



NUSTAR PIPELINE (PU-15-674) Permit Compliance Final Inspection Report



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1 EXECUTIVE SUMMARY

The North Dakota Public Service Commission (Commission) retained Houston Engineering, Inc. (HEI) to complete a construction inspection of NuStar Pipeline Operating Partnership L.P (NuStar) Pipeline Project (NDPSC. Case No. PU-15-674) in Cass County, North Dakota. On September 17, 2015, NuStar filed applications for a certificate of corridor compatibility and a route permit concerning approximately 7.3-miles of 8-inch diameter pipeline and associated facilities for the transmission of refined petroleum products. This project is also known as the Laurel Interconnect Pipeline (Project).

The Project originates at a pump station within the proposed Cenex Fargo Terminal, located approximately 1.3 miles southeast of Prosper, North Dakota, and terminates at an interconnect with NuStar's existing 10-inch refined petroleum products pipeline at Mapleton Junction, located approximately 2.0 miles southeast of Mapleton, North Dakota (See **Exhibit 1**). The maximum capacity of the Project will be 64,000 barrels per day, with an initial operational capacity of 24,000 barrels per day. Above-ground facilities include metering equipment, a pump station, two control buildings, two block valves, in-line launcher and receiver sites, a supervisory control and data acquisition (SCADA) system, and association communications equipment. Notice of intent to start construction on August 22, 2016 is documented in Docket No. 57. Construction was completed by October 24, 2016, with hydrostatic testing of the whole pipeline completed on November 4, 2016, and final right-of-way cleanup activities completed by November 11, 2016 (Docket No. 67). At that time, the final construction progress report noted that stormwater BMPs remained in good condition, did not require any repairs, sediment/pollutants were not transported off site, and the project remained in compliance with the Stormwater Pollution Prevention Plan (SWPPP). All silt fence had been removed from the right-of-way as part of final cleanup activities.

HEI reviewed project documents to identify those aspects of the Project that required compliance. Visual inspection of the project was conducted on four (4) occasions. On August 23, 2016, topsoil segregation was observed during the onset of ground disturbance and construction. Contractors were observed to be proficient in successful separation and segregation of topsoil and subsoil materials (Docket No. 61). On November 4, 2016, HEI's field visit focused on pipe installation depth, topsoil replacement, observation of regraded areas, and verify topography in disturbed areas was restored. No compliance issues were observed at that time (Docket No. 65). The third, reclamation inspection report focused observations on topsoil and subsoil segregation at the new transmission facility (the Mapleton Terminal site) and to confirm that the pipeline corridor had been revegetated (Docket No. 68). This final 2019 inspection report confirms that wetlands were not affected through the project construction, disturbance areas were completely re-vegetated, and topography has been restored in disturbed areas. This report serves as the fourth and final compliance site visit, after construction completion at the Mapleton Terminal.

Overall, the Project appears to have been constructed as designed, with minimal impacts to the surrounding natural or human environment and appears to be compliant with permit conditions. There were minor bare earth areas observed throughout the Mapleton Terminal site, however it is our opinion that these areas will continue to revegetate with time. There is also a minor area along the pipeline corridor with bare earth and tire rutting along 165th Ave. SE. See **Appendix B, photographs 15-17; 30-33; and 45-62**.



2 INTRODUCTION AND BACKGROUND

2.1 PROJECT BACKGROUND

NuStar Pipeline Operating Partnership, L.P. (NuStar) proposed the approximate 7.3-mile-long, 8-inch diameter pipeline extending between Cenex Pipeline, LLC's (Cenex) proposed refined petroleum products terminal (the Cenex Fargo Terminal), located approximately 1.3 miles southeast of Prosper, North Dakota, and NuStar's existing 10-inch North System Pipeline, located approximately 2.0 miles southeast of Mapleton, North Dakota. The proposed pipeline and associated facilities owned by NuStar are referred to as the Laurel Interconnect Pipeline Project (Project). The Project is located entirely in Cass County, North Dakota. The Project will be owned and operated by NuStar. The Project is under the jurisdiction of the North Dakota Public Service Commission (Commission), which issued its Order in Case No. PU-15-674.

On September 17, 2015, NuStar filed with the Commission an application for a Certificate of Corridor Compatibility and Route Permit to authorize construction of the Project (Docket No. 1). On November 4, 2015, the Commission issued a Notice of Filings and Notice of Hearing for January 21, 2016 (Docket No. 10). The Commission issued its Findings of Fact, Conclusions of Law and Order on February 24, 2016 for Case No. PU-15-674 (Docket No. 44). The Order granted NuStar's request and issued the Certificate of Corridor Compatibility No. 181 designating a corridor for the construction, operation and maintenance of approximately 7.3-miles of 8-inch diameter pipeline and associated facilities for the transmission of refined petroleum products in Cass County, North Dakota; and a Route Permit No. 193 designating a route for the construction, operation, and maintenance of approximately 7.3 miles of 8-inch diameter pipeline and associated facilities for the transmission of refined petroleum products in Cass County, North Dakota.

2.2 PURPOSE OF THIS REPORT

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code (NDCC) Chapter 49-22) authorizes the Commission to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of citizens of North Dakota. Post-construction inspections ensure that such projects are constructed in compliance with the siting laws (NDCC, Chapter 49-22) and rules (North Dakota Administrative Code (NDAC) Article 69-06) and the applicable Commission Findings of Fact, Conclusions of Law, and Order (Order). The Commission retained HEI to complete a construction inspection of the Project.

2.3 METHODS OF INSPECTION

2.3.1 PROJECT COMPLIANCE ITEMS IDENTIFIED & REVIEW OF DOCUMENTATION

HEI identified project provisions in the order and verified compliance through written documentation from observations recorded during on-site inspections and from a desktop review of the online case file no. PU-15-674 (see **Appendix A** for the *Compliance Review* table). The Project *Findings of Fact, Conclusions of Law and Order and the Certification Relating to Order Provisions for Transmission Facility Siting* (February 24, 2016) provides these project provisions (Docket No. 44).



2.3.2 ON SITE INSPECTION

Including this current report, HEI has conducted four (4) compliance site visits throughout the construction period. Previous reports include:

- August 23, 2016 inspection - *Topsoil Removal Inspection Report* (Docket No. 61)

The focus of the initial site inspection was to observe topsoil segregation during the onset of ground disturbance and construction. Topsoil separation and clearing and grubbing activities were observed. It was clear, during observations, that the contractor was proficient in separation techniques. It was concluded that the contractors were proficient in the successful separation and segregation of topsoil and subsoil materials and it was anticipated that this would continue throughout the construction period.

- November 4, 2016 inspection – *Second Compliance Inspection Report* (Docket No. 65)

The focus of this inspection was to observe the pipe installation depth, topsoil replacement, observe regraded areas, and verify restored topography in disturbed areas. It was concluded at the time of inspection that the pipe was installed at or below the required minimum depth. Based on observations of open trench areas and discussions with the chief inspector at the construction site, pipe was installed at the minimum depths outlined in the permit conditions. In all areas where backfilling had occurred, topsoil was observed on the ground surface and no subsoils were observed at the surface. The topography in all areas where backfilled and regraded to match the adjacent undisturbed lands. No erosion issues were observed.

- June 8-9, 2017 inspection – *Reclamation Inspection Report* (Docket No. 68)

The focus of this inspection was to observe topsoil and subsoil segregation at the new Mapleton Terminal site and confirm that the pipeline corridor had been revegetated. It was concluded that topsoil was replaced in the pipeline construction areas. All areas where backfilling occurred had topsoil on the ground surface and no subsoils were observed at the surface. Regraded areas had restored surficial topography within the pipeline corridor. Topography in all areas where backfill and regrading occurred were complete and graded to match the adjacent undisturbed lands. Construction activities were performed in a manner to prevent erosion and no erosion problems were observed. Appropriate erosion control measures were identified on site, including fiber matting and bio-rolls. No bare earth was observed within the pipeline corridor. The contractor for the Mapleton Terminal site was proficient in topsoil separation methods.

The main purpose of this final compliance inspection was to assess the success of the post-construction restoration activities. Details of that compliance inspection is addressed in Section 3 of this report. A compliance review based on provisions set forth in the project *Certification Relating to Order Provisions* is summarized in the Compliance Review Table located in **Appendix A**. Photographs taken during this final site visit are provided in **Appendix B** of this report.

3 FINDINGS

3.1 SUMMARY OF FINAL SITE VISIT

The final site inspection for this report was completed by Mr. Kaleb Haley, Environmental Technician Intern, Houston Engineering, Inc. (HEI). Mr. Haley coordinated with Mr. Dale Smith (Project Manager) and Mr. Christopher Jimenez (Project Permitting Manager) from NuStar. The final site visit involved visiting the new transmission facility (the Mapleton Terminal) to check reclamation activities and included the following activities:

- Confirm no impacts to wetland areas identified in the Natural Resources and Wetland Determination Report (Docket No. 1);
- Confirm that the disturbance areas are completed vegetated, which involved checking for bare or thin areas, sedimentation, and erosion issues;
- Verify restored topography throughout Mapleton Terminal; and
- Take representative photographs.

The pipeline corridor was also visited to confirm restoration/ reclamation activities have been completed. Locations and areas where revegetation efforts had not fully established was noted. Photographs were taken and locations documented in **Appendix B**, Site Photography; and **Exhibit 1**, Site Map.

Photographs 1-42 were taken within the pipeline corridor. Minor revegetation issues were observed near County Road 20, and the side slope of the ditch was depressed where the pipeline had crossed. See **photographs 7-10**. As shown in **photographs 15-17** the road (County Road 20) was beginning to depress where the pipeline had crossed. Near County Road 10, a depression where the pipeline was installed was observed in the wetland (**photographs 38-42**). **Photographs 43-62** were taken at the terminal and adjacent road. At the terminal, erosion/minor revegetation issue directly adjacent to the road was observed. Inside of the terminal, vegetation appeared to be absent in some locations. **Photographs 62-67** were taken at the pipeline crossings in the south portion of the Project.

3.2 SITE INFORMATION

3.2.1 DESIGNATED LOCATIONS

The proposed Laurel Interconnect Pipeline was built in the designated location as described and shown in the Application (Docket No. 1). A route amendment (Docket No. 18) and a planned facility modification (Docket No. 55) were documented in the case file. The as-built map for the Project is provided in the case file as Docket No. 70. The as-built drawings were reviewed in relation to the on-the-ground infrastructure of the facility and appeared to coincide with the documents in the case file.

3.2.2 SITING CRITERIA

Siting criteria were analyzed in detail in the Application for the Project. There were no exclusion or avoidance areas identified within the site or within the 1-mile study area buffer for the Project (Docket No. 1, *Certificate Application*, page 24-27 and Docket No. 44, Findings of Fact, page 5-6).



3.2.3 LAND USE AND AGRICULTURAL IMPACTS

According to the Project Application, the pipeline corridor had approximately 14.81 acres of prime farmland, 52.54 acres of potential prime farmland (if drained), and approximately 0.26 acres of non-prime farmland. There are 11 farm units crossed by the pipeline. No long-term or permanent impacts were expected as post-construction restoration was proposed to return right-of-way to pre-construction contours so farming operations could continue over the operational project right-of-way (Docket No. 1, *Certificate Application*, page 27-31). Construction was observed in these agricultural areas with restoration also observed, as proposed, in most areas.

3.3 PROJECT DESIGN AND ENGINEERING

3.3.1 ENGINEERING DESIGN DRAWINGS

Engineering documents were provided to the Commission as appendices to the Application for Certificate of Corridor Compatibility (Docket No. 1). An as-built alignment drawing was filed on Sept. 18, 2017 (Docket No. 70).

3.4 PRE-CONSTRUCTION

3.4.1 PSC-REQUIRED DOCUMENTS

The Consolidated Application for Certificate of Corridor Compatibility and Route Permit was filed on Sept. 17, 2015 (Docket No. 1). The Commission issued Certificate of Corridor Compatibility No. 181 and Route Permit No. 193 on February 24, 2016 (Docket No. 44).

3.4.2 PRE-CONSTRUCTION CONFERENCE/WEEKLY UPDATES

The pre-construction conference call took place August 10, 2016. Meeting minutes from the pre-construction conference call were filed on August 16, 2016 (Docket No. 57). Construction reports were filed accordingly during construction:

- Docket No. 62 – NuStar Pipeline progress report – week ending Sept. 22, 2016
- Docket No. 64 – NuStar Pipeline progress report – week ending Oct. 28, 2016
- Docket No. 67 – NuStar Pipeline progress reports Oct. 28 – Nov. 11, 2016
- Docket No. 69 - 8" Refined Products Pipeline – progress report – month ending Aug. 2017.

3.4.3 PERMITS AND APPROVALS FROM OTHER AGENCIES

In accordance with Certification Provision no. 3 of the Commission's February 24, 2016 Findings of Fact, Conclusions of Law and Order issuing a Certificate of Corridor Compatibility and Route Permit for the Laurel Interconnect Pipeline Project, NuStar submitted the following permit documents provided under PU-15-674, Docket No. 56:

- 1) United States Army Corps of Engineers Nationwide Permit 12;
- 2) Application for Permit to Discharge (NDPDES) Industrial – Short Form C, dated August 5, 2016, with NDPDES Permit No. NDG07-0000;
- 3) Notice of Intent to Obtain Coverage Under NDPDES General Permit for Stormwater Discharges Associated with Construction Activity, dated August 4, 2016, with accompanying NDPDES Permit No. NDR10-0000;



- 4) North Dakota Department of Transportation utility Occupancy Permit No. 81678, dated September 14, 2015;
- 5) Cass County Highway Department Utility Permits – Highway 15 (165th Ave. SE) (two crossings / permits), dated January 7, 2016;
- 6) Cass County Highway Department Utility Permits – Highway 13 (166th Ave. SE) (two crossings / permits), dated January 7, 2016;
- 7) Cass County Highway Department Utility Permits – Highway 10 (36th St. SE), dated January 12, 2016;
- 8) Cass County Highway Department Utility Permits – Highway 20 (33rd St. SE), dated January 7, 2016;
- 9) Cass County Highway Access Permit, dated October 28, 2015;
- 10) Mapleton Township Floodplain Development Permit, dated January 13, 2016;
- 11) Mapleton Township Findings and Resolution Granting Permits, Approvals and Variances, dated November 24, 2015;
- 12) Mapleton Township Findings and Resolution Granting Amended Permits, Approvals, and Variances, dated June 30, 2016;
- 13) Raymond Township Floodplain Development Permit, dated January 13, 2016;
- 14) Raymond Township Findings and Resolution Granting Conditional Use Certificate, Permits, and Approvals, dated December 11, 2015;
- 15) Raymond Township Findings and Resolution For Conditional Use Certificate, Floodplain Permits, and Other Permits and Approvals, dated August 1, 2016;
- 16) Rush River Water Resource District Utility Permit, dated November 17, 2015;
- 17) Maple River Water Resource District Utility Permit, dated December 3, 2015; and
- 18) BNSF Railway Company Pipeline License, effective December 17, 2015.

3.4.4 COMMISSION APPROVAL OF MODIFICATIONS

On January 6, 2016, NuStar submitted a motion to amend the Consolidated Application and Waiver Application (Docket No. 18). An adjustment to the proposed route and corridor was needed where the pipeline exits the proposed Cenex Prosper Terminal site. The route adjustment enabled the pipeline to exit NuStar's Fargo Pump Station from the south and allows NuStar to install the pipeline adjacent to road right-of-way, specifically along the southern side of 32nd Street SE.

On June 20, 2016, NuStar submitted another route adjustment notification (Docket No. 49). NuStar had determined that a route adjustment within the corridor designated for the Project was necessary. The route adjustment changed the point of origination for the Project, and enabled a direct connection with Cenex Pipeline, LLC's existing Laurel Pipeline.

Observations of on-the-ground infrastructure coincided with the information contained in the Application.

3.5 CULTURAL RESOURCES

3.5.1 CULTURAL SITE AVOIDANCE

As recorded in the Project Application (Docket No. 1, p. 17) and subsequently in the proposed route adjustment for the Laurel Interconnect Pipeline (Docket No. 49), cultural resources inventories and investigations were conducted. Concurrency from the ND State Historic Preservation Office was received stating, "No Significant Sites Affected" and



“No Historic Properties Affected”. No cultural or historic properties were observed during construction. HEI concludes that the Project was constructed as described in the Application, resulting in no impacts to cultural resources.

3.5.2 REPORTING OF NEW DISCOVERIES

No new discoveries of cultural, archeological, or historical sites were reported to the Commission during construction, and no discoveries were noted on the weekly construction reports for the Project. Based on this information, it is concluded that no new sites were encountered during construction of the Project.

3.6 NATURAL RESOURCES

3.6.1 WETLANDS, SURFACE WATER, AND FLOODPLAIN

Water resources intersected by the Project include wetlands, which were recorded as semi-permanent and isolated; unlikely U.S. Army Corps of Engineers jurisdictional wetlands (Docket No. 1, p. 17-18) within the pipeline corridor. Rush River and Maple River are also intersected by the Project. Locations of wetlands and drainages that the Project cross are shown in **Exhibit 1**. Construction required Horizontal Directional Drilling (HDD) techniques to construct around these waterbodies. HDD of waterbodies and wetlands was completed by October 1, 2016 (Docket No. 64).

3.6.2 RARE, THREATENED AND ENDANGERED SPECIES REPORTING

There were no reports filed documenting the presence of threatened or endangered species. No bald or golden eagles were sited during construction.

3.6.3 TREE AND SHRUB MITIGATION

Less than 1% of the project study area contained woody vegetation. No shrubs, or trees with a diameter at breast height of 1 inch or greater were identified within the corridor or at the Mapleton Terminal Site. The Project complies with the Tree and Shrub Mitigation Specifications (attached to the Certification Relating to Order Provisions).

3.7 CONSTRUCTION, RECLAMATION & SOILS

3.7.1 EROSION AND SEDIMENTATION CONTROL

A Construction Stormwater permit was obtained by NuStar (Docket No. 56, *NuStar – NOI and NDPDES Permit No. NDR10-0000* and *NuStar – Temporary Discharge Form and NDPDES Permit No. NDG07-0000*). A Construction Stormwater Pollution Prevention Plan (SWPPP) is required as part of the NDPDES permit and was not found in the project case file. The SWPPP is referenced in the monthly construction reporting, so it is anticipated that it was prepared, and may not have made its way to the case file.

As noted, during the construction inspection, the site has considerable restoration and lacks successful revegetation, most specifically at the new transmission facility and along a minor portion of the pipeline corridor. See Section 3.7.3 *Reseeding*, below, for more information.

3.7.2 RECLAMATION AND ROADS

Roads accessing the site appeared to be in a condition typical for the area and do not appear to have been impacted during construction.



3.7.3 RESEEDING

NuStar agreed to restore the area affected by the construction activities to near pre-construction conditions upon completion of the construction of the energy conversion facility, as soon as practicable (Certification Relating to Order Provisions, ¶18). The Order Provisions stated that reclamation, fertilization, and reseeded is to be done per Natural Resources Conservation Service (NRCS) recommendations, unless otherwise specified by the landowner and approved by the Commission (Certification Relating to Order Provisions, ¶20). NuStar's obligation for reclamation and maintenance of the approved site will continue throughout the life of the energy conversion facility (Certification Relating to Order Provisions, ¶21).

The majority of the areas disturbed during construction have been restored with successful revegetation evident. HEI observed minor bare earth in areas inside and outside of the new transmission facility's fence-line (**Appendix B, photographs 46-62**). A minor area of erosion/bare earth adjacent to the new transmission facility was observed (**photograph 45**). There are minor areas of unsuccessful revegetation at an unpaved approach (**photographs 15-17**). Minor areas with tire rutting and bare earth in the pipeline corridor along 165th Ave. SE were also observed (**photographs 30-33**). It is our opinion that these areas will continue to revegetate and bare earth will fill in with additional time. As such, site restoration is determined to be complete at this time.

3.7.4 REPAIRS

No damage to property was observed during the site inspections.

3.7.5 WASTE

The Project area was free of construction debris and equipment.

3.8 OPERATION

3.8.1 OPERATION AND MAINTENANCE

The site appeared to be operated and maintained as described in the Application.

3.8.2 SAFETY AND RECORD-KEEPING

No concerns were identified during the site inspection that would indicate the Project construction or operation was out of compliance with the Application or applicable safety regulations. Monthly construction reports document 1 near-miss accident resulting in injury that occurred during the construction of the project; this incident is listed below. No fatalities resulted in the construction of the project.

- Monthly Activity Report, Sept. 22, 2016 (Docket No 62): *A NuStar contractor was injured performing construction staking along the ROW. The contractor surveyor was not wearing gloves and received a laceration to the left index finger. An ATC was being used to traverse the ROW, and the injured party received the laceration while removing corn stalks from under the ATV. A Lessons Learned has been performed for the incident, along with an adjustment that gloves be worn at all times while on the project ROW.*

3.8.3 PUBLIC COMPLAINTS

No public complaints regarding the Project have been filed to date.



3.8.4 PUBLIC SAFETY

Access to the Project components is controlled by NuStar. Access to the Project is controlled with fencing and natural site features. The fenced areas are locked and monitored by NuStar employees. Safety concerns regarding the public appear to be minimal.

4 CONCLUSIONS

4.1 FINAL CONCLUSIONS

Overall, the Project appears to have been constructed as designed, with minimal impacts to the surrounding natural or human environment. There are minor areas of bare earth observed, however, it is our opinion that these areas will continue to revegetate with additional time. There is also a minor area along the pipeline corridor with bare earth and tire rutting along 165th Ave. SE. See **Appendix B, photographs 15-17; 30-33; and 45-62.**

One item is listed in the Compliance Review (**Appendix A**) as “Unspecified”:

- Providing to the Commission within 3 months of the completion of construction: electronic and paper copies of the corridor, the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built. Also, electronic versions of the corridor as approved by the Commission and facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built that can be transported into ESRI GIS mapping software (*Findings of Fact, Certifications Relating To Order Provision*, Docket No. 44, item 32). It is not clearly posted in the online case file that these files have been submitted to the Commission.

Other conclusions:

- There is no tree or shrub mitigation needed.
- According to online documentation, all permits have been filed and there are no missing permits in the case file. A Construction Stormwater permit was obtained by NuStar (Docket No. 56, *NuStar – NOI and NDPDES Permit No. NDR10-0000* and *NuStar – Temporary Discharge Form and NDPDES Permit No. NDG07-0000*). A Construction Stormwater Pollution Prevention Plan (SWPPP) is required as part of the NDPDES permit and was not found in the project case file although it is referenced in monthly construction reporting.
- One observation to note, during the final site visit is that there is standing water present in many areas along the pipeline corridor and new transmission facility. Excessive water *may* affect the success of reclamation at the site. Potential contributing factors may include the project being built in known wetland areas and 2019 being a very wet year.

As such, HEI concludes that the NuStar Pipeline Operating Partnership L.P. (NuStar), approximate 7.3 miles of 8-inch diameter pipeline and associated facilities are complete and compliant with permit conditions. A SWPPP and other minor submittals (noted above as “unspecified”) may be necessary to fulfill a complete case file.



5 SIGNATURES

The services provided by HEI scientists and engineers for this Project have been conducted in a manner consistent with the degree of care and technical skill appropriately exercised by professionals currently practicing in this area under similar time and budget constraints. Recommendations and findings contained in this report represent our professional judgement and are based upon available information, our compliance inspections, and technically accepted practices. Other than this, no warranty is implied or expressed.



Emmy Baskerville, Environmental Scientist

3/25/2021
Date



6 REFERENCES

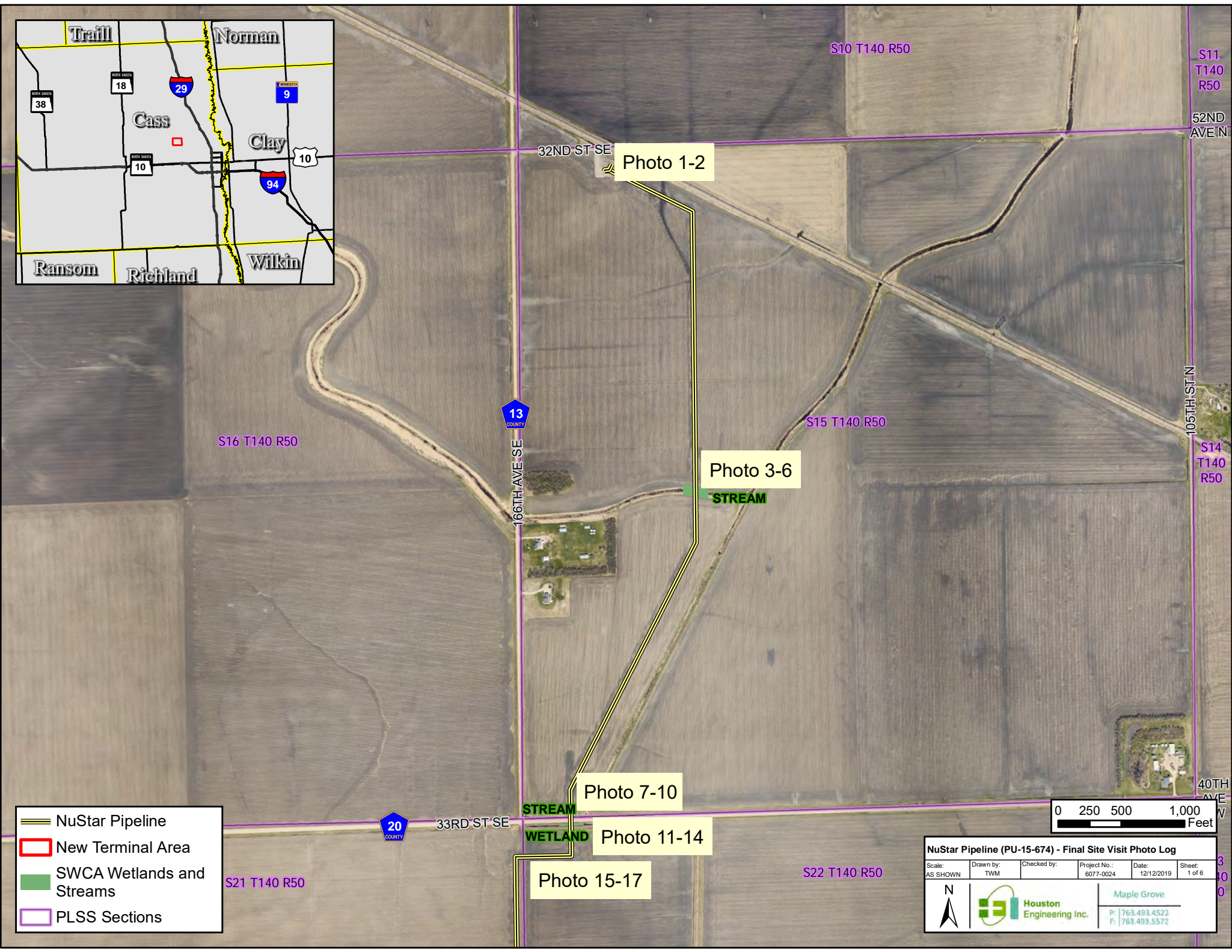
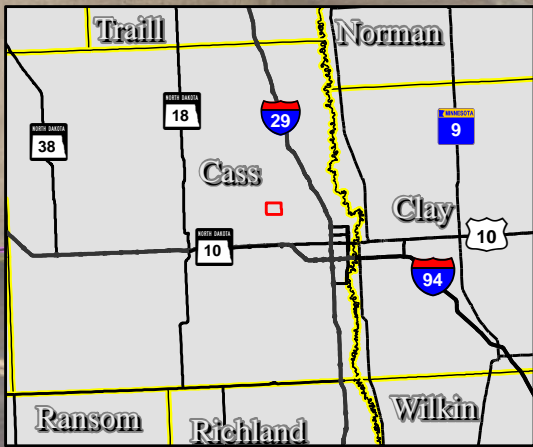
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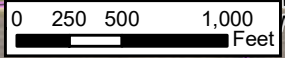
EXHIBIT A: SITE MAP

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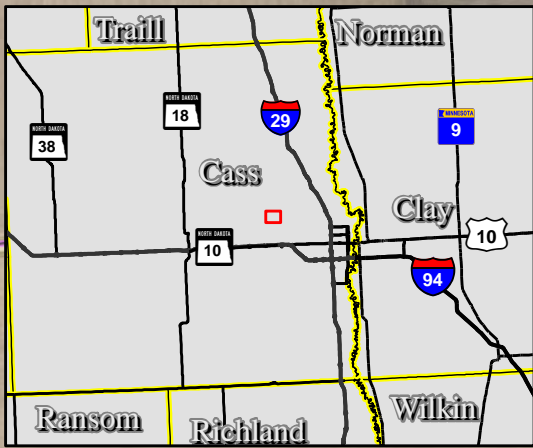


-  NuStar Pipeline
-  New Terminal Area
-  SWCA Wetlands and Streams
-  PLSS Sections



NuStar Pipeline (PU-15-674) - Final Site Visit Photo Log					
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			Maple Grove P: 763.493.4522 F: 763.493.5572		

3
10
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S15 T140 R50



Photo 7-10

STREAM

WETLAND

Photo 11-14

33RD ST SE



Photo 15-17

166TH AVE SE

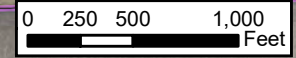
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Photo 18-20

STREAM

S22 T140 R50

34TH ST SE



- NuStar Pipeline
- New Terminal Area
- SWCA Wetlands and Streams
- PLSS Sections

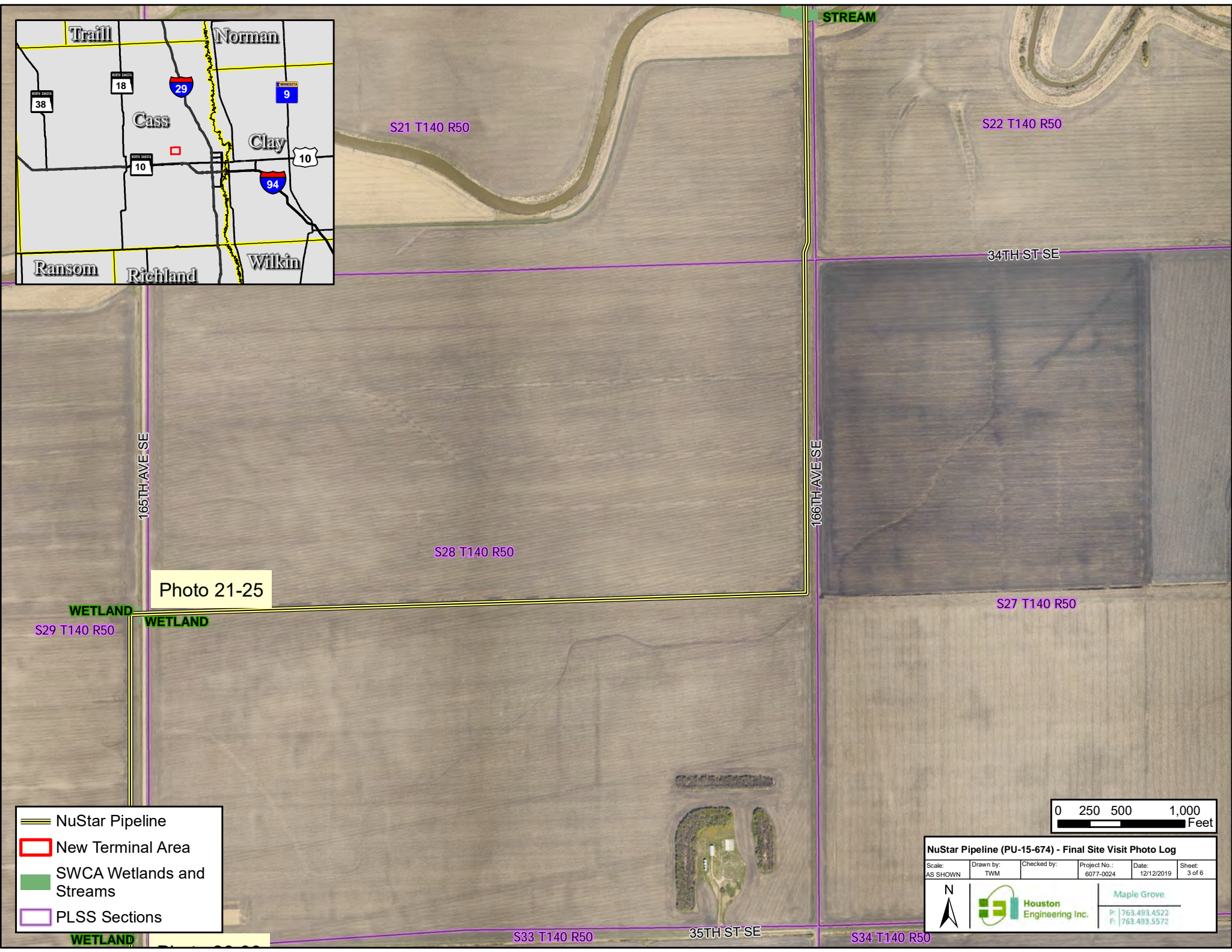
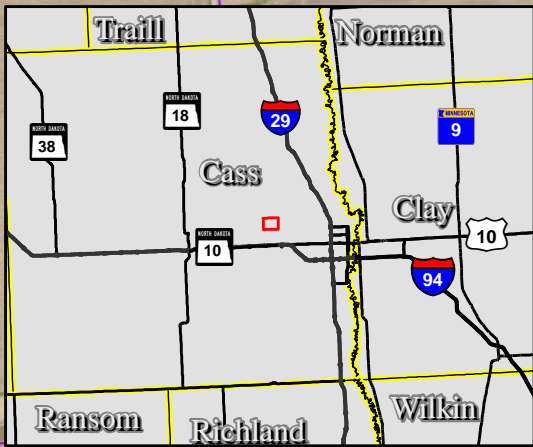
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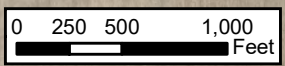
NuStar Pipeline (PU-15-674) - Final Site Visit Photo Log

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-  NuStar Pipeline
-  New Terminal Area
-  SWCA Wetlands and Streams
-  PLSS Sections

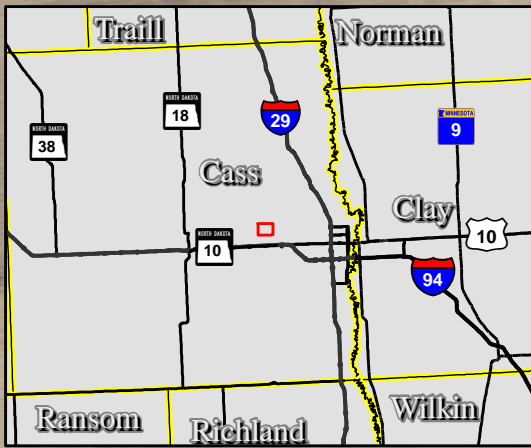


NuStar Pipeline (PU-15-674) - Final Site Visit Photo Log

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 **Houston Engineering Inc.**

Maple Grove
P: 763.493.4522
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WETLAND
WETLAND

Photo 21-25

S28 T140 R50

165TH AVE. SE

WETLAND
WETLAND

35TH ST SE

Photo 26-33

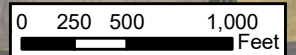
Photo 34-37

WETLAND

S32 T140 R50

S33 T140 R50

- NuStar Pipeline
- New Terminal Area
- SWCA Wetlands and Streams
- PLSS Sections

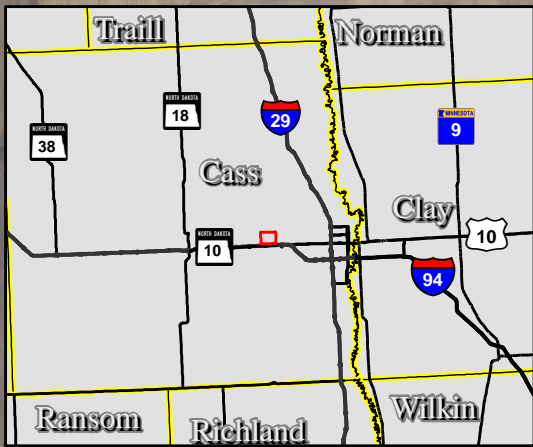


NuStar Pipeline (PU-15-674) - Final Site Visit Photo Log

Scale: AS SHOWN	Drawn by: TWM	Checked by:	Project No.: 6077-0024	Date: 12/12/2019	Sheet: 4 of 6
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165TH AVE SE

166TH AVE SE

166 1/4 AVE SE

S33 T140 R50

S34 T140 R50

36TH ST SE

Photo 38-42

WETLAND

S4 T139 R50

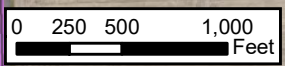
Photo 51-62 Minor regetation issues

S3 T139 R50

S5 T139 R50

Photo 43-50 erosion from roadway

- NuStar Pipeline
- New Terminal Area
- SWCA Wetlands and Streams
- PLSS Sections



NuStar Pipeline (PU-15-674) - Final Site Visit Photo Log

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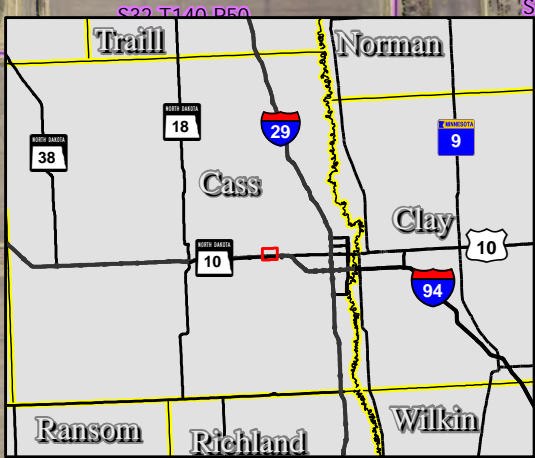






Photo 38-42

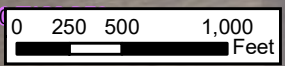
Photo 51-62 Minor regetation issues

Photo 43-50 erosion from roadway

Photo 63-66

Photo 67

-  NuStar Pipeline
-  New Terminal Area
-  SWCA Wetlands and Streams
-  PLSS Sections



NuStar Pipeline (PU-15-674) - Final Site Visit Photo Log

Scale: AS SHOWN	Drawn by: TWM	Checked by:	Project No.: 6077-0024	Date: 12/12/2019	Sheet: 6 of 6
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APPENDIX A: COMPLIANCE REVIEW TABLE

Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<u>CERTIFICATION RELATING TO ORDER PROVISIONS</u>		
<p>Construction, ¶7 <i>"...hold a preconstruction conference prior to commencement of any construction, which must include a Company representative, its construction supervisor, and a representative of Commission Staff, to ensure that Company fully understands the conditions set forth in the Commission's order."</i></p>	Yes	Docket No. 57 provides the Letter notice of intent to start construction and the pre-construction meeting minutes.
<p>Construction, ¶8 <i>"...all cultural resource mitigation plans must be submitted to the North Dakota State Historic Preservation Office and approved prior to the start of any fieldwork and construction activity in the affected area."</i></p>	Yes	Cultural resources surveys and subsequent SHPO approval was issued and documented in the Project application (Docket No. 1) and subsequently at the time of proposed route amendment (Docket No. 49).
<p>Construction, ¶9 <i>"...topsoil removal will begin when the Commission's third-party construction inspector is present at the Project site to observe that topsoil is properly removed and kept segregated from subsoil until replacement occurs. Company shall establish the date and time for the Commission's third-party construction inspector's topsoil removal oversight in the preconstruction conference."</i></p>	Yes	HEI was included in the Letter notice of intent to start construction and was present during the time of initial earth moving to observe topsoil and subsoil management. Docket No. 61 records HEI's topsoil construction observation and Docket 63 also records <i>Daily Environmental Inspection Reports of Construction of the Laurel Interconnect Pipeline</i> .
<p>Construction, ¶10 <i>"...inform the Commission and the Commission's third-party construction inspector of its intent to start construction on the transmission facility prior to the commencement of construction. Once construction has started, Company shall keep the Commission and the Commission's third-party construction inspector updated on construction activities on a monthly basis."</i></p>	Yes	See comments above.



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Construction, ¶11</p> <p><i>“...the pipeline will be buried to a minimum depth from the ground surface to the top of the pipe of 48 inches in range land, 48 inches .”</i></p>	Yes	HEI observed pipe installation and confirmed pipe depth installation depth of 48 inches (Docket No. 65).
<p>Construction, ¶12</p> <p><i>“...all topsoil, up to 12 inches, or topsoil to the depth of cultivation, whichever is greater, over and along trench areas where cuts will be made, must be carefully stripped and segregated from the subsoil. Any area on which excavated subsoil will be placed must also be stripped of topsoil. The stripped topsoil must not be sockpiled in natural drainages, and must be protected from water erosion. Care must be taken to protect topsoil from unnecessary compaction by heavy machinery. Unless otherwise approved by the Commission, topsoil must be removed before topsoil freezes in the late fall/early winter to the point that frost inhibits proper soil segregation. After backfilling with subsoil is completed, any excess subsoil must be placed over the excavation area, blending the grade into existing topography. Topsoil must be replaced over areas from which it was stripped only after the subsoil is replaced .”</i></p>	Yes	Topsoil was observed by HEI and SWCA Environmental Consultants. Topsoil and subsoil segregation was observed to have been conducted sufficiently.
<p>Construction, ¶13</p> <p><i>“...all buried facility crossings of graded roads must be bored unless the responsible governing agency specifically permits Company to open cut the road.”</i></p>	Yes	No open cuts were observed during site inspection.
<p>Construction, ¶14</p> <p><i>“...staging areas or equipment shall not be located on land owned by a person other than Company unless otherwise negotiated with landowners.”</i></p>	Yes	No staging issues were observed during inspections or recorded in construction logs.
<p>Construction, ¶15</p> <p><i>“...if any cultural resource, paleontological site, archeological site, historical site, or grave site is discovered during construction, it must be marked, preserved and protected from further disturbances until a professional examination can be made and a report of such examination is filed with the Commission and the State Historical Society.”</i></p>	Yes	No additional cultural/historical or paleontological resources were discovered during project construction.



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Construction, ¶16</p> <p><i>“...construction may be suspended when weather conditions are such that construction activities will cause irreparable damage to roads or land, unless adequate protection measures are taken by Company.”</i></p>	Yes	Weather was included in the construction logs and precautions were taken to proceed in construction with safe and cognizant approaches to stewarding existing land and road quality.
<p>Construction, ¶17</p> <p><i>“...the Commission may stop Project construction activities to prevent an imminent hazard from occurring before the Commission can take formal action with respect to said activities. For purposes of this provision, “imminent harzard” means a condition that presents a substantial likelihood of death, serious illness, severe personal injury, or a substantial endangerment to health, property, or the environment. Other Project construction activities would be allowed to continue.”</i></p>	Yes	No issues were observed or documented whereby allowing the need for discontinuation of any part of the construction process.
<p>Restoration and Maintenance, ¶18</p> <p><i>“...as soon as practicable upon the completion of the construction of the transmission facility, restore the area affected by the activities to as near as is practicable to the condition as it existed prior to the beginning of construction.”</i></p>	Yes	Minor revegetation / bare earth areas observed, however it is expected that these areas will continue to fill in with additional time. See Appendix B, photographs 15-17; 30-33; and 45-62.
<p>Restoration and Maintenance, ¶19</p> <p><i>“...all pre-existing township and county roads and lanes used during construction must be repaired or restored to a condition that is equal to or better than the condition prior to the construction of the transmission facility and that will accommodate their previous use, and that areas used as temporary roads or working areas during construction must be restored to their original condition.”</i></p>	Yes	There were two (2) minor areas observed at an unpaved access road (see Appendix B, photographs 15-17) and minor unvegetated area on a slope of road adjacent to the new transmission faciltiy (photograph 45). There were no other road issues observed.
<p>Restoration and Maintenance, ¶20</p> <p><i>“...reclamation, fertilization, and reseeding is to be done according to the Natural Resources Conservation Service recommendations, unless otherwise specified by the landowner and approved by the Commission.”</i></p>	Yes	Reclamation / revegetation appeared generally successful throughout.
<p>Restoration and Maintenance, ¶21</p> <p><i>“...reclamation and maintenance of the approved transmission facility right-of-way, transmission facility, and associated facilities continuing throughout the Company’s ownership of the transmission facility.”</i></p>	Yes	See comments above.



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
Restoration and Maintenance, ¶22 “...repair all fences and gates removed or damaged during all phases of construction and operation of the transmission facility.”	Yes	No fences or gates were observed to be damaged or misplaced during or after construction.
Restoration and Maintenance, ¶23 “...repair or replace all drainage tile broken or damaged as a result of construction and operation of the transmission facility.”	Unspecified	There were no observations of drainage tile broken or damaged. There are no reports of landowners reporting broken or damaged drainage tile as a result of the Project.
Restoration and Maintenance, ¶24 “...remove all waste that is a product of construction and operation, resotration, and maintenance of the site, and properly dispose of it on a regular basis.”	Yes	Rubbish and waste that may have been produced by construction was not observed nor were reports recorded of this type of uncleanliness.
Restoration and Maintenance, ¶25 “...provide any necessary safety measures for traffic control or to restrict public access to the tramsision faciltiy.”	Yes	The site appears to comply with safety requiriements, no unsafe activities were observed during site visits or reported by neighboring landowners.
Communication with Landowners and PSC, ¶26 “...provide any necessary safety measures for traffic control or to restrict public access to the tramsision faciltiy.”	Yes	No transportation safety issues were observed or documented.
Restoration and Maintenance, ¶27 “...file with the commission the name and phone number of the current company representative who is responsible for receiving and resolving landowner issues for the transmission facility. The company will update this information whenever there is a change to the current company representative for the life of all easements for the transmission facility.”	Yes	Records have been maintained throughout the project case file.
Restoration and Maintenance, ¶28 “...provide the Commission with engineering design drawings of the transmission facility prior to construction.”	Yes	NuStar provided engineering design drawings prior to construction.



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Restoration and Maintenance, ¶29 <i>“...advise the Commission as soon as reasonably possible of any extraordinary events which take place at the site of the transmission facility, including injuries to any person.”</i></p>	Yes	<p>There were no extraordinary events that required the project to stop and be reported. There was 1 near-miss incident during construction of the pipeline that was recorded in the construction notes.</p>
<p>Restoration and Maintenance, ¶30 <i>“...report to the Commission, as soon as reasonably possible, the presence in the permit area of any critical habitat or threatened or endangered species of which Company becomes aware and which were not previously reported to the Commission.”</i></p>	Yes	<p>No additional critical habitat or threatened or endangered species were recorded during construction.</p>
<p>Restoration and Maintenance, ¶31 <i>“...inform the Commission in writing of any plans to modify the transmission facility or of any plans to modify the site plan for the transmission facility.”</i></p>	Yes	<p>NuStar did notify the Commission of modifications to the pipeline corridor. Docket No. 18 and Docket No. 55 document these amendments.</p>
<p>Restoration and Maintenance, ¶32 <i>“...provide the Commission with both an electronic and a paper copy of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built, and will provide this information within 3 months of the completion of the construction. Company also agrees to provide an electronic version of the corridor approved by the Commission and the facility design specifications for the construction of the transmission facility showing the location of the transmission facility as built that can be imported into ESRI GIS mapping software within 3 months of the completion of the construction. This electronic map data must be referenced to the North Dakota coordinate system of 1983, North and/or South zones US Survey feet (NAD 83) UTM Zone 13N or 14N feet (NAD 83), or geographic coordinate system (WGS 84) feet. The vertical data must be in the appropriate vertical datum for the coordinate system used. All submissions must specify the datum in which the data was developed..”</i></p>	Unspecified	<p>The final construction progress report (Docket No. 69, dated Sept. 12, 2017) followed by an as-built map was provided under Docket No. 70 (dated Sept. 18, 2017). It is unclear as to whether or not NuStar submitted to the Commission.</p>



Permit Conditions/Order Provisions	Compliance	Verification and Discussion
<p>Restoration and Maintenance, ¶33 <i>"...notify the Commission as soon as reasonably possible if any damage, as defined by North Dakota Century Code Chapter 49-23, occurs to underground facility during construction conducted under the certificate or permit issued in this proceeding. In the event of any damage to underground facilities, Company shall suspend construction in the vicinity of the damage until compliance with One-Call Excavation Notice System requirements under North Dakota Century Code Chapter 49-23 has been determined."</i></p>	<p>Yes</p>	<p>The Project is currently compliant with this provision according to the records provided in the case file. No events of damage to the underground facilities have been reported at the time of developing this report (December 2019).</p>
<p>Route Adjustments Before or During Construction, ¶34 <i>"...utilize the following procedures if Company seeks a route adjustment before or during construction of the pipeline, pursuant under N.D.C.C 49-22-16.3."</i></p>	<p>Yes</p>	<p>Amendments were made and process appears to have been followed as observed in the project case records online.</p>
<p>Route Adjustments Before or During Construction, ¶35-39 <i>"...specifically identify which subsection of NDCC 49-22-16.3 it is requesting the adjustment under. Company will file the name and contact information for a key contact person for the purposes of notice and communication during the adjustment application."</i></p>	<p>Yes</p>	<p>Amendments were made and process appears to have been followed as observed in the project case records online.</p>



APPENDIX B: FINAL REPORT PHOTOGRAPHY



Photo 1: Near the Cenex interconnect at 32nd St. SE



Photo 2: At the Cenex interconnect at 32nd St. SE





Photo 3: Pipeline corridor (Section 15, T140N, R50W)



Photo 4: Pipeline corridor (Section 15, T140N, R50W)



Photo 5: Pipeline corridor
(Section 15, T140N, R50W)



Photo 6: Pipeline corridor
(Section 15, T140N, R50W)



Photo 7: minor revegetation issues (bare earth) near intersection of 166th Ave SE and 33rd St SE (Section 15, T140N, R50W)



Photo 8: minor bare earth near intersection of 166th Ave SE and 33rd St SE (Section 15, T140N, R50W)



Photo 9: minor bare earth near intersection of 166th Ave SE and 33rd St SE (Section 15, T140N, R50W)



Photo 10: minor bare earth near intersection of 166th Ave SE and 33rd St SE (Section 15, T140N, R50W)



Photo 11: pipeline corridor near right-of-way wetland area (Section 22, T140N, R50W)



Photo 12: pipeline corridor near wetland area (Section 22, T140N, R50W)



Photo 13: pipeline corridor near wetland area (Section 22, T140N, R50W)



Photo 14: pipeline corridor near wetland area (Section 22, T140N, R50W)



Photo 15: unpaved approach with slight depression, bare earth, tire rutting (Section 22, T140N, R50W)



Photo 16: unpaved approach with slight depression, bare earth, tire rutting (Section 22, T140N, R50W)



Photo 17: unpaved approach with slight depression, bare earth, tire rutting (Section 22, T140N, R50W)



Photo 18: pipeline corridor in stream corridor along 166th Ave SE (Section 22, T140N, R50W)



Photo 19: pipeline corridor
traversing stream along 166th Ave
SE (Section 22, T140N, R50W)



Photo 20: pipeline corridor
marker, successful revegetation
(Section 22, T140N, R50W)



Photo 21: pipeline corridor marker, successful revegetation (Section 28, T140N, R50W)



Photo 22: pipeline corridor marker near wetland, successful revegetation (Section 28, T140N, R50W)



Photo 23: pipeline corridor marker near wetland (Section 28, T140N, R50W)



Photo 24: pipeline corridor marker near wetland (Section 28, T140N, R50W)



Photo 25: pipeline corridor marker near wetland (Section 28, T140N, R50W)



Photo 26: pipeline corridor marker near wetland, successful revegetation (Section 28/33, T140N, R50W)



Photo 27: pipeline corridor,
successful revegetation (Section
28/33, T140N, R50W)



Photo 28: pipeline corridor,
successful revegetation (Section
28/33, T140N, R50W)



Photo 29: pipeline corridor, successful revegetation (Section 28/33, T140N, R50W)



Photo 30: tire rutting, bare earth, revegetation, open water and revegetation in progress (near intersection of 35th St SE)



Photo 31: tire rutting, bare earth, open water, revegetation in progress (near intersection of 35th St SE)



Photo 32: tire rutting, bare earth, revegetation in progress (near intersection of 35th St SE)



Photo 33: tire rutting, bare earth, seeding observed, revegetation appears in progress (near intersection of 35th St SE)



Photo 34: pipeline corridor adjacent to agricultural lands, revegetated areas (Section 33, T140N, R50W)



Photo 35: culvert along 165th Ave SE (Section 33, T140N, R50W)



Photo 36: pipeline corridor adjacent to agricultural lands, revegetation (Section 33, T140N, R50W)



Photo 37: pipeline corridor adjacent to agricultural lands, revegetation (Section 33, T140N, R50W)



Photo 38: pipeline corridor in wetland area, adjacent to 36th St SE (Section 4, T139N, R50W)



Photo 39: pipeline corridor in wetland area, adjacent to 36th St SE (Section 4, T139N, R50W)



Photo 40: pipeline corridor in wetland area, adjacent to 36th St SE (Section 4, T139N, R50W)



Photo 41: pipeline corridor in wetland area, adjacent to 36th St SE (Section 4, T139N, R50W)



Photo 42: pipeline corridor in wetland area, adjacent to 36th St SE (Section 4 T139N, R50W)



Photo 43: Highway 15, adjacent to new transmission facility, standing water, revegetation is sparse, but appears to be establishing successfully. (Section 4, T139N, R50W)



Photo 44: Highway 15, adjacent to new transmission facility (Section 4, T139N, R50W)



Photo 45: Highway 15, adjacent to new transmission facility, minor area of erosion / bare earth where revegetation has not completely filled in yet (Section 4, T139N, R50W)



Photo 46: facing the new transmission facility, minor bare earth, seeding observed, revegetation in progress (Section 4, T139N, R50W)



Photo 47: facing the new transmission facility, minor bare earth likely due to drowned out, revegetation in progress (Section 4, T139N, R50W)



Photo 48: facing the new transmission facility, minor bare earth, standing water, revegetation efforts observable (Section 4, T139N, R50W)



Photo 49: facing the new transmission facility, minor bare earth, standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 50: facing the new transmission facility, revegetation in progress (Section 4, T139N, R50W)



Photo 51: facing the new transmission facility, standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 52: facing the new transmission facility, standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 53: fence-line of new transmission facility, standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 54: fence-line of new transmission facility, standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 55: fence-line of new transmission facility, standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 56: fence-line of new transmission facility, minor bare earth, revegetation in progress (Section 4, T139N, R50W)



Photo 57: fence-line of new transmission facility, standing water, bare earth, revegetation appears to be in progress (Section 4, T139N, R50W)



Photo 58: fence-line of new transmission facility, standing water, bare earth, revegetation in progress (Section 4, T139N, R50W)





Photo 59: fence-line of new transmission facility, standing water, bare earth due to drowned out, revegetation in progress (Section 4, T139N, R50W)



Photo 60: fence-line of new transmission facility, minor bare earth likely due to standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 61: fence-line of new transmission facility (Section 4, T139N, R50W)



Photo 62: fence-line of new transmission facility, minor bare earth likely due to standing water, revegetation in progress (Section 4, T139N, R50W)



Photo 63: outside of the new transmission facility (Section 4, T139N, R50W)



Photo 64: marked pipeline corridor in wetland area (Section 4, T139N, R50W)



Photo 65: marked pipeline corridor in wetland area (Section 4, T139N, R50W)



Photo 66: marked pipeline corridor in wetland area (Section 4, T139N, R50W)



Photo 67: end of Project, bare earth (Section 9, T139N, R50W)