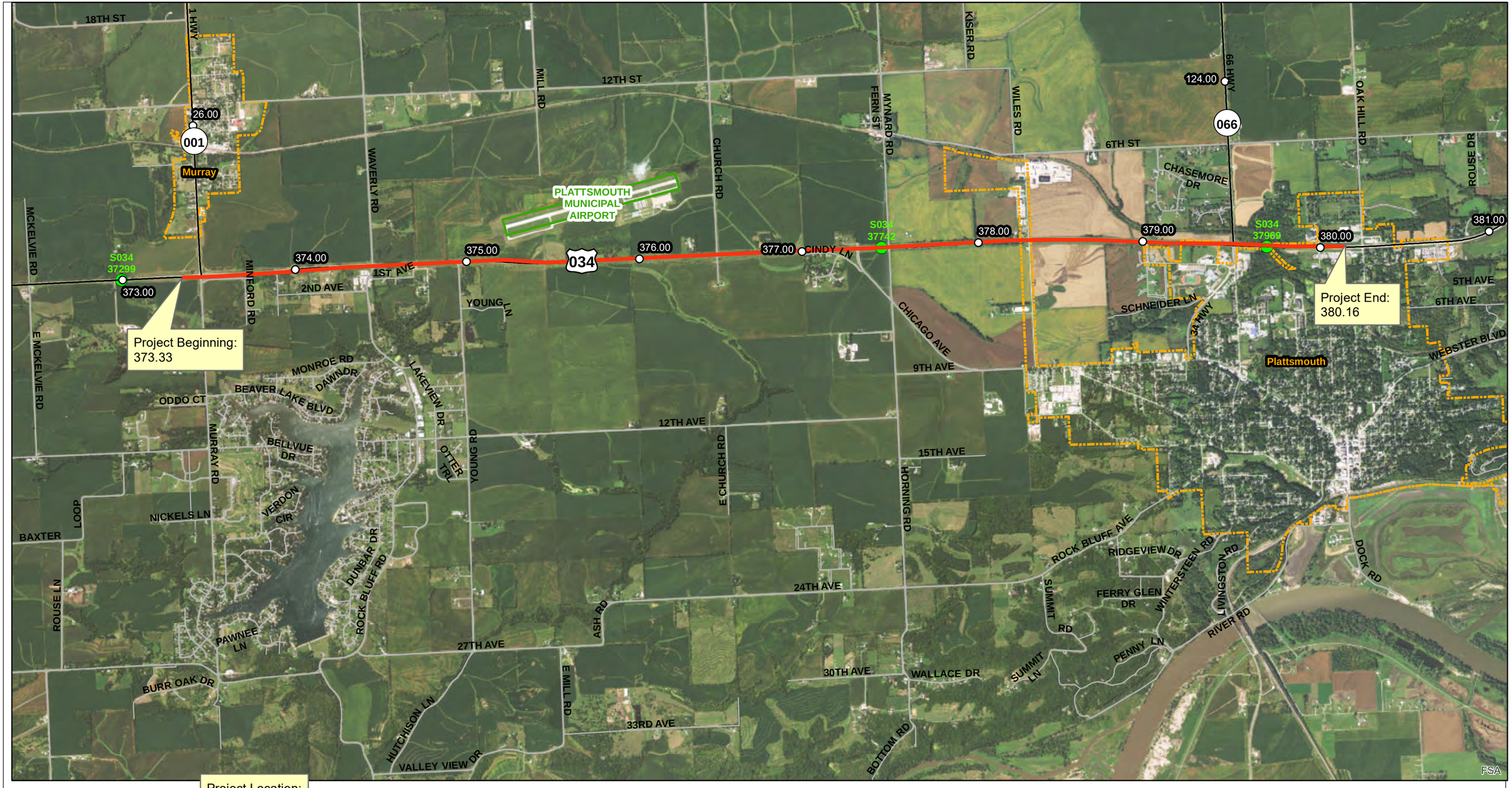
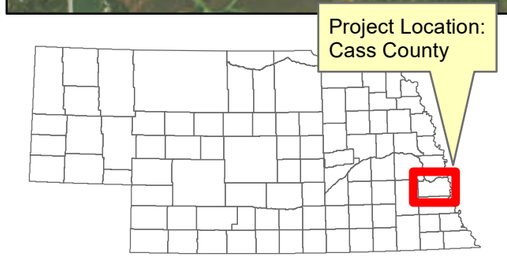




N

Murray - Plattsmouth Location Map

Control No. 21209
Project No. S-75-2(1072)

0 0.375 0.75 Miles

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF ROADS

- Mile Markers
- Bridges
- Project Alignment
- Highways
- Streets
- Airports
- City Boundaries

Figure 1

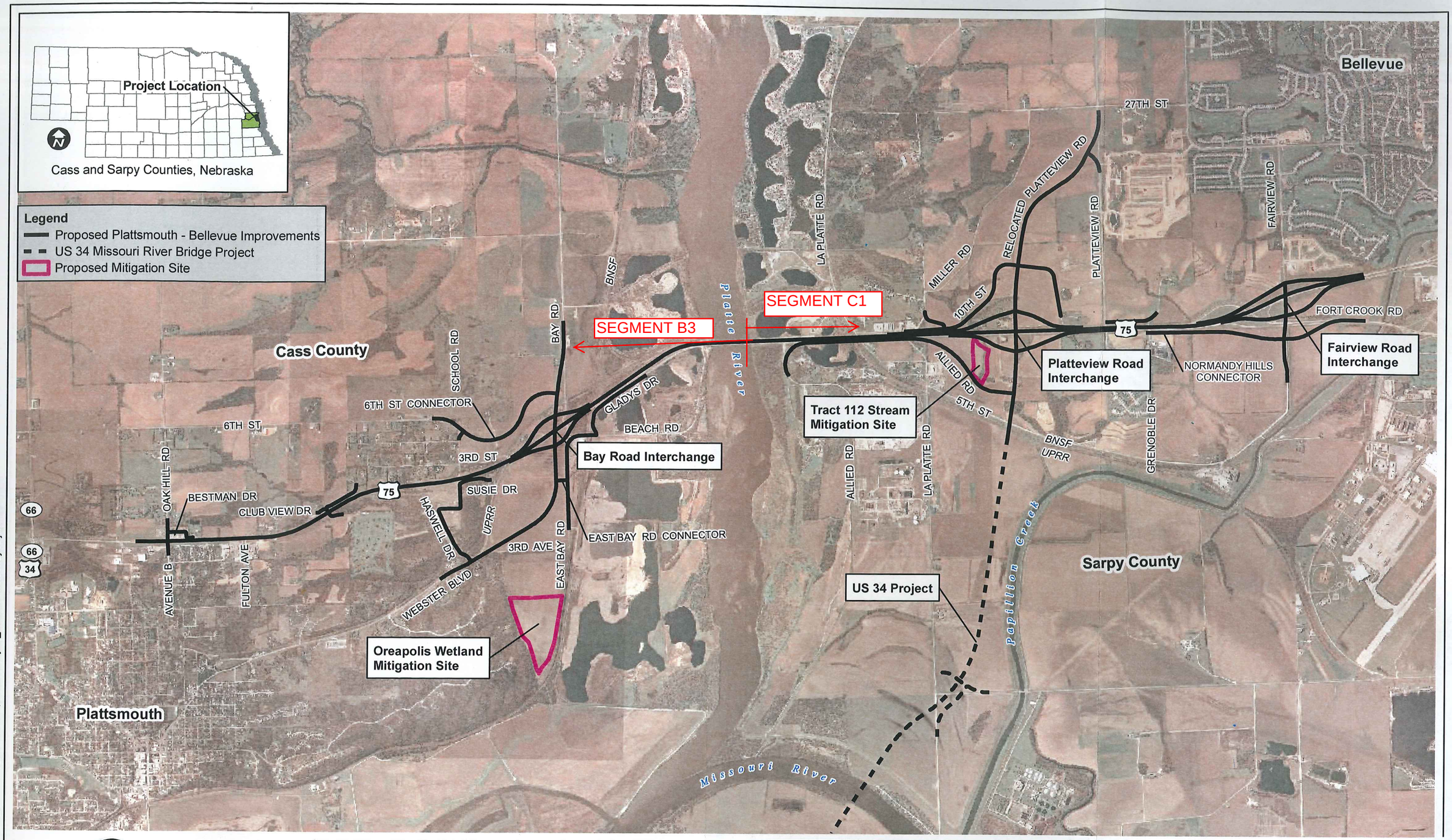


Figure taken from 2010 US Highway 75 Plattsmouth - Bellevue NEPA Reevaluation

NDOR Nebraska Department of Roads

Project Location

NEPA Reevaluation
US 75 Plattsmouth - Bellevue
Cass and Sarpy Counties, Nebraska

Project No. NH-75-2(155)
Control No. 21849

DATE
May 2010

FIGURE
2010-1

Z:\Projects\NDOR\10205_US75\map_docs\arcmap\NEPA\Project_Location.mxd\may10\jcm

Johnson County

NEBRASKA

Otoe County

Segment A

Cass County

Segment B

US 75 Improvements
Project No. F-28(11)
FHWA-NEB-EIS-73-11-F

Sarpy County

Segment C

Douglas County

Omaha

Nemaha County

Nebraska City

Missouri River

Platte River

Murray

Plattsmouth

Bellevue

Council Bluffs

Glenwood

Pottawattamie County

Mills County

Fremont County

IOWA

A1 A2 A3 B1 B2 B3 C1 C2 C3 C4

Fairview Rd

N-370

Chandler Rd

W St/Railroad Ave

SEGMENT	DESCRIPTION
A1	N-128 to South Junction N-2
A2	Nebraska City West Bypass (South Junction N-2 to North Junction N-2) Nebraska City South Bypass & Missouri River Bridge
A3	North Junction N-2 to US 34
B1	US 34 to N-1
B2	N-1 to South of Plattsmouth
B3	South of Plattsmouth to Platte River
C1	Platte River to Fairview Road
C2	Fairview Road to N-370 (including Fairview interchange)
C3	N-37 to Chandler Road (including Chandler interchange)
C4	Chandler Road to W Street/Railroad Avenue

4 2 0 4
Miles
Scale

Legend
- County Boundaries
- Interstates/Freeways
- Highways

Figure taken from 2010 US Highway 75 Plattsmouth - Bellevue NEPA Reevaluation

NDOR

US 75 Reconstruction Segments

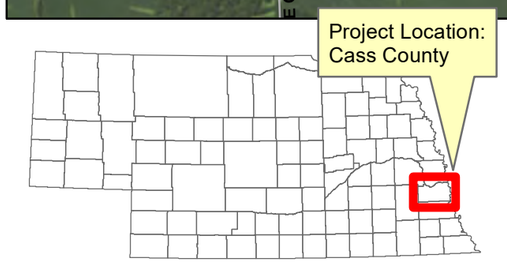
NEPA Reevaluation
US 75 Plattsmouth - Bellevue
Cass and Sarpy Counties, Nebraska

Project No. NH-75-2(155)
Control No. 21849

DATE
May 2010

FIGURE
2010-2

Z:\Projects\NDOR\10205_US75\map_docs\arcmap\NEPA\Reconstruction_Segments.mxd\may10\jcm



N

Murray - Plattsmouth Section 4(f) Resources North Half

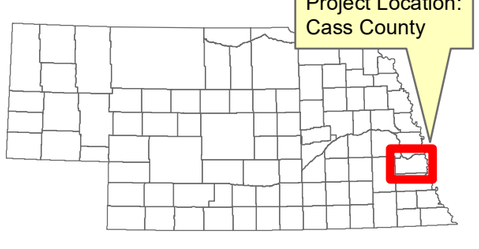
Control No. 21209
Project No. S-75-2(1072)

0 0.2 0.4 Miles

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF ROADS

- Public Schools
- Mile Markers
- Project Alignment
- Highways
- Streets
- Public Parks
- Section 4(f) Historic Property
- City Boundaries

Figure 2A



N

Murray - Plattsmouth Section 4(f) Resources South Half

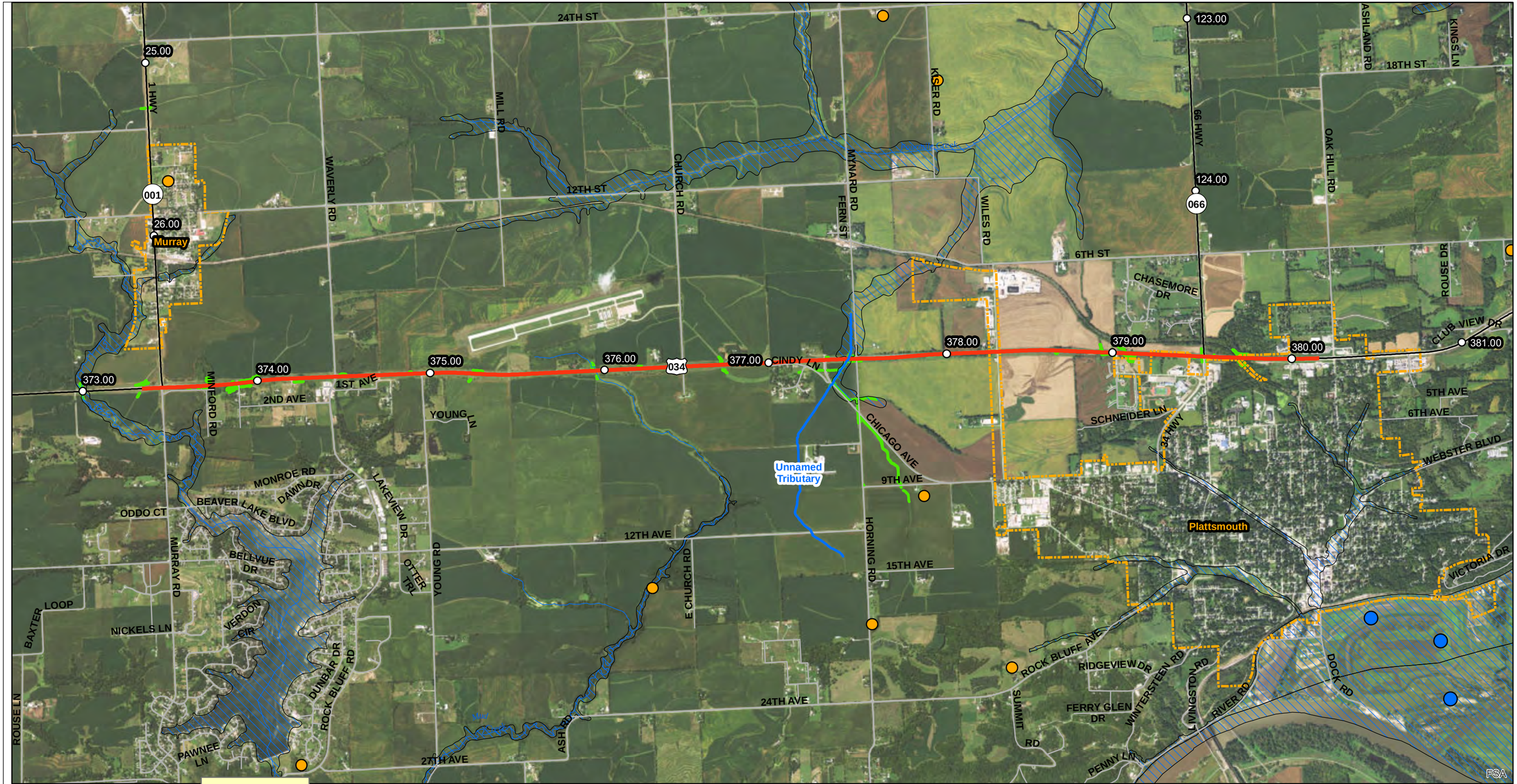
Control No. 21209
Project No. S-75-2(1072)

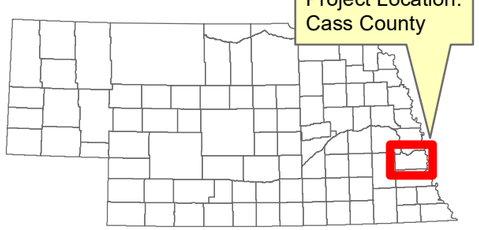
0 0.2 0.4 Miles

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF ROADS

- Mile Markers
- Project Alignment
- Highways
- Streets
- Section4(f) Farm
- Airports
- City Boundaries

Figure 2B





N

Murray - Plattsmouth Water Resources

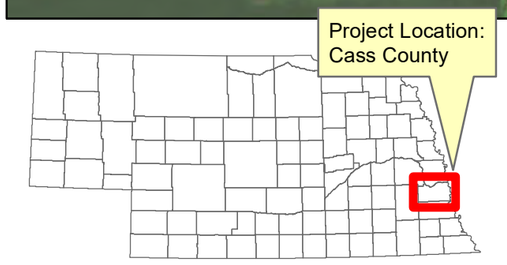
Control No. 21209
Project No. S-75-2(1072)

0 0.375 0.75 Miles

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF ROADS

- Domestic Well
- Irrigation Well
- Mile Markers
- Project Alignment
- Streams
- Highways
- Streets
- City Boundaries
- Floodplain
- Wetland

Figure 3



N

Murray - Plattsmouth Revised Access

Control No. 21209
Project No. S-75-2(1072)

0 400 800 Feet

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF ROADS

- Mile Markers
- New Road Access
- Removed Road Access
- Project Alignment
- Streams
- Highways
- Streets
- City Boundaries

Figure 4

ATTACHMENT A

US-75/US-34, MURRAY TO PLATTSMOUTH,

FARMLAND

Liebig, Kyle

From: Vanek, Wayne - NRCS, Lincoln, NE <Wayne.Vanek@ne.usda.gov>
Sent: Thursday, October 06, 2016 8:54 AM
To: Veys, Cindy
Subject: NE Dept. of Roads, US 34-US 75 Murray to Plattsmouth, Cass County, Nebraska Project
Attachments: CN 21209_Murray to Plattsmouth_Farmland_p 1.pdf

ATTENTION: Miss Cindy L. Veys – Senior Environmental Analyst -NDOR

I am responsible for the Farmland Protection Policy Act (FPPA) concerns and have reviewed the information you sent regarding the project for which you requested review of impacts. This review only covers FPPA concerns and does not include any other environmental concerns such as wetlands or endangered species. For general conservation concerns or questions relating to wetlands under the jurisdiction of the Food Security Act, contact your local county Natural Resources Conservation Service office.

It has been determined that a Farmland Conversion Impact Rating For Corridor Type Projects form (NRCS-CPA-106) will not be needed on this project since the point totals for **Part VI is less than 60**, the project is within already established right-of-ways (ROW), and no or very little additional cropland will be taken out of production, thus, **NRCS has determined that your project was found to be cleared of FPPA significant concerns.** We encourage you to continue to be aware of prime and important farmlands in general and the role they play in current and future projects.

I have returned the Farmland Conversion Impact Rating For Corridor Type Projects (NRCS-CPA-106) with correction of the Total Acres in Corridor to 46 (Part III, C)

Wayne Vanek
USDA-NRCS
Fed. Bldg. Rm. 152
100 Centennial Mall North
Lincoln, NE. 68508-3866
402.437.4125
wayne.vanek@ne.usda.gov

law and subject the violator to civil or criminal penalties. If you believe you have received this message in error, please notify the sender and delete the email immediately.

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 9/27/16	4. Sheet 1 of 1
1. Name of Project US 34/75 Murray to Plattsmouth	5. Federal Agency Involved Federal Highway Administration	
2. Type of Project Highway widening	6. County and State Cass, Nebraska	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☐		4. Acres Irrigated / Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment 1			
	Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	13			
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	~~13~~ 46			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*				
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	12			
2. Perimeter in Nonurban Use — 10	10			
3. Percent Of Corridor Being Farmed — 20	20			
4. Protection Provided By State And Local Government — 20	0			
5. Size of Present Farm Unit Compared To Average — 10	6			
6. Creation Of Nonfarmable Farmland — 25	0			
7. Availablility Of Farm Support Services — 5	4			
8. On-Farm Investments — 20	2			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	0			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	54	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	54	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	54	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
US 34/US 75 Murray to Plattsmouth	13	9/27/16	YES ☑ NO ☐

5. Reason For Selection:

Widening of the existing highway from 2 lanes to 4 lanes divided with a median results in 13 acres of impact to prime farmland. The form total of 54 points does not require consideration for protection.

Signature of Person Completing this Part: Cynthia L. Veys, Nebraska Dept. of Roads — DATE 9/27/2016

NOTE: Complete a form for each segment with more than one Alternate Corridor

ATTACHMENT B

US-75/US-34, MURRAY TO PLATTSMOUTH

FLOODPLAIN

NDOR
Nebraska Department of Roads

Memorandum

Date: **November 4, 2016**

To: Tony Kessler, Wahed Hassani

From: Wilson & Company

Thru: Kevin Donahoo, Julie Wells

Subj: Murray to Plattsmouth, 75-2(1072), CN 21209
Floodplain Certification

Murray to Plattsmouth is a reconstruction project along U.S. Highway 34 from approximately 0.12 miles south of the Nebraska Highway 1 intersection (R.P. 373+33) to approximately 400 feet south of the Oak Hill Road intersection (R.P. 380+16), in Cass County, Nebraska. The project will consist of replacing the existing roadway with a 4-lane expressway including a raised 22' median, 3' inside and 8' outside surfaced shoulders. Other additional improvements include removing and replacing pavement, grading, culvert replacement/extension, bridge replacement, side road realignment/reconstruction, and removing and replacing guardrail.

Unnamed Tributary to Fourmile Creek , Cass County, Section 25 & 36 T12N R13E
The project sideroad work (Horning Rd.) crosses the Zone A Floodplain for the Unnamed Tributary to Fourmile Creek in Section 25 & 36 T12N R13E. At this location, the vertical alignment on Horning Road will be reconstructed and a new 12' x 9' x 72' concrete box culvert will replace the existing 8' x 7' x 41' concrete box culvert. A hydrologic and hydraulic analysis of this floodplain at Horning Road was completed for this certification. The base flood (100 year storm event) of 1,110 cubic feet per second (cfs) is currently conveyed by the existing 8' x 7' x 41' concrete box culvert at an elevation of 1073.82 feet and overtops Horning Road. Although the roadway project work results in a significant grade raise, the additional conveyance at the new 12' x 9' x 72' concrete box culvert causes the water surface elevation to only rise forty-three hundredths of a foot (0.43 ft) to an elevation of 1074.25. This falls within the Zone A Floodplain regulation's allowance of up to a one-foot (1 ft) cumulative increase in the 100-year Base Flood Elevations for changes in a floodplain.

Unnamed Tributary to Fourmile Creek , Cass County, Section 36 T12N R13E
The project sideroad work (Chicago Ave.) crosses the Zone A Floodplain and runs parallel to the Unnamed Tributary to Fourmile Creek in Section 36 T12N R13E. At this location, the existing pavement and foundation course will be removed on Chicago Ave., resulting in a grade reduction of approximately one foot (1 ft). The existing roadway embankment will stay in place. The existing roadway currently overtops during the base flood (100 year storm event). The existing box culvert within this floodplain crossing will remain in-place, therefore the floodplain elevation will be unchanged at this location. This falls within the Zone A Floodplain regulation's allowance of up to an one-foot (1 ft) cumulative increase in the 100-year Base Flood Elevations for changes in a floodplain.

Permit Information

Is the work Substantial Improvement?

Unnamed Tributary to Fourmile Creek in Section 25 & 36	No
Unnamed Tributary to Fourmile Creek in Section 36	No

Is the work in an Identified Floodplain?

Unnamed Tributary to Fourmile Creek in Section 25 & 36	Yes
Unnamed Tributary to Fourmile Creek in Section 36	Yes

Elevation of the Base Flood (100-Year flood/storm event)?

Unnamed Tributary to Fourmile Creek in Section 25 & 36	1073.82 NAVD 88
Unnamed Tributary to Fourmile Creek in Section 36	N/A

Elevation/Floodproofing Requirement (if applicable)?

Unnamed Tributary to Fourmile Creek in Section 25 & 36	N/A
Unnamed Tributary to Fourmile Creek in Section 36	N/A

Is the work in a designated Floodway?

Unnamed Tributary to Fourmile Creek in Section 25 & 36	No
Unnamed Tributary to Fourmile Creek in Section 36	No

Certification of Compliance
Floodplain and Floodway Regulations

FLOODPLAIN/ FLOODWAY LOCATION

Project Name Murray - Plattsmouth
Project No. 75-2(1072)
Control No. 21209
Stream Unnamed Trib. to Fourmile Creek
County Cass
Section(s) 25 & 36 T 12N R 13E

FEMA LOCATION

County/Community Cass County
Panel No. 0260D
Effective Date November 26, 2010

TYPE OF STRUCTURE

☐ Bridge ☒ Culvert (Concrete Box) ☐ Roadway
Structure No. _____ ☐ _____

TYPE OF IMPROVEMENT

☐ Modify Existing ☒ Replace Existing
☐ Other _____
Highway Profile Change: ☒ Yes ☐ No ☐ N/A

THE FOLLOWING IS HEREBY CERTIFIED

☐ Floodplain in Un-mapped Community (State Minimum Standards Apply)
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.

☒ Floodplain (without Designated Floodway) or Flood Fringe
Proposed construction will not increase the base
(100 year) flood heights more than one foot at any location.

☐ Designated Floodway
Proposed construction will result in no rise along the base
(100 year) floodway water surface profile.

Signature _____
Garrett D. Hummel, P.E.
Civil Engineer

PROFESSIONAL CIVIL ENGINEER
GARRETT D. HUMMEL
E-15423
11/4/16
STATE OF NEBRASKA

Registration Number E-15423
Date November 4, 2016

Certification of Compliance
Floodplain and Floodway Regulations

FLOODPLAIN/ FLOODWAY LOCATION

Project Name Murray to Plattsmouth
Project No. 75-2(1072)
Control No. 21209
Stream Unnamed Trib. to Fourmile Creek
County Cass
Section(s) 36 T 12N R 13E

FEMA LOCATION

County/Community Cass County
Panel No. 0260D
Effective Date November 26, 2010

TYPE OF STRUCTURE

☐ Bridge ☒ Culvert (Concrete Box) ☒ Roadway
Structure No. _____ ☐ _____

TYPE OF IMPROVEMENT

☐ Modify Existing ☐ Replace Existing
☒ Other Remove existing pavement
Highway Profile Change: ☒ Yes ☐ No ☐ N/A

THE FOLLOWING IS HEREBY CERTIFIED

☐ Floodplain in Un-mapped Community (State Minimum Standards Apply)
Proposed construction will not increase the base (100 year) flood heights more than one foot at any location.

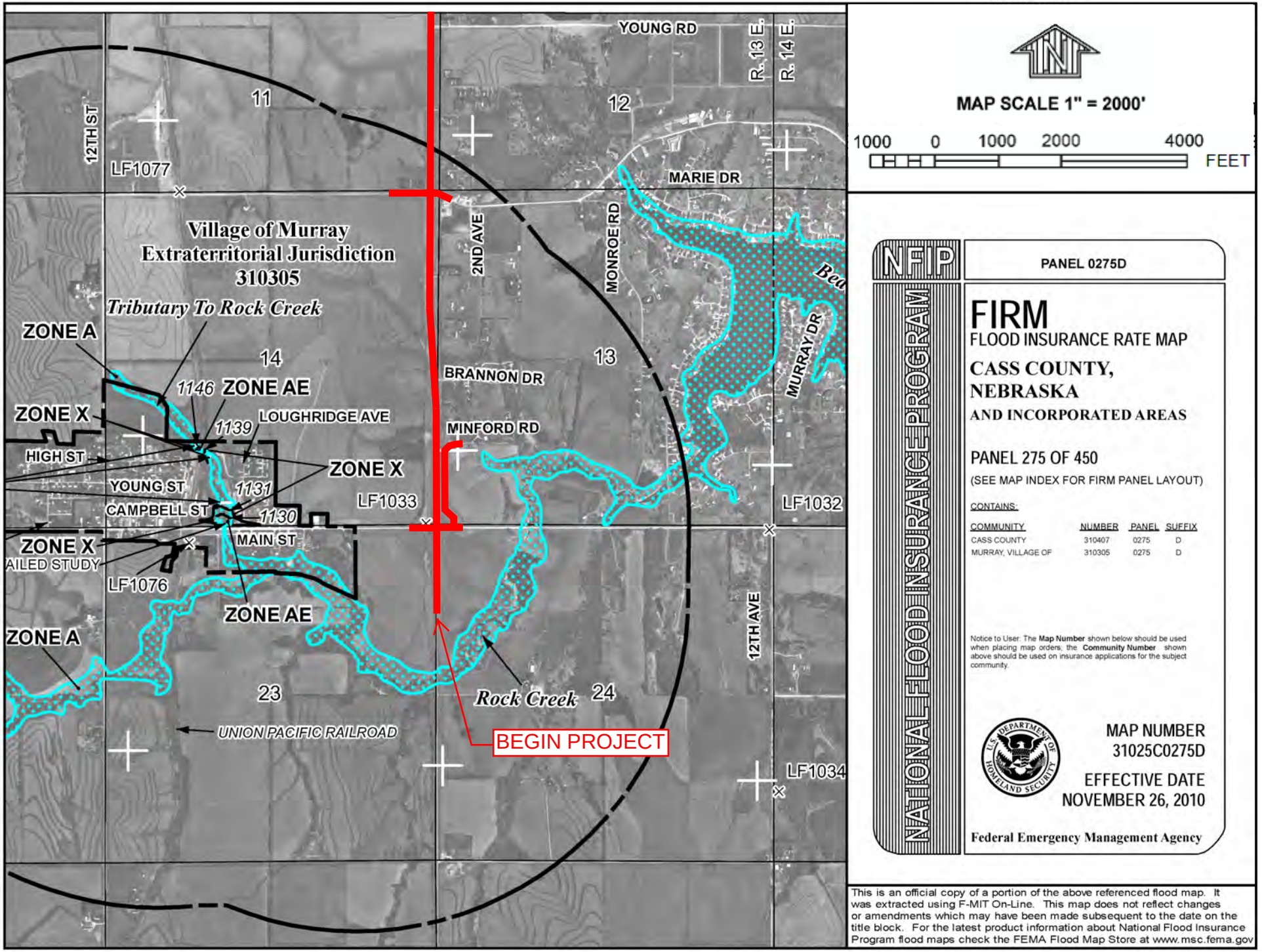
☒ Floodplain (without Designated Floodway) or Flood Fringe
Proposed construction will not increase the base (100 year) flood heights more than one foot at any location.

☐ Designated Floodway
Proposed construction will result in no rise along the base (100 year) floodway water surface profile.

Signature _____
Garrett D. Hummel, P.E.
Civil Engineer

PROFESSIONAL CIVIL ENGINEER
GARRETT D. HUMMEL
E-15423
11/4/16
STATE OF NEBRASKA

Registration Number E-15423
Date November 4, 2016


YOUNG RD
R. 13 E.
R. 14 E.
12TH ST
11
12
LF1077
MARIE DR
2ND AVE
MONROE RD
Village of Murray
Extraterritorial Jurisdiction
310305
Tributary To Rock Creek
ZONE A
14
13
1146
ZONE AE
BRANNON DR
ZONE X
LOUGHRIDGE AVE
1139
MINFORD RD
HIGH ST
MURRAY DR
YOUNG ST
1131
ZONE X
LF1033
LF1032
CAMPBELL ST
1130
ZONE X
AILED STUDY
MAIN ST
LF1076
ZONE AE
12TH AVE
ZONE A
23
Rock Creek
24
UNION PACIFIC RAILROAD
BEGIN PROJECT
LF1034
MAP SCALE 1" = 2000'
1000 0 1000 2000 4000
FEET
NFIP
NATIONAL FLOOD INSURANCE PROGRAM
PANEL 0275D
FIRM
FLOOD INSURANCE RATE MAP
CASS COUNTY, NEBRASKA
AND INCORPORATED AREAS
PANEL 275 OF 450
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CASS COUNTY 310407 0275 D
MURRAY, VILLAGE OF 310305 0275 D
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.
MAP NUMBER
31025C0275D
EFFECTIVE DATE
NOVEMBER 26, 2010
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

MAP SCALE 1" = 1000'

500 0 500 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0260D

FIRM

FLOOD INSURANCE RATE MAP

CASS COUNTY, NEBRASKA

AND INCORPORATED AREAS

PANEL 260 OF 450

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

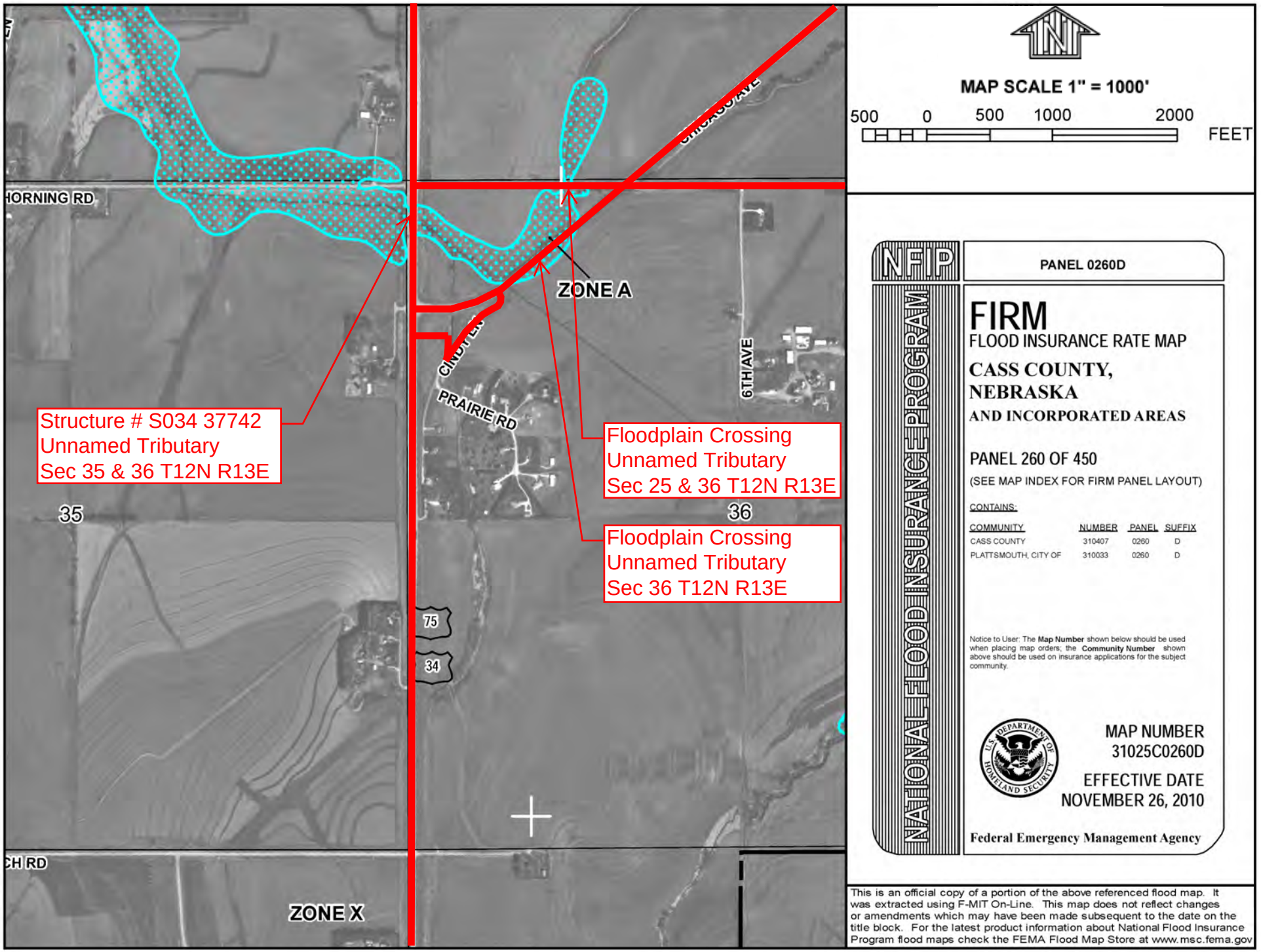
COMMUNITY	NUMBER	PANEL	SUFFIX
CASS COUNTY	310407	0260	D
PLATTSMOUTH, CITY OF	310033	0260	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
31025C0260D

EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency


HORNING RD
ZONE A
6TH AVE
PRAIRIE RD
Structure # S034 37742
Unnamed Tributary
Sec 35 & 36 T12N R13E
35
Floodplain Crossing
Unnamed Tributary
Sec 25 & 36 T12N R13E
36
Floodplain Crossing
Unnamed Tributary
Sec 36 T12N R13E
75
34
CH RD
ZONE X
MAP SCALE 1" = 1000'
500 0 500 1000 2000
FEET
NFIP
PANEL 0260D
FIRM
FLOOD INSURANCE RATE MAP
CASS COUNTY, NEBRASKA
AND INCORPORATED AREAS
PANEL 260 OF 450
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:
COMMUNITY NUMBER PANEL SUFFIX
CASS COUNTY 310407 0260 D
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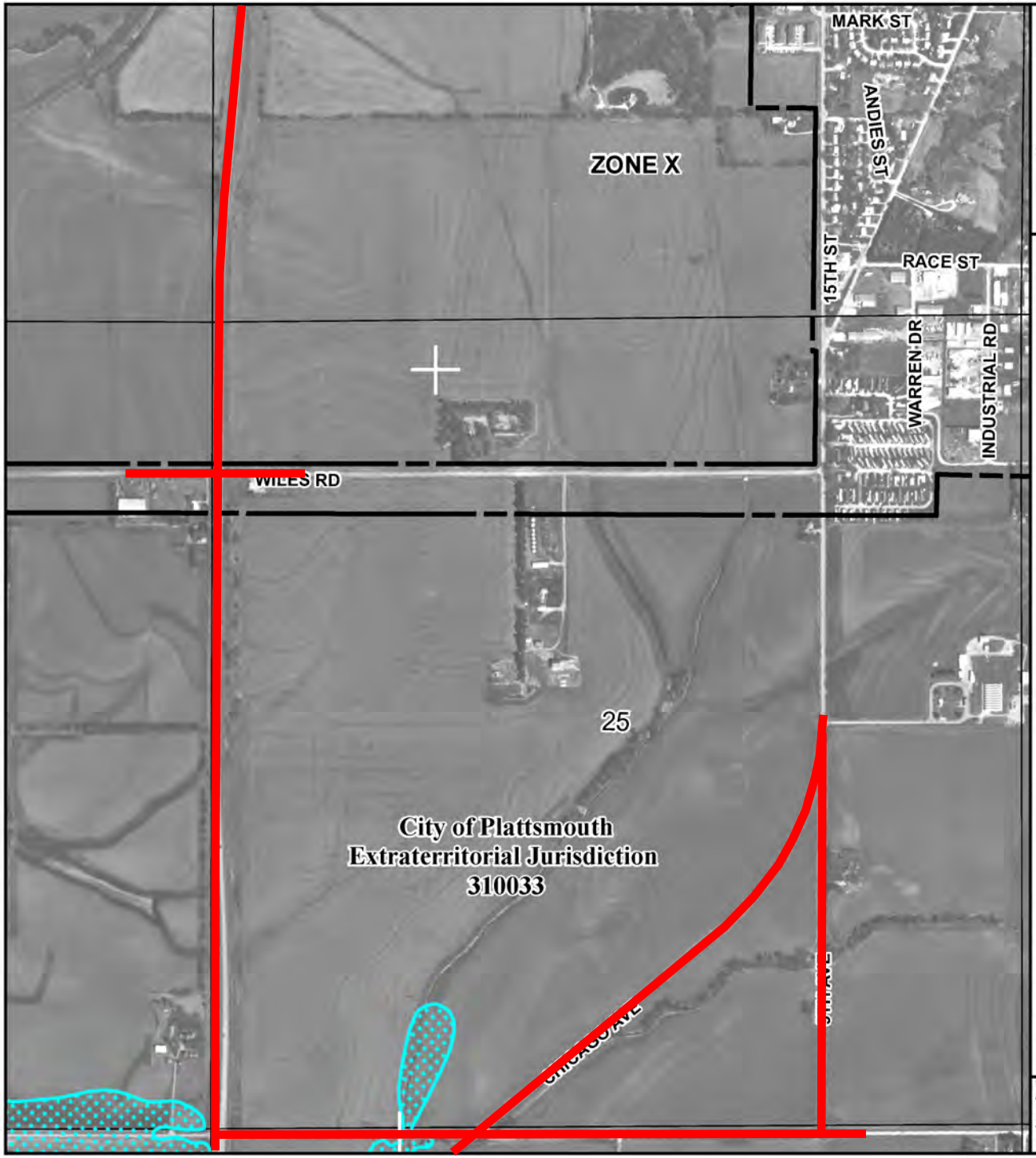

MAP SCALE 1" = 1000'

500 0 500 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0260D

FIRM

FLOOD INSURANCE RATE MAP

CASS COUNTY, NEBRASKA

AND INCORPORATED AREAS

PANEL 260 OF 450

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CASS COUNTY	310407	0260	D
PLATTSMOUTH, CITY OF	310033	0260	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
31025C0260D

EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

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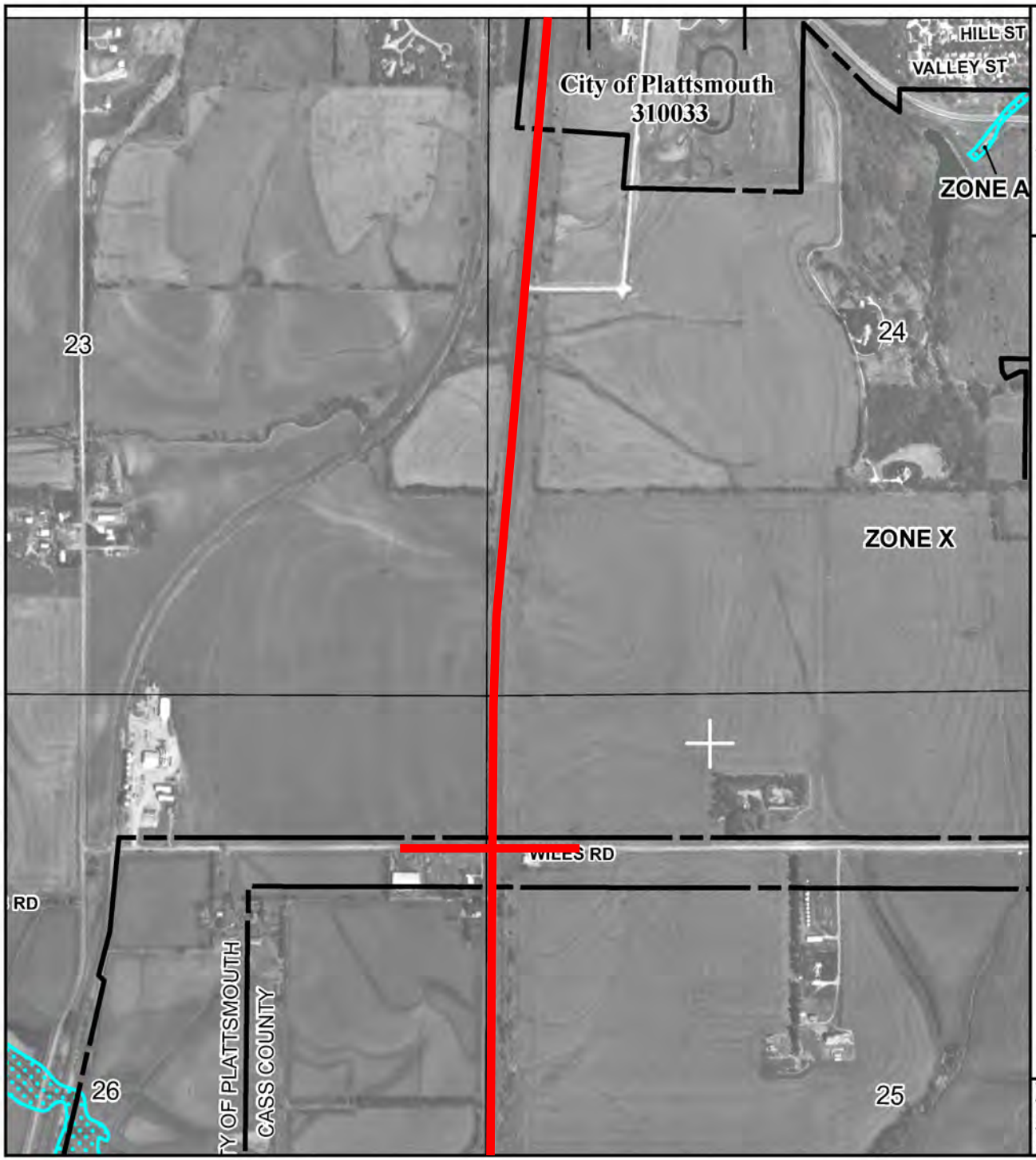

MAP SCALE 1" = 1000'

500 0 500 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0260D

FIRM

FLOOD INSURANCE RATE MAP

CASS COUNTY, NEBRASKA

AND INCORPORATED AREAS

PANEL 260 OF 450

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CASS COUNTY	310407	0260	D
PLATTSMOUTH, CITY OF	310033	0260	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
31025C0260D

EFFECTIVE DATE
NOVEMBER 26, 2010

Federal Emergency Management Agency

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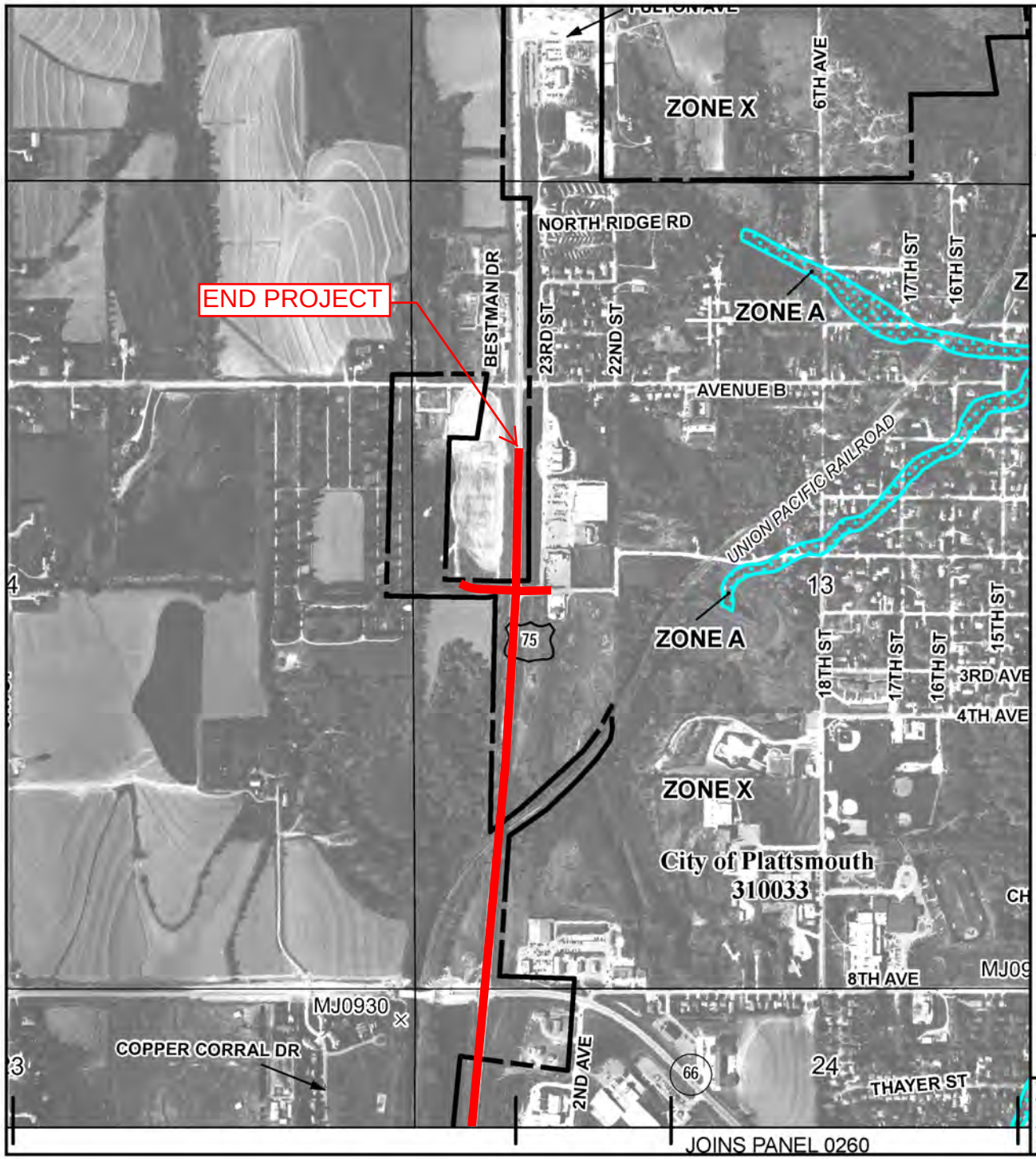


MAP SCALE 1" = 1000'

500 0 500 1000 2000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0120D

FIRM

FLOOD INSURANCE RATE MAP

CASS COUNTY, NEBRASKA

AND INCORPORATED AREAS

PANEL 120 OF 450

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CASS COUNTY	310407	0120	D
PLATTSMOUTH, CITY OF	310033	0120	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
31025C0120D

EFFECTIVE DATE
NOVEMBER 26, 2010

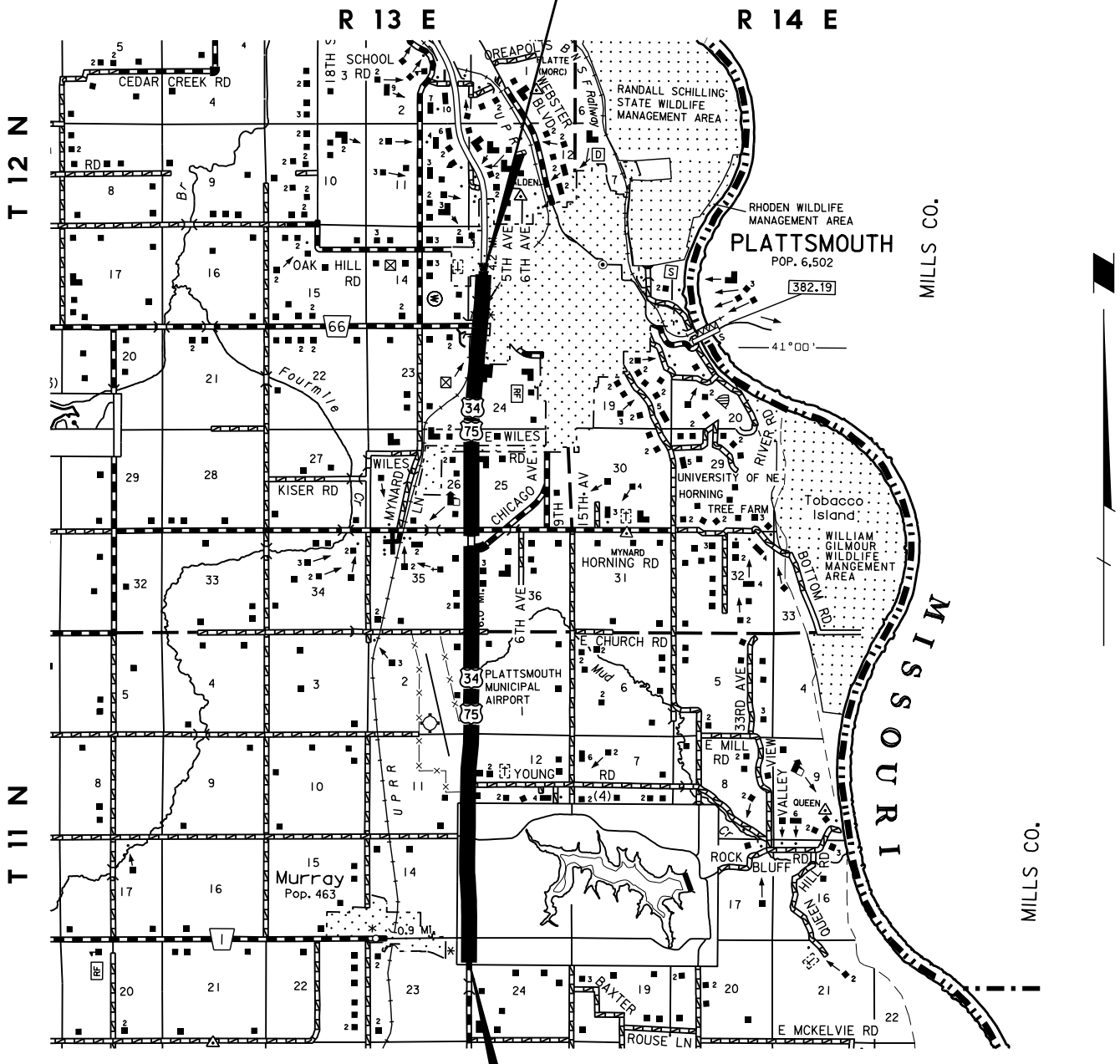
Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

MURRAY TO PLATTSMOUTH
75-2(1072)

C.N. 21209
CASS COUNTY

R.P. 380+16 HWY. US-34
STA. 480+72.00
END PROJECT



R.P. 373+33 HWY. US-34
STA. 120+30.00
BEGIN PROJECT

ATTACHMENT C

US-75/US-34, MURRAY TO PLATTSMOUTH

THREATENED AND ENDANGERED SPECIES

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF ROADS

Biological Assessment PQS Memorandum

DATE 11/21/2016

TO Anthony Marshall, NEPA Project Manager

Cc Roger Yerdon, EPU Project Manager
Cindy Veys, NEPA Project Manager

FROM Melissa Marinovich, T&E Species Biologist

SUBJECT Murray - Plattsmouth; NH-BH-75-2(1072); CN 21209
Threatened & Endangered Species Concurrence

The biological assessment reevaluation final approval on: **11/21/2016**

Date of Project Description used for this review: 10/10/2016

Threatened and Endangered Species Effect Determination:

☐ The Project(s) will have "No Effect" to all state or federally listed species or their designated critical habitat (Level 1).

☒ A "May Affect, Not Likely to Adversely Affect" determination is made for the following species/critical habitat with the conservation conditions listed below: **Interior Least Tern, Lake Sturgeon, Northern Long-Eared Bat, Pallid Sturgeon, Piping Plover, River Otter, Sturgeon Chub**

☒ This BA required FHWA Review and Approval.

FHWA Concurrence Date: 10/20/2015

☒ This BA required further consultation with the resource agencies (Level 2).

USFWS Concurrence Date: 11/18/2016

NGPC Concurrence Date: 11/17/2016

☐ Unique conservation conditions were developed and are included below (Level 3).

☐ A "May Affect, Likely to Adversely Affect" determination is made for the following species/critical habitat with the conservation conditions listed below: (Level 3).

Additional Coordination with Other Tribal or Federal Agencies:

Description of Coordination:

Bald and Golden Eagle Protection Act:

This project was reviewed for potential impacts to bald and golden eagles. NDOR believes the project site does not have appropriate habitat for eagles. Due to the lack of suitable habitat and information that there are no known bald or golden eagle nests within the project area, NDOR has determined that there will be no impact to these species.

Migratory Bird Treaty Act:

NDOR has developed an Avian Protection Plan (APP) to reduce conflicts between construction of NDOR projects and the laws governing migratory birds. This procedure is designed to protect and conserve avian populations and reduce avian conflicts through changes in project scheduling (i.e. tree clearing outside of primary nesting period), increased migratory bird surveys, and changes in project construction timelines. NDOR will utilize its APP to reduce conflicts with migratory birds on this project.

Fish and Wildlife Coordination Act:

A wetland delineation was completed for this project. Based on current project design, there will be approximately 1.98 acres of wetland impacts and 1,333 feet of stream channel impacts (these numbers may change slightly as coordination with design and USACE is ongoing). This project will require a NPDES permit and Section 404 permit from the Corps of Engineers. Wetland impacts are anticipated to be debited from Lincoln Bend Mitigation Site. Channel impacts are at various locations and mitigation is not anticipated to be necessary.

Conservation Conditions: *Responsible Party for conservation condition shown in parentheses.*

Listed below are the required Conservation Conditions that apply to this project. These measures are not subject to change without the prior written approval of the Federal Highway Administration. **Copy and paste the conditions listed below verbatim in the NEPA document, the Green Sheet, and in the contract documents:**

A-1 **Changes in Project Scope**. If there is a change in the project scope, the project limits, or environmental commitments, the NDOR Environmental Section must be contacted to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from the Federal Highway Administration. *(District Construction, Contractor)*

A-2 **Conservation Conditions**. Conservation conditions are to be fully implemented within the project boundaries as shown on the plans. *(District Construction, Contractor)*

A-3 **Early Construction Starts**. Request for early construction starts must be coordinated by the Project Construction Engineer with NDOR Environmental for approval of early start to ensure avoidance of listed species sensitive lifecycle timeframes. Work in these timeframes will require approval from the Federal Highway Administration and could require consultation with the USFWS and NGPC. *(District Construction, Contractor)*

A-4 **E&T Species**. If federal or state listed species are observed during construction, contact NDOR Environmental. Contact NDOR Environmental for a reference of federal and state listed species. *(NDOR Environmental, District Construction, Contractor)*

A-5 **Refueling**. Refueling will be conducted outside of those sensitive areas identified on the plans, in the contract, and/or marked in the field. *(Contractor)*

A-6 **Restricted Activities**. The following project activities shall, to the extent possible, be restricted to between the beginning and ending points (stationing, reference posts, mile markers, and/or section-township-range references) of the project, within the right-of-way designated on the project plans: borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul roads, stockpiling areas, staging areas, and material storage sites.

For activities outside the project limits, the contractor should refer to the Nebraska Game and Park Commission website to determine which species ranges occur within the off-site area. The contractor should plan accordingly for any species surveys that may be required to approve the use of a borrow site, or other off-site activities. The contractor should review Chapter 11 of the Matrix (on NDOR's website), where species survey protocol can be found, to estimate the level of effort and timing requirements for surveys.

Any project related activities that occur outside of the project limits must be environmentally cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate agencies by the contractor and those clearances/permits submitted to the District Construction Project Manager prior to the start of the above listed project activities. The contractor shall submit information such as an aerial photo showing the proposed activity site, a soil survey map with the location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a minimum of 4 different ground photos showing the existing conditions at the proposed activity site, depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The District Construction Project Manager will notify NDOR Environmental which will coordinate with FHWA for acceptance if needed. The contractor must receive notice of acceptance from NDOR, prior to starting the above listed project activities. These project activities cannot adversely affect state and/or federally listed species or designated critical habitat. (NDOR Environmental, District Construction, Contractor).

A-7 **Waste/Debris**. Construction waste/debris will be disposed of in areas or a manner which will not adversely affect state and/or federally listed species and/or designated critical habitat. *(Contractor)*

A-8 **Post Construction Erosion Control.** Erosion control activities that may take place by NDOR Maintenance or Contractors after construction is complete, but prior to project close-out, shall adhere to any standard conservation conditions for species designated for the project area during construction. (NDOR Maintenance, District Construction, Contractor)

Conservation Condition for Migratory Bird Treaty Act:

- NDOR has developed an Avian Protection Plan (APP) to reduce conflicts between construction of NDOR projects and the laws governing migratory birds. This procedure is designed to protect and conserve avian populations and reduce avian conflicts through changes in project scheduling (i.e. tree clearing outside of primary nesting period), increased migratory bird surveys, and changes in project construction timelines. NDOR will utilize its APP to reduce conflicts with migratory birds on this Project.

Conservation Conditions for Northern Long-Eared Bat:

NLEB-1 Tree clearing, bridge deck joint replacements over the bridge deck, bridge removal activities will not occur between June 1st – July 31st to avoid impacts to the northern long-eared bat maternity roosting period. (NDOR Environmental, Construction, Contractor)

OR

NLEB-2 If tree clearing, bridge deck joint replacement over the bridge deck, or removal of bridge structures occurs during the northern long-eared bat maternity roosting period (June 1st – July 31st), NDOR personnel will perform surveys prior to the start of these activities at the following locations: ***Any locations that require tree clearing or bridge removal*** (*location of suitable*

habitat). If the species is absent, work may proceed. If the species is found, NDOR Environmental Section will consult with the USFWS, NGPC, and FHWA prior to the start of construction. (NDOR Environmental, Construction, Contractor)

NEBRASKA
GAME PARKS

2200 N. 33rd St. • P.O. Box 30370 • Lincoln, NE 68503-0370 • Phone: 402-471-0641

11/17/2016

Scott Stapp
Federal Highway Administration
100 Centennial Mall North, Room 220
Lincoln, NE 68508-3803

Re: US-34/US-75 Nebraska City to Bellevue, Nebraska- Murray to Plattsmouth Segment (Re-evaluation), NH-BH-75-2(1072), CN 21209, Cass County, NE

Dear Mr. Stapp:

Please make reference to your letter dated 10/26/2016. This letter is in response to your request for concurrence regarding this project's potential impacts to endangered and threatened species in Cass County, Nebraska. This is a reevaluation of the proposed project, due to the fact that more than five years has elapsed since the 2000 Supplement to the 1979 Environmental Impact Statement (EIS). As we understand it, the project involves the reconstruction of US-34/US-75 from Murray to Plasstsmouth, and other associated activities as outlined in the documents attached to your letter. We have completed our review of the proposed project under Neb. Rev. Stat. § 37-807 (3) of the Nongame and Endangered Species Conservation Act (NESCA) and we offer the following comments.

This project is within the range of the federally and state-listed endangered interior least tern (*Sterna antillarum athalassos*) and pallid sturgeon (*Scaphirhynchus albus*); the federally and state-listed threatened northern long-eared bat (*Myotis septentrionalis*), piping plover (*Charadrius melodus*), *rufa* red knot (*Calidris canutus rufa*), and western prairie-fringed orchid (*Platanthera praeclara*); the state-listed endangered sturgeon chub (*Macrhybopsis gelida*); and the state-listed threatened American ginseng (*Panax quinquefolium*), lake sturgeon (*Acipenser fulvescens*), river otter (*Lutra canadensis*), and southern flying squirrel (*Glaucomys volans*). Habitat for interior least tern, lake sturgeon, northern long-eared bat, pallid sturgeon, piping plover, river otter, and sturgeon chub exists within or near the project area.

The Nebraska Department of Roads (NDOR) has agreed to implement standard and species-specific conservation conditions in order to avoid impacts to interior least tern, lake sturgeon, northern long-eared bat, pallid sturgeon, piping plover, river otter, and sturgeon chub. In the event a borrow site associated with this project results in a depletion to the Platte River, NDOR will contact the appropriate agency, depending on which river basin the borrow site is located in, to address offsetting the depletion.

Based on this information, we concur the proposed project "May Affect but is Not Likely to Adversely Affect" interior least tern, lake sturgeon, northern long-eared bat, pallid sturgeon, piping plover, river

otter, and sturgeon chub, and will have “no effect” on all other state-listed endangered or threatened species. This concurrence is based on a review of the material you sent, aerial photographs, and our Nebraska Natural Heritage Database.

If the proposed project is changed or new information regarding endangered and threatened species becomes available, then this concurrence is no longer valid and further consultation with the Nebraska Game and Parks Commission (Commission) will be necessary.

For an assessment of potential impacts to habitats and species protected under federal wildlife laws, including federally listed, candidate or proposed endangered or threatened species, please contact Eliza Hines (eliza_hines@fws.gov) or John Cochnar (john_cochnar@fws.gov), Nebraska Field Office, U.S. Fish and Wildlife Service, 9325 South Alda Road, Wood River, NE 68883.

Thank you for the opportunity to comment. If you have any questions or need additional information, please feel free to contact me at (402) 471-5554 or ryan.joe@nebraska.gov.

Sincerely,

Ryan Joe
Environmental Analyst
Planning and Programming Division

ec: USFWS (Eliza Hines, John Cochnar, Brooke Stansberry)
NDOR (Melissa Marinovich)
FHWA (Melissa Maiefski, Sue Petracek)

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
Nebraska Field Office
9325 South Alda Road
Wood River, Nebraska 68883

IN REFERENCE REFER TO:
FWS/R6/NEFO
06E22000-2017-I-0029
06E22000-2017-CP-0002

November 18, 2016

FWS-NE: 2017-035

Mr. Scott Stapp
Environmental Protection Specialist
Federal Highway Administration
100 Centennial Mall
Room 220
Lincoln, NE 68508-3803

RE: Biological Assessment, Re-Evaluation of the Murray to Plattsmouth Segment of the US34/US75 Nebraska City to Bellevue, Nebraska (Segment B2), Project Number: NH-BH-75-2(1072), Control Number: 21209, in Cass County

Dear Mr. Stapp:

This responds to the October 26, 2016, e-mailed request for comments and concurrence from the U.S. Fish and Wildlife Service (Service) for the subject project. The Service has responsibility for conservation and management of fish and wildlife resources for the benefit of the American public under the following authorities: 1) Endangered Species Act of 1973 (ESA); 2) Fish and Wildlife Coordination Act; 3) Bald and Golden Eagle Protection Act; and 4) Migratory Bird Treaty Act. The National Environmental Policy Act requires compliance with all of these statutes and regulations. This project was prioritized by the Nebraska Department of Roads (NDOR) and the Federal Highway Administration (FHWA) on November 15, 2016.

The Service has special concerns for endangered and threatened species, migratory birds, and other fish and wildlife and their habitats. Habitats frequently used by fish and wildlife species are wetlands, streams, riparian (streamside) woodlands, and grasslands. Special attention is given to proposed developments that include modification of wetlands, stream alteration, loss of riparian habitat, or contamination of habitats. When this occurs, the Service recommends ways to avoid, minimize, or compensate for adverse effects to fish and wildlife and their habitats.

ENDANGERED SPECIES ACT

Pursuant to section 7(a)(2) of ESA, every federal agency, shall in consultation with the Service, insure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated

critical habitat. If a proposed project may affect federally listed species or designated critical habitat, section 7 consultation is required with the Service. It is the responsibility of the federal action agency to fully evaluate all potential effects (direct and indirect) that may occur to a listed species and critical habitat in the action area. The federal agency provides their effects determination to us for concurrence. If federally listed species and/or designated/proposed critical habitat would be adversely affected by implementation of the project, the federal agency will need to formally request further section 7 consultation with the Service prior to making any irretrievable or irreversible commitment of federal funds (section 7(d) of ESA), or issuing any federal permits or licenses.

The proposed project is being re-evaluated due to the fact that more than five years have passed since the 2000 Supplement to the 1979 Environmental Impact Statement (EIS). As we understand it, the construction work at the Platte River has been completed. The remaining portion of the project involves the reconstruction of US-34/US-75 between Murray and Plattsmouth. The construction activities discussed in the evaluation include upgrading the 2-lane to pavement removal/repair, culvert extension, bridge replacement and guardrail removal/replacement. As of November 15, 2016, this project will need a Department of the Army 404 permit. The anticipated unavoidable wetland/channel impacts include:

- 1.40 acres of PEMA/PEMC
- 0.03 acres of PSSA
- 0.55 acres of PFOA
- 1,333 feet (0.04 acres) of stream channel

These unavoidable wetland impacts have been proposed to be mitigated at NDOR's Lincoln Bend Mitigation Site (at the appropriate ratios). For the project, FHWA/NDOR has proposed to implement conservation conditions for the federally and state listed threatened Northern long-eared bat (*Myotis septentrionalis*). FHWA/NDOR has also developed an Avian Protection Plan to be implemented for this project; the APP includes ways to avoid and minimize potential impacts to migratory birds.

Based on the information that was submitted, the Service concurs that the proposed project may affect, but is not likely to adversely affect, federally listed species and/or critical habitat within the limits-of-construction (LOCs). However, should changes to the proposed project occur (i.e. direct/indirect effects are identified), or new information regarding federally listed species and/or critical habitat become available, this determination is no longer valid. Further section 7 consultation with the Service will be necessary.

All federally listed species under ESA are also State-listed under the Nebraska Nongame and Endangered Species Conservation Act. However, there are also State-listed species that are not federally listed. To determine if the proposed project may affect State-listed species, the Service recommends that the project proponent contact Michelle Koch (michelle.koch@nebraska.gov), Carey Grell (carey.grell@nebraska.gov), or Ryan Joe (ryan.joe@nebraska.gov), Nebraska Game and Parks Commission, 2200 N. 33rd Street, Lincoln, NE 68503-0370.

The Service appreciates the opportunity to provide comments on this proposed project. Should you have any questions regarding these comments, please contact Ms. Brooke Stansberry within our office at Brooke_Stansberry@fws.gov or at (308) 382-6468, extension 207.

Sincerely,

Eliza Hines
Nebraska Field Supervisor

cc: FHWA; Lincoln, NE (Attn: Melissa Maiefski
FHWA; Lincoln, NE (Attn: Scott Stapp)
NGPC; Lincoln, NE (Attn: Michelle Koch)
NGPC; Lincoln, NE (Attn: Carey Grell)
NGPC; Lincoln, NE (Attn: Ryan Joe)

NDOR
Nebraska
Department of Roads

Memorandum

DATE 10/4/16

TO Scott Stapp – FHWA

FROM Melissa Marinovich, HWY Environmental Biologist

SUBJECT Re-evaluation for US-34/US-75 Nebraska City to Bellevue, Nebraska
Segment: Murray – Plattsmouth; NH-BH-75-2(1072), CN 21209
Threatened & Endangered Species Concurrence

NDOR is reevaluating the Murray to Plattsmouth segment of the US-34/US-75 Nebraska City to Bellevue, Nebraska, EIS due to the fact that more than five years has elapsed since the 2000 Supplement to the 1979 Environmental Impact Statement (EIS). This segment of the original Project has not been constructed. Additionally, two species have been listed as threatened at both the State and Federal level. Reconstruction of US-34/US-75 from Murray to Plattsmouth is part of a larger project involving reconstruction of US-34/US-75 from Nebraska City to Bellevue, Nebraska. An EIS for the original Project was approved in 1979 (Final EIS – FHWA-NEB-EIS-73-11-F). In the 1979 EIS, the preferred alternative included the following design segments, shown in Figure 2010-2 (taken from the 2010 Reevaluation):

- Segment A – A two-lane highway (with acquisition of right-of-way (ROW) for two additional lanes) from 8 miles south of Nebraska City to US-34/US-75 junction south of Murray, including a west bypass of Nebraska City.

- Segment B – A four-lane divided highway with at-grade access from the US-34/US-75 junction at Murray to south of the Platte River.

- Segment C – A four-lane expressway (with full access control) from the Platte River to the southern terminus of the existing Kennedy freeway at the intersection of W Street and Railroad Avenue in Omaha, Nebraska, with interchanges to provide access to adjacent communities and roadways.

In April 1994, the FHWA determined that reevaluation of Segments A3 and B1, from Nebraska City to Murray, Nebraska, met the requirements for a Categorical Exclusion prior to advancing to construction. A Supplemental EIS (SEIS) was published on October 26, 2000 (Final Supplemental EIS – FHWA-NE-EIS-73-11-F-FS), with a Record of Decision (ROD) signed on May 25, 2001. The SEIS evaluated Segments B1, B2, B3, and C1.

Reevaluations of the EIS and SEIS were prepared and approved, in order to advance the expressway/freeway Segments B3 (2010) and C1 (2015) to the next level of federal approval. Each of the Reevaluations only encompassed Segments B3 and C1, respectively. Segment B3, starting 0.2 mile south of Oak Hill Road/Avenue B (near Plattsmouth) to the north side of the Platte River bridges, is completely constructed. Segment C1, from the north side of the Platte River bridges to 0.5 miles north of Fairview Road, is currently under construction as a State-funded Project.

Construction of Segment B2 is now being considered, from Murray to just south of Plattsmouth, using available State funds.

As part of the 2010 and 2015 reevaluations, the Endangered Species Act (ESA) and the Nebraska Non-game Endangered Species Coordination Act (NESCA) concurrences were updated. U.S. Fish and Wildlife Service (USFWS) concurred with the 2010 reevaluation on July 13, 2010 and the 2015 reevaluation on June 2, 2015. The Nebraska Game and Parks Commission (NGPC) concurred with the 2010 reevaluation on July 14, 2010 and the 2015 reevaluation on June 15, 2015. Segment B2 (Murray to Plattsmouth) was not considered in either of these reevaluations.

At this time, federal funding would not be used on the proposed Segment B2 that is to be constructed in 2017-2018. This segment of the overall project would be constructed using Nebraska state transportation funds. The next Federal action for this segment would be approval of this reevaluation document. This segment is being reevaluated as though Federal funds were to be used, since it is part of the 1979 approved Federal Action.

Project Description

This project would reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12-mile south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373.33, and extends north to US-34 MM 380.16, roughly 400 feet south of the junction of US-34/US-75 and Oak Hill Road/Ave B. Construction may begin and/or end approximately 1,400 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement and temporary traffic phasing.

The existing roadway on this segment of US-34/US-75 from US-34 MM 373.28 to US-34 MM 376.84 consists of two 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8-feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 376.84 to US-34 MM 377.79 consists of four 12-foot-wide concrete lanes, a depressed median, and 10-foot-wide shoulders, of which 8-feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 377.79 to US-34 MM 379.98 consists of two 12-foot-wide asphalt lanes and 10-foot-wide shoulders, of which 8-feet are paved with asphalt. The roadway segment from US-34 MM 379.98 to US-34 MM 380.16 consists of four 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8-feet are paved with concrete.

The improvements on this project consist of replacing the existing 2-lane or 4-lane roadway, depending on location, with a 4-lane expressway including a raised 22-foot-wide median, 3-foot-wide inside and 8-foot-wide outside surfaced shoulders. Other improvements include: removing and replacing pavement, grading, culvert extension, bridge replacement, and removing and replacing guardrail.

Scope details include:

- Existing mainline culverts that did not meet current “D + 1 foot” hydraulic requirements were evaluated and none needed upsizing. Therefore, existing culverts would be used in place and extended as needed.
- Bridge number S034 37742, viaduct over the Union Pacific Railroad, would be replaced with a single 4-lane structure.
- Bridge number S034 37742, East Branch Four-Mile Creek, would extend triple 10 foot by 10 foot by 168 foot-long Concrete Box Culvert.
- The following Access changes would be made:
    - Chicago Avenue Access at US-75 would be eliminated to allow Horning Road to become the primary access to US-75.
    - 1st Avenue/Westside Drive intersection would be converted to ¾ Access so no side-road cross-traffic or left turns would be allowed.
    - Cindy Lane would be connected directly to US-75, and Chicago Avenue removed.

    - Wiles Road would have new Control of Access 660 feet on both sides of the highway. Access to the business and house (same owner) west of US-75 would be a Right of Way item rather than designing an access road.

- Five future signalized intersections at US-75 (N-1/Murray Rd., Waverly Rd./Rock Bluff Rd., Mynard/Horning Road, Wiles Road, and Osage Ranch Blvd.) would receive conduit as a part of this project and be designed to meet the posted speed on each road.

- One home located 400' south of Wiles road on the west side of US-75 would be impacted by the project and would require relocation.

- Relocation of utilities, including fiber optic, water main, and sanitary sewer, may be required due to conflicts with the new lanes and mainline road profile adjustments.

- Areas disturbed during construction would be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan (SWPPP).

- Because the pavement work is a reconstruction project, the NDOR would comply with the requirements in the Public Rights of Way Accessibility Guidelines.

- Street lighting would be built and updated.

- Additional property rights would be required to build this project.

- Access to adjacent properties would be maintained during construction, but may be limited at times due to phasing requirements.

- This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required at intersection locations to accommodate phased construction.

- This project would require the construction of a permanent roadway transition from two lanes to four lanes, divided on the south end of the project. This work will take place immediately prior to the project limits stated above and may extend as far south as the north end of the bridge over Rock Creek (bridge structure number S034 37299).

Threatened and Endangered Species Review

NDOR has conducted a review of Segment B2 to determine if there is a change in the original effect determination concurred upon by the USFWS and NGPC for threatened and endangered species. This was done using ArcGIS, the Nebraska Heritage Database, aerial photos, site photos, Google Earth, Species Evaluation Parameters, and review of the Project scope/information and current design.

NDOR has reviewed the current lists of state and federally protected species in Nebraska and compared it to the list of species found in the 2000 supplemental EIS. Bald eagle (*Haliaeetus leucocephalus*) was removed from the Federal list of threatened and endangered species on August 9, 2007, and from the state list on October 30, 2008. However, the bald eagle is still protected under the Bald and Golden Eagle Protection Act. No suitable nesting habitat for bald eagles exists within the Segment B2 corridor. Peregrine falcon (*Falco peregrinus*) was removed from the Federal list of threatened and endangered species on August 20, 1999. Sturgeon chub (*Macrhybopsis gelida*) was not included in the 2000 SEIS; it was state-listed as endangered in March 2000. American burying beetle (*Nicrophorus americanus*) is not found in this portion of the state with the listed range of this species found further west and north and was eliminated from this reevaluation. American ginseng, interior least tern, piping plover, pallid sturgeon, lake sturgeon, sturgeon chub, river otter, southern flying squirrel, and western prairie fringed orchid remain listed species in this area of Nebraska. Two species, the rufa Red Knot (*Calidris canutus rufa*) and the Northern Long-Eared Bat (*Myotis septentrionalis*) were federally-listed as threatened in 2015 and have been added to the review.

Complete Species List:

Common Name	Scientific Name	Federal Status	State Status
American Ginseng	*Panax quinquefolium*		Threatened
Interior Least Tern	*Sterna antillarum athalassos*	Endangered	Endangered
Lake Sturgeon	*Acipenser fulvescens*		Threatened
Northern Long-Eared Bat	*Myotis septentrionalis*	Threatened	Threatened
Pallid Sturgeon	*Scaphirhynchus albus*	Endangered	Endangered
Piping Plover	*Charadrius melodus*	Threatened	Threatened
River Otter	*Lutra canadensis*		Threatened
Rufa Red Knot	*Calidris canutus rufa*	Threatened	Threatened
Southern Flying Squirrel	*Glaucomys volans*		Threatened
Sturgeon Chub	*Macrhybopsis gelida*		Endangered
Western Prairie-fringed Orchid	*Platanthera praeclara*	Threatened	Threatened

Analysis of Effects

The Nebraska Natural Heritage Database (NNHD) confirmed no records within 5-miles of the Segment B2 for the species listed below:

- American Ginseng
- *Rufa* Red Knot
- Southern Flying Squirrel
- Western Prairie Fringed Orchid

A review of habitat resources including aerial photos, a site visit habitat survey, and site visit photos shows no evidence of suitable habitat in the area for any of these species.

Interior Least Tern and Piping Plover:

Interior least terns and piping plovers are known to nest in Nebraska on large sandbars and sandpit beaches within and adjacent to the Platte River. The 2000 Supplement to the 1979 EIS required any construction occuring within the Platte River during nesting season for these species (mid-April to mid-August), to complete surveys for nesting birds. The 2010 EIS reevaluation of Segment B3 (Plattsmouth – Bellevue) included the following, more specific, conservation conditions for these two species:

- For construction activities that begin prior to April 1 and continue beyond April 1, piping plover and interior least tern surveys will be conducted starting April 1 and continue through the end of construction or August 15 whichever comes first. NDOR Environmental, NDOR trained personnel, or a qualified biologist, will conduct surveys according to protocol at the following location: the Platte River crossing. If species are present the District will notify the Contractor to stop work within ¼ mile of nesting activities and follow the protocol to determine when work can resume. (NDOR Environmental, District, Contractor)
- When initiating construction activities between April 15 and August 15, a survey will be required one week prior to construction activities to determine piping plover nesting activities within a ¼ mile of the following locations: the Platte River crossing (location of suitable habitat). If species are present the District will follow the protocol to determine when work can begin. (NDOR Environmental, District, Contractor)

- Re-seeding will use only native herbaceous species that are less than 1 meter in height at maturity within ¼ mile of the following location: the Platte River crossing. (Design, NDOR Environmental)
- If nighttime work is planned between April 15 and August 15, lighting must be shielded and directed away from the suitable habitat at the following location: the Platte River crossing. (NDOR Environmental, Contractor)

These conditions were implemented during the construction of the segment that included the Platte River bridge. During that time, no nesting was documented near the bridge, as the current was too swift in that location and floods covered several of the sandbars during nesting seasons.

Segment B2 does not contain and is not adjacent to suitable nesting habitat for interior least terns and piping plovers. Therefore, because no suitable habitat exists along Segment B2, conservation conditions for interior least terns and piping plovers would not apply to this Segment. The effect determination for interior least tern and piping plover has not changed from "May Affect, Not Likely to Adversely Affect;" however, the implementation of conservation conditions would not be needed for Segment B2, due to lack of suitable habitat.

Pallid Sturgeon, Lake Sturgeon, and Sturgeon Chub:

The 2000 Supplement to the EIS recommended disturbing as little area within the Platte River as possible, scheduling construction to avoid spawning season whtn sturgeon may migrate (May – late June). The 2010 EIS reevaluation of Segment B3 (Plattsmouth – Bellevue) included several conservation conditions outlined below with regards to the bridge work over the Platte River, for the lake sturgeon, pallid sturgeon, and sturgeon chub. The sturgeon chub range overlaps that of the lake sturgeon and pallid sturgeon. Due to the similarities in habitats among the three listed fish species, NDOR implemented the following conservation conditions for all of the fish species during the Platte River bridge construction phase.

- No work directly in the channel can take place from February 1 through July 31. Work is allowed within a cofferdam if the work is conducted from the temporary work platform or another location not directly in the channel (i.e. the river bank). (Contractor)
- No pile driving, vibratory or impact method, can occur from February 1 through July 31 within the channel. This activity is also not allowed within a cofferdam that is in the channel during this time frame. (Contractor)
- Any detention basin outlets will be designed such that it is stabilized to prevent streambank erosion and will not otherwise impact stream channel/bank. (Design, Contractor)
- Bridge deck debris will be captured and/or contained to prevent material from entering the channel. (District, Contractor)
- No discharge of water or spoil directly into the channel from April 1 through July 31. If the de-watering of a cofferdam is needed during this time frame, the water shall be pumped to a site on the bank of the river or into a filtration system and then either filtered and/or discharged in a manner that it avoids sedimentation into the river. (Contractor)
- No flow modifications or disturbance in the channel from February 1 through July 31. (Contractor)
- Any upland soil disturbances will be designed to avoid or minimize sedimentation. (Design, Contractor)

Segment B2 does not include any work that would occur within or adjacent to suitable habitat for these species (large, turbid sandy bottom rivers). Therefore, the implementation of conservation conditions for these species would not be needed for Segment B2. The effect determination for pallid sturgeon, lake sturgeon, and sturgeon chub has not changed from "May Affect, Not Likely to Adversely Affect;" however, the implementation of conservation conditions would not be needed for Segment B2.

River Otter:

The 2000 Supplement to the 1979 EIS found that this project would not adversely affect river otters. The 2010 reevaluation of Segment B3 included the following conservation conditions for river otter:

- A qualified biologist will survey according to protocol no more than 10 days prior to construction. If no active den sites are found within the limits of construction, then the project can proceed. If active den sites are found, NDOR Environmental Section will notify the District and will consult with the USFWS, NGPC, and FHWA. If species are present the District will notify the Contractor to stop work within ¼ mile of the active den until NDOR Environmental completes consultation. (NDOR Environmental, District Construction, Contractor)
- If work is confined to an area between the hinge-points of the roadway or bridge deck, work may proceed. If work is required off the bridge deck or roadway surface, a qualified biologist will survey according to protocol no more than 10 days prior to construction. If no active den sites are found within the limits of construction, then the project can proceed. If active den sites are found, NDOR Environmental Section will notify the District and will consult with the USFWS, NGPC, and FHWA. If species are present the District will notify the Contractor to stop work within ¼ mile of the active den until NDOR Environmental completes consultation. (NDOR Environmental, District Construction, Contractor)

After reviewing Segment B2, no work would be occurring within or adjacent to suitable habitat for this species (wooded river corridors, ponds, and lakes within the species range). Therefore, the implementation of conservation conditions would not be needed for Segment B2. The effect determination for river otter has not changed from “May Affect, Not Likely to Adversely Affect;” however, the implementation of conservation conditions would not be needed for Segment B2.

Northern Long-Eared Bat:

The Northern long-eared bat was listed as federally threatened on April 2, 2015 (80 FR 17973-18033). Within Nebraska, the suspected range of northern long-eared bat includes the eastern and norther ¾ of the state. The range generally follows areas with riparian deciduous forests, such as the Niobrara River in the north of the state, the Republican River in the south, and the Missouri River and its tributaries in the east. During the winter, northern long-eared bats hibernate in humid caves and mines. Some of these locations may be used year-round for summer roosting. Spring staging and fall swarming are transitional periods where the bats may be foraging along their migration route to or from summer roosting habitat. During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live and dead trees. Man-made structures, such as bridges, barns, and buildings, that provide protection from weather may be used opportunistically for roosting. In late spring, female northern long-eared bats will form small maternity colonies and each birth a single pup in June or early July. Summer roosting habitat for Northern long-eared bat (live or dead trees with loose or peeling bark, possibly bridges and manmade structures) may exist within and adjacent to the project area along drainages and farmsteads. No known hibernacula or maternal roosts exist within ¼-mile of the project area.

To avoid impacts to this species, NDOR will, to the extent practicable, clear vegetation (trees and shrubs) and conduct any bridge removal work outside of the timeframe when pup-rearing and maternal roosting northern long-eared bats may be present within the Project limits. If this work is unable to be scheduled outside of the maternal roosting season (June 1 – July 31), surveys would be conducted prior to allowing clearing or construction to begin to ensure no bats would be impacted by these activities. With the implementation of conservation conditions, which have been agreed upon by the Matrix signatories, this Project “May Affect, but is Not Likely to Adversely Affect” northern long-eared bat. See conservation conditions listed in the Conservation Conditions section of this memo.

Effect Determination

There are a total of 11 state and federally listed species whose range includes Cass County in Nebraska in which this Project would take place. According to a search of designated critical habitat on the USFWS website, no designated critical habitat exists within the Project vicinity.

No Effect:
NDOR has determined that due to lack of suitable habitat within the Segment B2 limits, the Project will have **no effect** to:

- American Ginseng
- *Rufa* Red Knot
- Southern Flying Squirrel
- Western Prairie-fringed Orchid

May Affect, Not Likely to Adversely Affect:
NDOR has determined that suitable habitat exists within or adjacent to the overall Project limits for the following species. With the implementation of the conservation conditions, as updated in February 2016 Matrix Meetings, listed below, NDOR has determined the Project, including the construction of US-75 from Murray to Plattsmouth, **may affect, but is not likely to adversely affect**:

- Interior Least Tern
- Lake Sturgeon
- Northern Long-Eared Bat
- Pallid Sturgeon
- Piping Plover
- River Otter
- Sturgeon Chub

General and Species Specific Conservation Conditions (these will be included in the NEPA document and Green Sheet)

General Conservation Conditions:

A-1 **Changes in Project Scope**. If there is a change in the project scope, the project limits, or environmental commitments, the NDOR Environmental Section must be contacted to evaluate potential impacts prior to implementation. Environmental commitments are not subject to change without prior written approval from the Federal Highway Administration. (District Construction, Contractor)

A-2 **Conservation Conditions**. Conservation conditions are to be fully implemented within the project boundaries as shown on the plans. (District Construction, Contractor)

A-3 **Early Construction Starts**. Request for early construction starts must be coordinated by the Project Construction Engineer with NDOR Environmental for approval of early start to ensure avoidance of listed species sensitive lifecycle timeframes. Work in these timeframes will require approval from the Federal Highway Administration and could require consultation with the USFWS and NGPC. (District Construction, Contractor)

A-4 **E&T Species**. If federal or state listed species are observed during construction, contact NDOR Environmental. Contact NDOR Environmental for a reference of federal and state listed species. (NDOR Environmental, District Construction, Contractor)

A-5 **Refueling**. Refueling will be conducted outside of those sensitive areas identified on the plans, in the contract, and/or marked in the field. (Contractor)

A-6 **Restricted Activities**. The following project activities shall, to the extent possible, be restricted to between the beginning and ending points (stationing, reference posts, mile markers, and/or section-township-range references) of the project, within the right-of-way designated on the project plans: borrow sites, burn sites, construction debris waste disposal areas, concrete and asphalt plants, haul roads, stockpiling areas, staging areas, and material storage sites.

For activities outside the project limits, the contractor should refer to the Nebraska Game and Park Commission website to determine which species ranges occur within the off-site area. The contractor should plan accordingly for any species surveys that may be required to approve the use of a borrow site, or other off-site activities. The contractor should review Chapter 11 of the Matrix (on NDOR's website), where species survey protocol can be found, to estimate the level of effort and timing requirements for surveys.

Any project related activities that occur outside of the project limits must be environmentally cleared/permitted with the Nebraska Game and Parks Commission as well as any other appropriate agencies by the contractor and those clearances/permits submitted to the District Construction Project Manager prior to the start of the above listed project activities. The contractor shall submit information such as an aerial photo showing the proposed activity site, a soil survey map with the location of the site, a plan-sheet or drawing showing the location and dimensions of the activity site, a minimum of 4 different ground photos showing the existing conditions at the proposed activity site, depth to ground water and depth of pit, and the "Platte River depletion status" of the site. The District Construction Project Manager will notify NDOR Environmental which will coordinate with FHWA for acceptance if needed. The contractor must receive notice of acceptance from NDOR, prior to starting the above listed project activities. These project activities cannot adversely affect state and/or federally listed species or designated critical habitat. (NDOR Environmental, District Construction, Contractor).

A-7 **Waste/Debris**. Construction waste/debris will be disposed of in areas or a manner which will not adversely affect state and/or federally listed species and/or designated critical habitat. (Contractor)

A-8 **Post Construction Erosion Control.** Erosion control activities that may take place by NDOR Maintenance or Contractors after construction is complete, but prior to project close-out, shall adhere to any standard conservation conditions for species designated for the project area during construction. (NDOR Maintenance, District Construction, Contractor)

Conservation Condition for Migratory Bird Treaty Act:

- NDOR has developed an Avian Protection Plan (APP) to reduce conflicts between construction of NDOR projects and the laws governing migratory birds. This procedure is designed to protect and conserve avian populations and reduce avian conflicts through changes in project scheduling (i.e. tree clearing outside of primary nesting period), increased migratory bird surveys, and changes in project construction timelines. NDOR will utilize its APP to reduce conflicts with migratory birds on this Project.

Conservation Conditions for Northern Long-Eared Bat:

NLEB-1 Tree clearing, bridge deck joint replacements over the bridge deck, bridge removal activities will not occur between June 1st – July 31st to avoid impacts to the northern long-eared bat maternity roosting period. (NDOR Environmental, Construction, Contractor)

OR

NLEB-2 If tree clearing, bridge deck joint replacement over the bridge deck, or removal of bridge structures occurs during the northern long-eared bat maternity roosting period (June 1st – July 31st), NDOR personnel will perform surveys prior to the start of these activities at the following locations: ***Any locations that require tree clearing or bridge removal*** (*location of suitable habitat*). If the species is absent, work may proceed. If the species is found, NDOR Environmental Section will consult with the USFWS, NGPC, and FHWA prior to the start of construction. (NDOR Environmental, Construction, Contractor)

Summary

NDOR is requesting your review of this information, and respectfully requests your concurrence. The effect determinations from the 2000 supplemental EIS have not changed; however, due to a lack of

suitable habitat for interior least tern, piping plover, lake sturgeon, pallid sturgeon, and sturgeon chub on Segment B2 (Murray – Plattsmouth), NDOR requests your concurrence on the removal of conservation conditions that were specific to the Platte River section of the overall project. The work around the Platte River has since been completed. Although the effect determinations have not changed for interior least tern, piping plover, lake sturgeon, pallid sturgeon, sturgeon chub, and river otter, due to the federal listing of Northern Long-Eared Bat and Rufa Red Knot, and changes in general and species specific conservation conditions, NDOR believes that there will be a need for consultation with the appropriate resource agencies. It is our hope that this consultation would result in obtaining the clearances needed to complete the reevaluation of this portion of the FEIS and implementation of the recommended northern long-eared bat conservation conditions listed above on Segment B2.

Approved by FHWA Environmental:

Scott H. Stapp

Digitally signed by Scott H. Stapp
DN: cn=Scott H. Stapp, o=FHWA-NE, ou=Nebraska Division, email=scott.stapp@dot.gov, c=US
Date: 2016.10.20 07:53:40 -05'00'

Signature	Printed Name	Date

ATTACHMENT D

US-75/US-34, PLATTSMOUTH TO BELLEVUE,

HISTORIC RESOURCES

NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF ROADS

NDOR PQS Project Review Memo
Supplemental Section 106
Tier III Project

Processed as a Tier III because of an association with an EA; Project Effects: no historic properties affected

Control Number 21209 Project Number S-75-2(1072) Review Date 10/26/16

Project Name Murray to Plattsmouth Project Location Cass County

Date of Project Description Reviewed 08/24/16 & 10/10/16

Project Results in no historic properties affected ☐ No ☑ Yes SHPO concurrence 09/12/16

THPO/Tribal Consultation? ☐ No ☑ Yes	CLG Consultation? ☐ No ☑ Yes
THPO/Tribes(s): Ponca Tribe of NE and Iowa Tribe of KA and NE	CLG: Plattsmouth
Date Correspondence Sent: 09/12/16	Date Correspondence Sent: 09/12/16
THPO/Tribal response date: 10/26/16, no response	CLG response date: 09/13/16
THPO/Tribal comment:	CLG comment:
The 30 comment period expired without receiving comment from either THPO	Concur

Other Consulting Parties Identified:

Area of Potential Effects (APE)

The APE for archeological properties and standing structures was chosen to adequately identify any historic properties that may be potentially altered given the scale and scope of this undertaking. This project is a major reconstruction essentially converting a 2-lane roadway to a 4-lane divided expressway. Right of-way will be required at many locations along the project corridor. The APE for archeology is about 100 feet beyond the proposed limits of construction to account for stockpiling, clearing and grubbing and any other ancillary activity beyond project grading. The vertical depth of the APE normally involves soils and deposits at or near the surface but can reach depths of 15 feet in the area of bridges and culverts at stream crossings and at side slopes that need to be cut back. The APE for standing structures and farmsteads is 250 feet beyond the existing right-of-way to account for any direct effects or potential visual effects. Definition of a broader APE for secondary or cumulative impacts is not required in this instance. There are no detours required for this project.

APE considered is consistent with 36 CFR 800.16(d): ☑ Yes

Summary of Archeological Investigations

An archeological evaluation was conducted by Highway Archeology Program Manager Rob Bozell during the period May through July, 2016. A review of the Nebraska Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that most of the APE had been previously surveyed for archeological sites during investigations for the proposed Bellevue to Nebraska City Expressway (Koch and Bozell 1997), the Plattsmouth Bridge (Koch and Bozell 1995), the Plattsmouth Airport (Bozell 1990), and a SHPO-sponsored survey of select Missouri River Bluffs land (Kruse et al. 2014). About one mile of the project had not been examined during these earlier investigations and this segment was the subject of an intensive archeological survey in 2016 by Bozell. In the course of these combined investigations, seven archeological were recorded (25CC203, 204, 205, 206, 207, 243, and 258). All of these sites are not eligible for the NHRP due to compromised physical integrity or inherent lack of significance and research potential. There are no archeological historic properties in the APE

Summary of Above Ground Resource Investigations

Megan Hilger, NSHS Preservation Associate, investigated the project in June and August of 2016 using the Nebraska State Historic Preservation Office inventory and site files, the Cass County Tax Assessor records, historic maps, the National Register Evaluation of Nebraska Bridges 1947 to 1965 (including the reassessment of select pre-1947 bridges), the Nebraska Historic Bridge Inventory of 1991, and the November 2012 ACHP Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges. Hilger evaluated all properties identified as meeting the NESHPO Historic Resources Survey Manual criteria for survey and NPS Bulletin 15 criteria for identification and evaluation relative to NRHP eligibility. Within the APE of this undertaking, four properties were identified for survey and evaluation under the above criteria. A fifth property had been recorded in NESHPO files but was found to no longer be extant. One of the surveyed properties the Perry Farmhouse (CC00-348) is listed on the National Register under Criterion C . This property has two driveways which exit onto the existing highway. As a result of this proposed project, the southern driveway will be closed and the grade to the northern driveway would be decreased to allow the property owner easier access. These activities would not affect this property or the characteristics which make it a historic property. Another property (FN1, Eagles FOE 365) in the APE is recommended National Register eligible under Criteria A and C. This property will not be affected by the project as proposed.

Archeological Resources	Above Ground Resources
Are NRHP listed or eligible properties present within the APE? ☑ No ☐ Yes	**Are NRHP listed or eligible properties present within the APE?** ☐ No ☑ Yes
Please list:	**Please list:**
	Perry Farmhouse (CC00-348) Criterion C for architectural significance Eagles FOE 365 (FN1) Criteria A and C

Is Temporary Easement Required from ANY Historic Property Listed Above? ☑ No ☐ Yes

Is Permanent Easement Required from ANY Historic Property Listed Above? ☑ No ☐ Yes

Is Right of Way Required from ANY Historic Property Listed Above? ☑ No ☐ Yes

If Yes, describe:

Construction Commitments: ☐ No ☑ Yes

If Yes, detail here:

The pair of brick gate posts at the driveway near MM 375.74 (west side) would be marked "do not disturb"; the pair of brick gate posts at the driveway near MM 375.87 (west side) would be marked "do not disturb"; the evergreen windbreak near MM 375.79 through MM 375.87 (west side) would be marked "do not disturb".

Project would result in no historic properties affected: ☐ No ☑ Yes

Tier III Project Evaluation Complete

Stacy L. Stupka

Digitally signed by Stacy L. Stupka
DN: cn=Stacy L. Stupka, o=NDOR Environmental, ou=Section 106 Specialist, email=stacy.stupka-burda@nebraska.gov, c=US
Date: 2016.10.26 09:32:53 -05'00'

NDOR PQS Review

10/26/16

Date

Project description changes on 10/10/16 are either a reduction in scope or are within the APE considered for this project.

This undertaking has been reviewed under the programmatic agreement entitled Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Roads to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska (July 2015). Though the project effects recommendation is no historic properties affected, this is being processed as a Tier III project to allow for SHPO review.

U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION

100 Centennial Mall North
Room 220
Lincoln, NE 68508
(402)742-8460

September 12, 2016

L. Robert Puschendorf
Deputy State Historic Preservation Officer
Nebraska State Historical Society
P.O. Box 82554
Lincoln, NE 68508

Dear Mr. Puschendorf:

HP# 1609-024-01
County CC
STR. X ARCHEO. X
Resp. ____ Date ____

Project S-75-2(1072), CN 21209
Murray to Plattsmouth
Cass County
Supplemental Cultural Resources Evaluation

Please review this document on historic resources for the project mentioned above as required under Section 106 of the National Historic Preservation Act of 1966 as amended and implementing regulations at 36 CFR Part 800. As a Certified Local Government, the City of Plattsmouth is a consulting party. The Ponca Tribe of Nebraska and the Iowa Tribe of Kansas and Nebraska have also been invited to provide comment.

Reconstruction of US-34/US-75 from Murray to Plattsmouth is part of a larger project involving reconstruction of US-34/US-75 from Nebraska City to Bellevue, Nebraska (Final EIS – FHWA-NEB-EIS-73-11-F). Nebraska Department of Roads (NDOR) is reevaluating the Murray to Plattsmouth segment of the US-34/US-75 Nebraska City to Bellevue Environmental Impact Statement (EIS) because more than five years has elapsed since the 2000 Supplement to the 1979 EIS and this segment of the original Project has not been constructed. In the 1979 EIS, the preferred alternative included the following design segments, shown in Figure 2010-2 (Enclosure 1):

- Segment A – A two-lane highway (with acquisition of right-of-way (ROW) for two additional lanes) from 8 miles south of Nebraska City to US-34/US-75 junction south of Murray, including a west bypass of Nebraska City.
- Segment B – A four-lane divided highway with at-grade access from the US-34/US-75 junction at Murray to south of the Platte River.
- Segment C – A four-lane expressway (with full access control) from the Platte River to the southern terminus of the existing Kennedy freeway at the intersection of W Street and Railroad Avenue in Omaha, Nebraska, with interchanges to provide access to adjacent communities and roadways.

In April 1994, the FHWA determined that re-evaluation of Segments A3 and B1, from Nebraska City to Murray, Nebraska, met the requirements for a Categorical Exclusion prior to advancing to construction. A Supplemental EIS (SEIS) was published on October 26, 2000 (Final Supplemental EIS – FHWA-NE-EIS-73-11-F-FS), with a Record of Decision (ROD) signed on May 25, 2001. The SEIS evaluated Segments B1, B2, B3, and C1.

Re-evaluations of the EIS and SEIS were prepared and approved, to advance the expressway/freeway Segments B3 and C1 in 2010 and 2015, respectively, to the next level of federal approval. Segment B3, starting 0.2 mile south of Oak Hill Road/Avenue B (near Plattsmouth) to the north side of the Platte River bridges, is constructed. Segment C1, from the north side of the Platte River bridges to 0.5 miles north of Fairview Road, is currently under construction as a State-funded Project.

Construction of Segment B2, from Murray to just south of Plattsmouth, is now being considered for construction in 2017-2018 using available State funds (Enclosure 2). Although no federal funds are proposed, this segment is being re-evaluated as though Federal funds were to be used, because it was part of the 1979-approved Federal Action. NESHPO concurred upon the draft EIS on 10/13/98 (HP#9609-074-01; Enclosure 3).

A supplemental cultural resources evaluation of Segment B2 (Murray to Plattsmouth) for archeology and standing structures is included below and in enclosures.

Project Description:
This project would reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12-mile south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373.33, and extends north to US-34 MM 380.16, roughly 400 feet south of the junction of US-34/US-75 and Oak Hill Road/Ave B. Construction may begin and/or end approximately 1,400 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement and temporary traffic phasing.

The existing roadway on this segment of US-34/US-75 from US-34 MM 373.28 to US-34 MM 376.84 consists of two 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 376.84 to US-34 MM 377.79 consists of four 12-foot-wide concrete lanes, a depressed median, and 10-foot-wide shoulders, of which 8 feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 377.79 to US-34 MM 379.98 consists of two 12-foot-wide asphalt lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt. The roadway segment from US-34 MM 379.98 to US-34 MM 380.16 consists of four 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with concrete.

The improvements on this project consist of replacing the existing 2-lane or 4-lane roadway, depending on location, with a 4-lane expressway including a raised 22-foot-wide median, 3-foot-wide inside and 8-foot-wide outside surfaced shoulders. Other improvements include: removing and replacing pavement, grading, culvert extension, bridge replacement, and removing and replacing guardrail.

Scope details include:

- Existing mainline culverts would be used in place and extended as needed.
- Bridge number S034 37969 (formerly S075 07234), viaduct over the Union Pacific Railroad, would be replaced with a single 4-lane structure.
- Bridge number S034 37742, East Branch Four-Mile Creek, would extend triple 10-foot by 10-foot by 168 foot-long Concrete Box Culvert.

- The following Access changes would be made:
  - Chicago Avenue Access at US-75 would be eliminated to allow Horning Road to become the primary access to US-75.
  - 1st Avenue/Westside Drive intersection would be converted to right-in/right-out/left-in only
  - Cindy Lane would be connected directly to US-75, and Chicago Avenue removed.
  - Wiles Road would have new Control of Access 660 feet on both sides of the highway. Access to the business and house (same owner) west of US-75 would be a ROW item rather than designing an access road.
- Five future signalized intersections at US-75 (N-1/Murray Rd., Waverly Rd./Rock Bluff Rd., Mynard/Horning Road, Wiles Road, and Osage Ranch Blvd.) would receive conduit as a part of this project and be designed to meet the posted speed on each road.
- Relocation of utilities, including fiber optic, water main, and sanitary sewer, may be required due to conflicts with the new lanes and mainline road profile adjustments.
- Areas disturbed during construction would be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan.
- Because the pavement work is a reconstruction project, the NDOR would comply with the requirements in the Public Rights of Way Accessibility Guidelines.
- Street lighting would be built and updated.
- Additional property rights would be required to build this project.
- Access to adjacent properties would be maintained during construction, but may be limited at times due to phasing requirements.
- This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required at intersection locations to accommodate phased construction.
- This project would require the construction of a permanent roadway transition from two lanes to four lanes, divided on the south end of the project. This work will take place immediately prior to the project limits stated above and may extend as far south as the north end of the bridge over Rock Creek (bridge structure number S034 37299).

The location of the project is depicted in Enclosure 2 and the formal stand-alone Project Description is Enclosure 4.

Area of Potential Effects (APE):
The APE for archeological properties and standing structures was chosen to adequately identify any historic properties that may be potentially altered given the scale and scope of this undertaking. This project is a major reconstruction essentially converting a 2-lane roadway to a 4-lane divided expressway. ROW would be required at many locations along the project corridor.

The APE for archeology is about 100 feet beyond the proposed limits of construction to account for stockpiling, clearing and grubbing and any other ancillary activity beyond project grading. The vertical depth of the APE normally involves soils and deposits at or near the surface but can reach depths of 15 feet in the area of bridges and culverts at stream crossings and at side slopes that need to be cut back. The APE for standing structures and farmsteads is 250 feet beyond the

existing ROW to account for any direct effects or potential visual effects. Definition of a broader APE for secondary or cumulative impacts is not required in this instance. There are no detours required for this project.

See Enclosure 5 for location of the APE.

Archeological Evaluation:
An archeological evaluation was conducted by Highway Archeology Program Manager Rob Bozell during the period May through July, 2016. A review of the Nebraska Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that most of the APE had been previously surveyed for archeological sites during investigations for the proposed Bellevue to Nebraska City Expressway (Koch and Bozell 1997), the Plattsmouth Bridge (Koch and Bozell 1995), the Plattsmouth Airport (Bozell 1990), and a NESHPO-sponsored survey of select Missouri River Bluffs land (Kruse et al. 2014). About one mile of the project had not been examined during these earlier investigations and this segment was the subject of an intensive archeological survey in 2016 by Bozell. In the course of these combined investigations, seven archeological sites were recorded (25CC203, 204, 205, 206, 207, 243, and 258). All of these sites are not eligible for the National Register of Historic Places (NHRP) due to compromised physical integrity or inherent lack of significance and research potential.

There are no archeological historic properties in the APE (see Enclosures 6 and 7).

Standing Structures:
Megan Hilger, NSHS Preservation Associate, investigated the project in June and August of 2016 using the NESHPO inventory and site files, the Cass County Tax Assessor records, historic maps, the *National Register Evaluation of Nebraska Bridges 1947 to 1965 (including the reassessment of select pre-1947 bridges)*, the *Nebraska Historic Bridge Inventory of 1991*, and the November 2012 *ACHP Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges.*

Hilger evaluated all properties identified as meeting the NESHPO Historic Resources Survey Manual criteria for survey. These criteria include, but are not limited to, properties that are:

- 50 years old or older, and
- In the original location, and
- Possess the potential for integrity, historic association, and historic architectural qualities

The properties that met the above criteria were evaluated using the guidelines set forth in the 1991 National Park Service Bulletin 15: *How to Apply the National Register Criteria for Evaluation*. All surveyed properties were evaluated to determine eligibility to the NRHP.

Within the APE of this undertaking, four properties were identified for survey and evaluation under the above criteria. A fifth property had been recorded in NESHPO files but was found to no longer be extant. Of the four properties identified, two are not recommended NRHP-eligible due to a lack of physical integrity and/or historic significance. The Perry Farmhouse (CC00-348) was listed in the NRHP in 2006 and this investigation recommends that the Eagles FOE 365

building (FN1) is eligible for NRHP listing under Criteria A and C. The Perry Farmhouse property contains two driveways that exit out onto the existing highway. As a result of this project, the southern driveway would be closed and the grade of the northern driveway would be decreased to allow the property owner easier access. These activities would not affect this property or the characteristics which make it a historic property. The Eagles FOE 365 building would not be affected by the project as proposed. No new property rights acquisition is required from either historic property.

No historic structural or architectural historic properties would be affected by the project as proposed (Enclosure 8).

Recommended Effect
This undertaking has been reviewed under the programmatic agreement entitled *Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Roads to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska* (July 2015).

While the project effects recommendation is no historic properties affected, this project is being processed as a Tier III project to allow for NESHPO concurrence due to the federal tie to an EIS.

Out of an abundance of caution relative to the Perry Farmstead and to ensure that this historic property is not affected, the following commitment would be made in the environmental documentation and would be carried forward on NDOR's green sheet as an environmental commitment:

> The pair of brick gate posts at the driveway near MM 375.74 (west side) would be marked "do not disturb"; the pair of brick gate posts at the driveway near MM 375.87 (west side) would be marked "do not disturb"; the evergreen windbreak near MM 375.79 through MM 375.87 (west side) would be marked "do not disturb".

The Federal Highway Administration respectfully requests NESHPO concurrence with the above NRHP eligibility recommendations and Section 106 determination of effects.

If you have any questions regarding this information, do not hesitate to contact me at your convenience.

Sincerely yours,

Scott H. Stapp
Environmental Protection Specialist

CONCUR:

L. Robert Puschendorf, Deputy State Historic Preservation Officer — Date 9-12-2016

Enclosures

1) 2010-2 Re-evaluation Segments
2) Murray to Plattsmouth Project Location
3) 1998 NESHPO concurrence, Draft EIS
4) Project Description
5) Area of Potential Effects Map
6) Archeology Report and Site Forms
7) Map of Archeological Survey Areas and Site Locations
8) Standing Structures Report

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U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION

100 Centennial Mall North
Room 220
Lincoln, NE 68508
(402)742-8460

September 12, 2016

Mr. Lance Foster, THPO
Iowa Tribe of Kansas and Nebraska
3345 B Thrasher Rd.
White Cloud, KS 66094

Dear Mr. Foster:

Project S-75-2(1072), CN 21209
Murray to Plattsmouth
Cass County
Supplemental Cultural Resources Evaluation

Please review this document on historic resources for the project mentioned above as required under Section 106 of the National Historic Preservation Act of 1966 as amended and implementing regulations at 36 CFR Part 800. 36 CFR Part 800.2 (c) (2), specifically addresses consultation between Tribes and federal agencies. The Nebraska State Historic Preservation Office (NESHPO) and the City of Plattsmouth are consulting parties for this undertaking and the Ponca Tribe of Nebraska has also been invited to comment.

Reconstruction of US-34/US-75 from Murray to Plattsmouth is part of a larger project involving reconstruction of US-34/US-75 from Nebraska City to Bellevue, Nebraska (Final EIS – FHWA-NEB-EIS-73-11-F). Nebraska Department of Roads (NDOR) is reevaluating the Murray to Plattsmouth segment of the US-34/US-75 Nebraska City to Bellevue Environmental Impact Statement (EIS) because more than five years has elapsed since the 2000 Supplement to the 1979 EIS and this segment of the original Project has not been constructed. In the 1979 EIS, the preferred alternative included the following design segments, shown in Figure 2010-2 (Enclosure 1):

- Segment A – A two-lane highway (with acquisition of right-of-way (ROW) for two additional lanes) from 8 miles south of Nebraska City to US-34/US-75 junction south of Murray, including a west bypass of Nebraska City.
- Segment B – A four-lane divided highway with at-grade access from the US-34/US-75 junction at Murray to south of the Platte River.
- Segment C – A four-lane expressway (with full access control) from the Platte River to the southern terminus of the existing Kennedy freeway at the intersection of W Street and Railroad Avenue in Omaha, Nebraska, with interchanges to provide access to adjacent communities and roadways.

In April 1994, the FHWA determined that re-evaluation of Segments A3 and B1, from Nebraska City to Murray, Nebraska, met the requirements for a Categorical Exclusion prior to advancing to construction. A Supplemental EIS (SEIS) was published on October 26, 2000 (Final Supplemental EIS – FHWA-NE-EIS-73-11-F-FS), with a Record of Decision (ROD) signed on May 25, 2001. The SEIS evaluated Segments B1, B2, B3, and C1.

Re-evaluations of the EIS and SEIS were prepared and approved, to advance the expressway/freeway Segments B3 and C1 in 2010 and 2015, respectively, to the next level of federal approval. Segment B3, starting 0.2 mile south of Oak Hill Road/Avenue B (near Plattsmouth) to the north side of the Platte River bridges, is constructed. Segment C1, from the north side of the Platte River bridges to 0.5 miles north of Fairview Road, is currently under construction as a State-funded Project.

Construction of Segment B2, from Murray to just south of Plattsmouth, is now being considered for construction in 2017-2018 using available State funds (Enclosure 2). Although no federal funds are proposed, this segment is being re-evaluated as though Federal funds were to be used, because it was part of the 1979-approved Federal Action. NESHPO concurred upon the draft EIS on 10/13/98 (HP#9609-074-01; Enclosure 3).

A supplemental cultural resources evaluation of Segment B2 (Murray to Plattsmouth) for archeology and standing structures is included below and in enclosures.

Project Description:
This project would reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12-mile south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373.33, and extends north to US-34 MM 380.16, roughly 400 feet south of the junction of US-34/US-75 and Oak Hill Road/Ave B. Construction may begin and/or end approximately 1,400 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement and temporary traffic phasing.

The existing roadway on this segment of US-34/US-75 from US-34 MM 373.28 to US-34 MM 376.84 consists of two 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 376.84 to US-34 MM 377.79 consists of four 12-foot-wide concrete lanes, a depressed median, and 10-foot-wide shoulders, of which 8 feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 377.79 to US-34 MM 379.98 consists of two 12-foot-wide asphalt lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt. The roadway segment from US-34 MM 379.98 to US-34 MM 380.16 consists of four 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with concrete.

The improvements on this project consist of replacing the existing 2-lane or 4-lane roadway, depending on location, with a 4-lane expressway including a raised 22-foot-wide median, 3-foot-wide inside and 8-foot-wide outside surfaced shoulders. Other improvements include: removing and replacing pavement, grading, culvert extension, bridge replacement, and removing and replacing guardrail.

Scope details include:

- Existing mainline culverts would be used in place and extended as needed.
- Bridge number S034 37969 (formerly S075 07234), viaduct over the Union Pacific Railroad, would be replaced with a single 4-lane structure.
- Bridge number S034 37742, East Branch Four-Mile Creek, would extend triple 10-foot by 10-foot by 168 foot-long Concrete Box Culvert.

- The following Access changes would be made:
  - Chicago Avenue Access at US-75 would be eliminated to allow Horning Road to become the primary access to US-75.
  - 1st Avenue/Westside Drive intersection would be converted to right-in/right-out/left-in only
  - Cindy Lane would be connected directly to US-75, and Chicago Avenue removed.
  - Wiles Road would have new Control of Access 660 feet on both sides of the highway. Access to the business and house (same owner) west of US-75 would be a ROW item rather than designing an access road.
- Five future signalized intersections at US-75 (N-1/Murray Rd., Waverly Rd./Rock Bluff Rd., Mynard/Horning Road, Wiles Road, and Osage Ranch Blvd.) would receive conduit as a part of this project and be designed to meet the posted speed on each road.
- Relocation of utilities, including fiber optic, water main, and sanitary sewer, may be required due to conflicts with the new lanes and mainline road profile adjustments.
- Areas disturbed during construction would be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan.
- Because the pavement work is a reconstruction project, the NDOR would comply with the requirements in the Public Rights of Way Accessibility Guidelines.
- Street lighting would be built and updated.
- Additional property rights would be required to build this project.
- Access to adjacent properties would be maintained during construction, but may be limited at times due to phasing requirements.
- This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required at intersection locations to accommodate phased construction.
- This project would require the construction of a permanent roadway transition from two lanes to four lanes, divided on the south end of the project. This work will take place immediately prior to the project limits stated above and may extend as far south as the north end of the bridge over Rock Creek (bridge structure number S034 37299).

The location of the project is depicted in Enclosure 2 and the formal stand-alone Project Description is Enclosure 4.

Area of Potential Effects (APE):
The APE for archeological properties and standing structures was chosen to adequately identify any historic properties that may be potentially altered given the scale and scope of this undertaking. This project is a major reconstruction essentially converting a 2-lane roadway to a 4-lane divided expressway. ROW would be required at many locations along the project corridor.

The APE for archeology is about 100 feet beyond the proposed limits of construction to account for stockpiling, clearing and grubbing and any other ancillary activity beyond project grading. The vertical depth of the APE normally involves soils and deposits at or near the surface but can reach depths of 15 feet in the area of bridges and culverts at stream crossings and at side slopes that need to be cut back. The APE for standing structures and farmsteads is 250 feet beyond the

existing ROW to account for any direct effects or potential visual effects. Definition of a broader APE for secondary or cumulative impacts is not required in this instance. There are no detours required for this project.

See Enclosure 5 for location of the APE.

Archeological Evaluation:
An archeological evaluation was conducted by Highway Archeology Program Manager Rob Bozell during the period May through July, 2016. A review of the Nebraska Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that most of the APE had been previously surveyed for archeological sites during investigations for the proposed Bellevue to Nebraska City Expressway (Koch and Bozell 1997), the Plattsmouth Bridge (Koch and Bozell 1995), the Plattsmouth Airport (Bozell 1990), and a NESHPO-sponsored survey of select Missouri River Bluffs land (Kruse et al. 2014). About one mile of the project had not been examined during these earlier investigations and this segment was the subject of an intensive archeological survey in 2016 by Bozell. In the course of these combined investigations, seven archeological sites were recorded (25CC203, 204, 205, 206, 207, 243, and 258). All of these sites are not eligible for the National Register of Historic Places (NHRP) due to compromised physical integrity or inherent lack of significance and research potential.

There are no archeological historic properties in the APE (see Enclosures 6 and 7).

Standing Structures:
Megan Hilger, NSHS Preservation Associate, investigated the project in June and August of 2016 using the NESHPO inventory and site files, the Cass County Tax Assessor records, historic maps, the *National Register Evaluation of Nebraska Bridges 1947 to 1965 (including the reassessment of select pre-1947 bridges),* the *Nebraska Historic Bridge Inventory of 1991*, and the November 2012 *ACHP Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges*.

Hilger evaluated all properties identified as meeting the NESHPO Historic Resources Survey Manual criteria for survey. These criteria include, but are not limited to, properties that are:

- 50 years old or older, and
- In the original location, and
- Possess the potential for integrity, historic association, and historic architectural qualities

The properties that met the above criteria were evaluated using the guidelines set forth in the 1991 National Park Service Bulletin 15: *How to Apply the National Register Criteria for Evaluation*. All surveyed properties were evaluated to determine eligibility to the NRHP.

Within the APE of this undertaking, four properties were identified for survey and evaluation under the above criteria. A fifth property had been recorded in NESHPO files but was found to no longer be extant. Of the four properties identified, two are not recommended NRHP-eligible due to a lack of physical integrity and/or historic significance. The Perry Farmhouse (CC00-348) was listed in the NRHP in 2006 and this investigation recommends that the Eagles FOE 365

building (FN1) is eligible for NRHP listing under Criteria A and C. The Perry Farmhouse property contains two driveways that exit out onto the existing highway. As a result of this project, the southern driveway would be closed and the grade of the northern driveway would be decreased to allow the property owner easier access. These activities would not affect this property or the characteristics which make it a historic property. The Eagles FOE 365 building would not be affected by the project as proposed. No new property rights acquisition is required from either historic property.

No historic structural or architectural historic properties would be affected by the project as proposed (Enclosure 8).

Recommended Effect
This undertaking has been reviewed under the programmatic agreement entitled *Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Roads to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska* (July 2015).

While the project effects recommendation is no historic properties affected, this project is being processed as a Tier III project to allow for NESHPO concurrence due to the federal tie to an EIS.

Out of an abundance of caution relative to the Perry Farmstead and to ensure that this historic property is not affected, the following commitment would be made in the environmental documentation and would be carried forward on NDOR's green sheet as an environmental commitment:

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The Federal Highway Administration (FHWA) is providing this documentation for your review and comment and requests that the Iowa Tribe of Kansas and Nebraska notify FHWA of any objections within 30 days of receipt of this letter.

If you have any questions regarding this information, do not hesitate to contact me at your convenience.

Sincerely yours,

Scott H. Stapp

Scott H. Stapp
Environmental Protection Specialist

Enclosures

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U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION

100 Centennial Mall North
Room 220
Lincoln, NE 68508
(402)742-8460

September 12, 2016

Mr. Shannon Wright
Tribal Historic Preservation Officer
Ponca Tribe of Nebraska
P.O. Box 288
Niobrara, NE 68760

Dear Mr. Wright:

Project S-75-2(1072), CN 21209
Murray to Plattsmouth
Cass County
Supplemental Cultural Resources Evaluation

Please review this document on historic resources for the project mentioned above as required under Section 106 of the National Historic Preservation Act of 1966 as amended and implementing regulations at 36 CFR Part 800. 36 CFR Part 800.2 (c) (2), specifically addresses consultation between Tribes and federal agencies. The Nebraska State Historic Preservation Office (NESHPO) and the City of Plattsmouth are consulting parties for this undertaking and the Iowa Tribe of Kansas and Nebraska has also been invited to comment.

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In April 1994, the FHWA determined that re-evaluation of Segments A3 and B1, from Nebraska City to Murray, Nebraska, met the requirements for a Categorical Exclusion prior to advancing to construction. A Supplemental EIS (SEIS) was published on October 26, 2000 (Final

Supplemental EIS – FHWA-NE-EIS-73-11-F-FS), with a Record of Decision (ROD) signed on May 25, 2001. The SEIS evaluated Segments B1, B2, B3, and C1.

Re-evaluations of the EIS and SEIS were prepared and approved, to advance the expressway/freeway Segments B3 and C1 in 2010 and 2015, respectively, to the next level of federal approval. Segment B3, starting 0.2 mile south of Oak Hill Road/Avenue B (near Plattsmouth) to the north side of the Platte River bridges, is constructed. Segment C1, from the north side of the Platte River bridges to 0.5 miles north of Fairview Road, is currently under construction as a State-funded Project.

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The location of the project is depicted in Enclosure 2 and the formal stand-alone Project Description is Enclosure 4.

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Archeological Evaluation:
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Standing Structures:
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due to a lack of physical integrity and/or historic significance. The Perry Farmhouse (CC00-348) was listed in the NRHP in 2006 and this investigation recommends that the Eagles FOE 365 building (FN1) is eligible for NRHP listing under Criteria A and C. The Perry Farmhouse property contains two driveways that exit out onto the existing highway. As a result of this project, the southern driveway would be closed and the grade of the northern driveway would be decreased to allow the property owner easier access. These activities would not affect this property or the characteristics which make it a historic property. The Eagles FOE 365 building would not be affected by the project as proposed. No new property rights acquisition is required from either historic property.

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Recommended Effect
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The Federal Highway Administration (FHWA) is providing this documentation for your review and comment and requests that the Ponca Tribe of Nebraska notify FHWA of any objections within 30 days of receipt of this letter.

If you have any questions regarding this information, do not hesitate to contact me at your convenience.

Sincerely yours,

Scott H. Stapp
Environmental Protection Specialist

Enclosures

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U.S. Department of Transportation
Federal Highway Administration

NEBRASKA DIVISION

100 Centennial Mall North
Room 220
Lincoln, NE 68508
(402)742-8460

September 12, 2016

Mr. Erv Portis
City Administrator
Plattsmouth Certified Local Government
136 N 5th Street
Plattsmouth, NE 68048

Dear Mr. Portis:

Project S-75-2(1072), CN 21209
Murray to Plattsmouth
Cass County
Supplemental Cultural Resources Evaluation

Please review this document on historic resources for the project mentioned above as required under Section 106 of the National Historic Preservation Act of 1966 as amended and implementing regulations at 36 CFR Part 800. The Nebraska State Historic Preservation Office (NESHPO) is a consulting party. The Ponca Tribe of Nebraska and the Iowa Tribe of Kansas and Nebraska have also been invited to provide comment.

Reconstruction of US-34/US-75 from Murray to Plattsmouth is part of a larger project involving reconstruction of US-34/US-75 from Nebraska City to Bellevue, Nebraska (Final EIS – FHWA-NEB-EIS-73-11-F). Nebraska Department of Roads (NDOR) is reevaluating the Murray to Plattsmouth segment of the US-34/US-75 Nebraska City to Bellevue Environmental Impact Statement (EIS) because more than five years has elapsed since the 2000 Supplement to the 1979 EIS and this segment of the original Project has not been constructed. In the 1979 EIS, the preferred alternative included the following design segments, shown in Figure 2010-2 (Enclosure 1):

- Segment A – A two-lane highway (with acquisition of right-of-way (ROW) for two additional lanes) from 8 miles south of Nebraska City to US-34/US-75 junction south of Murray, including a west bypass of Nebraska City.
- Segment B – A four-lane divided highway with at-grade access from the US-34/US-75 junction at Murray to south of the Platte River.
- Segment C – A four-lane expressway (with full access control) from the Platte River to the southern terminus of the existing Kennedy freeway at the intersection of W Street and Railroad Avenue in Omaha, Nebraska, with interchanges to provide access to adjacent communities and roadways.

In April 1994, the FHWA determined that re-evaluation of Segments A3 and B1, from Nebraska City to Murray, Nebraska, met the requirements for a Categorical Exclusion prior to advancing to construction. A Supplemental EIS (SEIS) was published on October 26, 2000 (Final Supplemental EIS – FHWA-NE-EIS-73-11-F-FS), with a Record of Decision (ROD) signed on May 25, 2001. The SEIS evaluated Segments B1, B2, B3, and C1.

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Re-evaluations of the EIS and SEIS were prepared and approved, to advance the expressway/freeway Segments B3 and C1 in 2010 and 2015, respectively, to the next level of federal approval. Segment B3, starting 0.2 mile south of Oak Hill Road/Avenue B (near Plattsmouth) to the north side of the Platte River bridges, is constructed. Segment C1, from the north side of the Platte River bridges to 0.5 miles north of Fairview Road, is currently under construction as a State-funded Project.

Construction of Segment B2, from Murray to just south of Plattsmouth, is now being considered for construction in 2017-2018 using available State funds (Enclosure 2). Although no federal funds are proposed, this segment is being re-evaluated as though Federal funds were to be used, because it was part of the 1979-approved Federal Action. NESHPO concurred upon the draft EIS on 10/13/98 (HP#9609-074-01; Enclosure 3).

A supplemental cultural resources evaluation of Segment B2 (Murray to Plattsmouth) for archeology and standing structures is included below and in enclosures.

Project Description:
This project would reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12-mile south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373.33, and extends north to US-34 MM 380.16, roughly 400 feet south of the junction of US-34/US-75 and Oak Hill Road/Ave B. Construction may begin and/or end approximately 1,400 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement and temporary traffic phasing.

The existing roadway on this segment of US-34/US-75 from US-34 MM 373.28 to US-34 MM 376.84 consists of two 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 376.84 to US-34 MM 377.79 consists of four 12-foot-wide concrete lanes, a depressed median, and 10-foot-wide shoulders, of which 8 feet are paved with either asphalt or concrete. The roadway segment from US-34 MM 377.79 to US-34 MM 379.98 consists of two 12-foot-wide asphalt lanes and 10-foot-wide shoulders, of which 8 feet are paved with asphalt. The roadway segment from US-34 MM 379.98 to US-34 MM 380.16 consists of four 12-foot-wide concrete lanes and 10-foot-wide shoulders, of which 8 feet are paved with concrete.

The improvements on this project consist of replacing the existing 2-lane or 4-lane roadway, depending on location, with a 4-lane expressway including a raised 22-foot-wide median, 3-foot-wide inside and 8-foot-wide outside surfaced shoulders. Other improvements include: removing and replacing pavement, grading, culvert extension, bridge replacement, and removing and replacing guardrail.

Scope details include:

- Existing mainline culverts would be used in place and extended as needed.
- Bridge number S034 37969 (formerly S075 07234), viaduct over the Union Pacific Railroad, would be replaced with a single 4-lane structure.
- Bridge number S034 37742, East Branch Four-Mile Creek, would extend triple 10-foot by 10-foot by 168 foot-long Concrete Box Culvert.

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- The following Access changes would be made:
  - Chicago Avenue Access at US-75 would be eliminated to allow Horning Road to become the primary access to US-75.
  - 1st Avenue/Westside Drive intersection would be converted to right-in/right-out/left-in only
  - Cindy Lane would be connected directly to US-75, and Chicago Avenue removed.
  - Wiles Road would have new Control of Access 660 feet on both sides of the highway. Access to the business and house (same owner) west of US-75 would be a ROW item rather than designing an access road.
- Five future signalized intersections at US-75 (N-1/Murray Rd., Waverly Rd./Rock Bluff Rd., Mynard/Horning Road, Wiles Road, and Osage Ranch Blvd.) would receive conduit as a part of this project and be designed to meet the posted speed on each road.
- Relocation of utilities, including fiber optic, water main, and sanitary sewer, may be required due to conflicts with the new lanes and mainline road profile adjustments.
- Areas disturbed during construction would be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan.
- Because the pavement work is a reconstruction project, the NDOR would comply with the requirements in the Public Rights of Way Accessibility Guidelines.
- Street lighting would be built and updated.
- Additional property rights would be required to build this project.
- Access to adjacent properties would be maintained during construction, but may be limited at times due to phasing requirements.
- This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required at intersection locations to accommodate phased construction.
- This project would require the construction of a permanent roadway transition from two lanes to four lanes, divided on the south end of the project. This work will take place immediately prior to the project limits stated above and may extend as far south as the north end of the bridge over Rock Creek (bridge structure number S034 37299).

The location of the project is depicted in Enclosure 2 and the formal stand-alone Project Description is Enclosure 4.

Area of Potential Effects (APE):
The APE for archeological properties and standing structures was chosen to adequately identify any historic properties that may be potentially altered given the scale and scope of this undertaking. This project is a major reconstruction essentially converting a 2-lane roadway to a 4-lane divided expressway. ROW would be required at many locations along the project corridor.

The APE for archeology is about 100 feet beyond the proposed limits of construction to account for stockpiling, clearing and grubbing and any other ancillary activity beyond project grading. The vertical depth of the APE normally involves soils and deposits at or near the surface but can reach depths of 15 feet in the area of bridges and culverts at stream crossings and at side slopes that need to be cut back. The APE for standing structures and farmsteads is 250 feet beyond the

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existing ROW to account for any direct effects or potential visual effects. Definition of a broader APE for secondary or cumulative impacts is not required in this instance. There are no detours required for this project.

See Enclosure 5 for location of the APE.

Archeological Evaluation:
An archeological evaluation was conducted by Highway Archeology Program Manager Rob Bozell during the period May through July, 2016. A review of the Nebraska Cultural Resources Geographic Information System (NCRGIS) archeological resources database and historic maps indicated that most of the APE had been previously surveyed for archeological sites during investigations for the proposed Bellevue to Nebraska City Expressway (Koch and Bozell 1997), the Plattsmouth Bridge (Koch and Bozell 1995), the Plattsmouth Airport (Bozell 1990), and a NESHPO-sponsored survey of select Missouri River Bluffs land (Kruse et al. 2014). About one mile of the project had not been examined during these earlier investigations and this segment was the subject of an intensive archeological survey in 2016 by Bozell. In the course of these combined investigations, seven archeological sites were recorded (25CC203, 204, 205, 206, 207, 243, and 258). All of these sites are not eligible for the National Register of Historic Places (NHRP) due to compromised physical integrity or inherent lack of significance and research potential.

There are no archeological historic properties in the APE (see Enclosures 6 and 7).

Standing Structures:
Megan Hilger, NSHS Preservation Associate, investigated the project in June and August of 2016 using the NESHPO inventory and site files, the Cass County Tax Assessor records, historic maps, the *National Register Evaluation of Nebraska Bridges 1947 to 1965 (including the reassessment of select pre-1947 bridges),* the *Nebraska Historic Bridge Inventory of 1991*, and the November 2012 *ACHP Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges.*

Hilger evaluated all properties identified as meeting the NESHPO Historic Resources Survey Manual criteria for survey. These criteria include, but are not limited to, properties that are:

- 50 years old or older, and
- In the original location, and
- Possess the potential for integrity, historic association, and historic architectural qualities

The properties that met the above criteria were evaluated using the guidelines set forth in the 1991 National Park Service Bulletin 15: *How to Apply the National Register Criteria for Evaluation.* All surveyed properties were evaluated to determine eligibility to the NRHP.

Within the APE of this undertaking, four properties were identified for survey and evaluation under the above criteria. A fifth property had been recorded in NESHPO files but was found to no longer be extant. Of the four properties identified, two are not recommended NRHP-eligible due to a lack of physical integrity and/or historic significance. The Perry Farmhouse (CC00-348) was listed in the NRHP in 2006 and this investigation recommends that the Eagles FOE 365

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building (FN1) is eligible for NRHP listing under Criteria A and C. The Perry Farmhouse property contains two driveways that exit out onto the existing highway. As a result of this project, the southern driveway would be closed and the grade of the northern driveway would be decreased to allow the property owner easier access. These activities would not affect this property or the characteristics which make it a historic property. The Eagles FOE 365 building would not be affected by the project as proposed. No new property rights acquisition is required from either historic property.

No historic structural or architectural historic properties would be affected by the project as proposed (Enclosure 8).

Recommended Effect
This undertaking has been reviewed under the programmatic agreement entitled *Programmatic Agreement Among the Federal Highway Administration, the Nebraska State Historic Preservation Officer, the Advisory Council on Historic Preservation and the Nebraska Department of Roads to Satisfy the Requirements of Section 106 for the Federal Aid Highway Program in the State of Nebraska* (July 2015).

While the project effects recommendation is no historic properties affected, this project is being processed as a Tier III project to allow for NESHPO concurrence due to the federal tie to an EIS.

Out of an abundance of caution relative to the Perry Farmstead and to ensure that this historic property is not affected, the following commitment would be made in the environmental documentation and would be carried forward on NDOR's green sheet as an environmental commitment:

> The pair of brick gate posts at the driveway near MM 375.74 (west side) would be marked "do not disturb"; the pair of brick gate posts at the driveway near MM 375.87 (west side) would be marked "do not disturb"; the evergreen windbreak near MM 375.79 through MM 375.87 (west side) would be marked "do not disturb".

The Federal Highway Administration respectfully requests the City of Plattsmouth Certified Local Government concurrence with the above NRHP eligibility recommendations and Section 106 determination of effects.

If you have any questions regarding this information, do not hesitate to contact me at your convenience.

Sincerely yours,

Scott H. Stapp

Scott H. Stapp
Environmental Protection Specialist

EP 9/13/14

CONCUR:

Erwin Portis — September 13, 2016

City of Plattsmouth Certified Local Government — Date

Erwin L Portis

Enclosures

1) 2010-2 Re-evaluation Segments
2) Murray to Plattsmouth Project Location
3) 1998 NESHPO concurrence, Draft EIS
4) Project Description
5) Area of Potential Effects Map
6) Archeology Report and Site Forms
7) Map of Archeological Survey Areas and Site Locations
8) Standing Structures Report

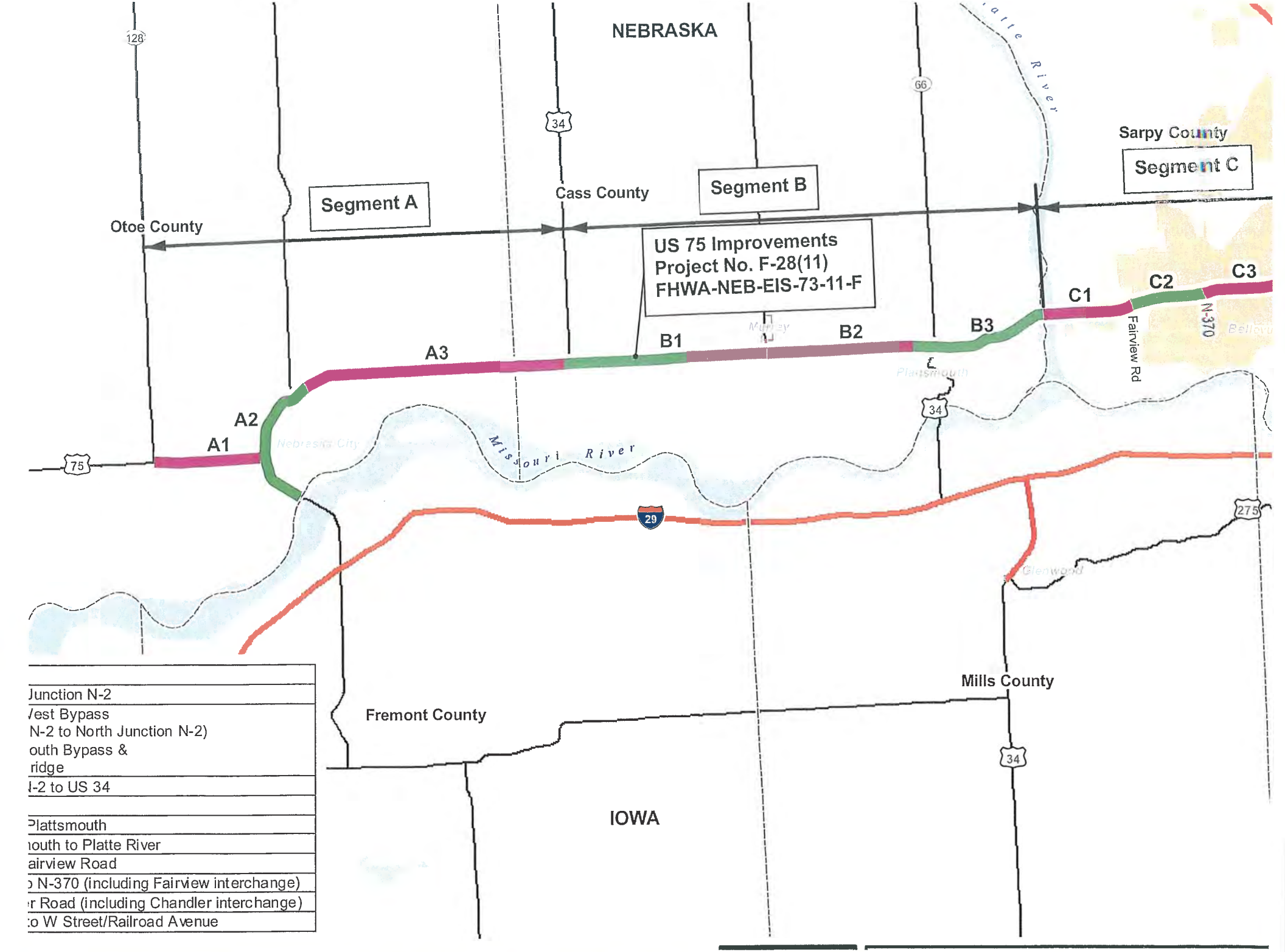
REFERENCES CITED (All on file at the Nebraska State Historical Society, Archeology Division)

Bozell, John R. 1990 *A Cultural Resources Survey of the Proposed Plattsmouth Airport Expansion, Cass County, Nebraska.*

Koch, Amy and Rob Bozell 1995 *A Cultural Resources Survey of the Missouri River Bridge-Plattsmouth Project [BR-34-1(63)], Cass and Sarpy Counties, Nebraska.*

Koch, Amy and John R. Bozell 1997 *A Preliminary Cultural Resources Survey of the Bellevue-Nebraska City Expressway Project, Cass, Otoe, and Sarpy Counties, Nebraska.*

Kruse, Jason M., Linda Palmer, and Rolfe D. Mandel 2014 *An Archeological and Geomorphological Survey of 15,000 Acres along the Missouri River Bluffs, Cass and Otoe Counties, Nebraska.*



Junction N-2
Vest Bypass N-2 to North Junction N-2) outh Bypass & ridge
I-2 to US 34
Plattsmouth
outh to Platte River
airview Road
N-370 (including Fairview interchange)
r Road (including Chandler interchange)
o W Street/Railroad Avenue

Murrary to Plattsmouth
NH-BH-75-2(1072)
CN 21209
Project Description Date: 10/10/16

This project would reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12 miles south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373.33, and extends north to US-34 MM 380.16, roughly 400' south of the junction of US-34/US-75 and Oak Hill Road/Ave B. Construction may begin and/or end approximately 1,400 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement and temporary traffic phasing.

The existing roadway on this segment of US-34/US-75 from US-34 MM 373.28 to US-34 MM 376.84 consists of two 12 foot wide concrete lanes and 10 foot wide shoulders, of which 8 feet is paved with either asphalt or concrete. The roadway segment from US-34 MM 376.84 to US-34 MM 377.79 consists of four 12 foot wide concrete lanes, a depressed median, and 10 foot wide shoulders, of which 8 feet is paved with either asphalt or concrete. The roadway segment from US-34 MM 377.79 to US-34 MM 379.98 consists of two 12 foot wide asphalt lanes and ten foot shoulders, of which 8 feet is paved with asphalt. The roadway segment from US-34 MM 379.98 to US-34 MM 380.16 consists of four 12 foot concrete lanes and 10 foot wide shoulders, of which 8 feet is paved with concrete.

The improvements on this project consist of replacing the existing 2-lane or 4-lane roadway, depending on location with a 4-lane expressway including a raised 22' median, 3' inside and 8' outside surfaced shoulders. Other additional improvements include: removing and replacing pavement, grading, culvert replacement/extension, bridge replacement, and removing and replacing guardrail.

Scope details include:

- Grading beyond the hinge point would be required for the following work:
  - Roadway grading
  - Culverts
  - Guardrail
  - Earth shoulder construction
  - Bridges

    Bridge Station 455.95.50 #(S075 07234) Viaduct over Union Pacific Railroad
    Replace with a single 4-lane structure: three span (90'-110'-99') with a 98' clear width.

    Bridge Station 336.39.00 #(S034 37742) East Branch Four-mile Creek
    Extend triple 10'x10'x168' Concrete Box Culvert on 30° skew left and right.
  - Drives and intersections
  - Removal of old substructure
- The scope of work at culvert sites on this project has been updated.
  - Existing mainline culverts that did not meet current D . 1' hydraulic requirements were evaluated for a risk assessment and none were found to need to be upsized. Therefore, existing culverts were to be used in place and

extended as needed.

- Several Access changes were made during the Plan-in-Hand including:
  - Chicago Avenue Access at US-75 is being eliminated so that Horning Road becomes the primary access to US-75.
  - 1st Avenue/Westside Drive intersection is being converted to ¾ Access so no side road cross traffic or left turns would be allowed.
- Access changes since the Plan-in-hand include:
  - Cindy Lane would be connected directly to US-75, and Chicago Ave removed.
  - Wiles Road would have new CA 660' on both sides of the highway. Access to the business and house (same owner) west of US-75 would be relocated to comply with Access Control.
- The 5 future signalized intersections at US-75 (N-1/Murray Rd., Waverly Rd./Rock Bluff Rd., Mynard/Horning Road, Wiles Road, and Osage Ranch Blvd.) would receive conduit as a part of this project and be designed to meet the posted speed on each road.
- Guardrail
  - Remove and replace guardrail with grading beyond the hinge point
- Existing surfaced driveways and intersections would be resurfaced.
- Rock or gravel would be placed behind driveways and intersections to match the new pavement.
- Relocation of utilities, including fiber optic, water main, and sanitary sewer, may be required due to conflicts with the new lanes and mainline profile adjustments.
- Surfacing would be placed under the guardrail.
- Project surveying and staking would be required.
- Areas disturbed during construction would be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan (SWPPP).
- Rumble strips would be constructed on the new paved shoulders within the rural portions of the project.
- Because the pavement work is a reconstruction project, the NDOR would comply with the requirements in the Public Rights of Way Accessibility Guidelines (PROWAG).
- Permanent pavement markings would be applied to all new surfacing.
- Street lighting would be built and updated.
- Additional property rights would be required to build this project.
- Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements.
- This project would be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required at intersection locations to accommodate phased construction.
- This project would require the construction of a permanent roadway transition from two lanes to four lanes divided on the south end of the project. This work would take place immediately prior to the project limits stated above and may extend as far south as the north end of the bridge over Rock Creek (S034 37299).

ATTACHMENT E

US-75/US-34, MURRAY TO PLATTSMOUTH

HAZARDOUS MATERIALS

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF ROADS

Hazardous Materials Memorandum

DATE October 18, 2016

TO Cindy Veys, Highway Environmental/NEPA Specialist, Planning and Project Development

FROM Will Packard, Highway Environmental Specialist, Planning and Project Development

SUBJECT Hazardous Materials Review for the Re-evaluation of the NDOR project Murray to Plattsmouth (C.N. 21209)

Overview

A hazardous materials review was conducted in association with the re-evaluation of the NDOR construction project Murray to Plattsmouth. The purpose of the review is to identify environmental concerns associated with hazardous materials and petroleum products which could potentially be encountered during the construction project. The following web based mapping application(s), websites, databases and files were used to obtain information on hazardous material sites and releases:

- The Nebraska Department of Environmental Quality (NDEQ) Interactive Mapping System.
- The U.S. Environmental Protection Agency (EPA) EnviroMapper.
- The Nebraska Department of Environmental Quality (NDEQ) list of surface spills.
- The Nebraska Department of Environmental Quality (NDEQ) list of leaking underground storage tanks.

These databases were searched to identify facilities with releases that have occurred within the hazardous materials search radii as described in the NDOR Hazardous Materials Review Guidance Manual. Facilities listed in environmental programs which are not related to hazardous materials or petroleum products, such as air permitting, livestock waste control and septic related onsite waste treatment were not considered.

The project description updated on October 10, 2016 was used for preparation of the HMR.

Visual Reconnaissance

A visual reconnaissance was completed by Cindy Veys on July 19, 2016 and again by Will Packard on August 29, 2016. Site photos and the visual reconnaissance form can be found in the project file. The purpose of the site reconnaissance was to identify hazardous material

facilities or releases that could impact the project. Nothing of concern was identified in the field that warranted further investigation or mitigation.

Hazardous Materials Sites

Several hazardous material sites were identified within the hazardous materials study area. The following table presents the facility information and type of release that occurred if applicable.

Facility	Address	Regulatory Database and Facility Status	Distance Relative to Project
75 Mart	114 Rock Bluff Rd	LUST - petroleum	adjoining
Plattsmouth Municipal Airport	411 Church Rd	LUST – petroleum RA – heating oil TL3	Between 0.1 and 0.25 miles
NDOR Maintenance Yard	15616 2nd Ave, Plattsmouth	LUST – petroleum RA – petroleum TL3	adjoining
Plattsmouth Terminal	13909 Chicago Ave	RCRA – CESQG TL3	0.1 miles
Beaver Lake Amoco	109 Rock Bluff Rd	Service station – no release	adjoining

Notes:
LUST = Leaking Underground Storage Tank Site
UST = Underground Storage Tank
TL3 = Sara Title III, storage of hazardous materials
RCRA = Resource Conservation and Recovery Act
CESQG = Conditional Exempt Small Quantity Generator

Groundwater depth ranges from 15 feet below ground surface (bgs) to 60 feet bgs along the project corridor. Project excavations are not anticipated to encounter groundwater except where pier placement will occur for the replacement of the viaduct over the UPRR (S075 07234). No hazardous material release or sites were identified in this area; therefore, there is a low potential of encountering contaminated soils or groundwater during construction associated with the replacement of the viaduct.

Beaver Lake Amoco and the Plattsmouth Terminal did not have any documentation of a release. Based on the scope of work near these facilities and no documentation of a release, these two sites are considered a low potential to impact the project. Sites where releases have occurred are discussed in further detail below.

<u>75 Mart</u>

This current gas station is located on the north side of Rock Bluff Road just east of the proposed project on US-75. The scope of work near 75 Mart includes resurfacing Rock Bluff Road and replacing a culvert at the back of the property. In 2004 soil contamination was discovered during replacement of the dispensers and piping and the site was placed on the leaking underground storage tank trust fund priority list for several years. In 2009 A Tier I Environmental Site Assessment was completed. Minor amounts of soil and groundwater contamination were present but were below risk based screening levels for ingestion of groundwater and dermal

contact with soils. Field vapor readings completed at the location of the culvert showed <1 ppm volatile organic compounds. The boring logs of the closest monitoring well (MW-1) to the culvert did not indicate any discolored soils or petroleum odors. NDEQ determined that no further remedial action was necessary. Based on this information, there is a low potential of encountering contamination originating from this site during construction.

Plattsmouth Municipal Airport

This facility is located south of Church Road and West of US-75. A release of gasoline related to an underground storage tank and a release of heating oil are documented at this site. The location of the releases is approximately ¼ of a mile from the project footprint. Both releases were addressed and no further remedial action (NFA) was required. Based on the distance from the releases to the project footprint and the NFA status, there is a low potential of encountering contamination originating from this facility during construction.

NDOR Maintenance Yard

This facility is located at the southeast corner of the 8th Ave and US-75 intersection and adjoins the project. A surface release of 600 gallons of diesel and a release of gasoline associated with the removal of two underground storage tanks are documented at this facility. The diesel release occurred in 1989 and was well contained to an area around the tank. The affected soils were excavated and hauled to an approved location and NDEQ determine that no further remedial action was necessary. Based on the completed remediation of impacted soils and the NFA status, there is a low potential for this release to impact construction.

The gasoline release occurred in 1992 and Tier I Site Assessment was completed. There were minor amounts of soil and groundwater contamination present but concentrations were below NDEQ Tier I risk based screening levels. NDEQ determined that no further remedial action was necessary. The boring log of the closest boring to our project did not indicate the presence of petroleum odors or staining. The distance from the release to construction activities is approximately 350 feet. Based on the NFA status and the distance from the release to construction, there is a low potential for this release to impact construction.

Asbestos and Lead

Bridge structure S075 07234 is being replaced. An asbestos survey was completed and the results were negative for asbestos containing material in all samples. NDOR will submit the National Emission Standards for Hazardous Air Pollutants (NEHSAP) notification form to NDEQ.

There is potential for lead paint and lead bearing plates to be found on the structure. Commitments for the removal of painted components and handling lead plates are outlined in the commitments section below.

Conclusions

Several facilities were identified where past releases have occurred with the hazardous materials study area. All the facilities are considered to be a low potential to impact the project. Although the potential for impacts is low, the contractor and NDOR District shall follow the commitments relating to the unexpected discovery of waste found in the commitments section below.

Commitments

Encountering Unexpected Waste

If contaminated soils and/or water or hazardous materials are encountered, then all work within the immediate area of the discovered hazardous material shall stop until NDOR/FHWA is notified and a plan to dispose of the Hazardous Materials has been developed. Then NDEQ shall be consulted and a remediation plan shall be developed for this project. The potential exists to have contaminants present resulting from minor spillage during fueling and service associated with construction equipment. Should contamination be found on the project during construction, the NDEQ shall be contacted for consultation and appropriate actions to be taken. The Contractor is required by NDOR's Standard Specification section 107 (legal relations and responsibilities to the public) to handle and dispose of contaminated material in accordance with applicable laws.

Lead Commitments

There is potential for lead based paint to be found on the painted components of bridge structure S075 07234. If the method of removal of the components generates paint debris, the waste shall be handled in accordance with NDOR's Standard Specification for Highway Construction Section 732 (Lead-based Paint Removal) and Title 128, Nebraska Hazardous Waste Regulations. Extreme caution shall be taken to minimize the amount of potential lead based painted material or debris from causing or threatening to cause pollution of the air, land and waters of the State. The Contractor shall recycle any lead bearing plates and/or lead shims at a legitimate recycling facility as found in paragraph 3 (environmental requirements) in Section 203.01 of the Standard Specification for Highway Construction and in accordance with Title 128, Nebraska Hazardous Waste Regulations . The Contractors implementation plan efforts shall be documented in ECOD.

10/18/16

Name Date

Will Packard, Highway Environmental Specialist
Planning and Project Development
NDOR

Attachment A – Location Map

ATTACHMENT F

US-75/US-34, MURRAY TO PLATTSMOUTH

NOISE ANALYSIS

Murray to Plattsmouth
NOISE ANALYSIS REPORT
October, 2016

PROJECT NO. S-75-2(1072)
C.N. 21209
Cass County, Nebraska

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PROJECT BACKGROUND

This report documents the noise analysis completed in support of the Nebraska Department of Roads (NDOR) Murray to Plattsmouth project. This project will reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12 miles south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373+33, and extends north to US-34 MM 380+16, roughly 400' south of the junction of US-34/US-75 and Oak Hill Road/Ave B The improvements on this project consist of replacing the existing 2-lane or 4-lane roadway, depending on location with a 4-lane expressway including a raised 22' median, 3' inside and 8' outside surfaced shoulders. Other additional improvements include: removing and replacing pavement, grading, culvert replacement/extension, bridge replacement, and removing and replacing guardrail. The purpose of this noise report is to:

- Provide a discussion of the fundamentals of noise and traffic noise analysis
- Evaluate existing traffic noise levels in the corridor
- Predict the future traffic noise levels (2045) of sensitive receivers. Sensitive receivers are adjacent to the studied corridor (such as houses, businesses, parks and schools) that might be affected by traffic noise
- Quantify the number of properties that are predicted to experience roadway noise levels that exceed the applicable standards
- Evaluate mitigation measures for noise sensitive receivers adjacent to the new alignment that approach or exceed the noise abatement criteria (NAC)
- Evaluate mitigation measures for noise sensitive receivers that experience a substantial increase in noise (15 decibel increase from the existing condition to the build condition).

NATURE OF NOISE

Noise may be defined as unwanted sound. Sound is the sensation produced when the movement of an object creates vibrations, or waves, that pass through the ears. The relative impact of sound waves depends on the amount of pressure they generate. The unit of measure for sound pressure is the decibel (dB). Decibels are based on a logarithmic scale because the range of sound pressures is too great to be accommodated on a linear scale. The range of sound pressure levels most frequently encountered in evaluating traffic-generated noise on highways is 50 to 95 dB.

The measured noise level from a given source does not necessarily correspond to our perception of "loudness." For instance, a three (3) decibel increase from a noise source represents a doubling of the noise level (as measured in sound pressure) on the logarithmic scale. However, this change is barely perceptible for human beings. Furthermore, an increase in 10 decibels from a noise source is a tenfold increase in noise pressure, but is only perceived as a doubling in the loudness by the human ear.

For highway traffic noise analysis, the Federal Highway Administration (FHWA) has specified that noise be predicted and evaluated in decibels weighted with the A-level frequency response; this unit of measure is referred to as dBA. Measurements in dBA incorporate a human's reduced sensitivity to both low frequency and very high frequency noises to better correlate with our subjective impression of loudness.

Table 1 displays noise levels common to everyday activities.

TABLE 1. Common Exterior Noise Levels (dBA)

Common Noise Levels	Noise Level (dBA)
Rock Band at 16 ft	110
Jet Flyover at 985 ft	105
Gas Lawn Mower at 3 ft	95
Diesel Truck at 50 ft	85
Same Truck at 110 ft	80
Gas Lawn Mower at 100 ft	70
Normal Speech at 3 ft	65
Birds Chirping	50
Leaves Rustling	40
Very Quiet Soft Whisper	30
Threshold of Hearing	0

23 CFR Part 772 Standards

23 Code of Federal Regulations (CFR) Part 772 was written by the Federal Highway Administration (FHWA). Its purpose is to provide procedures for noise studies, and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for traffic noise information to be given to those officials who have planning and zoning authority in the project area. 23 CFR 772 contains noise abatement criteria, which are based on the equivalent level (L_{eq}), noise descriptor. L_{eq} (h) is the equivalent steady state sound level, which during the hour under consideration contains the same acoustic energy as the time-varying traffic sound level during that same hour. The following table contains the upper limits of hourly L_{eq} desirable noise levels that are part of the noise abatement criteria established by 23 CFR 772. Any noise levels that approach or exceed these criteria would not be desirable and would be referred to as a noise impact.

TABLE 2. Noise Abatement Criteria, Hourly A-Weighted Sound Level

Activity Category	Activity[1] Leq(h)	Activity Description
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve and important public need where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67 (exterior)	Residential
C[2]	67 (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structure, radio stations, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structure, radio studios, recording studios, schools, television studios.
E[2]	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D, or F.
F	-----	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities, (water resources, water treatment, electrical), and warehousing.
G	-----	Undeveloped lands

[1]The Leq(h) Activity Criteria values are for impacted determination only, and are not design standards for noise abatement.

[2] Includes undeveloped lands permitted for this activity category.

The selection and analysis of all individual noise sensitive receptors are based on the data included in the above table. Most areas come under Activity Category "B" or "C" and “E”. Activity "E" typically consists of commercial land use or business offices. Category “F” and Category “G” sites are not considered to be noise sensitive areas. Primary consideration is to be given to exterior areas; therefore, all noise levels referred to in this study are exterior noise levels unless otherwise stated. Activity Category "D" is not normally used since interior noise depends on the type of windows, doors or wall structures of each building; however, sometimes a specific receptor might warrant its use. Category “A” sites are extremely rare as only a few exist in the entire nation.

NOISE PREDICTION METHOD

Traffic noise levels associated with existing condition and build scenario were predicted for this noise study:

> ***The Existing Condition*** assumed current (2015) traffic volumes, vehicle mix (broken down by autos, medium trucks and heavy trucks) and roadway characteristics
>
> ***The 2045 Build Scenario*** assumed future build (2045) forecasted traffic volumes would be traveling on the newly constructed highway.

Traffic noise levels shown in this study resemble “peak hour” noise levels and are predicted in hourly L_{eq} dBA. The L_{eq} descriptor is reliable for low volume as well as high volume roadways, is simpler in most instances for highway designers to work with, and is more flexible in terms of permitting noise levels from different sources to be included in the analysis of the total ambient noise.

The "FHWA Highway Traffic Noise Prediction Model" is the method used in this report to predict L_{eq} dBA noise levels. This method was developed and approved for use by the U.S. Department of Transportation Federal Highway Administration. The procedures included in the FHWA Model permit an analysis of variations in traffic noises in terms of traffic parameters, roadway and observer characteristics. These parameters are then identified for a particular traffic situation and transformed into noise level estimates through the use of this prediction method, which has been set up on a computer, using the FHWA Traffic Noise Model (TNM) Version 2.5.

NOISE MODEL PARAMETERS

The following parameters were considered when applying the traffic noise prediction methodology:

- Traffic levels, vehicle composition (whether auto, medium truck or heavy truck)
- Current posted speed limits: 60 mph rural, and 35 to 45 mph when near Plattsmouth
- Design Speed: 65 mph rural, 35 to 45 mph when near Plattsmouth
- Plan and profile information for roadways
- Location and elevation of sensitive noise receivers by activity category
- Location of terrain and man-made features that act to shield traffic noise
- Ground cover type.

TRAFFIC PARAMETERS

The traffic volumes used for this hour time period is the Design Hourly Volume (DHV) traffic. The percentage of heavy commercial vehicles (HCV) was derived from historical traffic count data and divided between heavy trucks and medium trucks based on the nation average classification split of 72% heavy truck and 28% medium trucks. Heavy trucks include vehicles having three or more axles, generally having a gross vehicle weight greater than 26,000 lbs. Medium trucks include all vehicles having two axles and six wheels, generally having a gross vehicle weight greater than 10,000 lbs but less than 26,000 lbs. **Table 3** below shows traffic volumes used on this project. For modeling purposes, the directional volumes were split between the US-75 northbound and southbound traffic. The southbound volumes are approximately 65% of total volumes while the northbound traffic is 35%.

TABLE 3. Traffic Data

Roadway Segment		DHV	%HCV	cars	MT	HT
US-75 (2015)	Jct N1/US 34 to Rock Bluff Rd	930	7%	865	18	47
	Rock Bluff Rd to Horning Rd	1115	6%	1048	19	48
	Horning Rd to 8th Ave/N66	1100	6%	1034	18	48
	8th Ave/N66 to Oak Hill/Ave B	1680	5%	1596	14	60
Local Roads (2015)	Rock Bluff Road	300	1%	297	1	2
	Chicago Ave	145	6%	136	3	6
	Horning Rd	60	6%	56	1	3
	Wiles Rd	30	22%	23	2	5
	8^{th} Ave	810	2%	794	4	12
	Ave B/Oak Hill Rd	370	1%	366	1	3
US-75 (2045)	Jct N1/US 34 to Rock Bluff Rd	1190	7%	1107	23	60
	Rock Bluff Rd to Horning Rd	1520	6%	1429	25	66
	Horning Rd 8th Ave/N66	1540	6%	1147	23	67
	8th Ave/N66 to Oak Hill/Ave B	2360	5%	2242	33	85
Local Roads (2045)	Rock Bluff Road	340	1%	336	1	3
	Chicago Ave*	NA	NA	NA	NA	NA
	Horning Rd	190	6%	179	3	8
	Wiles Rd	25	22%	195	15	40
	8^{th} Ave	930	2%	911	6	13
	Ave B/Oak Hill Rd	390	1%	386	1	3

*Chicago Ave removed in build scenario

Field Noise Measurements

Table 4 documents the field measurements used to verify TNM 2.5. Two 15 minute readings were taken at each location (A and B). Traffic volumes were counted for 15 minutes and multiplied by 4 to obtain the hourly volumes. The model reasonably reflected the measured noise levels deviating by less than 3 dB(A) for all but one reading which was only slightly outside the acceptable range. The R3 measured noise levels were lower than what TNM modeled by 3.2 dB(A). This difference was most likely attributed to lower speeds for some of the vehicles counted due to several access locations near the reading. Some vehicles would not have reached the peak speed as modeled in TNM. Locations of field noise measurements are illustrated on the attached **Noise Receiver Location Map**.

Table 4. Monitored Noise Levels

Noise Measurement ID	Measured Leq (dBA)	Modeled Leq (dBA)	Difference	Hourly Volumes			
				Cars	HT	MT	Motorcycles
R1a	63.8	65.6	1.8	260	20	36	0
R1b	65.7	67.3	1.6	372	20	60	1
R2a	56.6	58.6	2	492	36	56	0
R2b	56.8	59.1	2.3	556	44	52	0
R3a	59.0	62.2	3.2	624	44	104	0
R3b	60.0	61.8	1.8	756	40	92	0

TRAFFIC NOISE ANALYSIS

In analyzing the preceding traffic noise table, emphasis will be given to the two main noise criteria of a traffic noise impact as set forth in 23 CFR 772. A comparison will be made between the predicted traffic noise levels and the noise abatement criteria (NAC) to determine if a traffic noise impact exists due to the noise levels approaching or exceeding the criteria. Also, a comparison will be made between existing noise levels and future predicted traffic noise levels to determine if a noise impact occurs due to a substantial increase in noise. Nebraska Department of Roads generally considers that an impact occurs and abatement measures will be considered for receptors if:

1. The predicted design year noise levels approach or exceed the NAC. NDOR has established that a noise level of one decibel less than the NAC in the FHWA Noise Standards constitutes “approaching” the NAC. For residential receptors 66 dBA is considered “approaching” while 71 dBA is considered “approaching” for commercial receptors

2. Predicted future noise levels are 15 dBA or more above existing levels. For purposes of interpreting the FHWA noise standards, this would be considered “substantially exceeding” existing levels.

Land use is primarily agriculture along the project with are areas of small residential developments and isolated farm homes. As US-75 approaches Plattsmouth, the land use consists of commercial and residential properties. Most noise sensitive receptors on the project are Category B residential. There are a few Category C and Category E receptors throughout the project corridor.

PREDICTED NOISE LEVELS

The primary tasks for the noise study were to identify receivers that approached or exceeded the NAC and to determine the relative change in traffic noise levels anticipated due to the changed alignment. Noise levels were predicted for the existing condition (2015) and the build scenario (2045). TNM was applied using the appropriate roadway, traffic and sensitive receiver information to predict the noise levels for each of the scenarios. The predicted noise levels are summarized as follows:

- Six Category B residential receptors (R20, R22, R26, R38, R39 and R40) experience a traffic noise impact (66 dB(A) and greater) for the build condition in the year 2045.
- There are no instances of build condition noise levels substantially exceeding no-build condition noise levels in the study area (increase of 15 dB(A) over the existing levels)
- Noise abatement measures were analyzed for each impacted receptor. The analysis is discussed in the Noise Abatement Analysis section on page 13.

Table 5 lists all those noise sensitive receptors and associated activity category within the limits of this project. The table details the following: computed noise levels in hourly L_{eq} dBA for the existing system (2015 traffic volumes), computed noise levels in hourly L_{eq} dBA for future design year 2045 (build condition) and the Activity Category of each receptor. Also shown are the hourly L_{eq} dBA noise abatement criteria (NAC) that are part of the 23 CFR Part 772 guidelines used in determining a noise impact.

TABLE 5. Noise Levels at Project Receptors

Receptor ID	Activity Category	Existing Noise Level (dBA)	Build Noise Level (dBA)	Noise Level Change	NAC	Impact
R1	B	50	52	2	66	No
R2	B	61	63	2	66	No
R3	B	54	58	4	66	No
R4	B	56	59	3	66	No
R5	B	52	56	5	66	No
R6	B	48	52	4	66	No
R7	B	54	58	4	66	No
R8	B	57	60	4	66	No
R9	B	61	65	4	66	No
R10	B	53	58	5	66	No
E11	E - Tiki Time Bar	56	57	1	71	No
R12	B	59	62	4	66	No
R13	B	55	59	4	66	No
R14	B	58	62	4	66	No
R15	B	55	59	4	66	No
R16	B	58	62	4	66	No
R17	B	55	60	5	66	No
R18	B	55	60	5	66	No

R19	B	59	62	4	66	No
R20	B	63	67	4	66	Yes
R21	B	62	65	3	66	no
R22	B	66	68	2	66	yes
R23	B	60	62	2	66	no
R24	B	47	52	5	66	no
R25	B	48	53	5	66	no
R26	B	64	66	2	66	yes
R27	B	63	64	1	66	no
R28	B	64	64	0	66	no
R29	B	59	60	2	66	no
R30	B	64	65	1	66	no
R31	B	63	64	1	66	no
R32	B	61	63	2	66	no
R33	B	55	57	2	66	no
R34	B	54	57	2	66	no
R35	B	55	57	2	66	no
R36	B	53	56	2	66	no
R37	B	57	58	1	66	no
R38	B	65	66	2	66	yes
R39	B	68	70	2	66	yes
R40	B	65	67	2	66	yes
R41	B	61	64	3	66	no
R42	B	62	65	3	66	no
E43	E - Taco Bell	62	65	3	71	no
E44	E - Medical Office	54	57	4	71	no
C45	C - Ball Field	61	62	1	66	no
R46	B	56	58	1	66	no
R47	B	54	56	2	66	no
R48	B	58	59	2	66	no
R49	B	56	58	2	66	no
E50	E - Plattsmouth Bank	55	57	2	71	no
E51	E - Burger King	55	57	2	71	no
C52	C - First Baptist Church	52	55	3	66	no
E53	E - Scooter's Coffee	55	57	2	71	no
E54	E - Credit Union	51	53	2	71	no
C55	C - Eagles Lounge	57	59	1	66	no
R56	B	56	57	1	66	no
R57	B	46	49	3	66	no
R58	B	49	53	4	66	no
E59	E - Computer Care	57	58	1	71	no

The noise levels as depicted in **Table 5** show that noise levels range from 49 dB(A) to 70 dB(A) along the project corridor. Six residential receivers experience a traffic noise impact (approaching or exceeding the NAC) in the 2045 build condition. No other category of receptors was impacted. The increase in noise levels ranged from 0 dB(A) to 5 dB(A). This noise increase is due to the increased traffic volumes over time and the proposed US-75 northbound lanes being constructed closer to receptors on the east side of the highway. No receptors experienced a substantial increase in noise levels. Noise barriers were analyzed for the receptors that are impacted by future traffic noise along the project corridor. The detailed analysis is found in the Noise Barrier Analysis section.

Two Receptors (R41 and R42) represented potential future development on the east side of US-75. According to 23 CFR 772, an analysis of these developments would not be necessary as a building permit has not been issued for the future plats closest to the roadway. However, the noise analysis included these receptors in case a building permit was issued prior to FHWA approval of the re-evaluation of the EIS associated with the project. The receptors were located at an area estimated to be the backyards of the properties. Neither receptor experienced a future traffic noise impact.

Noise Abatement – Feasibility and Reasonableness

Because traffic noise impacts were identified in the future build scenario, noise abatement was analyzed and modeled using TNM 2.5 to determine if abatement was feasible and reasonable. 23 CFR 772.13 outlines the federal standards for analysis of noise abatement including the range of criteria state agencies can use to determine feasibility and reasonableness of noise abatement. The Nebraska Noise Analysis and Abatement Policy, approved by the Federal Highway Administration on July 13, 2011, includes the feasibility and reasonableness requirements for noise abatement to qualify for construction in Nebraska. The criteria are summarized below.

Feasibility

Acoustic Feasibility - A noise abatement device is considered acoustically feasible when 60% of the front row impacted receivers located directly behind the noise wall (noise wall must extend entirely across impacted receptor's property line) achieves a 5 dB(A) noise reduction.

Engineering Feasibility - The determination that it is possible to design and construct a noise abatement measure. The following items will be considered in determining Engineering feasibility:

1. Can the barrier be designed to fit the topography and still be maintained?
2. Can the exposed height of a noise barrier be built at 30 feet high or less?
3. Safety concerns:
    A. Can the barrier be located beyond the clear recovery zone?
    B. Can the barrier be incorporated into existing or designed highway barriers?

If any of the feasibility items 1-3 are checked "NO", the site will be considered not feasible. If the site is considered not feasible, a reasonable analysis will not be done.

Reasonableness

There are three reasonableness factors or "tests" that must be met for a noise abatement measure to be considered reasonable.

1. **Noise reduction design goal of 7 dB(A)**. A minimum of 40% of benefited front row receptors directly behind the noise wall (noise wall must extend entirely across benefited receptor's property line) must achieve a 7 dB(A) noise reduction in order for noise abatement to be reasonable.
2. **Cost Effectiveness.** Noise abatement must be cost effective. NDOR defines cost effectiveness as dollars per benefited receiver. Based on construction price estimates for 2010, NDOR will use $\$44/ft^2$ (re-evaluated every 5 years) for barrier costs. If the cost per benefited receiver is greater than $40,000, the site will be considered not reasonable. The cost of utility relocation, drainage control, and ROW acquisition will be factored into the cost effectiveness of noise abatement. Aesthetic treatment is not factored into cost.
3. **Viewpoints of the property owners and residents of the benefited receptors**. When it is determined that it would be feasible to provide noise abatement for a site, and a preliminary determination has been made that abatement would be reasonable, a noise abatement public informational meeting will be held as part of the process for a final determination of whether abatement would be reasonable. Noise abatement will be provided only if at least 75% of points from returned ballots are in favor of the proposed noise barrier.

Noise Abatement Measures

When considering abatement measures, judgments are made in each area, weighing the costs and effects of each abatement measure against the amount of benefit. Even if a noise abatement measure is feasible, it might not be reasonable or warranted for a particular area.

Buffer Zones

The purpose of a buffer zone is to provide enough distance between the noise source and any future developments in order to minimize future noise impacts. Buying substantial right-of-way in undeveloped areas adds that extra distance to allow for more noise reduction. For this specific project there is typically a existing substantial buffer zone between the roadway and receptors.

Alteration of Horizontal and Vertical Alignment

This noise abatement measure can be incorporated into a project to reduce traffic noise impacts where the receptors are typically on one side of the project or where the elevation is relatively constant. Since sound intensity decreases with distance, shifting of the centerline away from the receptors may reduce noise levels. For this specific project altering the vertical or horizontal alignment is not practical for noise abatement based on the amount of ROW that would need to be acquired to do so.

Traffic Management Measures

These measures must be examined and evaluated as alternative noise abatement measures for reducing or eliminating any noise impact. The prohibition of certain vehicle types, mainly trucks, is an alternative noise abatement measure. Another measure might be to limit trucks to only

daylight hours. However, these measures are not reasonable for this project because this is a highway facility, one of whose purposes is to move traffic including trucks, easily through the area.

Earth Berm

An earth berm can be incorporated into a project to help minimize traffic noise levels. The earth berm can be placed between the impacted receivers and the roadway in areas where a structural noise barrier would not be a reasonable option. This type of abatement measure is not only effective for reducing noise levels but can be aesthetically pleasing as well. For this project an earth berm would not be practical for noise abatement on any impacted sites because the berm width would be too large to meet the height requirements for proper noise reduction given the construction limits and receptor setbacks.

Noise Barriers

Barriers are considered as a possible means of noise abatement where traffic noise from a new or widened roadway is predicted to impact adjacent uses. Barriers are considered effective when blocking the "line of sight" between the noise source and the noise receiver. A noise barrier must be continuous and have substantial length and height to be effective. When possible, noise barriers should be designed to extend approximately four times as far in each direction as the distance from the sensitive receiver to the barrier. Noise barriers are not proposed unless a single barrier at a feasible location can effectively reduce traffic noise at several impacted receptors for a reasonable cost. Several barriers were analyzed for impacted receptors.

Noise Barrier Analysis

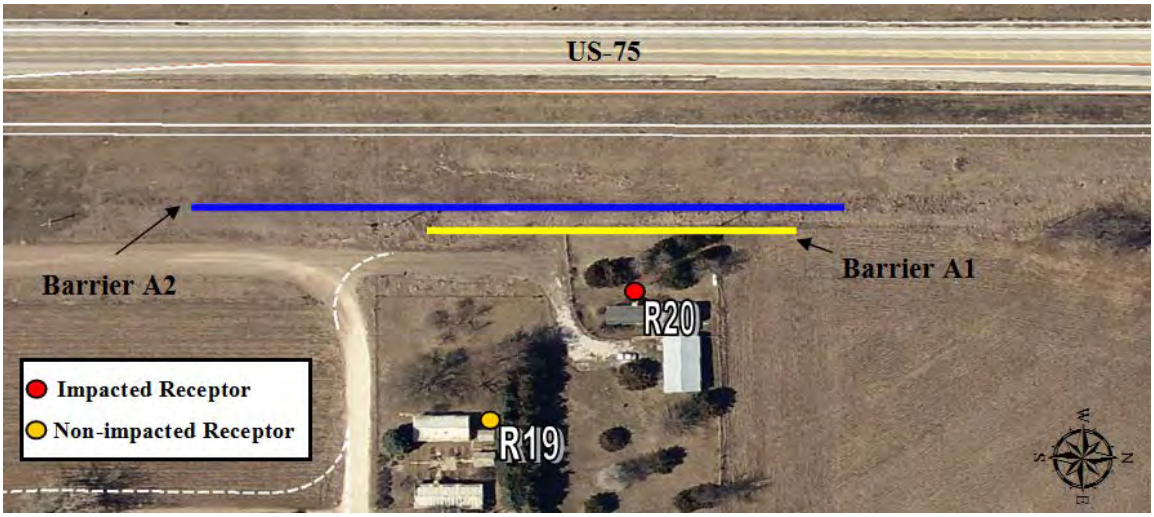
Noise Abatement was analyzed for 5 locations. Barrier locations A and C analyzed different variations of the barrier in an attempt to protect individual impacted receivers and protect nearby non-impacted receivers that could achieve a benefit (5 dB(A) reduction in noise) with the application of noise abatement. All analyzed receivers are category B residences. For this project, all barriers were assumed to meet the engineering and safety feasibility requirements. Each wall analysis is discussed in detail below.

Barrier A1

This barrier was designed to protect impacted receptor R20. A barrier approximately 250 feet long and 14 feet high provided a 7.0 dB(A) reduction meeting the acoustic feasibility requirement and the noise reduction design goal. This barrier cost was $150,863/benefited receptor and therefore is not reasonable based on the cost effective criteria. Barrier A1 does not meet NDOR reasonless requirements and will not be constructed with the project.

Barrier A2

This variation of Barrier A was extended to the south in an attempt to benefit R19 and R20. The barrier is approximately 500 feet long and 16 feet high. 100% of receivers achieved a 5 dB(A) meeting the acoustic feasibly requirement. 50% of the benefited receptors achieved a 7 dB(A) reduction meeting the noise reduction design goal. The total wall cost is $342,472 or $171,236/benefited receptor. Barrier A1 does not meet NDOR reasonless requirements related to cost effectiveness and will not be constructed with the project.



Barrier B

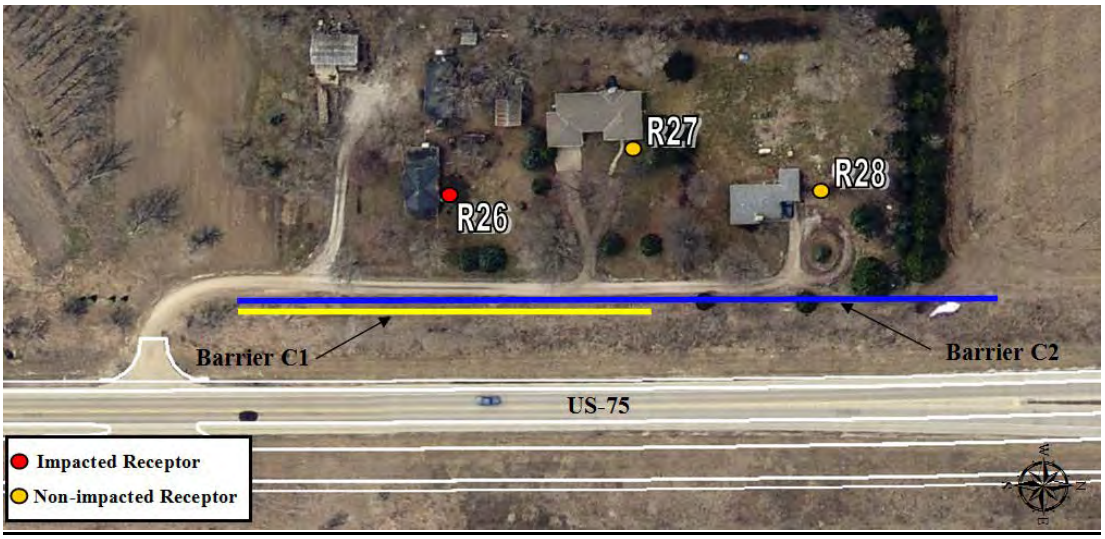
This barrier was designed to protect impacted receptor R22. A barrier approximately 400 feet long and 14 feet high provided a 7.0 dB(A) reduction meeting the acoustic feasibility requirement and the noise reduction design goal. This barrier cost was $256,712/benefited receptor and therefore is not reasonable based on the cost effective criteria. Barrier B1 does not meet NDOR reasonless requirements related to cost effectiveness and will not be constructed with the project.

Barrier C1

This barrier was designed to protect impacted receptor R26. A barrier approximately 360 feet long and 13 feet high provided a 7.0 dB(A) reduction meeting the acoustic feasibility requirement and the noise reduction design goal. This barrier cost was $215,601/benefited receptor and therefore is not reasonable based on the cost effective criteria. Barrier C1 does not meet NDOR reasonless requirements and will not be constructed with the project.

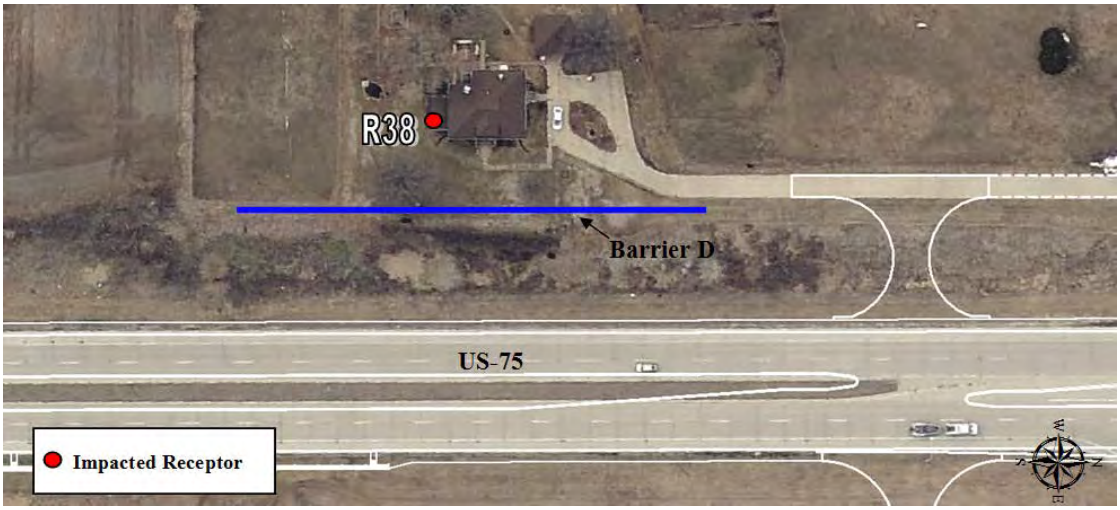
Barrier C2

This variation of Barrier C was extended to the north in an attempt to benefit R26, R27 and 28. . The barrier is approximately 580 feet long and 16 feet high. 100% of receivers achieved a 5 dB(A) meeting the acoustic feasibly requirement. 66% of the benefited receptors achieved a 7 dB(A) reduction meeting the noise reduction design goal. The total wall cost is $400,516 or $133,505/benefited receptor. Barrier C2 does not meet NDOR reasonless requirements related to cost effectiveness and will not be constructed with the project.



Barrier D

This barrier was designed to protect impacted receptor R38. A barrier approximately 380 feet long and 10 feet high provided a 7.0 dB(A) reduction meeting the acoustic feasibility requirement and the noise reduction design goal. This barrier cost was $149,344/benefited receptor and therefore is not reasonable based on the cost effective criteria. Barrier D does not meet NDOR reasonless requirements related to cost effectiveness and will not be constructed with the project.



Barrier E

This barrier was designed to protect impacted receptors R39 and R40. A barrier approximately 650 feet long and 7 feet high provides a 5 dB(A) reduction at 100% of receptors and achieves a 7 dB(A) reduction for 50% of benefited receptors meeting acoustic feasibility and the noise reduction design goal. The cost of the barrier is $186,534 or $93,267/benefited receptor. Barrier C2 does not meet NDOR reasonless requirements related to cost effectiveness and will not be constructed with the project.

In summary, all the barriers were considered acoustically feasible by achieving a 5 dB(A) noise reduction at 60% of front row impacted receptors. All the barriers also achieved the noise reduction design goal achieving a 7 d(B)A reduction at 40% of front row benefited receptors. However, none of the noise barriers analyzed met the cost effectiveness criteria and therefore are not reasonable. No barriers will be constructed with the proposed project. **Table 6** below presents the barrier analysis results.

Table 6. Barrier Analysis Results

Barrier ID	Receptors Analyzed	Noise Level No Barrier	Noise Level With Barrier	Noise Reduction	Acoustic Feasibility	Noise Reduction Goal	Cost/Benefited Receptor	Cost Effective
A1	R20	66.8	59.6	7.2	Yes- 100%	Yes - 100%	$150,863	No
A2	R19	62.3	57	5.3	Yes- 100%	Yes- 50%	$171,236	No
	R20	66.8	57.9	9.1				
B	R22	68.3	61.4	6.9	Yes- 100%	Yes - 100%	$256,712	No
C1	R26	65.9	59	6.9	Yes- 100%	Yes - 100%	$215,601	No
C2	R26	65.8	58.6	7.2	Yes- 100%	Yes - 66%	$133,505	No
	R27	63.9	57	6.9				
	R28	63.8	58.3	5.5				
D	R38	66.3	59.4	6.9	Yes- 100%	Yes- 100%	$149,344	No
E	R39	69.9	62.7	7.2	Yes- 100%	Yes- 50%	$93,267	No
	R40	66.8	61.7	5.1				

Information for Local Officials: Recommended Setbacks

For informational purposes and planning by local governments, the future (2045) recommended setback of Category B, C and E properties from edge of the US-75 pavement to an activity area is estimated below (Table 7). For the segment of US-75 north of 8th Ave, the setbacks may not be applicable because the impact distance shown in the table typically falls within NDOR ROW.

Table 7. Recommended Setbacks for Future Development

US-75 segment		Category B & C setback (ft)	Category E setback (ft)
Jct N1/US 34- Rock Bluff Rd	East side	140	40
	West Side	155	55
Rock Bluff Rd- Horning Rd	East side	155	55
	West Side	165	65
Horning Rd- 8th Ave/N66	East side	140	40
	West Side	155	55
8th Ave/N66 to Oak Hill/Ave B	East side	60	NA
	West Side	70	NA

CONSTRUCTION NOISE

The evaluation and control of construction noise must be considered as well as the traffic noise. The noise sensitive receptors that are located directly adjacent to this project are those that are of major concern in this study of construction noise. These same receptors were also of concern in the traffic noise study. The following are some basic categories of mitigation measures for construction noise.

Community Awareness: It is important for people to be made aware of the possible inconvenience and to know its approximate duration so they can plan their activities accordingly. It is the policy of the Nebraska Department of Roads that information concerning the upcoming project construction be submitted to all local news media.

Source Control: This involves reducing noise impacts from construction by controlling the noise emissions at their source. This can be accomplished by specifying proper muffler systems, either as a requirement in the plans and specifications on this project or through an established local noise ordinance requiring mufflers. Contractors generally maintain proper muffler systems on their equipment to ensure efficient operation and to minimize noise for the benefit of their own personnel as well as the adjacent receptors.

Site Control: Site control involves the specification of certain areas where extra precautions should be taken to minimize construction noise. One way to reduce construction noise impact at sensitive receptors is to operate stationary equipment, such as air compressors or generators, as far away from the sensitive receptors as possible. Another method might be placing a temporary noise barrier in front of the equipment. As a general rule, good

coordination between the project engineer, the contractor, and the affected receptors is less confusing, less likely to increase the cost of the project, and is a more personal approach to work out ways to minimize construction noise impacts in the more noise-sensitive areas. No specific construction-noise, site-control specifications will be included in the plans.

Time and Activity Constraints**:** Limiting work hours on a construction site can be very beneficial during the hours of sleep or on Sundays and holidays. However, most construction activities do not occur at night and usually not on Sundays. Exceptions due to weather, schedule, and a time-related phase of construction work could occur. No specific constraints will be incorporated in the plans of this improvement. Enforcement of these constraints could be handled through a general city or county ordinance, either listing the exceptions or granting them on a case-by-case basis.

SUMMARY

The noise analysis completed for the NDOR Murray to Plattsmouth project shows there are six Category B noise receptors (R20, R22, R26, R38, R39 and R40) that experience a noise impact (66 dB(A) and greater) for the future build alternatives. Five noise abatement areas were analyzed for feasibility and reasonableness of a noise barrier. All noise barriers analyzed met the engineering and acoustic feasibility criteria as well as the noise reduction design goal for reasonableness. However, no barrier met the cost effective criteria (<$40,000/benefited receptor) and was therefore not reasonable. No noise barriers are proposed for construction with this project.

In the event that any changes in the nature, design, or location of the project are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report are modified or verified in writing.

REFERENCES

23 Code of Federal Regulations (CFR) Part 772 was used throughout the study.

Predicted noise levels were based upon the method presented in FHWA-RD-77-108 "FHWA HIGHWAY TRAFFIC NOISE PREDICTION MODEL."

Nebraska Department of Roads “Noise Analysis and Abatement Policy,” July, 2011.

The introductory section of this study was taken in part from "Guide on Evaluation and Attenuation of Traffic Noise" prepared by American Association of State Highway and Transportation Officials. It is included to familiarize the reader with some of the basic technical terminology and to discuss the guidelines and standards used in the development of the report.

Methods for evaluation and control of construction noise were taken from the FHWA Special Report - 'Highway Construction Noise: Measurement, Prediction and Mitigation'.

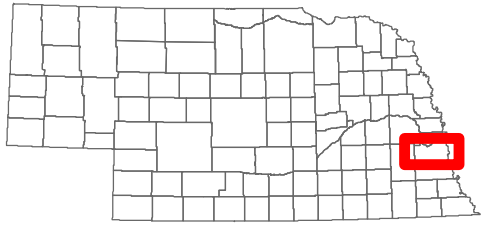
Attachment – Noise Receptor Location Map

Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)



Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.04 0.08 0.16 Miles

NEBRASKA

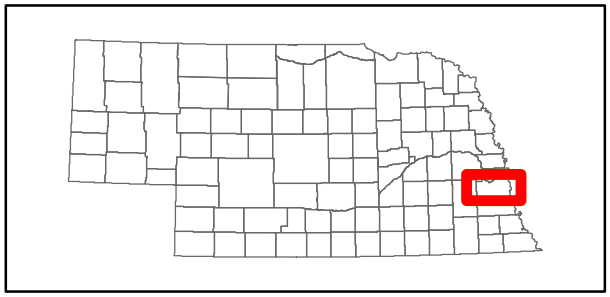
DEPARTMENT OF ROADS

Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)



Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.04 0.08 0.16 Miles

W N S E

NEBRASKA

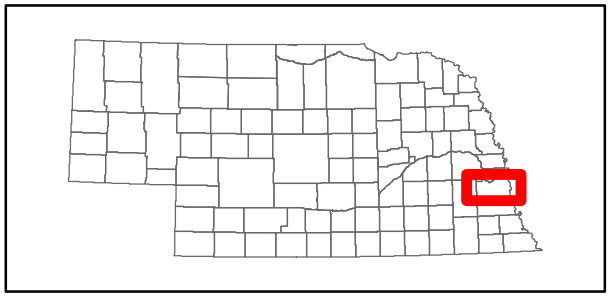
DEPARTMENT OF ROADS

Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)



Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.05 0.1 0.2 Miles

W N S E

NEBRASKA

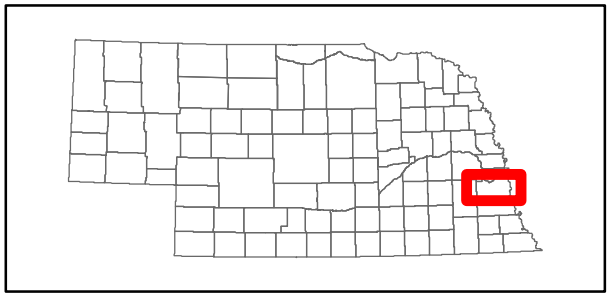
DEPARTMENT OF ROADS

Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)



Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.0375 0.075 0.15 Miles

NEBRASKA

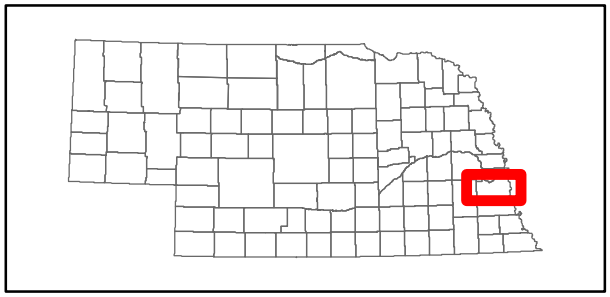
DEPARTMENT OF ROADS

Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)



Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.04 0.08 0.16 Miles

NEBRASKA

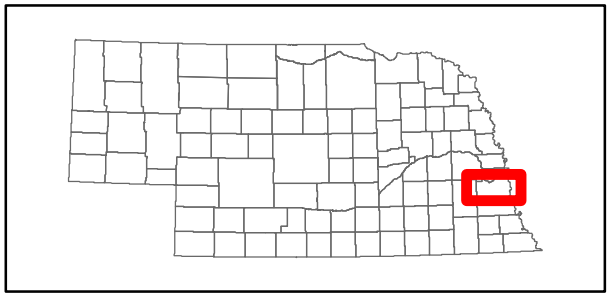
DEPARTMENT OF ROADS

Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)



Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.04 0.08 0.16 Miles

NEBRASKA

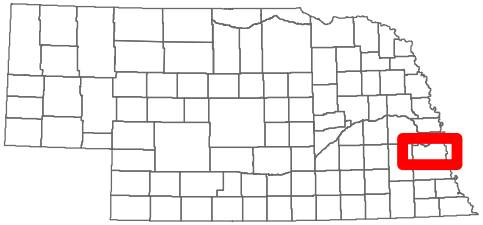
DEPARTMENT OF ROADS

Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)



Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.045 0.09 0.18 Miles

NEBRASKA

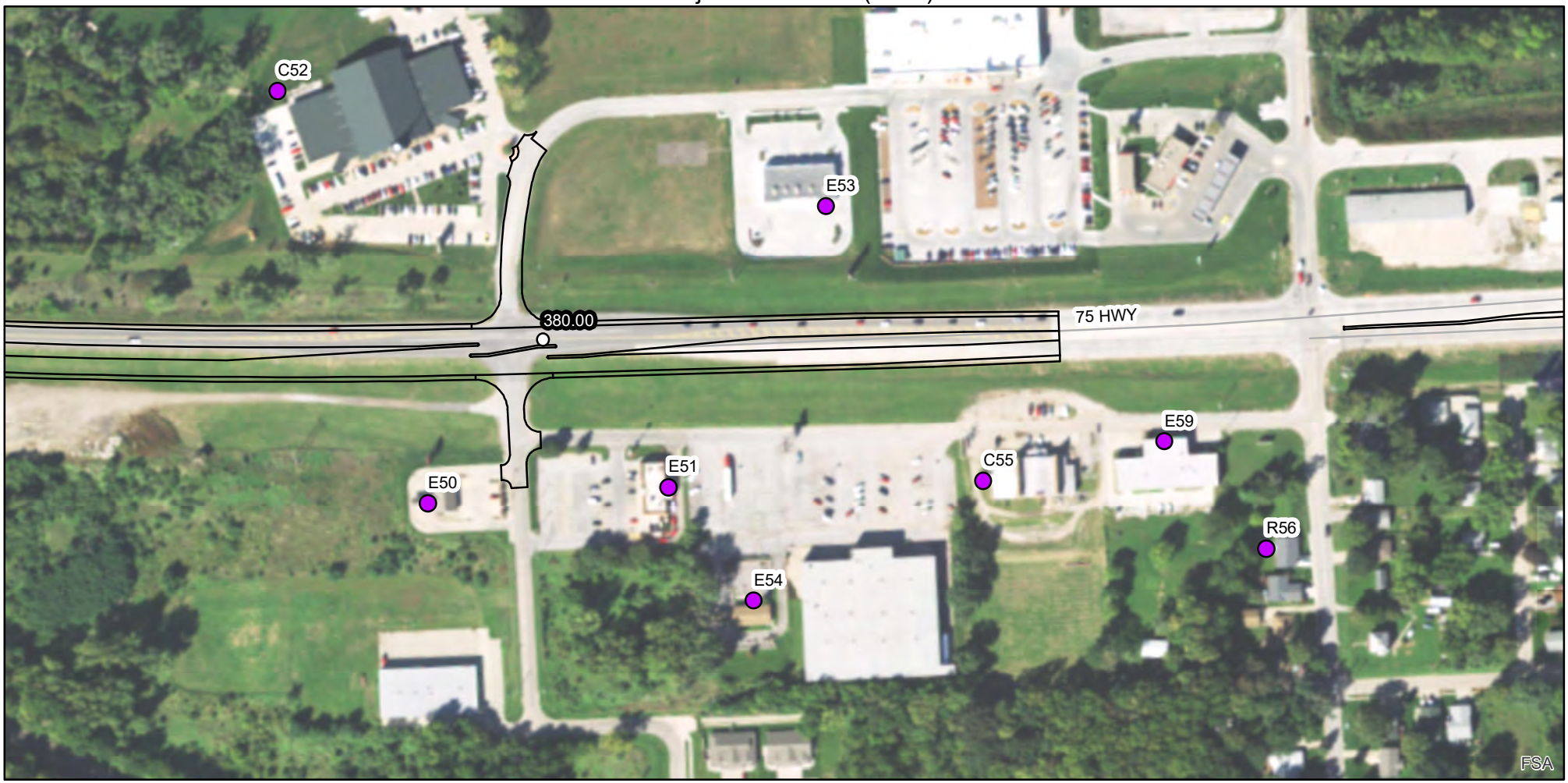
DEPARTMENT OF ROADS

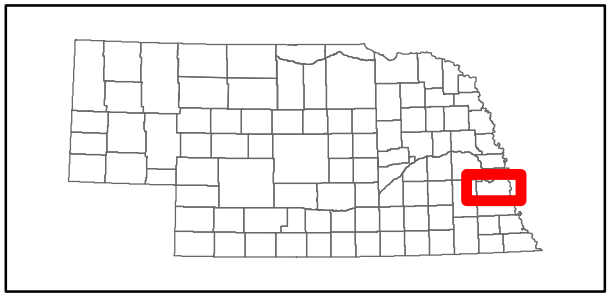
Murray - Plattsmouth

Noise Receptor Location Map

Control No. 21209

Project No. S-75-2(1072)





Cass County

Legend

- Noise Receptors
- Mile Markers
- Future Improvements

0 0.03 0.06 0.12 Miles

NEBRASKA

DEPARTMENT OF ROADS

ATTACHMENT G

US-75/US-34, MURRAY TO PLATTSMOUTH

AIR QUALITY REVIEW

NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF ROADS

Air Quality Memorandum

Date: October 25, 2016

To: Cindy Veys, Highway Environmental/NEPA Specialist, Planning and Project Development

From: Will Packard, Highway Environmental Specialist, Planning and Project Development

Subject: Mobile Source Air Toxics memo for the NDOR project Murray to Plattsmouth (C.N. 21209, P.N. S-75-2(1072))

FHWA's Interim Guidance on Mobile Source Air Toxic Analysis identifies three categories for analyzing MSATs in NEPA documents, depending on the potential for MSAT effects. The Murray to Plattsmouth project is categorized as level 2, or "projects with low potential MSAT effects," and therefore requires a qualitative assessment. The project is not anticipated to create a potential for meaningful increases of MSAT for the following reasons:

- As a widening project there would not be a significant increase in vehicle miles traveled (VMT).
- This project will not serve any intermodal facilities
- The projected design year traffic will not reach 140,000 average daily traffic (ADT).

Two alternatives being examined as part of the re-evaluation include the No-Build Condition and the Build Condition. For each alternative, the amount of MSATs emitted would be proportional to the VMT assuming that other variables such as fleet mix are the same for each scenario.

The VMT estimated for the Build Condition (91,945) is slightly higher than that for the No Build Condition, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the preferred action alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOVES2010b model, emissions of all of the priority MSAT decrease as speed increases. Because the estimated VMT for the No-build and Build conditions are nearly the same, it is expected there would be no appreciable difference in overall MSAT emissions.

Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual

MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

Incomplete or Unavailable Information for Health Impacts

In NDOR's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in mobile source air toxic (MSAT) emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The Environmental Protection Agency (EPA) is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, https://www.epa.gov/iris/). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). A number of HEI studies are summarized in Appendix D of FHWA's Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are: cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI Special Report 16, https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposure-and-health-effects) or in the future as vehicle emissions substantially decrease.

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts – each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable.

It is particularly difficult to reliably forecast 70-year lifetime MSAT concentrations and exposure near roadways; to determine the portion of time that people are actually exposed at a specific

location; and to establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (Special Report 16, https://www.healtheffects.org/publication/mobile-source-air-toxics-criticalreview-literature-exposure-and-health-effects). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA states that with respect to diesel engine exhaust, "[t]he absence of adequate data to develop a sufficiently confident dose-response relationship from the epidemiologic studies has prevented the estimation of inhalation carcinogenic risk (https://www.epa.gov/iris)."

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine an "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million; in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than deemed acceptable (https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD5985257800050C9DA/$file/07-1053-1120274.pdf).

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

10/25/16

Name Date

Will Packard, Highway Environmental Specialist
Planning and Project Development
NDOR

ATTACHMENT H

US-75/US-34, MURRAY TO PLATTSMOUTH

ENVIRONMENTAL JUSTICE

To: Cindy Veys, Environmental Analyst, NDOR
From: Chris Hassler, Highway Civil Rights Coordinator, NDOR
Date: 26 August 2016
RE: Civil Rights Analysis: CN 21209, NH-BH-75-2(1072), Murray to Plattsmouth

Civil Rights Analysis for CN 21209, NH-BH-75-2(1072), Murray to Plattsmouth

Environmental Justice Regulatory Background and Methodology:

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was signed on February 11, 1994, and requires that, to the extent practicable and permitted by law, low-income or minority populations may not receive disproportionately high and adverse human health or environmental effects as a result of a proposed project. Federal agencies must take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of low-income and minority populations. Also, representatives of any low-income or minority populations in the community that may be affected by a project must be given the opportunity to be included in the impact assessment and public involvement process.

On June 14, 2012, FHWA issued Order 6640.23A, *Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which established policies and procedures for the FHWA and state transportation agencies to use in complying with Executive Order 12898. The Order provided definitions for multiple terms and concepts applicable to this analysis.

> *Adverse Effects* are defined as "the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness or death; air, noise, and water pollution and soil contamination; destruction or disruption of human-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community's economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community; and the denial of, reduction in, or significant delay in the receipt of, benefits of FHWA programs, policies, or activities."
>
> A *Disproportionately High and Adverse Effect to Low-Income and Minority Populations* is defined as an adverse effect that:
>
> 1. is predominately borne by a minority population and/or a low-income population; OR
>
> 2. will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

Minority is defined as a person who is:

1. Black: a person having origins in any of the black racial groups of Africa;

2. Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;

3. Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent;

4. American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; OR

5. Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islands.

A *Low-Income* person is defined as a person whose median household income is at or below the Department of Health and Human Services poverty guidelines. (*Note – The U.S. Department of Health and Human Services does not publish tabulations of the number of people below the DHHS poverty guidelines, which are a simplified version of the federal poverty thresholds. The federal poverty thresholds are used for calculating all official poverty population statistics, and are updated annually by the Census Bureau. The best approximation for the number of people below the DHHS poverty guidelines in a particular area is the number of persons below the Census Bureau poverty thresholds in that area.)*

A *Minority Population* is defined as any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

A *Low-Income* population is defined as any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

In a December 16, 2011, memorandum titled *Guidance on Environmental Justice and NEPA*, the FHWA laid out a basic methodology for performing Environmental Justice analysis. NDOR has adopted, and FHWA has approved, an Environmental Justice methodology which follows the basic framework of the 2011 memorandum, but expands upon a few vague or undefined concepts. NDOR Environmental Justice methodology is as follows:

1. Using localized census tract data and other relevant information sources, data is gathered and readily identifiable groups or clusters of minority or low-income persons in the EJ study area are listed. Small clusters or dispersed populations are not overlooked. Study area data is also compared with the data of larger, identifiable areas (census tracts, cities, counties,

NDOR districts, etc.) to determine the proportion of minority and low-income persons present in the study area.

2. Minority and low-income populations are identified where:

   (a) A readily identifiable group or cluster of minority or low-income persons is located in the EJ study area (for example, a low-income housing complex, or a workplace of mostly minority persons); OR

   (b) The minority or low-income population of the study area exceeds 50 percent; OR

   (c) The minority or low-income population percentage of the affected area is *meaningfully greater* than the minority population percentage in the general population or other appropriate unit of geographic analysis. The *meaningfully greater* standard is fact-dependent and requires professional judgment, but in most cases *meaningfully greater* is about 6%-8% or above.

3. If minority and/or low-income populations are not present in the EJ study area, the analysis is concluded.

4. If minority and/or low-income populations are present in the EJ study area, potential disproportionately high and adverse effects of the proposed project are examined. If none are identified, the analysis is concluded.

5. If minority and/or low-income populations are present in the EJ study area, and potential disproportionately high and adverse effects of the proposed project have been identified, proposed mitigation will be considered. Commonly, the application of effective mitigation techniques can reduce or eliminate adverse effects that might otherwise fall disproportionately upon minority and low-income populations.

6. Finally, the analysis concludes with a determination that the proposed project either will or will not result in disproportionately high and adverse effects to minority and low-income populations. State transportation agencies lack the regulatory authority to make a final determination in cases where potential disproportionately high and adverse effects to minority and/or low-income populations exist. In the event that potential disproportionately high and adverse effects to minority and low-income populations are anticipated, even when mitigation is expected to reduce or eliminate the effects, the analysis and determination must be forwarded to the FHWA for comment, revision, and approval.

Project Location and Description

This project is located in several block groups of three census tracts in Cass County. The project is also located adjacent to the City of Plattsmouth and the Village of Murray. This project will reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12-mile south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373.33, and extends north to US-34 MM 380.16, roughly 400 feet south of the junction of US-34/US-75 and Oak Hill Road/Ave B. The primary improvement on this project consists of replacing the existing 2-lane or 4-lane roadway with a 4-lane expressway including a raised 22-foot-wide median, 3-foot-wide inside, and 8-foot-wide outside surfaced shoulders. There will be no detour for this project.

Examination of Study Area Population: Census Data and Other Observations

The Environmental Justice data for this project is as follows:

Area	Minority Population*	Hispanic Population	Population Below the Poverty Level**
Tract 9656, Block Group 1	3.9%	2.1%	1.2%
Tract 9660, Block Group 1	5%	3.1%	5.3%
Tract 9660, Block Group 2	4.6%	2.6%	2.1%
Tract 9661, Block Group 1	4.3%	1.7%	10%
Tract 9661, Block Group 2	6.1%	3.3%	5.4%
Village of Murray	6.5%	4.1%	6.9%
City of Plattsmouth	7%	4%	9%
Cass County	4.6%	2.4%	5.8%

*Data on minority and Hispanic persons collected from 2010 Decennial US Census, Summary File 1, Table P5.
**Data on low-income persons collected from American Community Survey 2010-2014 5-Year Estimates, Tables S1701 and B17021.

The Limited English Proficiency data for this project is as follows:

Area	% of Population that Speaks ONLY English*	Languages Other Than English Spoken by 5% or Greater of the Total Population**	Population of Area Age 5 or Greater
Tract 9656, Block Group 1	99.4%	None	1,572
Tract 9660, Block Group 1	100%	None	515
Tract 9660, Block Group 2	91%	None	2,386
Tract 9661, Block Group 1	95.3%	None	1,289
Tract 9661, Block Group 2	98.8%	None	1,121
Village of Murray	100%	None	401
City of Plattsmouth	95.8%	None	6,055

*All data from American Community Survey 2010-2014 5-Year Estimates, Tables B16001 and B16004.
** These figures reflect the population of an area that speaks a language other than English, and also speaks English "Less than Very Well."

In general, the areas in which this project is located have lower or consistent populations of minority, Hispanic, and low-income persons when compared to the county. The census data does not indicate percentages of minority, Hispanic, or low-income persons that are meaningfully greater than the corresponding figures for Cass County.

Tract 9661, Block Group 1 contains the Plattsmouth Manufactured Home Community, a mobile home park located at the intersection of Chicago Avenue and East Wiles Road. The mobile home community is located about 3/4 mile east of the project site. The Plattsmouth Manufactured Home Community is a readily identifiable group of low-income persons who live in geographic proximity, and is therefore recognized as a low-income population for the purposes of this analysis. The location of this mobile home community within Census Tract 9661, Block Group 1 likely accounts for the slightly elevated percentage of low-income persons within that block group.

No other residences, businesses, or organizations likely to be predominately used by minority or low-income populations were identified in the vicinity of this project.

The areas in which this project is located are mostly English-speaking. In the areas surveyed, none of the data indicates the presence of an LEP population that reaches the NDOR LEP outreach triggers of 5% or 1,000 persons.

Adverse Effects to Minority and/or Low-Income Populations

The following circumstances apply to this project:

There will be no detour for this project.

There is anticipated right-of-way acquisition for this project. There will be right-of-way acquisitions along the entire length of this project. Much of the right-of-way acquisition will be from unpopulated agricultural land. Nearer to Plattsmouth, the businesses from which right-of-way is likely to be acquired are not businesses that predominantly serve minority, Hispanic, or low-income persons. Plattsmouth Manufactured Home Community is far enough outside the project area that it will be unaffected by property acquisitions.

There will be one relocation/building removal. One home located 400 feet south of Wiles road on the west side of US-75 will require relocation. However, this home is not part of the identified low-income community, and is located about 1 mile distant from the Plattsmouth Manufactured Home Community.

The following permanent access changes are expected as a result of this project:

Chicago Avenue from US-75 to 9th Avenue will be eliminated. Horning Road will become the primary access to US-75. Cindy Lane would also be connected directly to US-75.

Wiles Road will have new Control of Access 660 feet on both sides of the highway.

In Plattsmouth, the 1st Avenue/Westside Drive intersection will be converted to ¾ Access so no side-road cross-traffic or left turns would be allowed.

These permanent access changes are not anticipated to adversely affect the identified low-income population. Chicago Avenue between 9th Avenue and US-75 is redundant and its elimination will not result in increased travel times or traffic congestion because of the availability of 9th Avenue and Horning Road. Wiles Road will undergo changes in the vicinity of US-75, but will remain a fast and open access point to US-75 for the residents of the Plattsmouth Manufactured Home Community. Lastly, the proposed changes to the 1st Avenue/Westside Drive intersection are approximately 2.5 miles distant from the identified low-income population, within the City of Plattsmouth, and are therefore not anticipated to affect the population whatsoever.

Access to properties adjacent to the project site will be maintained.

There will be no isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community.

There will be no restrictions of access to essential services.

Based on these project considerations, there are no anticipated adverse effects to the identified low-income population in Census Tract 9661, Block Group 1.

Conclusions

Although a low-income population was identified in the vicinity of this project, there are no anticipated disproportionately high and adverse human health or environmental effects to minority and low-income populations, as defined in FHWA Order 6640.23A, because of the reasons explained in the previous section of this document.

No LEP outreach is required for this project because, in the areas surveyed, none of the data indicates the presence of an LEP population that reaches the NDOR LEP outreach triggers of 5% or 1,000 persons.

ATTACHMENT I

US-75/US-34, MURRAY TO PLATTSMOUTH

AIRPORT PROXIMITY

Liebig, Kyle

From: Bremer, Kandi
Sent: Tuesday, January 13, 2015 11:38 AM
To: Hassani, Wahed
Cc: Kessler, Tony; Ataullah, Syed; Timothy M Miles (Tim.Miles@wilsonco.com); Hummel, Garrett D. (Garrett.Hummel@wilsonco.com); Humphrey, Carl
Subject: RE: NH-BH-75-2(1072) Murray to Plattsmouth 21209 // Grade Raise

Importance: High

Dear Mr. Hassani,

After review of the updated information for the use of DR-2 Standard (70 mph) for the rural portion of this project, the Nebraska Department of Aeronautics has no objection to the changes in the grade raises for this project.

The stations that would bring concern would have been 152+00, 153+00 and 205+00 of which 205+00 has the highest elevation and is nearest to the Plattsmouth Municipal Airport and could potentially impact said airport.

However, at this station, the elevation with the increased grade, still clears by 41' and will not be of any violation to the airport. Due to the construction proximity, prior to & during the construction, the airport manager **MUST** be notified **daily** of the progress while you are in the immediate area of the airport for safety requirements.

Also, please note that any contractor involved in the project should file a 7460-1 Form with the FAA for all structures over 200' tall, **or that break a 100:1 slope from a public-use airport**. *This includes any trucks or equipment used during the project, especially pile drivers or cranes that may be used for guardrail and/or bridge work.*

Should you have any questions or concerns, please feel free to contact me at 402-471-7925 or kandice.bremer@nebraska.gov.

Sincerely,

Kandi Bremer
Nebraska Department of Aeronautics
Engineering Divison
P.O. Box 82088
Lincoln NE 68501
kandice.bremer@nebraska.gov
402.471.7925
402.471.2906 - fax

From: Hassani, Wahed
Sent: Monday, January 12, 2015 4:15 PM
To: Bremer, Kandi
Cc: Kessler, Tony; Ataullah, Syed; Timothy M Miles (Tim.Miles@wilsonco.com); Hummel, Garrett D. (Garrett.Hummel@wilsonco.com); Humphrey, Carl
Subject: FW: NH-BH-75-2(1072) Murray to Plattsmouth 21209 // Grade Raise

Kandi,

NDOR would like to use DR-2 standard(70 mph) for the rural part of this project.
Analysis for the 70 mph is attached with the updated plan and profile sheets.

The analysis for the 65 mph that you approved before is also attached.
Please review and send us your decision ASAP.

Thanks

From: Hassani, Wahed
Sent: Friday, January 09, 2015 12:29 PM
To: Timothy M Miles (Tim.Miles@wilsonco.com); Tony Kessler 0 (Tony.Kessler@nebraska.gov)
Cc: Ataullah, Syed
Subject: FW: NH-BH-75-2(1072) Murray to Plattsmouth 21209 // Grade Raise

Tim,

Please check the impact to the airport for the grade raise due to 70 mph.

The airport is concerned from sta. 117 to sta. 227.
Tony did an analysis of the 65 mph (copy attached) in response to the following e-mail.
You can do similar analysis for 70 mph and send it to us to be forwarded to the department of Aeronautic.

NOTE:
The plan and profile sheets you send yesterday still carry the old project number.

Thanks

From: Kessler, Tony
Sent: Friday, January 09, 2015 12:12 PM
To: Hassani, Wahed
Subject: FW: NH-BH-75-2(128) Murray to Plattsmouth 21209 // Grade Raise

Tony Kessler
Roadway Design
479-3994

From: Kessler, Tony
Sent: Thursday, September 11, 2014 1:35 PM
To: Bremer, Kandi
Cc: Ataullah, Syed; Hassani, Wahed; Tim M. Miles (Tim.Miles@wilsonco.com); Humphrey, Carl
Subject: RE: NH-BH-75-2(128) Murray to Plattsmouth 21209 // Grade Raise

Kandi,

I attached the plan and profile sheets for this area. Most of the areas we are raising the grade is in the sag or low areas of
the existing road. I tabulated these areas in the 2nd attachment. The high point of the new roadway is the center of the

median and the raise noted is the difference between this point and the high point of the existing roadway. I used the roadway cross sections to derive the attached table.

Lighting will be maintained at the Highway 1 intersection and at Rock Bluff/Waverly Road intersection.

We are not planning for a future 6-lane roadway in this area; the future 6-lane section is at Horning Road and north.

Tony Kessler
Roadway Design
479-3994

From: Bremer, Kandi
Sent: Tuesday, September 02, 2014 1:29 PM
To: Kessler, Tony
Subject: NH-BH-75-2(128) Murray to Plattsmouth
Importance: High

Tony,

Can you tell me how much of a grade raise there will be on this project from the beginning at sta. 117+97.18 to approximately 2 miles north on hwy 75?

NDA may have some concerns in that area due to the proximity to the highway, the current elevation of the road & the necessary traffic clearance, that there may be some airspace violations should the grade change significantly.

I understand that the plan is for new construction 4 lanes with future 6 lanes & that this is preliminary plans, however this would be the area of the most concern for our department.

Kandi Bremer
Nebraska Department of Aeronautics
Engineering Divison
P.O. Box 82088
Lincoln NE 68501
kandice.bremer@nebraska.gov
402.471.7925
402.471.2906 - fax

ATTACHMENT J

US-75/US-34, MURRAY TO PLATTSMOUTH

WETLANDS

Wetlands PQS Memorandum

DATE 11/7/2016

TO File, NDOR EDU

FROM Roger Yerdon, NDOR EPU

SUBJECT Wetlands PQS Memo
Project No: S-75-2(1072)
Control No: 21209
Project Name: Murray to Plattsmouth

☒A wetland delineation was completed 7/21/2015
Or
☐A desktop review was completed on Click here to enter a date.

Are there wetlands, stream channels, or other waters within the study area?
☒ Yes ☐ No

Will the action result in wetland impacts in accordance with Section 404 of the Clean Water Act and/or Nebraska State Title 117?
☒ Yes ☐ No ☐ Not Applicable

If the project is processed with a Nationwide Permit, is a Pre-construction Notification required?
☒ Yes ☐ No ☐ Not Applicable

Describe resources, potential impacts and anticipated permit type (*Include estimated permanent wetland impacts (acres). If known, also provide estimated temporary wetland impacts (acres), estimated channel impacts (linear feet/acres), special wetland areas, cause of impacts, and any Nationwide Permit information.*): Impacts associated with this project include approximately 1.4028 acres PEMA/PEMC wetlands, 0.026 acres PSSA wetlands, 0.5509 PFOA wetlands. Channel impacts are anticipated to be approximately 1,033 ft (0.0403 acres). This project will qualify for either a NWP 14 – Linear Transportation or an Individual Permit.

Cowardin Class Impacted (*Select all that apply*)
☒ Palustrine ☐ Riverine ☐ Lacustrine ☐ Not Applicable

Describe any coordination conducted to date with officials/agencies (*Include: Any coordination with USACE)*: Numerous pre-application meetings have been conducted in the permitting of this project.

Wetlands/Waters of the U.S. Mitigation
☐ On-Site/Permittee Responsible ☒ USACE Approved Mitigation Bank Site ☐ Not Applicable

Wetlands/Waters of the U.S. Commitments:

The Contractor shall not stage, store, waste or stockpile materials and equipment in undisturbed locations, or in known/potential wetlands and/or known/potential streams that exhibit a clear "bed and Bank" channel. Potential wetland areas consist of any area that is known to pond water, swampy areas or areas supporting known wetland vegetation or areas where there is a distinct difference in vegetation (at lower elevations) from the surrounding upland areas.

☒ All wetlands/waters within the project area that are not permitted for impacts will be marked on the 2W aerial sheets for the contractor as avoidance areas.

Select the following that apply:

☐ No wetland impacts are anticipated for this project; however, if impacts are found during design, the required permits shall be obtained prior to letting. NDOR Environmental shall reevaluate the project for the change in impacts. All wetlands within the project area shall be marked on the project plans or listed on Attachment 1 of the Environmental Commitment for the Contractor as avoidance areas. (NDOR Design, NDOR Environmental)

☐ The project qualifies under Nationwide Permit # Non-notifying Nationwide Permit Number. The contractor shall adhere to the permit conditions, including regional and general conditions, during construction. (Contractor)

☒ The project will require a Nationwide Permit for impacts to waters of the U.S. The permit shall be obtained prior to project letting. The contractor shall adhere to all permit conditions, including regional and general conditions, during construction. (NDOR Environmental, Contractor)

☒ The project will require a Title 117 Letter of Opinion for impacts to waters of the State. (NDOR Environmental, Contractor)

Project Description:

Project Description Date: 10/10/2016

This project will reconstruct 6.83 miles of US-34/US-75 located in Cass County. The project starts 0.12 miles south of the US-34/US-75 and N-1 intersection, at US-34 mile marker (MM) 373.33, and extends north to US-34 MM 380.16, roughly 400' south of the junction of US-34/US-75 and Oak Hill Road/Ave B. Construction may begin and/or end approximately 1,400 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement and temporary traffic phasing.

The existing roadway on this segment of US-34/US-75 from US-34 MM 373.28 to US-34 MM 376.84 consists of two 12 foot wide concrete lanes and 10 foot wide shoulders, of which 8 feet is paved with either asphalt or concrete. The roadway segment from US-34 MM 376.84 to US-34 MM 377.79 consists of four 12 foot wide concrete lanes, a depressed median, and 10 foot wide shoulders, of which 8 feet is paved with either asphalt or concrete. The roadway segment from US-34 MM 377.79 to US-34 MM 379.98 consists of two 12 foot wide asphalt lanes and ten foot shoulders, of which 8 feet is paved with asphalt. The roadway segment from US-34 MM 379.98 to US-34 MM 380.16 consists of four 12 foot concrete lanes and 10 foot wide shoulders, of which 8 feet is paved with concrete.

The improvements on this project consist of replacing the existing 2-lane or 4-lane roadway, depending on location with a 4-lane expressway including a raised 22' median, 3' inside and 8' outside surfaced shoulders. Other additional improvements include: removing and replacing pavement, grading, culvert replacement/extension, bridge replacement, and removing and replacing guardrail.
Scope details include:

☐ Grading beyond the hinge point will be required for the following work:

☐ Roadway grading

☐ Culverts

☐ Guardrail

☐ Earth shoulder construction

☐ Bridges

Bridge Station 455.95.50 #(S034 37969)
Viaduct over Union Pacific Railroad
Replace with a single 4-lane structure: three span (90'-110'-99') with a 98' clear width.

Bridge Station 336.39.00 #(S034 37742)
East Branch Four-mile Creek
Extend triple 10'x10'x168' Concrete Box Culvert on 30° skew left and right.

☐ Drives and intersections

☐ Removal of old substructure

☐ The scope of work at culvert sites on this project has been updated.

☐ Existing mainline culverts that did not meet current D + 1' hydraulic requirements were evaluated for a risk assessment and none were found to need to be upsized. Therefore, existing culverts were to be used in place and extended as needed.

☐ Several Access changes were made during the Plan-in-Hand including:

☐ Chicago Avenue Access at US-75 is being eliminated so that Horning Road becomes the primary access to US-75.

☐ 1st Avenue/Westside Drive intersection is being converted to ¾ Access so no side road cross traffic or left turns will be allowed.

☐ Access changes since the Plan-in-hand include:

☐ Cindy Lane will be connected directly to US-75, and Chicago Ave removed.

☐ Wiles Road will have new CA 660' on both sides of the highway. Access to the business and house (same owner) west of US-75 will be relocated to comply with Access Control.

☐ The 5 future signalized intersections at US-75 (N-1/Murray Rd., Waverly Rd./Rock Bluff Rd., Mynard/Horning Road, Wiles Road, and Osage Ranch Blvd.) will receive conduit as a part of this project and be designed to meet the posted speed on each road.

☐ Guardrail

☐ Remove and replace guardrail with grading beyond the hinge point

☐ Existing surfaced driveways and intersections will be resurfaced.

☐ Rock or gravel will be placed behind driveways and intersections to match the new pavement.

☐ Relocation of utilities, including fiber optic, water main, and sanitary sewer, may be required due to conflicts with the new lanes and mainline profile adjustments.

☐ Surfacing will be placed under the guardrail.

☐ Project surveying and staking will be required.

☐ Areas disturbed during construction will be stabilized utilizing methods of erosion control as shown in the Storm Water Pollution Prevention Plan (SWPPP).

☐ Rumble strips will be constructed on the new paved shoulders within the rural portions of the project.

☐ Because the pavement work is a reconstruction project, the NDOR will comply with the requirements in the Public Rights of Way Accessibility Guidelines (PROWAG).

☐ Permanent pavement markings will be applied to all new surfacing.

☐ Street lighting will be built and updated.

☐ Additional property rights will be required to build this project.

☐ Access to adjacent properties will be maintained during construction but may be limited at times due to phasing requirements.

☐ This project will be constructed under traffic with lane closures controlled by appropriate traffic control devices and practices. Temporary surfacing may be required at intersection locations to accommodate phased construction.

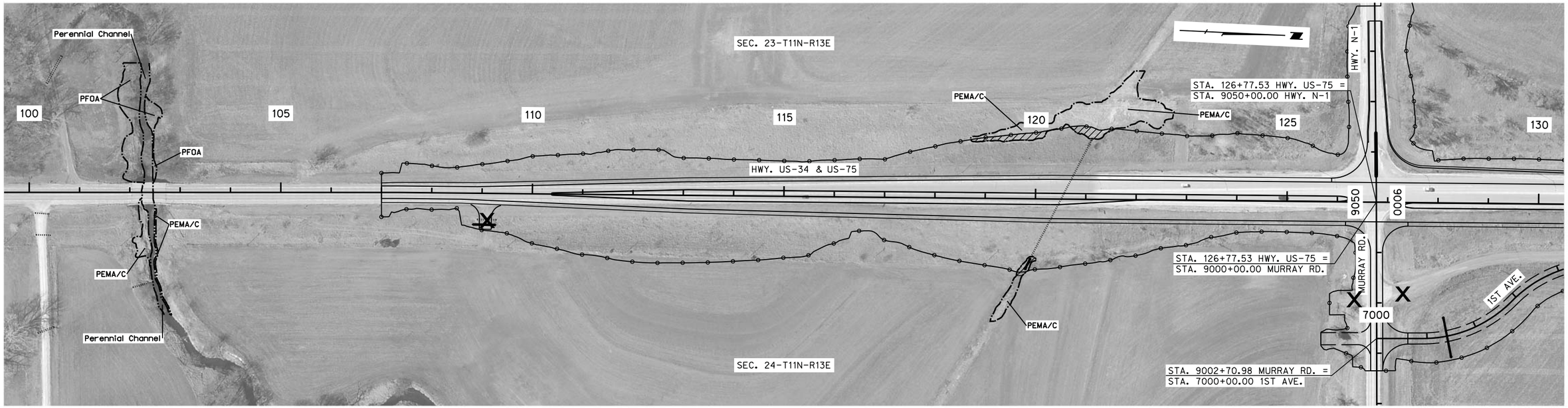
☐ This project will require the construction of a permanent roadway transition from two lanes to four lanes divided on the south end of the project. This work will take place immediately prior to the project limits stated above and may extend as far south as the north end of the bridge over Rock Creek (S034 37299).

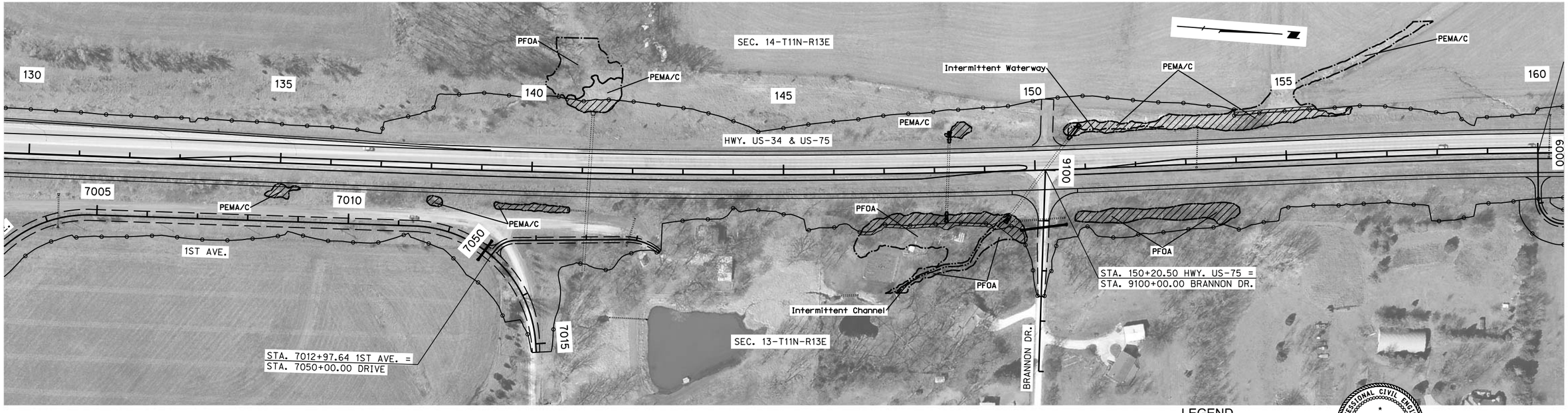
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

WILSON & COMPANY

PROJECT NO.	SHEET NO.
75-2(1072)	2-W1
C.N. 21209	

ROADWAY DESIGN DIVISION





MURRAY TO PLATTSMOUTH

CASS COUNTY

LEGEND

- LIMITS OF CONSTRUCTION
- WETLANDS - DO NOT DISTURB
- IMPACTED WETLANDS
- TEMPORARY IMPACTED WETLANDS

PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
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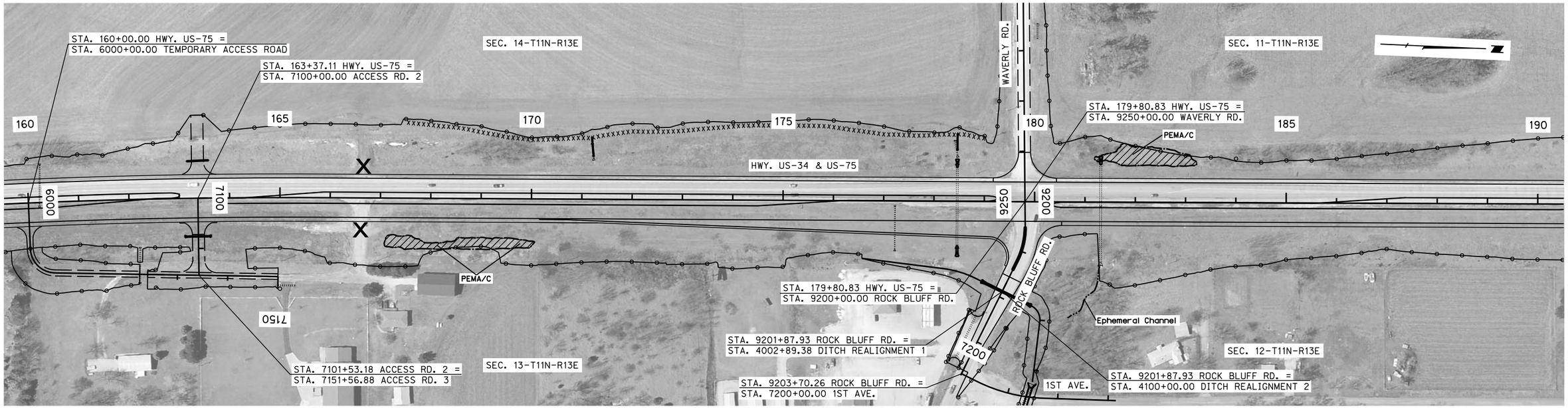
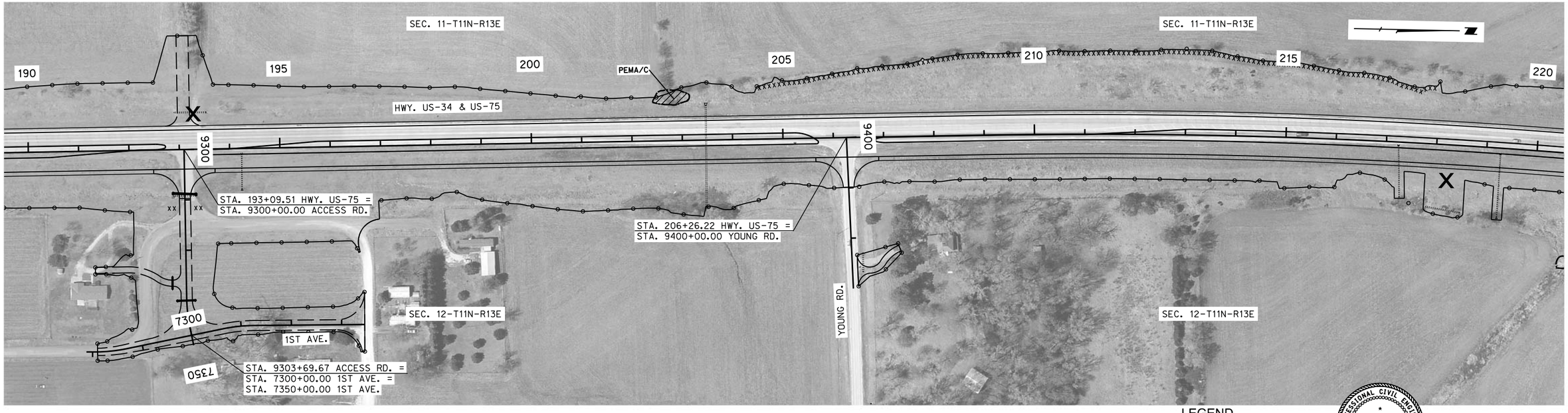
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

WILSON & COMPANY

PROJECT NO.	SHEET NO.
75-2(1072)	2-W2

C.N. 21209





LEGEND

- LIMITS OF CONSTRUCTION
- WETLANDS - DO NOT DISTURB
- IMPACTED WETLANDS
- TEMPORARY IMPACTED WETLANDS

PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

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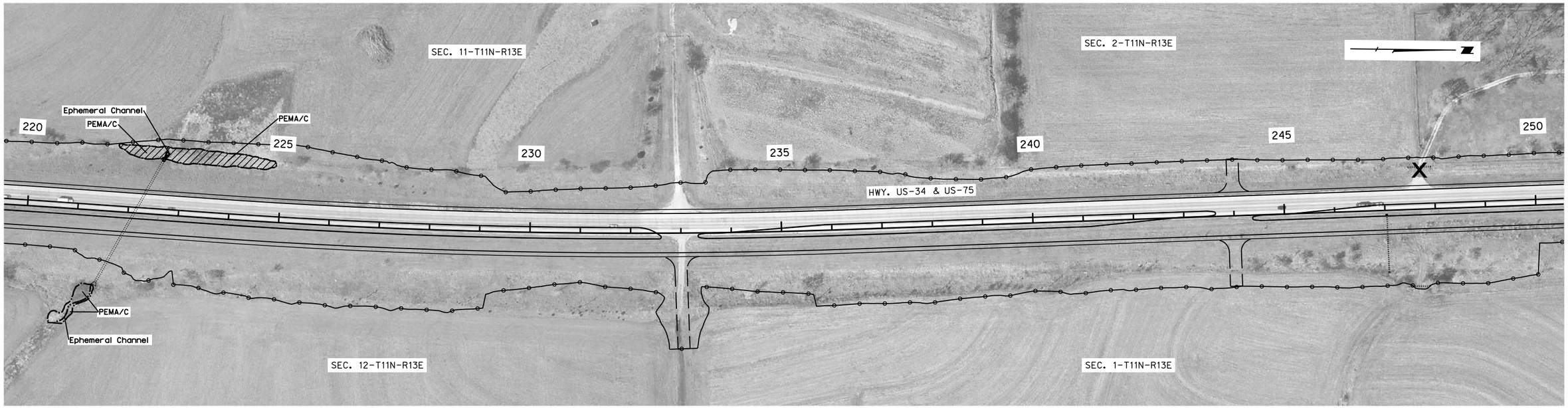
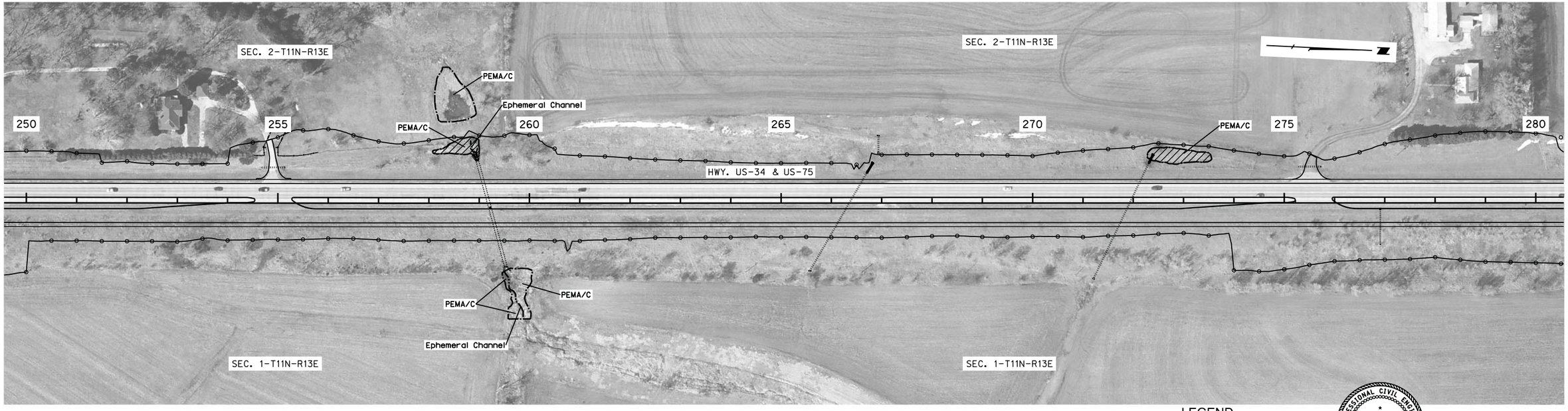
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

WILSON & COMPANY

PROJECT NO.	SHEET NO.
75-2(1072)	2-W3

C.N. 21209





LEGEND

- LIMITS OF CONSTRUCTION
- WETLANDS - DO NOT DISTURB
- IMPACTED WETLANDS
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PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

ROADWAY DESIGN DIVISION
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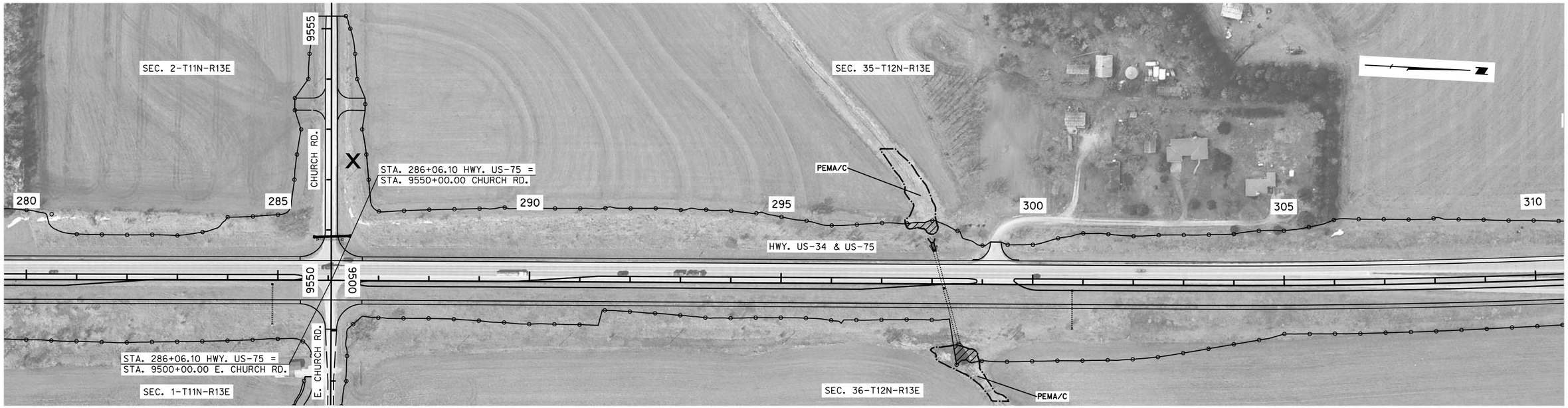

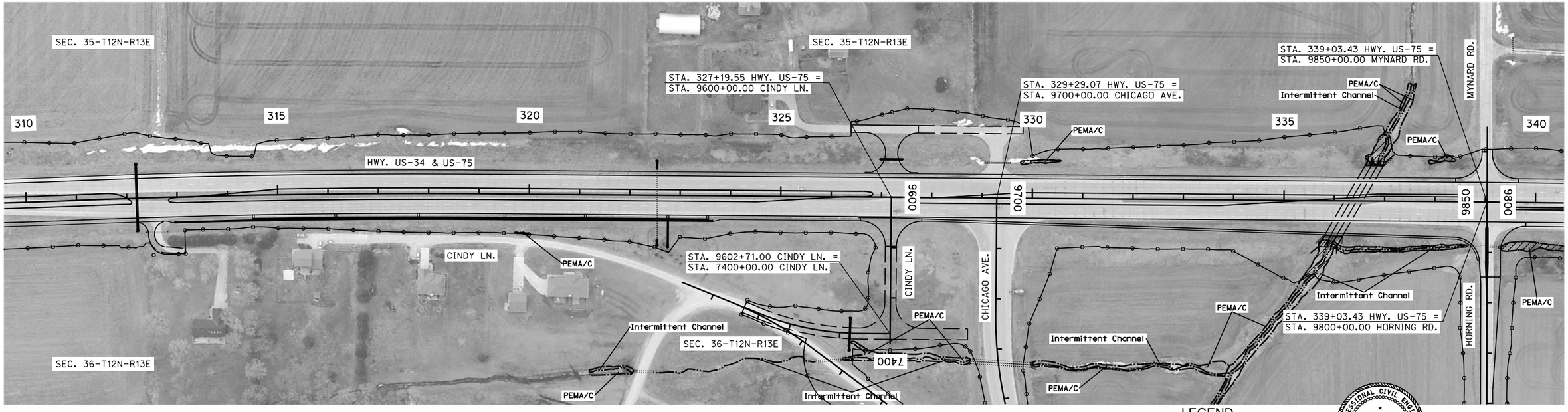

LEGEND

- LIMITS OF CONSTRUCTION
- WETLANDS - DO NOT DISTURB
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PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

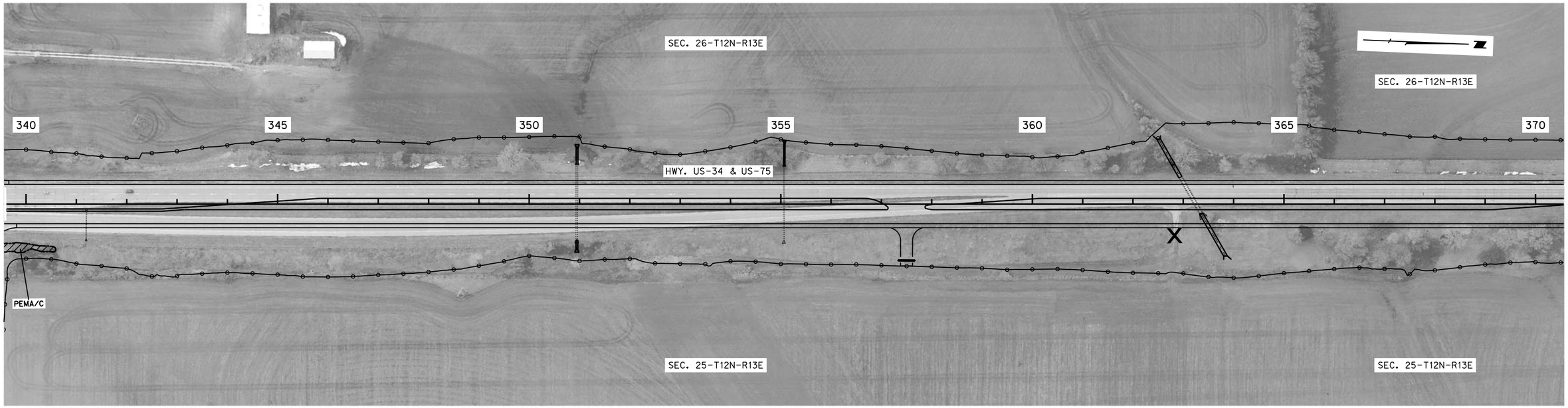
DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

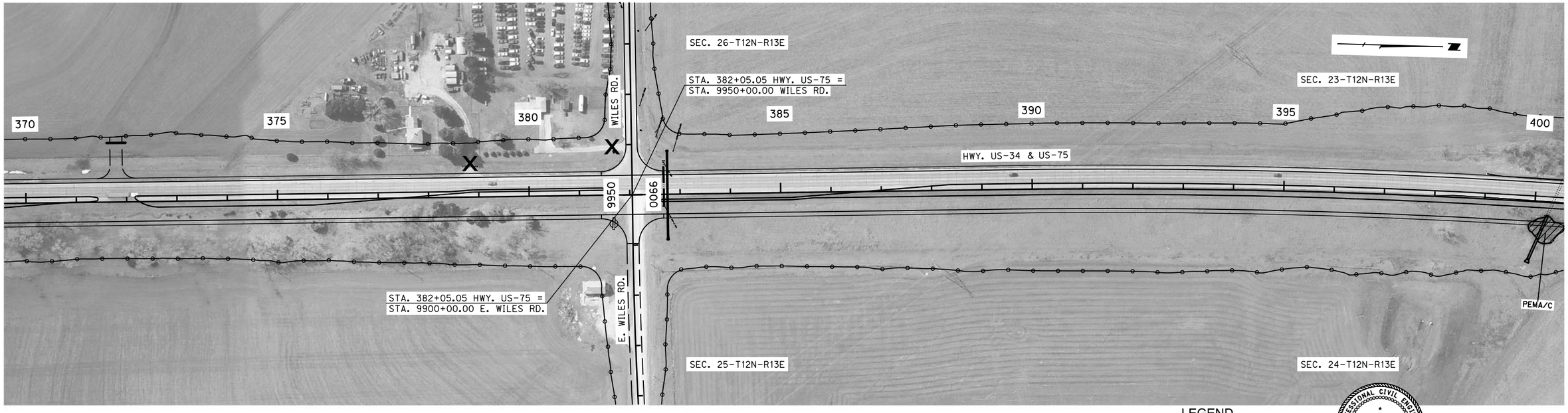
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

WILSON & COMPANY

PROJECT NO.	SHEET NO.
75-2(1072)	2-W5

C.N. 21209





LEGEND

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PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

ROADWAY DESIGN DIVISION
Computer: A14192
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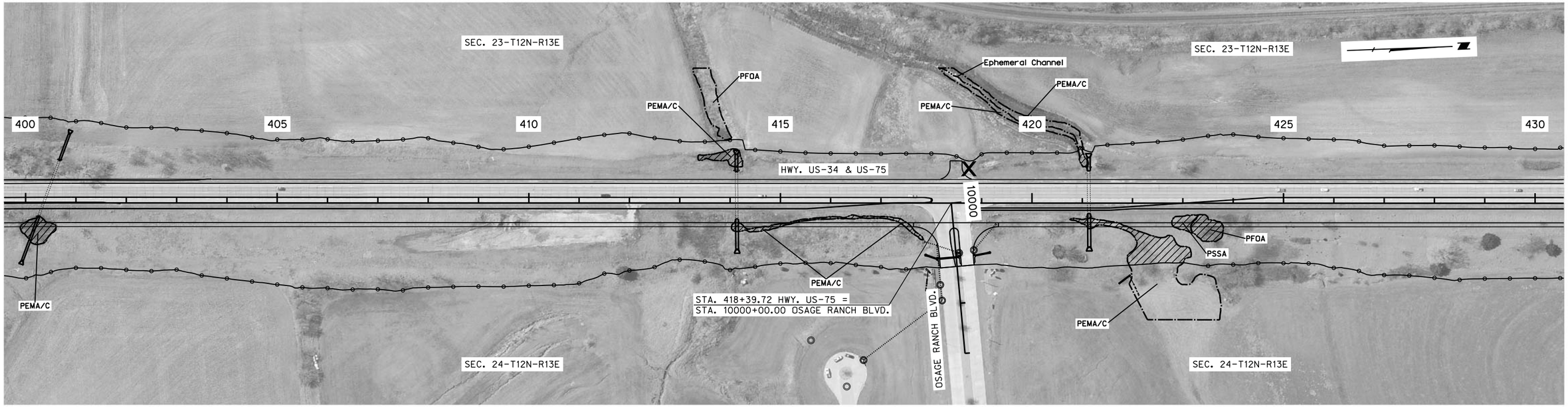
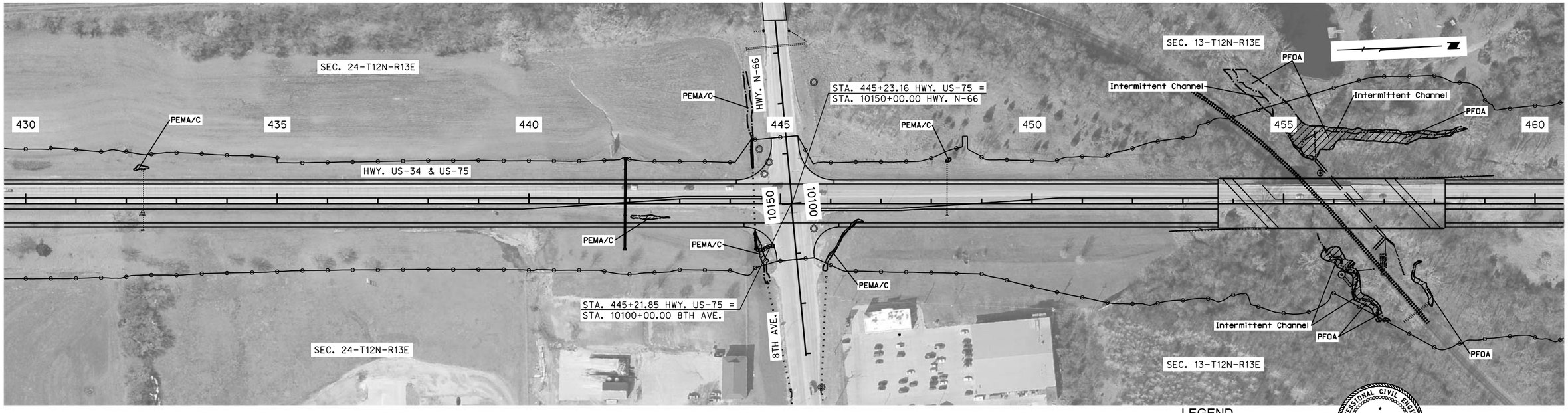
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

WILSON & COMPANY

PROJECT NO.	SHEET NO.
75-2(1072)	2-W6

C.N. 21209





LEGEND

- LIMITS OF CONSTRUCTION
- WETLANDS - DO NOT DISTURB
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PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

ROADWAY DESIGN DIVISION
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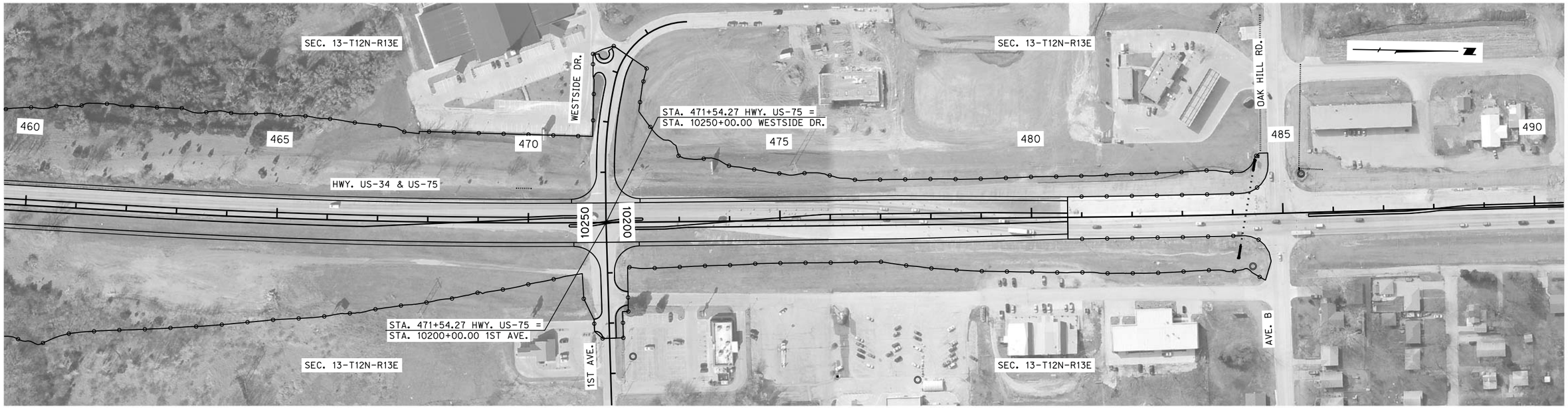
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

WILSON & COMPANY

PROJECT NO.	SHEET NO.
75-2(1072)	2-W7
C.N. 21209	



LEGEND

- LIMITS OF CONSTRUCTION
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PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

ROADWAY DESIGN DIVISION

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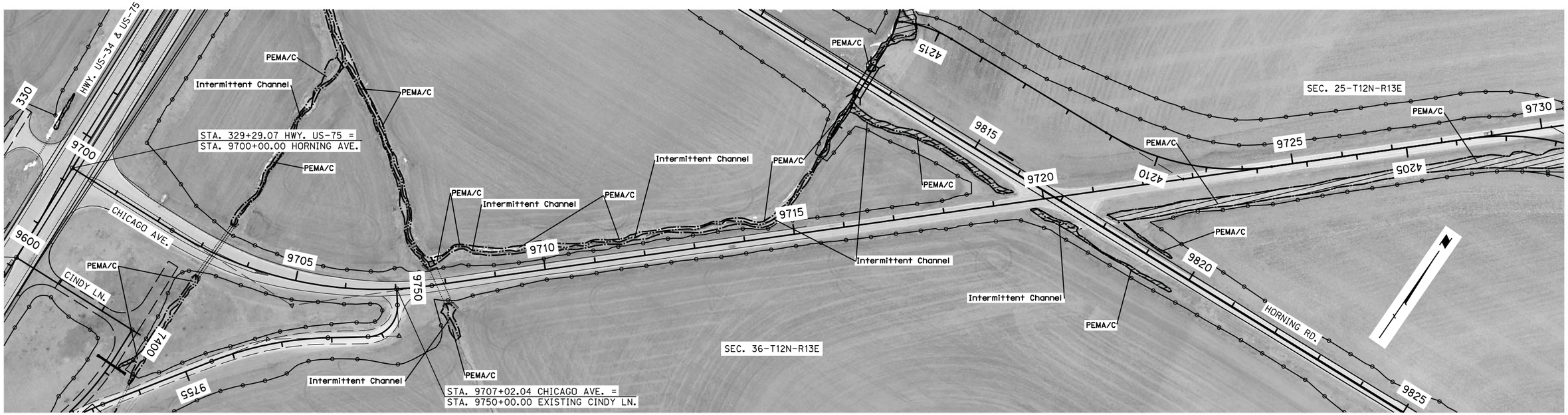

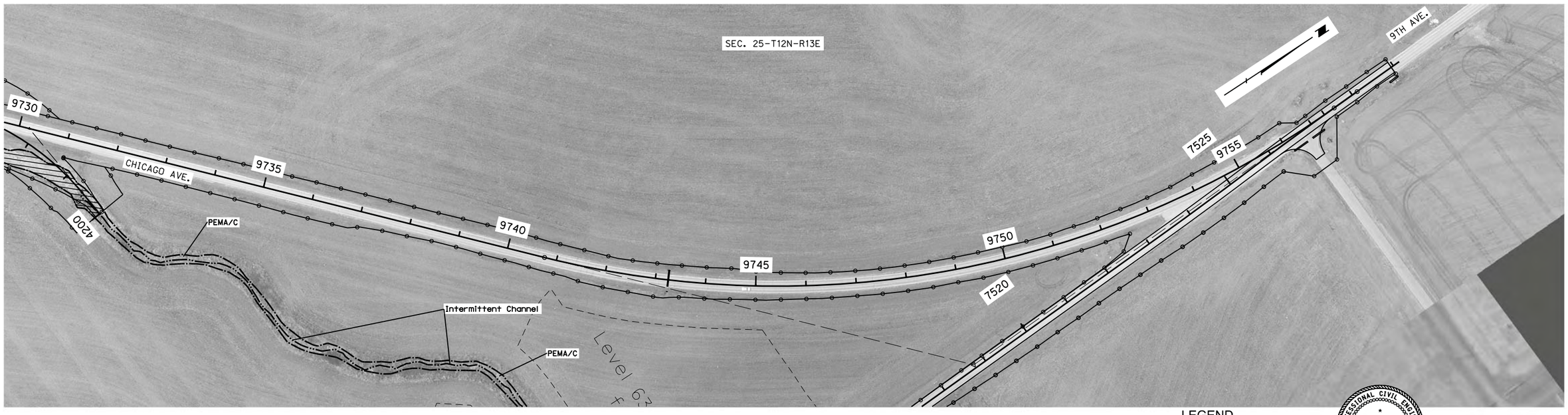

LEGEND

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- WETLANDS - DO NOT DISTURB
- IMPACTED WETLANDS
- TEMPORARY IMPACTED WETLANDS

PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

ROADWAY DESIGN DIVISION
Computer: A14192
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Date: 21-JAN-2016 15:44
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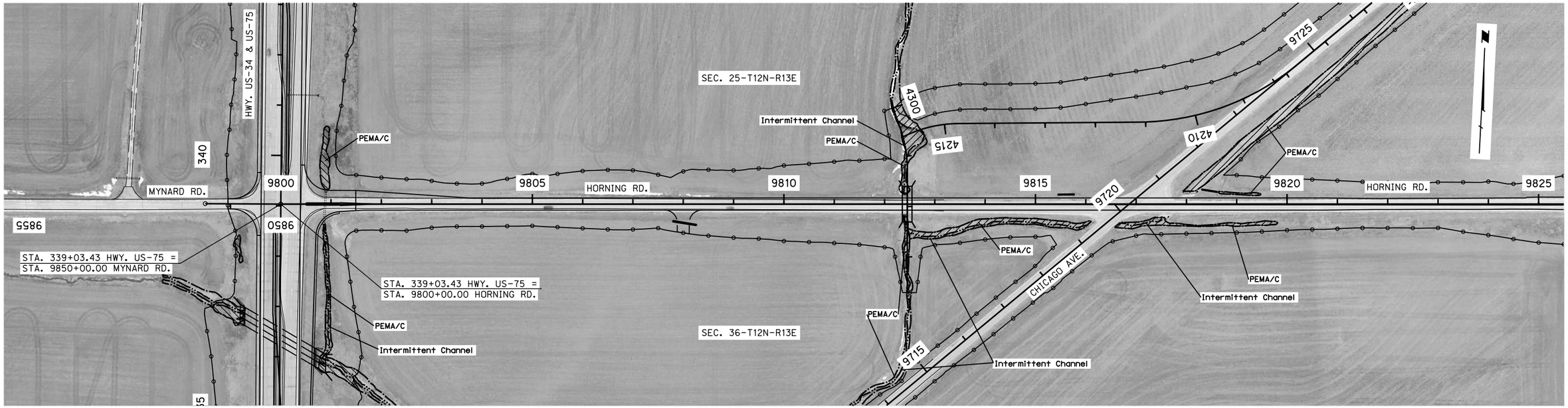

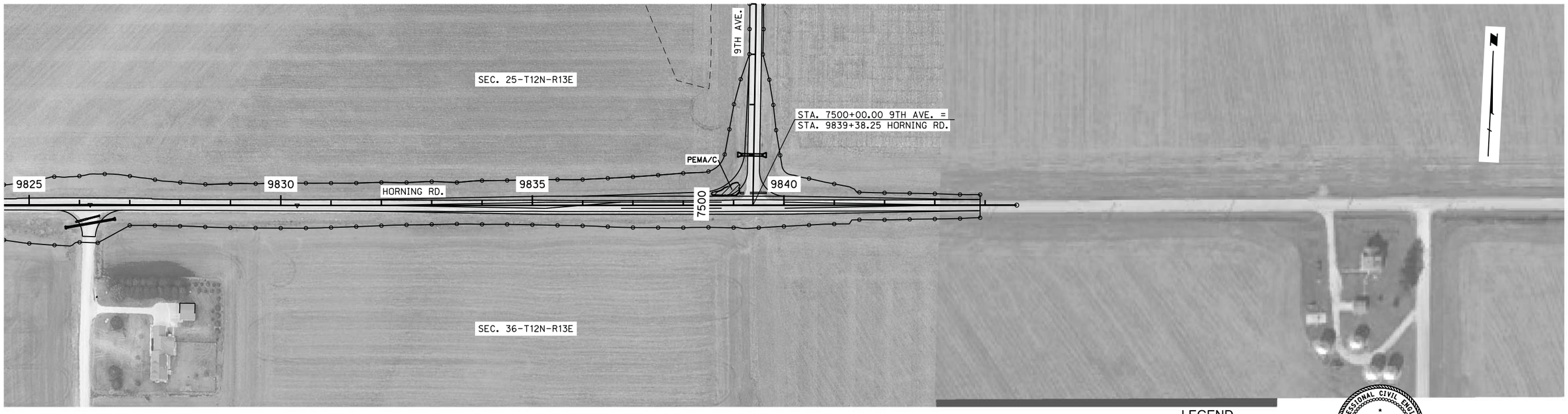

LEGEND

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PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

ROADWAY DESIGN DIVISION

Computer: A14192
User: gdhummel
Date: 21-JAN-2016 15:45
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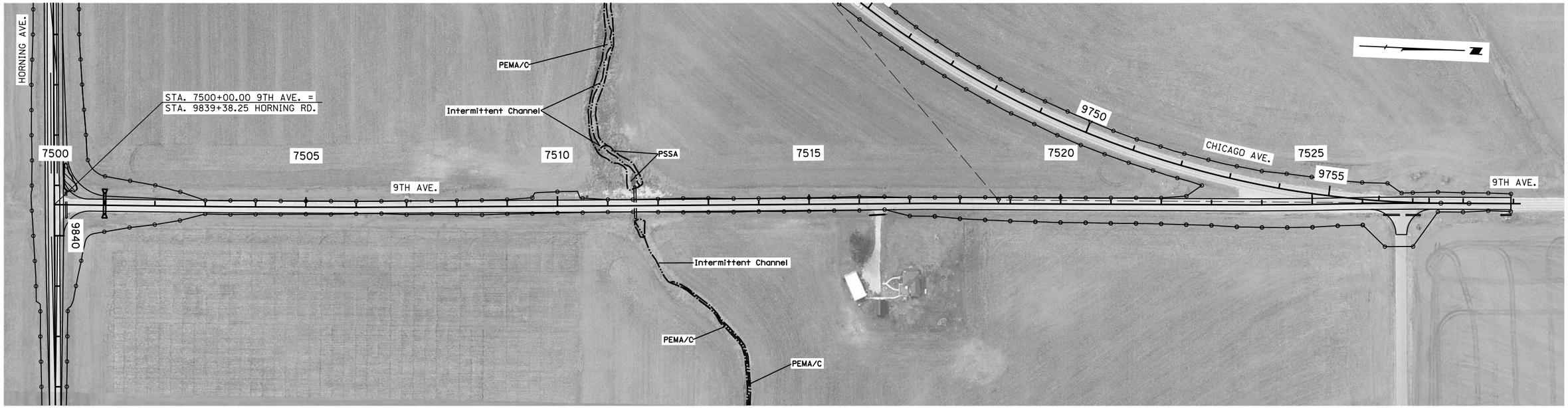
Scales: 1:200

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

WILSON & COMPANY

PROJECT NO.	SHEET NO.
75-2(1072)	2-W10

C.N. 21209



LEGEND

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PROFESSIONAL CIVIL ENGINEER
MATT W. BRYANT
E-10936
STATE OF NEBRASKA

DATE: 4/01/2013
FLIGHTS: 12,013
SCALE: 1" = 100'

ROADWAY DESIGN DIVISION
Computer: A14192
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