CE Determination Form for Federal-Aid Projects (June 2, 2015)

CE Review Level:

☐ 1 ☐ 2 ☒ 3 ☐ Re-evaluation

The proposed project qualifies as the Categorical Exclusion Level indicated above in accordance with the 2015 Programmatic Agreement.

Appendix: C

Project Name:

Wynot East & West

Project Number:

STP-12-6(117)

Control Number:

32131

Location and Study Area:

The project is located on Nebraska Highway 12 (N-12) from the junction of N-12 and Nebraska Highway 57 (N-57) to the N-12/Nebraska Highway-15 (N-15) junction. The project is also located along the St. Helena Spur (S-14H) from the junction of S-14H/N-12 to the southern corporate limits of St. Helena and the Wynot Spur (S-14B) from the junction of S-14B/N-12 to just south of the southern corporate limits of Wynot in Cedar County, NE.

The Environmental Study Area (ESA) is confined to the length of this project 15.3 miles [9.68 miles along N-12, 5.37 miles along S-14H, and 0.27 miles along S-14B] plus half a mile on either end along these routes including the existing right-of-way (ROW), plus 50 feet beyond ROW for most of the project length, and extending to 150 feet beyond the ROW at the bridges for wetlands and most other resources. For regulated materials the study area is extended 0.10 miles, and for Section 4(f) resources 0.25 miles beyond ROW.

Termini are based on limits identified by NDOR pavement management system, District 3 and previous construction projects on this segment of highway.

Begin Point(s):

MM 201.13/0.00/0.00

End Point(s):

MM 210.79/5.37/0.27

Highway Number, Street, etc.:

N-12/S-14H/S-14B

Project Description:

This 3R (Resurfacing, Restoration and Rehabilitation) and N&R (New and Reconstruction) project would resurface 9.68 miles of N-12 located in Cedar County, starting at the N-12/N-57 junction, at Mile Marker (MM) 201.13, and extending east to MM 210.79, the N-12/N-15 junction. The project would include resurfacing 5.37 miles of S-14H

(St. Helena Spur) located in Cedar County, starting at the S-14H/N-12 junction, at MM 0.00, and extending north to the southern corporate limits of St. Helena at MM 5.37. The project would also consist of resurfacing 0.27 miles of S-14B (Wynot Spur) located in Cedar County, starting at the S-14B/N-12 junction, at MM 0.00, and extending north to a point approximately 270 feet south of the southern corporate limits of Wynot at MM 0.27. Construction may begin and/or end approximately 200 feet ahead of or beyond the actual project limits to accommodate transitioning the pavement.

Two segments of this project would be built to conform to N & R minimum design standards due to bridge replacements. The first segment would cross West Bow Creek and start at MM 203.36 and extend to MM 204.08. The second segment would cross Bow Creek starting at MM 207.30 and extend to MM 207.66.

The 891st road connects to N-12 in the N&R section of the roadway at MM 203.43. Due to the skew being too great within the N&R section of the project a realignment of 891st road would be needed.

The existing roadway on this segment of N-12 consists of the following:
 MM 201.13 – MM 210.79: This segment consists of two 12 foot wide asphalt lanes and 6 foot wide turf shoulders.
The existing roadway on this segment of S-14H consists of the following:
 MM 0.00 – MM 5.37: This segment consists of two 12 foot wide asphalt lanes and 4 foot wide turf shoulders.
The existing roadway on this segment of S-14B consists of the following:
 MM 0.00 – MM 0.27: This segment consists of two 12 foot wide asphalt lanes and 6 foot wide turf shoulders.

The 3R improvements on N-12 would consist of milling, trench widening left and right, and surfacing resulting in a 28 foot wide surfaced top. Culverts would be extended, guardrail would be removed and replaced, surfacing would be placed under the guardrail, and erosion control curb and flume would be built. The N&R improvements would consist of 10 inch surfaced, 28 foot wide roadway, and removal and replacement of structures S012 20366 and S012 20744.

The improvements on this project for the S-14H segment of roadway would consist of milling and resurfacing the existing roadway with asphalt, removing and replacing guardrail, and surfacing underneath guardrail. The improvements for structures SS14H00251 and SS14H00363 would consist of the following; deck repairs, asphalt overlaying with membrane, updating buttresses, repairing concrete rail posts, deck edge line, pier caps, and the sealing of bridge rails.

The improvements on this project for the S-14B segment of roadway would consist of milling and resurfacing the existing roadway with asphalt.

Offset right turn lanes would be added at the following locations; 14H spur (700 feet) and 14B spur (265 feet).

Scope details for entire project would include:
- Grading beyond the hinge point will be required for the following work:
  - Culverts
  - Guardrail
  - Drives and intersections
  - Mailbox turnouts
  - Earth shoulder construction
  - Bridges
  - Culvert Cleanout
  - Roadway grading for culvert extensions and structure replacement
  - Removal of old substructure
  - Curb and flume construction
  - Offset turn lanes
  - Flattening foreslopes
  - Correction of superelevation with a maximum of 5.90%

- There are 9 culverts that would be extended on N-12 and 2 culverts that would be removed and replaced as well as 34 erosion control culverts and flumes.

The following work would be required:
 Culvert ends would require extension beyond the Fixed/Lateral Obstacle Clear Zone.
 Existing culvert headwalls within the Fixed/Lateral Obstacle Clear Zone would be removed and replaced with flared end sections.

- Guardrail
  - Remove all existing cable guardrail and flatten foreslopes.
  - Remove and replace all existing W-beam guardrail at bridge locations.
  - Surfacing would be placed under the guardrail.
  - Buttresses would need to be removed and replaced to meet current standards.

- The bridge over West Bow Creek (Structure Number S012 20366) would be replaced. The new structure would be shifted 38' to the south from centerline to centerline, as well as being located 50 feet to the east from its current location in order to align with the creek channel. Approaches would be added to the new structure along with grade beams supported by pile. Crossing pipes would be required for the proposed construction access. The existing guardrail would be removed and replaced along with updated buttresses. The roadway would be reconstructed adjacent to the bridge replacement work for this structure.

- The historic bridge over Bow Creek (Structure Number S012 20744) would be replaced on-alignment with a detour route to allow for bridge work to be completed. Approaches would be added to the new structure along with grade beams supported by pile. A temporary bridge would be required for the proposed construction access. The existing guardrail would be removed and replaced along with updated buttresses. The roadway would be reconstructed adjacent to the bridge replacement work for this structure.

- The bridge over Second Bow Creek (Structure Number SS014H00251) and the bridge over a tributary of Second Bow Creek (Structure Number SS014H00363) would be repaired. These bridges would receive partial depth deck repairs, an asphalt overlay with membrane application, concrete repairs on rail posts, pier cap repairs, deck edge line repairs, and sealing of the bridge rails. Asphalt wedges would be placed at the end of floor locations for the grade raise. The existing guardrail would be removed and replaced, and buttresses would be updated.

- Curb and flumes would be added to the N-12 segment of roadway at locations where warranted by design criteria.
- The existing asphalt would be milled prior to resurfacing for the S-14H and S-14B segments of roadway.
- Asphalt patching operations would be performed prior to resurfacing.
- Existing surfaced driveways and intersections would be resurfaced.
- Mailbox turnouts would be constructed.
- The existing earth shoulders would be brought up to match the new asphalt for the N-12 segment of roadway.
- The trench widening operation on the N-12 segment of roadway would remove material adjacent to the existing surfacing. The trench would be filled with recycled material.
- 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).
- Permanent pavement markings would be applied to all new surfacing.
- 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.
- The reconstruction of the Bow Creek Bridge would require the closure of N-12 for one construction season and would require a detour.
- The drive to the east of the Bow Creek Bridge would be realigned and access would be maintained during construction.
- While the Bow Creek Bridge is closed, the reconstruction of the culverts to the east would require closing N-12 to Local Traffic Only for approximately 2 weeks. County Road 570 would remain open to traffic.
- The realignment of County Road 891 would require a short closure of the roadway to safely realign it.

Purpose and Need *(include for Level 3, NWP 23, and Section 4(f) Programmatic Evaluation)*:

Purpose:

The purpose of this project is to preserve the transportation asset, improve the reliability of the transportation system and perpetuate the mobility of the traveling public.

Need:

The need for this project is based on information from the NDOR's Pavement Management System, Materials &

Research Pavement Design section and District 3. These entities have determined that the pavement distresses present on this section of N-12, S-14H, and S-14B are significant enough to warrant rehabilitation. The existing asphalt on the section of N-12 and S-14B is 14 years old, and would be over 18 years old at the time of construction. The existing asphalt on S-14H is 18 years old, and would be over 22 years old at the time of construction. The age of the existing asphalt on these sections of highway indicates that the pavement is at or beyond the end of its anticipated service life.

N-12
In the most recent five years, an average of $4,965 per lane per mile has been spent annually on maintenance activities, including patching, armor coating, shoulder maintenance, and joint and crack repair. The expenditure for this section of roadway is indicative of pavement in “Poor” condition. This project would address pavement on N-12 with an average Nebraska Serviceability Index (NSI)* of 59.24 and an average Present Serviceability Index (PSI)** of 2.80, both a “Fair” condition rating. The existing roadway has large areas of patching and wide and depressed thermal cracks, as evidenced by a Transverse/Thermal Cracking Index*** of 98 and a Cracking Index**** of 35, both indicating that the pavement is in “Poor” condition.

S-14H
In the most recent five years, an average of $3,019 per lane per mile has been spent annually on maintenance activities, including patching, armor coating, shoulder maintenance, milling, fog seal, and joint and crack repair. This expenditure indicates that the pavement for this section of roadway is in “Poor” condition. This project would address pavement on S-14H with a Nebraska Serviceability Index (NSI)* of 69.16, a “Fair” condition rating. The existing roadway has large areas of patching and wide and depressed thermal cracks, as evidenced by a Transverse/Thermal Cracking Index*** of 95, a “Poor” condition rating, and a Cracking Index**** of 23, a “Fair” condition rating.

S-14B
This project would address pavement on S-14B with a Nebraska Serviceability Index (NSI) of 57.68 and a Present Serviceability Index (PSI)** of 2.90, both a “Fair” condition rating. The existing roadway has large areas of patching and wide and depressed thermal cracks, as evidenced by a Transverse/Thermal Cracking Index*** of 100, a “Poor” condition rating, and a Cracking Index**** of 25, a “Fair” condition rating.

The FHWA and NDOR have identified upgrading roadside safety hardware to a crashworthy appurtenance as a part of 3R and reconstruction projects as one of the emphasis areas to mitigate the severity of roadway departure crashes. Pursuant to this emphasis, guardrail would be upgraded as necessary. The existing bridge rail buttresses would require modification for updated guardrail connections.
The need for culvert work is to eliminate obstacles within the Fixed Obstacle Clear Zone or the Lateral Obstacle Clear Zone, whichever is applicable.

The need for curb and flume work is to mitigate deterioration of turf shoulders from pavement runoff. Curb and flume would be required at locations necessary as an erosion control measure to preserve the turf shoulders adjacent to resurfacing activities.
The need for bridge work is based on information from NDOR’s Bridge Division and recent bridge inspections. These entities have determined that bridge preservation activities are needed to extend the life of these structures.

S012 20366
This structure is a Continuous Concrete Slab bridge originally constructed in 1959. In 2000, contract work was performed to repair the expansion joints on the bridge. The bridge is designated as structurally deficient based on the overall “Poor” Deck Condition Rating***** of 4. Based on the most recent biannual visual inspection in September 2012 and 2014, the bridge has areas of spalling underneath the asphalt overlay. One abutment has delamination across the full length with two large areas of spalling on the face of the abutment and one area of spalling on the underside. These areas of spalling all have rebar exposed.

S012 20744
This historic bridge is a Continuous Concrete Box Beam bridge constructed in 1959. In 2009, contract maintenance work was performed to repair the berm adjacent to the abutment. The bridge has an overall Deck Condition Rating***** and Superstructure Condition Rating****** of 5, both indicating a “Fair” condition rating. The most recent biannual visual inspection in September 2012 and 2014 indicates continued deterioration of the existing asphalt overlay and bearing corrosion at the abutments with some section loss. Both abutment caps show continued spalling with concrete crumbling.

SS14H00251
This structure is a Continuous Concrete Slab bridge constructed in 1979. Contract maintenance work was done in 1997 to repair the bridge rail. According to the most recent biannual visual inspection conducted in September 2012 and 2014, the bridge shows 351 square feet of spalling with 11 percent delamination. The underside and outside edges of the slab has spalling on all spans with rebar exposed along with a large spall on the west edge and top of the bridge deck with exposed rebar.

SS14H00363
This structure is a Continuous Concrete Slab bridge constructed in 1979 and contract maintenance work was performed on this bridge in 1997 to repair the bridge rail. In the most recent biannual visual inspection conducted in September 2012 and 2014, the bridge shows 267 square feet of spalling and delamination of 11 percent. According to the inspection, the concrete bridge rail posts continue to crack and spall with rebar exposed on several posts. The east edge of the slab has an area of spalling with rebar exposed.

*Nebraska Serviceability Index (NSI) - NSI is a pavement condition index used to gauge the overall health of a pavement section. It is a calculated numerical value based on pavement distresses such as transverse, wheelpath, and longitudinal cracking. Its value ranges on a scale of 0 to 100, with 0 being "very poor" condition and 100 being "very good" condition.

**Present Serviceability Index (PSI) - PSI is a pavement condition index related to ride quality. The PSI is a function of pavement roughness, cracking, faulting, and rutting. Its value ranges on a scale of 0 to 5, with 0 being "very poor" condition and 5 being "very good" condition.

***Transverse/Thermal Cracking Index - Transverse/Thermal Cracking Index is expressed as an index on a scale of 0 to 100 with 0 being the best condition and 100 the worst. The index reflects the severity and extent of transverse cracking on a bituminous pavement.

****Cracking Index - The Cracking Index is a rating value used to qualify the amount of cracking based on the severity and extent noted during a visual inspection.

*****Deck Condition Rating - The deck rating is a value based on inspection of the deck for spalls, delamination, and other distresses. Its value ranges on a scale of 0 to 9, with 0 being "failed" condition and 9 being "excellent" condition.

****** Superstructure Rating - The superstructure rating is a value based on inspection of the superstructure for signs of distress including cracking, deterioration, section loss, and malfunction and misalignment of bearings. Its value ranges on a scale of 0 to 9, with 0 being "failed" condtion and 9 being "excellent" condition.

Action is identified in the Current STIP Date:	Subsequent Phase:	Estimated Cost *($)*:
10/14/2016	Construction	$13,822,000

The numbers in the parentheses (x) indicate the level of CE review that will be required.

All technical assessment approvals shall be made by NDOR Professional Qualified Staff (PQS) responsible for the resource category and are indicated by "NDOR PQS Determination Date."

Right of Way and Property Impacts

1.1 Easements/ROW – Will the action require the acquisition of new temporary or permanent right-of-way *including easements)*?

[X] Yes (2) [ ] No (1) [ ] N/A

1.2 Will the action result in acquisition of greater than 2 acres per linear mile *(estimated)* or the removal of major property improvements?

☐ Yes (3) ☒ No (2)

1.3 Describe type of property required for ROW and/or potential impacts to major property improvements:

ROW and temporary easements would be acquired predominantly from farmland; however, there would be no structures impacted and the land is not actively used for agriculture due to its proximity to the existing highway and related infrastructure.

1.4 Estimated Acres of Permanent ROW/Easements:

11.84

1.5 Estimated Acres of Temporary ROW/Easements

0.51

1.6 Will the action result in any residential or nonresidential displacements?

☐ Yes (3) ☒ No (2) ☐ N/A

2.1 Section 4(f) – Will the action result in a Section 4(f) use or qualify for Section 4(f) Exception?

☒ Yes (2) ☐ No (1) ☐ N/A

2.2 Will the action result in an Individual Section 4(f) Evaluation?

☐ Yes (3) ☒ No (2)

2.3 Describe resources, impacts, and the coordination conducted with officials/agencies *(including FHWA approval date(s))*:

The Bow Creek Bridge (S012 20744), a continuous concrete box girder bridge, is eligible for listing on the National Register of Historic Places (NRHP) under Criterion C for Architecture. The Bow Creek Bridge was constructed in 1959 and is a 247-foot-long continuous concrete box girder bridge with variable depth and curved concrete end posts.Bridge S012 20744 (CD00-334*) received its most recent biennial/fracture critical inspection in September 2014. The bridge is currently classified as functionally obsolete and has structural defects. Continued use of the bridge for vehicular traffic at either its existing location or an alternative location would require that the functional obsolescence be addressed, and although the bridge is not structurally deficient, structural improvements would also be needed. The historic birdge evaluation (Mead & Hunt 2007) determined that the Bow Creek bridge is recommended eligible for listing on the NRHP under Criterion C as a significant example of this uncommon type and the earliest example in Nebraska with aesthetic treatment. In addition, the continuous concrete box girder with variable depth and curved concrete end posts illustrates the implementation and use of this aesthetic treatment (Mead & Hunt 2007). The following alternatives were reviewed prior to determining that the bridge would be replaced: Do nothing, build a new structure at a different location without affecting the historic integrity of the old bridge, and rehabilitate the historic bridge without affecting the historic integrity of the structure. The Alternatives Evaluation document also serves as the Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges.

The approved Programmatic Agreement may be found in attachment 112 - Historic Bridge Programmatic. A Memorandum of Agreement (MOA) between FHWA, NDOR, and Nebraska SHPO was signed on August 4, 2016. The MOA contains a requirement for documentation of the bridge prior to the demolition or repair. See Historic Properties Mitigation - also applicable to Section 4(f).

See the following for more details: 111 - NDOR 4(f) Initial Assessment Form and 112 - Historic Bridge Programmatic.

* - The number CD00-334 is the structure number given to the bridge by the State Historical Society.

3.1 Section 6(f) – Are there any Section 6(f) Land and Water Conservation Fund Act properties 36 CFR 59) within the study area?

☐ Yes (1) ☐ No (1) ☒ N/A

Other Non-Threshold Property Impacts

4.1 Will the action take place on or adjacent to Tribal lands or other Federal lands?

☐ Yes ☒ No

4.2 Will federal funds be used to relocate utilities, or will the project contractor be responsible for the relocation of the utilities?

☐ Yes ☒ No ☐ Unknown

The following questions should only be answered when the action is processed for CE Level 2 or CE Level 3 determinations. These questions are not required for a CE Level 1 analysis.

4.3 Trails – Will the action involve construction of new trails on ROW not previously designated for trails?

☐ Yes ☒ No

4.4 Farmland – Will the action result in impacts to prime or unique farmland?

☒ Yes ☐ No

4.5 If Yes, does the affected property accumulate 60 points or more in Part VI of the NRCS-CPA-106 Form?

☐ Yes ☒ No ☐ N/A

4.6 Describe resources, impacts, and the coordination conducted with officials/agencies (including FHWA):

The NRCS-CPA-106 (Farmland Conversion Impact Rating For Corridor Type Projects) form shows that the Part VI section assessment point total is 40. The NRCS-CPA-106 (Farmland Conversion Impact Rating For Corridor Type Projects) form is based on a point system that has 160 points set as the minimum number limit for "Total Points" that triggers additional in-depth site reviews. The NRCS evaluation portion Part V is on a scale of 0 to 100 points. That means that the Federal Agency Part VI "Total Site Assessment Points" must be at least 60 to even warrant the possibility of reaching the 160 "Total Points" level of concern. In the case with this project, the highest possible Total Points" that could be reached would only be 140. No further coordination would be required.

4.7 Describe Mitigation for Above Non-Threshold Resources:

Utility relocation or replacement is not anticipated for the project. If utility relocation or replacement is required in a later phase of the project, a reevaluation will be required if: (1) federal funds will be used for the utility work; or (2) the project construction contractor will be responsible for the work. If this utility work is identified during final design, the project sponsor will initiate the reevaluation prior to project letting. If the work is identified during construction, the project sponsor will initiate the reevaluation prior to the commencing utility work. (NDOR Environmental, NDOR District)

If any one of the above two conditions do not apply, later relocation or replacement of utilities shall be coordinated through NDOR and the Contractor per NDOR's Standard Specifications for Highway Construction, Subsection 105.06. Any environmental permits required for these utility relocations or replacements shall be the responsibility of the Utility. (NDOR District, Utility Provider(s))

Water and Ecological Resources:

5.1 Wild and Scenic/National Recreational Rivers – Will the action cross or occur adjacent to a Wild and Scenic River, National Recreational River Segment, or a river listed on the nationwide rivers inventory, including its buffer area?

☐ Yes* ☒ No ☐ N/A

Note: If Yes, the proposed action can be processed as a Level 1 [all Appendix A categories] or a Level 2 Action [Appendix B categories other than (26), (27), and (28)] if the Agency with Jurisdiction has determined the action will not result in an impact.

6.1 Floodplain/Floodway – Will the action occur within the boundaries of a mapped Zone A floodplain or a mapped floodway?

[X] Yes (1) [ ] No (1) [ ] N/A

If Yes, attach permits to the CE document. If a floodplain permit has not been obtained, add commitment that one will be obtained prior to the start of construction.

6.2 Will the action cause a greater than 1-foot rise in the Base Flood Elevation (BFE), any rise in a floodplain that potentially impacts an adjacent structure, or any rise in a floodway?

[ ] Yes (3) [X] No (1) [ ] N/A

6.3 Will the actions reviewed under Appendix B, Paragraphs (26), (27), and (28) result in a floodplain encroachment other than functionally dependent uses or actions that facilitiate open space use?

[ ] Yes (3) [X] No [ ] N/A

6.4 Describe resources, impacts, and the coordination conducted with officials/agencies:

Cedar County has no FEMA Floodplain mapping and does not participate in the National Flood Insurance Program; therefore the project must meet State Minimum Standards. Three potential Zone A floodplains (greater than 640 acres of drainage) would be encountered by this project.

The project crosses the potential Zone A Floodplain for an Unnamed Drainage at a 10 foot span by 10 foot rise concrete box culvert (CBC) 51 feet in length at approximate MM 190.32. The existing box culvert is to be used in place and the work at this location is limited to the resurfacing work along N-12. Work conducted on the structure would not cause a floodplain encroachment other than functionally dependent uses.

The project crosses the potential Zone A Floodplain for an Unnamed Drainage at a 12 foot span by 8 foot rise concrete box culvert (CBC) 62 feet in length at approximate MM 298.90. The existing box culvert is to be used in place and the work at this location is limited to the resurfacing work along N-12. Work conducted on the structure would not cause a floodplain encroachment other than functionally dependent uses.

The project crosses the potential Zone A Floodplain for an Unnamed Drainage at a 10 foot span by 10 foot rise concrete box culvert (CBC) 63 feet in length at approximate MM 402.00. The existing box culvert is to be used in place and the work at this location is limited to the resurfacing work along N-12. Work conducted on the structure would not cause a floodplain encroachment other than functionally dependent uses.

The project crosses the potential Zone A Floodplain for West Bow Creek at a 3-span 155 foot continuous concrete slab structure (S012 20366). Bridge work would consist of removing the existing bridge and replacing with a 3-span IT700 girder bridge. The new structure would be shifted 38' to the south from centerline to centerline, as well as being located 50 feet to the east from its current location in order to align with the creek channel. Approaches would be added to the new structure along with grade beams supported by pile. Crossing pipes would be required for the proposed construction access. The existing guardrail would be removed and replaced along with updated buttresses. The roadway would be reconstructed adjacent to the bridge replacement work for this structure. Work conducted on the structure would not cause a floodplain encroachment other than functionally dependent uses.

The project crosses the potential Zone A Floodplain for Bow Creek at a 3-span 245 foot continuous concrete box girder bridge (S012 20744). Bridge work would consist of removing the existing bridge and replacing with a 3-span 270 foot long NU100 girder bridge. Approaches would be added to the new structure along with grade beams supported by pile. A temporary bridge would be required for the proposed construction access. The existing guardrail would be removed and replaced along with updated buttresses. The roadway would be reconstructed adjacent to the bridge replacement work for this structure. Work conducted on the structure would not cause a floodplain encroachment other than functionally dependent uses.

The project crosses the potential Zone A Floodplain for Second Bow Creek at a 3-span 100 foot concrete slab bridge (SS14H00251). The bridge would receive partial depth deck repairs, an asphalt overlay with membrane application, concrete repairs on rail posts, pier cap repairs, deck edge line repairs, and sealing of the bridge rails. Asphalt wedges would be placed at the end of floor locations for the grade raise. The existing guardrail would be removed and replaced, and buttresses would be updated. Work conducted on the structure would not cause a floodplain encroachment other than functionally dependent uses.

The project cross the potential Zone A Floodplain for a Second Bow Creek Tributary at a 3-span 80 concrete slab bridge (SS14H00363). The bridge would receive partial depth deck repairs, an asphalt overlay with membrane application, concrete repairs on rail posts, pier cap repairs, deck edge line repairs, and sealing of the bridge rails. Asphalt wedges would be placed at the end of floor locations for the grade raise. The existing guardrail would be removed and replaced, and buttresses would be updated. Work conducted on the structure would not cause a floodplain encroachment other than functionally dependent uses.

See the following for more details: 131 - 32131 Floodplain Memo

7.1 Wetlands/Waters of the U.S. – Are there wetlands, stream channels, or other waters within the study area?

[X] Yes (1) [ ] No (1)

7.2 Will the action result in wetland impacts in accordance with Section 404 of the Clean Water Act and/or Nebraska State Title 117?

[X] Yes (1) [ ] No (1)

7.3 Will the action result in greater than 0.5 acres (total permanent) of wetland impacts?

[ ] Yes (2) [X] No (1) [ ] N/A

7.4 Estimated Permanent Wetlands Impacts:

0.12

7.5 If the project is processed with a Nationwide Permit, is a Pre-construction Notification required?

[X] Yes (2) [ ] No (1) [ ] N/A

7.6 Will the action require an Individual Permit (IP) or Section 10 Permit from the U.S. Army Corps of Engineers or a Section 9 Permit from the U.S. Coast Guard?

[ ] Yes (3) [X] No (2) [ ] N/A

7.7 Describe resources, potential impacts, and any coordination conducted to date with officials/agencies:

Based on review of the wetland delineation from 8/14/2013, DR290 and pre-construction notification, potential permanent wetland impacts total 0.1197 acres of PEMA/C (0.0322 ac) and PSSA (0.0875 ac) wetlands. Permanent impacts would result from fill associated with culvert and bridge improvements and roadside grading. If mitigation is required by the USACE, impacts would be mitigated at the Tracy Creek Mitigation Bank. Temporary impacts due to construction activities and temporary access crossing, would total approximately 0.120 acres of primarily PEMA/C wetlands. Temporary impacts to channels below ordinary high water mark (OHWM) amount to approximately 120 linear (0.237 acre) and result from structure replacement and roadside grading. No permanent channel impacts are expected. Due to potential wetland and channel impacts, it is expected that this project would require a Section 404 permit Nationwide #14.

7.8 Wetlands/Waters of the U.S. Mitigation:

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. (Contractor, NDOR District)

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. (NDOR Design, NDOR Environmental)

The project will require a NWP #14 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)

See the following for more details: 141 - 32131 Wetlands PQS Memo and 142 - 32131 2W Plansheets

8.1 Impaired Waters, Section 402, and MS4 – Are there any impaired waters within or adjacent to *(0.5 mile)* the project study area?

[X] Yes [ ] No

8.2 Does the project occur within a MS4 community?

[ ] Yes [X] No

8.3 Does the project require a NPDES storm water permit (*ground disturbance of greater than 1 acre*)?

[X] Yes [ ] No

If Yes, add standard Erosion Control plans and Storm Water Pollution Prevention Plan (SWPPP) commitment to the mitigation commitments.

8.4 Describe resources, potential impacts, and any coordination conducted with officials/agencies:

Bow Creek (Structure Number S012 20744) is listed as a Category 5 water for recreation impairment due to bacteria levels (E. Coli).

8.5 Impaired Waters, Section 402, and MS4 Mitigation:

Erosion control plans and storm water pollution prevention plans (SWPPP) are required on all projects that have one acre or more of disturbed soil. NDOR inspects all erosion and sediment control best management practices (BMP's) including devices every 14 days minimum and after every precipitation event of 0.5 inch or greater as per the requirements in the General Construction Storm Water Permit. Any BMP adjustments and repairs are to occur within 7 days of the inspections to ensure that water quality is being protected to the maximum extent practicable. The SWPPP shall be maintained and discharge points shall be monitored by the NDOR District Staff until the site is 70% re-vegetated. At that time the Notice of Termination with NDEQ for the General Construction Storm Water Permit and completion of the SWPPP responsibilities shall be filed. (NDOR Environmental)

There are Category 5 impaired waters in the project study area; BMPs shall be reviewed and developed as necessary during the erosion control review process. If mitigation is required for impaired waters, it shall be captured in the projects erosion control plan sheets and special provisions. (NDOR Roadside Stabilization Unit)

9.1 Threatened and Endangered Species – Will the action result in a "May Affect" determination per the Nebraska Biological Evaluation Process *Matrix** that requires further consultation with the resource agencies?

[ ] Yes (2) [X] No (1)

NDOR PQS Determination Date:

4/21/2016

9.4 Suitable habitat for eagle nesting is reviewed as part of the *Matrix* Biological Evaluation process and projects are evaluated for compliance with the Bald and Golden Eagle Protection Act (BGEPA). This project was reviewed for potential impacts to bald and golden eagles resulting in the following determination:

[X] NDOR has determined the project site does not have appropriate habitat for eagles. Due to the lack of suitable habitat and the 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.

[ ] It has been determined that suitable habitat does exist within 0.5 mile of the Environmental Study Area. NDOR will utilize the Bald and Golden Eagle Survey Protocols to determine when a survey for nests and/or roosts should be conducted. If nest(s) are present within 0.5 mile of the project area, NDOR will notify the Nebraska Game and Parks Commission and the United States Fish and Wildlife Service, and construction will not commence prior to their approval.

9.5 This project will comply with the Migratory Bird Treaty Act *(MBTA)* in accordance with NDOR's Avian protection Plan *(APP)* and Biological Evaluation *Matrix* Appendix A.

[X]

9.6 If a Section 404 Individual Permit is required, coordination under the Fish and Wildlife Coordination Act will occur during the permitting process.

[ ] Coordination Required [X] N/A

9.7 Describe resources, potential impacts, and any coordination conducted to date with officials/agencies:

A "May Affect, Not Likely to Adversely Affect" determination is made for the following species/critical habitat with the conservation conditions listed below: Northern Long-Eared Bat. A "No Effect" determination was made for all other state or federally listed species or their designated critical habitat.

See the following for more details: 151 - 32131 T&E Concurrence Memo

9.8 Species Mitigation:

S-3 Revegetation. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder, and within high erosion prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the project area during surveys. If listed plants were identified during survey, any seed mix requirements identified during resource agency consultations shall be used for the project. (NDOR Environmental)

S-4 Sensitive Areas. Environmentally Sensitive Areas will be marked on the plans, in the field, or in the contract by NDOR Environmental for avoidance. (NDOR Environmental, District Construction)

S-5 Species Surveys. If species surveys are required for this project, results will be sent by NDOR to the USFWS, NGPC, and if applicable COE. FHWA will be copied on submittals. (NDOR Environmental, District Construction)

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 – March 31st), NDOR personnel will perform surveys prior to the start of these activities at the following locations: the bridge over West Bow Creek (S012 20366) near MM 203.67, HWY. N-12; bridge over Bow Creek (S012 20744) near MM 207.43, HWY. N-12; bridge over Second Bow Creek (SS014H00251) near MM 2.43, Spur 14H; and the bridge over a tributary to Second Bow Creek (SS014H00363) near MM 3.52, Spur 14H. (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)

* The Nebraska Biological Evaluation Process Programmatic Agreement *Matrix* complies with the Federal Endangered species Act *(ESA)* and Nebraska Nongame and Endangered Species Conservation Act *(NESCA)*.

Human and Social Resources

10.1 Historic Properties – Are there any properties listed or eligible for the National Register of Historic Properties in the study area?

[X] Yes (1) [ ] No (1)

10.2 Will the action result in Section 106 effects other than a "No Potential to Cause Effects" or a "No Historic Properties Affected" determination?

[X] Yes (2) [ ] No (1)

10.3 Will the project result in an "adverse effect" to any historic property?

[X] Yes (3) [ ] No (No adverse effect) (2)

10.4 Historic Property Determination

Adverse Effect

NDOR PQS Determination Date:

8/9/2016

Has coordination occurred with SHPO?

[X] Yes [ ] No

SHPO Concurrence Date:

6/8/2016

Has coordination occurred with THPO?

[X] Yes [ ] No

THPO Concurrence Date:

8/9/2016

Has coordination occurred with CLG?

[ ] Yes [X] No

10.5 List NRHP Eligible or NRHP Listed Resources, Impacts, and Coordination:

The Bow Creek Bridge (S012 20744), a Continuous concrete box girder bridge, is eligible for listing on the NRHP under Criterion C of NRHP for Evaluation. The Bow Creek Bridge was constructed in 1959 and is a 247-foot-long continuous concrete box girder bridge with variable depth and curved concrete end posts.Bridge S012 20744 (CD00-334) received its most recent biennial/fracture critical inspection in September 2014. The bridge is currently classified as functionally obsolete and has structural defects. Continued use of the bridge for vehicular traffic at either its existing location or an alternative location would require that the functional obsolescence be addressed, and although the bridge is not structurally deficient, structural improvements would also be needed. Coordination letters were sent to Nebraska State Historical Society (SHPO), Ponca Tribe of Nebraska, and the Cedar County Historical Society. The SHPO concurred with the finding of Adverse Effect on 6/8/2016, the Cedar County Historical Society had no response during the comment period that ended 7/1/2016, and the Ponca Tribe had no response during the 30 comment period which ended 8/9/2016. The Advisory Council on Historic Properties (ACHP) was notified of the adverse effect on 6/9/2016, and they acknowledged receipt of the notification on 6/9/2016. The Historic Bridge Treatment/Alternatives Evaluation was completed for the Project, and concluded that all avoidance treatments and alternatives would require replacement or substantial repair or modification of the existing Bow Creek Bridge design and exceptional engineering elements, which are considered the character defining features of the bridge's historic significance.

A Memorandum of Agreement (MOA) between FHWA, NDOR, and the SHPO was signed on 8/4/2016. The MOA contains a requirement for documentation of the bridge prior to demolition or repair. This recordation would take place prior to letting the project for construction, with the recordation package completed prior to the start of construction. A copy of the executed MOA was submitted to the ACHP on 8/12/2016 and, as a result, the ACHP determined that Section 106 consultation was complete on 8/12/2016. A copy of the executed MOA may be found in Attachment162 - 32131 Signed MOA.

See the following for more details: 161 - 32131 PQS TierIII Review and 162 - 32131 Signed MOA

10.6 Historic Property Mitigation:

I. NDOR shall record the bridge to include the following stipulations:
a. Digital photographs of the bridge prior to any demolition activity at the site. Photographs shall be numbered and labeled according to NRHP standards and include at a minimum the following images:
i. Images of the structural components that define the significant character defining features of the bridge as identified in the Historic Bridge Inventory including, but not limited to the deck, truss system, floor beams and cross bracing.
ii. Images of the setting and surrounding area including landscape and highway to put the bridge into a geographical context.
iii. Images of the traveling surface of the bridge itself.
b. A site plan including the highway, the bridge, and its geographical context.
c. A photo key to identify the location of digital images.
d. A narrative description of the bridge documenting the current condition.
e. An index and copies of pertinent documents identifying the evolution of the project including the historic bridge inventory form, the alternatives analysis, the structural deficiency report, and any and all appropriate correspondence and supporting documentation.
II. An electronic copy of the final report shall be submitted to NDOR and Nebraska SHPO
(NDOR Environmental)

11.1 Hazardous Materials – Will the project actions exceed the scope of the listed exemption identified in NDOR's Hazardous Materials Assessment Guidance?

[X] Yes (1) [ ] No (1)

11.2 Will the action result in more than a Low Potential for encountering hazardous materials during construction (excluding Lead Based Paint or Asbestos Containing Material)?

[ ] Yes (2) [X] No (1)

11.2A There is potential for the project to encounter Lead Based Paint (LBP). LBP standard specifications shall apply to the proposed project.

[X] Yes [ ] N/A

11.2B Asbestos Containing Materials (ACM) has been identified on bridge structures. ACM specifications will be included in the contract by special provisions.

[X] Yes [ ] N/A

11.4 Will any soil disturbance occur below or beyond preexisting roadway fill within an active Superfund Site?

[ ] Yes (3) [X] No (1)

NDOR PQS Determination Date:

5/27/2016

11.5 Describe potential conflicts and the coordination with officials/agencies:

The HMR did not identify any facilities where past releases have occurred within the hazardous materials study area. One landfill was identified within 0.5 miles of the project limits. The former Wynot landfill is located approximately 900 feet west of the northern project construction limits on S14D. The landfill is inactive and no past releases have been identified associated with this site. Based on the distance from the landfill to construction activities and the shallow soil disturbance associated with the project, there is a low potential of encountering contamination during construction.

No Superfund sites were identified within the hazardous materials study area.

Bridge structures S012 20366 and S012 20744 were tested for asbestos containing material(ACM). Structure S012 20744 was negative. NDOR would submit the NESHAP notification for this structure to NDEQ. Structure S012 20366 tested positive for ACM in the black expansion/cushion plate between the abutment and the bottom of the bridge deck. Contractor commitments for asbestos removal are outlined below. Lead commitments pertaining to the removal of painted components and lead plates/shims would apply to the replacement of structures S012 20366 and S012 20744.

See the following for more details: 171 - 32131 Wynot E&W HMR PQS Memo

11.6 Hazardous Materials Mitigation:

Asbestos Commitments
The scope of work for the bridge structure S012 20366 required an inspection for asbestos containing material (ACM). Non-friable ACM was found in the black expansion joint/cushion plate between the bridge abutment and the bottom of the deck (approximately 75 SF). The ACM must be removed in a way that allows the ACM to remain in a non-friable condition. Removal and disposal of the ACM shall be in accordance with Nebraska Department of Health and Human Services (DHHS) Nebraska Asbestos Control Program Regulations, Title 178. Because the ACM is non-friable, the contractor can complete the removal as long as the ACM remains in non-friable state. If the contractor cannot commit to keeping the ACM in a non-friable state upon removal, the contractor shall develop a removal and disposal plan in coordination with a licensed Asbestos Removal Contractor and NDOR. A list of Licensed Asbestos Removal Contractors can be found at:
http://dhhs.ne.gov/publichealth/Documents/asbestosbusinessentities.pdf. Coordination with DHHS shall be completed prior to asbestos removal. The ACM shall be taken to a landfill that accepts asbestos, and the landfill receipts shall be provided to the NDOR environmental section. (NDOR District, Contractor)

Demolition work on the bridge structure S012 20366 will require the contractor to submit a written NESHAP (National Emission Standards for Hazardous Air Pollutants) notification to the Nebraska Department of Environmental Quality (NDEQ). In addition, the Department of Health and Human Services and the shall also be notified by the contractor, using DHHS Form 5, at least 10 working days prior to commencement of bridge demolition or renovation activities where ACM was found. The ten day clock starts with the day the Notification is postmarked, hand delivered or picked up by a commercial delivery service, such as UPS, FedEx, etc. (NDOR District, Contractor)

Lead Commitments
There is potential for lead based paint to be found on the bridges' painted components. 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 plates or 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. (NDOR District, Contractor)

Unexpected Waste Commitment
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 (NDOR District, Contractor).

12.1 Traffic Noise – Does the project qualify as a Type I Project under NDOR's Noise Policy?

☐ Yes (3) ☒ No (1) ☐ N/A

13.1 Air Quality – Will the action increase capacity in exceedance of 100,000 vehicles per day in the 20th year following construction; will it result in a high potential for Mobile Source Air Toxics*(MSAT Level III)* effects; or is it considered *Regionally Significant* within a designated non-attainment area?

☐ Yes (3) ☒ No ☐ N/A

14.1 Roadway – Will the action result in the addition of through-lane capacity?

☐ Yes (3) ☒ No (1) ☐ N/A

15.1 Traffic Disruption – Will the action result in minor traffic disruptions requiring detours, temporary roads, or ramp closures that are greater than 30 working days?

☒ Yes (2) ☐ No (1)

15.2 Will the action result in major traffic disruption requiring detours, temporary roads, or ramp closures that are greater than 135 working days?

☒ Yes (3) ☐ No (2)

15.3 Will temporary roads, detours, or ramp closures substantially change the environmental consequences of the action?

☐ Yes (3) ☒ No (1)

15.4 Will the action result in adverse travel *(out-of-direction)* greater than 5 miles in urban areas or 25 miles in rural areas?

☐ Yes (3) ☒ No (1)

15.5 Will the action result in temporary or permanent interference with local special events or festivals?

☐ Yes (3) ☒ No (1)

15.6 Will the action result in temporary or permanent adverse effects to through-traffic dependent business?

☐ Yes (3) ☒ No (1)

15.7 Will the action result in permanent traffic pattern changes or disruptions?

☐ Yes (3) ☒ No (1)

If a detour is required for the project, attach a map to the CE document.

15.8 Traffic Disruption Comments:

The project would be constructed over two construction seasons. Work on the Bow Creek Bridge (S012 20744) would require a detour for approximately 165 working days. The designated detour would utilize N-15, N-84 and N-57. The out-of-direction travel would be approximately 23 miles. No maintenance or upgrades would occur on the designated detour route.

While the Bow Creek Bridge is being replaced, two culverts approximately 0.4 miles east of the bridge would require closing of N-12 to local traffic for approximately 2 weeks. County Road 570, between Bow Creek Bridge and the culverts, would remain open to local traffic.

The realignment of County Road 891 north of N-12 would require a one week closure of the roadway. Traffic would be able to utilize 567th Avenue as an alternate route. No work would be required on the alternate route. The alternate route was reviewed for potential impacts (Wetlands, T&E Species, Historic Properties, Hazardous Materials, and Protected Populations), and no additional impacts would be anticipated. Email correspondence can be found attached with the associated resource review.

Coordination with the affected public and emergency services has occurred, following the requirements of the approved public involvement plan. No adverse effects to businesses or emergency services were identified during the public outreach.

See the following for more details: 191 - 32131 Project Detour Map and 192 - 32131 Co Rd Detour

15.9 Traffic Disruption Mitigation:

This project shall be constructed mostly under traffic with lane closures controlled by approved temporary traffic control. A detour will be needed for the replacement of S012 20744 over Bow Creek. The project shall not result in traffic disruptions requiring detours, temporary roads, or ramp closures that are greater than 165 working days. (Contractor)

County Road 570 shall remain open to traffic at all times while S012 20744 and the two culverts are being worked on. The closure of N-12 for the two culverts shall not exceed two weeks. (Contractor)

The closure of County Road 891 shall not exceed one week. (Contractor)

16.1 Access Disruptions – Will the action require any access closures to businesses or residences?

☐ Yes (1) ☒ No (1)

16.5 Will the action result in access restrictions to emergency service facilities or providers?

☐ Yes (3) ☒ No (1)

16.6 Will the action change the functionality of adjacent properties?

☐ Yes (3) ☒ No (1)

16.7 Access Disruption Comments:

Access to adjacent properties would be maintained during construction but may be limited at times due to phasing requirements. The property driveway to the east of Structure S012 20744 would be realigned, during which a second drive to the north would be utilized by the property owner. Coordination with the landowner took place during the public involvement process.

Coordination with the affected public and emergency services has occurred, following the requirements of the approved public involvement plan. No adverse effects to businesses or emergency services were identified during the public outreach.

16.8 Substantial Access Disruption Mitigation:

Access to adjacent properties shall be maintained at all time during construction but may be disrupted temporarily at times due to construction activities, but will not be closed. (Contractor)

17.1 Environmental Justice – Are protected populations within the study area?

☐ Yes (1) ☒ No (1)

NDOR Highway Civil Rights Specialist Determination Date:

10/22/2014

17.4 Describe resources, impacts, and the coordination conducted with officials/agencies:

In no instances are the minority, Hispanic, or low-income populations in the localities or tracts meaningfully greater than the corresponding figures for Cedar County. Block-level US Census data does not indicate any concentrations or populations of minority persons on the project site or along the detour route.

The percentage of persons below the poverty line in Nebraska is 12.9% according to American Community Survey 2010-2014 5-year estimates. None of the low-income percentages in areas relevant to this project in Cedar County exceed that figure. The project is not occurring in a known low-income area.

There would be no disproportionately high and adverse human health or environmental effects visited upon minority and low-income populations, as defined in FHWA Order 6640.23A, because these protected populations are not present in the project area or along the detour route.

See the following for more details: 201 - Civil Rights Analysis

18.1 Public Involvement – Provide a summary of any completed and planned Public Involvement Activities**:**

Based on an analysis of the project scope and a civil rights analysis, a public information open house meeting, targeted mailer in the form of a public notification, legal notice, news release, website, MindMixer, temporary highway signs, and a 30-day comment period were used as outreach tools for public involvement on this project.

A public notification, one-on-one meetings with property owners, and website were used as outreach tools for the project information. The public notification involved mailing a project information sheet and culvert phasing revision map to the Village of Wynot and Cedar County, and the project information was placed on the NDOR website. A public information open house meeting was held at the Wynot Village Office in Wynot, Nebraska on Tuesday, May 12, 2016 from 4:00 to 6:00 PM. The public notification involved mailing a project notification to a distribution list of citizens and businesses adjacent to N-12 from MM 201.13 to MM 210.79, S-14B from MM 0.00 to MM 0.27, and S-14H from MM 0.00 to MM 5.37. Public and private agencies with potential interest in the project were also included in the distribution list. A legal notice was placed in Cedar County News, a Nebraska Press Association recognized newspaper, on April 15, 2015 and April 29, 2015. A news release was published. Temporary highway signs advertising the meeting were placed near the project. Project information was placed on the NDOR website and MindMixer.

NDOR Public Involvement received 1 comment during the specified comment period (April 15, 2015 – May 27, 2015). An adjacent property owner expressed concern with the sight-distance at N-12/S-14H junction, bank stabilization of the new bridge, drive and field access, and ROW fencing. The resident was made aware that NDOR has looked at the issue. The new bridge would be wider than the old bridge, allowing for improved site distance. All concerns were addressed by NDOR, and the phone call log (5/27/2015) can be found in the attachments.

After the initial public involvement was completed the project added culvert work near the intersection of N-12 and 570th Ave. The added work would require a short closure to local traffic (approximately 2 weeks) during the Bow Creek Bridge replacement. As a result, one-on-one meetings were held with 3 property owners adjacent to the intersection of N-12 with 570th Avenue. Two of the land owners had comments for NDOR regarding access, and one had no issues with the project. All access issues were discussed and resolved. One land owner submitted comments on behalf of himself and of a Trust that he was purchasing the land from. Comments and responses can be found in the attachments.

The areas in which this project and its detour route are 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. No LEP outreach is required for this project.

See the following for more details: 211 - PI Summary Report

18.2 Public Involvement Mitigation:

A minimum of one news release shall go to all local and area media, and be posted on the NDOR website, prior to the start of construction work. (NDOR District, NDOR Communications)

19.1 Unresolved Controversy – Based on public involvement carried out per NDOR's procedures, is there any known public or agency controversy on human, natural, or economic grounds associated with the action?

☐ Yes ☒ No

If Yes, coordinate with FHWA to determine the proper level of environmental review.

Contract Provisions Required

20.1 Wellhead Protection Special Provisions

☒ Yes ☐ No

20.2 General Conditions for Nationwide Permit — Nationwide Permit: 14

☒ Yes ☐ No

20.3 Federal Aviation Administration *(FAA)* Form 7460-1

☐ Yes ☒ No

20.4 General Conservation Conditions from the Matrix PA

☒ Yes ☐ No

T&E General 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)

The proposed action will be carried out in compliance with Executive Order 13112 *(Invasive Species)*. The project contractor shall comply with Special Provision A-43-2010 amending NDOR Specification 107.01 to include the following: The Contractor shall prevent the transfer of invasive plant and animal species. The Contractor shall wash equipment at the Contractor's storage facility prior to entering the construction site. The Contractor shall inspect all construction equipment and remove all attached vegetation and animals prior to leaving the construction site.

21.1 No Indirect or Cumulative Impacts

[X]

This box can be checked if after careful consideration of the Indirect and Cumulative Impact analysis guidance in the CE instructions and the facts of the project, the following statement is determined to be true:
"Indirect effects from this project are not anticipated. This project will not induce growth, change land uses, substantially change travel patterns within a community, or substantially impact water quality, drainage patterns or other resources of concern. Since no substantial human, environmental or economic impacts have been identified for this project; no cumulative impacts are expected."

21.3 Cumulative Impacts:

There are two other planned projects in District 3 that are located in proximity of the detour route for this project: Hartington East, CN 32064, STP-84-6(107), letting 8/30/18 and Hartington North, CN 32256, STP-57-4(118) letting 8/29/2019. Both of these projects would be completed under traffic without the use of detour. Due to the timing of the projects, particularly the interval between the construction periods, there would be no cumulative impacts. The proposed project would require a detour during Fiscal Year 2017; however, these projects would not be constructed until Fiscal Years 2018 and 2019, well after the detour has been removed.

23.1 **Project Mitigation**:

Mitigation for Above Non-Threshold Resources:
Utility relocation or replacement is not anticipated for the project. If utility relocation or replacement is required in a later phase of the project, a reevaluation will be required if: (1) federal funds will be used for the utility work; or (2) the project construction contractor will be responsible for the work. If this utility work is identified during final design, the project sponsor will initiate the reevaluation prior to project letting. If the work is identified during construction, the project sponsor will initiate the reevaluation prior to the commencing utility work. (NDOR Environmental, NDOR District)

If any one of the above two conditions do not apply, later relocation or replacement of utilities shall be coordinated through NDOR and the Contractor per NDOR's Standard Specifications for Highway Construction, Subsection 105.06. Any environmental permits required for these utility relocations or replacements shall be the responsibility of the Utility. (NDOR District, Utility Provider(s))

Wetlands/Waters of the U.S. Mitigation:
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. (Contractor, NDOR District)

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. (NDOR Design, NDOR Environmental)

The project will require a NWP #14 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)

See the following for more details: 141 - 32131 Wetlands PQS Memo and 142 - 32131 2W Plansheets

Impaired Waters, Section 402, and MS4 Mitigation:
Erosion control plans and storm water pollution prevention plans (SWPPP) are required on all projects that have one acre or more of disturbed soil. NDOR inspects all erosion and sediment control best management practices (BMP's) including devices every 14 days minimum and after every precipitation

event of 0.5 inch or greater as per the requirements in the General Construction Storm Water Permit. Any BMP adjustments and repairs are to occur within 7 days of the inspections to ensure that water quality is being protected to the maximum extent practicable. The SWPPP shall be maintained and discharge points shall be monitored by the NDOR District Staff until the site is 70% re-vegetated. At that time the Notice of Termination with NDEQ for the General Construction Storm Water Permit and completion of the SWPPP responsibilities shall be filed. (NDOR Environmental)

There are Category 5 impaired waters in the project study area; BMPs shall be reviewed and developed as necessary during the erosion control review process. If mitigation is required for impaired waters, it shall be captured in the projects erosion control plan sheets and special provisions. (NDOR Roadside Stabilization Unit)

General Conservation Conditions from the Matrix PA:

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)

Species Mitigation:
S-3 Revegetation. All permanent seeding and plantings (excluding managed landscaped areas) shall use species and composition native to the project vicinity as shown in the Plan for the Roadside Environment. However, within the first 16 feet of the road shoulder, and within high erosion prone locations, tall fescue or perennial ryegrass may be used at minimal rates to provide quick groundcover to prevent erosion, unless state or federally listed threatened or endangered plants were identified in the project area during surveys. If listed plants were identified during survey, any seed mix requirements identified during resource agency consultations shall be used for the project. (NDOR Environmental)

S-4 Sensitive Areas. Environmentally Sensitive Areas will be marked on the plans, in the field, or in the contract by NDOR Environmental for avoidance. (NDOR Environmental, District Construction)

S-5 Species Surveys. If species surveys are required for this project, results will be sent by NDOR to the USFWS, NGPC, and if applicable COE. FHWA will be copied on submittals. (NDOR Environmental, District Construction)

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 – March 31st), NDOR personnel will perform surveys prior to the start of these activities at the following locations: the bridge over West Bow Creek (S012 20366) near MM 203.67, HWY. N-12; bridge over Bow Creek (S012 20744) near MM 207.43, HWY. N-12; bridge over Second Bow Creek (SS014H00251) near MM 2.43, Spur 14H; and the bridge over a tributary to Second Bow Creek (SS014H00363) near MM 3.52, Spur 14H. (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)

Historic Properties Mitigation:
I. NDOR shall record the bridge to include the following stipulations:
a. Digital photographs of the bridge prior to any demolition activity at the site. Photographs shall be numbered and labeled according to NRHP standards and include at a minimum the following images:
i. Images of the structural components that define the significant character defining features of the bridge as identified in the Historic Bridge Inventory including, but not limited to the deck, truss system, floor beams and cross bracing.
ii. Images of the setting and surrounding area including landscape and highway to put the bridge into a geographical context.
iii. Images of the traveling surface of the bridge itself.
b. A site plan including the highway, the bridge, and its geographical context.
c. A photo key to identify the location of digital images.
d. A narrative description of the bridge documenting the current condition.
e. An index and copies of pertinent documents identifying the evolution of the project including the historic bridge inventory form, the alternatives analysis, the structural deficiency report, and any and all appropriate correspondence and supporting documentation.
II. An electronic copy of the final report shall be submitted to NDOR and Nebraska SHPO
(NDOR Environmental)

Hazardous Materials Mitigation:
Asbestos Commitments
The scope of work for the bridge structure S012 20366 required an inspection for asbestos containing material (ACM). Non-friable ACM was found in the black expansion joint/cushion plate between the

bridge abutment and the bottom of the deck (approximately 75 SF). The ACM must be removed in a way that allows the ACM to remain in a non-friable condition. Removal and disposal of the ACM shall be in accordance with Nebraska Department of Health and Human Services (DHHS) Nebraska Asbestos Control Program Regulations, Title 178. Because the ACM is non-friable, the contractor can complete the removal as long as the ACM remains in non-friable state. If the contractor cannot commit to keeping the ACM in a non-friable state upon removal, the contractor shall develop a removal and disposal plan in coordination with a licensed Asbestos Removal Contractor and NDOR. A list of Licensed Asbestos Removal Contractors can be found at:
http://dhhs.ne.gov/publichealth/Documents/asbestosbusinessentities.pdf. Coordination with DHHS shall be completed prior to asbestos removal. The ACM shall be taken to a landfill that accepts asbestos, and the landfill receipts shall be provided to the NDOR environmental section. (NDOR District, Contractor)

Demolition work on the bridge structure S012 20366 will require the contractor to submit a written NESHAP (National Emission Standards for Hazardous Air Pollutants) notification to the Nebraska Department of Environmental Quality (NDEQ). In addition, the Department of Health and Human Services and the shall also be notified by the contractor, using DHHS Form 5, at least 10 working days prior to commencement of bridge demolition or renovation activities where ACM was found. The ten day clock starts with the day the Notification is postmarked, hand delivered or picked up by a commercial delivery service, such as UPS, FedEx, etc. (NDOR District, Contractor)

Lead Commitments
There is potential for lead based paint to be found on the bridges' painted components. 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 plates or 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. (NDOR District, Contractor)

Unexpected Waste Commitment
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 (NDOR District, Contractor).

Traffic Disruption Mitigation:
This project shall be constructed mostly under traffic with lane closures controlled by approved temporary traffic control. A detour will be needed for the replacement of S012 20744 over Bow Creek. The project shall not result in traffic disruptions requiring detours, temporary roads, or ramp closures that are greater than 165 working days. (Contractor)

County Road 570 shall remain open to traffic at all times while S012 20744 and the two culverts are being worked on. The closure of N-12 for the two culverts shall not exceed two weeks. (Contractor)

The closure of County Road 891 shall not exceed one week. (Contractor)

Substantial Access Disruption Mitigation:
Access to adjacent properties shall be maintained at all time during construction but may be disrupted temporarily at times due to construction activities, but will not be closed. (Contractor)

Public Involvement Mitigation:
A minimum of one news release shall go to all local and area media, and be posted on the NDOR website, prior to the start of construction work. (NDOR District, NDOR Communications)

Additional Mitigation:
Borrow Site:
Any material needed shall be provided by the Contractor. The Contractor shall try to obtain borrow from an upland site to prevent depletion issues. If the borrow site is within a depletion area of concern, the Contractor shall coordinate with the appropriate agencies and NDOR to offset or minimize impacts. The Contractor shall obtain all environmental clearances and permits required for the borrow site prior to obtaining borrow material for the project. (Contractor)

The Contractor shall have a staging area for the project where material and equipment for the project is stored (e.g. re-steel, forms, etc.). The Contractor shall be required to dispose of material removed as part of the project described above and miscellaneous obstructions encountered and removed along the project. The disposal shall be the responsibility of the Contractor. A waste site may be needed. The Contractor shall be responsible to obtain all permits and clearances and all conditions of those permits shall be followed.(Contractor)

Wellhead Protection Areas:
A portion of the project has been identified as being located within the Bow Valley Water Works Village of Wynot Wellhead Protection Area. NDOR's Standard Specifications 107.01, 107.09 and 107.16 address the Contractor's responsibility to keep fully informed of, observe and comply with all federal, state and local laws and ordinances that affect the conduct of the work. (Contractor)

The proposed project qualifies as a Categorical Exclusion under the following activity found in 23 CFR 771.117:

Paragraph: (d)

Activity: 13

Prepared by:

Barbara G. Frost

Organization:

TranSystems

Phone:

(314) 296-6777

Email:

bgfrost@transystems.com

Signature:

Date:

10/27/2016

Reviewed by Project Sponsor:

Name:

Zachery Thurber

Organization:

NDOR

Title:

Engineer II, Roadway Design

Signature:

Date:

10/28/16

NDOR has determined the information in this form is accurate and the project is in compliance with the *OPERATIONAL DRAFT* 2015 Categorical Exclusion Programmatic Agreement between FHWA and NDOR, and satisfies the criteria of 23 CFR 771.117(a) no significant impact and (b) no unusual circumstances. The mitigation identified above shall be implemented for the project.

NDOR Environmental NEPA Specialist Signature:

Ryan Walkowiak

Digitally signed by Ryan Walkowiak
Date: 2016.10.31 12:55:58 -05'00'

Date:

NDOR Environmental Documents Manager Signature *(Level 2 and 3 Requirement)*:

Jon C Barber

Digitally signed by Jon Barber
Date: 2016.10.31 12:59:22 -05'00'

Date:

FHWA Environmental Specialist *(Level 3 Requirement)*:

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: 2016.11.16 14:33:26 -06'00'

Date:

If the scope of work changes, existing conditions change, or applicable regulations change, NDOR shall reevaluate this determination in accordance with the *NDOR reevaluation procedures*.

Reevaluation Approval *(if necessary)*:

Date: