quality.

Executive Advisor/Program Executive – Project Stage-Gate Application, Training & Implementation – Oil Country Equipment Manufacturing on behalf of Gardner Denver Corporation relative to improvement in decision-making to improve new product development and existing manufacturing production and product quality.

Vice President/General Manager - Llano Pipeline System (a subsidiary of Hadson Petroleum /Hadson Gas Systems) providing both interstate and wheeling services in the Permian Basin. During his tenure as General Manager at Llano, a significant growth program and set of expansion projects were developed and completed. Examples of the projects included expansion of the pipeline network footprint, development of two reservoir gas storage facilities and the design, completion and operation of a natural gas plant that offered gas straddle services to a mainline interstate pipeline, delivered regional fungible pipeline quality gas and extracted natural gas liquids from BTU-uplift gas extracted from the gas storage facilities.

Vice President/Director Gas Supply & Allocation – Hadson Gas Systems. As a member of the trading function and principal system supply officer, he had the responsibility of specifically acquiring and developing large gas supply assets (gas plants, gathering systems, pipelines) and providing executive level support of the trading function relative to optimal allocation of gas supply to the most efficient market.

Additional Expert and Industry Experience

Primary Expert Witness on behalf of the City of New Orleans relative to the provision of expert analysis, prudency analysis, and offering of testimony related to the analysis of overall gas utility system operations and prudent procurement of natural gas volumes necessary to serve the demand of ratepayers.

Primary Expert Witness in the provision of financial, operational performance and economic analysis, damage claim valuation, litigation support and issue framing services and negotiation analysis and support related to a $350MM contract dispute arising between a chemical production company (Solutia) and an independent power producer resulting a successful settlement of financial issues.

Expert Witness relative to the support of the Alaska Department of Revenue's finding of Trans Alaskan Pipeline's value as it relates to tax issues in the 2006-2010 State Assessment Review Board's administrative hearings

Expert Witness on behalf of the City of New Orleans relative to the provision of expert analysis, acquisition prudency analysis and damage calculation to the captive ratepayers of Entergy New Orleans and their corporate parent Entergy Corporation, as it relates to the prudency of natural gas acquisition and natural gas transportation practices.

Executive Lead Advisor related to the M&A due diligence and transaction support in the acquisition of a Southern Star Interstate Pipeline System by an infrastructure fund client

Principal Executive In-Charge of a Program Management Office focused on expansion, remediation and repair of the utility distribution infrastructure associated with multi-state gas utility (LDC) holding company

Lead Advisor representing equity investment fund in the review, due diligence, and acquisition of a $2.1B US Gulf Coast crude and petroleum product terminal facility

Expert Witness representing a large Houston refinery's loss of revenue damage calculation (utilizing a sophisticated linear program (LP) operations and process models, detailed operational strategies, and in-depth schedule/actual analysis)

Lead Expert - Technical/Operational Value Assessment and Capacity Valuation of a South Louisiana LNG Regasification Facility located in Cameron Parish, Louisiana supporting a capacity rights financial transaction for an international natural gas trading desk of an international investment bank.