



Maryland

Department of the Environment

Wes Moore, Governor
Aruna Miller, Lt. Governor

Serena McIlwain, Secretary
Suzanne E. Dorsey, Deputy Secretary
Adam Ortiz, Deputy Secretary

March 6, 2025

Eastern Shore Natural Gas Company
500 Energy Lane, Suite 200
Dover, DE 19901
Attn: Mark Parker, P.E.
Via email: maparker@esng.com

Re: Agency Interest Number: 179565
Tracking Number: 202361372
Water Quality Certification Number: 24-WQC-0038

Dear Mr. Bishop:

After examination and consideration of the documents received and evidence in the file and record for the Salisbury Integrity Project, the Water and Science Administration has determined that the project meets the statutory and regulatory criteria necessary to grant with conditions an individual Water Quality Certification (WQC).

The individual WQC for this project issued by the Maryland Department of the Environment (Department) is attached. Please read and review the WQC for this project to ensure that you understand the limits of the certified project and all of the special and general conditions. The attached WQC is a final agency decision. Any person aggrieved by the Department's decision to issue this WQC may appeal such a decision in accordance with COMAR 26.08.02.10F(4). A request for appeal shall be filed with the Department within 30 days of publication of the final decision in the Maryland Register and specify in writing the reason why the final decision should be reconsidered. A request for appeal shall be submitted to: Secretary of the Environment, Maryland Department of the Environment, 1800 Washington Boulevard, Baltimore, MD 21230. Any request for an appeal does not stay the effectiveness of this WQC.

You should not begin any work until you have obtained all necessary State, local, and federal authorizations. Please do not hesitate to contact me at danielle.spendiff1@maryland.gov or 410-537-4023 with any questions.

Sincerely,

Danielle A. Spendiff, Chief
Regulatory and Customer Service Division



STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
WATER AND SCIENCE ADMINISTRATION



WATER QUALITY CERTIFICATION
24-WQC-0038

EFFECTIVE DATE: **March 6, 2025**

CERTIFICATION HOLDER: **Eastern Shore Natural Gas Company
500 Energy Lane,
Suite 200
Dover, DE 19901
Attn: Mr. Mark Parker**

PROJECT LOCATION: **(38.41060, -75.58278)
Salisbury, MD
(Wicomico County, Maryland)**

UNDER AUTHORITY OF SECTION 401 OF THE FEDERAL WATER POLLUTION CONTROL ACT AND ITS AMENDMENTS AND IN ACCORDANCE WITH §9-313 THROUGH §9-323, INCLUSIVE, OF THE ENVIRONMENT ARTICLE, ANNOTATED CODE OF MARYLAND, THE WATER AND SCIENCE ADMINISTRATION (“ADMINISTRATION”) HAS DETERMINED THAT THE REGULATED ACTIVITY DESCRIBED IN THE REQUEST FOR CERTIFICATION FOR EASTERN SHORE NATURAL GAS COMPANY, WORCESTER RESILIENCY UPGRADE - SALISBURY INTEGRITY PROJECT, WILL NOT VIOLATE MARYLAND’S WATER QUALITY STANDARDS, IF CONDUCTED IN ACCORDANCE WITH THE CONDITIONS OF THIS CERTIFICATION AND WITH ALL TERMS AND CONDITIONS OF THIS CERTIFICATION.

THIS CERTIFICATION DOES NOT RELIEVE THE APPLICANT OF RESPONSIBILITY FOR OBTAINING ANY OTHER APPROVALS, LICENSES, OR PERMITS IN ACCORDANCE WITH FEDERAL, STATE, OR LOCAL REQUIREMENTS AND DOES NOT AUTHORIZE COMMENCEMENT OF THE PROPOSED PROJECT. A COPY OF THIS REQUIRED CERTIFICATION HAS BEEN SENT TO THE FEDERAL ENERGY REGULATORY COMMISSION (FERC). THE CERTIFICATION HOLDER SHALL COMPLY WITH THE CONDITIONS LISTED BELOW:

PROJECT DESCRIPTION

The Eastern Shore Natural Gas Company (ESNG) proposes to construct approximately 5.5 miles of 10-inch pipeline looping along the eastern side of US- I 3 from the end of an existing pipeline approximately 790 feet south of Foskey Lane and extending southward along US-13, Connelly Mill Road, and eventually the Norfolk Southern Railroad in the Salisbury area of Wicomico County, Maryland. This project, the Salisbury Integrity Project, will use Horizontal Directional

Drilling (HDD) to install the proposed natural gas pipeline. The project will use HDD to cross Leonard Pond Run, Wood Creek, Brewington Branch, Peggy Branch, and adjacent nontidal wetlands draining to the Wicomico River watershed, a Use I waterway.

The Administration satisfied statutory and regulatory public notice requirements by placing this Certification on Public Notice from October 1, 2024 to November 15, 2024 on the Maryland Department of the Environment's Public Notice webpage. A virtual public informational hearing was held on the evening of November 7, 2024.

This Water Quality Certification (Certification) is issued under authority of Section 401 of the Federal Water Pollution Control Act and its Amendments, Title 9, Subtitle 3 of the Environment Article, and Code of Maryland Regulations (COMAR) 26.08.02.10. The Maryland Department of the Environment (Department) has determined from a review of the request application file that the project activities described above will not violate Maryland's water quality standards, provided that the following conditions are satisfied.

The Certification Holder shall comply with the following conditions:

SPECIAL CONDITIONS

1. To minimize potential impacts to spawning fish from a potential frac-out of drilling fluids, no HDD crossings of waterways should be performed during the period 1 March through 15 June of any year.
2. Prior to hydrostatic testing of the utility line, the Certification Holder must provide the Department's Water and Science Administration, Compliance Program, with specific information relative to the source of test water and the manner and location in which the water will be disposed of. If the source or waste location of the water involves other than municipal water and sewer systems, the Department must approve the plan prior to line testing.
3. Comply with the terms of the frac-out plan dated January 2, 2025 approved by the Department, included as attachment to this Certification. The Certification Holder shall monitor for any inadvertent releases along the path of the HDD and under all streams, wetlands, or water bodies.
4. The Certification Holder shall take all measures to ensure that no inadvertent releases (frac-outs) enter wetlands or waterways. If a frac-out occurs in or enters wetlands, the 25-foot buffer of wetlands, waterways or the 100-year floodplain, HDD operations must cease immediately. The Certification Holder shall contact the Department's Water and Science Administration Compliance Inspector within twenty-four (24) hours of the inadvertent return and document that the HDD Contingency Plan was implemented. The Certification Holder shall coordinate with the drilling contractor until the problem is corrected. Drilling can resume only when the frac-out has been contained and cleanup completed.
 - a) Water and Science Administration Compliance: 410-901-4020 (business hours)
 - b) Water and Science Administration Compliance: 410-517-3600 (evenings, weekends and holidays)
5. The Certification Holder shall perform all work in a manner that prevents damage or degradation to any wells during construction. Additionally, for wells located

within 150 feet of HDD operations or locations, the Certification Holder shall offer to conduct pre- and post-construction monitoring of well yield and water quality with the landowner's permission. Records of such monitoring shall be kept on file by the Certification Holder and submitted to the WSA Compliance Program within one business day of a request for records.

Upon receiving a complaint of an impacted water supply, the Certification Holder shall notify the Administration within 24 hours and immediately begin a preliminary investigation to determine if their actions are responsible.

Within 10 days of receiving a complaint, the Certification Holder shall provide the Administration with a written report on the investigation findings and any corrective actions, including completion milestones. If the complaint involves an increase in turbidity in the water supply, the Certification Holder shall have a State-certified water sampler collect a water quality sample from the affected water supply and have the sample analyzed by a State-certified laboratory.

6. If any well is damaged or degraded during the work performed under this Certification, the Certification Holder shall be responsible for all expenses associated with investigating a complaint, the repair or replacement of the affected well and, at a minimum, provide a temporary water supply to the impacted landowner(s) until the repair or replacement is complete. This condition shall not be construed to limit any authority of the Department to issue any order or to take any action it deems necessary to protect public health or the environment, or to limit any authority the Department now has or may hereafter be delegated.
7. Seal each abandoned drill hole with bentonite or other approved material upon withdrawing the drill stem. The Certification Holder shall submit an abandonment report to the Department's Water and Science Administration Compliance Inspector within 48 hours after sealing is complete.
8. The drilling fluid used in HDD operations shall consist of water and bentonite clay. No additives are permitted without prior approval from the Administration. The Certification Holder may submit for pre-approval a list of thickening additives to be stored on site in order to prevent delays in the drilling operation. Any additive must be certified in conformance with ANSI/NSF Standard 60 (Drinking Water Treatment Chemicals - Health Effects) and used in the manner indicated in the certification of the additive.

GENERAL CONDITIONS

1. Avoid placing structures or conducting activities that entangle or interfere with the movement of aquatic life, fish, or other wildlife.
2. Implement and comply with all final approved plans, permits, and modifications that are approved by the State. The approved plans, permits and modifications by the Department are incorporated by reference into this Certification.
3. Meet the requirements in Annotated Code of Maryland, Environment Article, Title 4 and COMAR 26.17.01, including obtaining and complying with an approved erosion and sediment control plan, and following the stabilization requirements set forth in COMAR 26.17.01.07 and the "2011 Maryland Standards and

Specifications for Soil Erosion and Sediment Control (2011 Standards)” as amended.

4. Limit any disturbance of the substrate to the authorized area and prevent sediment transport into adjacent State waters.
5. Remove and dispose of all unused fill and construction materials in a manner which will prevent their entry into waters of this State.
6. Avoid placing stockpiles of any material in Waters of the U.S. or waters of the state, unless otherwise authorized by the approving authority.
7. Obtain any other authorizations or approvals that the Department requires, including General Permits, and comply with all conditions of such authorizations or approvals.
8. Obtain any required authorizations or approvals from other State, federal, or local agencies.
9. Refrain from causing any injury to private property, invasion of rights, or infringement of federal, State, or local laws or regulations.
10. Inspection and entry. The Certification Holder shall allow the Department, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the Certification Holder's premises where a certified activity or operation is located or conducted, or where records must be kept under the conditions of this Certification;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring compliance or as otherwise authorized by the Department, any substances or parameters at any location.
 - e. Allow the Department’s authorized representatives access to the Project during normal business hours to conduct inspections and evaluations of operations and records to verify compliance with this Certification.
11. This Certification is valid only for the Salisbury Integrity Project identified herein and the associated FERC approval.

STATEMENTS OF NECESSITY AND CITATIONS

1. Statement of Necessity for Special Condition 1: Restrictions on the timing of instream construction protects designated uses for propagation and growth of fish, other aquatic life, and wildlife.

Citations: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.03-3; and COMAR 26.23.02.06.

2. Statement of Necessity for Special Conditions 2-7: Unauthorized discharges may enter regulated waters as result of activity or structural failure. The condition is necessary to

ensure that water quality standards are met under unique circumstances for inadvertent discharges and that designated uses of waters are maintained and water quality standards are met. Releases of significant amounts of sediment can impact aquatic environments and if unchecked can alter them to an uninhabitable state and violate numeric standards for turbidity and interfere with designated uses for growth and propagation of fish, other aquatic life, and wildlife.

Citations: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 & 4; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.10G(3); COMAR 26.17.04; COMAR 26.23; COMAR 26.24; COMAR 26.23.02.06, COMAR 26.08, COMAR 26.08.02.10E; COMAR 26.08.02.09C(3); COMAR 26.08.02.03B(1)(b); COMAR 26.08.02.03B(2); COMAR 26.08.02.03-3; COMAR 26.08.02.02B(2); COMAR 26.08.02.02B(4); COMAR 26.08.02.02B(6); COMAR 26.08.02.02B(8); 26.08.02.03-3A(5).

3. Statement of Necessity for Special Condition 5-8: This condition is necessary to prevent inadvertent discharges that may affect quality of drinking water from groundwater sources.

Citation: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.09; COMAR 26.08.02.03-3; and COMAR 26.23.02.06.

4. Statement of Necessity for Special Condition 6: This condition is necessary to ensure that project discharges do not affect the quality of drinking water from groundwater sources, degrade water quality in ways that would jeopardize human health or the environment, or interfere with designated uses for the growth and propagation of fish, other aquatic life, and wildlife.

Citation: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.08.02.09; COMAR 26.08.02.03-3; and COMAR 26.23.02.06.

5. Statement of Necessity for Special Condition 8 and General Conditions 1, 2, 4: The condition is necessary to ensure that water quality standards are met and designated uses are maintained.

Citations: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env.

Article, Title 16; COMAR 26.08; COMAR 26.08.02.10G(3); COMAR 26.23.02.06; COMAR 26.17.01; COMAR 26.23; COMAR 26.24

6. Statement of Necessity for General Condition 3: Erosion and sediment control plans are necessary to ensure that sediment discharges from construction activities will not enter waters of the United States. Sediment discharges from earth disturbance or discharges at erosive rates within or adjacent to regulated resources may cause discharges resulting in turbidity in excess of water quality standards and interfere with designated uses of growth and propagation of fish, other aquatic life, wildlife; and other designated uses; and fail to meet general water quality criteria that waters not be polluted by substances in amounts sufficient to be unsightly or create a nuisance; and numeric standards for turbidity.

Citation: Env. Article, Title 4, Subtitle 1 COMAR 26.17.01; 26.08.02.03B(1)-B(2); COMAR 26.08.02.03-3A(5).

7. Statement of Necessity for General Conditions 4, 5, 6: Fill or construction material within or adjacent to regulated resources may cause discharges resulting in turbidity in excess of water quality standards and interfere with designated uses of growth and propagation of fish, other aquatic life, wildlife; and other designated uses; and fail to meet general water quality criteria that waters not be polluted by substances in amounts sufficient to be unsightly or create a nuisance.

Citation: 26.08.02.03B(1)-B(2); COMAR 26.23; COMAR 26.24; COMAR 26.17.04

8. Statement of Necessity for General Conditions 7, 8, 9: These conditions are necessary to clarify the scope of this certification to ensure compliance with water quality standards and regulations, without limiting restrictions through other requirements that also affect water quality.

Citations: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08, COMAR 26.08.02.10E; COMAR 26.23.02.06; COMAR 26.17.04; COMAR 26.23; COMAR 26.24

9. Statement of Necessity for General Condition 10: Conditions of certification involve precise actions to comply with water quality standards. Site inspection may be necessary to ensure that limits, methods, and other requirements are met to ensure that water quality standards are met and designated uses are maintained.

Citation: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.23.02.06; COMAR 26.23; COMAR 26.24; COMAR 26.17.04

10. Statement of Necessity for General Condition 11: This condition is necessary to qualify the physical scope of this project under the terms and conditions of this Certification and to be protective of Maryland water quality standards.

Citations: 33 U.S.C. § 1341(a), (b), & (d); 33 U.S.C. § 1251(b); 33 U.S.C. § 1370; 40 C.F.R. 121, 15 C.F.R. 930, Md. Ann. Code, Env. Article, Title 1, Subtitles 3 and 4; Md. Ann. Code, Env. Article, Title 5, Subtitles 5 and 9; Md. Ann. Code, Env. Article, Title 9, Subtitle 3; Md. Ann. Code, Env. Article, Title 16; COMAR 26.08; COMAR 26.17.04; COMAR 26.23; COMAR 26.24

This Certification is valid for the Project identified herein and the associated federal permit or license until such time that it expires. Failure to comply with these conditions may subject the Certification Holder to criminal and/or civil penalties or other enforcement action in accordance with applicable law.

CERTIFICATION APPROVED:



D. Lee Currey, Director
Water and Science Administration

Tracking Number: 202361372
Agency Interest Number: 179565

Effective Date: March 6, 2025

Enclosures: Frac Out Contingency Plan (1/2/2025), Plan Sheets 1 through 36 (11/7/2024)

cc: WSA Inspection & Compliance Program

**EASTERN SHORE NATURAL GAS
HORIZONTAL DIRECTIONAL DRILLING
INADVERTENT SURFACE RELEASE CONTINGENCY PLAN
SALISBURY INTEGRITY PROJECT - REVISED 1/2/2025**

Purpose and Objective

The purpose of this Horizontal Directional Drilling Inadvertent Surface Release Contingency Plan (Contingency Plan) is to identify procedures to be followed in the event of an inadvertent surface release of drilling fluids during horizontal directional drilling (HDD) operations. An inadvertent surface release (also sometimes referred to as an “inadvertent surface return” or “frac-out”) is a condition in which drilling mud used in HDD operations is released through fractures in the soil and migrates toward the surface. Drilling mud consists mainly of a bentonite clay-water mixture, which is not considered to be hazardous or toxic. The company’s objective in adopting this plan is to minimize the potential of a surface release and identify response measures in the event that a surface release occurs, in order to mitigate any potential adverse impact to water bodies and associated habitats. Escape of drilling mud from a surface release is most common near the HDD entry and exit locations; however, surface releases can occur at any location along a directional drill.

This Contingency Plan provides operational procedures and responsibilities for the prevention, containment, and cleanup of surface releases associated with HDD operations.

The objectives of this plan are as follows:

- Minimize the potential for a surface release due to HDD operations.
- Identification and timely detection of surface releases.
- Provide for environmental protection of the water bodies and associated habitats.
- Establish response procedures in the event of a surface release.
- Provide for notifications to the applicable parties and regulatory agencies.

Scope of Work for HDD Crossings

The pipeline plan and profile drawings show the targeted entry and exit locations for each proposed HDD. These layouts have been designed to minimize the potential for impact to water bodies. The significant clearance between the bottom of the water bodies/wetlands and the top of the proposed pipeline provides additional protection for the water bodies. Specifically, a minimum clearance of 2 feet will be maintained between the top of the proposed pipeline and the nontidal streambed.

Potential Impacts to Biological Resources

The release of drilling mud during an inadvertent surface release may occur in either upland or aquatic environments. Releases occurring in upland areas can generally be contained relatively quickly, and with minimal difficulty, and therefore typically result in minor impacts to the surrounding environment. Releases occurring in aquatic environments may be more difficult to contain, because bentonite readily disperses in water, and may settle on the bottom quickly, depending on water flow. Although bentonite is non-toxic, it may have several indirect effects on aquatic life. Initially following a surface release, suspended bentonite may inhibit the respiration of fishes. This effect is typically of a short duration. Longer term effects may occur once the bentonite settles. One possible longer-term effect is egg masses of fish being covered by a layer of bentonite, thereby inhibiting the flow of dissolved oxygen to the egg masses. Another possible longer-term effect of a surface release is benthonic invertebrates and the larval stages of pelagic organisms becoming covered by the bentonite and suffocating.

Equipment

The following equipment is proposed to be used during HDD operations:

- Horizontal Directional Drill rig;
- Ancillary tractor trailers associated with the Drill rig;
- Drilling mud reclaimer;
- Multiple water tankers;
- Multiple vacuum trucks and trailers;
- Multiple construction pickup trucks;
- Multiple boom trucks; and a
- Small office trailer

On-Site Monitoring

During HDD operations, visual inspection along the bore path of the alignment will take place. Where the alignment crosses flowing water, trained inspection personnel will be placed approximately 50 feet upstream and downstream of the alignment crossing, access permitting. The names and phone numbers of inspection personnel will be provided to on-site regulatory representatives. During the duration of HDD operations, the contractor will provide the following information to the other inspection personnel.

- Position of the drilling head relative to the drilling point of entry;
- A comparison of the estimated total volume of drilling mud that has been pumped throughout the HDD operation and the estimated current total volume of returns;
- Equipment malfunctions and/or repairs;
- Abnormal changes in drilling mud pressure at the time of occurrence; and
- Changes in drilling mud mixture or contents.

Surface Release Mitigation Measures

- Applicable regulatory agencies will be contacted as required. Prior to construction, a complete list of applicable regulatory agencies will be prepared and available at the job site.

Included on this list of contact agencies will be Maryland Department of the Environment's Eastern Region Office (410) 901-4020

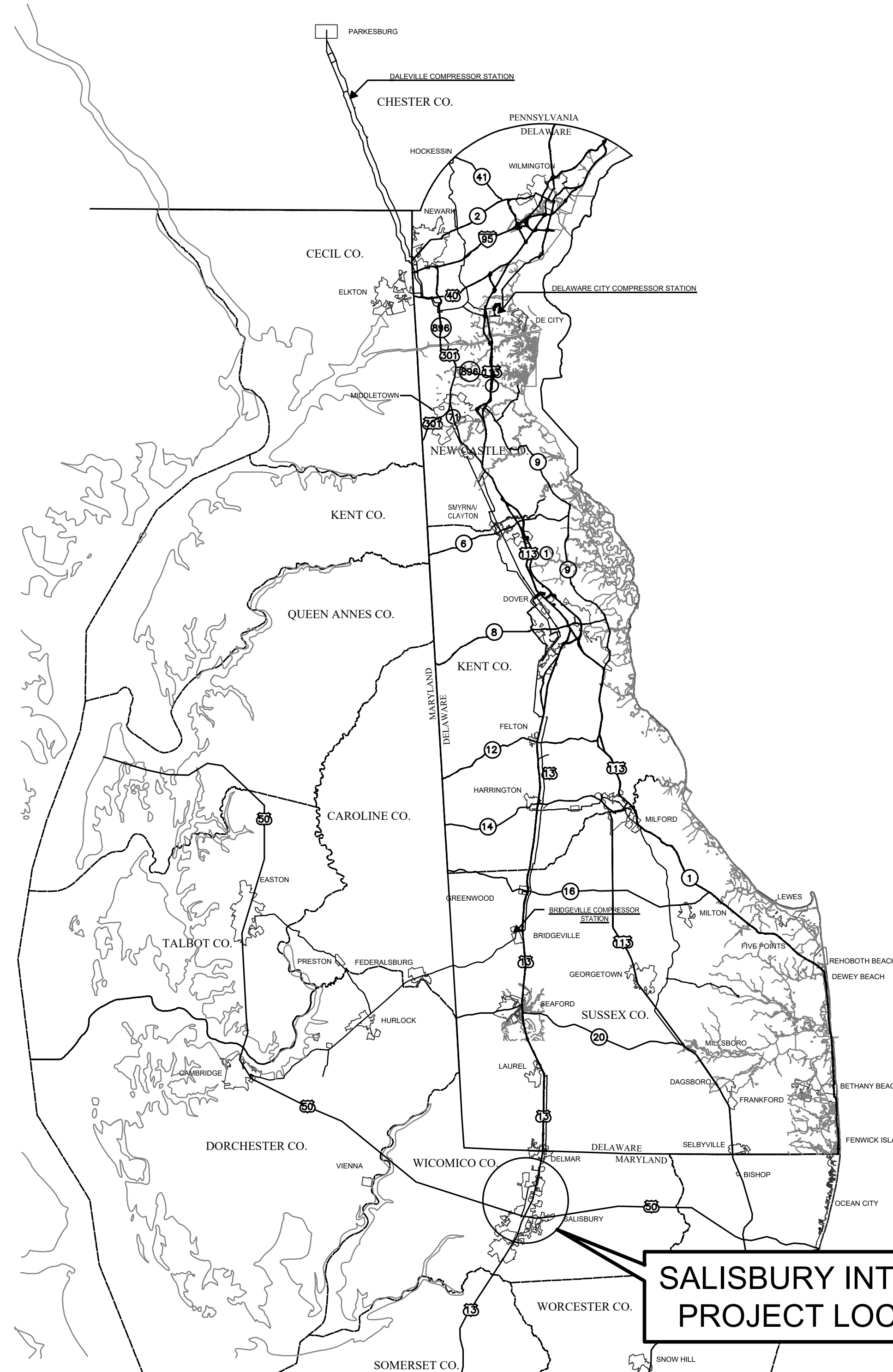
- All equipment will be checked and maintained daily to prevent hazardous material leaks.
- Sufficient supplies of spill containment materials and hay bales will be available on-site at all times. A vacuum truck will also be available at all times.
- A supply of empty barrels will be located on-site at all times.
- Entry and exit drill pits will be contained using berms, silt fence and/or hay bales.
- Tracing dye will be added to the drilling mud to help identify surface releases in waterbodies and wetlands.
- Visual observation (on-land and water bodies) will occur on a regular basis throughout HDD operations so that a potential surface release can be identified.
- The contractor will adjust the thickness of the drilling mud mixture to match the substrate conditions, and will monitor drilling mud pressures and penetration rates, in order to ensure optimal fluid pressure to penetrate the substrate.
- HDD operations will be suspended immediately upon evidence of a drop in drilling pressure, a sudden loss of approximately 75 percent of returns at the entrance pit, or other evidence of a surface release.
- In the event of a surface release, the bore stem will be pulled back to relieve pressure at the leak location, and the on-site inspection personnel will evaluate the situation and provide direction for mitigation actions.
- Cleanup of all surface releases/spills shall begin immediately.
- In the event of a surface release that does not reach a water body or wetland, bentonite shall be contained, removed and disposed at an approved facility.
- In the unlikely event that a surface release reaches a water body or wetland, corrective action will be taken immediately. Clean-up work will be performed by hand to the extent possible. A vacuum truck would be used to vacuum up the associated bentonite and soils as necessary. The materials will be properly disposed at an approved facility. Clean sand would be replaced in the riverbed if necessary.
- All cleanup materials will be disposed on a daily basis as applicable, and at the completion of the project.
- In the event that a drill hole must be abandoned, the bore will be sealed by the injection of a high-viscosity bentonite slurry.
- Documentation will be prepared for any surface releases that occur during HDD operations.

EASTERN SHORE NATURAL GAS COMPANY SALISBURY INTEGRITY

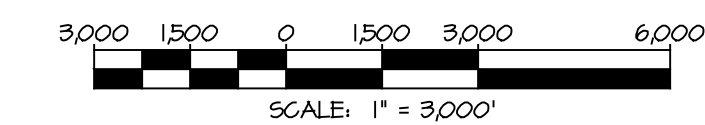
PROPOSED 5.5± MILES OF 10" NATURAL GAS PIPELINE WICOMICO COUNTY, MARYLAND

DRAWING INDEX

SHEET	TITLE
1	COVER SHEET
2 & 3	EROSION & SEDIMENT CONTROL GENERAL NOTES
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SALISBURY INTEGRITY
PROJECT LOCATION



SALISBURY INTEGRITY
PROJECT LOCATION

COVER SHEET

REVISIONS			
NO.	DATE	DESCRIPTION	BY

MRA
MORRIS & RITCHIE ASSOCIATES, INC.
 ENGINEERS, PLANNERS, SURVEYORS AND
 LANDSCAPE ARCHITECTS
 111 RUTHAR DRIVE
 NEWARK, DE 19711
 (302) 326-2200
 MRAGTA.COM
 © 2024 MORRIS & RITCHIE ASSOCIATES, INC.

EASTERN SHORE
 NATURAL GAS
 500 ENERGY LANE, SUITE 200 DOVER, DE 19901
 TELEPHONE (302) 734-6710 - FAX (302) 734-6745

10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD			
ESNG PROJ. CODE:	DATE:	11/7/2024	
MRA PROJECT NO:	SCALE:	AS SHOWN	
DESIGN/CHECK BY:	JTH/CWB	SHEET:	1 OF 36

STANDARD EROSION AND SEDIMENT CONTROL NOTES

- THE CONTRACTOR SHALL NOTIFY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) SEDIMENT CONTROL INSPECTOR AT 410-401-4020 AND WICOMICO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) AT 410-548-4872 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY LAND DISTURBING ACTIVITIES AND, UNLESS WAIVED BY THE SEDIMENT CONTROL INSPECTOR, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING AT THE PROJECT SITE. THE CONTRACTOR MUST PROVIDE THE NAME OF THE PERSON ON THE SITE WHO IS RESPONSIBLE FOR INSPECTION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES AND A COPY OF THEIR GREEN CARD TO THE SEDIMENT CONTROL INSPECTOR.
- ALL PROJECTS WITH CONSTRUCTION ACTIVITIES DISTURBING 1 ACRE OR MORE ARE REQUIRED TO SUBMIT A GENERAL PERMIT (NOI) TO MDE TO COMPLY WITH THE GENERAL PERMIT FOR CONSTRUCTION ACTIVITY FOR STORMWATER DISCHARGES. THE GENERAL PERMIT (NOI) MUST BE APPROVED PRIOR TO DISTURBANCE ACTIVITIES. TO OBTAIN A GENERAL PERMIT (NOI) FORM, CONTACT THE PERMITS COORDINATOR AT THE MDE COMPLIANCE PROGRAM AT 410-587-3510.
- THE LIMIT OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO THE PRE-CONSTRUCTION MEETING AND ANY GRADING ACTIVITIES TO ENSURE COMPLIANCE WITH THE APPROVED PLAN.
- THE APPROVED EROSION AND SEDIMENT CONTROL PLAN MUST BE KEPT AT THE PROJECT SITE.
- THE WICOMICO SOIL CONSERVATION DISTRICT (WISCD) RESERVES THE RIGHT TO MODIFY THE EROSION AND SEDIMENT CONTROL PLANS.
- THE WISCD MAY REVOKE THE APPROVAL OF THE EROSION AND SEDIMENT CONTROL PLAN IF WORK PERFORMED AT THE PROJECT SITE DOES NOT CONFORM TO THE PROVISIONS OF THE GRADING PERMIT, TO THE APPROVED PLAN OR TO ANY WRITTEN INSTRUCTIONS FROM MDE, WICOMICO COUNTY DPW OR THE WISCD.
- THE CONTRACTOR MUST REQUEST THAT THE SEDIMENT CONTROL INSPECTOR APPROVE WORK COMPLETED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, THE GRADING OR BUILDING PERMIT AND THE WICOMICO COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE AT THE FOLLOWING POINTS OF PROJECT DEVELOPMENT:
 - UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL MEASURES BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY MDE IS MADE.
 - PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURES.
 - UPON FINAL STABILIZATION OF THE SITE AND PRIOR TO THE REMOVAL OF ANY SEDIMENT CONTROL MEASURES.
- THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE SEDIMENT CONTROL INSPECTOR PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES.
- THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT PRIOR PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.
- THE FOLLOWING MINOR PLAN MODIFICATIONS MAY BE APPROVED BY THE SEDIMENT CONTROL INSPECTOR IN THE FIELD:
 - SEDIMENT CONTROL STRUCTURES (EXCEPT BASINS AND TRAPS) MAY BE MOVED TO MEET THE EXISTING CONTOURS AND FIELD CONDITIONS, WHEN MOVING THESE STRUCTURES WOULD HAVE NO IMPACT ON THEIR FUNCTION OR DESIGN CRITERIA. SUBSTITUTION OF PERIMETER CONTROL MEASURES MAY BE MADE PROVIDED THE MEASURE SUBSTITUTED IS EQUIVALENT (I.E., SILT FENCE FOR STRAW BALES) OR IS AN UPGRADE OF THE ORIGINAL MEASURE (I.E., SILT FENCE TO A PERIMETER BERM WITH PROPERLY SIZED OUTLET).
 - ADDITION AND EXTENSION OF PERIMETER CONTROLS (INCLUDING STONE CONSTRUCTION ENTRANCES) MAY BE MADE TO MEET FIELD CONDITIONS. ANY MODIFICATIONS TO THE PLAN WHICH ARE NOT LISTED ABOVE REQUIRE THE PLAN TO BE SUBMITTED TO THE WISCD FOR REVIEW AND APPROVAL.
- THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC ROADS. ALL MATERIALS DEPOSITED ONTO PUBLIC ROADS SHALL BE REMOVED IMMEDIATELY.
- ON-SITE TEMPORARY STOCKPILE AREAS MUST BE PLACED AS SHOWN ON THE APPROVED PLAN. IF THE CONSTRUCTION SCHEDULE IS TO EXCEED 3 DAYS, THE STOCKPILE AREAS MUST BE STABILIZED. STOCKPILE AREAS SHOULD NOT EXCEED FIFTEEN FEET IN HEIGHT. IF A STOCKPILE IS TO EXCEED FIFTEEN FEET IN HEIGHT, IT MUST BE SHOWN ON THE PLAN TO BE TERRACED WITH PIPE SLOPE DRAINS INSTALLED AND APPROVED BY WISCD. UPON THE COMPLETION OF THE USE OF THE STOCKPILE AREA, EXISTING GROUND SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS AND PERMANENTLY STABILIZED.
- VARIOUS STEPS IN THE SEQUENCE OF CONSTRUCTION MAY REQUIRE THE CONTRACTOR TO REMOVE EXCESS EXCAVATED MATERIAL TO AN APPROVED LOCATION OR TO IMPORT MATERIAL FROM AN APPROVED LOCATION. FOR PURPOSES OF THIS PLAN, AN APPROVED LOCATION SHALL BE ONE WHICH IS OPERATING UNDER AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AND AN ACTIVE GRADING PERMIT AT THE TIME OF CONSTRUCTION.
- THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIME AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES EQUAL TO OR GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1).
 - SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THE ABOVE REQUIREMENTS DO NOT APPLY TO THOSE AREAS WHICH ARE SHOWN ON THE PLAN AND ARE CURRENTLY BEING USED FOR MATERIAL STORAGE OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED OR TO INTERIOR AREAS OF A SURFACE MINE SITE WHERE THE STABILIZATION MATERIAL WOULD CONTAMINATE THE RECOVERABLE RESOURCE. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT THE STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL THE ENTIRE CONTRIBUTING AREA TO THE PRACTICE HAS BEEN PERMANENTLY STABILIZED AND MEETS THE SATISFACTION OF THE SEDIMENT CONTROL INSPECTOR. SEDIMENT CONTROLS MAY ONLY BE REMOVED WITH THE AUTHORIZATION OF THE SEDIMENT CONTROL INSPECTOR.
- ALL AREAS DISTURBED BY THE REMOVAL OF SEDIMENT CONTROL DEVICES MUST BE IMMEDIATELY STABILIZED.
- SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING PROTECTIVE DEVICES TO CONVEY THE WATER DOWNSLOPE WITHOUT CAUSING EROSION. DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF CUT OR FILL SLOPES UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THE DIKES MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. EROSION CONTROL MEASURES MUST BE IMPLEMENTED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
- NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NON-MAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLANS WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATION STABILIZATION.
- ALL FLOW LINES ARE TO BE STABILIZED WITH SOD OR SEED WITH EROSION CONTROL MATTING TO A DEPTH OF FLOW OF 1 FOOT.
- SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A FOUNDATION WHICH IS EXISTING OR UNDER CONSTRUCTION. NO STRUCTURE MAY BE CONSTRUCTED WITHIN 20 FEET OF AN ACTIVE SEDIMENT TRAP OR BASIN.
- TEMPORARY SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE CLEANED OUT AND RESTORED TO THE ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO ONE HALF (1/2) THE NET STORAGE DEPTH OF THE TRAP OR BASIN.
- SEDIMENT REMOVED FROM TRAPS (AND BASINS) SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR FOREST RETENTION AREA. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE.
- FOR APPROVED DEWATERING STRATEGIES FOR TRAPS AND BASINS, SEE SECTION F OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. PUMPING SEDIMENT LADEN WATER INTO THE WATERS OF THE STATE WITHOUT FILTRATION IS STRICTLY FORBIDDEN.
- SEDIMENT CONTROL DEVICES PLACED IN INFILTRATION AREAS MUST HAVE BOTTOM ELEVATIONS AT LEAST TWO (2) FEET HIGHER THAN THE FINISHED GRADE ELEVATION OF THE INFILTRATION PRACTICE. WHEN CONVERTING A SEDIMENT TRAP TO AN INFILTRATION DEVICE, ALL ACCUMULATED SEDIMENT MUST BE REMOVED AND DISPOSED OF PRIOR TO FINAL GRADING OF INFILTRATION DEVICE.
- THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO ANY CONSTRUCTION ACTIVITIES. FURTHER, THE ISSUANCE OF A GRADING PERMIT DOES NOT RELIEVE THE DEVELOPER OF THE RESPONSIBILITY TO OBTAIN ANY ADDITIONAL LOCAL, STATE OR FEDERAL PERMITS.
- ALL STABILIZATION OF SLOPES 3:1 OR GREATER AS WELL AS ANY FLOW CHANNELS MUST BE STABILIZED WITH EROSION CONTROL MATTING UNLESS OTHERWISE NOTED.

REQUIREMENTS FOR EMERGENCY RESPONSE PLANNING & WORK SITE FIRE PROTECTION

- EMERGENCY RESPONSE
 - CONTRACTORS MUST:
 - KNOW THE STREET ADDRESS OR WORK OR OTHER IDENTIFIABLE POINT OF REFERENCE FOR THE WORK SITE.
 - KNOW THE CONTACT PROCEDURES OR THE NEAREST EMERGENCY SERVICE DEPARTMENT SERVING THE WORK SITE.
 - HAVE A WORKING MEANS OF MAKING CONTACT WITH EMERGENCY SERVICES READILY AVAILABLE ON-SITE.
 - ESTABLISH A CLEAR EMERGENCY ALARM/SIGNAL FOR WORKERS AT THE WORK SITE, IDENTIFY A PLANNED EVACUATION ROUTE, AND A DESIGNATED A REASSEMBLY POINT.
- FIRE EXTINGUISHERS
 - CONTRACTORS MUST:
 - HAVE THE APPROPRIATE TYPE OF DEVICE AVAILABLE ON-SITE FOR THE TYPE WORK BEING PERFORMED.
 - HAVE AN APPROPRIATE NUMBER OF DEVICES AVAILABLE FOR THE VOLUME OF WORK BEING PERFORMED.
 - ENSURE WORKERS KNOW WHERE THE NEAREST FIRE EXTINGUISHER IS LOCATED, HOW TO OPERATE IT, AND WHAT TYPE OF FIRE ON WHICH IT SHOULD BE USED.
- COMBUSTIBLES
 - COMBUSTIBLE MATERIAL UNDER OR NEAR WELDING, CUTTING OR GRINDING OPERATIONS MUST BE MOVED A SAFE DISTANCE AWAY, OR COVERED WITH FIRE RETARDANT MATERIAL. WHERE THIS IS NOT POSSIBLE, ALL SPARKS AND SLAGS MUST BE CONTAINED IN AN APPROVED SPARK CATCHER.
 - WORK AREAS MUST BE ORDERLY AND MAINTAINED FREE OF TRASH AND SCRAP MATERIAL AS NECESSARY TO HELP PREVENT FIRES.
- FLAMMABLE LIQUIDS & REFUELING
 - SMOKING OR OPEN FLAMES SHALL NOT BE ALLOWED WITHIN 25 FEET OF AREAS WHERE FUEL IS BEING DISPENSED.
 - EQUIPMENT MUST NOT BE REFUELED WHILE RUNNING OR WHEN HOT.
 - IF NECESSARY TO TRANSPORT GASOLINE OR OTHER FLAMMABLE LIQUIDS, CONTRACTORS MUST:
 - USE SAFETY CANS BEARING UNDERWRITERS LABORATORIES OR FACTORY MUTUAL LOGOS.
 - HAVE A FIRE EXTINGUISHER READILY AVAILABLE.
 - MAINTAIN VENTILATION AND
 - ENSURE PROTECTION AGAINST FIRE.
- FLAMMABLE GAS USAGE & HANDLING
 - THE USE OF MATCHES, CIGARETTE LIGHTERS, OR OPEN FLAMES TO LIGHT TORCHES IS PROHIBITED. OPERATOR SHOULD LIGHT HIS OWN TORCH USING ONLY A FRICTION SPARK LIGHTER OR HOT METAL.
 - GAS CYLINDER VALVES AND REGULATORS MUST BE CLOSED WHEN MOVING EQUIPMENT FROM ONE AREA OF THE WORK SITE TO ANOTHER, OR WHEN LEAVING EQUIPMENT UNATTENDED.
 - THROWING, DROPPING OR ROUGHLY HANDLING LOADED OR EMPTY OXYGEN, ACETYLENE OR OTHER GAS CYLINDERS, OR CARBOYS, IS PROHIBITED.
 - HOISTING GAS CYLINDERS WITHOUT CRADLE IS PROHIBITED. GAS CYLINDERS MUST NOT BE HANDLED BY A MAGNET.

SOILS DATA TABLE							
SYMBOL	SOIL SERIES	SLOPE	NATURAL DRAINAGE CLASS	HYDROLOGIC CLASSIFICATION	HYDRIC	DEPTH TO WATER TABLE	WATER HOLDING CAPACITY
PA	PEPPERBOX-ROCKAWALKIN COMPLEX	0-2%	MODERATELY WELL DRAINED	A	NO	~ 20" - 40"	8.2
PB	PEPPERBOX-ROCKAWALKIN COMPLEX	2-5%	MODERATELY WELL DRAINED	A	NO	~ 20" - 40"	8.2
LFA	LENNI SANDY LOAM	0-2%	POORLY DRAINED	D	YES	MORE THAN 80"	7.2
RKB	ROCKAWALKIN LOAMY SAND	2-5%	MODERATELY WELL DRAINED	A	NO	~ 20" - 40"	5.0
KFA	KEYPORT FINE SANDY LOAM	0-2%	MODERATELY WELL DRAINED	D	NO	MORE THAN 80"	4.5
LGA	LENNI LOAM	0-2%	POORLY DRAINED	D	YES	MORE THAN 80"	8.2

TEMPORARY SEEDING SUMMARY

NO.	PLANT SPECIES	SEEDING RATE ¹		SEEDING DEPTH ² (INCHES)	SEEDING DATES BY PLANT HARDINESS ZONE ³	FERTILIZER RATE (10-20-20)		LIME RATE
		LB/AC	LB/1000 SF			N	P205	
COOL-SEASON GRASSES								
	ANNUAL RYEGRASS	40	1.0	0.5	FEB. 15 TO APRIL 30 / AUG. 15 TO NOV. 30	450 LBS./AC. (150 LB./1000 SF)	2 TONS/AC. (80 LB./1000 SF)	
	BARLEY	86	2.2	1.0	FEB. 15 TO APRIL 30 / AUG. 15 TO NOV. 30			
	ORCHARD GRASS	72	1.7	1.0	FEB. 15 TO APRIL 30 / AUG. 15 TO NOV. 30			
	WHEAT	120	2.8	1.0	FEB. 15 TO APRIL 30 / AUG. 15 TO NOV. 30			
	CEREAL RYE	112	2.8	1.0	FEB. 15 TO APRIL 30 / AUG. 15 TO NOV. 30			
WARM-SEASON GRASSES								
	FORTAL MILLET	30	0.7	0.5	MAY 1 TO AUG. 14			
	PEARL MILLET	20	0.5	0.5	MAY 1 TO AUG. 14			

PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (LB./AC.)	SEEDING DATES ¹	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)			LIME RATE
					N	P205	K2O	
6	TALL FESCUE	40 lb/ac 0.93 lbs/1000 sf	FEB. 15 TO APRIL 30 AND AUG. 15 TO OCT. 31	1/4-1/2 IN.	45 LBS./AC. (150 LB./1000 L.F.)	90 LBS./AC. (2 LB./1000 L.F.)	90 LBS./AC. (2 LB./1000 L.F.)	2 TONS/AC. (80 LB./1000 L.F.)
	PERENNIAL RYEGRASS	25 lb/ac 0.57 lbs/1000 sf						
	WHITE CLOVER	5 lb/ac 0.11 lbs/1000 sf						
7	CREeping FESCUE	60 lb/ac 1.38 lbs/1000 sf	FEB. 15 TO APRIL 30 AND AUG. 15 TO OCT. 31	1/4-1/2 IN.	45 LBS./AC. (150 LB./1000 L.F.)	90 LBS./AC. (2 LB./1000 L.F.)	90 LBS./AC. (2 LB./1000 L.F.)	2 TONS/AC. (80 LB./1000 L.F.)
	KENTUCKY BLUEGRASS	15 lb/ac 0.34 lbs/1000 sf						

FOR STANDARD AND SPECIFICATION FOR VEGETATIVE STABILIZATION, SEE SECTION B-4 IN THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

**THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE. THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONES. WHEN SEEDING TOWARD THE END OF THE LISTED PLANTING DATES, OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL, SELECT AN APPROPRIATE NURSE CROP FROM TABLE B1 TEMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING MIX.

NOTES:

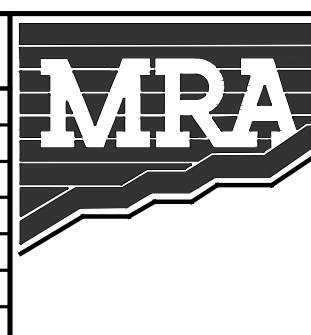
- SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJUSTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES, LEGUMES, OR WILDFLOWERS, OR WILDFLOWERS. ALL LEGUME SEEDS MUST BE INOCULATED BEFORE PLANTING WITH THE APPROPRIATE RHIZOBIUM BACTERIA. WHEN FEASIBLE, HARD-SEASON LEGUMES SHOULD BE SCARIFIED TO IMPROVE GERMINATION. THE MAXIMUM HEIGHT IS 4-6 INCHES FOR SEED MIXTURE NO. 6.
- THE MAINTENANCE LEVEL FOR SEED MIXTURE NO. 6 IS 1/2" - PERIODIC MOWING (EVERY 7-14 DAYS), OCCASIONAL FERTILIZATION AND LIME.
-

EROSION & SEDIMENT CONTROL GENERAL NOTES

10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD

ESNG PROJ. CODE:	DATE:	11/7/2024
MRA PROJECT NO:	SCALE:	AS SHOWN
DESIGN/CHECK BY:	JTH/CWB	SHEET: 3 OF 36

REVISIONS			
NO.	DATE	DESCRIPTION	BY



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SITE RESTORATION NOTES

STANDARDS AND SPECIFICATIONS FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS
A. SOIL PREPARATION
1. TEMPORARY STABILIZATION

- A. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT...
B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
D. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.

B. TOPSOILING

- 1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH...
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS...
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
4. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:

C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)

- 1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE...
2. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING)...
3. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
4. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE...

STANDARDS AND SPECIFICATIONS FOR SEEDING AND MULCHING

- A. SEEDING
1. SPECIFICATIONS
A. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY...
B. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWs.
C. INOCULANTS: THE INOCULANT FOR TREATING LESIME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA...
2. APPLICATION
A. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
1. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.

SITE RESTORATION NOTES (CONT.)

- B. MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
A. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, KARKED, DISKED, OR EXCESSIVELY DUSTY.
B. WOOD CELLULOSE FIBER MULCH (KCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
2. APPLICATION
A. APPLY MULCH TO ALL SEEDBED AREAS IMMEDIATELY AFTER SEEDING.
B. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDBED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES.
C. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE.
3. ANCHORING
A. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:

STANDARDS AND SPECIFICATIONS FOR STOCKPILE AREA

- 1. THE STOCKPILE LOCATION AND ALL RELATED SEDIMENT CONTROL PRACTICES MUST BE CLEARLY INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN.
2. THE FOOTPRINT OF THE STOCKPILE MUST BE SIZED TO ACCOMMODATE THE ANTICIPATED VOLUME OF MATERIAL AND BASED ON A SIDE SLOPE RATIO NO STEEPER THAN 2:1.
3. RUNOFF FROM THE STOCKPILE AREA MUST DRAIN TO A SUITABLE SEDIMENT CONTROL PRACTICE.
4. ACCESS THE STOCKPILE ARE FROM THE UPGRADE SIDE.
5. CLEAR WATER RUNOFF INTO THE STOCKPILE AREA MUST BE MINIMIZED BY USE OF A DIVERSION DEVICE SUCH AS AN EARTH DIKE, TEMPORARY SHALE OR DIVERSION FENCE.
6. WHERE RUNOFF CONCENTRATES ALONG THE TOE OF THE STOCKPILE FILL, AN APPROPRIATE EROSION/SEDIMENT CONTROL PRACTICE MUST BE USED TO INTERCEPT THE DISCHARGE.
7. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 3/7 DAY STABILIZATION REQUIREMENT AS WELL AS STANDARD B-4-1 INCREMENTAL STABILIZATION AND TEMPORARY SEEDING SPECIFICATIONS WITHIN THESE PLANS.

RESIDENTIAL/COMMERCIAL RESTORATION

- 1. EENS WILL MAKE EVERY EFFORT TO ENSURE THAT ALL CONSTRUCTION ACTIVITIES MINIMIZE ADVERSE IMPACTS TO RESIDENCES AND BUSINESSES. CLEANUP SHALL BE QUICK AND THOROUGH.
2. THROUGHOUT CONSTRUCTION, TRAFFIC LANES AND ACCESS TO HOMES WILL BE MAINTAINED EXCEPT FOR THE BRIEF PERIODS ESSENTIAL FOR LAYING THE NEW PIPELINE.
3. EENS MAY USE TECHNIQUES SUCH AS STOVEPIPE AND DRAG SECTION CONSTRUCTION IN ORDER TO MINIMIZE THE IMPACTS OF CONSTRUCTION IN RESIDENTIAL AND COMMERCIAL AREAS ON A SITE-SPECIFIC BASIS.
4. THE MIXING OF TOPSOIL WITH SUBSOIL WILL BE PREVENTED BY STRIPPING AND SEGREGATING TOPSOIL FROM THE FULL WORK AREA IN RESIDENTIAL AND COMMERCIAL AREAS.
5. IN RESIDENTIAL AND COMMERCIAL AREAS, TOPSOIL REPLACEMENT (I.E., IMPORTATION OF TOPSOIL) MAY BE EMPLOYED AS AN ALTERNATIVE TO TOPSOIL SEGREGATION.
6. THE SUBSOIL SHALL BE DE-COMPACTED PRIOR TO REPLACEMENT OF THE SEGREGATED TOPSOIL.
7. DURING RESTORATION, THE FILTER LOGS WILL BE REMOVED AND REPLACED WITH SILT FENCE WHERE INDICATED ON THE PLANS ALONG THE LOW SPOTS OF ALL RESIDENTIAL AREAS.
8. IMMEDIATELY AFTER BACKFILLING, RESIDENTIAL AND COMMERCIAL AREAS WILL BE RESTORED AND ALL CONSTRUCTION DEBRIS WILL BE REMOVED.
9. LAWN AREAS SHALL BE SEEDED AS PER AGREEMENTS WITH LANDOWNERS, OTHERWISE SEEDING MIXTURES SHALL CONSIST OF THE FOLLOWING SPECIES: TALL FESCUE 85% AND ANNUAL RYEGRASS 15%.
10. RESTORATION SHALL BE CONSIDERED SUCCESSFUL WHEN THE RIGHT-OF-WAY SURFACE CONDITION IS SIMILAR TO ADJACENT UNDISTURBED LANDS.

ROADWAY CROSSING RESTORATION

- 1. ROCK CONSTRUCTION ENTRANCES SHALL BE USED TO REDUCE OFF-SITE SEDIMENTATION BY ELIMINATING THE TRACKING OF EXCESS SOIL ONTO PAVED PUBLIC ROADWAYS.
2. EENS SHALL STRIP AND SEGREGATE TOPSOIL FOR ROCK ENTRANCES IN AGRICULTURAL (CROP AND HAY/PASTURE) LANDS.
3. IF CRUSHED STONE ACCESS PADS ARE USED IN RESIDENTIAL OR ACTIVE AGRICULTURAL AREAS, EENS SHALL PLACE THE STONE ON DURABLE SYNTHETIC FABRIC TO FACILITATE REMOVAL.
4. CLEANUP OPERATIONS SHALL COMMENCE IMMEDIATELY FOLLOWING BACKFILL OPERATIONS.
5. SEEDING OF ROADWAY SHOULDERS SHALL CONSIST OF THE FOLLOWING SPECIES UNLESS STATE OR LOCAL ROADWAY AUTHORITIES REQUEST OTHERWISE: FINE FESCUE 75% AND ANNUAL RYEGRASS 25%.
6. MONITORING WILL BE PERFORMED FOR NOT LESS THAN TWO GROWING SEASONS FOLLOWING THE PROJECT'S COMPLETION OF INITIAL RESTORATION OR EXTENDED UNTIL RESTORATION IS DEEMED SUCCESSFUL.
7. REVEGETATION SHALL BE CONSIDERED SUCCESSFUL WHEN THE VEGETATION COVER IS SUFFICIENT TO PREVENT EROSION OF SOILS ON THE DISTURBED RIGHT-OF-WAY AND DENSITY AND COVER ARE SIMILAR TO THAT IN ADJACENT UNDISTURBED AREAS.
8. RESTORATION SHALL BE CONSIDERED SUCCESSFUL WHEN THE RIGHT-OF-WAY SURFACE CONDITION IS SIMILAR TO ADJACENT UNDISTURBED LANDS.

SITE RESTORATION NOTES (CONT.)

- STANDARDS AND SPECIFICATIONS FOR PERMANENT STABILIZATION
A. SEED MIXTURES
1. GENERAL USE
A. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED IN TABLE B.3 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3) AND BASED ON THE SITE CONDITION OR PURPOSE FOUND ON TABLE B.2.
B. ADDITIONAL PLANTING SPECIFICATIONS FOR EXCEPTIONAL SITES SUCH AS SHORELINES, STREAM BANKS, OR DINES OR FOR SPECIAL PURPOSES SUCH AS WILDLIFE OR AESTHETIC TREATMENT MAY BE FOUND IN USDA-NRCS TECHNICAL FIELD OFFICE GUIDE, SECTION 342 - CRITICAL AREA PLANTING.
C. FOR SITES HAVING DISTURBED AREA OVER 5 ACRES, USE AND SHOW THE RATES RECOMMENDED BY THE SOIL TESTING AGENCY.
D. FOR AREAS RECEIVING LOW MAINTENANCE, APPLY UREA FORM FERTILIZER (46-0-0) AT 3 1/2 POUNDS PER 1000 SQUARE FEET (50 POUNDS PER ACRE) AT THE TIME OF SEEDING IN ADDITION TO THE SOIL AMENDMENTS SHOWN IN THE PERMANENT SEEDING SUMMARY.
2. TURFGRASS MIXTURES
A. AREAS WHERE TURFGRASS MAY BE DESIRED INCLUDE LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MEDIUM TO HIGH LEVEL OF MAINTENANCE.
B. SELECT ONE OR MORE OF THE SPECIES OR MIXTURES LISTED BELOW BASED ON THE SITE CONDITIONS OR PURPOSE.
1. KENTUCKY BLUEGRASS: FULL SUN MIXTURE; FOR USE IN AREAS THAT RECEIVE INTENSIVE MANAGEMENT.
2. KENTUCKY BLUEGRASS/PERENNIAL RYE: FULL SUN MIXTURE.
3. TALL FESCUE/KENTUCKY BLUEGRASS: FULL SUN MIXTURE.
4. KENTUCKY BLUEGRASS/FINE FESCUE: SHADE MIXTURE.

NOTES:
SELECT TURFGRASS VARIETIES FROM THOSE LISTED IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY MEMO #TT, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND"

CHOOSE CERTIFIED MATERIAL. CERTIFIED MATERIAL IS THE BEST GUARANTEE OF CULTIVAR PURITY. THE CERTIFICATION PROGRAM OF THE MARYLAND DEPARTMENT OF AGRICULTURE, TURF AND SEED SECTION, PROVIDES A RELIABLE MEANS OF CONSUMER PROTECTION AND ASSURES A PURE GENETIC LINE

- C. IDEAL TIMES OF SEEDING FOR TURF GRASS MIXTURES
WESTERN MD. MARCH 15 TO JUNE 1, AUGUST 1 TO OCTOBER 1 (HARDINESS ZONES: 5B, 6A)
CENTRAL MD. MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONE: 6B)
SOUTHERN MD./EASTERN SHORE: MARCH 1 TO MAY 15, AUGUST 15 TO OCTOBER 15 (HARDINESS ZONES: 7A, 7B)
D. FILL AREAS TO RECEIVE SEED BY DISKING OR OTHER APPROVED METHODS TO A DEPTH OF 2 TO 4 INCHES, LEVEL AND RAKE THE AREAS TO PREPARE A PROPER SEEDBED.
E. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER FOR PLANT GROWTH (1/4 TO 1 INCH EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY ESTABLISHED.
F. SEEDING AREAS MADE LATE IN THE PLANTING SEASON, IN ABNORMALLY DRY OR HOT SEASONS, OR ON ADVERSE SITES.

STANDARDS AND SPECIFICATIONS FOR TEMPORARY STABILIZATION

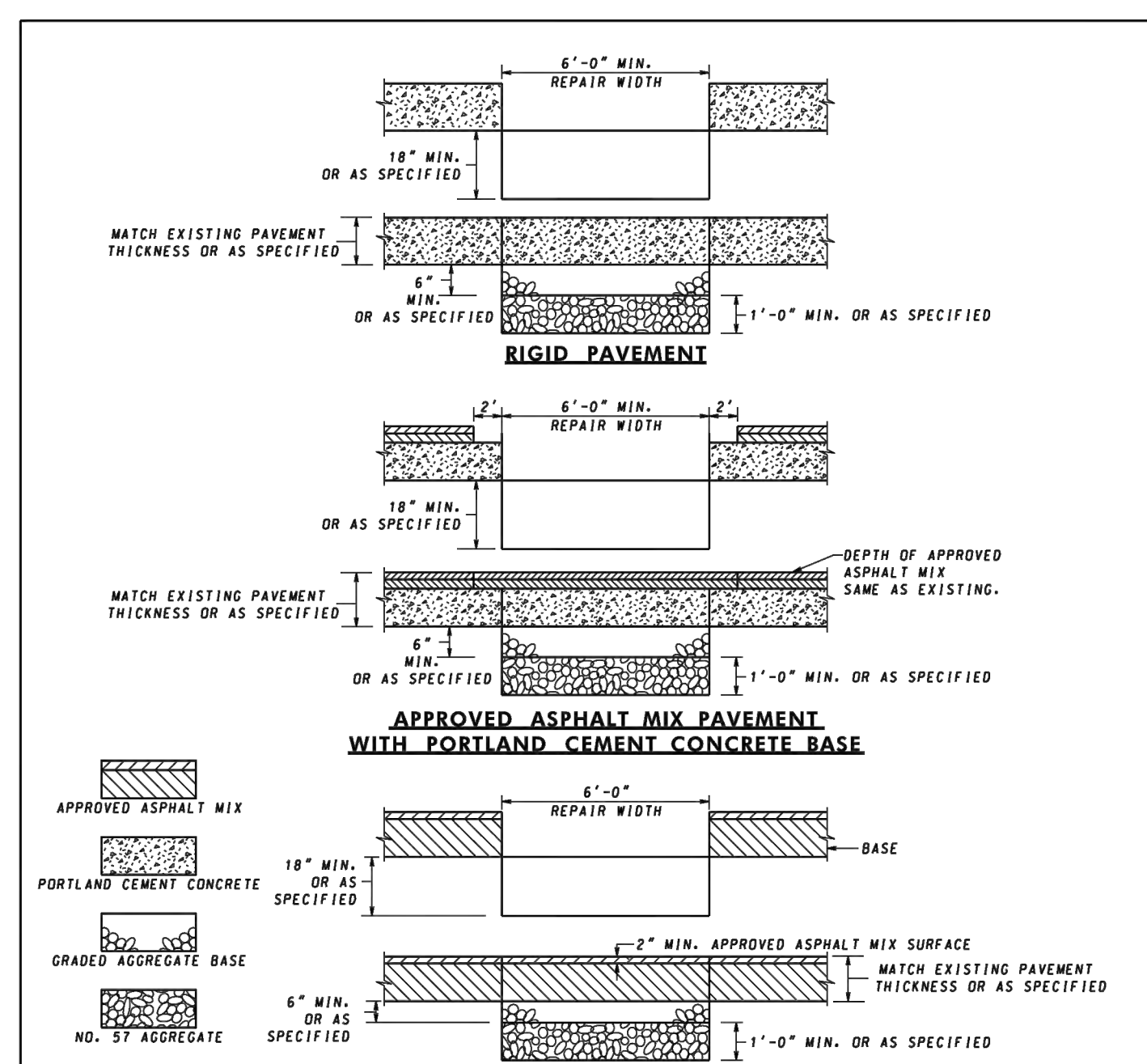
- 1. SELECT ONE OR MORE OF THE SPECIES OR SEED MIXTURES LISTED IN TABLE B1 FOR THE APPROPRIATE PLANT HARDINESS ZONE (FROM FIGURE B.3), AND ENTER THEM IN THE TEMPORARY SEEDING SUMMARY BELOW ALONG WITH APPLICATION RATES, SEEDING DATES AND SEEDING DEPTHS.
2. FOR SITES HAVING SOIL TESTS PERFORMED, USE AND SHOW THE RECOMMENDED RATES BY THE TESTING AGENCY.
3. WHEN STABILIZATION IS REQUIRED OUTSIDE OF A SEEDING SEASON, APPLY SEED AND MULCH OR STRAW MULCH ALONE AS PRESCRIBED IN SECTION B-4-3.A.1.B AND MAINTAIN UNTIL THE NEXT SEEDING SEASON.

Table with 4 columns: NO., DATE, DESCRIPTION, BY. Contains a grid for recording revisions.

MRA logo and contact information for MORRIS & RITCHIE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS. 111 RUTHAR DRIVE NEWARK, DE 19711 (302) 326-2200.

EASTERN SHORE NATURAL GAS logo and address: 500 ENERGY LANE, SUITE 200 DOVER, DE 19901 TELEPHONE (302) 734-6710 - FAX (302) 734-6745

SITE RESTORATION 10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD. EENS PROJ. CODE: DATE: 11/7/2024. MRA PROJECT NO: 22394 SCALE: AS SHOWN. DESIGN/CHECK BY: JTH/CWB SHEET: 5 OF 36.

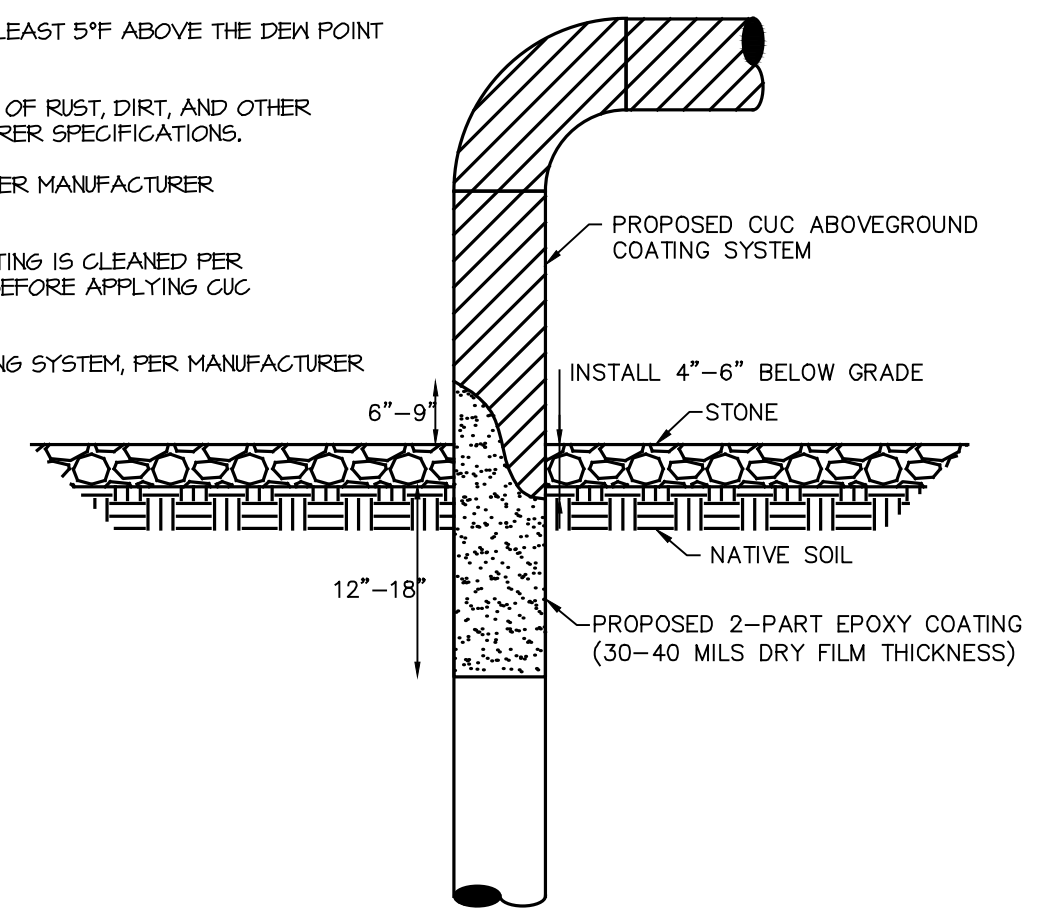


- NOTES**
1. THIS STANDARD IS TO BE USED IN ACCORDANCE WITH SECTIONS 305 AND 522. THE ROADWAY SHALL BE PATCHED WITH THE SAME TYPE MATERIAL REMOVED UNLESS NOTED IN THE SPECIFICATIONS. PORTLAND CEMENT CONCRETE PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH STANDARDS 577.02, 577.03, 577.04, 577.05, 577.06, OR 577.07.
 2. THE TOP 1 FT. OF THE TRENCH SHALL BE FILLED WITH NO. 57 AGGREGATE. TRENCH TO BE EXTENDED TO DITCH LINE.
 3. WHENEVER A TRENCH CROSSES A CONCRETE ROADWAY THAT HAS JOINT INSTALLATIONS THE ENTIRE SLAB BETWEEN THE EDGE OF THE TRENCH AND NEAREST JOINT SHALL BE REMOVED IF THE DISTANCE IS LESS THAN 6 FT.
 4. CLEAN AND WET EDGES OF CUT AND SUBBASE BEFORE PLACING CONCRETE. MATERIAL CONFORMING TO SECTION 303, CR-6, NO. 57 AGGREGATE WRAPPED IN SE GEOTEXTILE, CLSM OR GAB.
 5. ALL WORK SUCH AS TRENCH BACKFILL, CURING OF CONCRETE, MATERIALS USED, ETC. SHALL BE IN ACCORDANCE WITH SECTIONS 201, 505 AND 522 OF THE SPECIFICATIONS OR AS SPECIFIED IN THE PERMIT.
 6. ALL COSTS FOR SAMPLING, TRENCH EXCAVATION, BACKFILL, APPROVED ASPHALT MIX, CONCRETE, MATERIAL CONFORMING TO SECTION 303, CR-6, NO. 57 AGGREGATE WRAPPED IN SE GEOTEXTILE, CLSM OR GAB, MATERIALS, TOOLS, LABOR AND INCIDENTALS SHALL BE INCLUDED IN THE PRICE OF THE UTILITY ITEMS.
 7. CLSM - CONTROLLED LOW STRENGTH MATERIAL.
 8. NO. 57 AGGREGATE SHALL BE COMPLETELY WRAPPED IN SE GEOTEXTILE AS DIRECTED BY THE ENGINEER.

SPECIFICATION	CATEGORY CODE ITEMS
APPROVED	<i>[Signature]</i>
APPROVAL SHEET REVISIONS	APPROVAL FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 3-4-88	APPROVAL 3-18-88
REVISION 7-23-16	REVISION 7-23-16
REVISION 10-27-23	REVISION 8-24-23
REVISION	REVISION

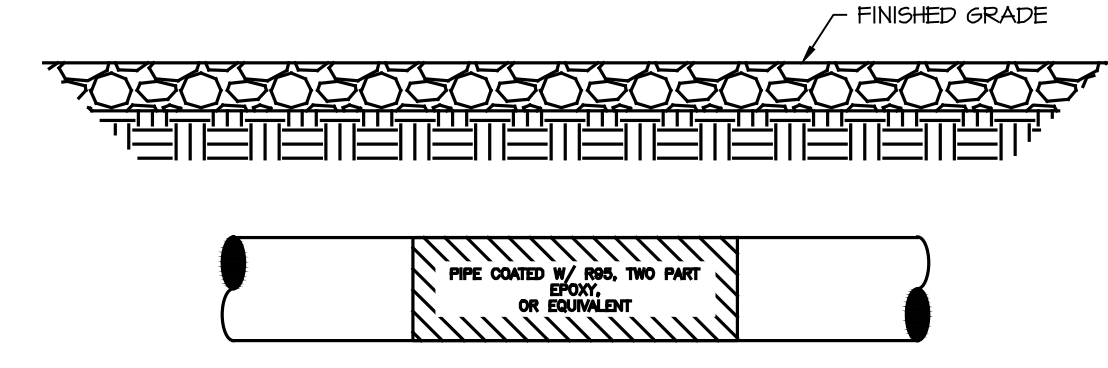
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES
STANDARD NO. MD 578.01

1. VERIFY PIPE TEMPERATURE IS AT LEAST 5°F ABOVE THE DEW POINT BEFORE CLEANING OF PIPE.
2. ABRASIVE BLAST PIPE UNTIL FREE OF RUST, DIRT, AND OTHER FOREIGN MATTER, PER MANUFACTURER SPECIFICATIONS.
3. APPLY 2-PART EPOXY COATING, PER MANUFACTURER SPECIFICATIONS.
4. ENSURE THAT 2-PART EPOXY COATING IS CLEANED PER MANUFACTURER SPECIFICATIONS, BEFORE APPLYING CUC ABOVEGROUND COATING SYSTEM.
5. APPLY CUC ABOVEGROUND COATING SYSTEM, PER MANUFACTURER SPECIFICATIONS.

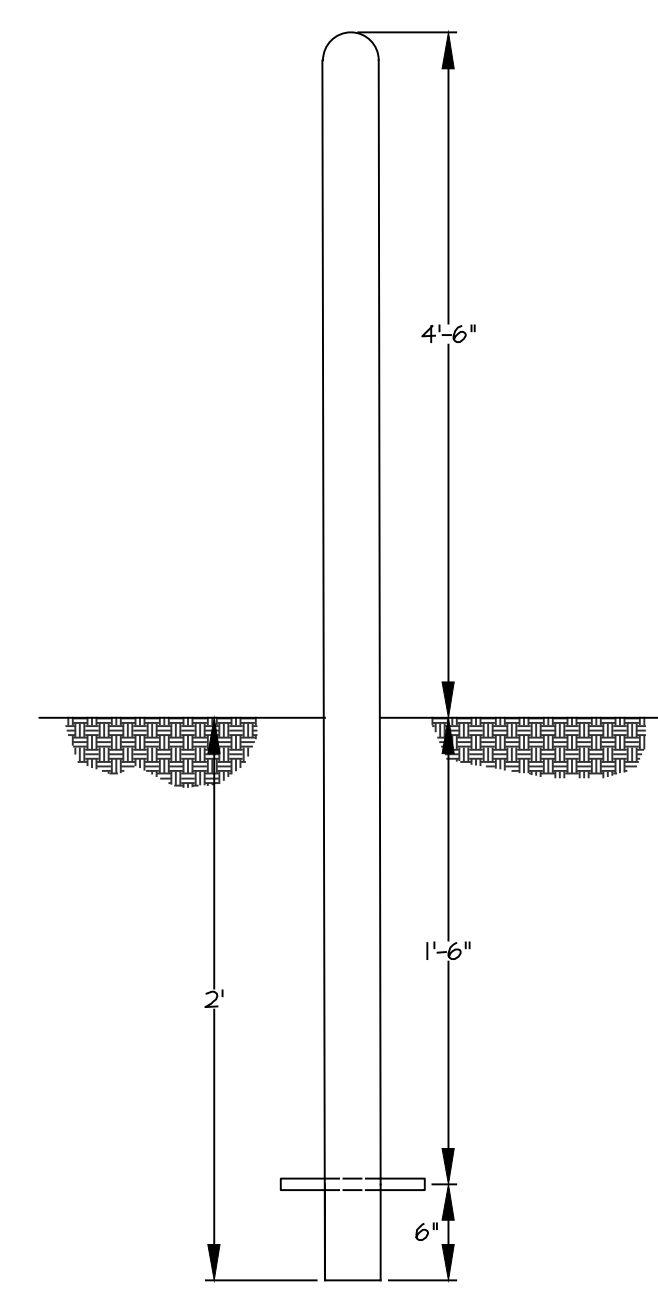


COATING APPLICATION FOR RISER
NOT TO SCALE

1. VERIFY PIPE TEMPERATURE IS AT LEAST 5°F ABOVE THE DEW POINT BEFORE CLEANING OF PIPE, (IF APPLICABLE).
2. POWER BRUSH OR ABRASIVE BLAST PIPE UNTIL FREE OF RUST, DIRT, AND OTHER FOREIGN MATTER (NEAR WHITE; SSPC-SP-10, NACE No.2 FINISH).
3. CLEAN TOTAL OF 18" TO 24" SECTION OF PIPE.
4. APPLY CANUSA-CPS HBE-45-B6 COATING TO THE FRESHLY CLEANED AREA OF THE PIPE.



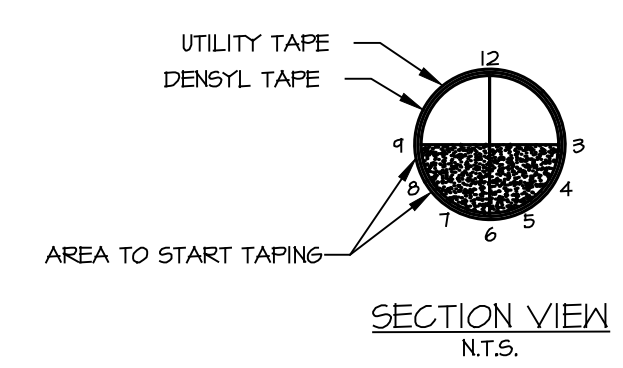
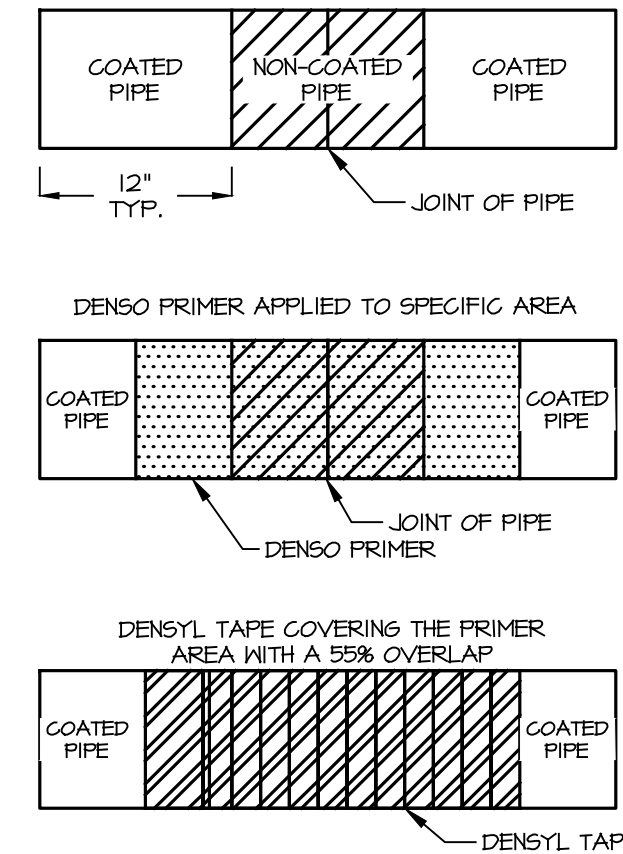
COATING APPLICATION FOR HBE-45-B6 OR ESG APPROVED EQUIVALENT
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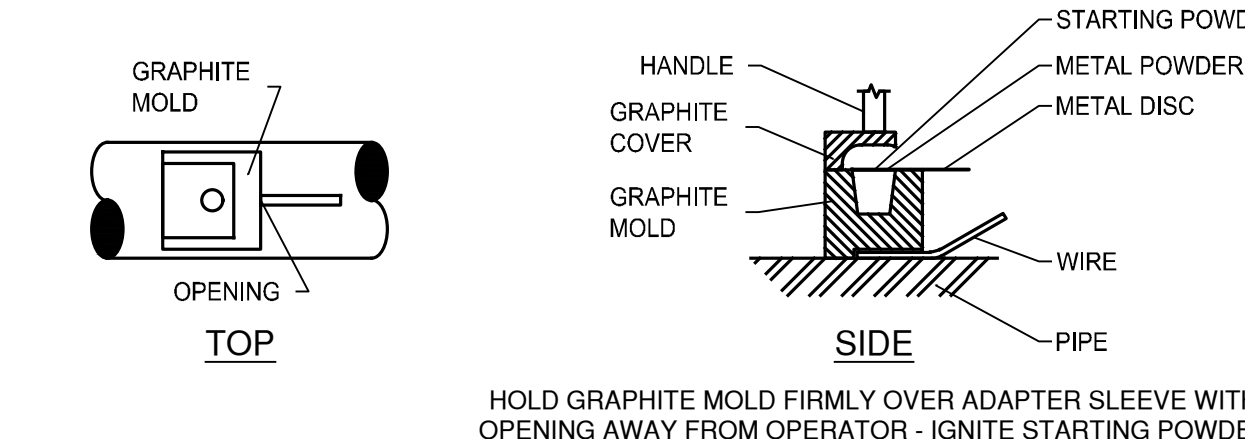
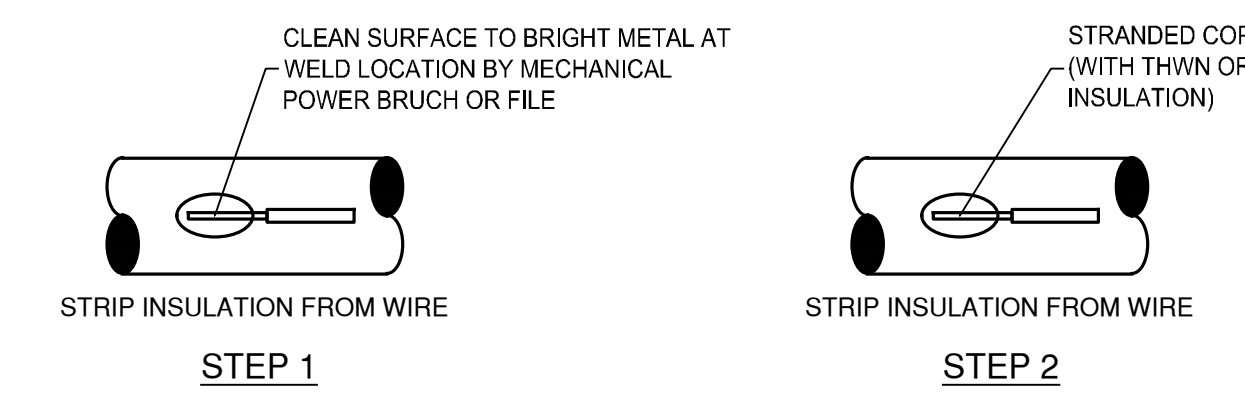
- NOTES:**
1. COMPANY TO FURNISH MARKER POSTS, TYPICALLY 3-1/2" x 6'-6" POLY PIPE WITH 3/4" x 4" ANCHOR BAR 6" FROM BOTTOM.
 2. POLY PIPE TO BE PLACED 2'-0" UNDER FINISH GRADE WITH 4'-6" OF POLY PIPE EXPOSED ABOVE GROUND.
 3. LOCATION OF PIPELINE MARKER POSTS TO BE PROVIDED BY ESNG.
 4. PIPE LINE MARKERS SHOULD INCLUDE 'CAUTION GAS PIPELINE DO NOT DIG.' IN ADDITION THE 811 LOGO AND NUMBER SHOULD BE ABOVE THE EASTERN SHORE NATURAL GAS LOGO.

PIPELINE MARKER POST
NOT TO SCALE

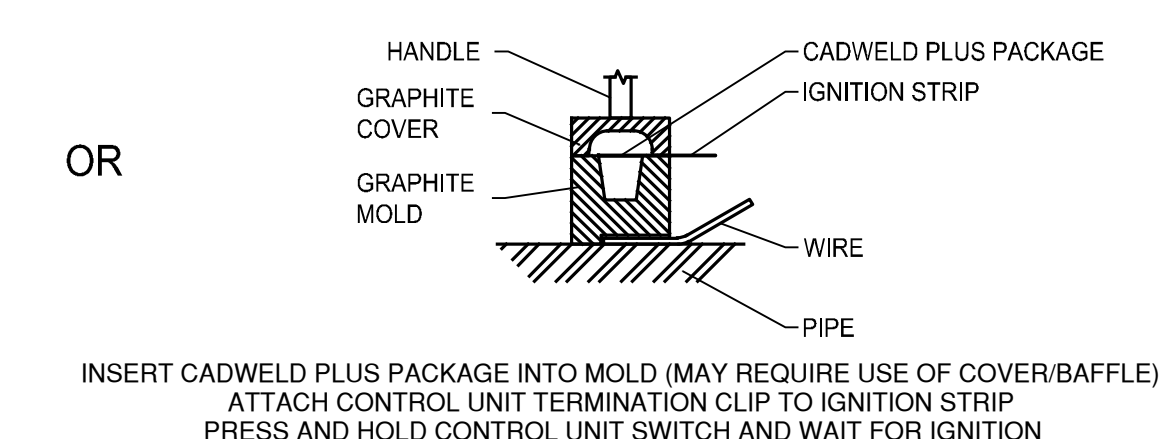
1. BEFORE CLEANING OF PIPE MAKE SURE PIPE TEMPERATURE IS AT LEAST 5°F ABOVE THE DEW POINT, (IF APPLICABLE).
2. POWER BRUSH OR SAND BLAST (NACE No.3 FINISH) PIPE UNTIL FREE OF RUST, DIRT, AND OTHER FOREIGN MATTER.
3. APPLY DENSO PRIMER TO SPECIFIED AREA WHERE THE DENSO DENSYL TAPE WILL BE APPLIED.
4. APPLY DENSO DENSYL TAPE UNTIL THE DENSO PRIMER IS COMPLETELY COVERED BY THE DENSYL TAPE. MAKE SURE TO APPLY THE TAPE WITH A 55% OVERLAP. ALSO MAKE SURE NO PRIMER CAN BE SEEN AFTER APPLYING THE MAX TAPE.
5. APPLY DENSO UTILITY TAPE OVER THE DENSO MAX TAPE. START WRAPPING THE TAPE 4" BEFORE THE MAX TAPE STARTS AND END 4" AFTER IT ENDS.
6. REFER TO DENSO PRODUCT SPECIFICATIONS GUIDE FOR SPECIFICATION & INSTALLATION DETAILS.



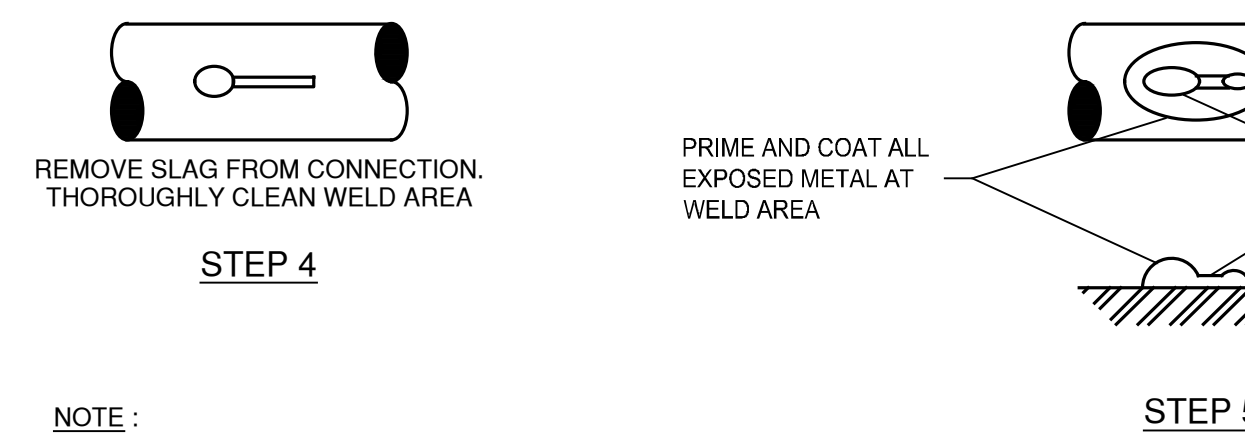
COATING APPLICATION FOR DENSO TAPE COATING
NOT TO SCALE



STEP 3 (FOR MANUAL IGNITION)



STEP 3 (FOR ELECTRONIC IGNITION)



- NOTE:**
1. THERMITE WELDS MADE TO GAS MAIN SHALL BE COATED WITH TWO PART EPOXY OR THREE PART WAX TAP OR APPROVED EQUAL.
 2. REPAIR PIPE COATING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

THERMITE WELD DETAILS

REVISIONS			
NO.	DATE	DESCRIPTION	BY

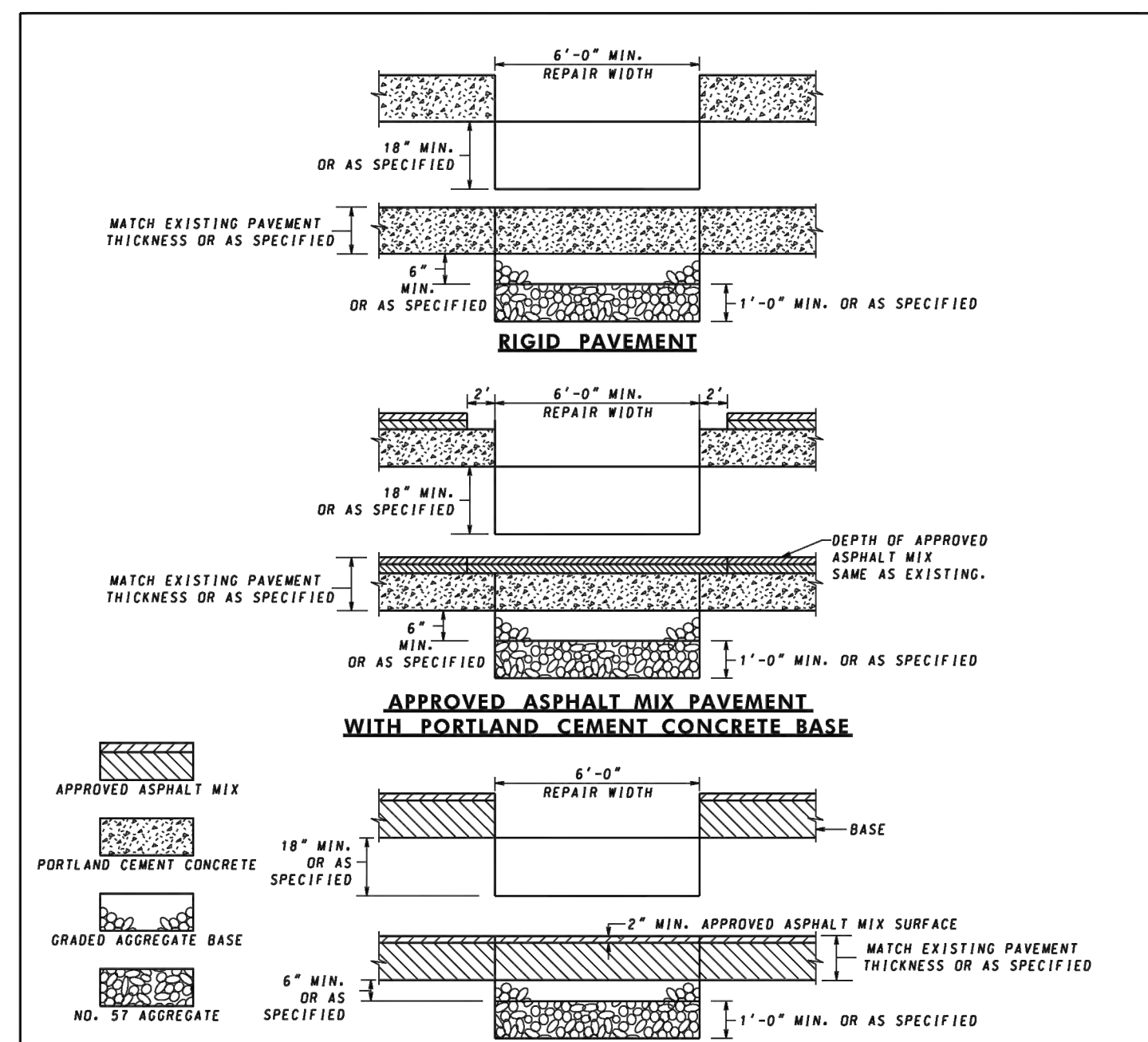
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 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
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 (302) 326-2200
 MRAGTA.COM
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EASTERN SHORE
 NATURAL GAS
 500 ENERGY LANE, SUITE 200 DOVER, DE 19901
 TELEPHONE (302) 734-6710 - FAX (302) 734-6745

TIE-IN DETAILS

10" PROPOSED PIPELINE
 SALISBURY INTEGRITY
 WICOMICO COUNTY, MD

ESNG PROJ. CODE:	DATE:	11/7/2024
MRA PROJECT NO:	SCALE:	AS SHOWN
DESIGN/CHECK BY:	JTH/CWB	SHEET: ## OF 36



- NOTES**
1. THIS STANDARD IS TO BE USED IN ACCORDANCE WITH SECTIONS 305 AND 522. THE ROADWAY SHALL BE PATCHED WITH THE SAME TYPE MATERIAL REMOVED UNLESS NOTED IN THE SPECIFICATIONS. PORTLAND CEMENT CONCRETE PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH STANDARDS 577.02, 577.03, 577.04, 577.05, 577.06, OR 577.07.
 2. THE TOP 1 FT. OF THE TRENCH SHALL BE FILLED WITH NO. 57 AGGREGATE. TRENCH TO BE EXTENDED TO DITCH LINE.
 3. WHENEVER A TRENCH CROSSES A CONCRETE ROADWAY THAT HAS JOINT INSTALLATIONS THE ENTIRE SLAB BETWEEN THE EDGE OF THE TRENCH AND NEAREST JOINT SHALL BE REMOVED IF THE DISTANCE IS LESS THAN 6 FT.
 4. CLEAN AND WET EDGES OF CUT AND SUBBASE BEFORE PLACING CONCRETE. MATERIAL CONFORMING TO SECTION 303, CR-6, NO. 57 AGGREGATE WRAPPED IN SE GEOTEXTILE, CLSM OR GAB.
 5. ALL WORK SUCH AS TRENCH BACKFILL, CURING OF CONCRETE, MATERIALS USED, ETC. SHALL BE IN ACCORDANCE WITH SECTIONS 201, 505 AND 522 OF THE SPECIFICATIONS OR AS SPECIFIED IN THE PERMIT.
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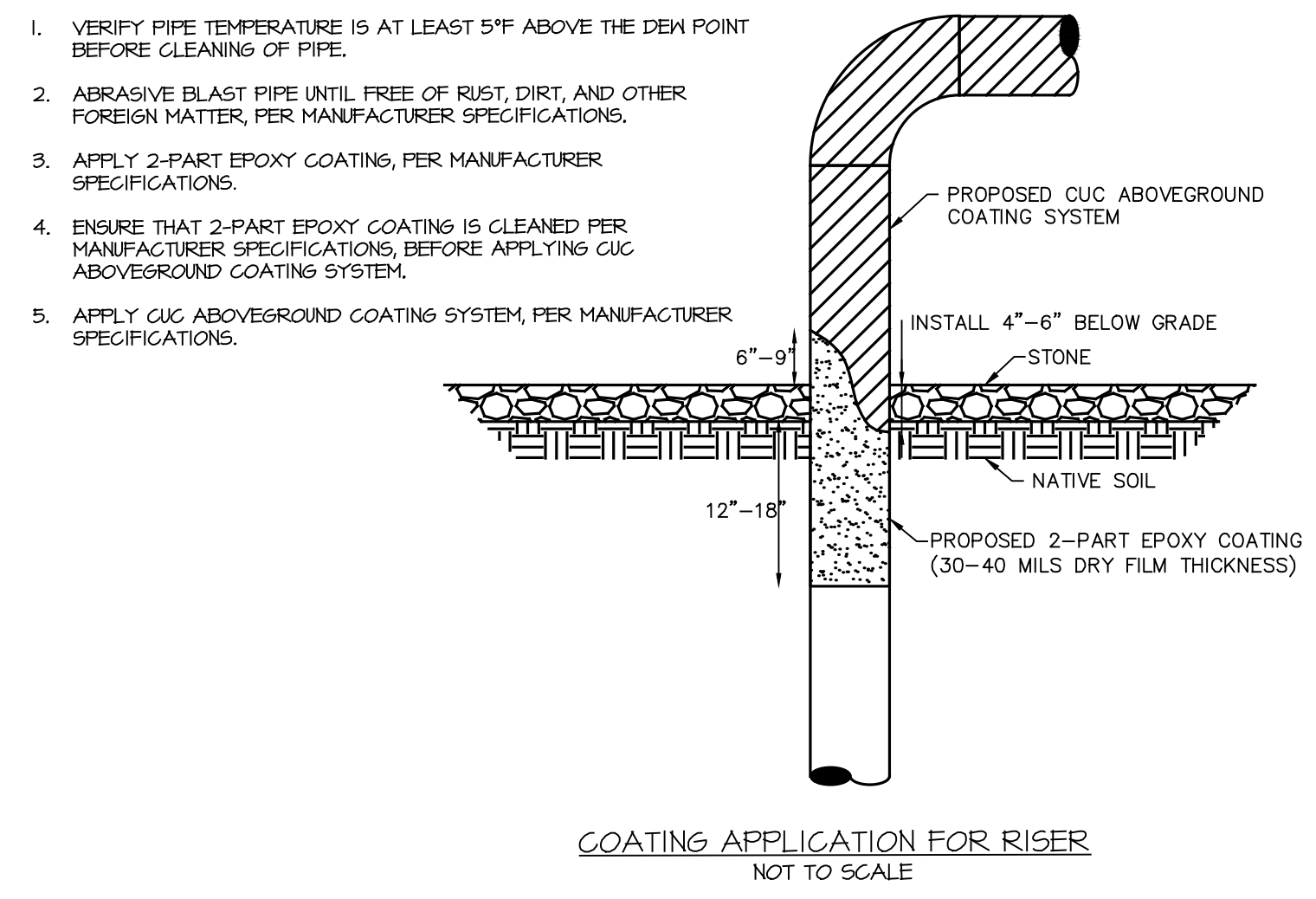
SPECIFICATION	CATEGORY CODE ITEMS
APPROVED	<i>[Signature]</i>
APPROVAL	3-4-88
REVISION	2-23-16
REVISION	10-27-23
REVISION	

MD MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

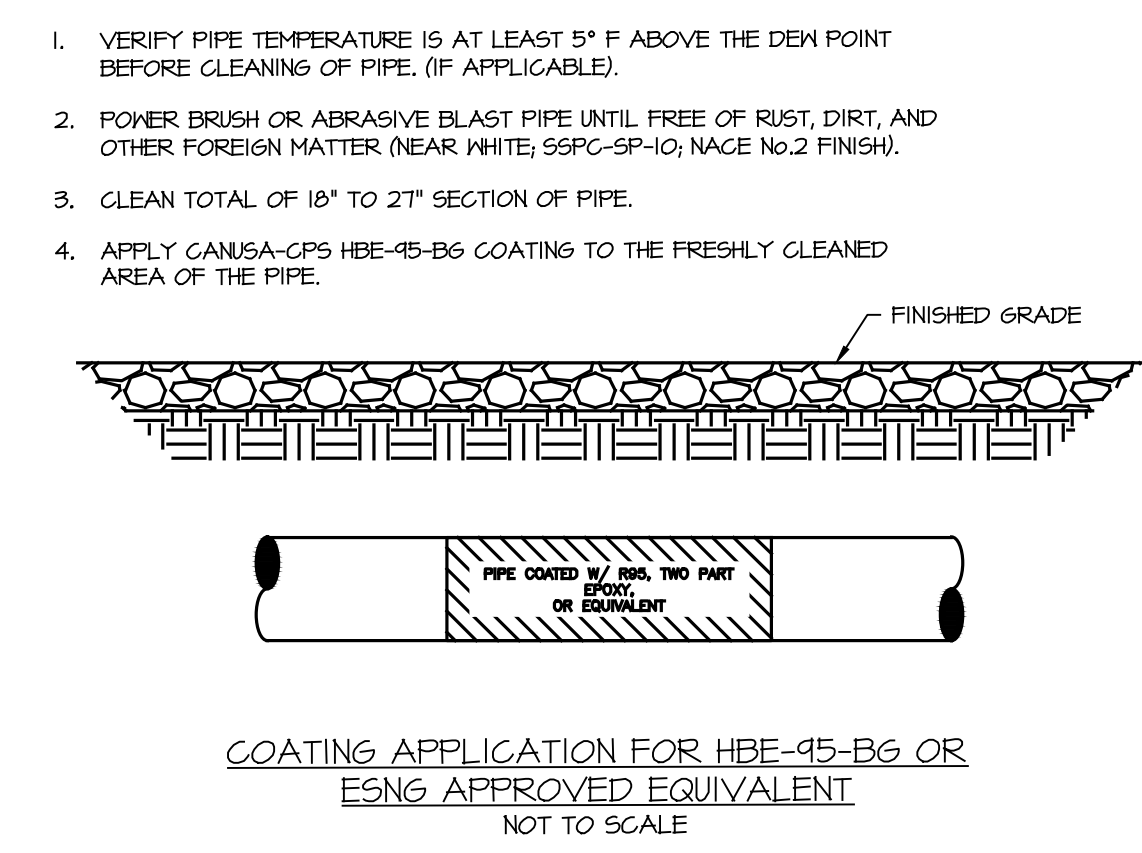
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

REPAIRING PAVEMENT OPENINGS FOR UTILITY TRENCHES

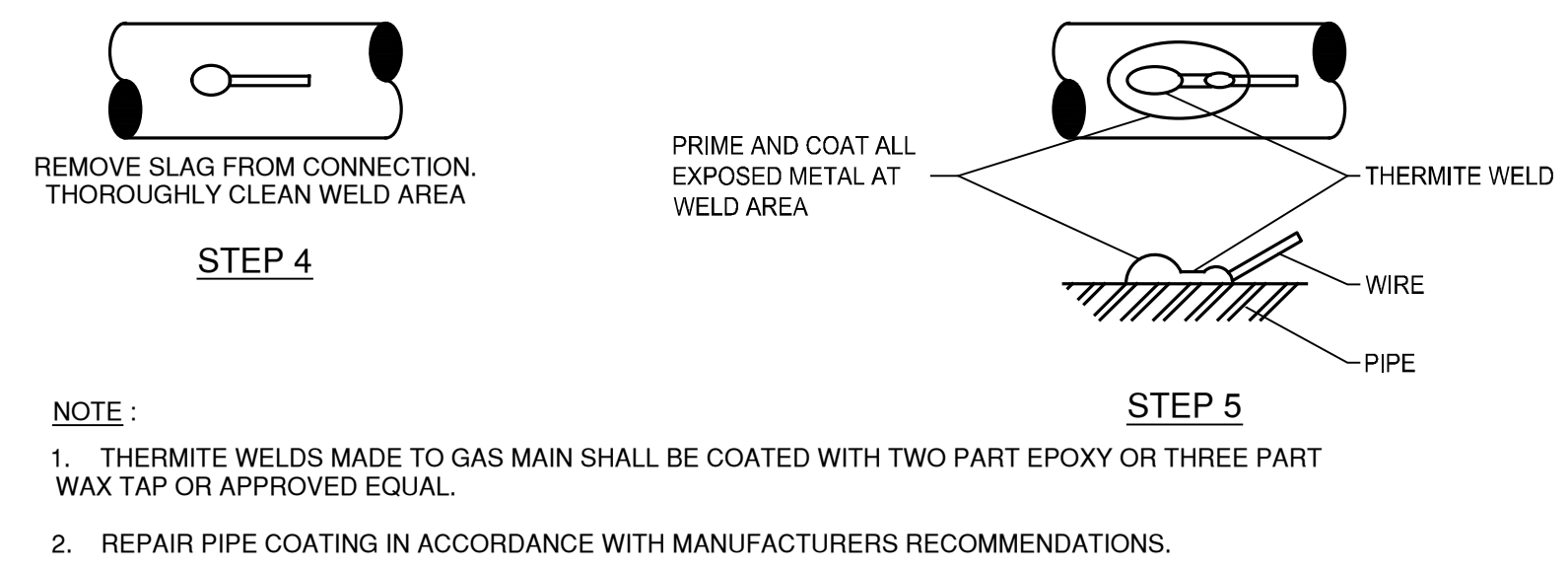
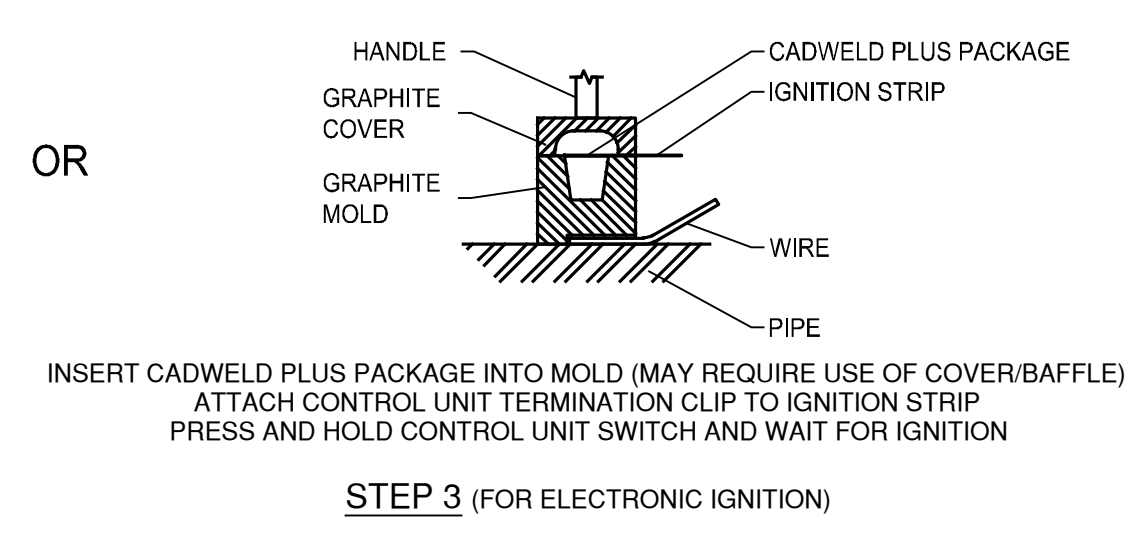
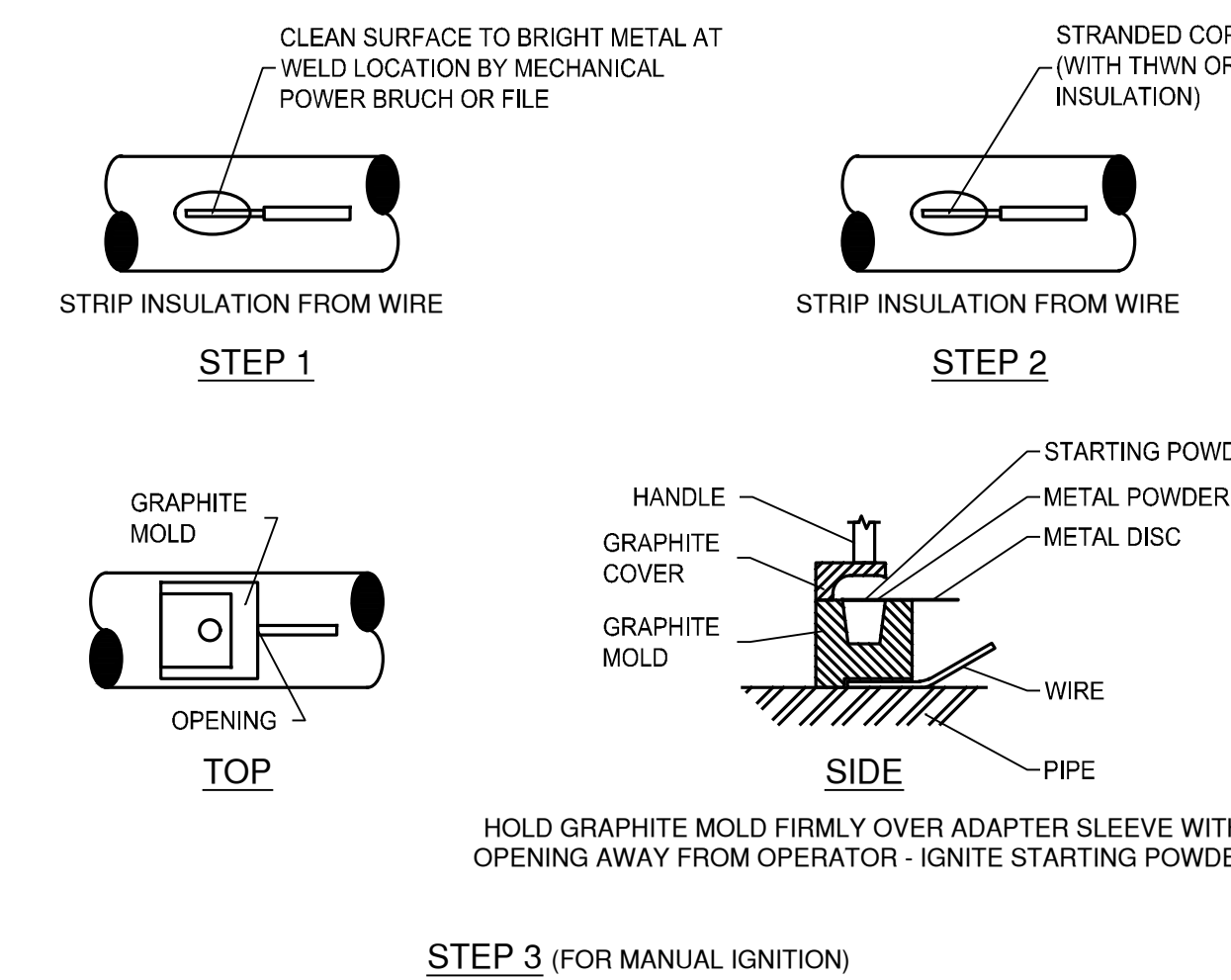
STANDARD NO. MD 578.01



1. VERIFY PIPE TEMPERATURE IS AT LEAST 5° F ABOVE THE DEW POINT BEFORE CLEANING OF PIPE.
2. ABRASIVE BLAST PIPE UNTIL FREE OF RUST, DIRT, AND OTHER FOREIGN MATTER, PER MANUFACTURER SPECIFICATIONS.
3. APPLY 2-PART EPOXY COATING, PER MANUFACTURER SPECIFICATIONS.
4. ENSURE THAT 2-PART EPOXY COATING IS CLEANED PER MANUFACTURER SPECIFICATIONS, BEFORE APPLYING CUC ABOVEGROUND COATING SYSTEM.
5. APPLY CUC ABOVEGROUND COATING SYSTEM, PER MANUFACTURER SPECIFICATIONS.

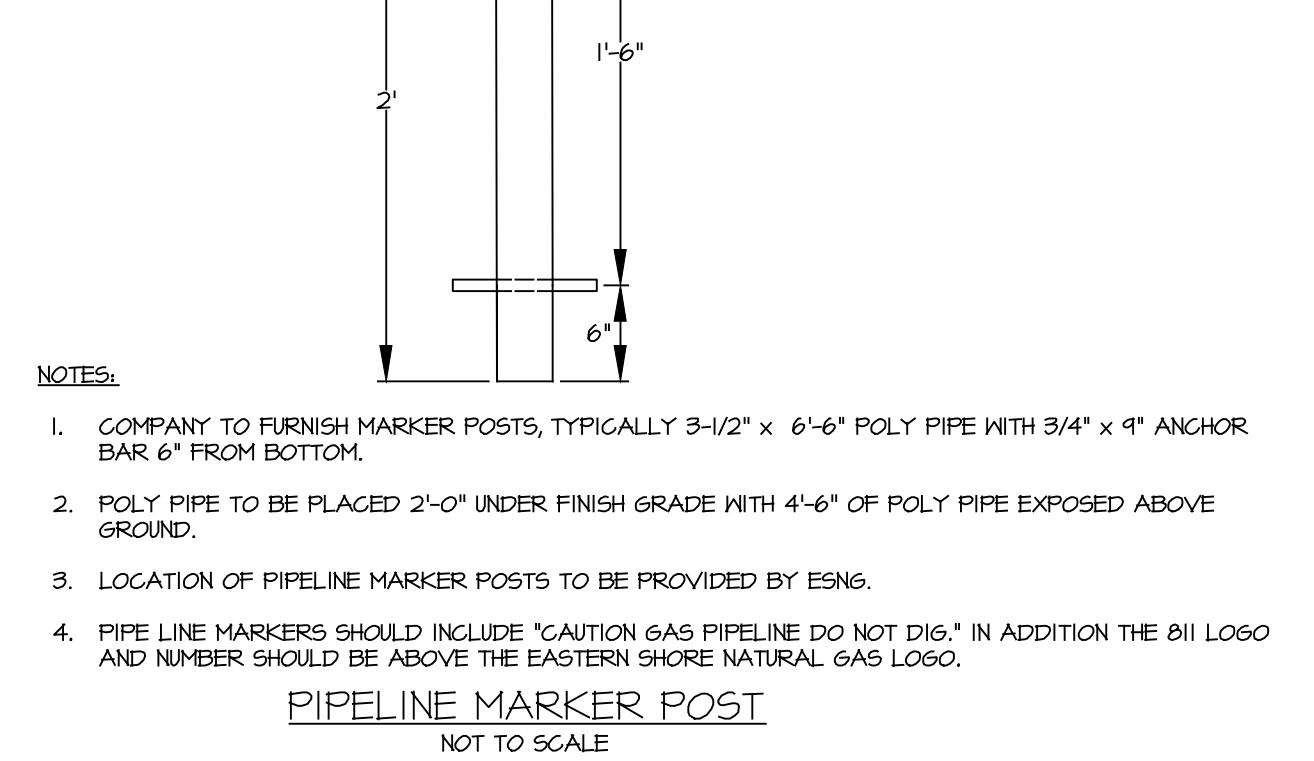
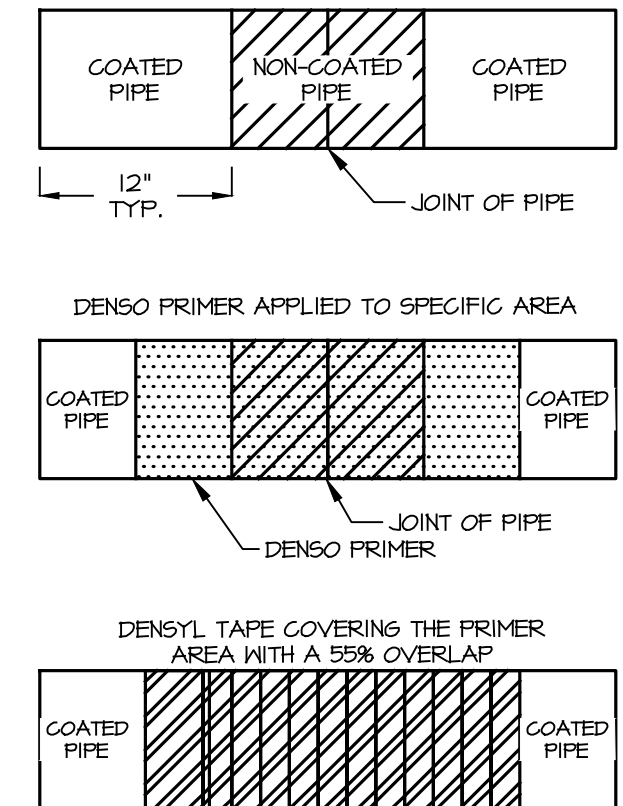


1. VERIFY PIPE TEMPERATURE IS AT LEAST 5° F ABOVE THE DEW POINT BEFORE CLEANING OF PIPE, (IF APPLICABLE).
2. POWER BRUSH OR ABRASIVE BLAST PIPE UNTIL FREE OF RUST, DIRT, AND OTHER FOREIGN MATTER (NEAR WHITE; SSPC-SP-10; NACE No. 2 FINISH).
3. CLEAN TOTAL OF 18" TO 24" SECTION OF PIPE.
4. APPLY CANUSA-CPS HBE-45-B6 COATING TO THE FRESHLY CLEANED AREA OF THE PIPE.

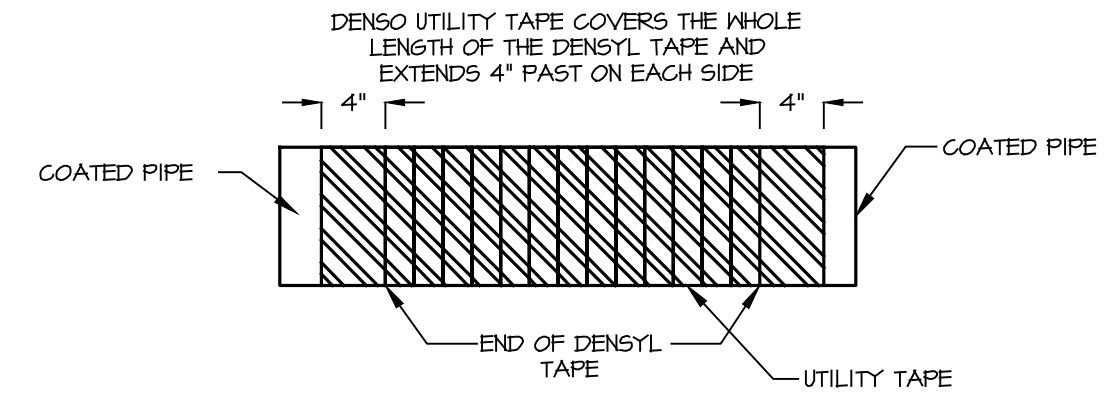
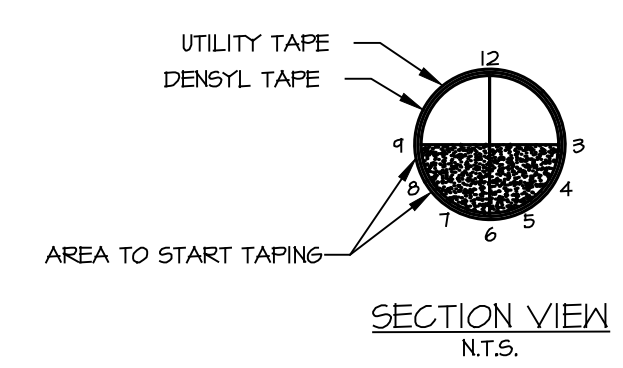


- NOTE:**
1. THERMITE WELDS MADE TO GAS MAIN SHALL BE COATED WITH TWO PART EPOXY OR THREE PART WAX TAP OR APPROVED EQUAL.
 2. REPAIR PIPE COATING IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

1. BEFORE CLEANING OF PIPE MAKE SURE PIPE TEMPERATURE IS AT LEAST 5° F ABOVE THE DEW POINT, (IF APPLICABLE).
2. POWER BRUSH OR SAND BLAST (NACE No. 3 FINISH) PIPE UNTIL FREE OF RUST, DIRT, AND OTHER FOREIGN MATTER.
3. APPLY DENSO PRIMER TO SPECIFIED AREA WHERE THE DENSO DENSYL TAPE WILL BE APPLIED.
4. APPLY DENSO DENSYL TAPE UNTIL THE DENSO PRIMER IS COMPLETELY COVERED BY THE DENSYL TAPE. MAKE SURE TO APPLY THE TAPE WITH A 55% OVERLAP. ALSO MAKE SURE NO PRIMER CAN BE SEEN AFTER APPLYING THE WAX TAPE.
5. APPLY DENSO UTILITY TAPE OVER THE DENSO WAX TAPE. START WRAPPING THE TAPE 4" BEFORE THE WAX TAPE STARTS AND END 4" AFTER IT ENDS.
6. REFER TO DENSO PRODUCT SPECIFICATIONS GUIDE FOR SPECIFICATION & INSTALLATION DETAILS.



- NOTES:**
1. COMPANY TO FURNISH MARKER POSTS, TYPICALLY 3/12" x 6'-6" POLY PIPE WITH 3/4" x 4" ANCHOR BAR 6" FROM BOTTOM.
 2. POLY PIPE TO BE PLACED 2'-0" UNDER FINISH GRADE WITH 4'-6" OF POLY PIPE EXPOSED ABOVE GROUND.
 3. LOCATION OF PIPELINE MARKER POSTS TO BE PROVIDED BY ESGN.
 4. PIPE LINE MARKERS SHOULD INCLUDE 'CAUTION GAS PIPELINE DO NOT DIG.' IN ADDITION THE 811 LOGO AND NUMBER SHOULD BE ABOVE THE EASTERN SHORE NATURAL GAS LOGO.



COATING APPLICATION FOR DENSO TAPE COATING
NOT TO SCALE

REVISIONS			
NO.	DATE	DESCRIPTION	BY

MRA

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS
111 RUTHAR DRIVE
NEWARK, DE 19711
(302) 326-2200

MRA@MRA.COM
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EASTERN SHORE
NATURAL GAS

500 ENERGY LANE, SUITE 200 DOVER, DE 19901
TELEPHONE (302) 734-6710 - FAX (302) 734-6745

TIE-IN DETAILS

10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJ. CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: AS SHOWN
DESIGN/CHECK BY: JTH/CWB	SHEET: ## OF 36

SOUTH TIE-IN LAYOUT

10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

REVISIONS			
NO.	DATE	DESCRIPTION	BY



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NATURAL GAS
500 ENERGY LANE, SUITE 200 DOVER, DE 19901
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ESNG PROJ. CODE:	DATE:	11/7/2024
MRA PROJECT NO:	SCALE:	AS SHOWN
DESIGN/CHECK BY:	JTH/CWB	SHEET: # OF 36

SOUTH TIE-IN VALVE
STATION PLAN

REVISIONS			
NO.	DATE	DESCRIPTION	BY



MORRIS & RITCHIE ASSOCIATES, INC.
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LANDSCAPE ARCHITECTS
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NATURAL GAS
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TELEPHONE (302) 734-6710 - FAX (302) 734-6745

10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJ. CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: AS SHOWN
DESIGN/CHECK BY: JTH/CWB	SHEET: # OF 36

SOUTH TIE-IN
SECTION VIEWS

10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

REVISIONS			
NO.	DATE	DESCRIPTION	BY

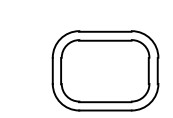





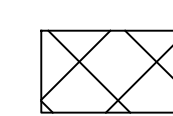
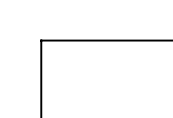


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ESNG PROJ. CODE:	DATE:	11/7/2024
MRA PROJECT NO:	SCALE:	AS SHOWN
DESIGN/CHECK BY:	JTH/CWB	SHEET: # OF 36

-  PCRH (POLARIZATION CELL REPLACEMENT) CERTIFIED FOR USE IN CLASS 1, DIVISION 1 AND DIVISION LOCATIONS
-  SSD (SOLID-STATE DECOUPLER) CERTIFIED FOR USE IN CLASS 1, DIVISION 2 AND DIVISION LOCATIONS
-  INSULATING FLANGE / MONOLITHIC INSULATOR
-  3/4" X 10' COPPER-CLAD STEEL GROUND ROD
-  MECHANICAL TYPE GROUNDING BOND AS MANUFACTURED BY BURDY (OR EQUAL)
-  EXOTHERMICALLY WELDED GROUNDING BOND AS MANUFACTURED BY ERICO (OR EQUAL)
-  CLASS 1, DIVISION 1 HAZARDOUS LOCATION BASED ON API RECOMMENDED PRACTICE 500, THIRD EDITION
-  CLASS 1, DIVISION 2 HAZARDOUS LOCATION BASED ON API RECOMMENDED PRACTICE 500, THIRD EDITION

NOTE:
 ALL GROUNDING MATERIALS AND CONNECTIONS SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR. THE SOLID STATE DECOUPLER AND MONOLITHIC INSULATOR WILL BE PROVIDED BY EASTERN SHORE NATURAL GAS AND INSTALLED BY CONTRACTOR.

SOUTH TIE-IN HAZARD CLASSIFICATION

10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD

REVISIONS			
NO.	DATE	DESCRIPTION	BY

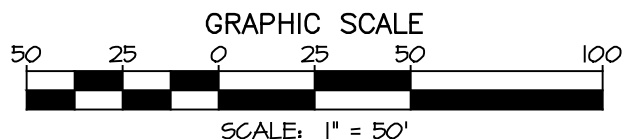
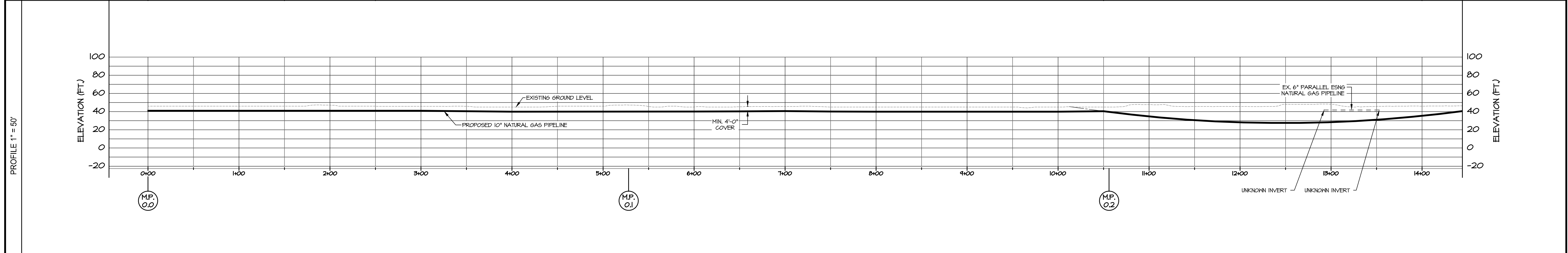
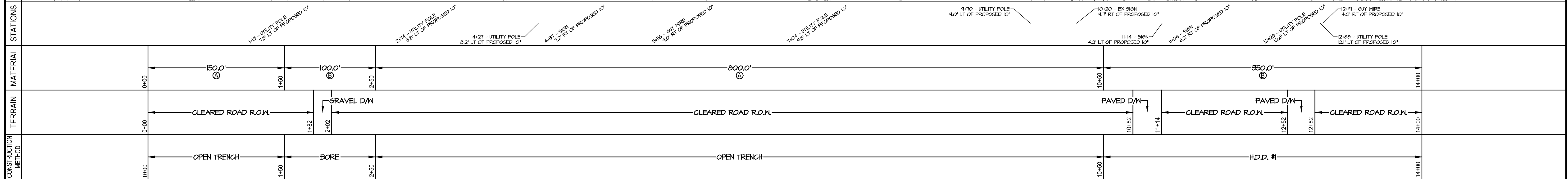
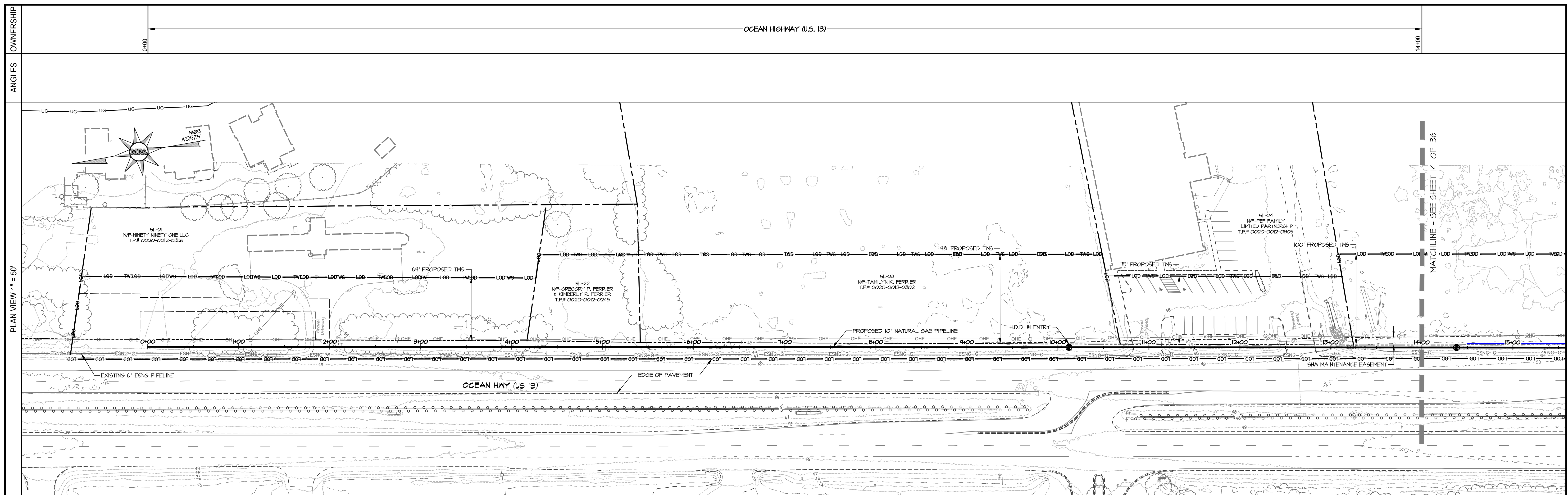


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ESNG PROJ. CODE:	DATE:	11/7/2024
MRA PROJECT NO:	SCALE:	AS SHOWN
DESIGN/CHECK BY:	JTH/CWB	SHEET: ## OF 36



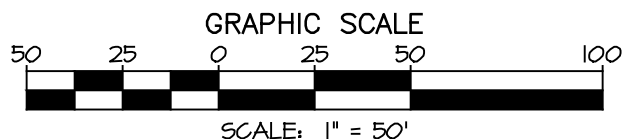
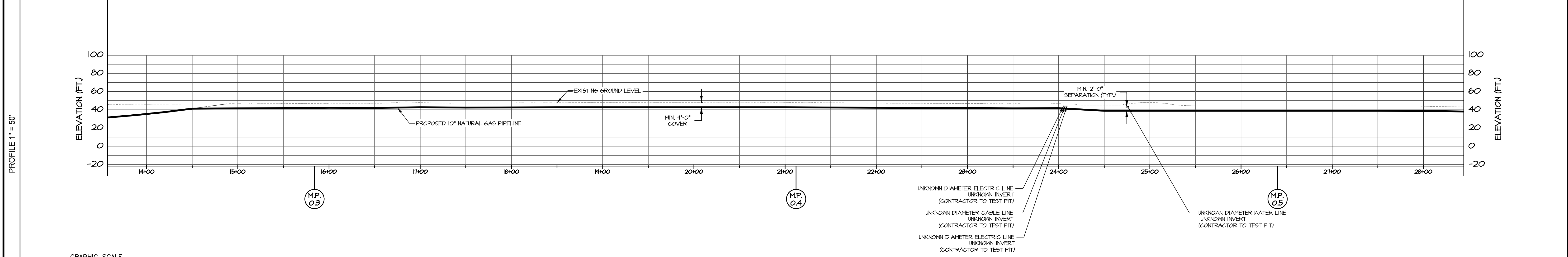
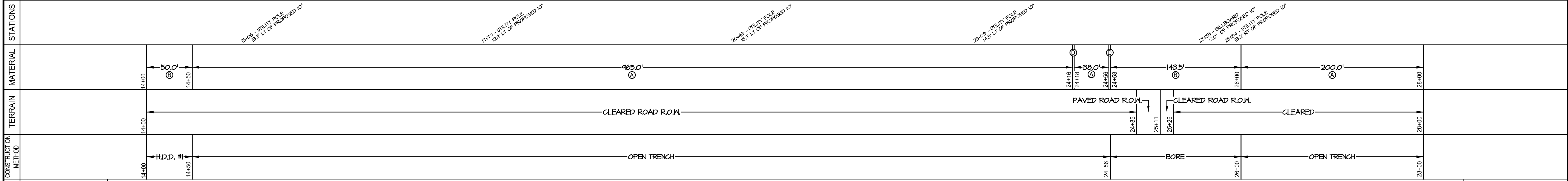
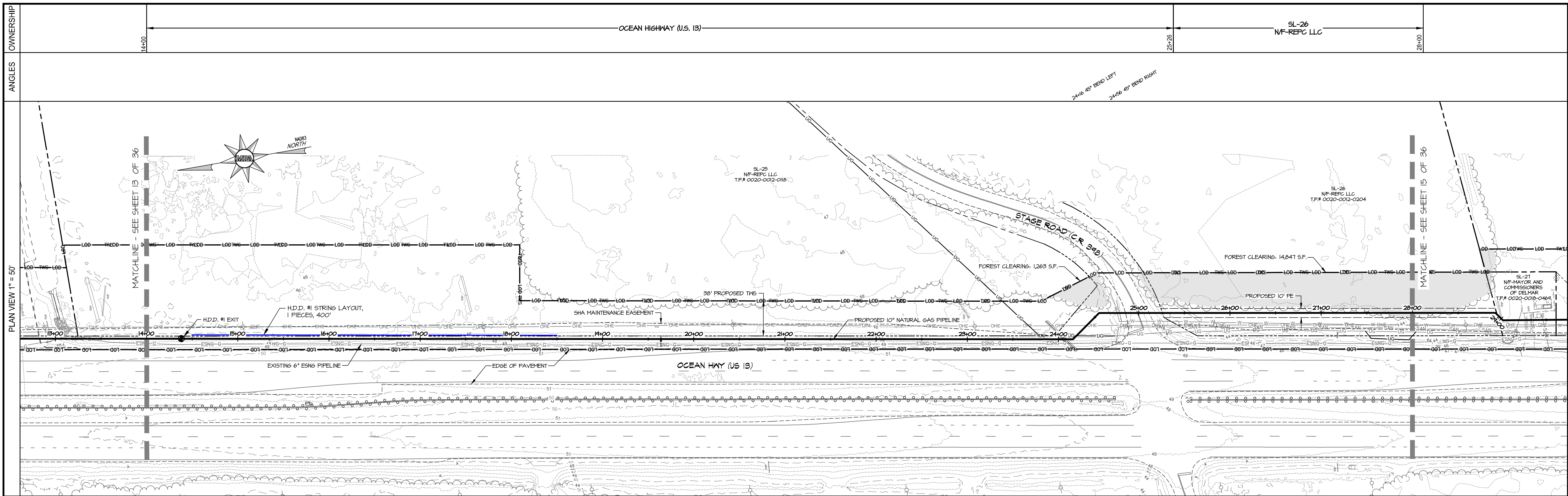
PLAN & PROFILE

MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS		REVISIONS	
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	950'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	450'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A									

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10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 13 OF 36



PLAN & PROFILE

MATERIAL SPECIFICATIONS			
ITEM	DESCRIPTION	QTY	ITEM
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	1203'	
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	194'	
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A	
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	2	

TEST LEAD/STATIONS			
STATION	TYPE	STATION	TYPE

REFERENCE DRAWINGS		
DESCRIPTION	DRAWING NUMBER	NO. DATE

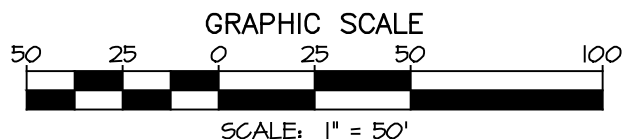
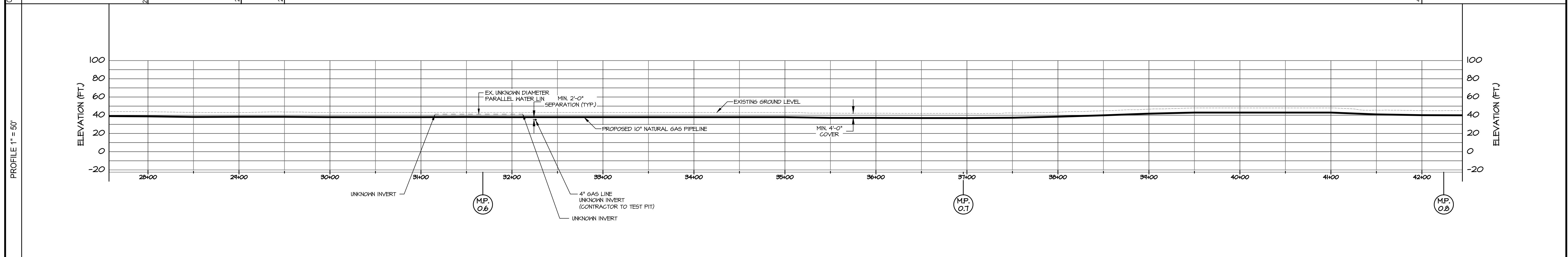
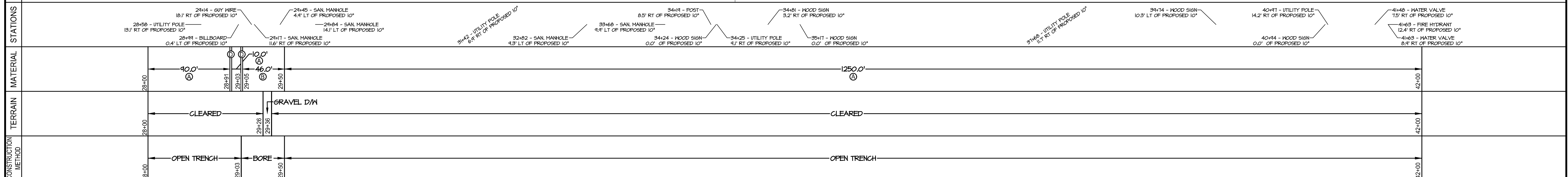
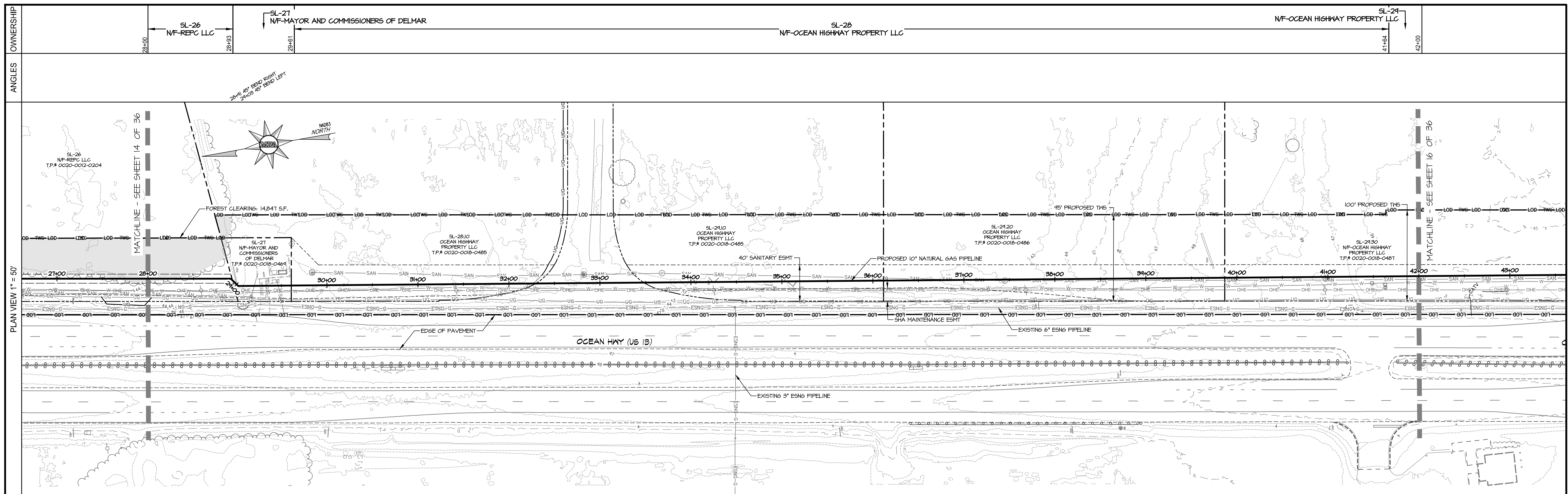
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DESCRIPTION	BY

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10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 14 OF 36



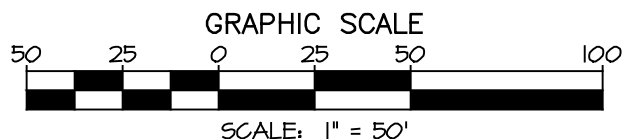
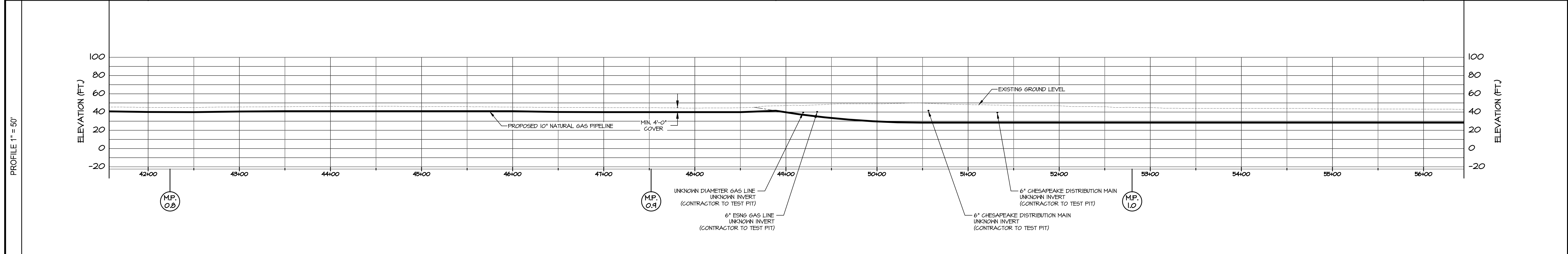
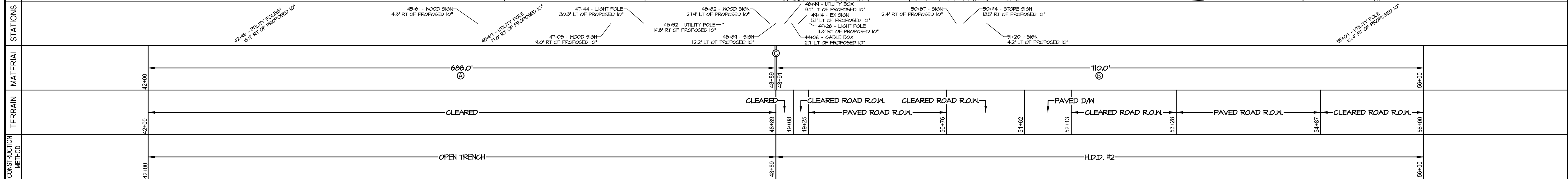
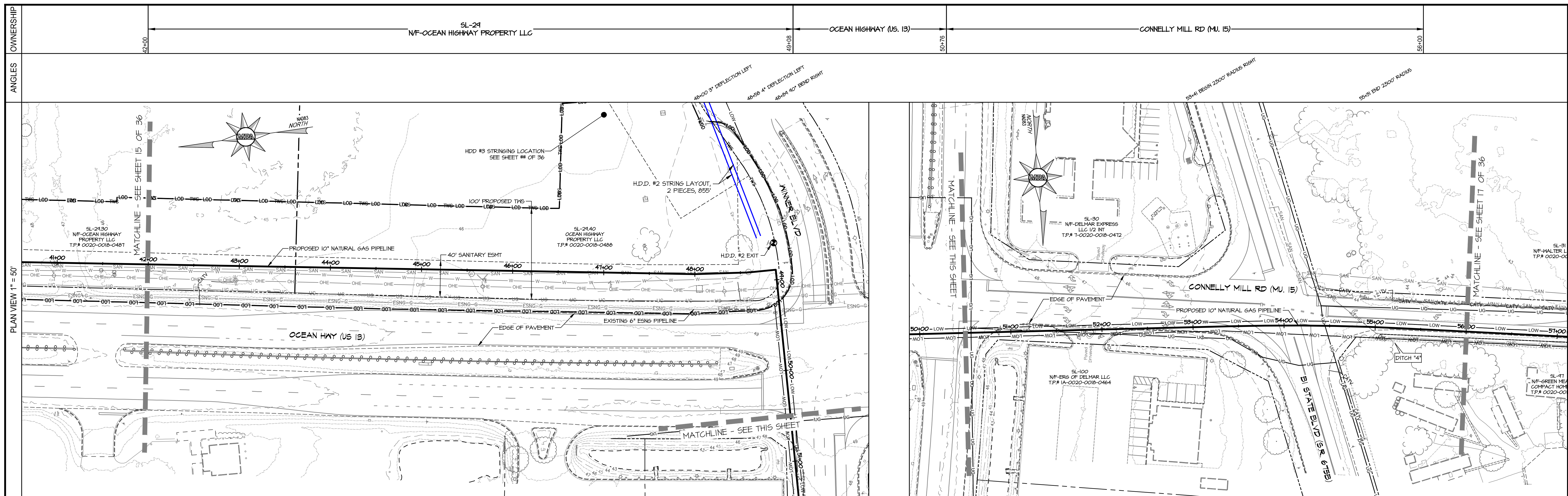
PLAN & PROFILE

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ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	1350'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	46'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	2									

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10" PROPOSED PIPELINE		DATE: 11/7/2024	
SALISBURY INTEGRITY		SCALE: 1" = 50'	
WICOMICO COUNTY, MD		SHEET: 15 OF 36	
ESNG PROJECT CODE:	22394	DESIGN/CHECK BY:	JTH/CWB



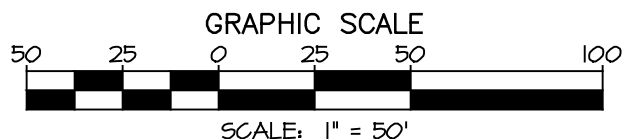
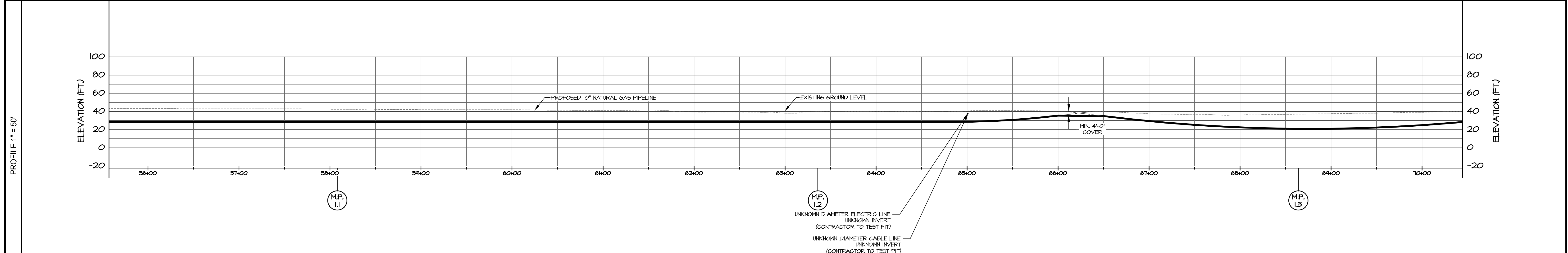
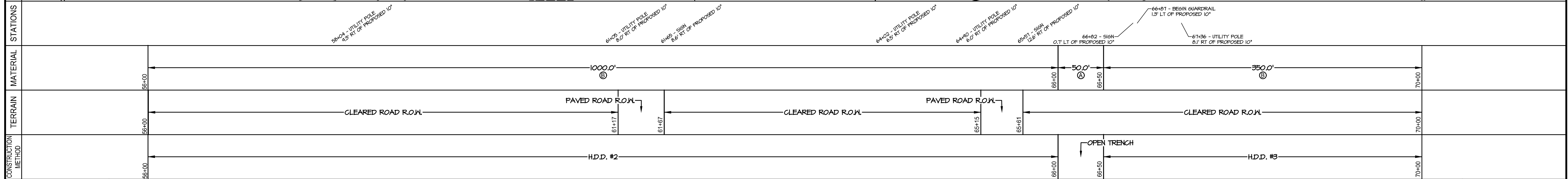
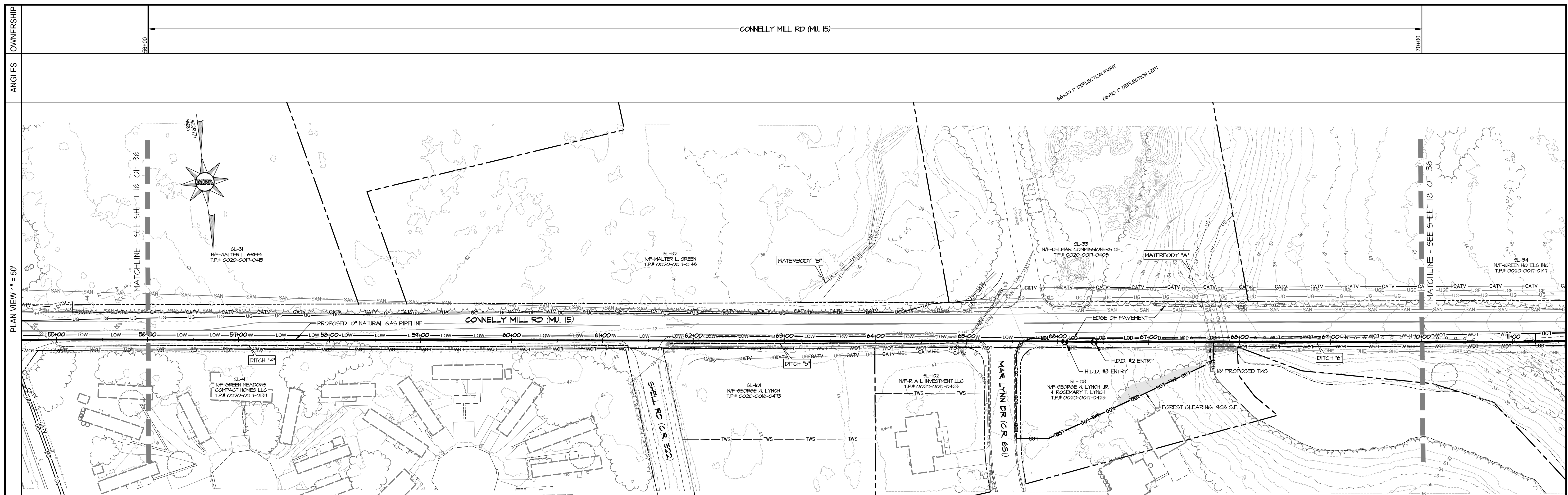
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MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS		REVISIONS	
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	688'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS PORTLAND CEMENT	710'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90' BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45' BEND, SEGMENTABLE	1									

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10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 16 OF 36



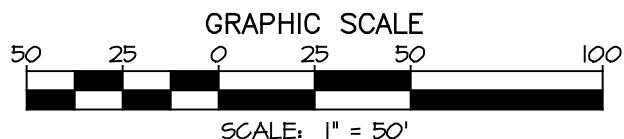
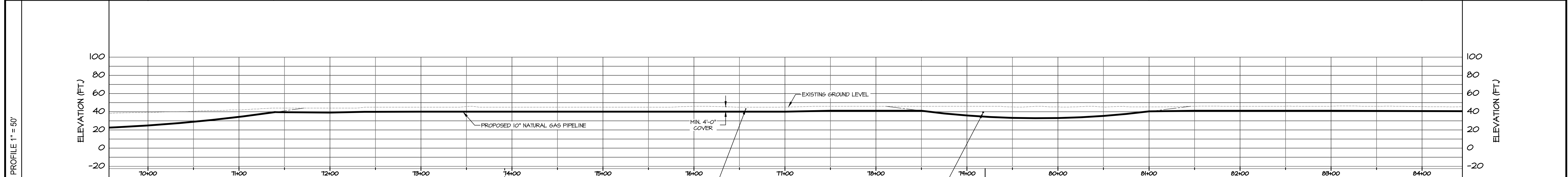
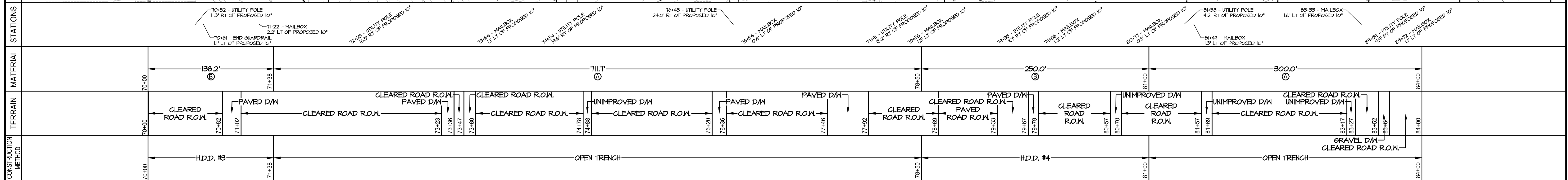
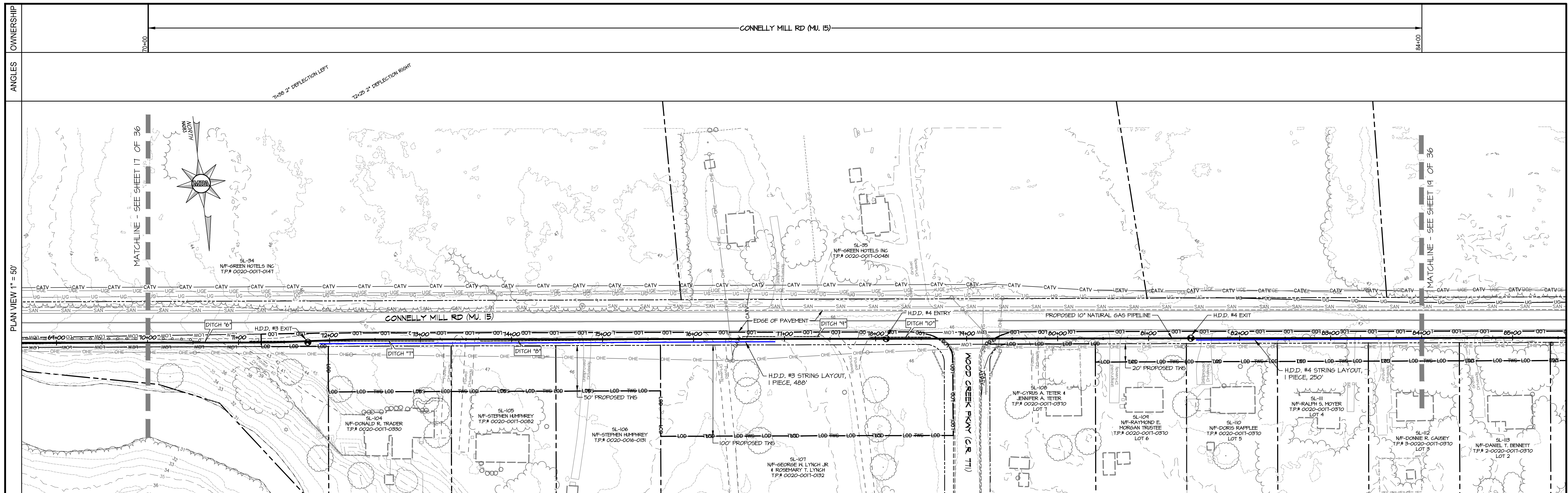
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ITEM	DESCRIPTION	QTY	UNIT	ITEM	DESCRIPTION	QTY	UNIT	DESCRIPTION	DRAWING NUMBER	NO.	DATE	DESCRIPTION	BY
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	50'											
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	1350'											
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90' BEND, SEGMENTABLE	N/A											
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45' BEND, SEGMENTABLE	N/A											

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PLAN & PROFILE
10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 17 OF 36



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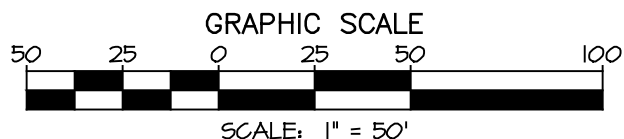
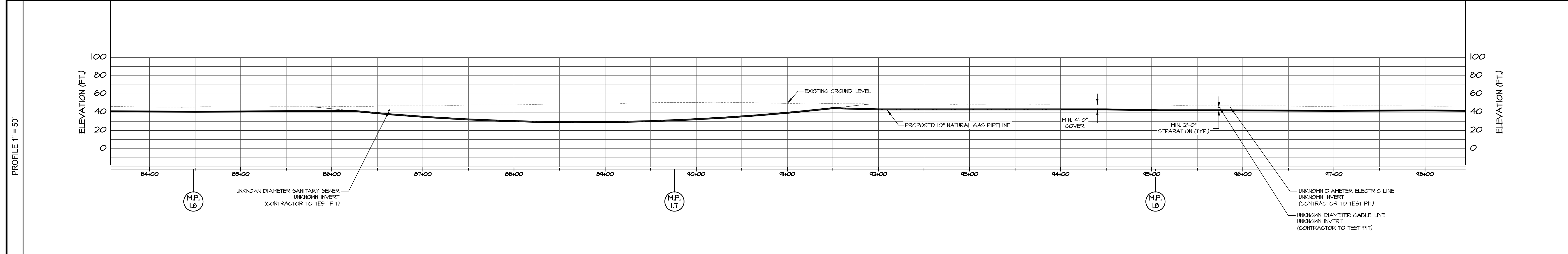
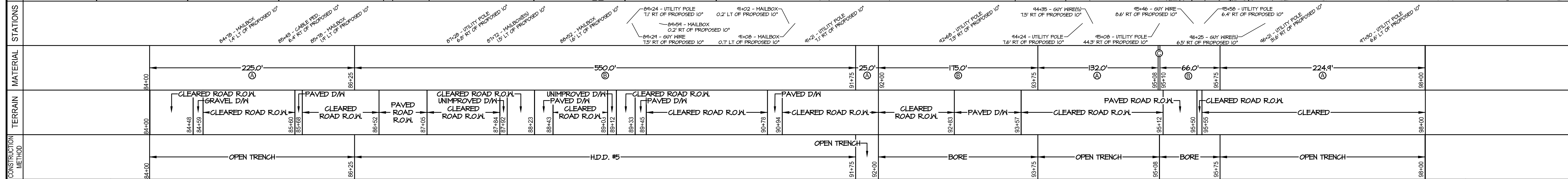
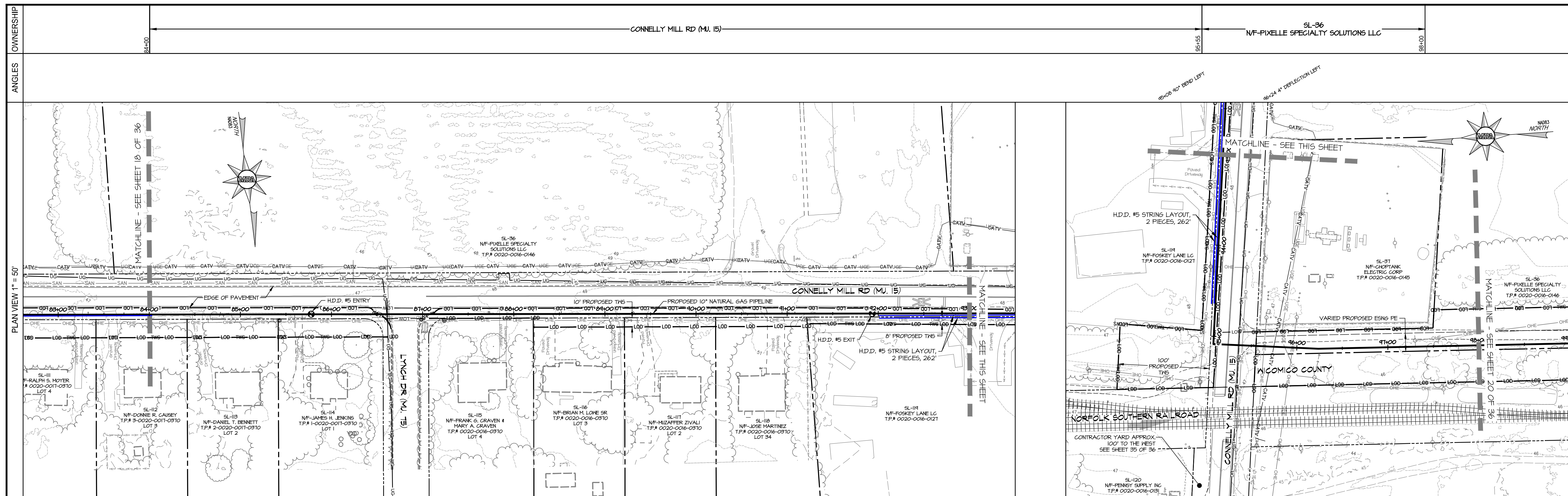
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ITEM	DESCRIPTION	QTY	UNIT	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	1000'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS POWDERCOAT	400'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A									

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10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE: DATE: 11/7/2024
 MRA PROJECT NO: 22394 SCALE: 1" = 50'
 DESIGN/CHECK BY: JTH/CWB SHEET: 18 OF 36



PLAN & PROFILE

MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS		REVISIONS	
ITEM	DESCRIPTION	QTY	UNIT	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	607'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POWDERCOAT	74'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A									



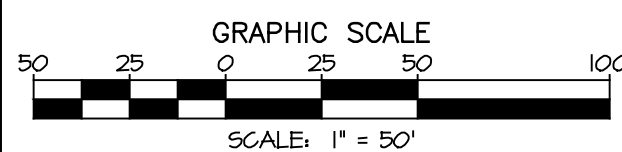
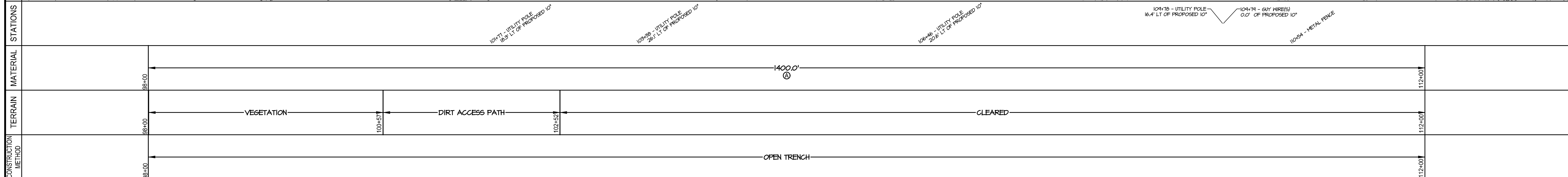
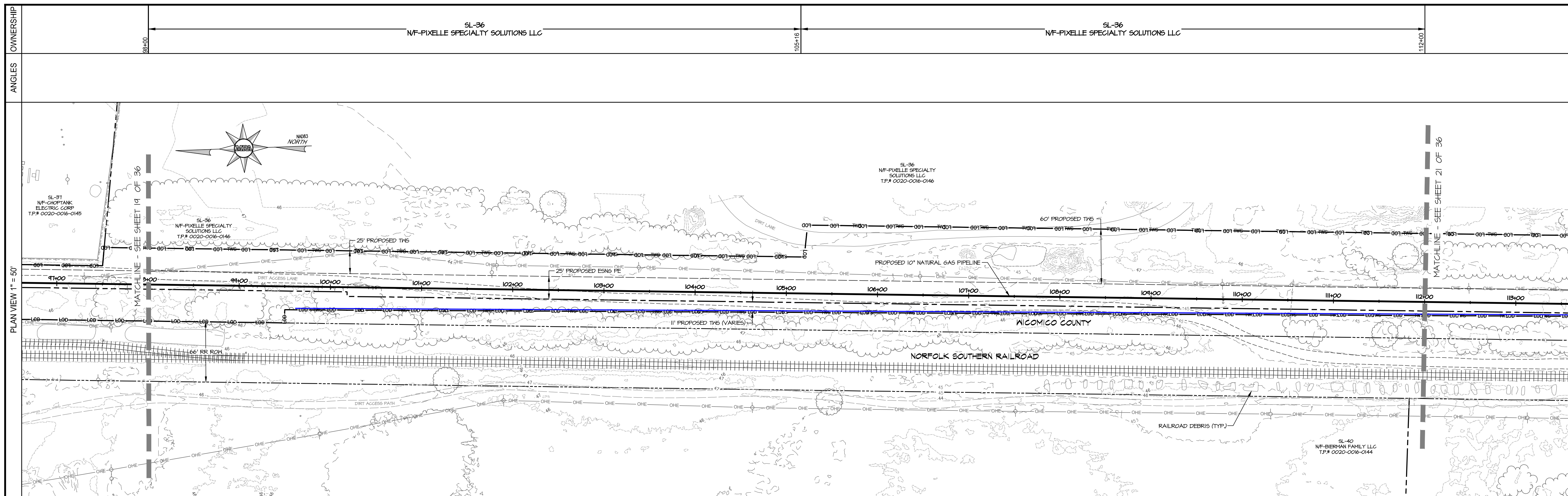
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10" PROPOSED PIPELINE
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WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 19 OF 36



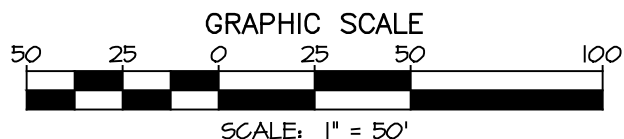
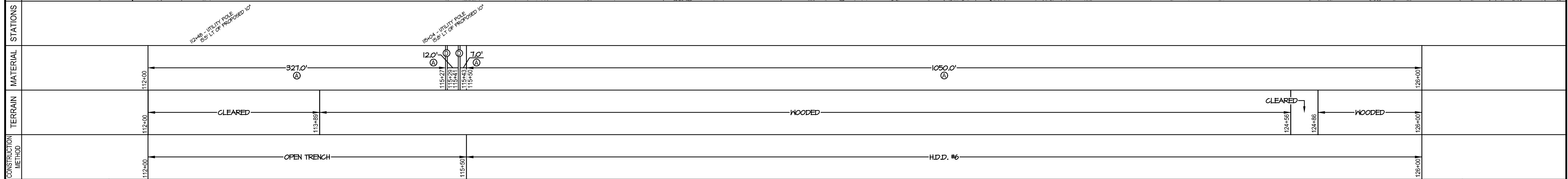
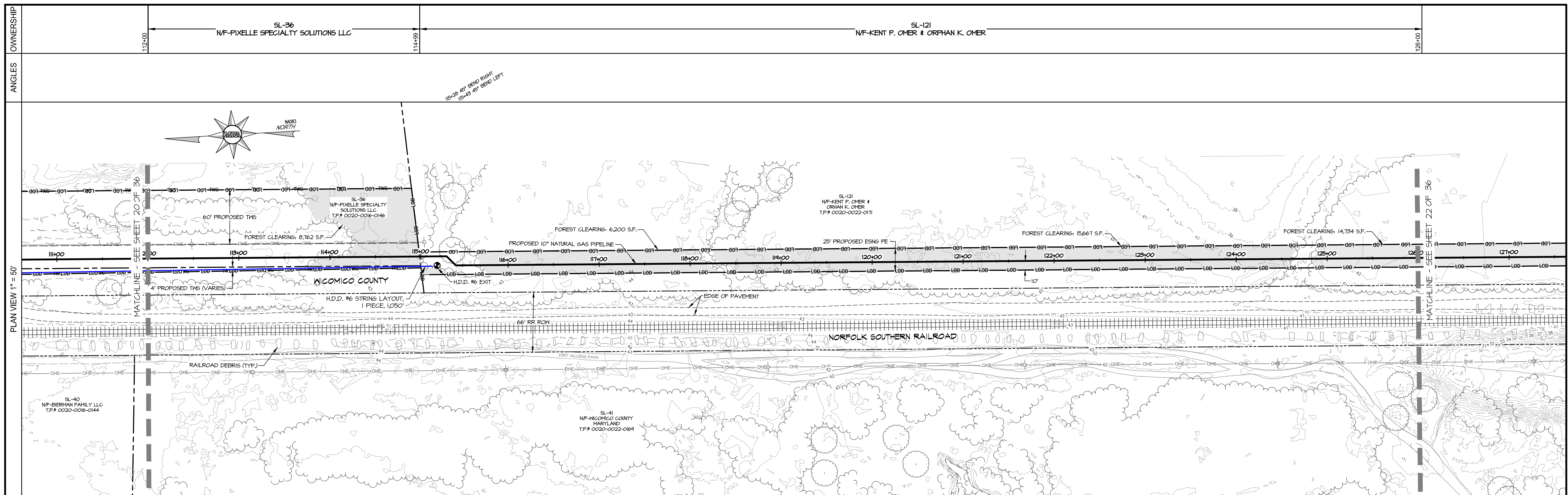
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MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS		REVISIONS			
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE	DESCRIPTION	BY
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	1400'											
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	N/A											
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A											
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A											

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10" PROPOSED PIPELINE		SALISBURY INTEGRITY		WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	22394	DATE:	11/7/2024	SCALE:	1" = 50'
MRA PROJECT NO:	22394	DESIGN/CHECK BY:	JTH/CWB	SHEET:	20 OF 36



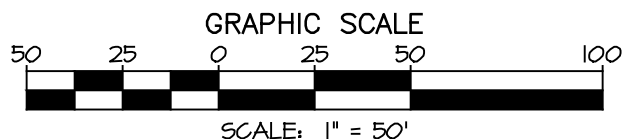
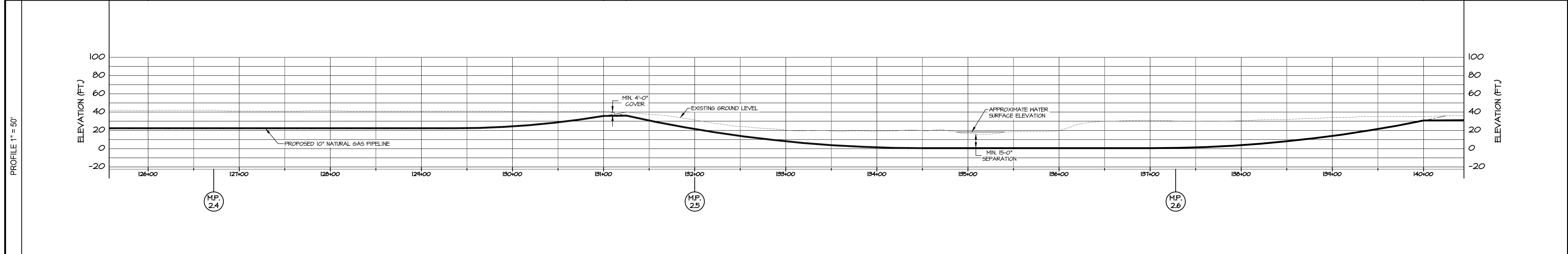
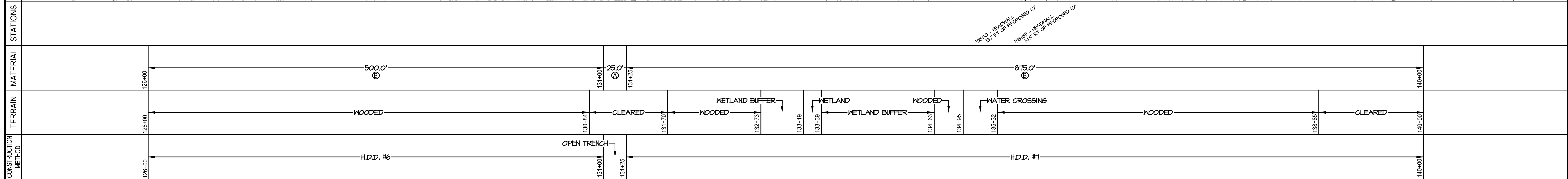
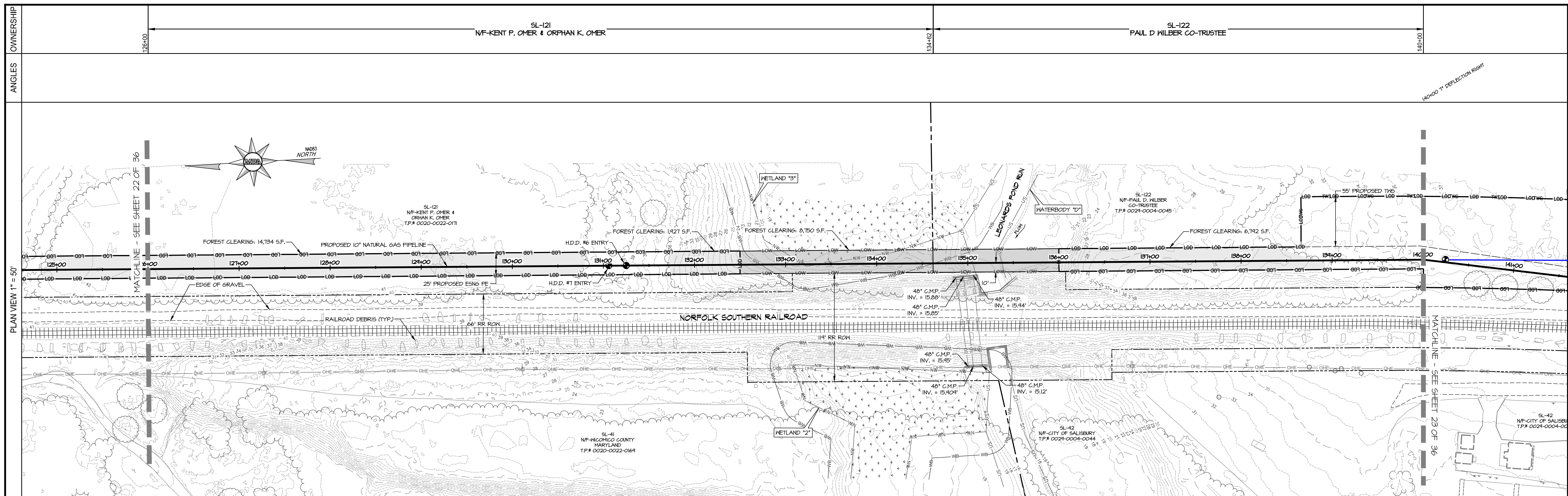
PLAN & PROFILE

MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS		REVISIONS	
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	1396'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	N/A									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	2									

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10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 21 OF 36



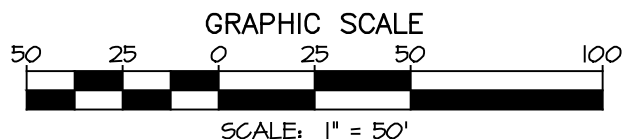
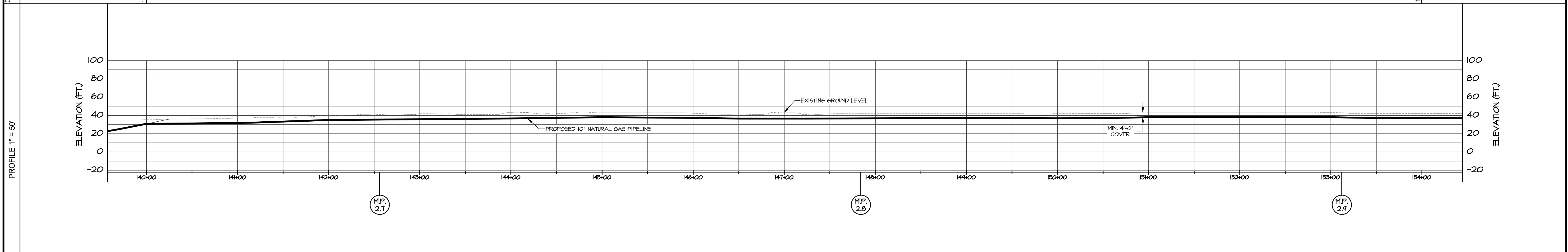
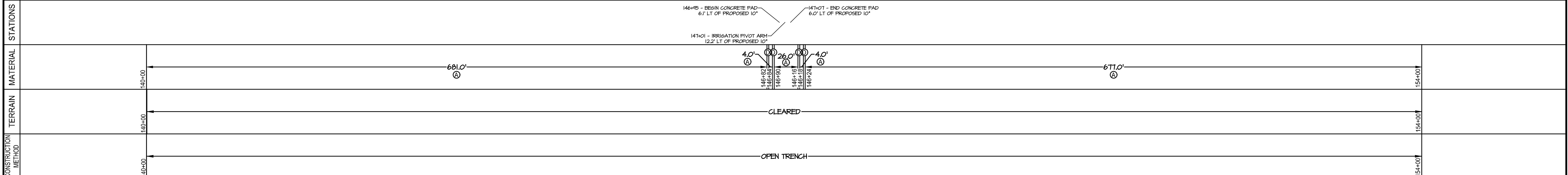
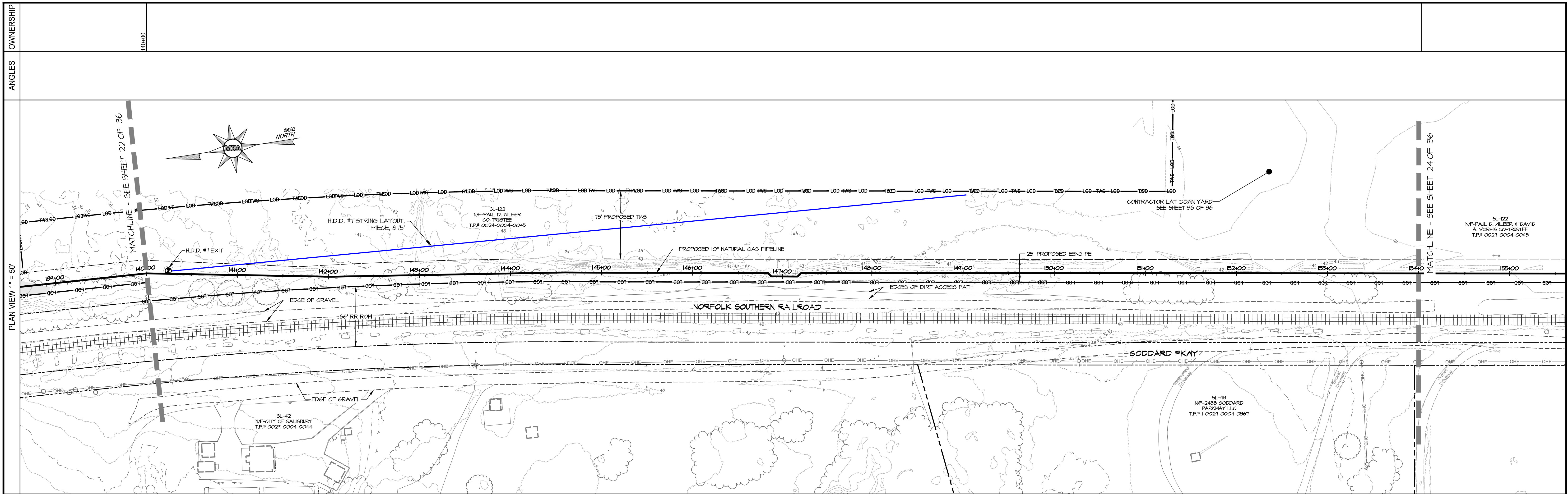
PLAN & PROFILE

MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS			REVISIONS		
ITEM	DESCRIPTION	QTY	UNIT	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE	DESCRIPTION	BY
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	25'											
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POLYMERCEMENT	1375'											
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A											
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A											

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10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 22 OF 36



PLAN & PROFILE

MATERIAL SPECIFICATIONS			
ITEM	DESCRIPTION	QTY	ITEM
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	1392'	
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POLYURETHANE	N/A	
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A	
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	4	

TEST LEAD/STATIONS			
STATION	TYPE	STATION	TYPE

REFERENCE DRAWINGS	
DESCRIPTION	DRAWING NUMBER

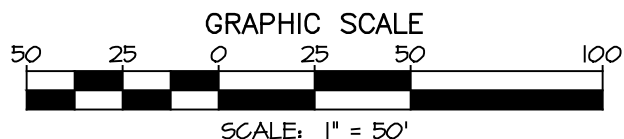
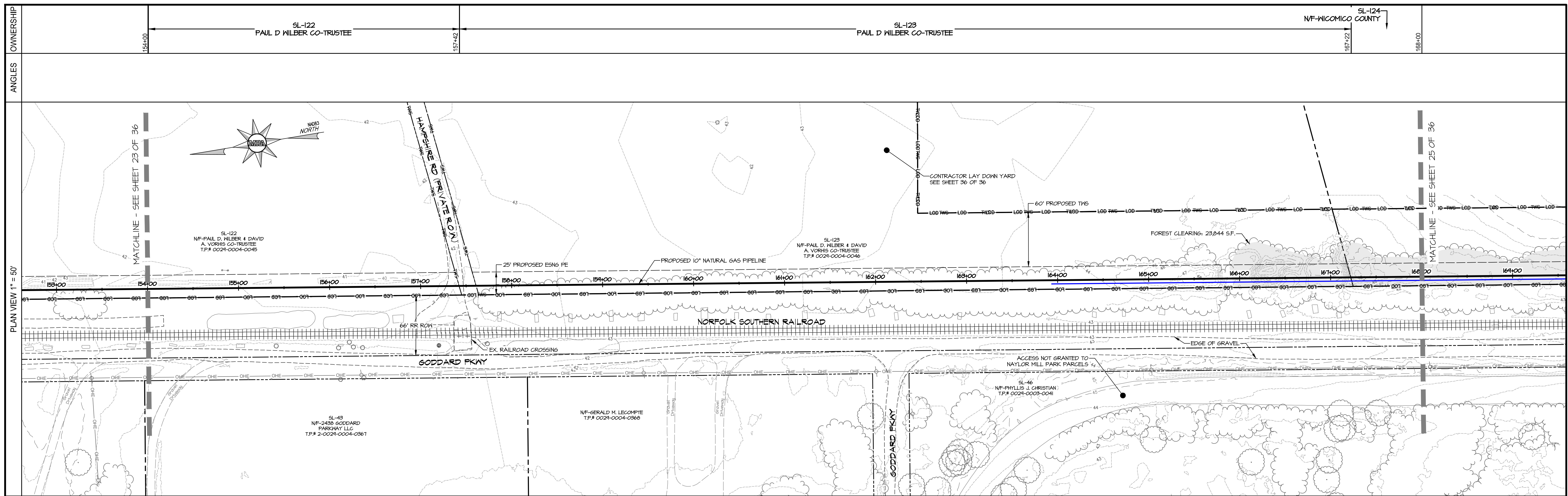
REVISIONS	
NO.	DATE

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10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 23 OF 36



PLAN & PROFILE

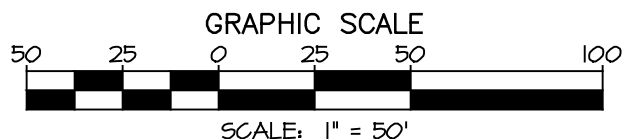
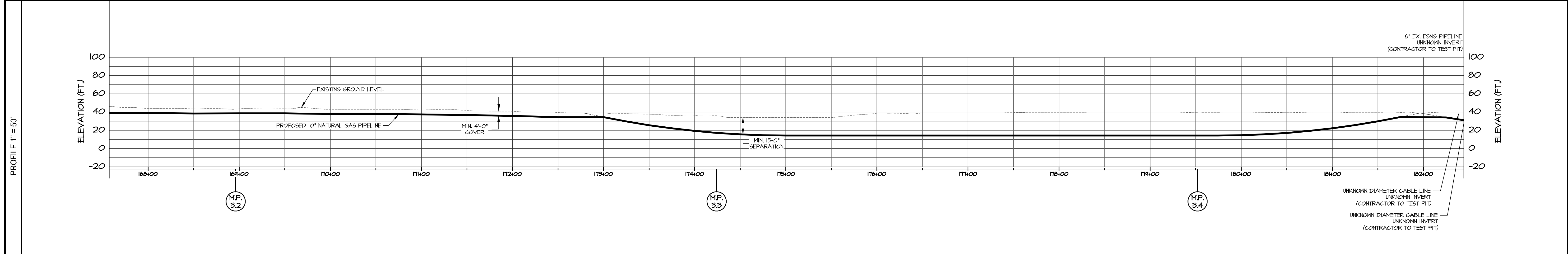
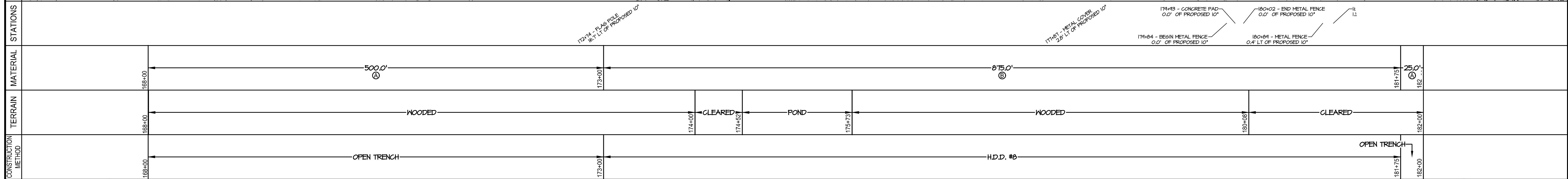
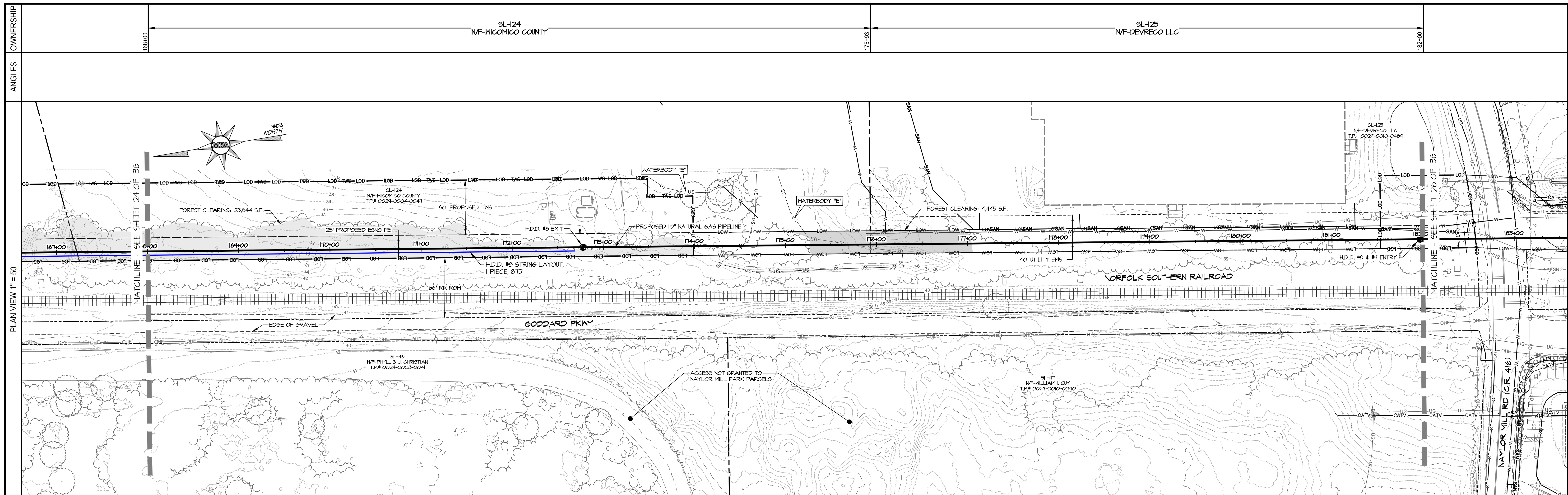
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ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE	DESCRIPTION	BY
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	1300'												
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS PORTLAND CEMENT	100'												
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A												
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A												

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10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 24 OF 36



PLAN & PROFILE

MATERIAL SPECIFICATIONS			
ITEM	DESCRIPTION	QTY	ITEM
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	525'	
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POLYMERCEMENT	875'	
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A	
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A	

TEST LEAD/STATIONS			
STATION	TYPE	STATION	TYPE

REFERENCE DRAWINGS		
DESCRIPTION	DRAWING NUMBER	NO. DATE

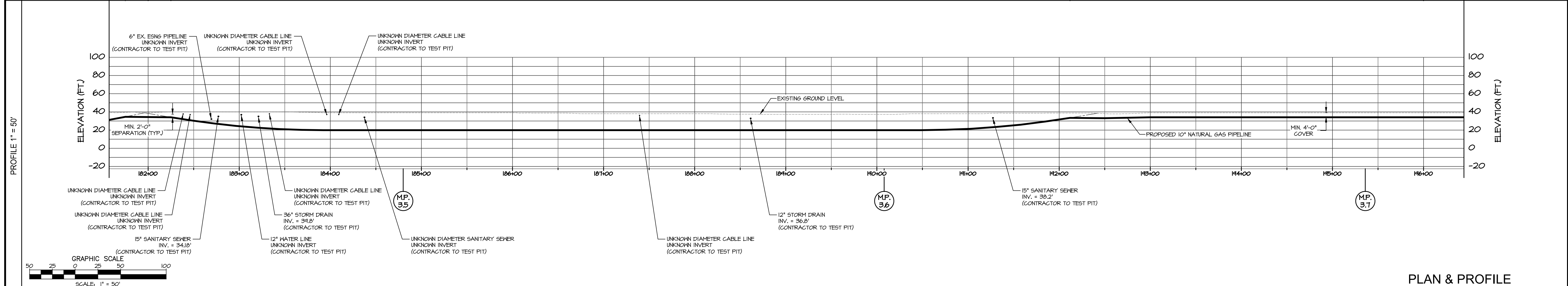
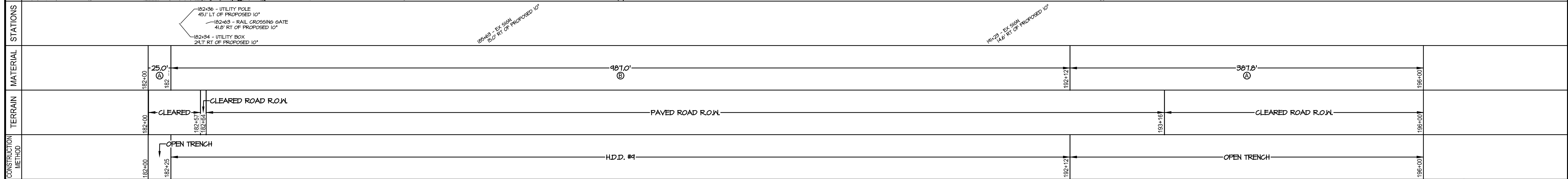
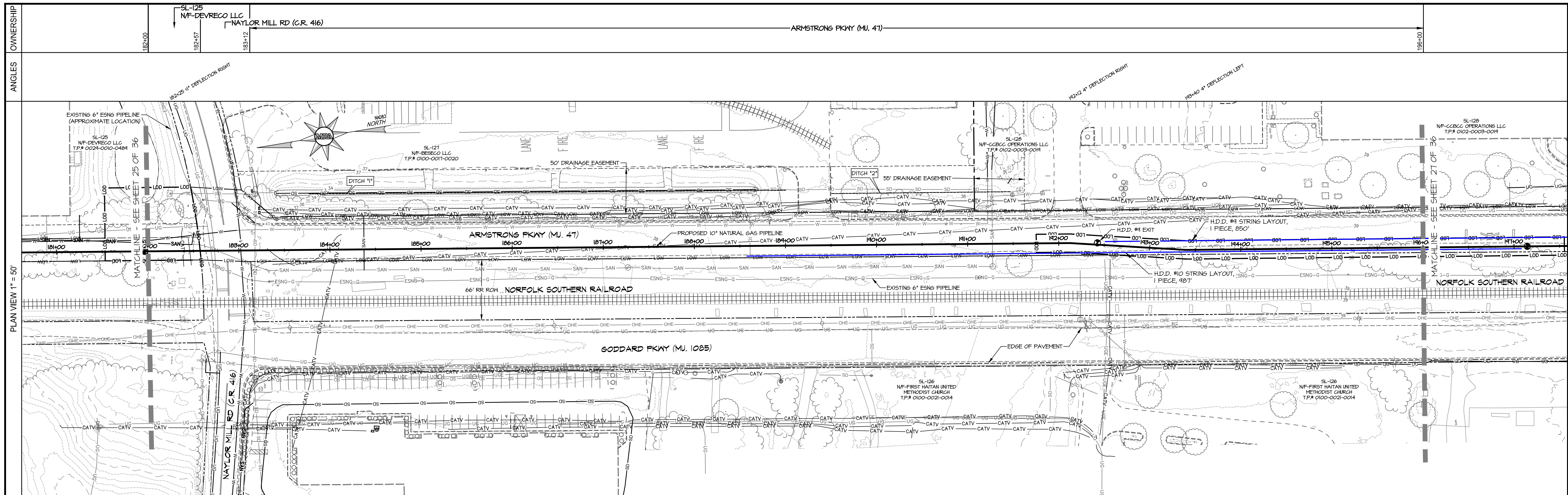
REVISIONS	
DESCRIPTION	BY

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WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 25 OF 36



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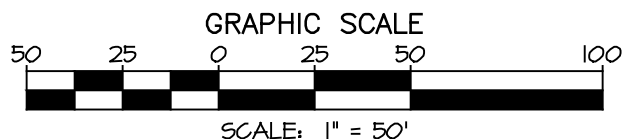
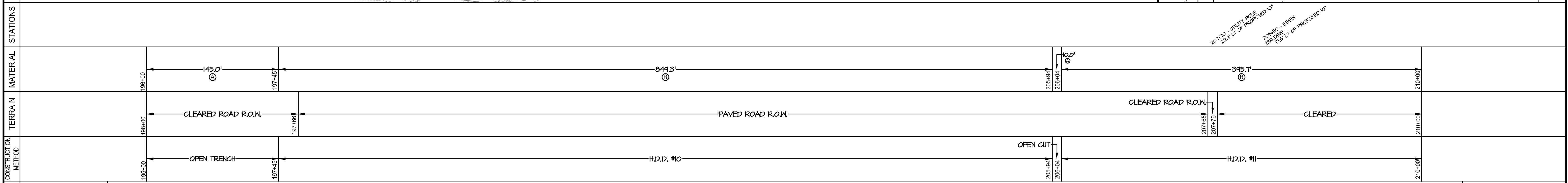
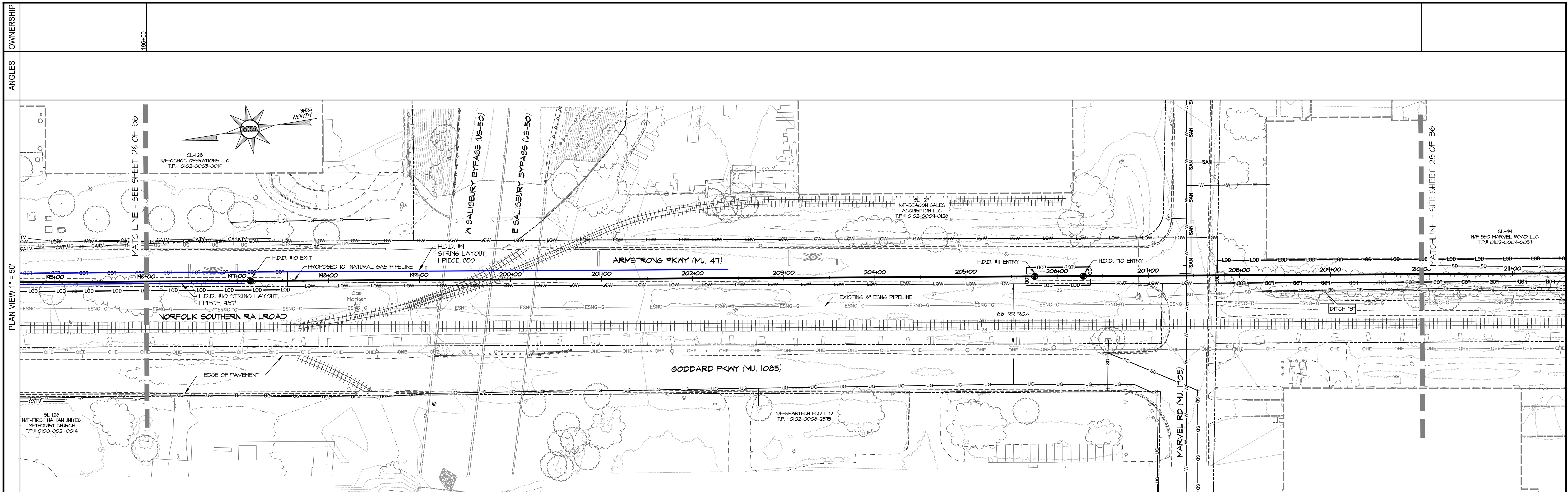
MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS			REVISIONS		
ITEM	DESCRIPTION	QTY	UNIT	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE	DESCRIPTION	BY
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	413'											
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	987'											
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A											
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A											

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10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE: DATE: 11/7/2024
MRA PROJECT NO: 22394 SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB SHEET: 26 OF 36



PLAN & PROFILE

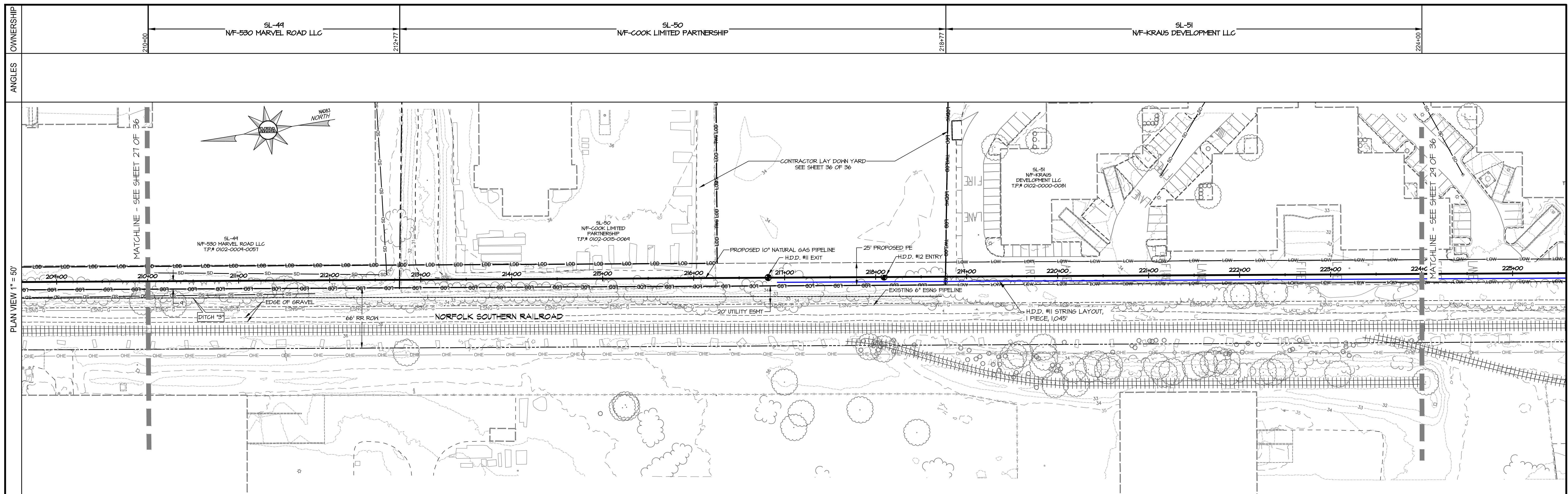
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ITEM	DESCRIPTION	QTY	UNIT	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	1246'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POLYMERCEMENT	154'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A									

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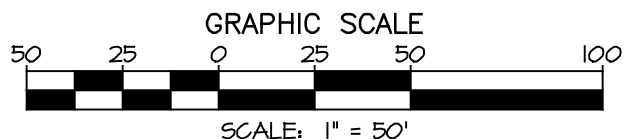
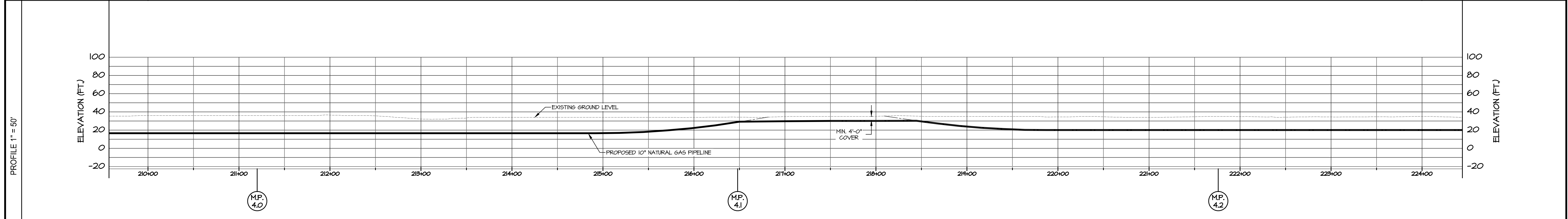
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10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 27 OF 36



STATIONS	MATERIAL	TERRAIN	CONSTRUCTION METHOD
210+00 to 212+77	650' (B)	CLEARED	H.D.D. #11
212+77 to 216+50	194.3' (A)	CLEARED	OPEN TRENCH
216+50 to 218+44	555.1' (B)	PAVED	H.D.D. #12
218+44 to 224+00			



PLAN & PROFILE

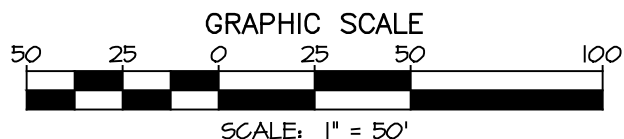
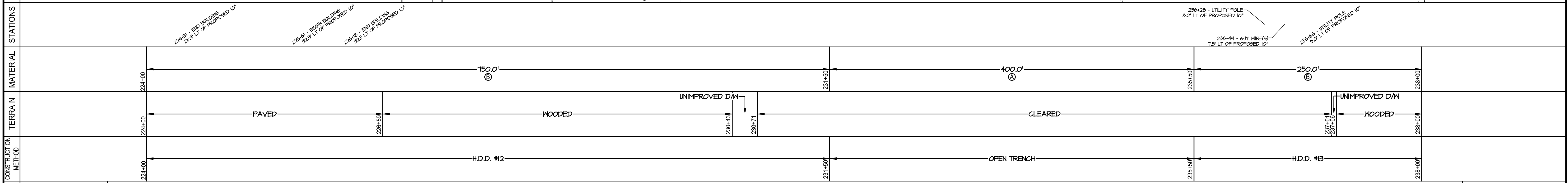
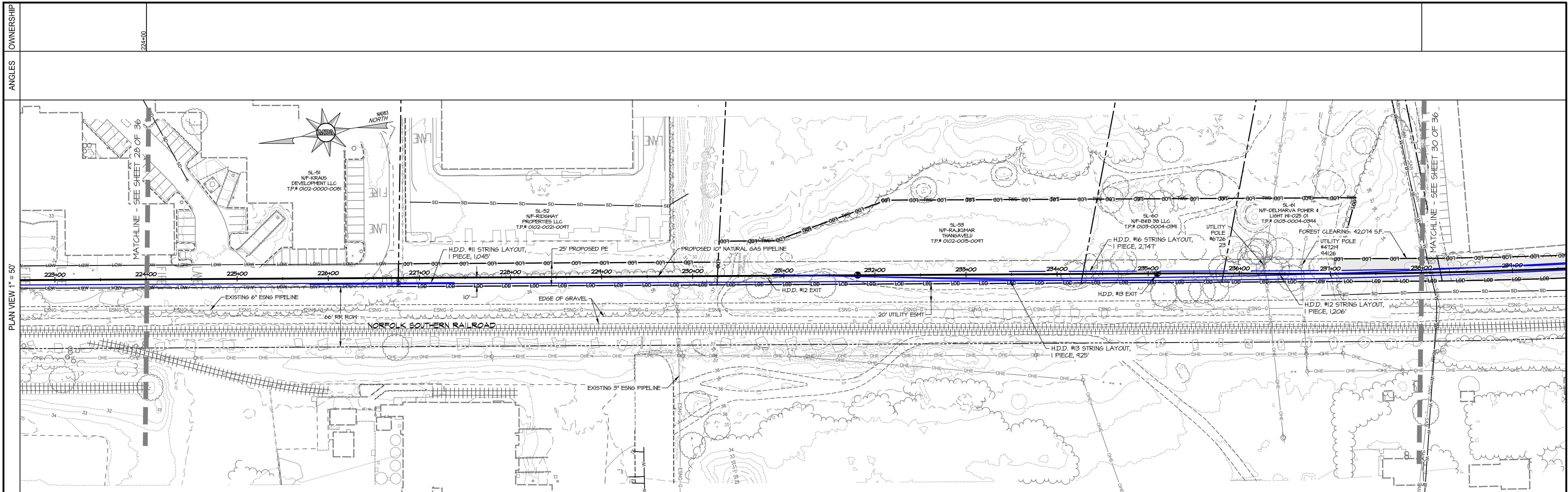
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ITEM	DESCRIPTION	QTY	UNIT	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	194'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POLYURETHANE	1206'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A									

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ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 28 OF 36



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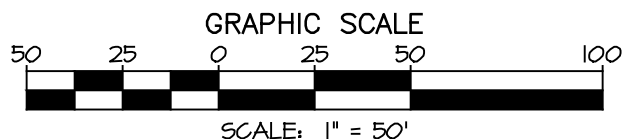
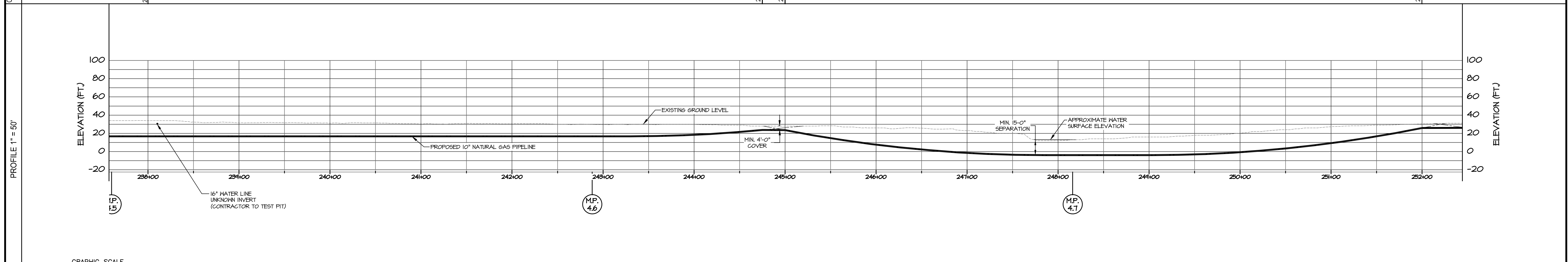
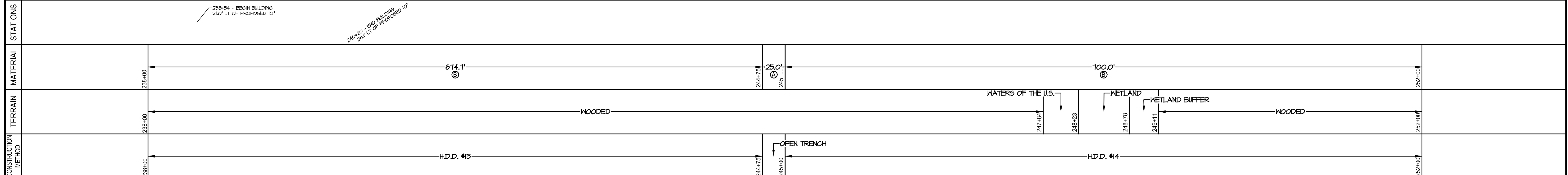
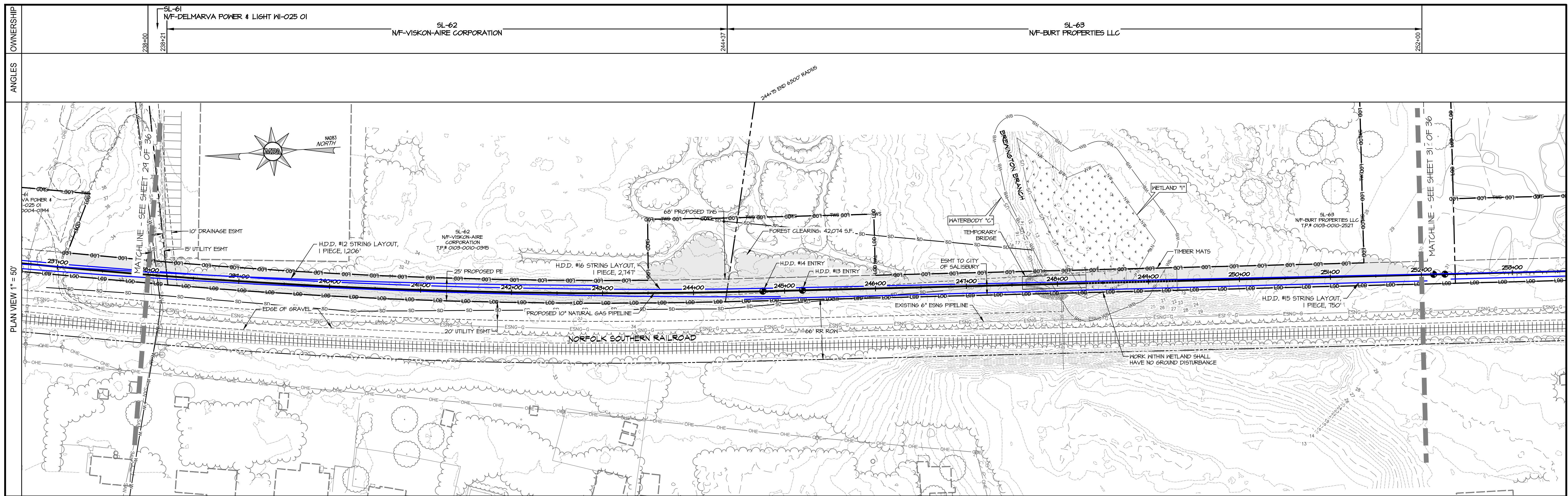
MATERIAL SPECIFICATIONS					TEST LEAD/STATIONS				REFERENCE DRAWINGS		REVISIONS			
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY	STATION	TYPE	STATION	TYPE	DESCRIPTION	NO.	DATE	DESCRIPTION	BY
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	500'												
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS PORTLAND CEMENT	900'												
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A												
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A												

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10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50"
DESIGN/CHECK BY: JTH/CWB	SHEET: 29 OF 36



PLAN & PROFILE

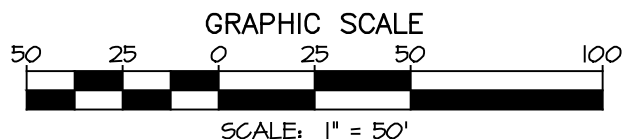
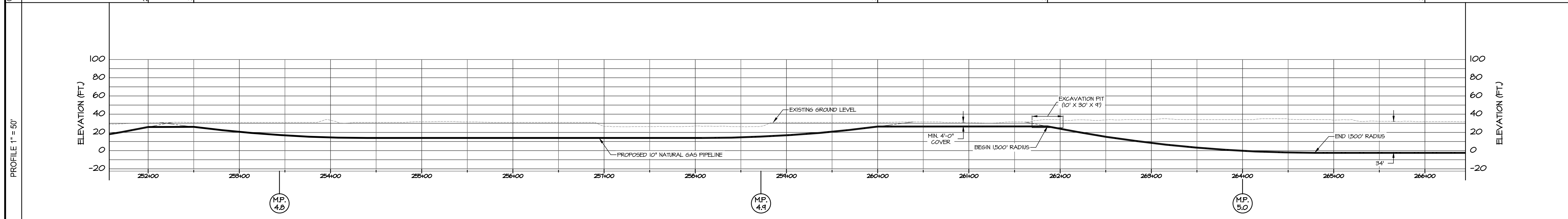
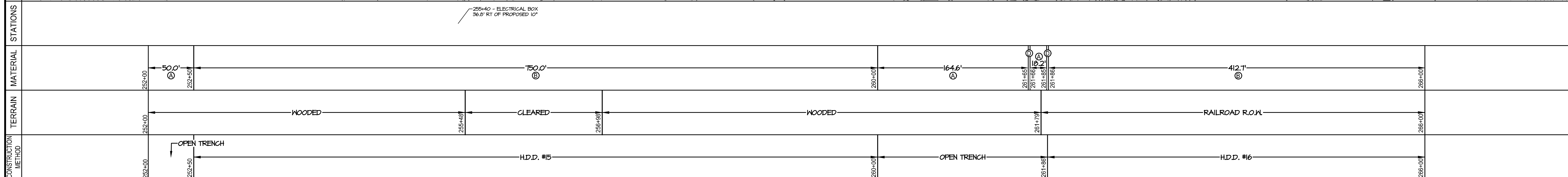
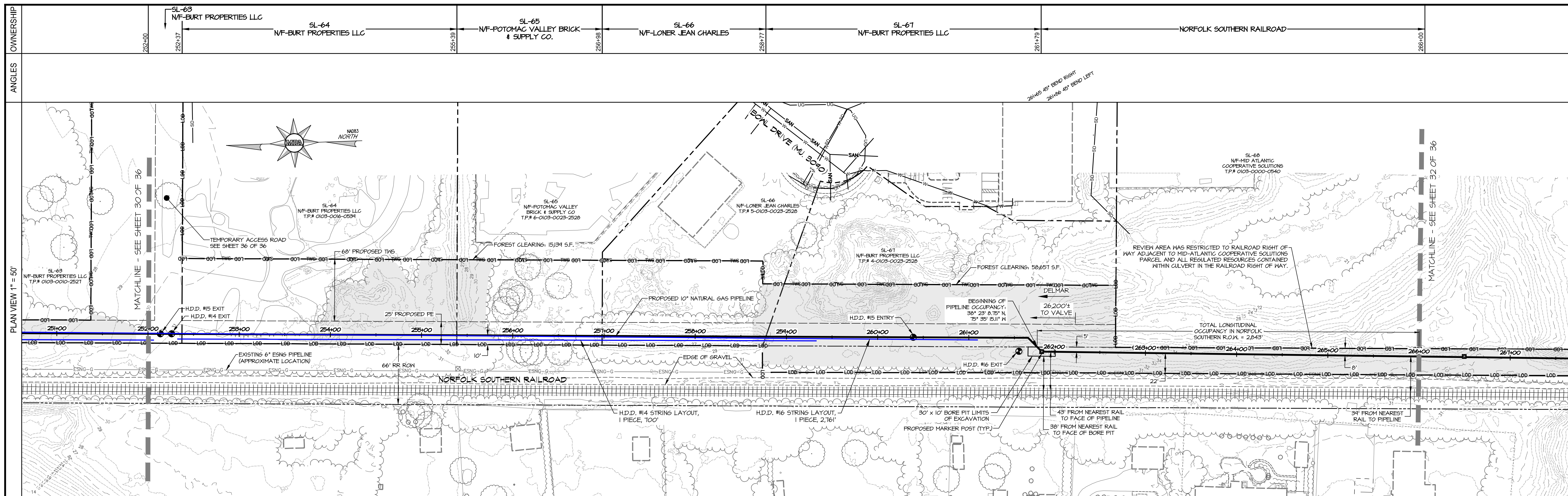
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ITEM	DESCRIPTION	QTY	UNIT	STATION	TYPE	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	25'									
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POWDERCOAT	1375'									
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A									
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A									

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ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 30 OF 36



PLAN & PROFILE

MATERIAL SPECIFICATIONS				
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE	215'		
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MLS FBE & 40 MLS POWDERCOAT	1163'		
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A		
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	2		

TEST LEAD/STATIONS			
STATION	TYPE	STATION	TYPE
261+86.0	Ø		

REFERENCE DRAWINGS		
DESCRIPTION	DRAWING NUMBER	NO. DATE

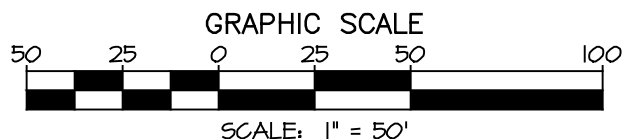
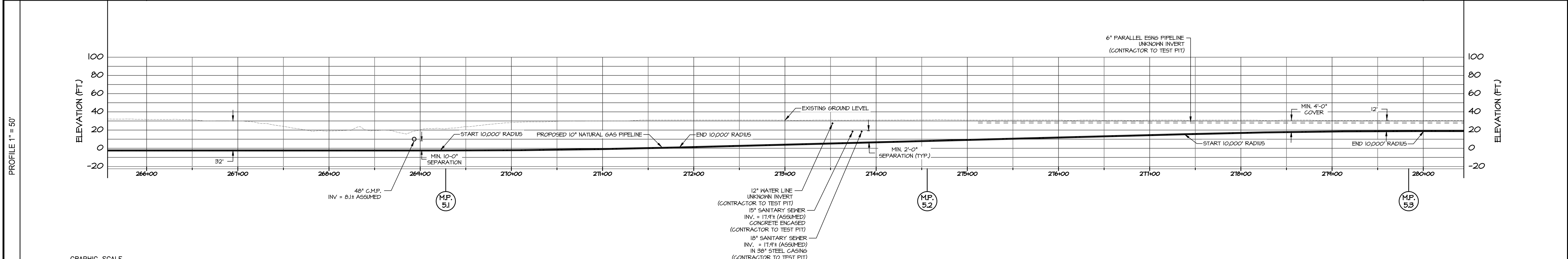
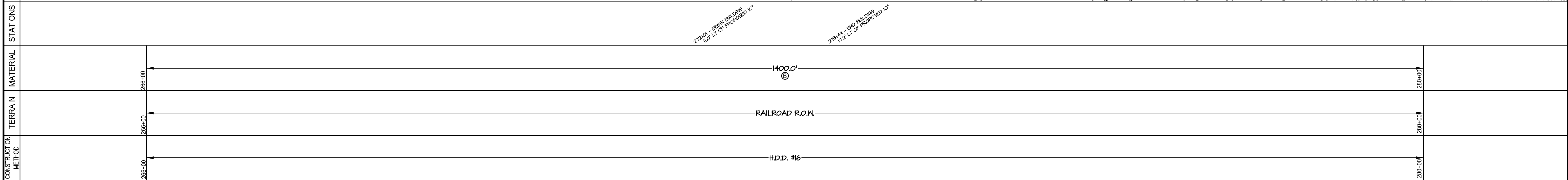
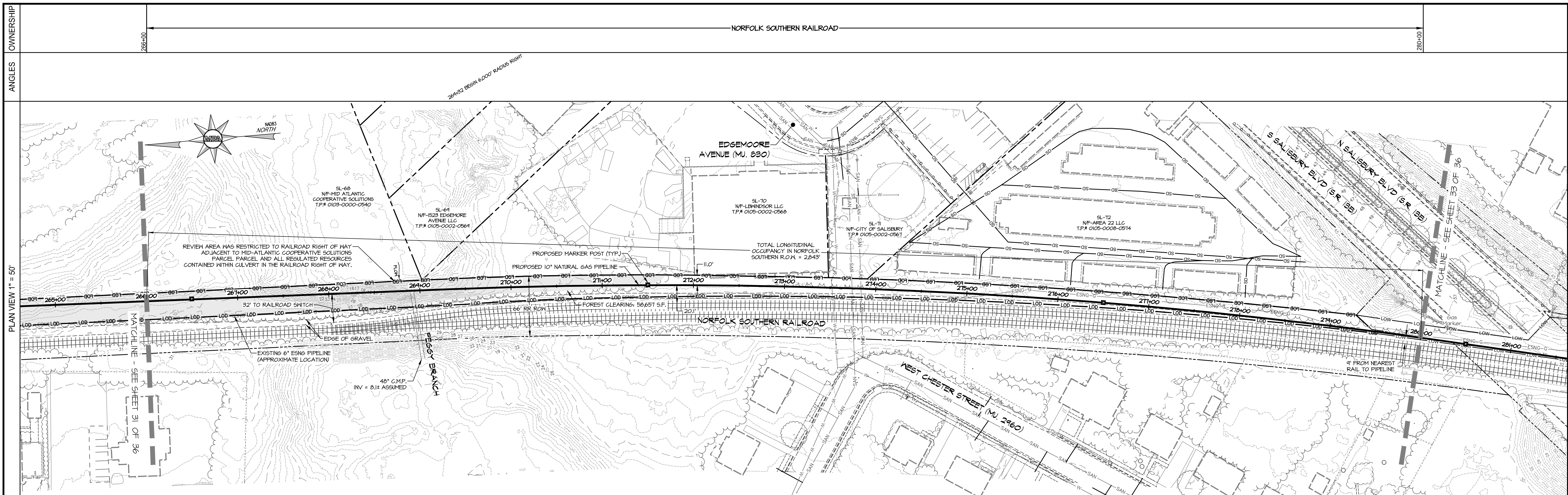
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DESCRIPTION	BY

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10" PROPOSED PIPELINE
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WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 31 OF 36



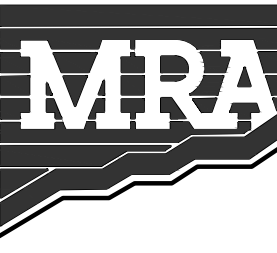
PLAN & PROFILE

MATERIAL SPECIFICATIONS			
ITEM	DESCRIPTION	QTY.	REMARKS
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	N/A	
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POLYURETHANE	1400'	
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90° BEND, SEGMENTABLE	N/A	
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45° BEND, SEGMENTABLE	N/A	

TEST LEAD/STATIONS			
STATION	TYPE	STATION	TYPE
266+50.0	MARKER		
271+50.0	MARKER		
276+50.0	MARKER		

REFERENCE DRAWINGS			
DESCRIPTION	DRAWING NUMBER	NO.	DATE

REVISIONS	
NO.	DESCRIPTION



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10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 32 OF 36

OWNERSHIP

ANGLES

PLAN VIEW 1" = 50'

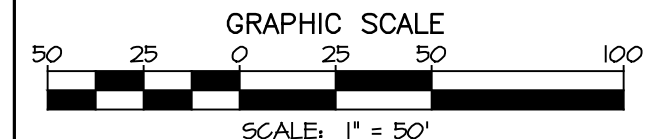
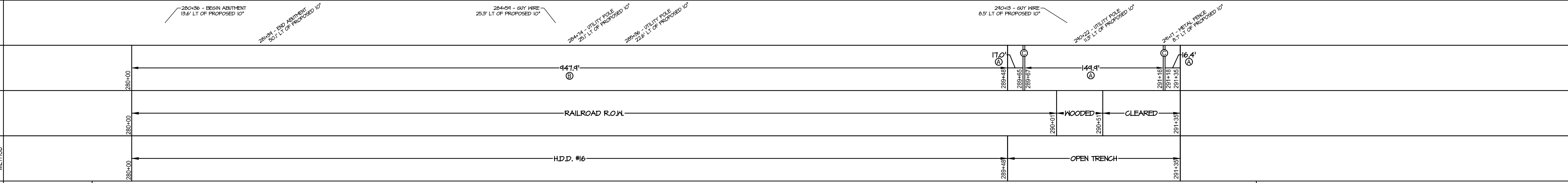
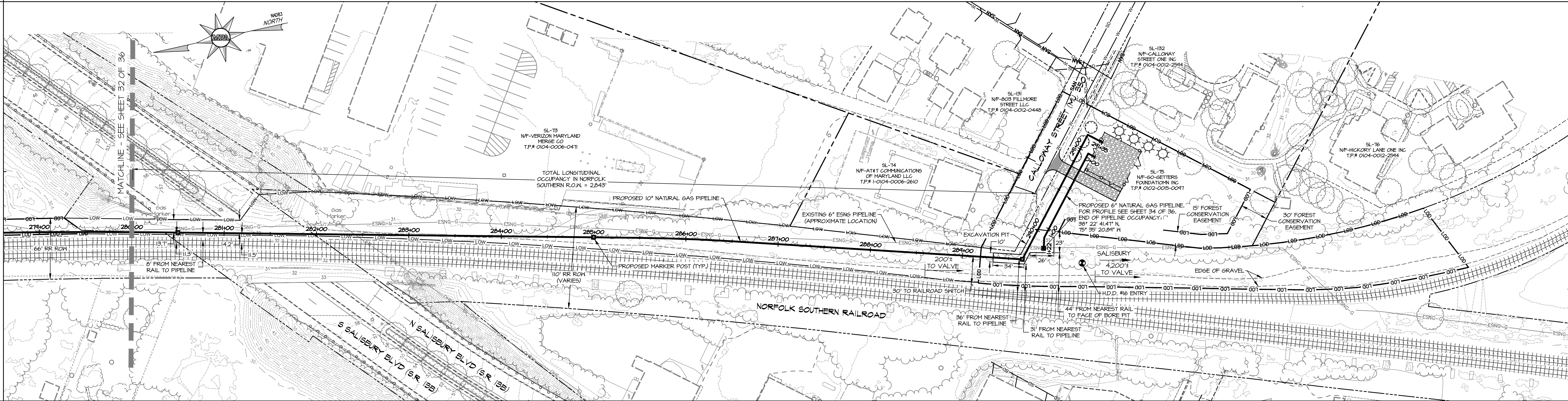
STATIONS

MATERIAL

TERRAIN

CONSTRUCTION METHOD

PROFILE 1" = 50'



PLAN & PROFILE

MATERIAL SPECIFICATIONS				TEST LEAD/STATIONS				REFERENCE DRAWINGS		REVISIONS			
ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY	STATION	TYPE	DESCRIPTION	DRAWING NUMBER	NO.	DATE	DESCRIPTION	BY
A	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE	189'				280+50.0	MARKER						
B	PIPE, 10.750" x 0.365" X-60 W/ 14-16 MILS FBE & 40 MILS POREMORTAR	948'				285+00.0	MARKER						
C	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 90' BEND, SEGMENTABLE	2				289+65.0	MARKER						
D	ELBOW, 10.750" x 0.365" W.T., Y-60 3R, 45' BEND, SEGMENTABLE	N/A											

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 NATURAL GAS
 500 ENERGY LANE, SUITE 200 DOVER, DE 19901
 TELEPHONE (302) 734-6710 - FAX (302) 734-6745

10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 33 OF 36

OWNERSHIP

ANGLES

PLAN VIEW 1" = 20'

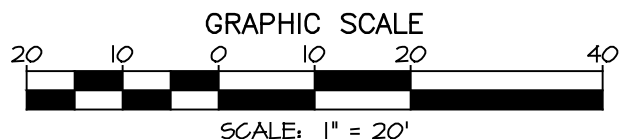
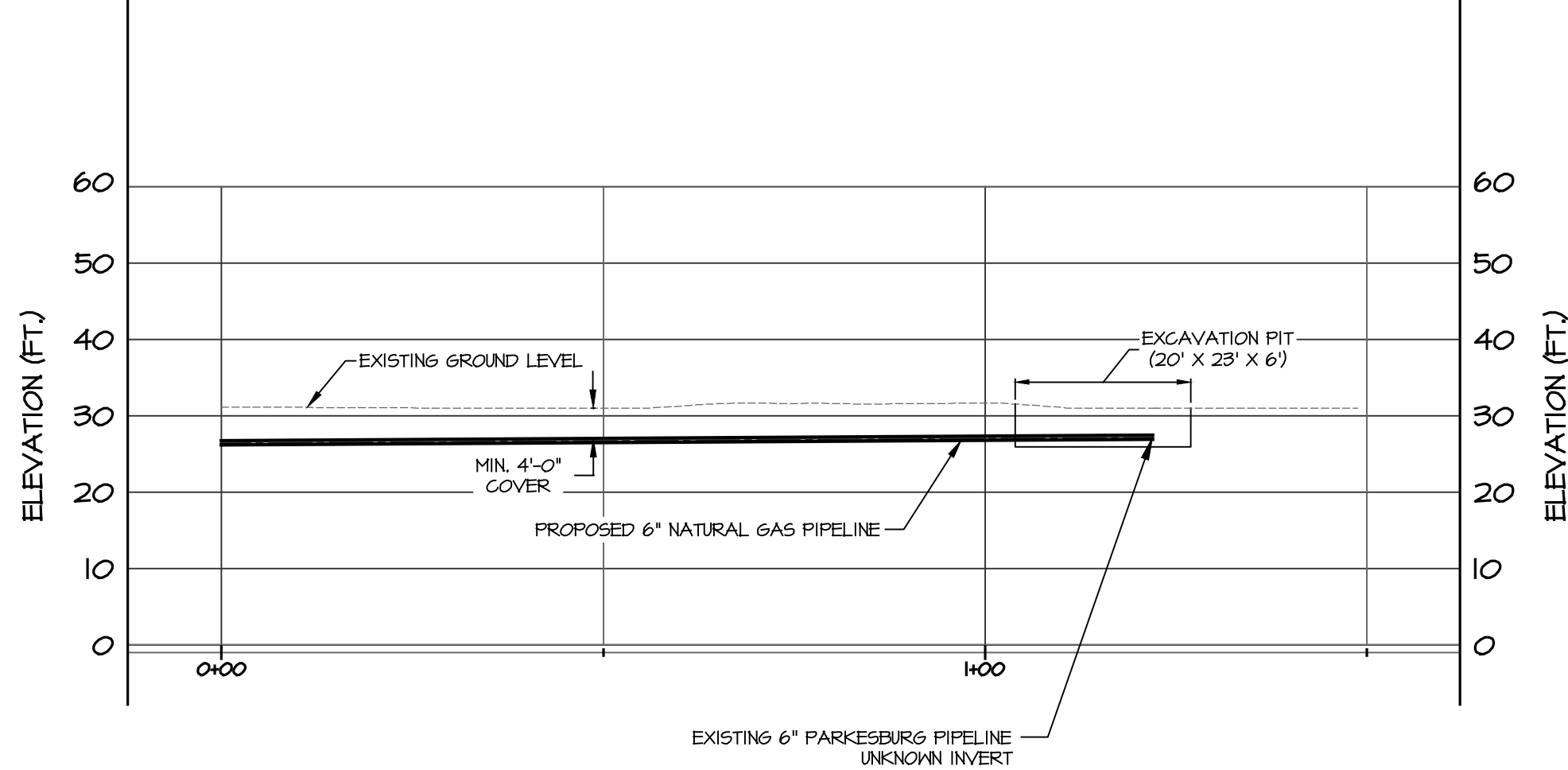
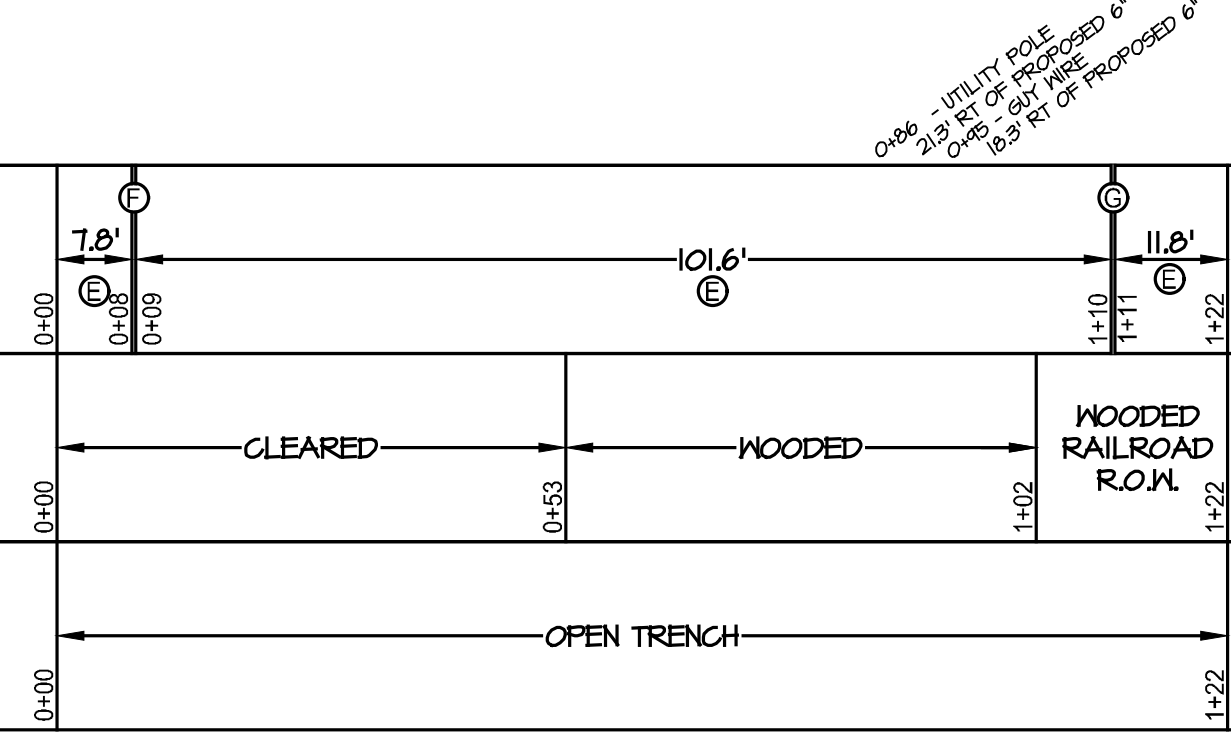
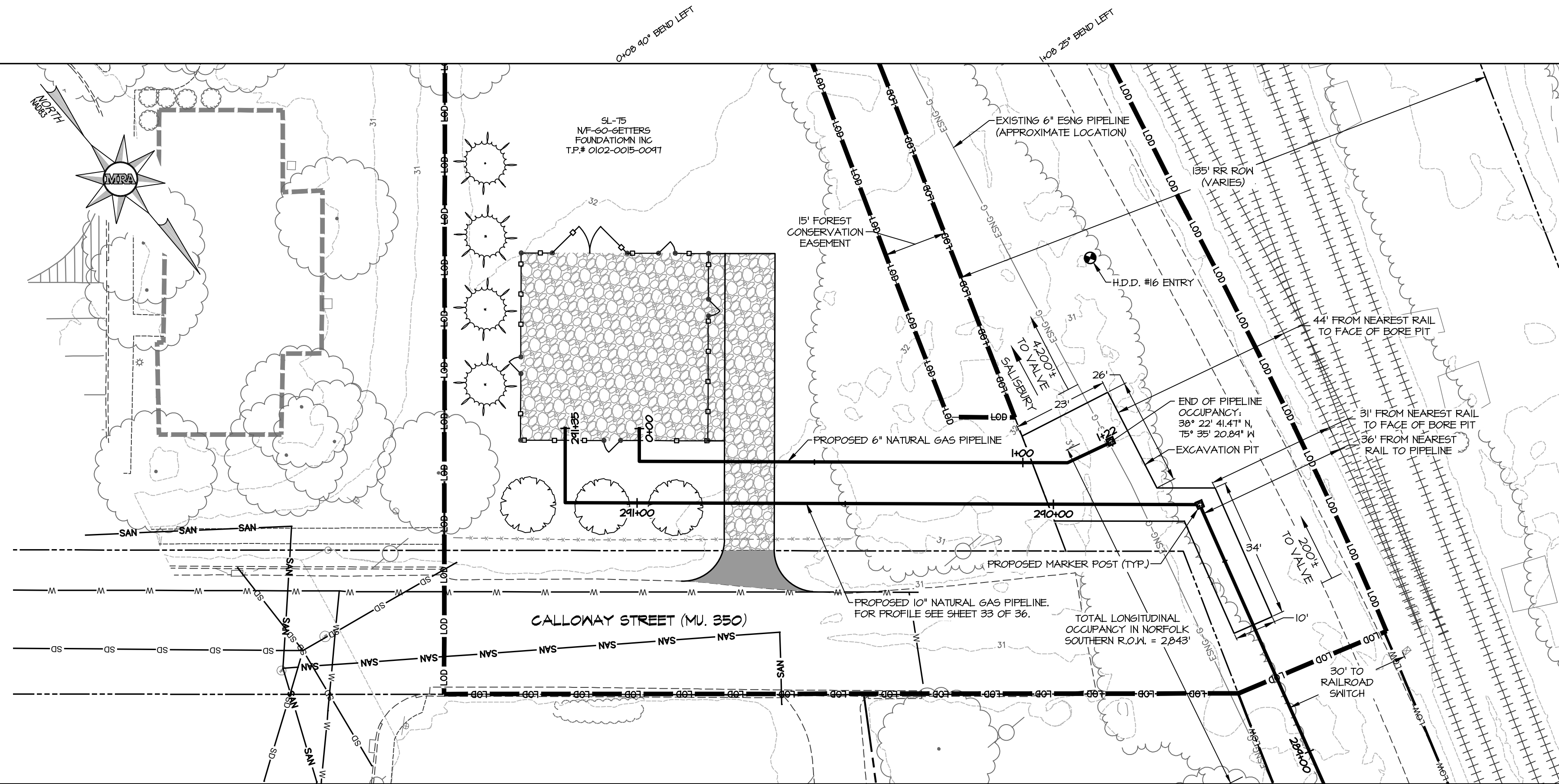
STATIONS

MATERIAL

TERRAIN

CONSTRUCTION METHOD

PROFILE 1" = 20'



PLAN & PROFILE

MATERIAL SPECIFICATIONS			
ITEM	DESCRIPTION	QTY	ITEM
E	PIPE, 6" x 0.280" X-52 W/ 14-16 MILS FBE	122'	
F	ELBOW, 6" x 0.280" Y-52 3R, 90° BEND SEDIMENTABLE	1	
G	ELBOW, 6" x 0.280" Y-52 3R, 45° BEND SEDIMENTABLE	1	

TEST LEAD/STATIONS			
STATION	TYPE	STATION	TYPE
1+22	0		MARKER

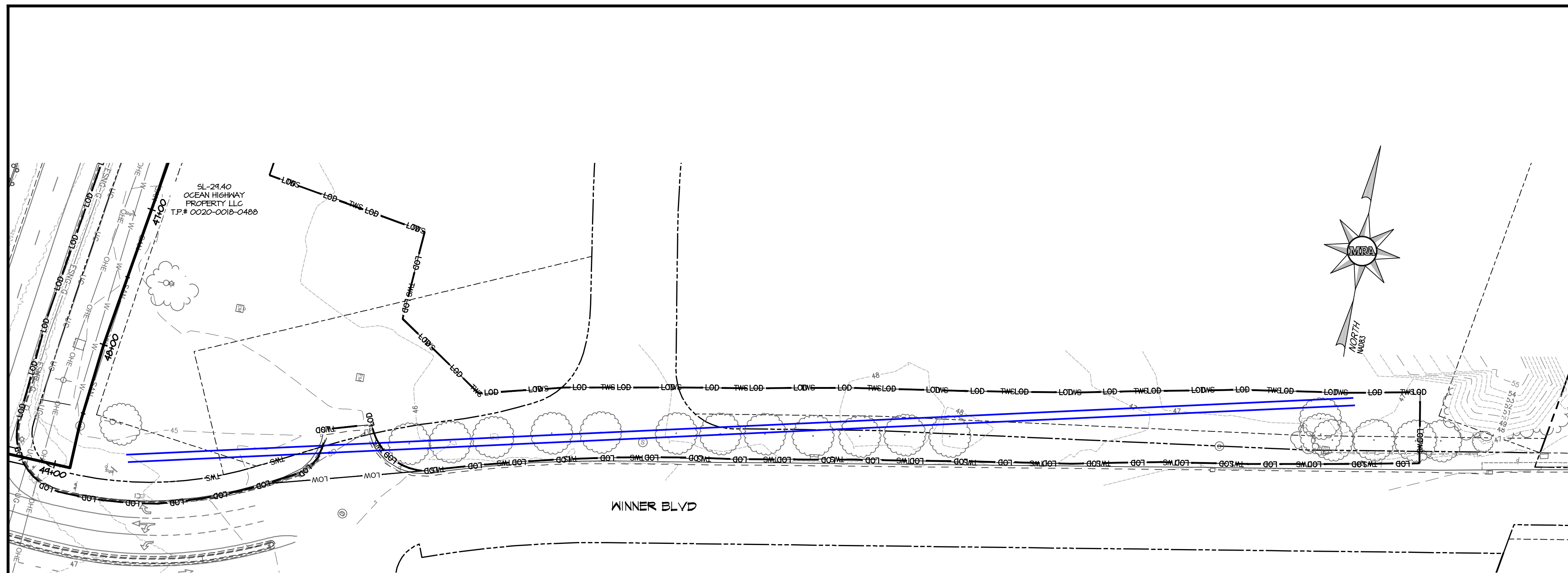
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DESCRIPTION	DRAWING NUMBER	NO. DATE

REVISIONS	
DESCRIPTION	BY

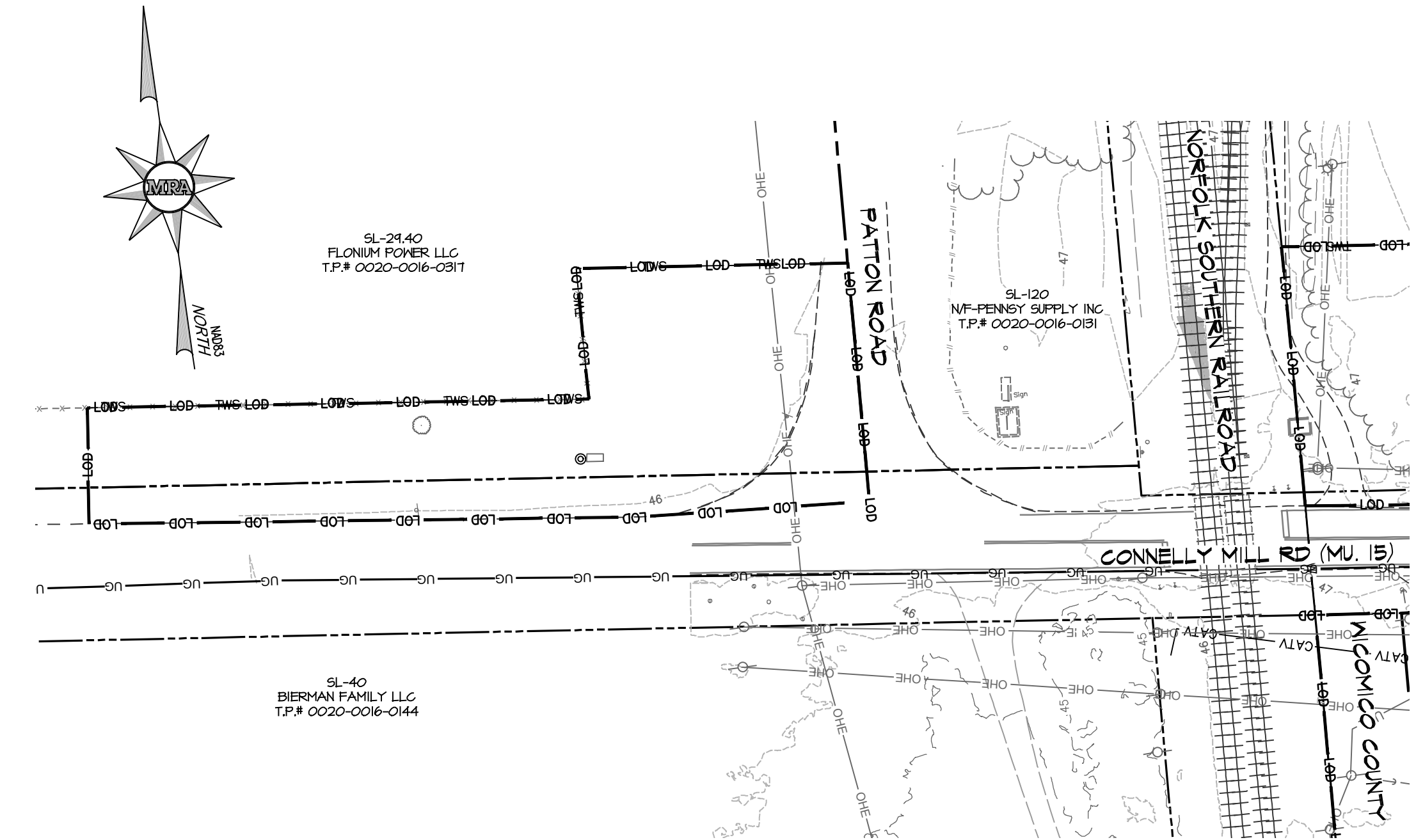
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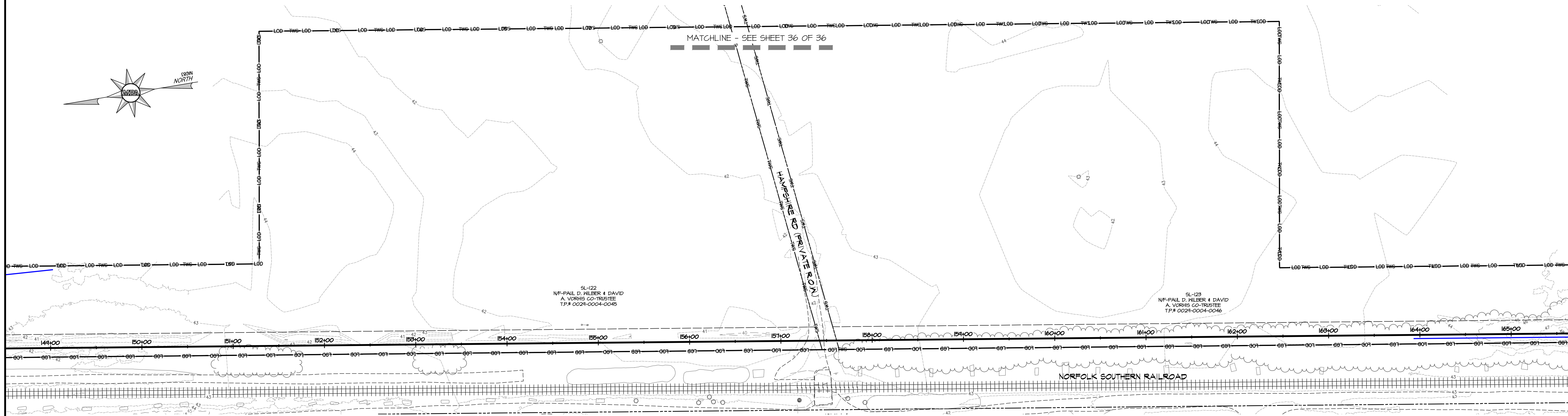
10" PROPOSED PIPELINE SALISBURY INTEGRITY WICOMICO COUNTY, MD	
ESNG PROJECT CODE:	DATE: 11/7/2024
MRA PROJECT NO: 22394	SCALE: 1" = 20'
DESIGN/CHECK BY: JTH/CWB	SHEET: 34 OF 36



TEMPORARY WORKSPACE AREA NO. 1
STATION 48+00



TEMPORARY WORKSPACE AREA NO. 2
STATION 15+00

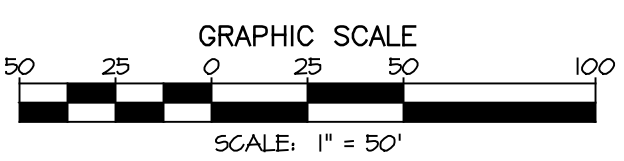


TEMPORARY WORKSPACE AREA NO. 3
STATION 151+00

MATCHLINE - SEE SHEET 36 OF 36

TEMPORARY
WORKSPACE PLANS

10" PROPOSED PIPELINE
SALISBURY INTEGRITY
WICOMICO COUNTY, MD

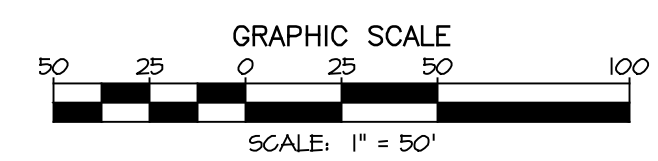
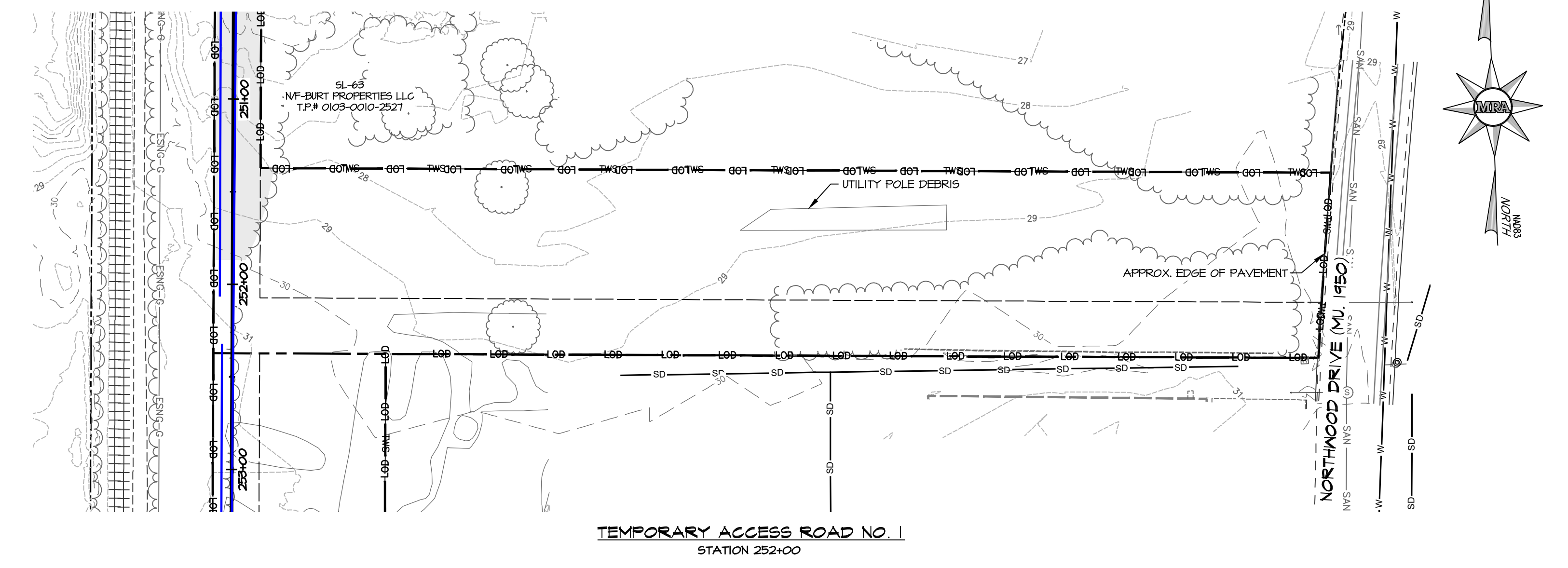
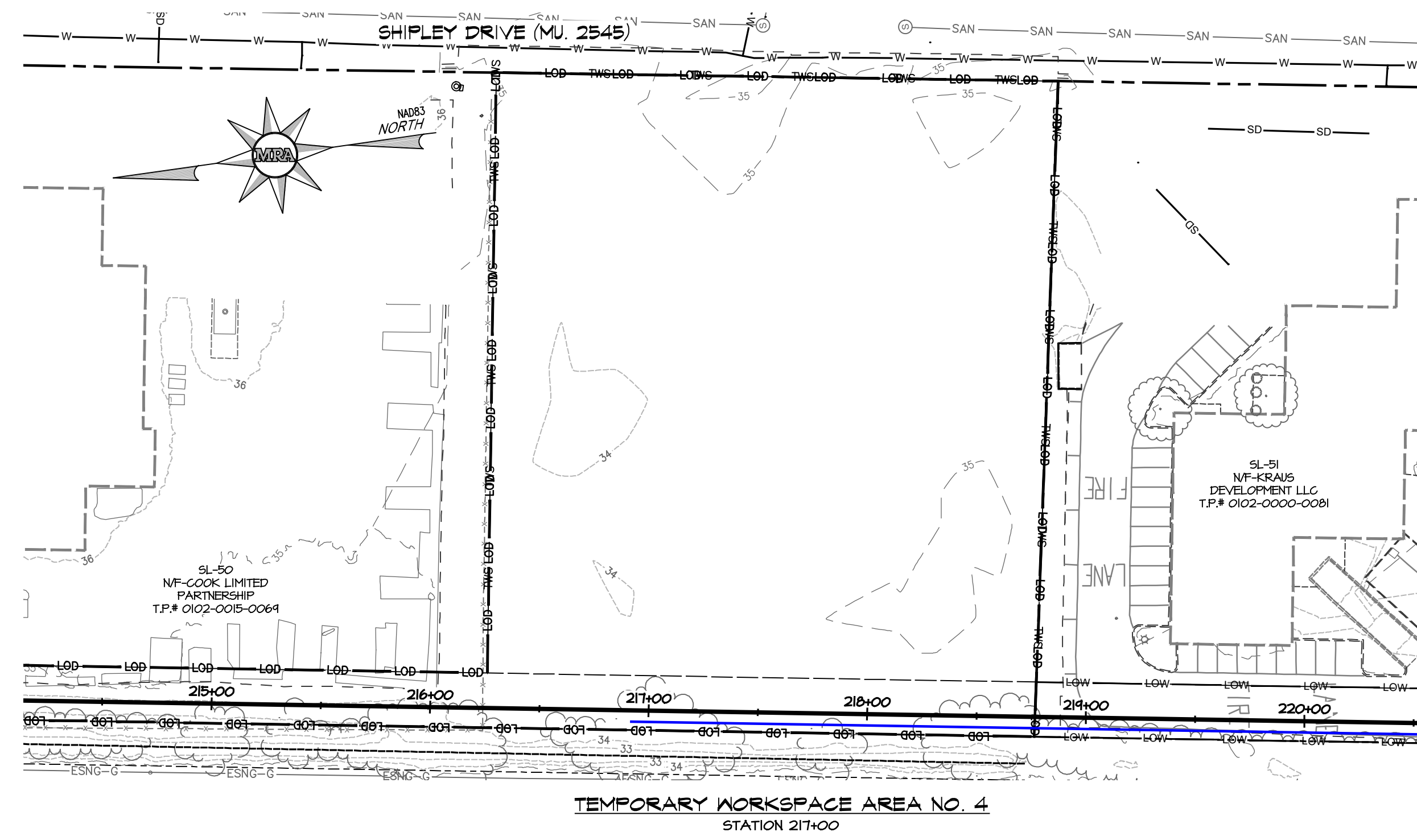
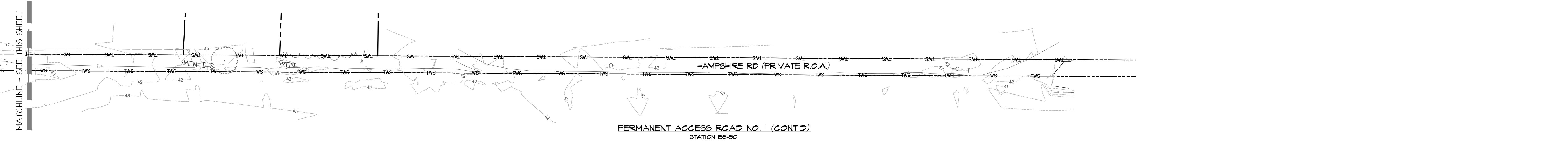
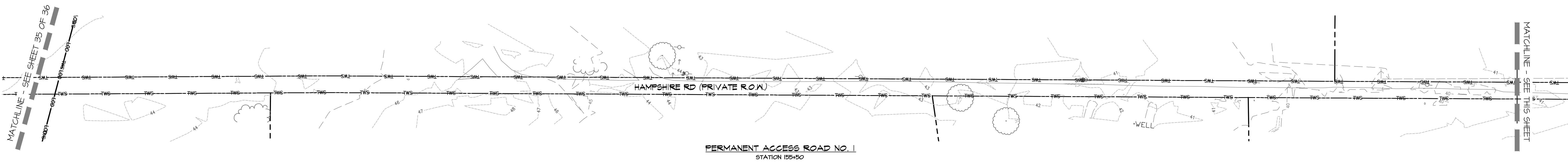


REVISIONS			
NO.	DATE	DESCRIPTION	BY

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ESNG PROJECT CODE:	DATE:
MIRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 35 OF 36



REVISIONS			
NO.	DATE	DESCRIPTION	BY

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TEMPORARY WORKSPACE PLANS
 10" PROPOSED PIPELINE
 SALISBURY INTEGRITY
 WICOMICO COUNTY, MD

ESNG PROJECT CODE:	DATE:
MRA PROJECT NO: 22394	SCALE: 1" = 50'
DESIGN/CHECK BY: JTH/CWB	SHEET: 36 OF 36