



NST EXPRESS, LLC

Permit Compliance Inspection Report #3

NDPSC CASE NO. PU-15-232



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EXHIBITS

Exhibit 1: Site Visit and Photograph Location Map

1 EXECUTIVE SUMMARY

The North Dakota Public Services Commission has contracted with Houston Engineering, Inc. (HEI) to perform permit compliance inspection services for the NST Express, LLC project, (Case No. PU-15-232), a 12-inch crude oil pipeline spanning 23 miles in McKenzie County, North Dakota. This report documents the inspection compliance site visit, which was conducted on October 19, 2016. This site visit is the third site visit during active construction and focused on observing the following:

- Grading and construction in the vicinity of known cultural resource areas;
- Regrading within wetland areas;
- Areas being regraded to original topography, note any discrepancies;
- Boring under roads, no road cuts;
- Recently seeded areas. Specifically, note use of mulch, if present;
- Erosion control measures and erosion issues. Is there a need for increased erosion control?

The site was inspected by Andrew Vistad, Civil Engineer, from the HEI Bismarck office. Mr. Vistad coordinated with Chris Thompson, the Chief Inspector of Northstar Express and site office manager during the inspection. HEI toured active construction areas. The open pit areas have been refilled and the focus of construction activities included regrading and seeding. The regrading and seeding methods that are used are appropriate for the site and current site conditions. No erosion control issues were identified at this time.

Based on our observations during the construction site inspection, reclamation and restoration activities are being completed in a sound manner. The topography is being restored to the pre-construction conditions, and seeding activities are visible on the surface of recently graded areas. Pipeline construction crossing roadways was completed using a direct bore method, as opposed to road-cuts. No road cuts were observed during our site visit.

2 INTRODUCTION AND PURPOSE

Houston Engineering, Inc. was contracted by the North Dakota Public Services Commission (NDPSC) to complete construction inspection services, as part of the 12-inch crude oil pipeline known as the NST Express Pipeline project (*PSC. Case No. PU-15-232*). The purpose of the inspection services is to determine compliance with the permit issued by the NDPSC. The following is a summary of the work completed to date, and the anticipated timeframe for the completion of the permit compliance review. Three permit compliance site visits have been completed. One more site visit will be scheduled immediately after construction is concluded, and one final inspection will occur in approximately one year (late summer/fall 2017) to observe reclamation activities and seeding progress.

This field inspection report is for the third site visit, which occurred on October 19, 2016. The site inspection included observations throughout the entire construction corridor, with the exception of the area west of the Yellowstone River. This area has been completed, regraded, and seeded.

3 SITE VISIT SUMMARY AND CONCLUSION

HEI arrived on site at 8:30 MDT on October 19, 2016. Upon arrival, HEI met with the office manager and discussed the overall project status. Currently, all pipe is in the ground and the construction activities included regrading and seeding and restoration throughout the corridor. The entire corridor west of the

Yellowstone River corridor has been constructed and reclamation is complete. As a result, the October 19th, 2016 site visit focused on the eastern side of the Yellowstone River. The site visit and photo locations are shown in **Exhibit 1**.

All areas where vegetation was observed were restored with a smooth transition between the graded and the existing ground. Top soil was adequately spread. Based on the moisture on the ground, it was clear that it had recently rained. No erosion issues were observed.

Other observations included:

- An excavation footprint was observed through a wetland area (**Photo 10**). The area had recently been seeded, yet no germination had been observable at this time. The location of this area is presented in the attached site visit and photo location map (**Exhibit 1**). This area will be revisited in a year to observe the revegetation efforts.
- A replacement fence was observed (**Photo 5**), and is in the same or better condition than the existing fence.

HEI has completed three inspections to date. We conclude that the contractors have contained construction activities within the designated easements and avoided impacts to cultural resource areas. The contractors have directly bored in areas specified by their permit, including under the Yellowstone River corridor and under roadways. The project has proceeded with no significant erosion issues to date. Proper regrading and reseeding efforts were visible on the landscape during the last site visit. HEI will revisit these recently seeded areas in approximately one year to observe revegetation efforts. **Table 1** summarizes permit conditions and order provisions which were observed during our site visit.

Table 1: Summary of Permit Conditions and Order Provision Compliance, Site Visit #3

Permit Conditions / Order Provisions	Compliance	Discussion
NDCC 69-06-08-02 Avoidance Areas: Historical Resources	Y	Historical resources were observed to be staked and avoided by construction activities.
Order Provision 12. Topsoil	Y	Topsoil was observed to be separated and stockpiled at the beginning of construction. Topsoil was observed to be replaced on the surface and adequately spread.
NDCC 69-06-08-02 Selection Criteria: Wetlands	Y	Wetland resources were observed to be restored to their pre-construction topography.
Order Provision 18. Restoration	TBD	Grading, topsoil replacement, and restoration activities were observed to be recently completed throughout the project area. No erosion issues were observed.
Order Provision 13: Boring under Roads	Y	No road cuts were observed.
Order Provision 20. Seeding	TBD	Seeding activities were observed to be recently completed.
Order Provision 22: Fences and Gates	Y	Replacement fence was observed to be in the same or better condition than the existing fence.

4 FUTURE PLANNED ACTIVITIES

HEI will perform the fourth permit compliance site visit as soon as all construction activities are complete to observe the as-built conditions. Based on the current pace of construction, HEI anticipates that the next site visit will occur during early winter of 2016. HEI will complete a total of two additional site visits, including one immediately after construction is complete to observe as-built conditions, and one final inspection following a growing season to observe the viability of the restoration activities.

5 SITE PHOTOGRAPHY



Photo 1: Reclamation facing west.



Photo 2: Reclamation facing east.



Photo 3: Reclamation facing north.



Photo 4: Reclamation facing south. Wetland avoidance to the west.



Photo 5: Fence repair facing east.



Photo 6: Reclamation facing west.



Photo 7: Reclamation facing northeast.



Photo 8: Reclamation facing southwest.



Photo 9: Reclamation facing east.



Photo 10: Wetland reclamation facing northwest.



Photo 11: Reclamation facing northwest.



Photo 12: Reclamation facing south.



Photo 13: Fence repair facing northwest



Photo 14: Reclamation facing east.



Photo 15: Reclamation facing south.



Photo 16: Reclamation facing south.



Photo 17: Reclamation facing northeast.



Photo 18: Reclamation facing east.



Photo 19: Reclamation facing east.



Photo 20: Reclamation facing west.



Photo 21: Reclamation facing west.



Photo 22: Reclamation facing east.



Photo 23: Reclamation facing west.



Photo 24: Reclamation facing north.



Photo 25: Reclamation facing south.



Photo 26: Reclamation facing north.



Photo 27: Reclamation facing southwest.



Photo 28: Wetland reclamation facing north.



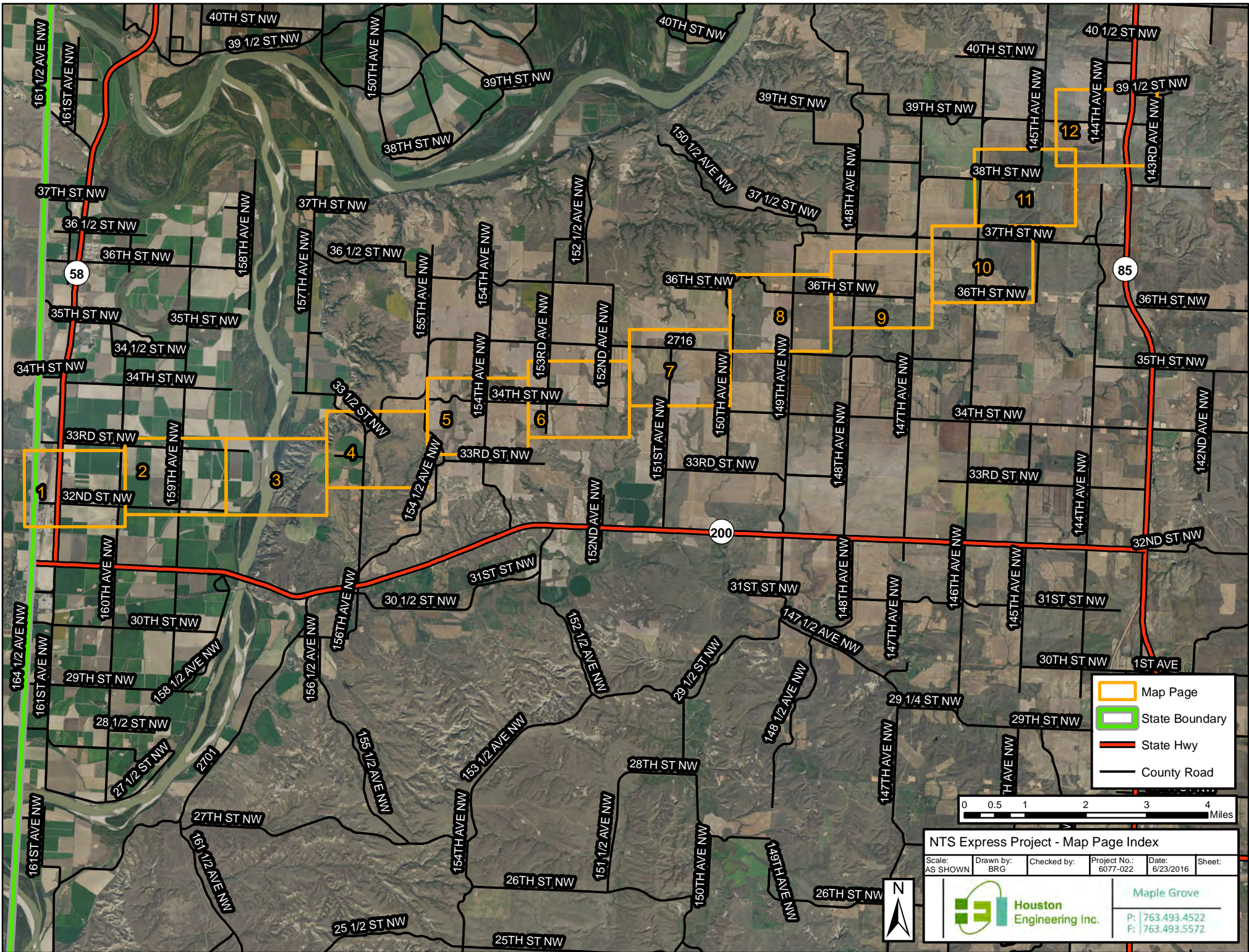
Photo 29: Reclamation facing east.

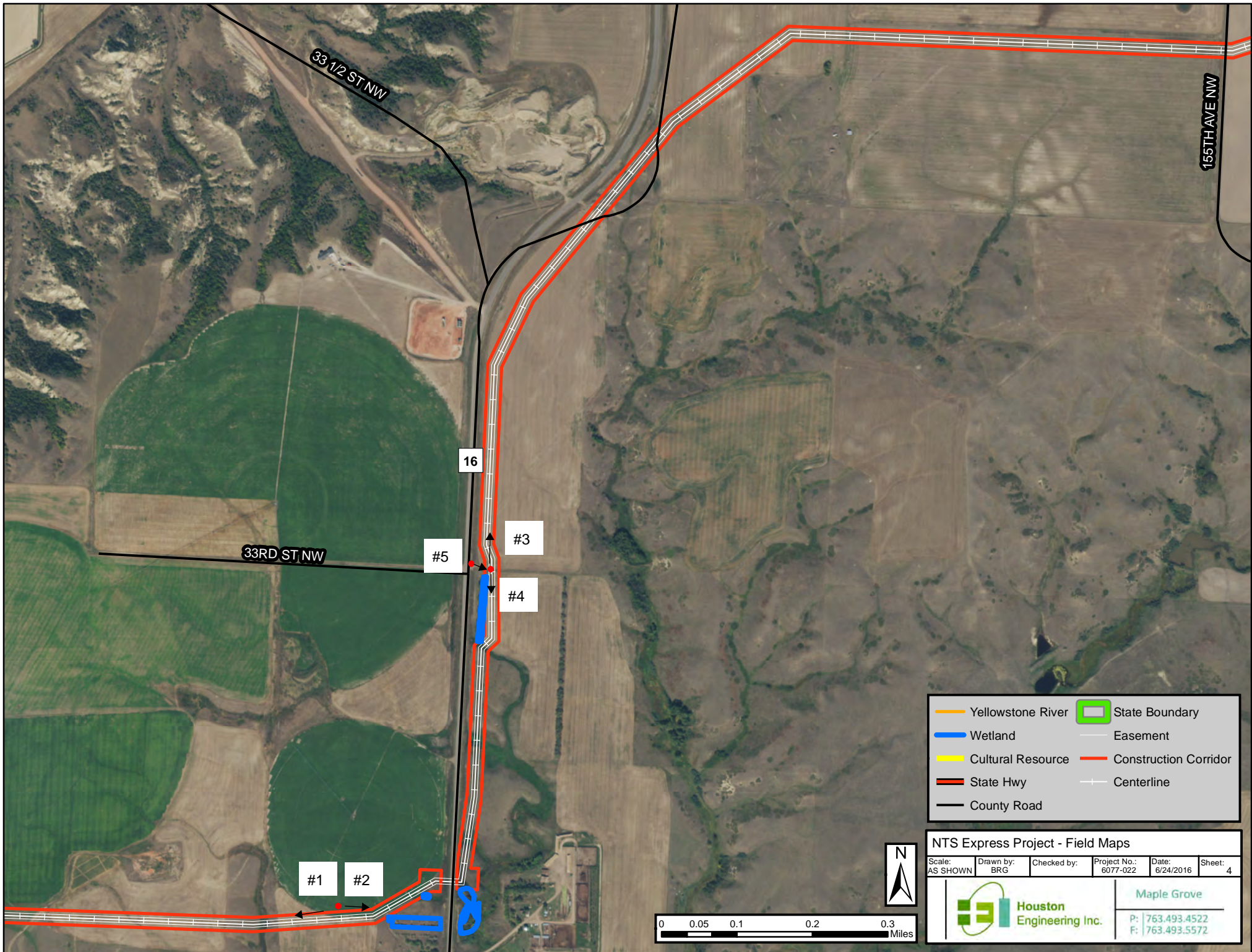


Photo 30: Reclamation facing east.

EXHIBIT 1





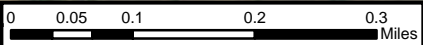


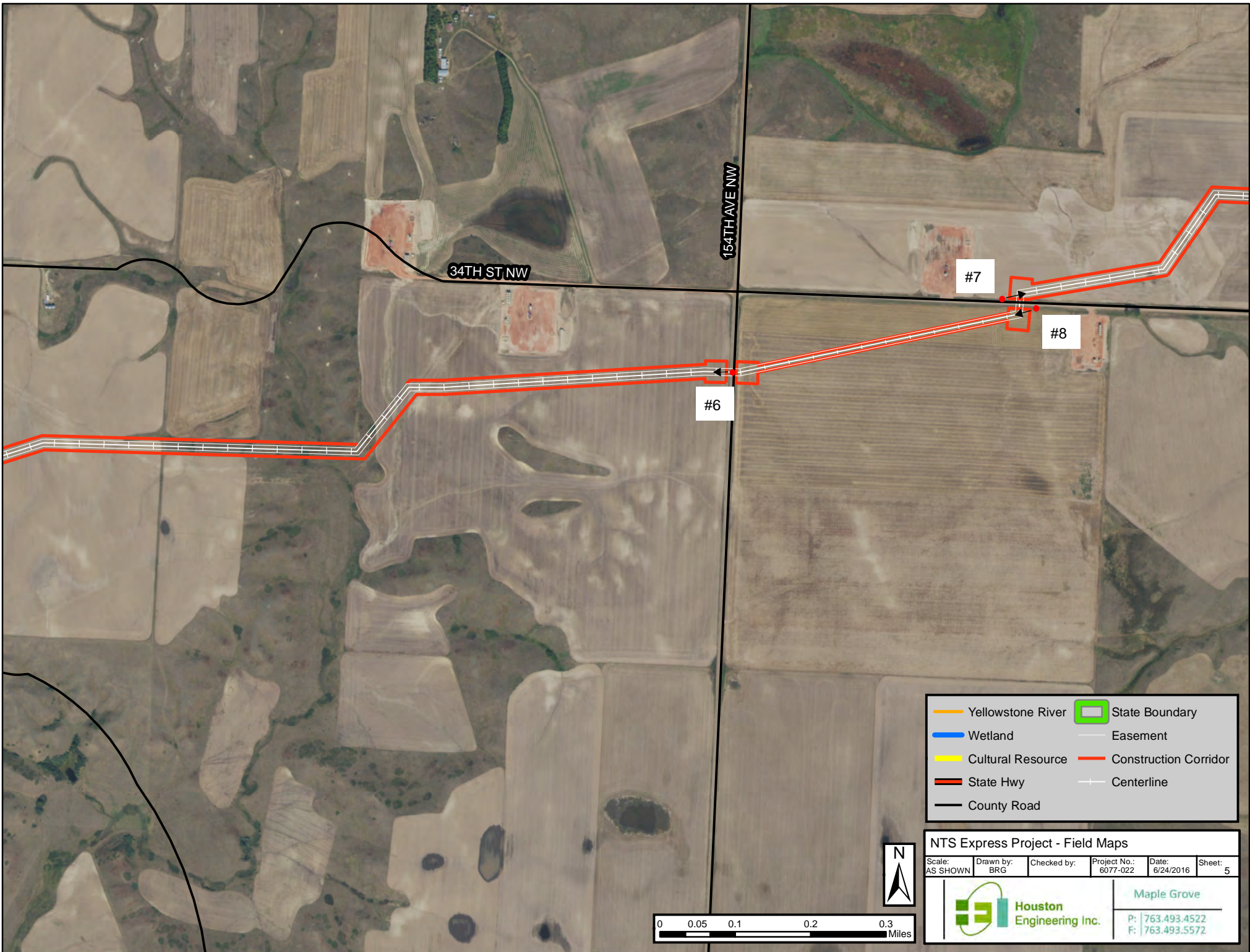
Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps

Scale: AS SHOWN	Drawn by: BRG	Checked by:	Project No.: 6077-022	Date: 6/24/2016	Sheet: 4
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	Maple Grove
	P: 763.493.4522 F: 763.493.5572





34TH ST NW

154TH AVE NW

#6

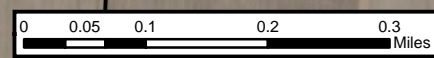
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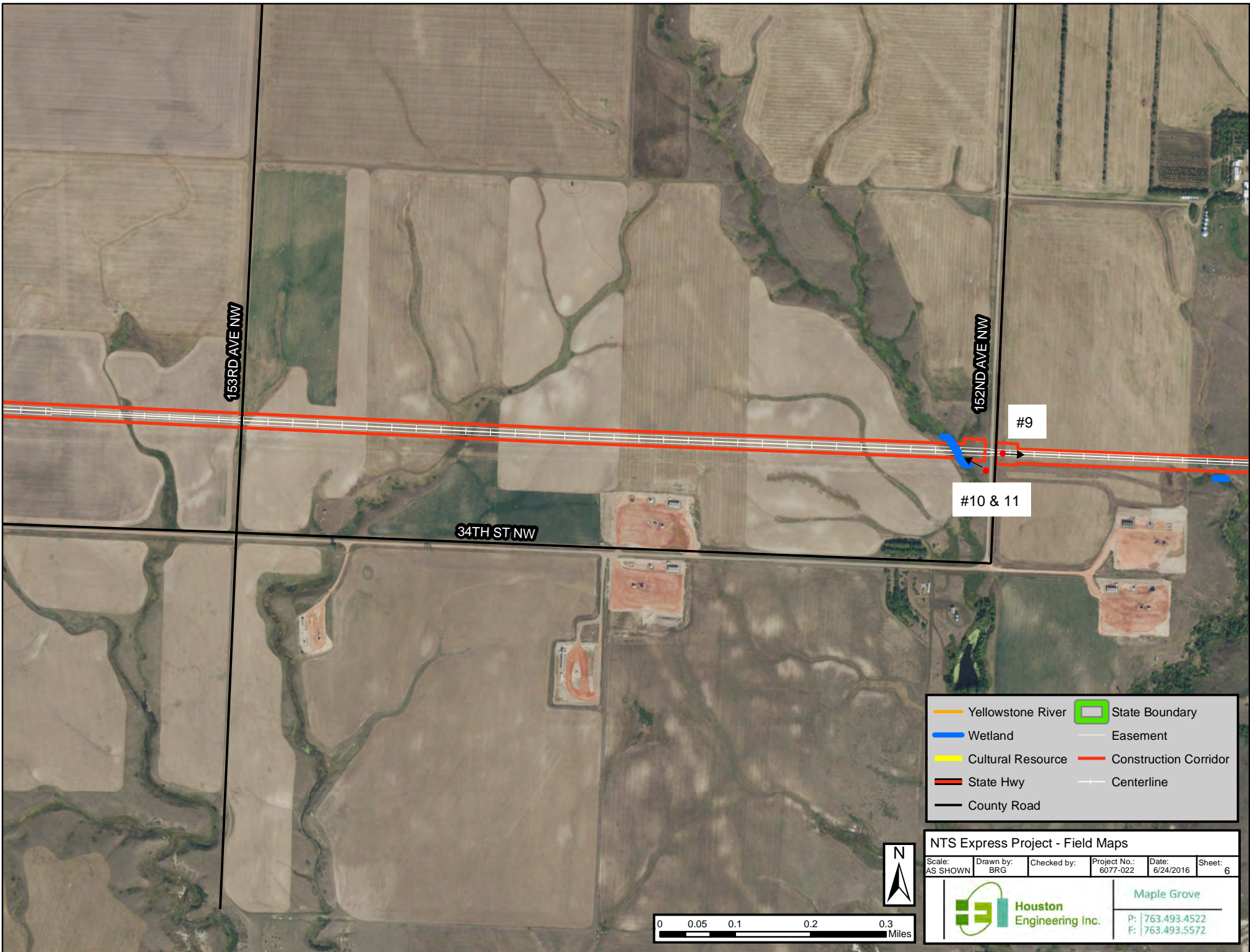
Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps

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





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152ND AVE NW

34TH ST NW

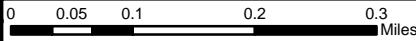
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#10 & 11

-  Yellowstone River
-  Wetland
-  Cultural Resource
-  State Hwy
-  County Road
-  State Boundary
-  Easement
-  Construction Corridor
-  Centerline

NTS Express Project - Field Maps

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Maple Grove

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#16


#17

#18

#15

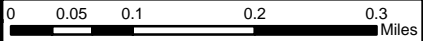
149TH AVE NW

36TH ST NW

-  Yellowstone River
-  Wetland
-  Cultural Resource
-  State Hwy
-  County Road
-  State Boundary
-  Easement
-  Construction Corridor
-  Centerline

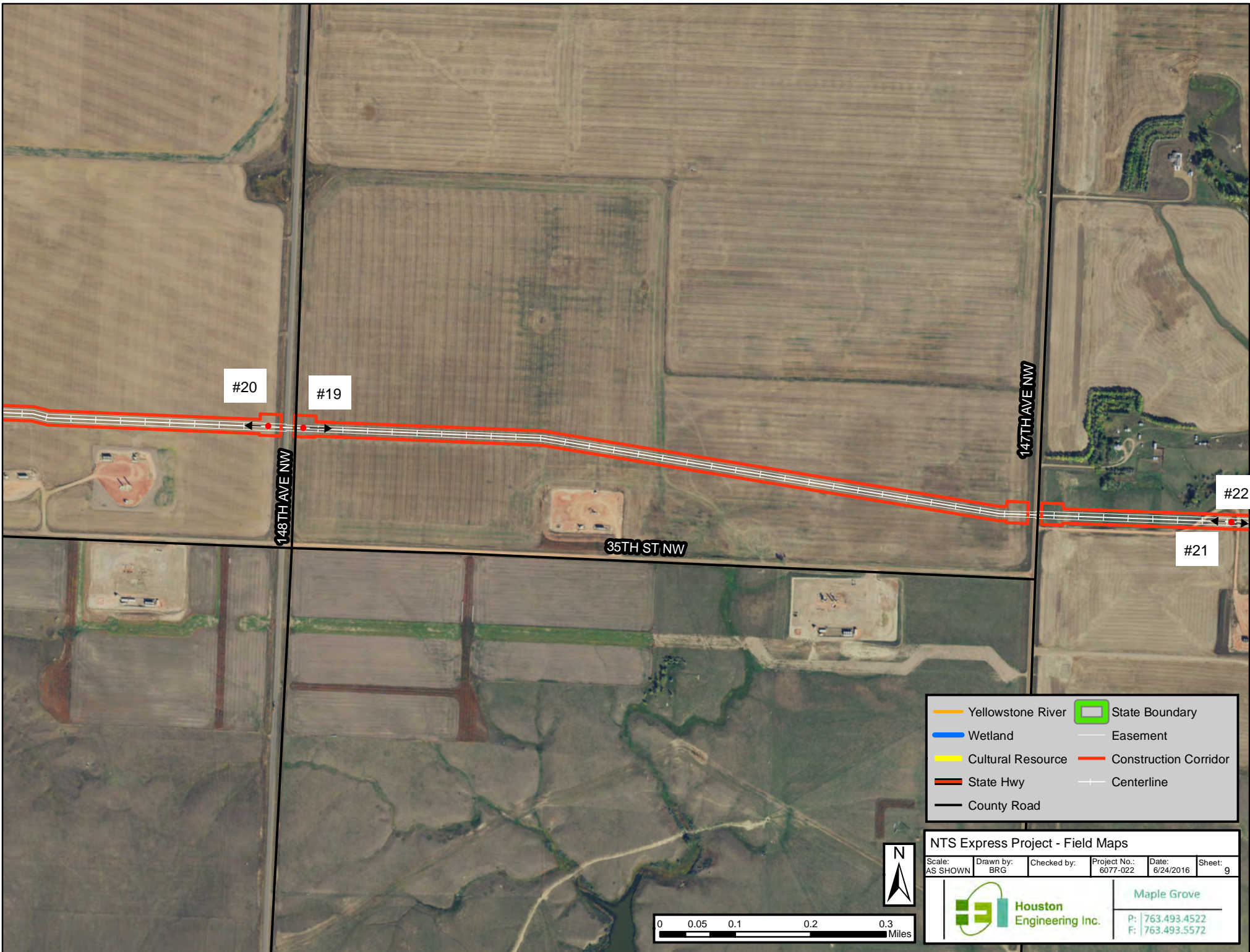
NTS Express Project - Field Maps

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Maple Grove

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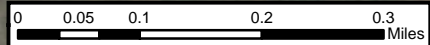


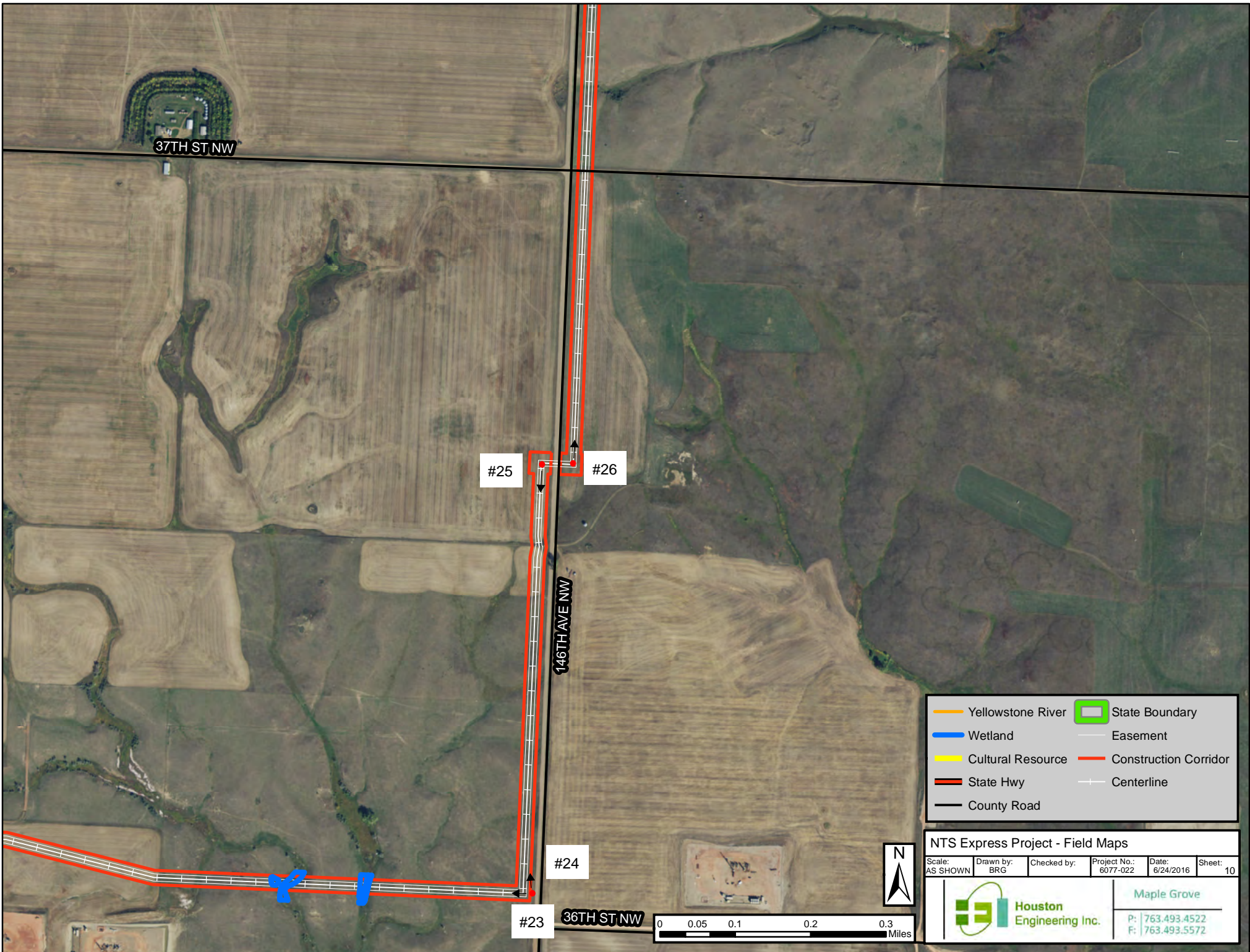
Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps

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	Maple Grove
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37TH ST NW

#25

#26

146TH AVE NW

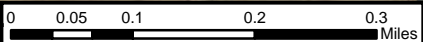
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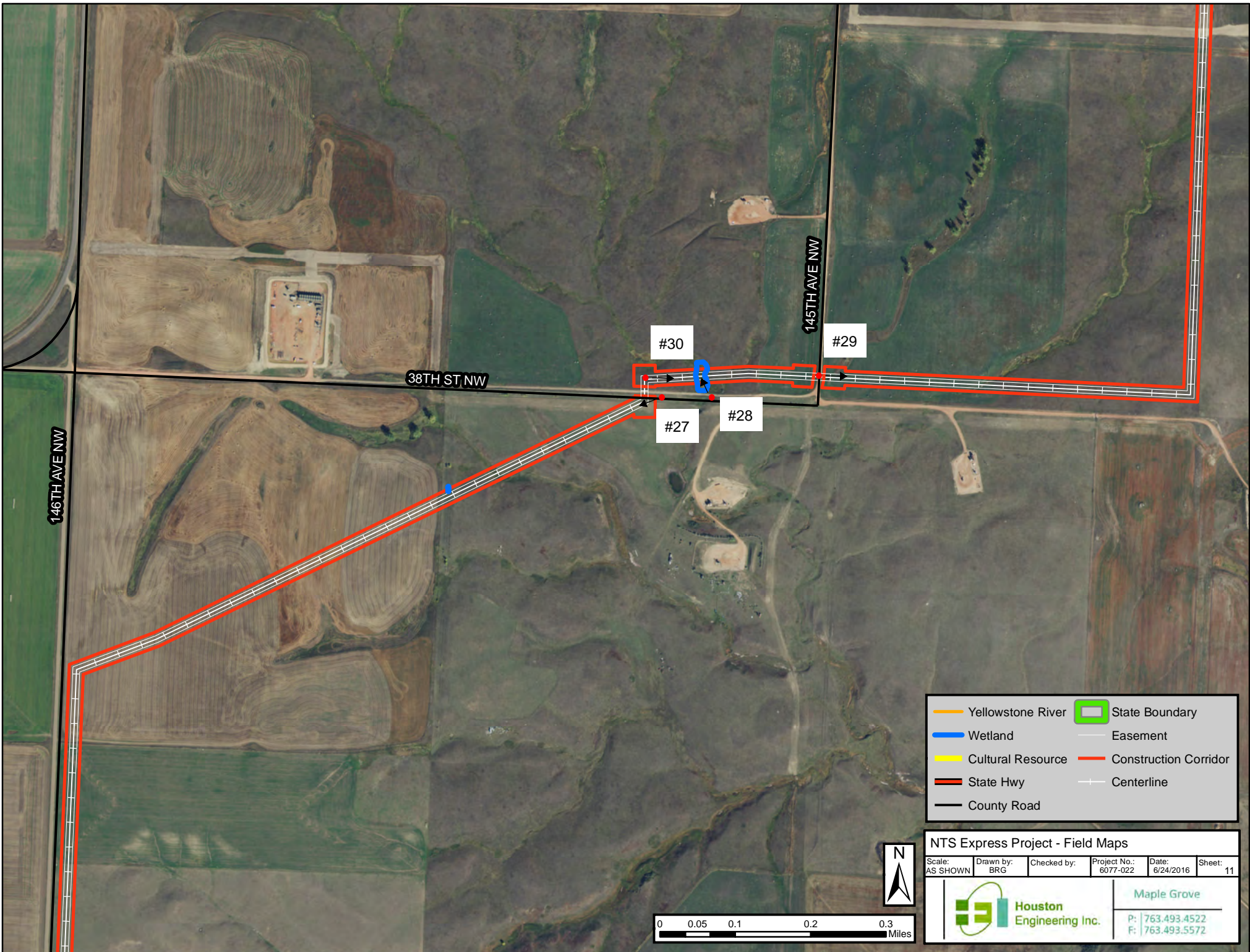
36TH ST NW

Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps					
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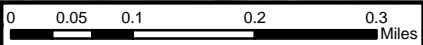
 Houston Engineering Inc.	Maple Grove
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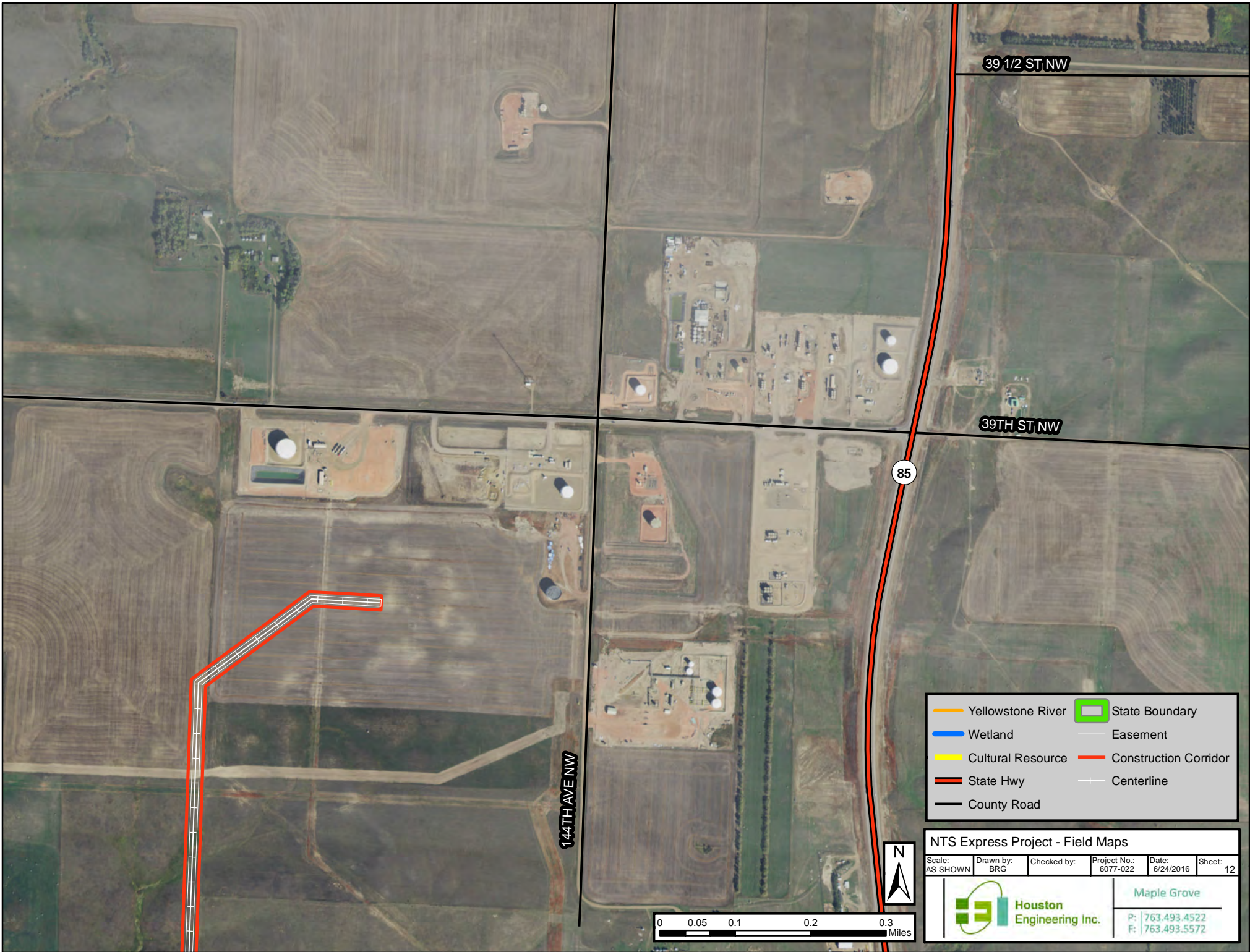
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NTS Express Project - Field Maps

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	Maple Grove
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39 1/2 ST NW

39TH ST NW

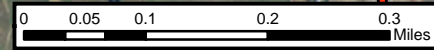
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144TH AVE NW

Yellowstone River	State Boundary
Wetland	Easement
Cultural Resource	Construction Corridor
State Hwy	Centerline
County Road	

NTS Express Project - Field Maps

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<p>Houston Engineering Inc.</p>	<p>Maple Grove</p>
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