

Appendix E.7 Cultural Resources Report (Redacted)

INTENSIVE CULTURAL RESOURCE SURVEY OF THE EAST CLEAR CREEK WATERSHED ENVIRONMENTAL ASSESSMENT PROJECT ALTERNATIVES KEITH AND LINCOLN COUNTIES, NEBRASKA

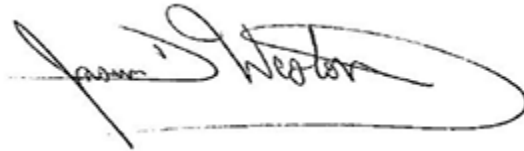
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Disclosure of site locations prohibited (43CFR 7.18)

September 12, 2025

ABSTRACT

Cultural Resource Analysts, Inc. conducted an intensive cultural resource survey of the selected alternatives for the East Clear Creek Watershed Environmental Assessment Project in Keith and Lincoln Counties, Nebraska. This survey was conducted to support compliance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA). The pedestrian survey consisted of five parcels encompassing 280 acres. The surface survey was supported by 80 shovel tests. This intensive survey recorded and evaluated one historic archaeological site, three historic architectural sites, and seven historic linear resources.

The historic archaeological site (25LN148), and the architectural sites (LN00-260, LN00-261, and KH00-104) are recommended not eligible for inclusion in the National Register of Historic Places. No avoidance or further work is recommended for these cultural resources. Per guidance from the Nebraska State Historical Society no archaeological or architectural forms were prepared for the historic linear resources; however, these seven resources were fully documented and evaluated in this report. Six of these resources are historic canals (Keith Lincoln Canal, the North Platte [Platte Valley] Canal, the Paxton Hershey Canal, Birdwood Canal, Suburban Canal, and the Cody Dillon Canal) and the seventh is the active Union Pacific Railroad. Each of these sites is recommended as eligible for inclusion in the National Register of Historic Places under Criterion A as an important event. The physical integrity for these sites, and the associated aspects of integrity are poor and do not contribute to the overall eligibility of these sites. As a result, no avoidance or further work is recommended for these linear resources. The proposed project will not affect these sites, and a determination of no historic properties is recommended for this project.

On front cover:

Upper Image: modern bronze elk sculpture entitled “Black Timber Bugler” Ed. #617 by Tim Shinabarger. Located within the Keith Lincoln northern access road inventory corridor. View to the south. Photograph taken on July 15, 2025.

Lower image: project overview of the North Platte River as seen from the North Platte Canal diversion dam access platform. View to the west. Photograph taken on July 16, 2025.

TABLE OF CONTENTS

ABSTRACT	2
LIST OF FIGURES	iii
LIST OF TABLES.....	vii
I. PROJECT IDENTIFICATION INFORMATION	1
II. BACKGROUND INFORMATION	2
III. RECORDS REVIEW.....	14
IV. CULTURAL HISTORIC SETTING	27
V. PROJECT STUDY INFORMATION.....	35
VI. ON-SURVEY SUBSURFACE TEST RESULTS.....	37
VII. INVENTORY OF CULTURAL PROPERTIES.....	38
VIII. RECOMMENDATIONS AND SUMMARY	110
REFERENCES CITED.....	110
APPENDIX A. STUDY AREA RECORDS REVIEW MAPS AT 1:24,000 SCALE	A-1
APPENDIX B. PREVIOUSLY RECORDED HISTORIC STRUCTURES WITHIN THE STUDY AREA.....	B-1
APPENDIX C. GENERAL LAND OFFICE LAND PATENT RECORDS WITHIN THE STUDY AREA	C-1
APPENDIX D. ON-SURVEY SUBSURFACE TEST RESULTS.....	D-8

LIST OF FIGURES

Figure 1. Project Area Maps at 1:24,000 Scale [KEY].	Error! Bookmark not defined.
Figure 1a. Project Area Maps at 1:24,000 Scale.	Error! Bookmark not defined.
Figure 1b. Project Area Maps at 1:24,000 Scale.	Error! Bookmark not defined.
Figure 1c. Project Area Maps at 1:24,000 Scale.....	Error! Bookmark not defined.
Figure 1d. Project Area Maps at 1:24,000 Scale.	Error! Bookmark not defined.
Figure 1e. Project Area Maps at 1:24,000 Scale.	Error! Bookmark not defined.
Figure 2. Project Area overview of the Keith Lincoln survey parcel in T14N, R36W, Section 18. View to the north. Photograph taken on July 15, 2025.	9
Figure 3. Project Area overview of the North Platte survey parcel in T14N, R34W, Section 13. View to the west. Photograph taken on July 16, 2025.	9
Figure 4. Project Area overview of the Paxton Hershey survey parcel looking northeast along the canal in T14N, R33W, Section 18. Photograph taken on July 16, 2025.	10
Figure 5. Project Area overview of the Birdwood survey parcel in T15N, R33W, Section 35. Looking southeast along the proposed access road corridor. Photograph taken on July 18, 2025.	10
Figure 6. Project Area overview of the Suburban survey parcel in T14N, R32W, Section 12. Looking north along the access road corridor. Photograph taken on July 19, 2025.	11
Figure 7. Project Area overview of the Cody Dillon survey parcel in T14N, R31W, Section 9. View to the north within the proposed access road corridor. Photograph taken on July 21, 2025.....	11

Figure 8. Example of gravel roads, pipe irrigation systems, and engine-powered water pumps. View to the north. Photograph taken on July 19, 2025.	15
Figure 9. Example of a modern bronze elk sculpture entitled “Black Timber Bugler” Ed. #617 by Tim Shinabarger. Located within the Keith Lincoln northern access road inventory corridor in T14N, R63W, Section 18. View to the south with crew member for scale. Photograph taken on July 15, 2025.	15
Figure 10. Excerpt from Colton (1869) map.	21
Figure 11. Excerpt from Colton (1886) map.	21
Figure 12. Excerpt from Paxton, Nebraska (1898 [PR 1960]), USGS topographic map.	22
Figure 13. Excerpt from North Platte, Nebraska (1899 [PR 1957]), USGS topographic map.	22
Figure 14. Line chart depicting number of patents issued by year.	23
Figure 15. Site 25LN148. Sketch Map.	Error! Bookmark not defined.
Figure 16. Site 25LN148. Overview looking west. The foundation (Feature 1) is located in the trees on the right side of this image. Photograph taken by Jason Weston on July 16, 2025.	40
Figure 17. Site 25LN148. Feature 1 house foundation. View to the south from the northeast corner. Tape measure extended to 100 inches (8 ft 4 inches) for scale. Photograph taken by Derrick Maurer on July 16, 2025.	41
Figure 18. Site 25LN148. Feature 2 fallow raised access road/driveway. View to the east. Photograph taken by Jason Weston on July 16, 2025.	41
Figure 19. Site 25LN148. Feature 3 modern subsurface trash dump. Example of artifacts encountered in ST3. Scale as shown. Photograph taken by Jason Weston on July 16, 2025.	42
Figure 20. Site 25LN148. Plastic toy A7 Corsair II fighter jet from the Feature 3 modern subsurface trash dump. Scale as shown. Photograph taken by Jason Weston on July 16, 2025.	42
Figure 21. Site 25LN148. Feature 4 partially buried, disarticulated concrete rubble pile. Photograph taken by Jason Weston on July 16, 2025.	44
Figure 22. Site LN00-260. Sketch Map.	Error! Bookmark not defined.
Figure 23. Site LN00-260. Overview with the Feature 1 house on the left side of the image. View to the north-northwest. Photograph taken on July 18, 2025.	47
Figure 24. Site LN00-260. Feature 1 house looking northwest at the south and east elevations. Photograph taken on July 18, 2025.	47
Figure 25. Site LN00-260. Feature 1 house looking southwest at the north and east elevations. Crew member at left standing at datum. Photograph taken on July 18, 2025.	48
Figure 26. Site LN00-260. Overview of Feature 2, the shallow square depression in the location where a structure is illustrated on the 1971 Hershey West topographic map (USGS 1971). Crew member for scale. View to the north. Photograph taken on July 18, 2025.	48
Figure 27. LN00-260. Feature 3 summer kitchen and lean-to addition, facing southwest toward the north and east elevations. Photograph taken on July 18, 2025.	49
Figure 28. Site LN00-260. Feature 4 concrete water tank and pump house foundation overview looking west with crew member for scale. Photograph taken on July 18, 2025.	50
Figure 29. Site LN00-260. Feature 4 concrete water tank detail view looking north. Tape measure extended to 15 inches for scale. Photograph taken on July 18, 2025.	50
Figure 30. Site LN00-260. Feature 5 water well and pump overview looking east with crew member for scale. Photograph taken on July 18, 2025.	51
Figure 31. Site LN00-260. Feature 5, overview of the water pump looking south. Photograph taken on July 18, 2025.	51
Figure 32. Site LN00-260. Feature 6 concrete foundation looking west. Shovel extending 3 ft above ground for scale. Photograph taken on July 18, 2025.	52
Figure 33. Site LN00-261. Sketch Map.	Error! Bookmark not defined.
Figure 34. Site LN00-261. Overview looking northwest. Photograph taken on July 18, 2025.	55
Figure 35. Site LN00-261. Feature 1 house looking north at the south elevation. Photograph taken on July 18, 2025.	55

Figure 36. Site LN00-261. Feature 2 a small outbuilding (left side of image) and Feature 3 a storage shed (right side of image). View to the northeast. Photograph taken on July 18, 2025.	56
Figure 37. Site LN00-261. Feature 4 barn or enclosed corncrib looking southwest. Note modern steel grain bins (Feature 14 at right and Feature 16 at left). Photograph taken on July 18, 2025.....	57
Figure 38. Site LN00-261. Overview of Feature 5, the Aermotor windmill circa 1915–1968. View to the northwest. Photograph taken on July 18, 2025.	57
Figure 39. Site LN00-261. Feature 6 automobile garage looking northeast at the south and west elevations. Photograph taken on July 18, 2025.	58
Figure 40. Site LN00-261. Feature 7 chicken house looking north at the south elevation. Photograph taken on July 18, 2025.....	58
Figure 41. Site LN00-261. Feature 8 livestock barn looking southwest at the north and east elevations. Note Feature 9 to the right of the livestock barn. Photograph taken on July 18, 2025.	60
Figure 42. Site LN00-261. Feature 10 modern pole and frame livestock shed. View to the northwest. Photograph taken on July 18, 2025.....	60
Figure 43. Site LN00-261. Feature 12, modern steel Quonset storage building looking west at the east elevation. Photograph taken on July 18, 2025.	61
Figure 44. Site LN00-261. Feature 13, modern steel machine shed and storage building looking west at the east elevation. Photograph taken on July 18, 2025.	61
Figure 45. Site LN00-261. Overview of the Red River Special Line thresher circa 1915–1929 with crew member for scale. View to the northeast. Photograph taken on July 18, 2025.	62
Figure 46. Site LN00-261. International Harvester Company horse drawn sickle mower. View to the south. Photograph taken on July 18, 2025.	62
Figure 47. Site LN00-261. Horse drawn John Deer reaper-grain binder. Photograph taken on July 18, 2025.	63
Figure 48. Site KH00-104. Sketch Map.....	Error! Bookmark not defined.
Figure 49. Site KH00-104. Overview of the bridge looking northwest with crew member for scale. Photograph taken on July 19, 2025.....	66
Figure 50. Site KH00-104. Excerpt from McNamara (1919a) illustrating the location of the Suburban headgate, and piling dam with no bridge crossing the North Platte River at this location.	66
Figure 51. Keith Lincoln Canal: channel overview looking northwest towards the headgate (Feature 5). Photograph taken on July 15, 2025.	68
Figure 52. Keith Lincoln Canal: Feature 1 the overgrown return gate. View to the north.. Photograph taken on July 15, 2025.....	68
Figure 53. Keith Lincoln Canal: Feature 2, gaging station. View to the north. Photograph taken on July 15, 2025.	70
Figure 54. Keith Lincoln Canal: Feature 3, modern vehicle bridge. View to the southeast. Photograph taken on July 15, 2025.....	71
Figure 55. Keith Lincoln Canal: Feature 4, the diversion dam control shed. View to the north. Photograph taken on July 15, 2025.....	71
Figure 56. Keith Lincoln Canal: Feature 5, headgate. View to the north. Photograph taken on July 15, 2025.	72
Figure 57. Keith Lincoln Canal. Excerpt from the 1974 engineer's certificate illustrating the abandonment of the original canal intake point and diversion dam. Adapted from State of Nebraska Department of Water Resources (1974).	73
Figure 58. Keith Lincoln Canal: Feature 6, diversion dam overview. View to the southwest. Photograph taken on July 15, 2025.....	74
Figure 59. Keith Lincoln Canal: Feature 6, diversion dam radial water gates and access platform with crew member for scale. View to the northwest. Photograph taken on July 15, 2025.	74
Figure 60. North Platte (Platte Valley) Canal, channel overview, Segment 1. View to the southwest below the headgate (Feature 1). Photograph taken on July 16, 2025.....	76
Figure 61. North Platte (Platte Valley) Canal: Feature 1 headgate, looking south. Photograph taken on July 16, 2025.....	77

Figure 62. North Platte (Platte Valley) Canal: Feature 2 diversion dam overview, looking west. Photograph taken on July 16, 2025.....	77
Figure 63. North Platte (Platte Valley) Canal: Feature 2 diversion dam, looking north along the top of the access platform with the hand operate gate equipment mounted on the platform. Photograph taken on July 16, 2025. .	78
Figure 64. North Platte (Platte Valley) Canal: Feature 3 concrete vehicle bridge built in 1991 with crew member for scale. View to the east. Photograph taken on July 16, 2025.	78
Figure 65. North Platte (Platte Valley) Canal: FS1, modern trailer. View to the north. Photograph taken on July 16, 2025.....	79
Figure 66. North Platte (Platte Valley) Canal: FS2, discarded radial gate with crew member for scale. View to the south. Photograph taken on July 16, 2025.....	79
Figure 67. North Platte (Platte Valley) Canal: channel overview, Segment 2 return channel. View to the north. Photograph taken on July 21, 2025.	81
Figure 68. North Platte (Platte Valley) Canal: Feature 4 concrete culvert passing under the county road. Crew member for scale. View to the south-southeast. Photograph taken on July 21, 2025.	81
Figure 69. Paxton Hershey Canal: channel overview, Segment 1. Note sediment berm on the left descending bank. View to the northwest. Photograph taken on July 16, 2025.	83
Figure 70. Paxton Hershey Canal: Feature 1, diversion dam overview looking southwest. Photograph taken on July 17, 2025.....	84
Figure 71. Paxton Hershey Canal: Feature 1, diversion dam overview looking southeast at the spillway apron and weir exposed while the water gates are open. Photograph taken on July 17, 2025.	84
Figure 72. Paxton Hershey Canal: Feature 2 headgate, looking southeast. Photograph taken on July 17, 2025.	85
Figure 73. Paxton Hershey Canal: Feature 3 return channel gate, looking east. Photograph taken on July 17, 2025.....	85
Figure 74. Paxton Hershey Canal: Feature 4, mid-channel gate capped by a concrete vehicle bridge deck. View to the east-northeast. Photograph taken on July 17, 2025.	86
Figure 75. Paxton Hershey Canal: Feature 5 gaging station and fall structure. View to the southwest. Shovel extending 3 ft above ground for scale. Photograph taken on July 17, 2025.	87
Figure 76. Paxton Hershey Canal: Collapsed remains of old gaging station at Feature 5. View to the east. Photograph taken on July 17, 2025.	87
Figure 77. Paxton Hershey Canal: Feature 6 the culvert and sediment road crossing. View to the southeast with crew member for scale. Photograph taken on July 17, 2025.	88
Figure 78. Paxton Hershey Canal: Example of the riveted steel tanks repurposed as culverts at Feature 6 the culvert and sediment road crossing. View to the east. Photograph taken on July 17, 2025.	88
Figure 79. Paxton Hershey Canal: Feature 7 the stockpile of sediment, concrete fragments and gravel. View to the southwest. Photograph taken on July 17, 2025.	89
Figure 80. Paxton Hershey Canal: channel overview, Segment 2. Looking west from the modern steel culvert (Feature 8). Photograph taken on July 19, 2025.....	91
Figure 81. Paxton Hershey Canal: Feature 9, the corrugated steel flume allowing the Paxton Hershey Canal to pass over the Suburban canal. Crew member for scale. Photograph taken on July 19, 2025.....	91
Figure 82. Paxton Hershey Canal: Feature 10, concrete box culvert. View to the west. Photograph taken on July 19, 2025.....	92
Figure 83. Birdwood Canal: channel overview looking south. Photograph taken on July 18, 2025.	94
Figure 84. Birdwood Canal: Feature 1, diversion dam with crew member for scale. View to the southeast. Photograph taken on July 18, 2025.	94
Figure 85. Birdwood Canal: Feature 2, headgate with crew member for scale. View to the south. Photograph taken on July 18, 2025.....	95
Figure 86. Birdwood Canal: Feature 3, disused rating flume. View to the southwest. Shovel extending 3 ft above ground for scale. Photograph taken on July 18, 2025.....	95
Figure 87. Suburban Canal: channel overview looking south. Photograph taken on July 19, 2025.....	97
Figure 88. Suburban Canal: Feature 1, headgate. View to the southeast. Photograph taken on July 19, 2025. ...	99

Figure 89. Suburban Canal: Feature 1, headgate with crew member for scale. View to the north. Photograph taken on July 19, 2025.....	99
Figure 90. Suburban Canal: Feature 2, diversion dam. View to the west. Photograph taken on July 19, 2025..	100
Figure 91. Suburban Canal: Feature 3, culvert and concrete retaining wall access road crossing. View to the northeast. Photograph taken on July 19, 2025.	100
Figure 92. Suburban Canal: Feature 4, sediment and railroad tie stockpile for erosion control. View to the south. Photograph taken on July 19, 2025.	101
Figure 93. Cody Dillon Canal: channel overview looking east from a culvert road crossing of the canal (Feature 2). Photograph taken on July 21, 2025.	102
Figure 94. Cody Dillon Canal: Feature 1, gaging station. View to the west. Photograph taken on July 21, 2025.	103
Figure 95. Cody Dillon Canal: Example of the riveted steel tank repurposed as a culvert at Feature 2 the culvert and sediment road crossing. View to the west. Photograph taken on July 21, 2025.	104
Figure 96. Cody Dillon Canal: Feature 3 return gate, looking northwest towards the North Platte River. Photograph taken on July 21, 2025.	104
Figure 97. Cody Dillon Canal: Feature 3 return gate, looking southwest towards the canal channel. Photograph taken on July 21, 2025.....	105
Figure 98. Cody Dillon Canal: Feature 4 headgate. View to the south. Photograph taken on July 21, 2025.....	105
Figure 99. Cody Dillon Canal: Feature 5, decayed wood vehicle bridge. View to the east from the access platform of the headgate (Feature 4). Photograph taken on July 21, 2025.....	106
Figure 100. O&RV / Union Pacific Railroad: Segment 1 overview at the north end of the Keith Lincoln access road corridor survey area. View to the west. Photograph taken on July 15, 2025.	108
Figure 101. O&RV / Union Pacific Railroad: Segment 2, overview at the south end of the North Platte / Platte Valley access road corridor. View to the southwest. Photograph taken on July 16, 2025.	109
Figure 102. O&RV / Union Pacific Railroad: Segment 2, overview at the south end of the Paxton Hershey access road corridor. View to the southwest. Photograph taken on July 16, 2025.	109

LIST OF TABLES

Table 1. East Clear Creek Project Cultural Resource Survey Area Locations.....	1
Table 2. Previous Archaeological Investigations within the Study Area.....	16
Table 3. Previously Recorded Sites within the Study Area.	18
Table 4. NRHP Listed Cultural Resources and Historic Districts.	20
Table 5. Pioneer Award Farms in Lincoln and Keith Counties.....	24
Table 6. Site 25LN148. Shovel Test Results.	43
Table B-1. Previously Identified Historic Structures.	B-2
Table C-1. GLO Land Patent Records within the Study Area.	C-2
Table D-1. Shovel Test Data.....	D-9
Table E-1. UTM Coordinates for the Recorded Segments of Historic Linear Resources. . E-Error! Bookmark not defined.	

I. PROJECT IDENTIFICATION INFORMATION

Cultural Resource Analysts, Inc. (CRA), was contracted by Olsson, Inc. (Olsson), to complete an intensive cultural resource survey of the selected alternatives for the East Clear Creek Watershed Environmental Assessment Project (East Clear Creek Project). The proposed project will address urgent improvement needs at the Keith Lincoln Canal, the North Platte (Platte Valley) Canal, the Paxton Hershey Canal, Birdwood Canal, Suburban Canal, and the Cody-Dillon Canal. These canals divert water from the North Platte River and Birdwood Creek for agricultural use between the towns of Ogallala and North Platte, Nebraska (Table 1; Figure 1–Figure 1e; Figure 2–Figure 7). In this report the canal survey parcels, and subsequently identified canal historic linear resources, are discussed and analyzed in geographic order from west to east.

This project proposes to conduct repairs, replacements, and improvements on diversion structures, and associated equipment for the six irrigation canals. The proposed improvements to the diversion structures are designed to stabilize, repair, and strengthen the canal structures as well as improve functionality. The proposed improvements, summarized from the Environmental Assessment (EA) documents prepared by Olsson will include full or partial replacement of four structures, and full replacement of two structures with a new, combined diversion, as described in Plan-EA prepared by Olsson. The functional improvements associated with all of the proposed alternatives will be accompanied by safety and operational improvements including the addition of access ladders, stairs, and 42-inch-high handrails; lighting for nighttime access, and automated gate control systems (DeLone and Roesler 2025a – 2025f). The intensive cultural resource survey encompassed 280 acres of privately owned surface land. The Keith Lincoln survey parcel covered 73 acres, the North Platte / Paxton Hershey survey parcel covered 125.1 acres, the Birdwood survey parcel covered 30 acres, the Suburban survey parcel covered 27 acres, and the Cody-Dillon survey parcel covered 24.9 acres. The five survey parcels encapsulated the proposed area of potential effect (APE) enclosing the diversion and canal gate structure work areas, staging areas, access roads, and power line corridors (see map Figures 1a – 1e).

Table 1. East Clear Creek Project Cultural Resource Survey Area Locations.

Survey Parcel	Township	Range	Section	Aliquots
Keith Lincoln	14N	36W	7	e3/sw/se
Keith Lincoln	14N	36W	18	e2/nw/ne, ne/sw/se, sw/sw/ne, se/se/nw, ne/ne/sw, nw/nw/se, s2/nw/se, s2/ne/se
Keith Lincoln	14N	36W	19	e2/e2/ne
Keith Lincoln	14N	36W	20	w2/w2/nw
North Platte/Paxton Hershey	14N	34W	13	ne/se, se/ne/se
North Platte/Paxton Hershey	14N	33W	7	se/se/se
North Platte/Paxton Hershey	14N	33W	17	w2/nw/nw, ne/sw/nw, n2/se/nw
North Platte/Paxton Hershey	14N	33W	18	e2/sw/nw, sw/se/nw, n2/se/nw, s2/sw/sw/nw, sw/nw/ne, ne/nw/ne, n2/ne/ne, n2/nw/sw
Birdwood	15N	33W	35	sw/sw/se, ne/se/sw, se/nw/sw, sw/ne/sw, e2/sw/sw
Suburban	14N	33W	12	e2/se/ne, ne/ne/se, e2/ne/se, e2/e2/se
Suburban	14N	32W	7	sw/sw/ne, nw/nw/sw, w2/w2/sw
Cody Dillon	14N	31W	9	s2/se/ne, e2/e2/se
Cody Dillon	14N	31W	10	sw/sw/nw, w2/w2/sw

This survey was conducted to support compliance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and the Nebraska Archaeological Resources Preservation Act. The Twin Platte Natural Resource District (TPNRD) is the sponsoring local organization. The lead agency on this project is the Natural Resources Conservation Service (NRCS) and Nebraska State Historic Preservation Office (NeSHPO) is assumed to be a consulting agency.

Work assignments on this project were divided into three primary tasks: records review, fieldwork, and report preparation. A file search for the records review was conducted by staff archaeologist Morgan Thurman and GIS specialist Mathew Tedrow who prepared an existing information desktop review for this project in April 2025 (Thurman and Tedrow 2025). The principal investigator for the desktop review task was Morgan Thurman. Jason D. Weston was assigned as the principal investigator for the subsequent fieldwork. The first fieldwork session was conducted July 14 – 21, 2025, with archival research at county courthouses conducted on July 22, 2025. Mr. Weston directly supervised and participated in the first fieldwork session. The field technician on this project was Derrick Maurer. The second fieldwork session was conducted on September 2 – 4, 2025 with Colin Ferriman acting as the field director, and Mathew Tedrow as the field technician. Fieldwork during both sessions consisted of pedestrian survey, shovel testing, and site recording. Prior to fieldwork, the file search results, historic map searches, and GLO land patent data were consulted to familiarize CRA staff with the investigative history, cultural context, and known cultural resources within the project area. Report preparation occurred after fieldwork and included supplemental archival research, preparing background data summaries, site descriptions and National Register of Historic Places (NRHP) evaluations, as well as finalizing all sections of the report. Post-field report preparation was conducted by Jason Weston with peer review by Colin R. Ferriman. Geographic Information Systems (GIS) processing and mapping was conducted by Mathew Tedrow. No post-field laboratory analysis was required for this project.

II. BACKGROUND INFORMATION

The background information study area includes the survey area plus a 1 mi buffer. This section of the report summarizes the physiographic (environmental) setting of the study area, and provides information on previous cultural resource investigations, the known cultural resources, and an overview of the cultural historic context.

Physiographic Setting

The project area is located within the Central Plains subregion of the larger Great Plains region. The Central Plains spans the states of Kansas and Nebraska, encompassing portions of Colorado, Iowa, and northwestern Missouri (Kay 1998a:17).

Climatic History

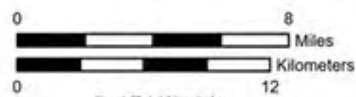
As related to human occupation, the climatic history of the project area begins in the late Pleistocene, or around 14,000 years before present (BP). At this time, the Laurentide ice sheet was slowly retreating and the climate was gradually warming. This warming trend was interrupted by a notably cooler phase associated with the Younger Dryas period between 11,500 and 10,070 BP (Kay 1998a:20). By 10,000 BP, the trend towards a warmer and drier climate resumed and boreal forest parklands gave way to grasslands (Kay 1998a:22). The resulting changes in vegetation and temperature aided in the extinction of larger herbivore species such as *Bison antiquus*, camel, ground sloth, horse, long-nosed peccary, mammoth, and mastodon (Haynes 2002:230). Extinction of these larger herbivores consequently resulted in predator species such as dire wolves and saber-toothed tigers going extinct as well (Kay 1998a:20–22).



- Inventory Area
- County Boundary

East Clear Creek Watershed Intensive Cultural Resource Survey

Figure 1: Project Location Overview Map



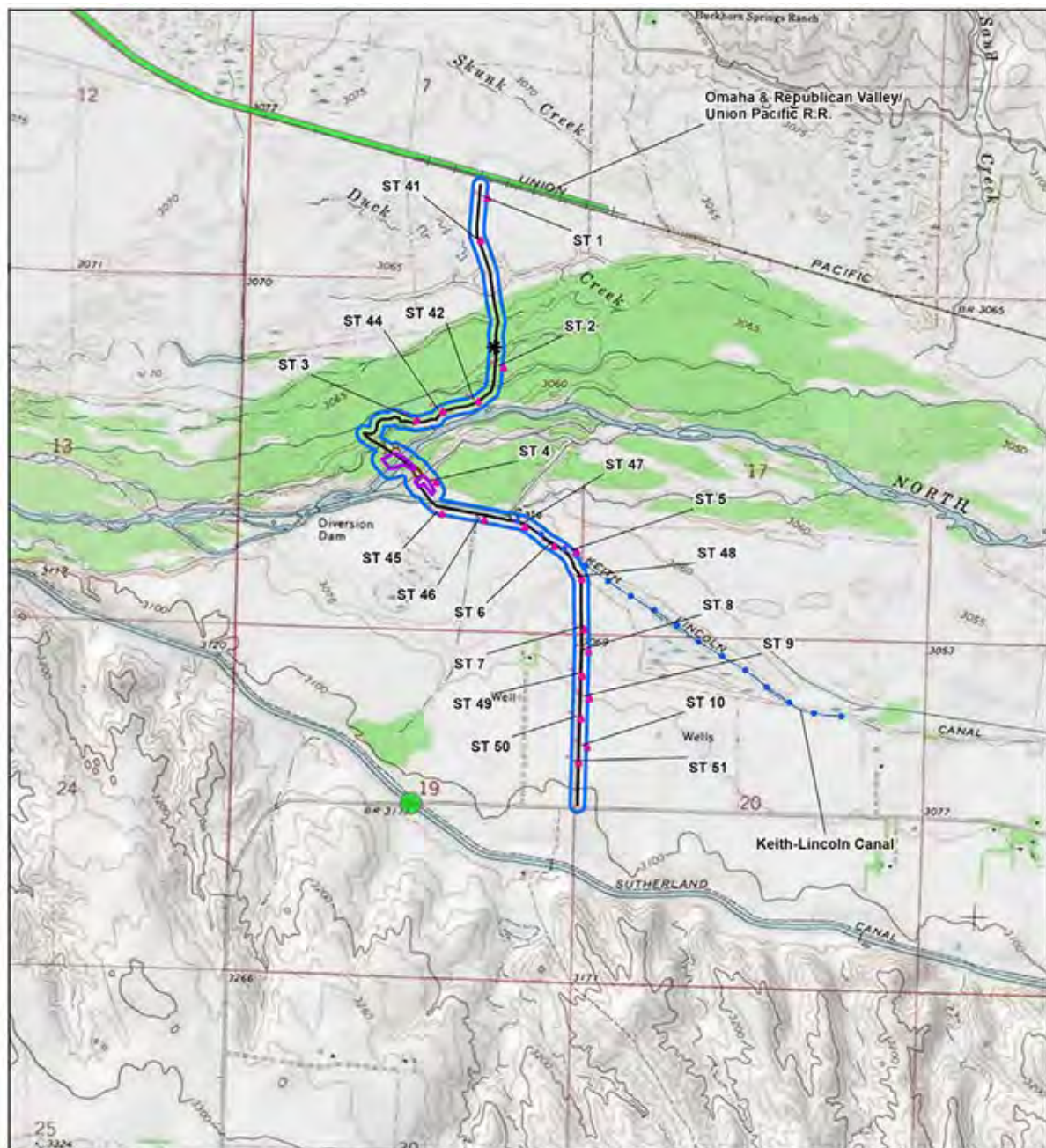
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Project Number: Y250270	Project Name: ECC Fieldwork

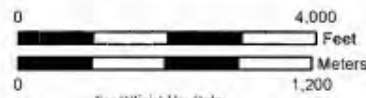
NAD 83 UTM Zone 14N



- Inventory Area
- ▲ Subsurface Test
- Canal Segment
- + Railroad Segment
- ★ Elk Sculpture
- Staging Area
- Diversion Structure
- Previous Cultural Survey
- Access Road Centerline

East Clear Creek Watershed Intensive Cultural Resource Survey

Figure 1a: Keith Lincoln Canal



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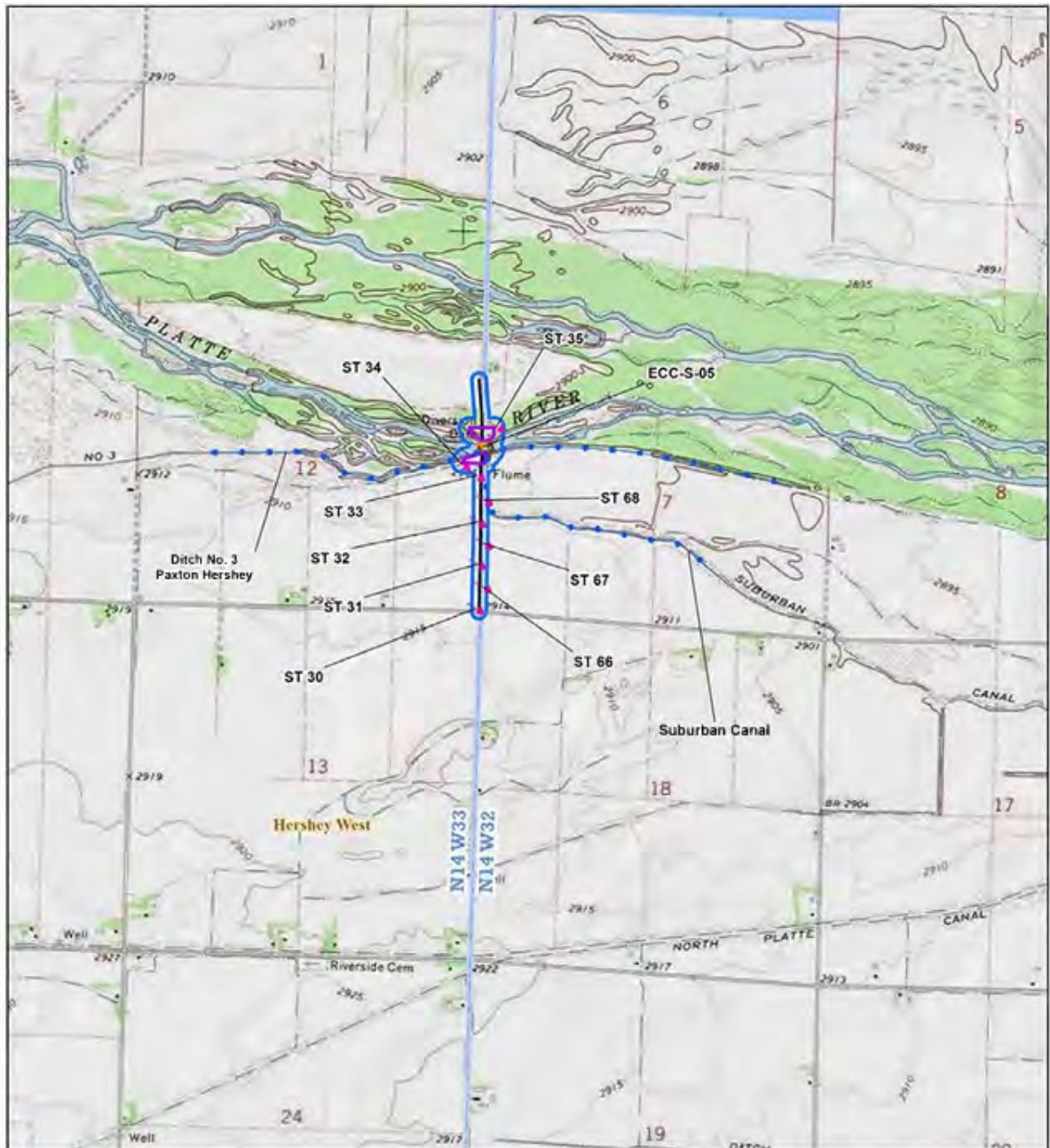
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Project Number: Y250270 Project Name: ECC Fieldwork

NAD 83 UTM Zone 14N

(IMAGE REMOVED)

(IMAGE REMOVED)



- Inventory Area
- Subsurface Test
- ▲ Architectural Site
- Canal Segment
- Staging Area
- Diversion Structure
- Access Road Centerline
- Power Pole Corridor
- State Land
- Township/Range Boundary
- Quad Boundary

East Clear Creek Watershed Intensive Cultural Resource Survey

Figure 1d: Suburban Canal

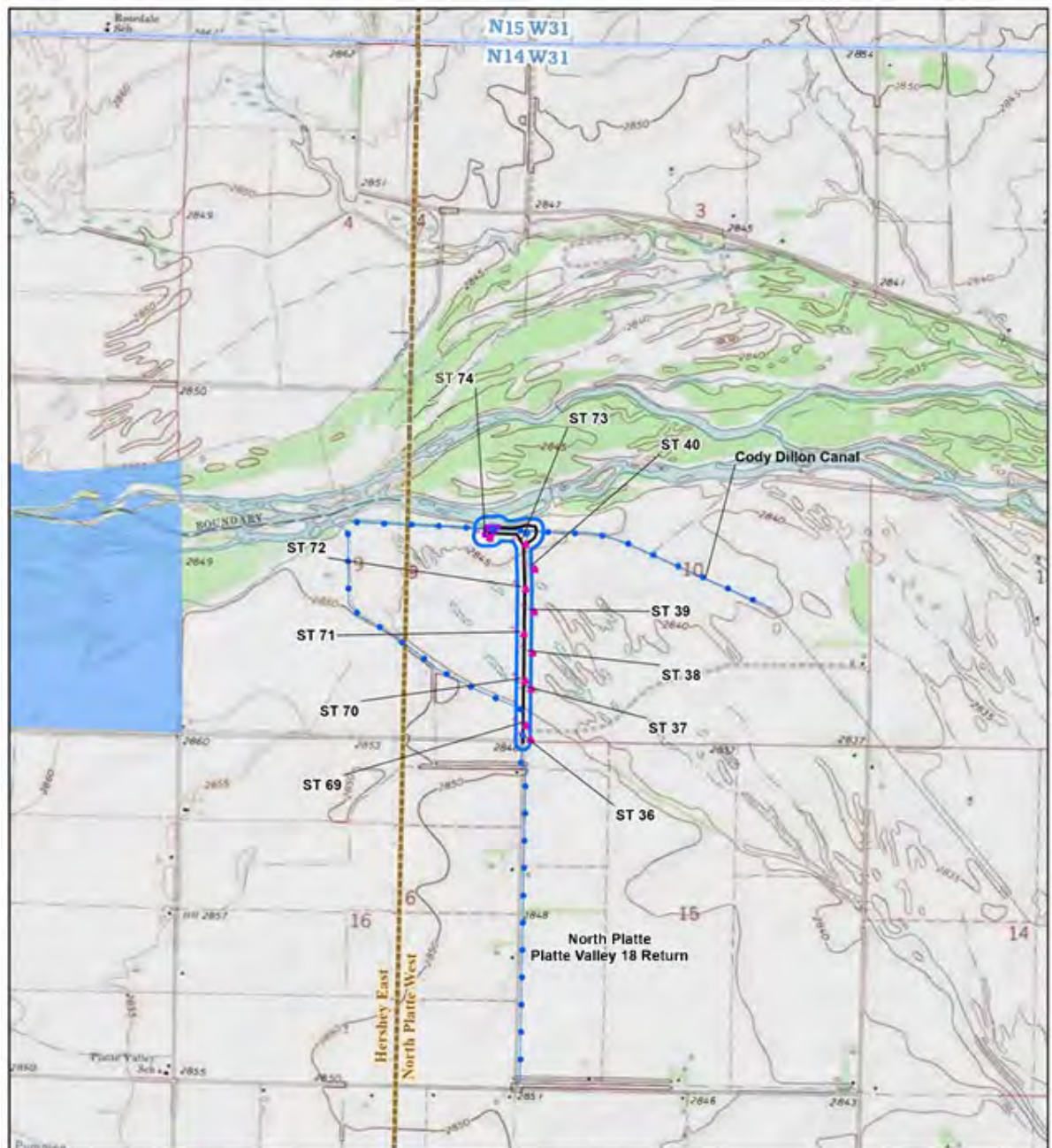


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- Inventory Area
- ◆ Subsurface Test
- Canal Segment
- Staging Area
- Diversion Structure
- Access Road Centerline
- State Land
- Township/Range Boundary
- Quad Boundary

East Clear Creek Watershed Intensive Cultural Resource Survey

Figure 1c: Cody Dillon Canal



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Figure 2. Project Area overview of the Keith Lincoln survey parcel in T14N, R36W, Section 18. View to the north. Photograph taken on July 15, 2025.



Figure 3. Project Area overview of the North Platte survey parcel in T14N, R34W, Section 13. View to the west. Photograph taken on July 16, 2025.



Figure 4. Project Area overview of the Paxton Hershey survey parcel looking northeast along the canal in T14N, R33W, Section 18. Photograph taken on July 16, 2025.



Figure 5. Project Area overview of the Birdwood survey parcel in T15N, R33W, Section 35. Looking southeast along the proposed access road corridor. Photograph taken on July 18, 2025.

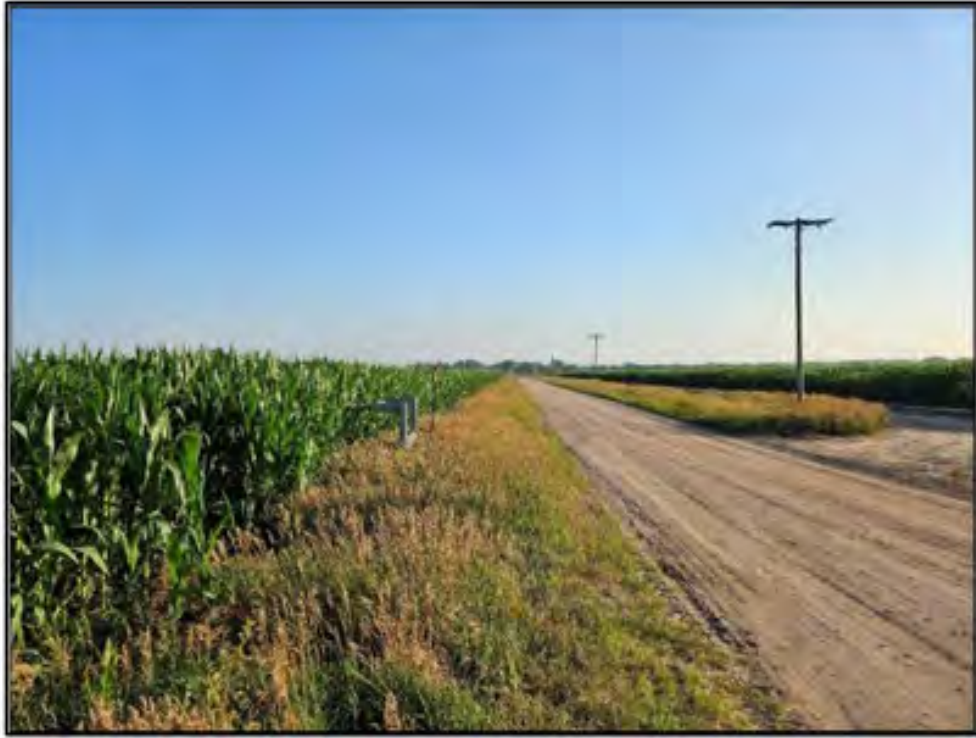


Figure 6. Project Area overview of the Suburban survey parcel in T14N, R32W, Section 12. Looking north along the access road corridor. Photograph taken on July 19, 2025.



Figure 7. Project Area overview of the Cody Dillon survey parcel in T14N, R31W, Section 9. View to the north within the proposed access road corridor. Photograph taken on July 21, 2025.

The modern Central Plains are more mesic in the east and xeric in the west, where droughts are more common. This has led to the prevalence of tall grass prairie in the east and short grass prairie in the west (Hunt 1967:228; Kay 1998a:17–18). Cyclical droughts occur in the eastern Central Plains and Nebraska and are known to have impacted agricultural productivity for prehistoric and early historic Native American farming villages and Euro-American farming communities. Paleoclimate data indicates that droughts would have impacted agriculture from before the beginning of the Plains Village Coalescent period into the Historic period between AD 1275 and 1940 (Hayes et al. 2005). Historic droughts noted as having particularly severe agricultural impacts were documented by Native American farmers and/or Euro-American farmers in 1872, 1874, 1884–1895, and 1931–1940 (Hayes et al. 2005; Naugle et al. 2014:207, 247; Parks 2001:523).

The modern climate of Nebraska spans seasonal temperature extremes, resulting in conditions ranging from semi-arid to semi-humid throughout a given year. Precipitation is highly variable, with an average of 20.8 inches per year in North Platte, Lincoln County (US Climate Data 2025).

Topography, Geology, and Soils

The project areas are generally dominated by the relatively flat river valley where the North Platte and South Platte meet, with gently rolling hills and undulating plains to the north and south bounding the valley. In general, the landscape descends from west to east. Elevations range from 3,100 ft above mean sea level (AMSL) in the western portion of the project area in the Keith Lincoln survey parcel to 2,846 ft AMSL at the eastern end of the project area in the Cody Dillon survey parcel.

The underlying bedrock in the majority of the project area is Ogallala formation dating to the Miocene (23.0 million to 5.3 million years ago). The Ogallala formation deposits are typically sandstone and limestone (Burchette 1986). The underlying bedrock in the northwestern portion of the project area is the White River Group dating to the Oligocene (33.9 million to 23 million years ago) within the Tertiary period. White River Group formations typically consist of clay, some claystone, silt, and siltstone, which are predominantly greenish gray and volcanistic (Burchette 1986; USGS 2025). The underlying bedrock in the southern portion of the project area is Niobrara formation sandstone and chalk dating to the Upper Cretaceous (Burchette 1986).

Soils within each of the survey parcels have been characterized based on data obtained from the Web Soil Survey database (NRCS 2025a), and observations in the field, including subsurface test results. Soil within the Keith Lincoln survey parcel is alluvial loam and loamy sand deposits within the floodplain, and first terrace above the north Platte River. The most common sediment types are Gothenberg loamy sand, occasionally flooded; Platte loam, occasionally flooded; and Janise loam, occasionally flooded with Norwest loam; and Bankard loamy sand, rarely flooded on the first terraces above the river. Gothenberg, Platte, and Janise deposits have been flooded and eroded enough to eliminate the B Horizon (NRCS 2025a). Sediments are typically a loam to loamy sand A horizon ranging from 3 to 18 inches (7.6 to 45.7 cm) thick and are deposited over a gravelly coarse sand C horizon.

Soil within the North Platte and Paxton Hershey survey parcels is alluvial loam to silt loam. The most common sediment types are Gothenberg loamy sand, occasionally flooded; Humbarger loam with a gravelly substratum; and Lawet silt loam, drained, occasionally flooded. The A horizon, or Horizon 1 is typically 20 inches (50 cm) thick overlaying loam to course sandy loam deposits.

Soil within the Birdwood survey parcel was alluvial in the low-lying areas, and eolian in higher first terraces. The most common alluvial sediment types are Inavale loamy fine sand and Loup complex, rarely flooded. The A horizon loam to loamy fine sand ranged from 8 to 18 inches (20 to 45.7 cm) thick overlaying fine sand deposits. The Loup complex is noted as rarely flooded, but is susceptible to frequent ponding which was evident within the northwestern portion of the project area. The most common eolian sediment types were Elsmere loamy fine sand and Valentine fine sand, rolling 9–24

percent slopes. These fine sand to loamy fine sand A horizons ranged from 12 to 23 inches (30.5 to 58.4 cm) thick (NRCS 2025a).

Soil within the Suburban survey parcel was alluvial loam. The most common sediment types are Gothenberg loamy sand, occasionally flooded; Humbarger loam with a gravelly substratum; and Lex loam, occasionally flooded. Sediment stratigraphy is typically a loam to loamy sand A horizon ranging from 3 to 14 inches (7.6-35.5 cm) thick over a gravelly coarse sand C horizon (NRCS 2025a).

Soil within the Cody Dillon survey parcel is alluvial loam to silt loam. The most common sediment types are Gothenberg loamy sand, occasionally flooded; Lawet silt loam, occasionally flooded; and Fluvaquents, frequently flooded. Sediment stratigraphy is typically a loam to loamy sand A horizon ranging from 3 to 10 inches (7.6 to 25 cm) thick over sandy clay loam or a gravelly coarse sand C horizon. The exception is the Fluvaquents, frequently flooded which is a column of silt loam from the surface down to at least 60 inches (152 cm) below ground surface (bgs). The Web Soil Survey database indicated that most of the survey area along the access road corridor was Lawet silt loam, occasionally flooded (NRCS 2025a). However, much of this area was saturated to the point that gleying was noted in the upper levels of shovel tests in this parcel indicating that the Fluvaquents soil type may be more common than the Lawet.

The different soil types encountered within the project area have variable potentials to contain buried cultural resources. T-0a (Terrace 0) floodplain deposits such as the Fluvaquents are commonly flooded, eroded, and redeposited. This active setting yields a low potential for intact buried cultural materials (Layzell et al. 2024:11). T-0b and T-0c deposits are still within the floodplain and are occasionally flooded but retain a moderate potential to contain buried cultural materials (Layzell et al. 2024:11, 13). The T-1 (first terrace) deposits such as the Loup, Elsmere, and Valentine soils are modeled to have a geomorphic, or geologically high potential to contain buried cultural resources, if such resources were deposited (Layzell et al. 2024: 3, 15).

Vegetation

The natural vegetation in the project area consists of grass prairie grasses with trees in riparian zones and frequent wetlands along the North Platte River and Birdwood Creek, effectively interlacing the region with two environmental ecotones (Kay 1998a:16–17). The area is generally located in the short grass prairie of western Nebraska (Kay 1998a:17-18). Modern vegetation is dominated by irrigated agricultural fields interlaced with livestock pastures, hayfields, and corn crops, as well as manicured lawns and domestic ornamental plants. Surface visibility within the survey parcels range from 60 percent in the corn fields to 20 percent in the hay fields, and 10 to 20 percent at best in the grass and riparian areas.

Fauna

Fauna observed directly, or by tracks within the project area parcels include domestic cattle, turkey, raccoons, white-tailed deer, a bobcat, hawks, buzzards, a variety of songbirds, and insects. In the prehistoric period, bison herds and Manitoban elk would have inhabited the region.

Existing Built Environment and Setting

The integrity of setting is defined by the physical environment of a historic property (NPS 1997:45). Essentially, it is the visual appearance of the landscape and built environment at the time a specific cultural resource was utilized or occupied. Therefore, the existing built environment may impact/affect the setting of prehistoric and historic cultural resources. The integrity of setting can be an important factor in the significance of a cultural resource (36 CFR part 60). The existing built environment can introduce modern elements (visual impacts) that would not have been present during a given prehistoric or historic period. These visual impacts can negatively affect the integrity of setting of a cultural

resource. As such, examining the existing built environment will illustrate the current impacts to the integrity of setting of cultural resources within the project area. Within the study area, the built environment includes paved highways, gravel roads, modern railroad tracks, buried utility lines, overhead power lines, waterlines, central pivot and pipe irrigation systems, combustion engine-powered water pumps, rural farmsteads, small urban centers, plowed agricultural fields manicured lawns and one life-size bronze elk sculpture in the Keith Lincoln survey parcel (Figure 8 and Figure 9). The majority of the existing built environment is characterized as rural with approximately 34 percent of the area around the survey parcels under cultivation. Herbaceous grasslands (grazing lands) account for approximately 36 percent of the project area and represent the relatively undeveloped portions of the project area (NRCS 2025b). Emergent herbaceous wetlands compose approximately 12 percent of the project area. The remaining 18 percent of the project area includes farmstead complexes, small towns, wooded areas, and wetland/waterbodies (NRCS 2025b).

III. RECORDS REVIEW

An official file search was requested from the Nebraska SHPO via History Nebraska to identify any previously conducted investigations and previously recorded sites that have occurred within 1 mi of the proposed project area. The official History Nebraska file search results were received February 28, 2025 (History Nebraska 2025a). This records review was originally conducted as an existing information desktop review for the East Clear Creek Watershed Work Plan–Environmental Document which encompassed the overall project study area prior to the development of the project alternatives. This original study area examined by the records review covered 111,545 acres in Keith and Lincoln Counties within the lower portion of the North Platte River watershed with extensions into the lower portion of South Platte River watershed as well. The study area records review maps depicting all existing surveys and all known cultural resources identified by the records review are provided in Appendix A.

Existing Survey

The History Nebraska records review results listed 66 previously conducted archaeological surveys within the study area (Table 2). The surveys were conducted prior to a variety of project types, including but not limited to highway/road projects, buried pipelines, transmission lines, water lines, viaducts, and communications projects (such as cellular towers). These previous surveys include 64 intensive surveys and two reconnaissance surveys. These surveys have investigated 1.5 percent of the total study area (History Nebraska 2025a). None of these previous surveys overlapped with any of the current survey parcels. Survey number 96-0029 was conducted immediately southwest of the Birdwood survey parcel but was not within the parcel (see Figure 1, map c).

Known Cultural Resources

The previous intensive archaeological surveys and architectural/structural reconnaissance surveys identified 477 cultural resources within the study area, including 13 archaeological sites, 463 architectural/structural resources, and 1 historic commercial district (LN06-HD001) (History Nebraska 2025a; Table 3). The 13 archaeological sites consist of 7 prehistoric sites, 5 historic sites, and 1 site (24LN20) that dates to an unknown time period. None of these cultural resources are located within the current survey parcels, but provide context as to the resources that may potentially be encountered during surveys.



Figure 8. Example of gravel roads, pipe irrigation systems, and engine-powered water pumps. View to the north. Photograph taken on July 19, 2025.



Figure 9. Example of a modern bronze elk sculpture entitled “Black Timber Bugler” Ed. #617 by Tim Shinabarger. Located within the Keith Lincoln northern access road inventory corridor in T14N, R63W, Section 18. View to the south with crew member for scale. Photograph taken on July 15, 2025.

Table 2. Previous Archaeological Investigations within the Study Area.

SHPO No	Author(s)	Year	Report Title
88-0356	Ludwickson, John	1987	NHAP-PSS RS-1355(6), Paxton N.
88-0361	Ludwickson, John	1987	NHAP-PSS BRO-7051(6), Paxton NW.
88-0434	Ludwickson, John	1988	NHAP-PSS RS-BRS-1410(2), Hershey N.
88-0620	Agenbroad, Larry D.	1979	Archaeological/Historical Environmental Impact Survey Portions of Scottsbluff, Morrill, Garden and Keith Counties, Nebraska Union Pacific Railroad: Siding Locations.
88-0621	Agenbroad, Larry D.	1979	Archaeological/Historical Environmental Impact Survey Portions of Garden and Keith Counties, Nebraska Union Pacific Railroad: Siding Locations.
92-0019	Barton, Terrence R.	1991	Archeological/Cultural Resources Survey of Proposed Railroad Spur from the Union Pacific Railroad to Nebraska Public Power Districts Gerald Gentleman Station Lincoln County, Nebraska.
95-0125	Ludwickson, John	1995	NHAP-PSS S-L56C(1005), In Hershey.
96-0029	Nelson, Trisha	1995	NHAP-PSS BRO-7056(7), Sutherland NE.
96-0075	Bozell, Rob	1996	NHAP-PSS STPD-30-2(128), Paxton - Sutherland.
98-0159	Koch, Amy	1998	NHAP-PSS STPD-25-2(105), Sutherland Viaduct.
99-0104	Koch, Amy	1999	NHAP-PSS STPD/N-TMT-30-2(129), Sutherland - Hershey.
00-0121	Koch, Amy	2000	NHAP-PSS STPE-BR-1475(5), Sutherland N.
01-0065	Koch, Amy	2001	NHAP-PSS TMT-30-2(129), Sutherland to Hershey Borrow Pits 1, 2, and 3.
02-0100	Koch, Amy	2002	NHAP-PSS EASTPD-30-2(136), Hershey-North Platte.
03-0042	Koch, Amy	2002	NHAP-PSS S-80-3(1039), Hershey South Interchange.
03-0118	Ore, Fred R.	2003	Letter Report: Results of an Archeological Pedestrian Survey of Federal Land Considered for Boundary Fence Replacement at Calamus Reservoir, Loup County, Nebraska.
04-0053	Koch, Amy	2003	NHAP-PSS ER-80-3(130), I-80 West of Big Springs Borrow Pit 3.
05-0184	Bozell, Rob	2005	Telecommunication Facility, Cultural Resources Survey NE-06, North Platte, Lincoln County, Nebraska.
07-0086	Bozell, John R.	2007	Cultural Resources Assessment of the Proposed Lincoln County, Nebraska UPRR Viaduct and Access Road Project.
07-0124	Kelly, Mark W.	2007	North Platte Tower Site, 855433, Lincoln County, Nebraska.
08-0089	Carlson, Nancy F.	2008	An Archaeological Survey of Proposed Water Line & Well Field for the Village of Sutherland in Lincoln County, Nebraska.
12-0136	Koch, Amy	2012	NHAP-PSS IM-80-3(143), Sutherland West, Lincoln County, Nebraska.
12-0170	Koch, Amy	2012	NHAP-PSS L-56C(1010), Hershey Viaduct, Lincoln County, Nebraska.
13-0012	Koch, Amy	2012	NHAP-PSS RZZ-TMT-DPU-1390(3), Birdwood/Front Rd Viaduct North Platte, Lincoln County, Nebraska.
13-0192	Koch, Amy	2013	NHAP-PSS L56C(1010), Hershey Viaduct, Lincoln County, Nebraska.
14-0040	Ratliff, Joshua	2013	Archeological & Historic Architecture Inventory for the Selective Site Development, Inc. Sutherland NE-009 Communication Tower, Sutherland, Nebraska.

14-0085	Parks, Stanley M.	2014	Cultural Resources Investigations: Terracon - Verizon NE06 Buffalo Bill Tower, City of North Platte, Lincoln County, Nebraska.
14-0143	Hahs, David G.	2014	Archeological & Historic Architecture Inventory for the Verizon Wireless NE06 SmOres Communication Tower, Lincoln County, Nebraska.
15-0123	Parks, Stanley M.	2014	Archeological Investigation and Assessment: Platte River Recovery Implementation Program, North Platte State Channel Re-Activation Project, Lincoln County, Nebraska
15-0140	Koch, Amy	2015	NHAP-PSS TMT-L56C(1010), Hershey Viaduct (CN 61277 MSS-4 APE)
16-0067	Koch, Amy	2015	NHAP-PSS ITS-MISC-80-4(1039), North Platte Area Fiber
16-0075	McNutt, Joshua	2015	Nebraska Public Power District R-Project: Cultural Resources Survey of the R-Project 345 kV Transmission Line. Project No. 128143
17-0112	Drennan, Kathryn	2017	Phase I Intensive Archeological Survey for FEMA DR 4225 NE PW 251, South River Road, Lincoln County, Nebraska.
17-0113	Geib, Phil	2016	NH-HSIP-80-3(151), North Platte West, Concrete repairs, road resurfacing, and shoulder widening with associated work on culverts, guardrails, road grade. NDOR Control# 61564, Lincoln County, Nebraska.
17-0122	Bozell, Rob	2016	TMT-L56C, Hershey Viaduct Resurfacing, Road resurfacing, curb and gutter and ADA improvements, NDOR Control# 61277A, Lincoln County, Nebraska.
18-0070	Geib, Phil	2017	STP-30-2(149) - Hershey -North Platte, Road milling and resurfacing with repair/patching, Control# 61617, Lincoln County, Nebraska.
18-0286	Coufal, MaKenzie and Nolan Johnson	2018	ITS-NH-D6(106) - District 6 Overhead DMS, Overhead DMS installation, Control# 61650, Lincoln County, Nebraska.
18-0319	Rom, Lance	2018	Historic Properties Inventory and Documentation for the Telecommunications Tower NE06 Bailey Yard - A, Lincoln County, Nebraska.
19-0234	Coufal, MaKenzie	2019	NHAP-PSS ITS-NH-STP-D6(108) CN 61654 District 6 - Districtwide CCTV Cameras- Locations 4-9, Lincoln County, Nebraska.
19-0239	Coufal, MaKenzie, Nolan Johnson, Nicholas Fogerty, and Talon O'Connor	2019	NHAP-PSS ITS-NH-D6(109) CN 61656 District 6 - Variable Speed Advisory, Deuel, Keith, Lincoln, and Dawson Counties, Nebraska.
20-0051	Coufal, MaKenzie	2020	County Bridge Match Program - Bridge C005632107, Lincoln County, Nebraska.
20-0133	Bozell, Rob and MaKenzie Coufal	2020	SAO-PSS Buffalo Bill SRA, Heritage Shooting Park, Lincoln County, Nebraska
20-0183	Coufal, MaKenzie and Courtney Ziska	2020	SAO-PSS HSIP-80-3(166) CN61680 Paxton East, Keith and Lincoln Counties, Nebraska
21-0073	Coufal, MaKenzie and Courtney Ziska	2021	SAO-PSS STP-25-2(110) CN61666 Sutherland South, Lincoln County, Nebraska

Table 3. Previously Recorded Sites within the Study Area.

Site No.	Context	Name	Site Type/Function	NR Status Recommended
25LN5	Dismal River Complex	NA	Village	Unevaluated/Unknown
25LN14	Coalescent Villagers	Birdwood	Lithics/Ceramics Scatter	Unevaluated/Unknown
25LN17	Unknown Prehistoric	NA	Lithic Scatter	Unevaluated/Unknown
25LN18	Unknown Prehistoric	NA	Unkown	Unevaluated/Unknown
25LN20	Unkown	NA	Unkown	Unevaluated/Unknown
25LN23	Unknown Prehistoric	NA	Lithic Scatter	Unevaluated/Unknown
25LN33	Unknown Prehistoric	NA	Lithics/Ceramics Scatter	Unevaluated/Unknown
25LN37	Transportation Routes	O'Fallon Station	Transportation station	Unevaluated/Unknown
25LN81	Unknown Prehistoric	NA	Unkown	SHPO Determined as Not Eligible for the National Register
25LN87	Euro-American	NA	Trash Dump	SHPO Determined as Not Eligible for the National Register
25LN501	Industrial/Commercial Enterprises	North Platte Elevator & Milling Co.	Steam Powered Flour Mill	Unevaluated/Unknown
25LN502	Industrial/Commercial Enterprises	North Platte Elevator & Milling Co.	Steam Powered Flour Mill	Unevaluated/Unknown
25LN505	Industrial/Commercial Enterprises	Eshleman Bros: Hershey Mill	ca. 1915 oil powered "Midget" Mill	Unevaluated/Unknown

One of the prehistoric sites, 25LN05, has pottery associated with the Plains Woodland period (2500–1000 BP) and as well as sherds dating to the Dismal River complex (400–300 BP), and possibly includes components from the Upper Republican phase of the Plains Village/Central Plains tradition (1000–500 BP) (Koch 1999; Steinacher and Carlson 1998:244; Weakly 1949). Site 25LN14 is associated with the Plains Village Coalescent period (600–159 BP) (Nebraska State Historical Society 1958; Steinacher and Carlson 1998:258-259). The remaining five prehistoric sites (25LN17, 25LN18, 25LN23, 25LN33, and 25LN81) are all associated with unknown/unidentified prehistoric periods.

The five historic sites within the study area consist of the O’Fallon station (25LN37), a trash dump (25LN87), the North Platte Elevator & Milling Co. steam powered flour mill (25LN01 and 25LN02), and the Eshleman Bros Hershey Mill (25LN505).

Nebraska designates historic structures separately from archaeological sites. The file search results indicate there are 463 historic structures within the study area, including rural and urban structures within the municipalities of North Platte, Hershey, and Sutherland in Lincoln County (Appendix B). These structures are composed of 22 farms/ranches, 315 houses, and 3 bridges. The remaining 123 structures are composed of a variety of structure types and functions including but not limited to churches, various commercial buildings, motels, railroad depots, gas stations, banks, and warehouses (History Nebraska 2025a; Appendix B). The majority (430) of these structures are located within or near the three municipalities, with 31 structures located in the rural areas and two within the bounds of the small unincorporated community of Sarben. Dates of construction range from 1885 to circa 1948, and 33 structures have no construction date listed.

Eligibility of Known Cultural Resources

The NHPA, specifically 36 CFR part 60, guides the evaluation of cultural resources for inclusion in the NRHP in consideration of the seven aspects of integrity (location, design, setting, materials, workmanship, feeling, and association), as well as the following four criteria:

- Criterion A: are associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: associated with the lives of significant persons in our past.
- Criterion C: embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: has yielded, or may be likely to yield information important in prehistory or history.

A cultural resource must retain at least one aspect of integrity and be applicable to at least one of the criteria to be considered eligible for inclusion in the NRHP. NRHP eligible sites are commonly referred to as “historic properties” regardless of their prehistoric or historic temporal association.

Two of the 13 archaeological sites have been determined by SHPO as not eligible for inclusion in the NRHP (25LN81 and 25LN87), and the remainder have not been evaluated for eligibility (Table 4). One of the unevaluated sites, 25LN505, is the town of Hershey which likely consists of several interrelated historic structures, features, and artifact scatters. Two of the historic structures are individually listed in the NRHP (LN00-012 and LN00-032) and consist of the Scout’s Rest Ranch, now known as the Buffalo Bill Ranch State Historical Park, and the Sutherland State Aid Bridge. Additionally, the North Platte Commercial Historic District (LN06-HD001) is listed in the NRHP and includes 21 contributing structures, 1 structure listed as individually eligible within the district (LN06-720), and 7 non-contributing structures. A further 80 structures are considered/recommended individually eligible structures that are not part of a defined historic district. Therefore, of the remaining resources, 33 are recommended/determined not eligible and 319 have not been evaluated for eligibility (see Appendix B). No previously identified NRHP eligible cultural resources or districts are present within the current survey parcels.

Table 4. NRHP Listed Cultural Resources and Historic Districts.

SHPO ID	Extant	Name	Other Name(s)	NR Eligibility	NR Classification	Year Listed
LN00-032	Extant	Sutherland State Aid Bridge	Birdwood Bridge	Listed: Individual	Structure	1992
LN00-012	Extant	Scout's Rest Ranch	Buffalo Bill Ranch State Historical Park	Listed: Individual	Building	1978
LN06-HD001	NA	North Platte Commercial Historic District	North Platte Commercial Historic District	Listed: District	District	2020

Tribal Historic Preservation Office Data

The NRCS has conducted outreach to potentially interested Native American tribes regarding this project. As of the date of this report, the Northern Arapaho Tribe has responded and stated that they are interested in consulting, but they did not share any specific information regarding cultural resources in the area (Melissa Baier, personal communication 2025).

Additional Research

In addition to the official archaeological records search and the architectural/structural properties site search, the NRHP online database was reviewed and the GLO 1870 plat maps covering the study area were examined, as were other historic maps. A search of the GLO Land Patent Records and the century farm listings for Nebraska (Aksarben 2025a, 2025b) was also conducted.

The GLO plat maps were drafted in 1870 (BLM 2025a). These maps illustrate the North Platte River, unnamed creeks, East Clear Creek, and Birdwood Creek. The plats depict several wagon roads which follow the North Platte River, as well as the Union Pacific Railroad (BLM 2025a). None of the roads are named and no other human-made features are depicted. The “Old Wagon Road(s)” depicted on the plats corresponds to the California/Oregon, and Mormon Trails which followed the North Platte River into Wyoming (BLM 2025a; NPS 2025). No segments of this historic route are illustrated within the current survey parcels.

Historic maps of Nebraska were examined in order to supplement the information provided by the GLO plat maps. Colton’s 1869 map illustrates the eastern half of Nebraska and those portions of western Nebraska near the Platte River and Union Pacific Railroad. The counties depicted within the study area are labeled as Harrison and Monroe (Colton 1869; Figure 10), but the 1886 Colton map shows the counties with their modern boundaries and names (Colton 1886; Figure 11). The 1898 (Photorevised [PR] 1960) Paxton, Nebraska, topographic map depicts the Duck Brand Ranch in Section 6, T14N/R36W; the towns of Paxton, Sutherland, and Hershey; and the Cody and Dillon Canal, the Paxton and Hershey Canal, the North Platte Canal, the Farmers and Merchants Canal, the Birdwood Canal, the Evans Canal, and the Southside Canal (Figure 12; USGS 1898 [PR 1960]). The 1899 (PR 1957) North Platte, Nebraska, topographic map depicts the eight canals, the town of North Platte, and the Union Pacific Railroad (see Figure 12 and Figure 13).

The 1909 Cram and Davis map of Nebraska depicts an unnamed road passing through North Platte following the North Platte River (Cram and Davis 1909). This same route is labeled as Highway 30 on the 1927 Rand McNally roadway map of Nebraska (Rand McNally and Company 1927), which also depicts County Roads 23 and 28 passing through the study area.

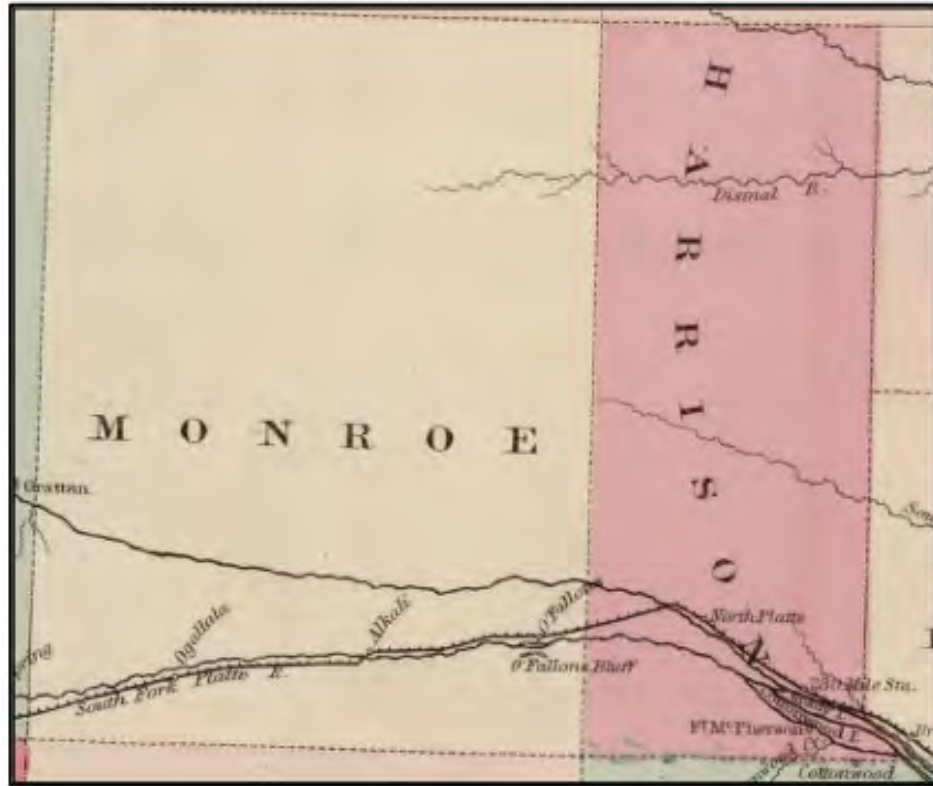


Figure 10. Excerpt from Colton (1869) map.

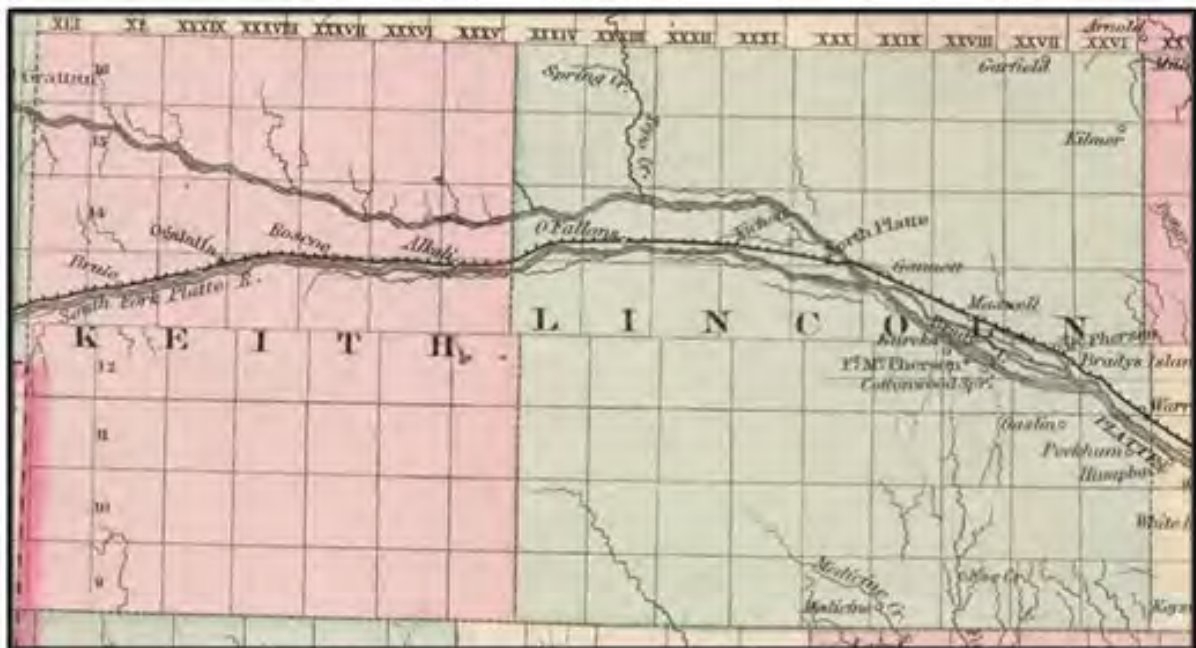


Figure 11. Excerpt from Colton (1886) map.

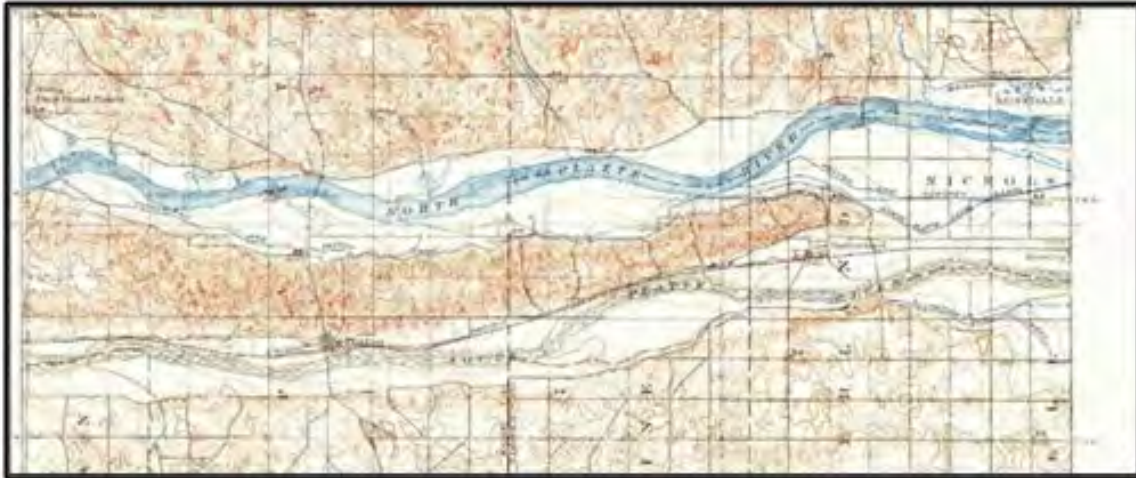


Figure 12. Excerpt from Paxton, Nebraska (1898 [PR 1960]), USGS topographic map.

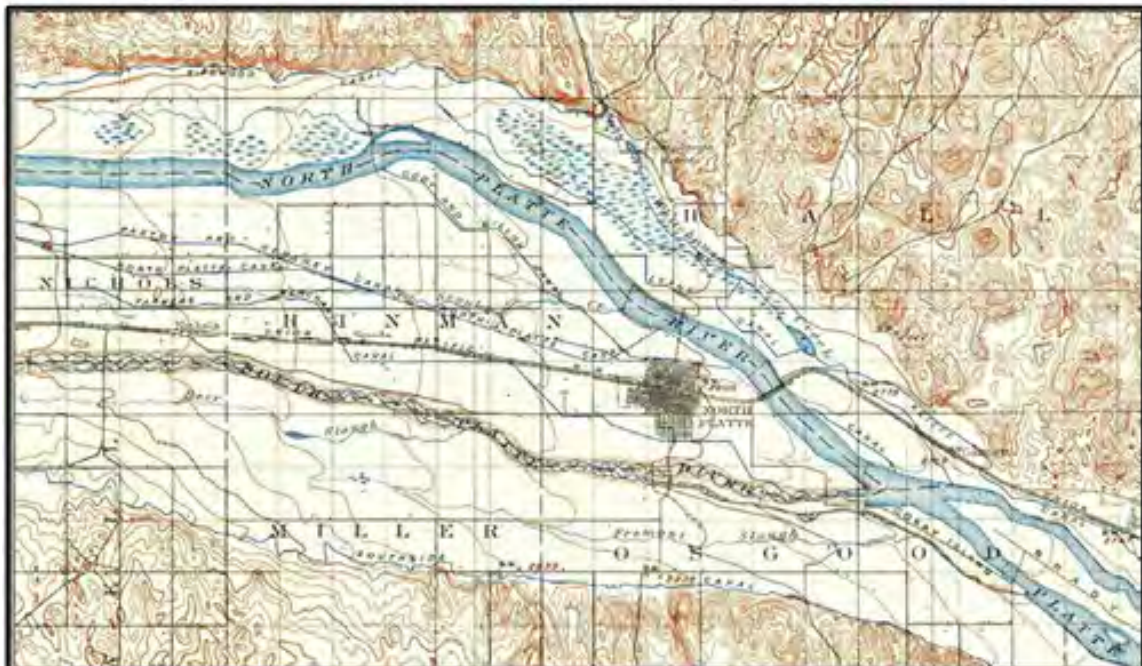


Figure 13. Excerpt from North Platte, Nebraska (1899 [PR 1957]), USGS topographic map.

A search of the GLO land patent records (BLM 2025b) was conducted to identify the origins of historic occupation within the study area. The GLO Land Patent Records (presented in Appendix C) revealed 307 land patents issued to 276 private individuals within a 77-year period between 1873 and 1950. Patent activity was highest between 1889 and 1893 with peaks in the number of patents issued in 1874–1875, 1888–1895, and 1898–1899 (Figure 14). These 12 years account for 65.25 percent ($n = 201$) of all patents issued within the project area. Patents were not issued in every year of the date range and issuance became more sporadic in the twentieth century, with no patents being issued between 1923 and the final patent issued in 1950 (see Appendix C).

Land patents issued under the 1862 Homestead Act account for 60.2 percent ($n = 185$) of all patents issued (see Appendix C) followed by cash sales which account for 19.9 percent ($n = 61$) of all patents. Land patents issued through the 1873 Timber Culture Act comprise 18.6 percent ($n = 57$) of all patents, followed by three patents issued under the authority of the 1862 State Grant-Agriculture Collage Act and one patent issued under the 1916 Stock Raising Act. The 1862 Homestead Act specified that a patent on 160 acres of land was to be improved and occupied for five years (Cassity 2007:23). The 1873 Timber Culture Act was designed follow up on and support the 1862 Homestead Act. The intention of this act was to promote the planting of trees (Nebraska.gov 2020). It allowed for 160 acres to be claimed provided that at least 40 acres be planted in trees; this requirement was later reduced to 10 acres (Nebraska.gov 2020). The act required no fewer than 2,700 trees to be planted within the 10-acre area. Unfortunately, the goals of this act were not attained; although millions of trees were planted in an attempt to qualify for land under the Timber Act, most groves were haphazardly planted and poorly maintained. Consequently, very few viable groves were created (Nebraska.gov 2020). The 1862 State Grant-Agriculture Collage Act refers to the Morrill Land Grant College Act, which provided federal lands to each state to be used to establish colleges through the sale of or use of the land (Congress of the United States 1862). The 1916 Stock Raising Homestead Act specified that a patent be made on 640 acres primarily for stock raising and growing of forage crops on land that did not have potential for irrigation or commercial timber (Cassity 2007:23, 195).

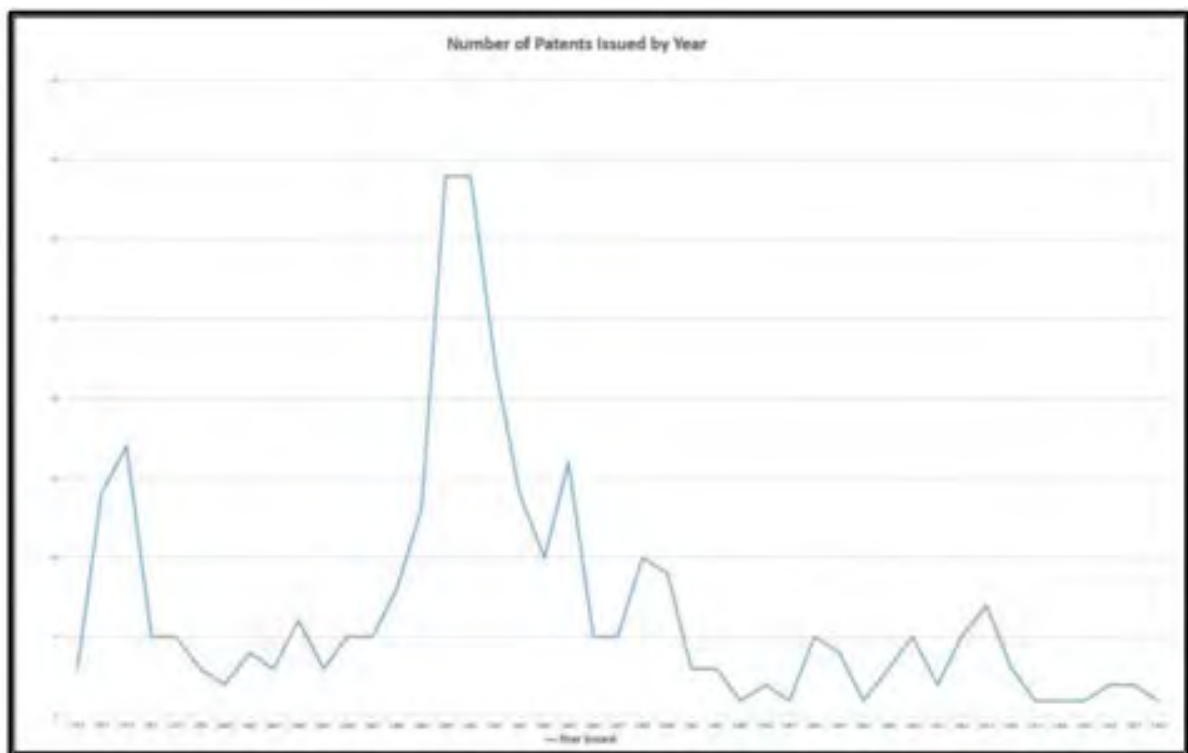


Figure 14. Line chart depicting number of patents issued by year.

The GLO land patent records within the study area are extensive enough to provide some information on the settlers themselves. For example, 5.5 percent (n = 17) of the patents granted are associated with individuals who have typically female names, and identical surnames of different individuals receiving patents to adjacent lands suggest possible familial associations. Shared surnames likely represent a variety of family connections such as husbands and wives, brothers, fathers, mothers, sons, and daughters, each obtaining patents to expand family agricultural holdings. The surnames also serve to suggest possible ethnicity of settlers within the study area, indicating ties to Bohemia (German, Czech), England, France, Germany, Ireland, Italy, Scandinavia, Scotland, Spain, and Wales.

In Nebraska, the Aksarben Foundation (established in 1895) maintains a list of farms that have been owned by a single family for at least 100 years. The foundation's Pioneer Award honors families that have held the same family ownership of the land for 100 years, while Heritage Awards are granted to family farms that extend back to 150 years of ownership (Aksarben Foundation 2025a, 2025b). These award lists provide some indication as to the number of unidentified historic farmsteads that may be present within the project area in addition to the 22 farms/ranches that have previously been recorded. There are no recognized Heritage Award farms in Keith or Lincoln Counties (Aksarben Foundation 2025b). Lincoln County has 59 Pioneer Award farms listed, and Keith County has 27 Pioneer Award farms listed. The GLO land patent records were cross-referenced with the family names listed in the Nebraska Pioneer and Heritage Award farms. Six family names listed in Pioneer Awards match family names in the GLO land patent results (Table 5; see Appendix C). The matching family names are Peterson, Miller, Koch, Roberts, Jensen, and Lute. The Pioneer Award recipients with these surnames may be descendants of individuals listed in the land patent records. The small number of Pioneer Award names cross referenced with the project area land patents indicates a certain level of instability in settlement over the last 100 years. This suggests a higher likelihood that original farms have been sold, abandoned, or conglomerated, which increases the likelihood that the associated structures have been impacted via abandonment, razing, or modern additions. Historic structures that remain are likely to have been modified to meet the needs of changing agricultural crops, methods, and technologies.

Table 5. Pioneer Award Farms in Lincoln and Keith Counties.

Year Awarded	County	Family Name	GLO Patent Cross Reference
2022	Lincoln	Copeland	No
2022	Lincoln	Frels	No
2022	Lincoln	Broeder	No
2021	Lincoln	Huza, Buzzell, Palic	No
2021	Lincoln	McCune	No
2015	Lincoln	Johnson and Weekly	No
2014	Lincoln	McCune	No
2013	Lincoln	Voss	No
2008	Lincoln	Foran	No
2008	Lincoln	Murray	No
2007	Lincoln	Fox	No
2007	Lincoln	Raney	No
2007	Lincoln	Merrill	No
2005	Lincoln	Peterson	Yes
2005	Lincoln	Meyer	No
2004	Lincoln	Cohen	No
2004	Lincoln	Miller	Yes
2004	Lincoln	Bay	No
2003	Lincoln	Downs	No
2003	Lincoln	Dahl	No

2001	Lincoln	Brittenham	No
1999	Lincoln	Maham	No
1998	Lincoln	Johnson	No
1994	Lincoln	Bergstrom	No
1993	Lincoln	Hoatson	No
1993	Lincoln	Gaudreault	No
1993	Lincoln	Elsasser	No
1993	Lincoln	Hansen	No
1993	Lincoln	Auble	No
1993	Lincoln	Long	No
1993	Lincoln	Hansen	No
1993	Lincoln	Koch	Yes
1992	Lincoln	McNickle	No
1992	Lincoln	Bloom	No
1992	Lincoln	Sellers	No
1992	Lincoln	Mortensen	No
1992	Lincoln	Walz	No
1992	Lincoln	Haist	No
1991	Lincoln	Steel	No
1991	Lincoln	Fulk	No
1988	Lincoln	Brogan	No
1987	Lincoln	Clymer	No
1987	Lincoln	Hansen	No
1985	Lincoln	Hammond	No
1985	Lincoln	Huebner	No
1985	Lincoln	Greenwood	No
1985	Lincoln	Isackson	No
1984	Lincoln	Votaw	No
1984	Lincoln	Votaw	No
1984	Lincoln	Lemoin	No
1984	Lincoln	Peckham	No
1982	Lincoln	Sullivan	No
1982	Lincoln	Rielly	No
1982	Lincoln	Roberts	Yes
1980	Lincoln	Peckham	No
1980	Lincoln	Lynn	No
1980	Lincoln	Atkinson	No
1979	Lincoln	Jensen	Yes
1971	Lincoln	Scherz	No
2021	Keith	Spurgin	No
2021	Keith	Johnson	No
2017	Keith	Ro-Jon, Inc.	No
2015	Keith	Hardessen	No
2015	Keith	McBride	No
2014	Keith	Johnson	No
2013	Keith	Lanny Mark Rex Beam	No
2009	Keith	Harms	No
2008	Keith	Beckius	No
2006	Keith	Halligan	No
2004	Keith	McConnell	No
1995	Keith	Peterson	No
1995	Keith	Venture	No
1995	Keith	McCracken	No
1995	Keith	Geisert	No
1994	Keith	Pounds	No

1993	Keith	Peterson	No
1993	Keith	Most	No
1991	Keith	Krab	No
1989	Keith	McFedden	No
1986	Keith	Horner	No
1985	Keith	Haldeen	No
1984	Keith	Haythorn	No
1984	Keith	Haythorn	No
1984	Keith	Keystone	No
1984	Keith	Lawler	No
1984	Keith	Lute	Yes

IV. CULTURAL HISTORIC SETTING

This section provides a brief overview of the cultural-historic chronology of the region. For the prehistoric periods, dates are provided in years before present. Postcontact (Protohistoric) and historic period dates are provided in Gregorian calendar years. The Central Plains, and the scholarly understanding of prehistoric cultural resources in this region, is based on previous investigations that have identified temporarily sensitive artifacts (such as projectile point types and ceramics) associated with specific archaeological sites, feature types or styles, and radiocarbon dates. The general chronological and cultural-historic framework developed by past investigations is summarized, with some variation, in Wood (1998), Johnson (2001), Frison (2001), and Wedel (2001). This framework is used as the primary organizing chronology to discuss the archaeology within and near the study area. Additionally, the study area is located on the southern edge of the Sandhills cultural-historic context area and pertinent aspects of that chronology are also employed when applicable (Koch 1999).

Paleoindian Period (12,000–8500 BP)

There is some evidence for human occupation in the Central Plains prior to 12,000 years ago, but firm evidence in Nebraska begins with the Paleoindian period Clovis complex dating from 11,500 BP. The Paleoindian period continues to around 8500 BP (Hofman and Graham 1998:89–91; Steinacher and Carlson 1998). The archaeological record during this time is characterized by a variety of large lanceolate and stemmed projectile points such as Clovis, Folsom, Goshen, Plainview, Agate Basin, Alberta, Hell Gap, Scottsbluff, Eden, Fredrick, Lusk and Brown's Valley points (Hofman and Graham 1998:95–107). Other common material culture included spurred end scrapers, graver, borers, crescents, mammoth bone shaft wrenches, and tanged knives such as those associated with the Cody complex (Hofman and Graham 1998:106–107; Kornfeld et al. 2010:39; Schroedl 1991). Site types common to this period include kill sites, butchering sites, short-term camps, and caches. One example of Paleoindian caches is the Harmon Cache recovered in a plowed field in south-central Nebraska. This cache contained 67 lithic artifacts, including large stemmed projectile points with lanceolate blades identified as Alberta/Cody Types I and II and Scottsbluff Type I dating to 8600–10,000 BP (Bamforth 2013:68). This cache contained two end scrapers, retouched flakes, and a range of large late reduction stage bifaces, 38 of which were identified as "preforms" for projectile points (Bamforth 2013:67–70). Paleoindian big game kill and butchering sites as well as short-term habitation sites, have identified bison (*Bison antiquus*), camel, ground sloth, horse, and mammoth bones (Hofman and Graham 1998:87–99). The frequency of kill and butchering sites and tool kits geared for hunting have indicated that big game hunting was the primary focus of subsistence during this period (Hofman and Graham 1998:116–120). Examples of Paleoindian sites in Nebraska include Clare Ranch, Dutton, the Harmon cache, Hudson-Meng, Lime Creek, Meserve, Scottsbluff, and Selby (Hofman and Graham 1998:98, 104, 110). No Paleoindian sites have previously been identified within the study area.

Archaic Period (8500–2500 BP)

The Plains Archaic period is divided into the Early Archaic (8500–6500 BP), the Middle Archaic (6500–4500 BP), and the Late Archaic (4500–2500 BP) (Kay 1998b:193). These subperiods are based on changes in subsistence strategies and tool assemblages in conjunction with broad climatic shifts that were impacting faunal and floral resources at the end of the Pleistocene (Kay 1998b:193). On the Great Plains, at 9000–8500 BP, subsistence strategies trend away from primarily hunting to a generalized exploitation of plant foods and smaller animals (Kornfeld et al. 2010:106–129; Kay 1998b:173). Ground stone implements (manos and metates), which are present in low numbers in Paleoindian sites, become more common in the Archaic period and probably reflect increasing use of plant resources (Kornfeld et al. 2010:106–129). Projectile point forms changed substantially from Paleoindian types to stemmed, smaller lanceolate, side-notched, and corner-notched forms with the use of the atlatl. The

great diversity of projectile points during the Archaic suggests the development of regionalized groups, a process that may have begun in the later Paleoindian Plano period (Kay 1998b). Material culture that is consistent throughout this period includes a variety of large- to medium-sized stemmed or notched projectile points, boatstones, celts, chipped stone hoes, ground stone axes, manos, metates, marine shell beads, and bone awls, as well as features such as burial mounds, post molds indicating structures, lithic caches, large rock-lined hearths, and fire-cracked rock (FCR) discard piles. The floral and faunal remains at Archaic sites indicate a diversification of the subsistence base. Bison, deer, raccoon, and smaller mammals are common, as are fish and migratory birds (Kay 1998b:178). Edible plant resource evidence at sites has included bulrushes, grapes, goosefoot, hackberry, knotweed, lambs' quarter (seeds), and walnuts (Kay 1998b:178–190). Settlement and subsistence are heavily influenced by seasons, with plant and animal processing sites associated with the seasons when these resources were most abundant (Kay 1998b:194). Bison hunting was mostly a seasonal communal event utilizing game drives and traps. In the Late Archaic, there have been some indications of nascent horticulture, which would come to shape the following periods (Kay 1998b:194–195). There are numerous examples of Archaic period sites in the region, such as the Middle Archaic McKean complex bison hunters in western Nebraska and the stratified Coffee site in Kansas located along the Big Blue River dating to 5270–5055 BP and 3550–3050 BP (Frison 2001:143–145; Kay 1998b:178). No Archaic period sites have been recorded within the study area.

Plains Woodland Period (2500–1000 BP)

In much of the Great Plains, the Plains Woodland period is divided into the Early Woodland (2500–2000 BP), the Middle Woodland (2000–1500 BP), and the Late Woodland (1500–1000 BP) (Johnson 2001:159–163). The Early Woodland is marked by the widespread introduction of thick, grit- or rock-tempered, cordmarked ceramics and the introduction of the bow and arrow, along with continued use of the atlatl and dart (Johnson 2001:159). Differentiation between the Early, Middle, and Late Woodland is based on changes in ceramic styles and evidence of influence from cultures outside the region, such as the Hopewell, during the Middle Woodland (Johnson 2001:160–161; Johnson and Johnson 1998:203). The number of artifact types, artifact styles, and feature types sharply increases during this period. Material culture includes much of the artifacts and features found during the Archaic, but adds corner tanged knives, polished stone gorgets, tanged drills, a wide variety of decorated ceramic styles, and formal end scrapers (Johnson 2001:163–164). Features include hearths, storage pits, waddle and daub habitation structures, habitations identified by post molds, and occasional mound burials. The hearths have been identified inside and outside of habitation structures (Johnson 1998:204; Johnson and Johnson 2001:165, 209). Settlement was focused along stream margins or nearby uplands with habitations established for 2–3 nuclear families (Johnson and Johnson 1998:204). Throughout the Middle and Late Woodland, the aggregation of people expanded hamlets into larger villages covering 5–10 acres (Johnson 2001:161). Preserved floral remains at sites have identified maize, gourd, squash, domestic marsh elder, and sunflower seeds, indicating that horticulture was an important subsistence source. Faunal remains indicate a broad exploitation of mammals, reptiles, fish, and birds as food sources with some sites yielding dozens of species of animal bone (Johnson and Johnson 1998:207). Examples of Plains Woodlands sites in Nebraska include Bakenhus, Doyle, Eagle Creek, the Fey site, Keith, Lawson, Leahy, Shultz, Tramp Creek, the Walker-Gilmore site, Whalen, and the Whitten site. One previously recorded site within the study area contained pottery sherds which were associated with the Plains Woodland period (25NL05) (Weakly 1949). This site is not within any of the current survey parcels.

Plains Village Period/Central Plains Tradition (1000–500 BP)

Nebraska was the center of the Central Plains tradition. This tradition has been divided taxonomically into phases such as Lower Loup (Loup River Itskari), Nebraska, Smokey Hill, St. Helena, Solomon River, and Upper Republican being based on differences in materials culture,

primarily identified by ceramic decorative styles (Gunnerson 2001:235, 239–242; Steinacher and Carlson 1998:235–237). These phases characterize groups of sites within a roughly definable area (taxonomic unit). The number of sites attributed to this period increases and village sizes expand, suggesting a corresponding population increase. For example, villages at Lower Loup phase sites range in size from 15 to 100 acres. Large round earth lodge habitation structures and bell-shaped food storage pits appear in the archaeological record at village sites as horticulture intensifies, and the population becomes more sedentary (Steinacher and Carlson 1998: 237). Sites associated with the Solomon River phase represent some of the earliest manifestations of the Central Plains tradition in Nebraska and Kansas dating to as early as 800 BP (AD 1200 +/-150 years) (Steinacher and Carlson 1998:239).

Material culture of the Upper Republican phase (950–600 BP) is similar to Solomon River with differences in the frequency of certain ceramic rim styles and decorative motifs (Steinacher and Carlson 1998:240, 241, 244). The earth lodge houses of these two phases were rectangular rather than round, as was typical of other Central Plains tradition phases. The dwellings ranged in size from 521.7 to 1,206 sq ft, with a mean of 868 sq ft. The houses were built in shallow pits made by removing the sod, and short entry passages faced east or south. A hearth was placed in the center of the structure with storage pits in the floor. The pits were typically filled with refuse after initial use. Houses are found widely spaced, or in clusters of 2–5 structures. Bone tools such as bison scapula hoes have been recovered from Central Plains tradition sites, and milling stones are more common. Other bone tools included awls, beads, and fish hooks. Projectile points are small corner and side-notched arrow points. Ceramics diversify into jars, pots, and bowls with smoothed surfaces and thinner walls (Steinacher and Carlson 1998:241–242). Material cultural also included ceramic effigies, carved stone, antler and bone bow guards, and effigy pipestone pipes (Wedel 2001:179). The main cultigen during this period was maize, but beans, squash, and sunflowers were also grown, as was tobacco (Steinacher and Carlson 1998:237–243; Wedel 2001:174).

The exploitation of faunal resources continued to intensify during this period. Evidence of bison hunting is present, but it did not consist of the large communal drives that occurred during the Archaic (Wedel 2001:175). The animal subsistence base was varied and included badger, beaver, bison, bobcat, deer, coyote, fish, fox, several species of mice and rats, mountain lion, muskrat, prairie dog, prairie vole, porcupine, pronghorn, rabbit, wolf, and wolverine. In addition to wild game, evidence of domestic dog is present (Wedel 2001:174–176). There are numerous Plains Village period/Central Plains tradition sites within Nebraska. A few example sites in the region are Alma Ossuary, Graham Ossuary, Guide Rock, Los Creek, Mowry Bluff, and Prairie Dog Creek (Steinacher and Carlson 1998:239; Wedel 2001:175). Upper Republican phase sites are typically located along tributary creeks of the Republican River on terraces, gentle slopes, and nearby hilltops between smaller streams (Wedel 2001:174). The study area is outside the primary taxonomic regions for the Central Plains tradition, to the west of the Upper Republican and Loup River Itskari taxonomic regions. However, Central Plains tradition material culture has been found as far west as the High Plains of the Nebraska panhandle (Koch 2000), though the western sites are less permanent in nature and lack convincing evidence for horticulture (Koch 1999) so it is undoubtable that the study area was utilized by people of these traditions. One site (25LN05) which possibly had pottery components associated with the Upper Republican phase has previously been identified within the project area (Weakly 1949). This site is not within any of the current survey parcels.

Plains Village Coalescent Period (600–159 BP / AD 1400–1862)

The Plains Village Coalescent period/tradition exhibits a continued reliance on horticulture and hunting but is set apart in the archaeological record from the preceding period by increased exploitation of bison, changes in ceramic styles, and lithic raw material preferences, a greater variability in earth lodge forms, and the presence of defensive fortifications in the early years of the tradition (Johnson 2001:309, 313, 315; Krause 2001:196–199). There is uncertainty as to whether these changes represent

an outside group moving into the area or continued development of the Initial Coalescent emerging directly from the Loup River Itskari, Nebraska, Smokey Hill, and Upper Republican phases of the Central Plains tradition (Johnson 1998:308-309; Krause 2001:196; Steinacher and Carlson 1998:258-259). In either regard, the Coalescent tradition is present in Nebraska along larger streams such as the Big Blue, Elkhorn, Loup, Niobrara, Platte, and Republican Rivers, but the highest density of Coalescent villages is along the Missouri River in the Dakotas (Johnson 1998:309-310; Krause 2001:197). Coalescent tradition appears to have given rise to the modern Arikara, Hidatsa, Mandan, Pawnee, and Ponca Tribes (Parks 2001:515). Ethnographic information indicates that the Pawnee, a Caddoan-speaking people like the Arikara to the north, and the Wichita in the Southern Plains, were in the Nebraska region by the thirteenth century (AD 1200s) (Naugle et al. 2014:14-15). The Arapaho were present to the west, the Kansa and Otoe to the east, the Kiowa to the south, Teton to the northwest, and the Yankton-Yanktonai to the northeast. By AD 1800, other tribes in the region would include the Arapaho and Cheyenne to the west, the Lakota to the northwest of the Pawnee, and the Ponca to the north, the Omaha to the northeast, and Missouria, Ioway, and Otoe to the east-southeast (Naugle et al. 2014:15). Other tribes who spent time in Nebraska include the Plains Apache, Comanche, Crow, Kiowa, Arikara, and potentially others (History Nebraska 2025b).

The chronological framework of the Coalescent is somewhat variable. In the earliest form of the chronology, the Initial Coalescent phase is identified by villages protected by log palisades and ditches. These villages generally date to 600–450 BP. It is followed by the Extended Coalescent from 450 to 325 BP, and the Postcontact Coalescent from 325 to 220 BP (AD 1675–1780). The Disorganized phase concludes the Coalescent tradition in 1862 (159 BP) (Johnson 1998:308). The second chronology dates the Initial Coalescent phase from 700 to 400 BP with the Extended Coalescent overlapping it dating to 500–350 BP (Krause 2001:196). After 1650, the chronology switches to the Postcontact Plains Village tradition (Lehmer 2001:245). The material culture during this period is rich and complex, containing a wide variety of bone, wood, chipped stone and ground stone tools, basketry, beads, shell trade goods from the North American coasts, specialized snow equipment, and much more (Johnson 1998:311; Krause 2001:199–201). Examples of Coalescent sites in Nebraska include Barcal, Bellwood, Burkett, Genoa, Goodenow, Hill, Linwood, Lynch, Palmer, Phil Cuba, Redbird II, Schuler, Wright, and Wolfe (Johnson 1998:310). Coalescent sites are typically located on upper river terraces. One Plains Village Coalescent tradition site (25LN14) has previously been identified within the project area.

Post Contact Period (AD 1675–1854)

In 1541, the expedition of Francisco Vaquez de Coronado reached Quivera (Kansas) and was in contact with the Wichita Tribe when a visit was made by the Harahay. The name “Harahay” is the Spanish version of the Wichita name for the Pawnee (Parks 2001:517). At this time, the Pawnee lived in eastern Nebraska extending as far south as the Kansas River (Parks 2001:515). While European trade goods begin to show up at villages in the Central Plains by 1600, the consensus for the start of the early historic period in the region appears to be 1675 (Johnson 1998:320; Lehmer 2001:245).

It is during the early portion of the postcontact period that the people of the “Dismal River” culture occupied the Sand Hills region briefly (late 1600s to early 1700s) (Koch 1999). This culture, thought to be the ancestors of the Plains Apache, had a subsistence economy focused on hunting, with horticulture as a supplementary strategy. Hunting efforts were centered on bison, though deer, beaver, birds, turtles, and freshwater mussels also appear in the archaeological record. Limited evidence for horticulture has manifested in the form of digging tools fashioned from bison scapula, as well as the charred remains of corn and squash. Wild plants, such as plums, chokecherries, hackberries, and black walnuts have also been recovered. Stone and bone tools include the usual panoply of projectile points, knives, scrapers, drills, fleshers, and bone awls. Ceramic evidence demonstrates globular to somewhat elongated shapes with constricted necks, as well as bowls with constricted necks (“seed bowls”), vessels with flat shoulders and recurved limbs, vessels with flat bottoms, and miniatures (Koch 1999).

Decoration of these vessels is generally limited to punctuate and incised or impressed lines along the lips, and they are typically gray-black in color with a smooth or simple stamped surface. Dismal River shelters commonly include round lodges averaging 25 ft in diameter, covered by grass or brush over a five-post foundation. Leaners were typically built either on the surface or in a shallow excavation (Koch 1999). One site within the study area contains Dismal River complex pottery (25LN05) (Weakly 1949).

According to oral traditions and the accounts of Euro-American explorers and settlers, approximately 10 Native American tribes frequented the Sand Hills in this period, and utilized it for a variety of purposes. Nomadic bison hunter groups in the area include at minimum the Brulé and Oglala bands of the Lakota, Cheyenne, Arapaho, Kiowa, and Crow Tribes. More sedentary groups would utilize the area for hunting as well, including the Pawnee, Arikara, Plains Apache, Omaha, and Ponca Tribes.

East of the study area along the Platte River the archaeological record indicates the Plains Village Coalescent tradition continues in this period. Pawnee villages were composed of earth lodges with central hearths and platforms for sleeping and storage. Horticulture was still prominent and fields were assigned to the women in each family by the village chief. Fields ranged from 0.5-acre plots to 1.5 acres (Parks 2001:523–525). Buffalo hunts were typically conducted twice a year and wild plant resources were also gathered seasonally (Parks 2001:525–526). By this period, the Pawnee were organized into four bands that were associated with groups of politically unified villages. These bands were the Skiri (Panamaha or Loup) in the north, the Chawi (Grand) in the southeast, and the Kitkahahki (Republican) and Pitahawirata (Tappage) to the south. The Skiri was the largest group with multiple villages, followed by the Chawi, with the Kitkahahki and Pitahawirata being represented by a single village each. By the 1690s the Pawnee were trading with the Spanish and the French (Parks 2001:515–517). European trade goods begin to appear in the archaeological record, including iron knives and projectile points, copper scrapers, brass items, glass beads, and gunflints indicating the presence of firearms. Horses were present in Pawnee villages by 1740 (Johnson 1998:323). The French came to be the primary trading partners of the Pawnee by the early 1700s (Parks 2001:517). The French supported the Pawnee in conflicts with the Navajo, and later joined with them and the Wichita in the fight against the Apache. In 1720, the Pawnee were drawn into the fight between the French and Spanish. Their support lead to a French victory in a battle at the confluence of the Platte and Loup Rivers (Parks 2001:517–518). By 1767, the Pawnee were tied into the French fur trade network out of St. Louis and prospered, but in 1803, it was reported that they had been severely diminished by smallpox. The Pawnee had access to the trade network, but direct contact with Europeans cultures was still somewhat limited. After the Louisiana Purchase in 1803, the first contact with citizens from the United States began with an expedition lead by Lieutenant Zubulon Pike in 1806. He met with the Kitkahahki at the Hill site along the Republican River. The expedition of Major George Sibley in 1812 met with the Pawnee, Osage, and Kansa to promote peace and bind them to the United States, which was competing with the British for dominance in the fur trade due to the French being removed from the region. Sibley noted the Kitkahahki had left the Republican River and moved their village to the Platte River while the Chawi and Pitahawirata had moved to the Loup River, south of the large Skiri villages (Parks 2001:519).

In 1818, the Pawnee signed treaties with the United States government, but contact was still limited until the 1830s. In the 1830s and 1840s Euro-Americans were traveling on the Oregon, California-Mormon Trail following the Platte River, passing through what would later become Nebraska, and were not settling in the area (Naugle et al. 2014:59–65). It is estimated that 500,000 emigrants passed through Nebraska between 1841 and 1866 (Naugle et al. 2014:77). Disease killed many emigrants, and interaction between emigrants and the Pawnee through trade also spread diseases to the tribe, reducing their population (Naugle et al. 2014:78). Smallpox struck the tribe in 1825, 1831, 1838, and 1852 (Parks 2001:520). Impacted by a smaller population and outside forces, the Pawnee ceded their lands south of the Platte River to the United States in the treaty of 1833 (Parks 2001:519–520). Incursions from the

west by the Oglala and Brule in 1846 forced further contraction and restricted their seasonal bison hunts. Despite disease and resource pressures, the Pawnee maintained their traditional lifeways of hunting and farming into the historic period when Nebraska became a formally organized territory in 1854 (Naugle et al. 2014:89). No Native American sites associated with this period have previously been located within the project area.

Between 1841 and 1869, more than 500,000 emigrants traversed the Oregon Trail to escape economic adversity, obtain better ranching and farmlands, or pursue wealth in the California and other gold rushes (Dary 2004; Naugle et al. 2014:59-65). The Oregon Trail was the principal travel corridor for the great nineteenth-century westward expansion to the Pacific coast. The trail crosses what would later become the state of Nebraska from east to west, and numerous trail-related sites, landmarks, and intact trail segments still remain. The trail was originally created by fur-trappers and traders in the early 1800s, which followed the well-worn trails of Native American groups. The Oregon Trail became the chief central route across the central Great Plains and into the west, carrying the beginnings of the Mormon migration to the Salt Lake Valley in 1847, and the multitudes of gold seekers to California in 1849. Mormon pioneers heading to Utah used the route from 1847 until 1869 when the first transcontinental railroad was established (Bureau of Land Management [BLM] 1986:46). The migration hastened the demise of the traditional Native American lifeway through military dominance and the reservation system. Military forts were established along the trail corridor to not only protect the westward traveling emigrants, but also to apply pressure to subjugate and control the regional Native American groups. In addition to emigrant travel, the Oregon Trail corridor became a freight and mail transportation route and was the corridor for the short-lived Pony Express in 1860. The Pony Express used this route until the service was made obsolete by the first intercontinental telegraph line in late 1861 (Larson 1990). With the completion of the Union Pacific Railroad in 1869, this trail experienced a significant decrease in traffic (Scott 1958:87). All three of these trails pass through the current study area paralleling the North Platte River to northeast Colorado and on to southeast Wyoming.

Historic Period (AD 1854–1975)

By 1853, Euro-American immigration into what is now Nebraska had progressed to the point that the territory had to be organized. When the Kansas-Nebraska Act was debated in 1853 and 1854, it became embroiled in the volatile balance between free states and slave states, resulting in the determination that the issue would be decided by the residents of those territories justified by the idea of popular sovereignty (Naugle et al. 2014:85–87). The residents voted to be a free, non-slave territory, and in 1854 the Nebraska Territory was organized (Naugle et al. 2014:89). By 1860 there were 3,000 farms in eastern Nebraska. The Euro-American population was 50,000 by 1867 when Nebraska became a state (Naugle et al. 2014:121, 189).

Early survey expeditions in the Sand Hills included those of G.K. Warren in the 1850s and James Sawyers in 1865. After the Ft. Laramie Treaty of 1868 military presence in Nebraska increased, ostensibly to protect Native American lands from further encroachment by settlers. Forts Robinson, Niobrara, and Hartsuff were constructed and garrisoned to supply the Pine Ridge and Rosebud Sioux and keep peace between the Natives and Euro-Americans (Koch 1999).

During the territorial years and early statehood era, resource pressures were increasing on the Pawnee and they signed the Table Creek Treaty in 1857, establishing their first reservation along the Loop River. The federal government began to initiate assimilation policies at this time (Parks 2001:520–521). Between 1864 and 1877, the Pawnees operated as scouts for the US Army and guards for the railroad. These efforts aided the stabilization of the eastern portion of Nebraska, which drew more Euro-American settlers. Despite their service, the government refused to allow the Pawnee weapons for defense, and attacks on their lands by the Oglala and Brule increased, killing approximately 100 Pawnee during a bison hunt in 1873 (Parks 2001:521). The breaking point was the

drought of 1874 that destroyed their crops. In that year, the Pawnee traveled with the Wichita into Oklahoma. In 1875, the Pawnee officially received reservation lands in Oklahoma (Parks 2001:523).

The arrival of the Union Pacific and the completion of the first transcontinental railroad had a dramatic impact on the economy and demographics of the study area and Nebraska in general. Construction began in 1865 when the Union Pacific began laying rail out of Omaha. By August 1866 the rails had reached Kearney, and North Platte by November 1866 (Naugle et al. 2014:157). These are two examples of terminal towns, which were constructed at regular intervals to ensure logistical supply of the construction efforts. Also called “Hell on Wheels” towns, these early settlements were hotbeds of drinking, gambling, and prostitution set up to supply and entertain the rail workers (Naugle et al. 2014:157). Many of these terminal towns were short lived, but others such as North Platte and Kearney remained and grew. The railroad accelerated growth and settlement in Nebraska, which saw a population growth of 326 percent between 1860 and 1870 (Naugle et al. 2014:158).

By the time Nebraska became a state, the area’s chief economic activity was agriculture, especially in the east, with cattle ranching established in the west by the 1870s (Naugle et al. 2014:224–225). Within the study area, agriculture was the primary economic driver due to the railroad. However, the nearby Sand Hills saw the establishment of numerous large and small cattle operations during the “Open Range” period from 1869 to 1885 (Koch 1999). Regional and local railroads expanding into Nebraska proliferated in the 1870s and 1880s, supporting further Euro-American settlement. The Homestead Act of 1862 was the primary legal vehicle that contributed to settlement, with 104,260 claims being filed in Nebraska during the life of the act (Naugle et al. 2014:191–193). This includes 185 of the patents issued for lands within the project area. The 1904 Kinkaid Act encouraged further settlement in the Sand Hills by enlarging the Homestead Act grant of 160 acres to 640 acres in 37 specific counties in northwestern Nebraska (Koch 1999; Nebraska Public Media 2025).

African Americans began settling in Nebraska after the Civil War, establishing homesteads and small communities between 1870 and 1907 (Naugle et al. 2014:203). European emigrants arriving in Nebraska at this time included Czech, Danish, Dutch Mennonite, English, German, Irish, Russian, Swedish Lutheran, and Welsh people (Naugle et al. 2014:195–206). GLO land patent records indicated that European immigrants or Euro-Americans with ancestors from France, Scotland, Spain, and Scandinavian countries were also present (Appendix C). Active emigration continued throughout the late nineteenth century. Despite the droughts, the Great Depression, two world wars, and the post-war economic shifts of the mid and late twentieth century, agriculture has remained at the center of the economy and life within and around the study area.

The first permanent settlements in Lincoln County were O’Fallon’s Bluff station (25NL037), established in the 1840s south of modern Sutherland within the current study area, and Cottonwood Springs, which was settled in 1858 to be used as a trading post (Save America’s Heritage 1993). Many such trading posts were set up between Fort Kearney and the mountains to be stop offs for the numerous emigrants traveling the California/Oregon and Mormon Trails. The Pony Express and stage lines would be established along these routes as well (Lincoln County, Nebraska 2025). Both O’Fallon’s and Cottonwood Springs would become stops for the Pony Express and the stage lines. The county, initially known as Shorter County, was formally organized in 1860 with the county seat located at Cottonwood Springs. The county was renamed Lincoln in 1866 to honor Abraham Lincoln, and the county seat was moved to North Platte in 1867, shortly after the town was founded, to service the railroad in 1866 (History Nebraska 2025c; Naugle et al. 2014:157).

When the Union Pacific laid out North Platte in 1866, they constructed two roundhouses and the town has been a hub for the railroad ever since. A store was constructed the same year and a post office the year after. After the town was named county seat, it grew quickly, adding an opera house and a new court house. A bridge was constructed over the South Platte in 1871, which increased the town’s accessibility (Save America’s Heritage 1993). The town would enter a “cattle era” in the 1870s as

longhorns from Texas were driven up to be loaded on the rail cars heading east. By 1880, the population was recorded as 368, and the plains entered a boom period (Save America's Heritage 1993). In 1886 the town would become the home of the famous William F. "Buffalo Bill" Cody, who used the success of "Buffalo Bill's Wild West Show" to build his "Mansion on the Prairie," located north of North Platte on his 4,000-acre Scout's Rest Ranch where he raised cattle and bred horses (site 25LN00-012). The mansion was the largest home in North Platte at the time. Buffalo Bill lived at his ranch in North Platte until 1913. The ranch was purchased by the Nebraska Game and Parks Commission in 1964 and opened it as the Buffalo Bill Ranch State Historical Park, which remains open as a state park and museum to the present day (History Nebraska 2025d).

The village of Hershey in Lincoln County is located 13 mi west of North Platte and consists of a small agricultural community which was focused on the production of sugar beets, alfalfa, grains, corn, and potatoes, as well as cattle grazing to the north and south of the river valleys. This town was organized in 1892 when the farmers and ranchers met to establish a post office and railroad siding from which to ship their goods. The town was platted on seven acres owned by Annie Guthrie and named after one of the owners of the Paxton & Hershey Land and Cattle Company. The community was not officially incorporated as a village until 1909, when its population reached 332 individuals (Edwards 2025).

The village of Sutherland in Lincoln County was platted on October 1891 and named after Robert Sutherland, who was an employee of the Union Pacific Railroad. The community was officially incorporated as a village in 1905. The town became the focus of one of Nebraska's early rural hydroelectric projects in the 1930s. Drought and depressed farm prices galvanized farmers to seek federal funding via grants to expand irrigation networks which also provided opportunities to electrify rural areas by combining irrigation infrastructure with hydroelectric facilities. The Reconstruction Finance Corporation (RFC) created by President Hoover in 1932 provided loans guaranteed by the federal government to financial institutions which would then lend that money to states and municipalities for public works project. Under this act, a group of Nebraska farmers sought funding for the Sutherland Project, the objective of which was to construct a diversion dam on the North Platte River 3 mi west of Keystone. A canal would connect the diversion dam to a point near Paxton, where water would pass through a subsurface pipe to a reservoir south of Sutherland (Sutherland Reservoir). Furthermore, the project proposed the construction of a second canal from the Sutherland Reservoir to Lake Mahoney, a regulation reservoir, where a hydroelectric plant would be constructed. Water would then be returned to the Platte for irrigation between North Platte and Kearney. Proceeds from the sale of the water and electricity would be used to pay off the loan. The application for the loan was approved in 1933 by the newly formed Public Works Administration (PWA) after the RFC transferred the application to the new agency. There are several historic canals within the project area which are related to these projects.

Keith County was formed in 1873 when the handful of permanent settlers in the area petitioned Governor Robert Furnace. The area had been sparsely settled at this point, with most communities being small railroad settlements spaced approximately 6 mi apart to provide water for the trains along the Union Pacific, which followed the route of the South Platte River. From east to west, these communities in Keith County consist of Paxton, Korty, Roscoe, Ogallala, Plano, Brule, and McGrath (England 2016). A year after this, Ogallala was chosen by the Union Pacific as the location of their new cattle chutes for mass shipping of cattle being brought overland from Texas. The resultant surge in population, as well as large numbers of Texans, highlighted the need for increased law enforcement infrastructure, and a jail was built in Ogallala in 1875. In 1886, the Burlington Northern Railroad began running in southern Keith County, which led to population movement to the town of Grant and ultimately culminated in the county being divided in 1887 with the southern half being reformed into Perkins County (England 2016).

The village of Paxton began as a railroad siding along the Union Pacific consisting of a telegraph station, a water tower, and a small depot with living quarters. Originally named Alkali, the town was located a few miles east of Fort Alkali, with was constructed on the south side of the river to protect travelers on the California/Oregon trail. Another military post called Elkhorn was established directly south of the present town. The population began to increase in the 1880s as the elimination of the bison attracted cattle ranchers to the open range. In 1885 Alkali was incorporated and renamed Paxton after the largest ranch operator in the area, the same Paxton & Hershey Cattle Co. which Hershey took its name from. In 1886, two bridges were constructed to provide road access across of the South Platte River, one of which was located in Ogallala and the other in Paxton (England 2016). Paxton is located approximately 1 mi south of the current study area.

Historic Irrigation within the Study Area

The first incorporated ditch company in the state of Nebraska was the North Platte Land and Water Company. Founded by Colonel Josiah B. Park and Guy C. Barton in 1871, the company constructed a canal stemming from the South Platte River approximately 3 mi west of the town of North Platte and extending to the town. This canal was used for a few years before a series of heavy rains brought a period of inactivity (Akers 1897). The rains, and the expense associated with building irrigation canals led to a general resistance to the construction of canals in Nebraska; however, by the 1890s repeated droughts had promulgated canal construction despite the costs (Bristow 2024). It is within this context that five of the canals within the current inventory area (Keith Lincoln, Paxton Hershey, Birdwood, Suburban, Cody Dillon) were built in the early 1890s. The North Platte (Platte Valley) canal was built in 1883 and represents an early effort that was undertaken when irrigation was not seen as an urgent need.

V. PROJECT STUDY INFORMATION

Research Design

Problem Statement: The East Clear Creek Project proposed alternatives are intended to improve water management that would consist of upgrading existing infrastructure to promote irrigation water delivery with the goal of addressing downstream stream flow shortages, recharging ground water supplies, and to better leverage water for producers (NRCS 2024; Olsson 2024). Development of the East Clear Creek project is guided and bound to NEPA requirements and the objectives of the NRCS Watershed and Flood Prevention Operations. In order to make a holistic and informed decision, NEPA requires federal agencies to assess the environmental effects of proposed actions prior to undertaking the actions. Effects to cultural resources are components of NEPA studies, and these effects are to be analyzed through the NEPA process. This intensive cultural resource survey has been conducted as a component of NEPA compliance regarding the project's alternative actions, as well as Section 106 of the NHPA.

The records review results and background research indicated that the six irrigation canals within the current survey parcels are historic in age, and that there was potential for additional historic and prehistoric cultural resources. Overall, no previous surveys had occurred within the project area survey parcels and the extent of prehistoric and historic cultural resources was unknown. This represented a substantial data gap to the needs of NEPA compliance. To address the data gaps and to ensure compliance with the NEPA an intensive survey was necessary. The research objectives were:

- To identify all cultural resources within the physical APE/intensive survey area.
- To identify cultural resource types, characteristics, and distribution within the physical APE/intensive survey area.

- To conduct subsurface testing across the survey area to determine the potential for buried cultural materials to be present.
- To determine what cultural resources were present within the APE/intensive survey area.
- To conduct evaluation of the cultural resources present within the physical APE/intensive survey area to determine if these resources have the potential to be included in the NRHP.
- The development of recommendations for avoidance, minimization, or mitigation of potential effects to any identified historic property, as appropriate.

Expected Results: It was anticipated that potential undiscovered prehistoric cultural materials within the proposed project area may include surface-exposed and buried lithic scatters, ceramic and lithic scatters, and village sites. These resources may date to any point from the Paleoindian period into the 1870s. Agricultural fields, roads, and irrigation canals within the proposed project area have decreased the potential to encounter intact buried prehistoric cultural materials, and prehistoric cultural resource density was expected to be low.

GLO plat maps and historic records, including GLO land patent records and the Nebraska Century and Pioneer farm database (Aksarben Foundation 2024), indicated the potential presence of historic sites. These historic sites would most likely consist of rural farmsteads/homesteads. Farmsteads/homesteads are expected to include houses, barns, granaries, and a variety of other outbuildings, or may have been razed (torn down) and exist as archaeological sites rather than standing structures. Historic sites are likely to be located along the current or abandoned county roads. Based on the GLO land patent data and historic structure information, these historic cultural resources would most likely date from the 1870s through the mid-twentieth century with the majority dating to the 1890s (see Appendix C and Figure 14). Historic cultural resource density was expected to be high and primarily associated with the historic canals.

Overall, this project was expected to encounter at least nine prehistoric or historic cultural resources, including archaeological sites, standing structures/architectural resources, and historic linear resources such as the six canals and Union Pacific railroad alignment.

Field Methods

The survey area for each of the proposed alternatives consists of the Area of Potential Effect (APE) plus a 100 ft buffer around each APE. This survey area encloses the diversion structures, access roads, staging areas, and power lines. This results in six survey parcels covering a total of 224.6 acres (see Figures 1a–1e).

This intensive survey was carried out through pedestrian transects spaced not more than 30 m apart. Most of the survey areas were along the sides of existing canal disturbances, road disturbances, or along the margins of agricultural fields. Survey and subsurface testing was conducted to ensure that no crop damage occurred. The field personnel examined subsurface exposures, such as the cut banks of the existing canals, road cuts, plowed fields, irrigator wheel ruts, animal burrows, and other disturbances, for signs of buried cultural materials.

Topographic maps and a Bad Elf Flex global navigation satellite system (GNSS) receiver were paired with cell phones to navigate the project area and orient transects. When the internal phone receiver was used for navigation, GNSS accuracy averages 2 m. The Bad Elf Flex GNSS receiver with sub-meter accuracy was utilized for recording and mapping cultural resources. This receiver achieves sub-meter accuracy by utilizing the ESRI Field Maps mobile application, digital mapping and GNSS data collection software, the Bad Elf Flex control application, and the wide area augmentation system (WAAS). The WAAS is a satellite-based augmentation system (SBAS) operated by the United States Federal Aviation Administration (FAA). Site and isolated find locations were provided in the North American Datum of 1983 (NAD83). All site maps illustrate site boundaries, electronic datum location,

artifact concentrations, feature locations, and individual artifacts. Artifacts were shown on site maps if they were temporally or functionally diagnostic or unusual in character. The locations of the survey area and proposed project elements, roads, fence lines, and existing developments or disturbances were also illustrated.

Surface visibility in fields was good with 60 percent bare ground. Poor surface visibility (10–20 percent bare ground) was noted along the canals. Regardless of surface visibility, this intensive pedestrian survey was supported by shovel tests spaced evenly across the survey area at approximately 200 m intervals. Shovel testing avoided locations where existing severe subsurface disturbances were evident, such as around berms of excavated canal sediments, modern erosion control sediment and railroad tie embankments, newly constructed buildings, gravel, and paved road disturbances, buried utility corridors, and modern central pivot irrigation pipelines and associated infrastructure. Subsurface testing involved the excavation of 40 cm diameter shovel test pits. Each shovel test was excavated in controlled stratigraphic levels. All excavated soils were screened through 0.25-inch hardware cloth. Sediment examination followed an abbreviated soil analysis as outlined in the United States Department of Agriculture’s *Soil Survey Manual* (Soil Science Division Staff 2017). The recorded data included the moist soil color, as established by *Munsell Soil Color Charts* (2000), and soil texture, as defined by the *Soil Survey Manual* (Soil Science Division Staff 2017:120–125). Soil texture was determined by the standard wet test of sediment for ribbon development, which indicates clay, sand, and silt proportions. Presence/absence of pebbles was noted, as was presence/absence of bedrock and the reason for ending excavation. All subsurface testing information was collected on standardized forms.

The identification of cultural resources within the project area employed the site and isolated find definitions set forth by the Nebraska SHPO (2017:22–23) which states:

1. Prehistoric isolated finds (i.e., single artifacts), which are clearly in a secondary induced context (e.g., stream-eroded, artificially moved, etc.) will not be given site status. However, such finds will be documented within the context of the survey report. All other isolated finds which are or may be due to primary or secondary human (direct or indirect) action will be accounted for by assigning them a site number.
2. Historic Euro-American isolated finds (e.g., beer cans, bottles, machinery fragments, etc.) will not be assigned site numbers unless the item is older than circa 100 years and with the same provision of natural-secondary context deposition as in Item 1 above. Isolated items, which are less than 100 years old will not be documented in survey reports, unless the researcher considers them to be part of an overall significant cultural pattern.
3. Historic sites less than 50 years old are reported as archeological sites if these consist of abandoned (not just temporarily unoccupied) farm/ranch yards, schoolhouses, trash dumps, and other structural/building/object sites. These locations may or may not have standing structures.

Laboratory Methods

No artifacts or samples were collected during this survey and no laboratory methods were employed.

VI. ON-SURVEY SUBSURFACE TEST RESULTS

Per the research design and field methods, shovel tests were excavated at approximately 200 m intervals across the survey areas, excluding locations where standing water or existing severe subsurface disturbances were present. The soil descriptions and cultural material presence/absence results of the 80 shovel tests are provided in Appendix D, Table D-1. Shovel test locations are illustrated in Figures 1a–1e. The scope of work for this project (Appendix F) originally estimated the excavation of 94 shovel

tests to support the pedestrian surface survey effort; however, the amount of existing standing water and subsurface disturbances resulted in fewer shovel tests being excavated. .

The plow zone was identifiable in 37.5 percent (n = 30) of the shovel tests manifesting as a loose deposit of soil mixed with decomposing plant material from previous crops. Observations in the field indicated that plow zone disturbances extend from the surface to between 28 cm bgs and 48 cm bgs. The depth of A horizon soils in shovel tests ranged from 12 to 48 cm bgs (4 to 18 inches). This is well within the depth ranges anticipated by the Web Soil Survey database (NRCS 2025a). A distinctive, identifiable B horizon was absent in most shovel tests, and C horizons of coarse sand and gravelly coarse sand were often encountered. Within the T-1 deposits of the Birdwood survey parcel a deep subsurface test (ST25) was excavated to sample a greater portion of the soil column. The shovel test was in a grass hayfield that is frequently flooded due to operational issues with the Birdwood Canal. Excavation was conducted with a shovel to 80 cm bgs, then a 4-inch diameter auger was employed. Sediment from the surface to 12 cm bgs was 10YR 4/3 brown loamy sand with poor development and may be a more recent alluvial deposit. At 12 cm bgs 10YR 5/3 brown sand was contacted with 10YR 4/2 dark grayish-brown loamy coarse sand contacted at 35 cm bgs. At 62 cm bgs sediments transitioned to 10YR 6/3 pale brown sand that was damp; and from 100 to 110 cm bgs the sediment was 10YR 5/6 yellowish-brown hydric coarse sand with evident redoximorphic alteration. By 110–120 cm bgs, the 10 YR 6/1 gray coarse sand was saturated, and at 120–130 cm bgs water infiltration began to fill the subsurface test. No buried surfaces, features, or artifacts were observed in this deep subsurface test. A second deep subsurface test (ST76) was excavated within the T-1 deposits of the North Platte / Paxton Hershey survey parcel. Excavation was conducted with a shovel to 77 cm bgs, then a 4-inch diameter auger was employed. Sediment from the surface to 29 cm bgs was 5YR 2.5/2 very dusky red silt loam. At 29 cm bgs 5YR 5/4 reddish-brown fine sandy loam was contacted transitioning to a 5YR 5/2 weak red silt loam at 77 cm bgs. At 112 cm bgs a 5YR 6/2 light reddish-brown moist clay was contacted. Excavation ended in this subsoil at 129 cm bgs. No buried surfaces, features, or artifacts were observed in this deep subsurface test.

No buried cultural materials were encountered in any of the on-survey shovel tests. The negative shovel test results are likely due to erosional impacts from agriculture, and the extensive disturbances associated with the excavation and maintenance of the irrigation canals and related diversion infrastructure. Additionally, much of the project area was located within the T-0a, T-0b, and T-0c deposits where geomorphological factors favor a low to moderate potential to preserve buried cultural materials, if any had been deposited in a given location (Layzell et al. 2024: 11). T-1 deposits that have a comparatively high geomorphic potential to preserve buried cultural materials are located within the narrow access road corridors of the survey areas which have been impacted by existing roads, farmsteads, and agricultural activities.

VII. INVENTORY OF CULTURAL PROPERTIES

This pedestrian survey recorded and evaluated one historic archaeological site, three historic architectural sites, and documented seven historic linear resources.

Archaeological Site Descriptions

25LN148

This historic farmstead is located on the flat first terrace above the floodplain of the North Platte River approximately 60 m south of the right descending (south) bank of the river. A wetland bounds the site to the northwest and a two-track road bounds it on the east side. Fences bound the site to the west and south. Sediment is alluvial loam and silt loam. All structures at this site have been torn down (razed). Vegetation is primarily mixed grasses, cottonwood trees and cedar trees with 10 percent bare ground. This site measures 72-x-52 m, covering 3,744 sq m of private land (Figure 1b and Figure 16).

(Image Removed)

Site 25LN148 includes one concrete foundation (Feature 1), one fallow access road (Feature 2), a subsurface trash deposit (Feature 3), and a partially buried deposit of concrete rubble (Feature 4). Feature 1 is a concrete foundation that is overgrown with cedar trees (Figure 17). The foundation is flush with the ground surface and measures 47 ft 10 inches wide from east to west, and 78 ft 9 inches long from north to south. Shovel Test 6 (ST6) was excavated within the foundation. This shovel test revealed that the foundation extends 15 inches into the ground. No footer was poured to support the foundation, and no basement was present. Artifacts within the shovel test included 33 wire nails, 17 fragments of mortared brick, and 5 shards of clear plate glass (see Table 6). A water pipe riser was present within the foundation perimeter suggesting Feature 1 was a residence.

Feature 2 is a fallow access road that was built up approximately 3 ft above the ground surface (Figure 18). This engineered road trends east–west and enters the site from the west side. It is paralleled by a shallow ditch on each side. The road measures 15 ft wide and is within the site boundary for approximately 100 ft.

Feature 3 is a historic subsurface trash deposit defined in ST1, ST4, ST5, and ST9 (Table 6; Figure 19). Artifacts encountered in these shovel tests included plastic, aluminum foil, aluminum beverage cans with pull tabs, trash bag fragments, clear glass, soda bottle glass, and ceramics as well as fragments of plastic children’s toys, such as a small blue plastic A-7 Corsair II fighter jet (Figure 20). The A-7 jet fighters were manufactured between 1968 and 1984 which is consistent with the 1970s date range of the other artifacts in the shovel tests. Building materials identified in these shovel tests included galvanized sheet steel, asphalt roofing fragments, wire nails, plate glass, and disarticulated concrete foundation fragments.

Feature 4 is a partially buried, disarticulated pile of concrete foundation fragments (Figure 21). This concrete rubble pile deposit measures approximately 20-x-20 ft.



Figure 16. Site 25LN148. Overview looking west. The foundation (Feature 1) is located in the trees on the right side of this image. Photograph taken by Jason Weston on July 16, 2025.



Figure 17. Site 25LN148. Feature 1 house foundation. View to the south from the northeast corner. Tape measure extended to 100 inches (8 ft 4 inches) for scale. Photograph taken by Derrick Maurer on July 16, 2025.



Figure 18. Site 25LN148. Feature 2 fallow raised access road/driveway. View to the east. Photograph taken by Jason Weston on July 16, 2025.



Figure 19. Site 25LN148. Feature 3 modern subsurface trash dump. Example of artifacts encountered in ST3. Scale as shown. Photograph taken by Jason Weston on July 16, 2025.



Figure 20. Site 25LN148. Plastic toy A7 Corsair II fighter jet from the Feature 3 modern subsurface trash dump. Scale as shown. Photograph taken by Jason Weston on July 16, 2025.

Table 6. Site 25LN148. Shovel Test Results.

Shovel Test Number	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No. and Soil Color	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST01	Stratigraphic	0–40	10YR 3/2 Very Dark Grayish Brown	Loam	dense roots, no gravels	No	NA	Positive: 50 clear glass bottle shards with 3 bases, no makers marks; 20 pieces clear plate glass; 10 pieces of wadded aluminum foil; 3 aluminum pull tab can ends; 4 concrete fragments; 1 cast iron hook or hanger; 4 fragments of soft yellow plastic; clear glass bottle with white plastic lid, no makers mark; 4 pieces white hard plastic; 7 green glass bottle fragments; 1 white plastic lid for a 5 gallon bucket; 1 chicken bone fragment (hollow bird bone); 1 broken ceramic bowl with a pale green glaze; green plastic Brute cologne bottle; clear glass tobacco bottle with makers mark; and fragments of trash bag.
ST01	Stratigraphic	40–70	10YR 4/2 Dark Grayish Brown	Silt Loam	few roots, no gravels	No	ended after 30 cm of sterile levels	No cultural materials
ST02	Stratigraphic	0–50	10YR 4/2 Dark Grayish Brown	Silt Loam	moderate roots, no gravels	No	consecutive sterile levels	No cultural materials
ST03	Stratigraphic	0–43	10YR 4/2 Dark Grayish Brown	Silt Loam	moderate roots, no gravels	No	NA	Positive: Approximately 100 green glass, 70 clear glass, and 20 brown glass; cologne plastic bottle; flashlight battery; foil; plastic garbage bag; small toy airplane; UID metal; pull tabs; nail; and random plastic.
ST03	Stratigraphic	43–70	10YR 4/2 Dark Grayish Brown	Silt Loam	moderate roots, no gravels	No	ended after 30 cm of sterile levels	
ST04	Stratigraphic	0–35	10YR 4/2 Dark Grayish Brown	Silt Loam	dense roots, no gravels	No	excavation blocked by sheet steel	Positive: 1 piece of red rubber; 1 wad of aluminum foil; bend galvanized sheet steel contacted a 35 cm bgs large and enough to end the excavation
ST05	Stratigraphic	0–29	10YR 4/2 Dark Grayish Brown	Silt Loam	moderate roots, no gravels	No	NA	Positive: 3 plastic; 3 clear glass; 1 brown glass; 1 wire; 1 chicken bone; 1 brick frag
ST06	Stratigraphic	29–60	10YR 4/2 Dark Grayish Brown	Silt Loam	dense roots, no gravels	No	ended after 30 cm of sterile levels	
ST06	Stratigraphic	0–49	10YR 4/2 Dark Grayish Brown	Silt Loam	moderate roots, no gravels	No	NA	Positive: 33 nails; 17 brick/mortar; and 5 glass
ST06	Stratigraphic	49–60	10YR 4/2 Dark Grayish Brown	Silt Loam	dense roots, no gravels	No	Ended below foundation	
ST07	Stratigraphic	0–46	10YR 4/3 Brown	Loam	dense tree roots, no gravels	No	ending at dense tree roots and consecutive sterile levels	No cultural materials
ST08	Stratigraphic	0–60	10YR 3/2 Very Dark Grayish Brown	Loam	dense roots, no gravels	No	consecutive sterile levels	No cultural materials



Figure 21. Site 25LN148. Feature 4 partially buried, disarticulated concrete rubble pile. Photograph taken by Jason Weston on July 16, 2025.

Site 25LN148 is located on land that was owned by Clayton W. Mead and Cyrus D. Mead in 1884. In 1894 a parcel in the southeast quarter of Section 13 was purchased by Matilda S. Mead who was listed as the wife of Clayton (Lincoln County Courthouse Deed Record 1884; 1894a). The Mead family sold a right-of-way (ROW) deed to the Omaha and Republican Valley (O&RV) Railway Company in April 1884 (Lincoln County Courthouse Deed Record 1884). In 1905 they sold a 100-x-50 ft strip of land to the Union Pacific Railroad Company along the former O&RV Railway tracks (Lincoln County Courthouse Deed Record 1905a). A nearby landowner in the area visited the site during the field recording on July 16, 2025, and provided additional information. Feature 1, the foundation, was where his great grandparent's house was by the 1930s. There was a building on the north side of the access road (Feature 2) and a building on the south side as well. In 1974 the senior class from Sutherland High school burned down the house during a party. The structure had been abandoned by that time. The trash encountered in the shovel tests in the buried trash feature was left by a ditch runner for the North Platte Canal in the late 1970s.

Buried cultural materials were present at this site. ST1, ST4, ST5, and ST9 were within Feature 3 with the negative results in ST2 and ST3 defining the limits of the feature. ST6 was located within Feature 1 and encountered structural debris as expected within a house foundation. No basement or in situ building features were present. The range of artifacts encountered in the shovel tests consisted of household trash including broken toys, dishes, glass bottles, beverage cans, and food wrappers (see Table 6 for artifact lists). The subsurface data at this site is limited in content and provides little interpretive data.

This historic farmstead is recommended not eligible for inclusion in the NRHP. It is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A) and it is not associated with the lives of significant persons in our past (Criterion B). This site lacks structures and does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual

distinction (Criterion C). The destruction of the house by fire and the razing of the associated outbuildings has eliminated the integrity of location, design, setting, materials, workmanship, feeling and association. The buried component at this site represents common structural debris and secondary deposits of household trash. This site does not provide any new information on historic settlement, agricultural or stock raising practices, technology, economics, subsistence, or ethnicity, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

Site 25LN148 is within the inventory area and APE of the proposed project and will be impacted. However, this site is recommended not eligible for inclusion in the NRHP and no avoidance or further work is recommended.

Architectural Site Descriptions

LN00-260

This historic farmstead is located on the left descending (east) bank of Birdwood Creek approximately 1.2 mi upstream of the confluence with the North Platte River. Sediment is alluvial loam and sandy loam. A two-track access road passes north-south through the site area. The east-west trending gravel county road (West North River Road) bounds the site on the south side. Vegetation is primarily mixed pasture grasses, and mowed lawn grass with cottonwood trees along the creek and fence lines. Existing disturbances include continued use, structural decay, the razing of buildings, structural modifications and maintenance. Surface visibility averaged 20 percent. This site measures approximately 110-x-80 m, covering 8,800 sq m of private land (Figure 1c; Figure 22 and Figure 23).

LN00-260 includes a standing occupied house (Feature 1), one shallow depression (Feature 2), one standing summer kitchen structure with lean-to addition (Feature 3), one concrete livestock water tank with pump house foundation (Feature 4), one water well and pump (Feature 5), and one concrete foundation (Feature 6). The farmstead is privately owned and is still occupied, so access to the site was limited. Feature 1 is a single-story, stick-built Craftsman style house with enclosed porches on the north and south sides (Figure 24 and Figure 25). The house is located on the west side of the access road and measures 42 ft long and 32 ft wide. The hip-on-gable roof on Feature 1 is covered with modern asphalt shingles with a brick chimney at center. A modern patio has been built onto the south side of the house. Feature 1 has been modified by vinyl-framed replacement windows and by siding which has enclosed the open eaves and the knee braces that are characteristic of the Craftsman style (McAlester 2013:567–578). The modern vinyl siding is white with gray trim around the windows. The primary yard around the house is enclosed by a decorative wire fence with steel posts and a steel gate that are painted silver. This fence is historic in age and is similar to the yard fence at LN00-261 located less than 0.25 mi to the northwest.

Feature 2 is a shallow square depression measuring approximately 50-x-50 ft (Figure 26). This location is where a structure is illustrated on the 1971 Hershey West topographic map (United States Geological Service [USGS] 1971). This depression is on the east side of the access road, northeast of the house. No foundation remains were surface-exposed and shovel testing could not be conducted in the yard. Another structure was illustrated west of the house on the topographic map, but this location was outside the ROW and no access was available. Based on the location and size of this depression, it was likely a barn.

(Image Removed)



Figure 23. Site LN00-260. Overview with the Feature 1 house on the left side of the image. View to the north-northwest. Photograph taken on July 18, 2025.



Figure 24. Site LN00-260. Feature 1 house looking northwest at the south and east elevations. Photograph taken on July 18, 2025



Figure 25. Site LN00-260. Feature 1 house looking southwest at the north and east elevations. Crew member at left standing at datum. Photograph taken on July 18, 2025.



Figure 26. Site LN00-260. Overview of Feature 2, the shallow square depression in the location where a structure is illustrated on the 1971 Hershey West topographic map (USGS 1971). Crew member for scale. View to the north. Photograph taken on July 18, 2025.

Feature 3 is a summer kitchen that has a lean-to addition on the north side (Figure 27). This feature is west of the house. The primary summer kitchen structure is a single-story, end gabled building measuring 22 ft long and 12 ft wide. The lean-to addition extends the width another 10 ft. This structure is framed with nominal lumber fastened together with wire nails. It retains the original clapboard siding and wood shingle roof. The door is on the west end of the building and a chimney extends from the roof at the east end. The clapboard sided lean-to built on the north side of the summer kitchen has a shed roof covered in corrugated steel. A large hinged door opens on the west side. Feature 3 is in poor condition with flaking white paint, torn and decayed roofing, and decaying walls.

Feature 4 is a concrete livestock water tank with a concrete pump house foundation on the north side (Figure 28 and Figure 29). It is located in the pasture on the north side of the fence. The concrete water tank measures 7 ft long and 5 ft 3.5 inches wide. The tank is 2 ft high and the sides are 5 inches thick. A rotten milled lumber board was bolted across the top of the tank along the centerline and has hinges mounted on it indicating the tank had a wood cover. The concrete pump house foundation attached to the north side of the tank measures 5 ft long and 4 ft wide. It rises 6 inches above the ground surface and extends below ground approximately 3 ft. Anchor bolts indicate a structure was once fixed to the foundation.

Feature 5 is an old water well enclosed by a poured concrete foundation measuring 4-x-4 ft (Figure 31). This well is located east of Feature 2 and the pasture fence. Wood debris is visible in the well at a depth of approximately 6 ft. The top of the well is covered with corrugated steel roofing. The pump extending out from the well was wind powered. The windmill super structure is missing. The cast iron pump was made by Trahern Pump Company in Rockford Illinois. The Trahern Pump company was founded in 1857 and made water pumps under that name until 1906 when the George D Roper Corporation bought Trahern (Roper Pump Company 2025).



Figure 27. LN00-260. Feature 3 summer kitchen and lean-to addition, facing southwest toward the north and east elevations. Photograph taken on July 18, 2025.



Figure 28. Site LN00-260. Feature 4 concrete water tank and pump house foundation overview looking west with crew member for scale. Photograph taken on July 18, 2025.



Figure 29. Site LN00-260. Feature 4 concrete water tank detail view looking north. Tape measure extended to 15 inches for scale. Photograph taken on July 18, 2025.



Figure 30. Site LN00-260. Feature 5 water well and pump overview looking east with crew member for scale. Photograph taken on July 18, 2025.



Figure 31. Site LN00-260. Feature 5, overview of the water pump looking south. Photograph taken on July 18, 2025.

Feature 6 is a small concrete foundation measuring 12 ft 10 inches long and 5 ft 6 inches wide (Figure 32). It is located east of Feature 4 and north of Feature 5. No super structure anchors are visible, but there is a line of tar around the perimeter of the foundation. The function of this feature is unknown.

Sites LN00-260 and LN00-261 have similar land ownership histories. Site LN00-260 is located on land that was purchased from the County of Lincoln, State of Nebraska in 1882 by Andrew England and wife Marry England (Lincoln County Courthouse Deed Record 1882). By 1906 the land was owned by Walter and Christine McNeal who provided the portion of their land east of Birdwood Creek in Section 35 to Flora D. McNeal (Lincoln County Courthouse Deed Record 1905b). By 1932 the property was owned by Allison and Grace Wilcox who were unable to pay off the mortgage and lost the land in 1936. The property was purchased by the Welch family (Lincoln County Courthouse Deed Record 1936). By the modern era (1982) the property was jointly owned by Darrell and Sue Welch (husband and wife) and Jerry and Sharon Welch (husband and wife) (Lincoln County Courthouse Deed Record 1982).

This historic farmstead is recommended not eligible for inclusion in the NRHP. It is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A) and it is not associated with the lives of significant persons in our past (Criterion B). The house at this site is still identifiable as a Craftsman style, but the modern siding and windows have altered its appearance covering the characteristic architectural elements of the style. The summer kitchen is not built in an identifiable style, has been modified by the lean-to addition, and is in poor physical condition. This site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The modifications to the house, the decay of the summer kitchen, and the razing of the associated outbuildings have eliminated the integrity of location, design, setting, materials, workmanship, feeling and association. This site does not provide any new information on historic



Figure 32. Site LN00-260. Feature 6 concrete foundation looking west. Shovel extending 3 ft above ground for scale. Photograph taken on July 18, 2025.

settlement, agricultural or stock raising practices, technology, economics, subsistence, or ethnicity, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

Site LN00-260 is within the inventory area and APE of the proposed project and will be impacted. However, this site is recommended not eligible for inclusion in the NRHP and no avoidance or further work is recommended.

LN00-261

This historic farmstead is located on the right descending (west) bank of Birdwood Creek approximately 1 mi upstream of the confluence with the North Platte River. Sediment is alluvial loam and sandy loam. A two-track access road stemming from West North River Road passes north-south through the site area. Vegetation is primarily mixed pasture grasses, and mowed lawn grass with cottonwood trees along the creek and fence lines. Surface visibility averaged 30 percent. Existing disturbances include continued use, structural decay, modifications and maintenance. This site measures approximately 300-x-200 m covering 60,000 sq m of private land (Figure 1c; Figure 33 and Figure 34).

Site LN00-261 consists of historic and modern standing structures associated with farming and stock raising. The eight historic structures include the house (Feature 1), one small outbuilding (Feature 2), one equipment shed (Feature 3), one corncrib or barn (Feature 4), one windmill (Feature 5), a car garage (Feature 6), one chicken house (Feature 7), and livestock barn (Feature 8). The 11 modern structures include one cinder block shed (Feature 9), two livestock sheds (Feature 10 and Feature 11), one steel Quonset storage building (Feature 12), one large steel storage building (Feature 13), and six grain bins (Features 14–19). Additionally, there are two sugar beet storage bins that may, or may not be 50 years old (Feature 20 and Feature 21). Discarded horse-drawn farm implements are scattered throughout the stand of trees located north of the Feature 7 chicken house and the Feature 10 livestock shed. The farmstead is privately owned and is still occupied, so access to the site was limited.

Feature 1 is a story and a half house with no discernable architectural style (Figure 35). The house has been added on to multiple times with a side-gabled front and an enclosed porch on the west side. The house is located on the east side of the access road and measures 45 ft long and 42 ft wide. The roof is covered with modern asphalt shingles and a steel television antennae is mounted on the peak. The wood composite siding likely dates to the 1970s and 1980s, but the house appears to be older. The house has single-pane wood windows and aluminum replacement windows. It is painted white with a mint green color painted under the gable on the west end. The primary yard around the house is enclosed by a decorative wire fence with steel posts and a steel gate that are painted silver. This fence is similar to the yard fence at LN00-260 located less than 0.25 mi to the southeast. The fence at Site LN00-261 has been decorated with deer antlers.

Feature 2 is a small single-story, side gabled building measuring 25 ft long and 12 ft wide (Figure 36). This feature is located east-southeast of the house. It is framed with nominal lumber fastened together with wire nails. Feature 2 has the original clapboard siding with a modern asphalt shingle roof. A sliding door and a broken window are in the south-facing wall. The building is painted white and has a power line running to it. It currently appears to be used for storage.

Feature 3 is a single-story, side gabled storage shed measuring 44 ft long and 20 ft wide (see Figure 36). This feature is located east-southeast of the house, to the south of Feature 2. There are sliding doors on the west side, and the roof is curved and covered in corrugated steel.

(Image Removed)



Figure 34. Site LN00-261. Overview looking northwest. Photograph taken on July 18, 2025.



Figure 35. Site LN00-261. Feature 1 house looking north at the south elevation. Photograph taken on July 18, 2025.



Figure 36. Site LN00-261. Feature 2 a small outbuilding (left side of image) and Feature 3 a storage shed (right side of image). View to the northeast. Photograph taken on July 18, 2025.

Feature 4 is a story and a half barn or enclosed corncrib measuring 32 ft long and 30 ft wide (Figure 37). This building is located southwest of the house. This structure is framed with nominal lumber fastened together with wire nails. There are two sliding wood doors on the east side with a small window centered above the doors. Part of the shed is clapboard sided, and the other part is board-and-batten sided. The roof is modern asphalt shingles. The building is painted white and has a power line running to it. It currently appears to be used for storage.

Feature 5 is a steel legged windmill located across the access road from the house (Figure 38). The wind vane on the mill reads “The Aermotor Co. Chicago.” The windmill motor is a self-oiling type. Aermotor began making self-oiling mills in 1915 (Aermotor 2019). The manufacturer operated under the name “The Aermotor Company” until 1969 when it became a subsidiary of several other companies and briefly moved its manufacturing operations to Argentina. With the original company name branded on it, this mill was manufactured sometime between 1915 and 1968.

Feature 6 is a single-story, two-car garage measuring 30 ft long and 22 ft wide (Figure 39). It was built immediately southwest of the house yard fence. It has the same late twentieth-century siding as the house with a modern asphalt shingle roof. There is one single pane wood window on the west side. The car doors are on the south side. One is an older door made from wood panels, and the other is a modern vinyl garage door. The garage is painted white.

Feature 7 is a single-story chicken house measuring 30 ft long and 12 ft wide (Figure 40). It is located northwest of the house. This structure is framed with nominal lumber fastened together with wire nails. It is clapboarded sided with a corrugated steel shed roof. The roof rafters are visible under the eaves. Large windows are on the south side of the structure along with a narrow wood door. The building is painted white.



Figure 37. Site LN00-261. Feature 4 barn or enclosed corncrib looking southwest. Note modern steel grain bins (Feature 14 at right and Feature 16 at left). Photograph taken on July 18, 2025.



Figure 38. Site LN00-261. Overview of Feature 5, the Aermotor windmill circa 1915–1968. View to the northwest. Photograph taken on July 18, 2025.



Figure 39. Site LN00-261. Feature 6 automobile garage looking northeast at the south and west elevations. Photograph taken on July 18, 2025.



Figure 40. Site LN00-261. Feature 7 chicken house looking north at the south elevation. Photograph taken on July 18, 2025.

Feature 8 is a well-maintained livestock barn measuring 52 ft long and 28 ft wide (Figure 41). This building is located to the northwest of the house on the west side of the access road. This story and a half-end gabled barn is framed with nominal lumber fastened together with wire nails. It has the original clapboard siding with a modern asphalt shingle roof. There are two Dutch doors on the east side, and a sliding door in the northwest corner on the north side. The building rests on a concrete foundation that rises approximately 3 ft high. The roof rafters are visible under the eaves. The building is painted white and is in good condition.

Feature 9 is a modern cement block shed built immediately west of Feature 8. This building measures approximately 40 ft long and 22 ft wide. The structure is open on the south side and has an asymmetrical roof covered in corrugated steel (See Figure 41).

Feature 10 is a modern pole and frame livestock shed open on the south side. The shed measures 134 ft long and 17 ft wide and is located north of the Feature 8 barn. The walls and roof are enclosed with corrugated steel (Figure 42).

Feature 11 is another modern livestock shed that was out of the inventory area where access was not provided.

Feature 12 is a modern steel Quonset storage building measuring 102 ft long and 45 ft wide. It rests on a concrete slab foundation and has two large sliding doors on the east end (Figure 43).

Feature 13 is a modern steel machine shed and storage building located west of the Feature 4 corncrib/barn structure. This modern white steel building has a large bay door on the east side and measures 62 ft long and 62 ft wide (see Figure 44).

Features 14 – 19 are modern steel grain bins built on concrete slab foundations. Five of the grain bins are clustered around Feature 4, with the Feature 19 grain bin located west of Feature 13.

Features 20 and 21 are steel wire sugar beet storage bins located east of the access road in the southeastern portion of the farmstead. The bins are likely to date between the 1960s and 1980s.

The farm equipment in the trees in the northern portion of the site includes a variety of horse drawn farm implements. This location appears to be a fallow feed lot which extends east to Birdwood Creek near the diversion dam for the Birdwood Canal. An irrigation memorandum dating to 1942 noted that the landowner of this property (Mr. Welch) was planning on building a feedlot in this area (Kimmel 1942). This infers the fallow feed lot dates to sometime shortly after 1942. Field Specimen 1 (FS1) is a horse drawn thresher (Figure 45). The name plate on the thresher identifies it as a Red River Special Line model made by Nichols & Shepard Company. This all-steel model of thresher was produced beginning in 1915 for use with steam-powered engines, and later gasoline powered engines. Nichols & Shepard produced these threshers until they merged with the Oliver Farm Equipment Company in 1929 (Wendel 2022). FS2 is a horse-drawn hay rake with steel wheels and no identifiable maker's mark. FS3 is a horse-drawn sickle mower with the International Harvester Logo embossed on its parts (Figure 46). The International Harvester Company was founded in 1902 through a merger of McCormick and Deering (Hoover 2019). FS4 is a horse-drawn reaper-binder made by the John Deere Company (Figure 47). John Deere began making reaper-grain binders in 1910 (Percival 1955). Horse-drawn farm implements were manufactured and commonly used until tractor pulled equipment was developed in the 1920s and became commonly affordable in the 1930s and 1940s. FS5 and FS6 are early tractor-pulled plows. FS4 has the International Harvester Company logo cast into the iron and dates to sometime after the 1920s. FS7 is a horse-drawn wooden wagon truck with steel wheels. The wagon box is not present, and the truck is decayed and broken into pieces.



Figure 41. Site LN00-261. Feature 8 livestock barn looking southwest at the north and east elevations. Note Feature 9 to the right of the livestock barn. Photograph taken on July 18, 2025.



Figure 42. Site LN00-261. Feature 10 modern pole and frame livestock shed. View to the northwest. Photograph taken on July 18, 2025.



Figure 43. Site LN00-261. Feature 12, modern steel Quonset storage building looking west at the east elevation. Photograph taken on July 18, 2025.



Figure 44. Site LN00-261. Feature 13, modern steel machine shed and storage building looking west at the east elevation. Photograph taken on July 18, 2025.



Figure 45. Site LN00-261. Overview of the Red River Special Line thresher circa 1915–1929 with crew member for scale. View to the northeast. Photograph taken on July 18, 2025.



Figure 46. Site LN00-261. International Harvester Company horse drawn sickle mower. View to the south. Photograph taken on July 18, 2025.



Figure 47. Site LN00-261. Horse drawn John Deere reaper-grain binder. Photograph taken on July 18, 2025.

Sites LN00-261 and LN00-26 have similar land ownership histories. Site LN00-261 is located on land that was purchased from the County of Lincoln, State of Nebraska in 1882 by Andrew England and wife Marry England (Lincoln County Courthouse Deed Record 1882). By 1906 the land was owned by Walter and Christine McNeal (Lincoln County Courthouse Deed Record 1905b). The property was purchased by the Welch family in 1936 (Lincoln County Courthouse Deed Record 1936). By the modern era (1982) the property was jointly owned by Darrell and Sue Welch (husband and wife) and Jerry and Sharon Welch (husband and wife) (Lincoln County Courthouse Deed Record 1982).

This historic farmstead is recommended not eligible for inclusion in the NRHP. It is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A) and it is not associated with the lives of significant persons in our past (Criterion B). The structures at this site have no discernible architectural style and the house has been substantially modified by late twentieth-century additions, siding, and replacement windows. As a result, this site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The historic structures at this site retain integrity of location, and Features 2, 4, 5, and 8 retain moderate integrity of design, materials and workmanship. However, the aspects of integrity reflected in these buildings do not represent a definable architectural style, and are common structure types, thus these buildings do not rise to the level of eligibility. The integrity of design, materials, and workmanship for the remaining historic structures have been compromised by decay and modifications. Across the site as a whole, the integrity of setting, feeling and association have been eliminated by the modern buildings. The historic artifacts at this site are limited, and the farm equipment present are common to historic farmsteads in the region. This site does not provide any new information on historic settlement, agricultural or stock raising practices, technology, economics, subsistence, or ethnicity, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

Site LN00-261 is within the inventory area and APE of the proposed project and will be impacted. However, this site is recommended not eligible for inclusion in the NRHP and no avoidance or further work is recommended.

KH00-104

This historic bridge is located within the floodplain of the North Platte River. This low bridge spans the river from north to south. Sediment is alluvial loam to silt loam. Sand Road, a county gravel road ends at the bridge. Vegetation is primarily grasses and mixed deciduous trees with 40 percent bare ground in the vicinity of the bridge. Existing disturbances include continued use, erosion, structural decay, and maintenance. This site measures approximately 52-x-9 m, covering 468 sq m of privately owned land (Figure 1d; Figure 48 and Figure 49) .

Site KH00-104 is a historic single lane vehicle bridge measuring 154 ft long and 18 ft wide with a running surface of 16 ft (Figure 50). This bridge is made with large steel I beam stringers supported by steel bent piers. The stringers support a steel deck that is overlaid with asphalt and patched with concrete. The rails of the bridge are made from cross-braced steel strapping and measures approximately 24 inches high. The steel beams are rusted with traces of silver paint remaining. The deck has been recently patched with concrete, and there is erosion along the abutment edges. The abutments on each end are concrete. No information regarding the build date of the bridge could be located in Lincoln County records. The 1901 USGS 1:250,000 scale map illustrates the road ending on the south side of the North Platte River with no bridge present (USGS 1901). Plans for a new concrete headgate on the Suburban Canal were drafted in 1919 (McNamara 1919a). These plans do not illustrate a bridge crossing the river at this location. The 1954 and 1967 1:250,000 scale maps illustrate a line crossing the river which may represent a bridge (USGS 1954; 1967). The 1971 1:24,000 scale map clearly illustrates the road/bridge crossing the river (USGS 1971). Based on the available data, it appears that the bridge was installed after 1919 and prior to 1954.

This historic bridge is recommended not eligible for inclusion in the NRHP. The bridge is not on a through road, and does not provide access for any communities. It is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A) and it is not associated with the lives of significant persons in our past (Criterion B). The architecture is functional with no embellishments or unique engineering methods. This site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). This bridge retains integrity of location, setting and feeling, but these aspects do not rise to the level of eligibility. Additionally, the poor condition of the bridge has eliminated the integrity of design, materials, workmanship, and association. This site has not provided any new information of historic bridge construction methods, technology, or transportation. EEC-s05 has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

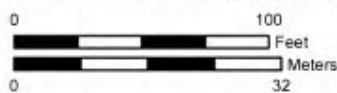
Site KH00-104 is within the inventory area and APE of the proposed project and will be impacted. However, this site is recommended not eligible for inclusion in the NRHP and no avoidance or further work is recommended.



- Inventory Area
- Datum
- Historic Bridge center point
- Township/Range Boundary

East Clear Creek Watershed Intensive Cultural Resource Survey

Figure 48: Site KH00-104 Sketch Map



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 cultural resource analysts, inc. 248 West Broadway St., Sheridan, Wyoming 82801 307.676.1752	
CONFIDENTIAL	
Prepared By: MAT	Date: 8/5/2025
Project Number: Y250270	Project Name: ECC Fieldwork



Figure 49. Site KH00-104. Overview of the bridge looking northwest with crew member for scale. Photograph taken on July 19, 2025.

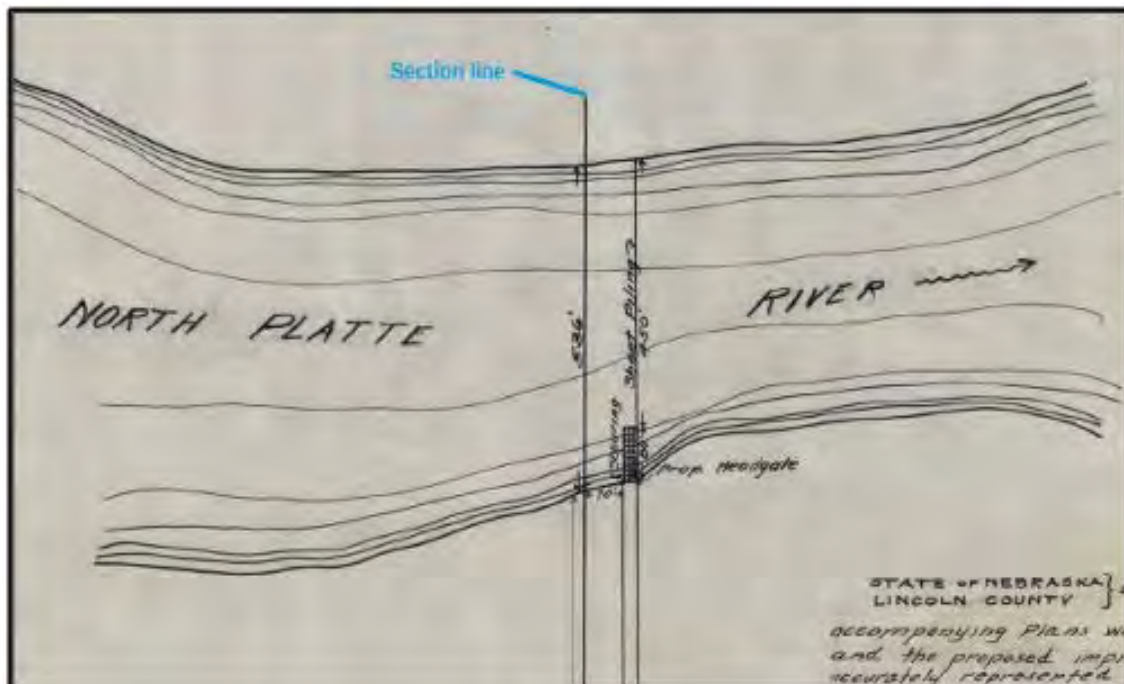


Figure 50. Site KH00-104. Excerpt from McNamara (1919a) illustrating the location of the Suburban headgate, and piling dam with no bridge crossing the North Platte River at this location.

Historic Linear Resources

Per guidance from the Nebraska State Historical Society (NSHS) no site forms have been prepared for the historic linear resources encountered during this inventory pending the Nebraska SHPO's conduction of a thematic survey of linear resources (Rose 2025a; 2025b). Per NSHS guidance the start, middle and end points of the recorded segments of each linear resource have been provided (Appendix E). Photographs of the recorded segments are provided, and the project maps (Figure 1a–Figure 1e) indicate the locations of the photographs per NSHS guidance (Rose 2025a).

In addition to meeting the minimum requirements described by the NSHS (Rose 2025a; 2025b), CRA has prepared and presented in this report full resource recordings and NRHP evaluations of the recorded segments. This work has been conducted since repairs and modifications are proposed to these historic features associated with these resources.

Keith Lincoln Canal

This historic linear resource is located within the floodplain of the North Platte River. Sediment is alluvium varying from loam to silt loam, sandy loam, and sand. Vegetation is primarily grasses and riparian woodlands with wetlands adjacent to portions of the canal. Surface visibility averages 20 percent. Existing disturbances include erosion, structural decay, and canal infrastructure maintenance. Overall, this canal measures approximately 30–32 mi long. The recorded segment of this historic canal measures 5,993 ft (1,826 m) long and 25 ft (8 m) wide, covering 14,608 sq m of private lands (Figure 1a; Figure 51).

The historic Keith Lincoln Canal was appropriated water in 1894 and 1895 to M.C. Keith, for whom Keith County was named. Construction was begun in 1898 and completed in 1899 (Irrigation Leader 2025). The canal begins in the current project area approximately 8 mi east of the town of Paxton, Nebraska, and initially it extended for 10 mi, irrigating approximately 3,000 acres of farmland (Akers 1897). The original water claim stated the canal was planned to be 32 mi long and was going to be held by the Sutherland and Paxton Canal and Irrigation Company (Hunter 1895). The canal has expanded since the initial construction, and currently it is approximately 30 mi long and irrigates between 5,000 and 6,000 acres (Irrigation Leader 2025). The expansion of the canal to its full length is partially documented in county records with ROW purchases listed in 1911 for land parcels located well over 10 mi east of the diversion dam and headgate (Lincoln County Courthouse Deed Record 1911). These ROW purchases follow the canal route illustrated in the 1895 waters claim (Hunter 1895). Major maintenance of the canal infrastructure was conducted in the 1960s (Glenn Bowers, Twin Platte Natural Resource Division, personal communication on July 15, 2025) and the headgate (i.e. canal gate structure) was rebuilt in the mid-1970s (Irrigation Leader 2025).

This recorded segment of the historic Keith Lincoln Canal consists of the canal channel and six features including one side channel gate (Feature 1), one gaging station (Feature 2), one vehicle bridge (Feature 3), one dam gate control shed (Feature 4), the headgate (Feature 5), and the diversion dam (Feature 6). The canal is an excavated earthen channel with concrete riprap placed along its sides in places where erosion control has been needed. The canal channel averages 25 ft wide. The left descending bank (north side) of the canal channel has been reinforced by an earthen berm measuring 8 ft high and 15 ft wide at the base. The south side of the canal channel is excavated into the natural ground surface with little to no berm in evidence.

Feature 1 is a side channel or return gate that is partially plugged with sediment and vegetation (Figure 52). The gate structure is not visible, or is no longer present. The gate empties water into a north flowing side channel and is flanked by concrete wing walls. The western wing wall is curved and measures 18.5 ft long, 6 inches thick, and is at least 3 ft high. The eastern wing wall is straight and measures approximately 44 ft long and 6 inches thick, rising 3 ft above the canal waterline.



Figure 51. Keith Lincoln Canal: channel overview looking northwest towards the headgate (Feature 5). Photograph taken on July 15, 2025.



Figure 52. Keith Lincoln Canal: Feature 1 the overgrown return gate. View to the north.. Photograph taken on July 15, 2025.

Feature 2 is a gaging station consisting of a small steel shed, concrete abutment walls, and a concrete drop structure crossed by a milled lumber plank access platform (Figure 53). The shed measures approximately 5.5 ft tall, 4 ft long and 3 ft wide. The gaging instrumentation is locked behind the sheet steel door. A radio control transmitter/receiver is mounted on the side of the shed and is connected to an antennae and solar panel. The shed is painted white. Renovations to the canal were conducted in the 1960s and mid-1970s, and this structure is consistent with a mid- to late twentieth-century date.

Feature 3 is a vehicle bridge built across the canal (Figure 54). The bridge is based on steel-I beam stringers and is a “Versa-Deck” bridge base made by the Burlington Northern Railroad. This steel deck has been covered with thick milled lumber planks overlaid with steel sheeting. It is a single span bridge that rests on concrete abutments and measures 45 ft long and 20 ft wide. This structure is likely less than 50 years old.

Feature 4 is the control shed for the diversion dam water control gates (Figure 55). This control shed is made of concrete blocks built on a concrete slab foundation with a concrete slab roof. Power is supplied by a buried electric cable. The locked steel door is on the west side of the small structure. The door is painted gray and there are traces of sliver paint on the concrete block walls. Renovations to the canal were conducted in the 1960s and mid-1970s, and this structure is consistent with a mid- to late twentieth-century date.

Feature 5 is the headgate which was rebuilt in the mid-1970s (Irrigation Leader 2025) (Figure 56). It is located on the south bank of the North Platte River immediately upstream of the diversion dam. The headgate is a concrete structure with a 27 ft long and 8 ft wide access platform spanning two water control gates. The concrete sidewall on the river side of the headgate measures 35 ft long. The downstream sidewalls are each approximately 24 ft long. The apron is estimated to be 10 ft wide. The gates are opened and closed by hand-operated equipment. The current headgate is not original to the canal. A report on the headgate in 1912 described the original headgate as a wooden structure, and that plans were being made to replace it with a concrete structure (State Board of Irrigation, Highways, and Drainage 1912). The current headgate is the third version of this structure. The engineer’s certificate for the current headgate was filed in 1974 and indicates that the current headgate is located 1,668.8 ft east of the original location (State of Nebraska Department of Water Resources 1974). The length of canal between the original intake and current headgate location was abandoned (Figure 57).

Feature 6 is the diversion dam. It measures approximately 130 ft long and 24 ft wide, including the downstream apron (Figure 58 and Figure 59). The dam has a 4 ft wide concrete access platform with no railings spanning its entire length from riverbank to riverbank. This dam has six cells separated by intermediate concrete support piers. Each cell houses one curved (radial) steel water gate. The gates are partially automated by retrofitted motors that power a wire winch system. Concrete riprap has been placed downstream of the dam to address erosion issues along the sidewalls. The water control gates and motors date to the 1960s or 1970. As with the headgate, the current diversion dam is downstream from the original dam and would have been relocated around 1974 when the original intake of the canal was abandoned.

All sediments around the canal, dam, headgate, and other structures have been severely disturbed by construction of the canal and continued maintenance of the channel, and actions taken to address erosion. Based on these factors, the potential for intact buried cultural materials is negligible.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with this segment recommended as non-contributing. This irrigation canal has been used continually for over 120 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). While the canal was begun by M.C. Keith, for whom Keith County was named, it is more broadly associated with the farming community

in Keith and Lincoln Counties rather than with an individual. Therefore, this site is not associated with the lives of significant persons in our past (Criterion B). The irrigation canal is a simple earthen ditch with berms of sediment and concrete riprap added as needed. The concrete dam architecture is functional with no embellishments, and the design is common to irrigation diversion dams built throughout the twentieth century. As a result, this site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The canal has expanded over the decades and key features such as the headgate, and diversion dam are no longer in the original locations. The integrity of location, design, setting, materials, workmanship, feeling, and association have been impacted by the redesigns, maintenance and replacement of the water control components on the dam, headgate, and updating of the gating station, as well as maintenance of the channel. The Keith Lincoln Canal does not provide any new information on historic diversion dam, headgate or irrigation canal designs or methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

The Keith Lincoln Canal is within the survey area and APE of the proposed project and will be impacted. Specifically, the proposed impacts to the site include restoring the eroded earthen grades behind the sidewalls, restoring the scoured subgrade below the sidewalls, installing riprap downstream of the dam, adding a 42-inch high handrail on the access platforms for improved safety, updating the gate automation, and adding automated gates to the headgate structure; cleaning and repairing leaks in the river gates and adding new seals. These proposed modifications will alter the structures; however, the physical attributes of the canal have already been substantially modified and do not support, and are not necessary to support eligibility under Criterion A. Based on this, the proposed project will not affect this site, and no avoidance or further work is recommended.



Figure 53. Keith Lincoln Canal: Feature 2, gaging station. View to the north. Photograph taken on July 15, 2025.



Figure 54. Keith Lincoln Canal: Feature 3, modern vehicle bridge. View to the southeast. Photograph taken on July 15, 2025.



Figure 55. Keith Lincoln Canal: Feature 4, the diversion dam control shed. View to the north. Photograph taken on July 15, 2025.



Figure 56. Keith Lincoln Canal: Feature 5, headgate. View to the north. Photograph taken on July 15, 2025.

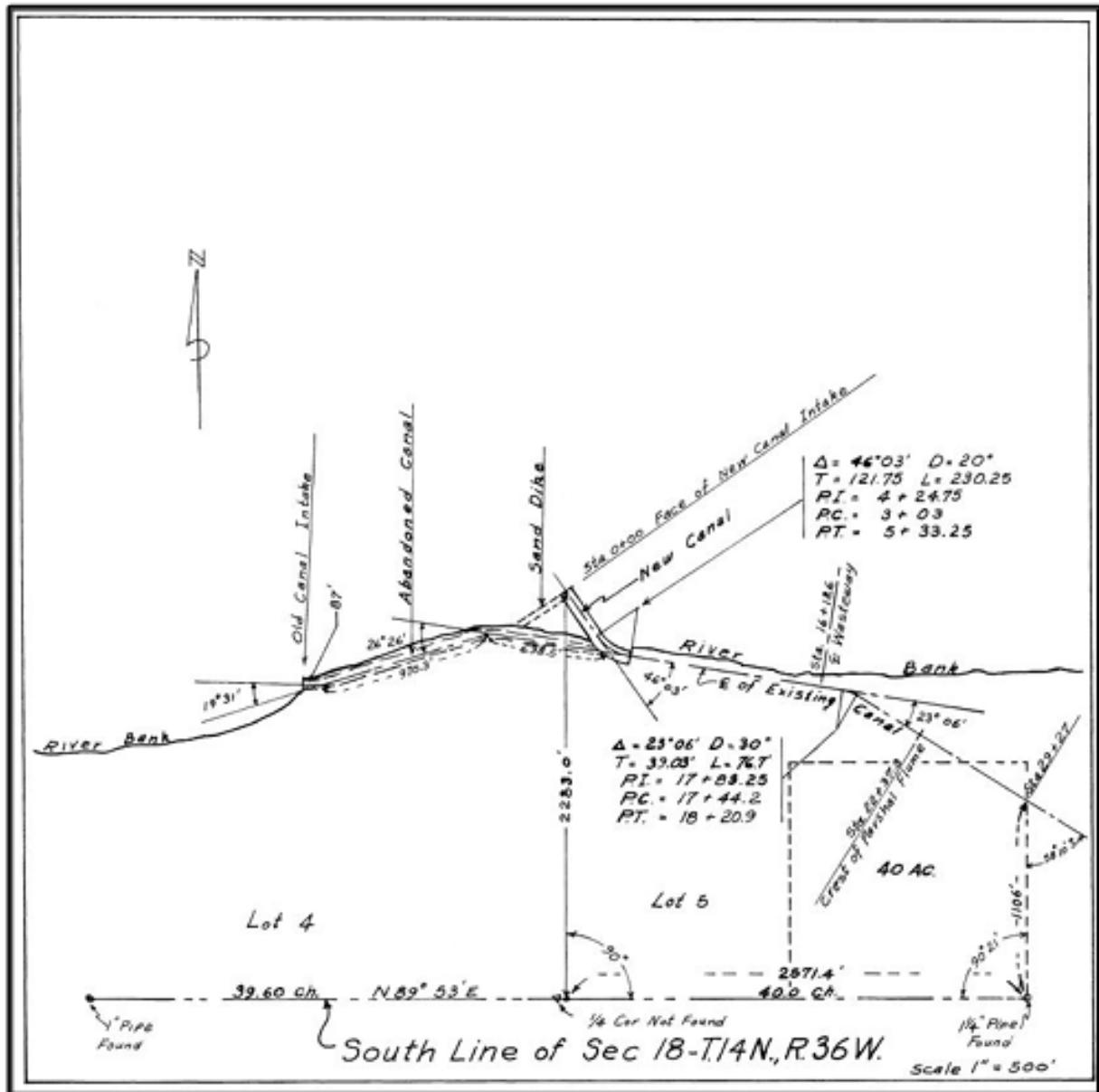


Figure 57. Keith Lincoln Canal. Excerpt from the 1974 engineer's certificate illustrating the abandonment of the original canal intake point and diversion dam. Adapted from State of Nebraska Department of Water Resources (1974).



Figure 58. Keith Lincoln Canal: Feature 6, diversion dam overview. View to the southwest. Photograph taken on July 15, 2025.



Figure 59. Keith Lincoln Canal: Feature 6, diversion dam radial water gates and access platform with crew member for scale. View to the northwest. Photograph taken on July 15, 2025.

North Platte (Platte Valley) Canal

The historic North Platte Canal, also called the Platte Valley Canal was constructed in 1883 and 1884 by the North Platte Land and Water Company, with its headgate located on the right descending (south bank) of the North Platte River approximately 4 mi northwest of Sutherland, Nebraska (Akers 1897). The concrete diversion dam and headgate were built sometime around 1914 (Willis and Dobson 1914). There is no known description of the prior dam and headgate. Major maintenance of the canal infrastructure was conducted in the 1960s (Glenn Bowers, Twin Platte Natural Resource Division, personal communication on July 15, 2025). The canal has been documented in two segments with Segment 1 spanning the North Platte / Paxton Hershey survey parcel, and Segment 2 passing through the Cody Dillon survey parcel (see Figure 1b and Figure 1e).

Segment 1

Segment 1 is located within the floodplain of the North Platte River and parallels the south side of the existing access road corridor. Sediment is alluvium varying from loam to silt loam, sandy loam, and sand. Vegetation is primarily grasses and riparian woodlands with wetlands adjacent to portions of the canal and hayfields along the eastern portion of the segment. Surface visibility averages 15 percent. Existing disturbances include erosion, agricultural fields (plowing), structural decay, and canal infrastructure maintenance. The first recorded segment measures 12,276 ft (3,742 m) long and 35 ft (10 m) wide, covering 37,420 sq m of private lands (see Figure 1b; Figure 60).

This recorded segment of the historic North Platte Canal consists of the canal channel and three features including the headgate (Feature 1), the diversion dam (Feature 2), and one modern vehicle bridge (Feature 3). The canal is an excavated earthen channel with concrete riprap and old automobiles placed along its sides in places erosion control has been needed. The canal channel is 50 ft wide below the headgate, but narrows to 35 ft wide along the rest of the recorded segment. The left descending bank (north side) of the canal channel has been reinforced by an earthen berm measuring 8–10 ft high and 15–20 ft wide at the base. The south side of the canal channel is excavated into the natural ground surface with little to no berm in evidence.

Feature 1 is the canal headgate (Figure 61). It is located on the right descending bank of the North Platte River immediately upstream of the diversion dam. The headgate is a concrete structure with a 56 ft long and 4 ft wide access platform spanning 10 steel water control gates. Five gates are housed in each of the two concrete cells. The gates are operated by manual gear mechanisms. The concrete access platform is supported by two railroad rails. The concrete sidewall on the river side of the headgate measures 42 ft long. The downstream sidewalls are approximately 24 ft long. A steel ladder is mounted on the intermediate concrete support pier of the headgate and accesses the downstream concrete apron. The apron is estimated to be 12 ft wide. Concrete riprap has been placed below the apron to control erosion. This structure has worn and cracked concrete, and rusted gate components. The sidewalls and retaining walls exhibit damage. The illustration of the new headgates in 1914 depicts a concrete headgate similar to the existing structure, although the plans did not indicate the use of railroad rails to support the access platform (Willis and Dobson 1914).

Feature 2 is the diversion dam (Figure 62 and Figure 63). It measures approximately 310 ft long and 30 ft wide, including the downstream apron width. The dam includes water control gates on the right descending bank and a spillway on the left descending bank. The dam gate structure measures approximately 100 ft long, and the spillway is 210 ft long. The dam has a 3 ft wide concrete access platform spanning the water control gates. This dam houses six radial steel water gates that are operated by manual gear wheels connected to steel cables. This system appears to be older than the 1960s, and may be original to the 1914 structure. However, the 1914 illustration of the dam depicts two scouring gates and a spillway. The current dam includes six cells housing six radial gates, four more than were illustrated in 1914. This indicates that substantial modifications were made to the dam sometime after

1914. Concrete riprap has been placed downstream of the dam slipway to address erosion issues. The dam has cracked and spalled concrete that is patched in places, but is still leaking. The sidewalls, retaining walls, and apron exhibit damage.

Feature 3 is a single-span reinforced concrete bridge with concrete abutments, one concrete pier, and a concrete deck and guardrails. Soil and gravel cover the deck and act as the road driving surface. The bridge has been stamped with a build date of 1991 (Figure 64).

West of Feature 1 is a modern office trailer (FS1) mounded on a wheeled steel beam chassis. It measures 20 ft long, 8 ft wide, and likely dates to the 1980s or later (Figure 65). FS2 located 134.5 ft (41 m) south of the trailer, is a discarded curved steel water gate (Figure 66). The gate is severely pitted and damaged by rust. It was patched with steel straps to prolong its use before finally being removed from the dam and replaced. The original components of the gate are riveted together rather than welded indicating it likely pre-dates World War II.

All sediments around the canal, dam, and headgate have been severely disturbed by construction of the canal and continued maintenance of the channel, and actions taken to address erosion. An overflow pond and wetland occupy the southwestern portion of the inventory area, and the left descending bank upstream of the dam consist of fill dirt supported by repurposed concrete railroad ties. This fill structure measures over 400 ft long and 45 ft wide, rising at least 10 ft high above the natural floodplain. Additionally, three on-survey shovel tests (ST18, ST19, ST57) were excavated to 60 cm bgs within the inventory corridor parallel to this segment of the canal and did not encounter any subsurface artifacts or features (see Appendix D, Table D-1). Due to these extensive disturbances and the negative shovel test results, the potential for intact buried cultural materials is negligible within Segment 1.



Figure 60. North Platte (Platte Valley) Canal, channel overview, Segment 1. View to the southwest below the headgate (Feature 1). Photograph taken on July 16, 2025.



Figure 61. North Platte (Platte Valley) Canal: Feature 1 headgate, looking south. Photograph taken on July 16, 2025.



Figure 62. North Platte (Platte Valley) Canal: Feature 2 diversion dam overview, looking west. Photograph taken on July 16, 2025.



Figure 63. North Platte (Platte Valley) Canal: Feature 2 diversion dam, looking north along the top of the access platform with the hand operated gate equipment mounted on the platform. Photograph taken on July 16, 2025.



Figure 64. North Platte (Platte Valley) Canal: Feature 3 concrete vehicle bridge built in 1991 with crew member for scale. View to the east. Photograph taken on July 16, 2025.



Figure 65. North Platte (Platte Valley) Canal: FS1, modern trailer. View to the north. Photograph taken on July 16, 2025.



Figure 66. North Platte (Platte Valley) Canal: FS2, discarded radial gate with crew member for scale. View to the south. Photograph taken on July 16, 2025.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with this segment recommended as non-contributing. This irrigation canal has been used continually for over 140 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). The irrigation canal is a simple earthen ditch with berms of sediment and concrete riprap added as needed. The concrete dam and headgate architecture is functional with no embellishments, and the design is common to irrigation diversion dams built throughout the twentieth century. As a result, this site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location is intact for the primary features such as the diversion dam and headgate. The integrity of design, setting, materials, workmanship, feeling, and association have been impacted by the redesigns, maintenance and replacement of the water control components. Therefore, this segment of the North Platte Canal does not provide any new information on historic diversion dam, headgate, irrigation canal designs or methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the North Platte Canal is within the survey area and APE of the proposed project and will be impacted. Specifically, the proposed impacts to the site include patching spalls throughout the spillway walls and slabs, patching joints to stop leaks, replace the seals on the existing radial gates, backfill the scoured area behind the retaining walls, and restoring downstream riprap as well as repairing or reconstructing the main channel gates in the dam so they can fully open and close; reconstructing damaged sidewalls and retaining walls, repairing and replacing the damaged upstream apron, replacing the intermediate concrete pier in the headgate, replacing the access platforms, and installing scour mitigation sheet pile and cut off walls. Additionally, ladders, 42-inch-high handrails and lighting will be installed to improve safety, and the gates and associated equipment will be updated to allow automated operation. Alternatively, the proposed project may remove and replace the existing diversion dam and headgate structures with new structures to be built between the current North Platte diversion, and the Paxton Hershey diversion. The proposed impacts from either alternative will alter or remove the structures; however, the physical attributes of the canal have already been substantially modified and do not support and are not necessary to support eligibility under Criterion A. Based on this, the proposed project will not affect this site and no avoidance or further work is recommended.

Segment 2

Segment 2 is situated within the access road corridor of the Cody-Dillon inventory parcel. In this area the canal is located within the floodplain of the North Platte River. Sediment is alluvial loam and silt loam. Vegetation is hayfield and corn fields, affording 20 percent bare ground in the hay fields and 60 percent bare ground between the corn rows. Existing impacts are erosion, agricultural fields (plowing), and county road maintenance. The second recorded segment measures 6,326 ft (1,928 m) long and 5.0 ft (1.5 m) wide, covering 2,892 sq m of private lands (Figure 1e; Figure 67 and Figure 68).

This recorded segment of the historic North Platte Canal consists of the Return No. 18 channel. This earthen return canal channel measures 5 ft wide and includes one concrete culvert (Feature 4). Feature 4 is a concrete culvert extending under the intersection of Sutherland and Wagon Trail Roads. It measures 30 ft long and has 8 ft wide concrete abutments on either end. The culvert is approximately 6 ft in diameter.

The existing county road and disturbances from agriculture and excavation of the canal indicate a low potential for buried cultural materials. Additionally, two on-survey shovel tests (ST36 and ST69) were excavated to 75 and 60 cm bgs, respectively within the inventory corridor parallel to this segment of the canal and did not encounter any subsurface artifacts or features (see Appendix D, Table D-1).



Figure 67. North Platte (Platte Valley) Canal: channel overview, Segment 2 return channel. View to the north. Photograph taken on July 21, 2025.



Figure 68. North Platte (Platte Valley) Canal: Feature 4 concrete culvert passing under the county road. Crew member for scale. View to the south-southeast. Photograph taken on July 21, 2025.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with this segment recommended as non-contributing. This irrigation canal has been used continually for over 140 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). The segment of the irrigation canal is a simple earthen ditch and concrete culvert which do not represent architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location, design, setting, materials, workmanship, feeling, and association are arguably intact; however, the concrete culvert and the excavated channel features do not rise to the level of significance, and this segment of the North Platte Canal does not provide any new information on irrigation canal designs, methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the North Platte Canal is within the survey area and APE of the proposed project and will be impacted. Specifically, this segment is within the inventory corridor of a proposed access road for the Cody Dillon project area. This segment of the canal is not likely to be impacted by the proposed project; furthermore, the physical attributes of the canal do not support, and are not necessary to support eligibility under Criterion A. Based on this, the proposed project will not affect this site, and no avoidance or further work is recommended.

Paxton Hershey Canal

The historic Paxton Hershey Canal was constructed by the Paxton & Hershey Irrigating Canal & Land Co. in 1894 to irrigate approximately 9,000 acres of land out of a 125 ft wide headgate (Akers 1897). The historic canal was 16 mi long and began approximately 3.8 mi north-northwest of Sutherland, Nebraska. Major maintenance of the canal infrastructure was conducted in the 1960s (Glenn Bowers, Twin Platte Natural Resource Division, personal communication on July 15, 2025). The canal has been documented in two segments with Segment 1 passing through the North Platte / Paxton Hershey survey parcel and Segment 2 passing through the Suburban survey parcel (see Figure 1b and Figure 1d).

Segment 1

Segment 1 is located within the floodplain of the North Platte River. Sediment is alluvium varying from loam to sandy loam, and sand. Vegetation is primarily grasses and riparian woodlands with wetlands adjacent to portions of the canal. Surface visibility averages 20 percent. Existing disturbances include erosion, structural decay, and canal infrastructure maintenance. This first recorded segment measures 7,057 ft (2,151 m) long and 35 ft (10 m) wide, covering 21,510 sq m of private lands (Figure 1b; Figure 69).

This recorded segment of the historic North Platte Canal consists of the canal channel and seven features including the diversion dam (Feature 1), the headgate (Feature 2), one return gate (Feature 3), one channel gate with vehicle bridge (Feature 4), one gaging station with an associated fall structure (Feature 5), one culvert crossing (Feature 6), and a sediment stockpile and concrete debris (Feature 7). The canal is an excavated earthen channel that is 45 ft wide, immediately downstream of the headgate (Feature 2) and the culvert road crossing (Feature 6). The channel narrows to 35 ft wide along most of the recorded segment. The canal is flanked on the north side by a sandy earthen berm measuring 10 ft high and 15 ft wide at the base. The south side of the canal channel is excavated into the natural ground surface with berms notable in places. Concrete fragments and old automobiles are occasionally used as riprap along the banks to prevent erosion.



Figure 69. Paxton Hershey Canal: channel overview, Segment 1. Note sediment berm on the left descending bank. View to the northwest. Photograph taken on July 16, 2025.

Feature 1 is the diversion dam (Figure 70 and Figure 71). It measures approximately 285 ft long and 30 ft wide, including the downstream apron width. The dam includes water control gates on the right descending bank and a spillway on the left descending bank. The dam gate structure measures approximately 70 ft long, and the spillway is 215 ft long. The dam has a 5 ft wide concrete access platform spanning the water control gates. This dam houses four radial steel water gates that are controlled by hand operated equipment. Concrete riprap has been placed downstream of the dam spillway to address erosion issues, and the apron has been patched in places. The spillway actively leaks water when the gates are closed. The dam has cracked, spalled, and worn concrete with rusting water control equipment and gates. Overall, the feature is in poor structural condition.

Feature 2 is the canal headgate (Figure 72). It is located on the right descending bank of the North Platte River immediate upstream of the diversion dam. The headgate is a concrete structure with a 60 ft long and 12.5 ft wide access platform spanning seven steel water control gates which are raised and lowered with a handyman jack. The access platform has been repaired on the south side as evidenced by a new concrete surface. The headgate has cracked concrete and worn, rusting water control equipment and gates. The concrete sidewalls and retaining walls have been inscribed with the date of 1981, indicating renovation work has been conducted on this feature in the late twentieth century. Despite this, the structure is in overall poor condition.

Feature 3 is a return channel gate (Figure 73) on the left descending bank located immediately upstream from a mid-channel gate and vehicle bridge (Feature 4). This return gate is composed of two concrete wing walls measuring 30 ft wide which bracket the 36 ft wide side gate. This gate is separated by four concrete intermediate piers that are spanned by a decomposing wood plank access platform. Two new pressure treated planks have been added to allow foot traffic across the gate.



Figure 70. Paxton Hershey Canal: Feature 1, diversion dam overview looking southwest. Photograph taken on July 17, 2025.



Figure 71. Paxton Hershey Canal: Feature 1, diversion dam overview looking southeast at the spillway apron and weir exposed while the water gates are open. Photograph taken on July 17, 2025.



Figure 72. Paxton Hershey Canal: Feature 2 headgate, looking southeast. Photograph taken on July 17, 2025.



Figure 73. Paxton Hershey Canal: Feature 3 return channel gate, looking east. Photograph taken on July 17, 2025.

Feature 4, located immediately downstream from Feature 3, is a mid-channel gate that spans the canal channel (Figure 74). This gate is capped by a concrete vehicle bridge deck. Feature 4 measures 30 ft long and 12 ft wide. The upstream concrete abutment walls measure 30 ft long, and the downstream walls measure 16 ft long. The deck of the bridge is concrete that is supported by four concrete piers.

Feature 5 is a gaging station with an associated fall structure. The gaging station is composed of a small steel shed, and a fall structure made with concrete sidewalls. The fall structure is crossed by a milled lumber plank access platform (Figure 75). The shed measures approximately 7 ft tall, 5 ft long, and 5 ft wide and rests on a concrete slab foundation. The gaging instrumentation is locked behind the sheet steel door. A radio control transmitter/receiver is mounted on the side of the shed and is connected to an antennae and solar panel. The shed is painted white. Renovations to the canal were conducted in the 1960s (Glenn Bowers, Twin Platte Natural Resource Division, personal communication on July 15, 2025) and in the early 1980s. This structure is consistent with a mid- to late twentieth-century date. The collapsed remains of an old wood gaging station structure are located 3 ft to the west of the current structure. It was made of milled lumber clad in corrugated sheet steel (Figure 76). The concrete fall structure measures 15 ft wide, and the sidewalls are approximately 27 ft long. The access platform consists of two severely rotten milled lumber planks with equally rotten wood railings supported by rusted steel posts. A tube steel gate has been wired in place across the opening of the fall structure.

Feature 6 is a culvert and sediment road crossing of the canal channel located 100 ft downstream from the headgate (Feature 2). The crossing measures 34 ft long and 16 ft wide. The culverts are made from 0.25-inch-thick steel tanks that have the ends cut off. The tanks are riveted at the seams and are 4 to 5 ft in diameter (Figure 77 and Figure 78). The original function of these tanks is unknown, but considering the robust construction they may have been boilers. Similar culverts have been used for a crossing at the Cody-Dillon Canal.



Figure 74. Paxton Hershey Canal: Feature 4, mid-channel gate capped by a concrete vehicle bridge deck. View to the east-northeast. Photograph taken on July 17, 2025.



Figure 75. Paxton Hershey Canal: Feature 5 gaging station and fall structure. View to the southwest. Shovel extending 3 ft above ground for scale. Photograph taken on July 17, 2025.



Figure 76. Paxton Hershey Canal: Collapsed remains of old gaging station at Feature 5. View to the east. Photograph taken on July 17, 2025.



Figure 77. Paxton Hershey Canal: Feature 6 the culvert and sediment road crossing. View to the southeast with crew member for scale. Photograph taken on July 17, 2025.



Figure 78. Paxton Hershey Canal: Example of the riveted steel tanks repurposed as culverts at Feature 6 the culvert and sediment road crossing. View to the east. Photograph taken on July 17, 2025.

Feature 7 is a large stockpile of sediment, concrete fragments, old steel culverts, and gravel brought in for use as fill dirt for dealing with ongoing erosion issues. This pile measures 50 ft long and 40 ft wide, and is piled to a height of 15 ft (Figure 79).

All sediments around the canal, dam, headgate, and other structures have been severely disturbed by construction of the canal, erosion, and continued use and maintenance. Approximately 400 ft of the canal bank on the north side downstream from the headgate is new fill added to address severe erosion (Glenn Bowers, Twin Platte Natural Resource Division, personal communication on July 17, 2025). Due to the extensive disturbances, the potential for intact buried cultural materials is negligible for this segment.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with this segment recommended as non-contributing. This irrigation canal has been used continually for over 130 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). The irrigation canal is a simple earthen ditch with berms of sediment and concrete riprap added as needed. The concrete dam and headgate architecture is functional with no embellishments, and the design is common to irrigation diversion dams built throughout the twentieth century. As a result, this site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location is intact for the primary features such as the diversion dam and headgate. The integrity of design, setting,



Figure 79. Paxton Hershey Canal: Feature 7 the stockpile of sediment, concrete fragments and gravel. View to the southwest. Photograph taken on July 17, 2025.

materials, workmanship, feeling, and association have been impacted by structural decomposition, maintenance and past repairs, and component replacement in the 1980s. Therefore, this segment of the Paxton Hershey Canal does not provide any new information historic diversion dam design, headgate design, irrigation canal methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the Paxton Hershey Canal is within the inventory area and APE of the proposed project and will be impacted. Specifically, the proposed impacts to the site include repair or reconstruction of the newer main channel gates to allow the gates to fully open and close; reconstruction of the downstream retaining walls, replacement of the failed spillway and the headgate structure; and installation of scour sheet pile and cut off walls, patching spalls throughout the walls and slabs of all structures, and patch joints to stop leaks, as well as replace the seals on the existing radial gates, repair the radial gates, restore the downstream riprap, and restore areas of embankment erosion. Additionally, stairs, ladders, 42-inch-high handrails and lighting will be installed to improve safety, and the gates and associated equipment will be updated to allow automated operation. Alternatively, the proposed project may remove and replace the existing diversion dam and headgate structures with new structures to be built between the current Paxton Hershey diversion and the North Platte Diversion. The proposed impacts from either alternative will alter or remove the structures; however, the physical attributes of the canal have already been substantially modified and do not support and are not necessary to support eligibility under Criterion A. Based on this, the proposed project will not affect this site and no avoidance or further work is recommended.

Segment 2

Segment 2 is situated within the Suburban survey area. This segment of the canal is identified as Ditch No. 3 of the Paxton Hershey Canal. It passes along the base of the first terrace on the right descending bank of the North Platte River. Sediment is alluvial loam to sandy loam, and silt loam. Vegetation is primarily grasses and wetlands, with cornfields planted to the south. Surface visibility averages 10 percent. Existing disturbances include erosion and canal infrastructure maintenance. This second recorded segment of this historic canal measures 6,058 ft (1,846 m) long and 5.0 ft (1.5 m) wide, covering 2,769 sq m of private lands (Figure 1d; Figure 80).

This recorded segment of the historic Paxton Hershey Canal consists of the canal channel and three features including one steel culvert road crossing (Feature 8), one concrete and steel culvert flume (Feature 9), and one concrete culvert road crossing (Feature 10). The canal is an excavated earthen channel that parallels the north side of cornfields and in places is barely discernible from the adjacent wetlands. The canal channel is 5 ft wide along this segment with a low berm on each side of the channel.

Feature 8 is a steel culvert road crossing measuring 13 ft long and 16 ft wide. The culvert is shiny corrugated steel and is modern in age (see Figure 80).

Feature 9 is a corrugated steel culvert flume anchored by a concrete retaining wall and abutments on each side (Figure 81). This flume is supported by two steel railroad rails and steel cables and is used to carry water from the Paxton Hershey Canal over the Suburban Canal. The flume measures 65 ft long and 4 ft wide. The concrete retaining wall on the west side is stamped with the date of 1982, and on the east side the date is 1989.

Feature 10 is a rectangular concrete box culvert measuring 15 ft long and 4 ft wide (Figure 82). This culvert is a crossing point for an agricultural field access road.

All sediments around the canal, culverts and flume structure have been severely disturbed by construction of the canal, erosion, continued maintenance, and agricultural activity. Due to the extensive disturbances, the potential for intact buried cultural materials is negligible for this segment.



Figure 80. Paxton Hershey Canal: channel overview, Segment 2. Looking west from the modern steel culvert (Feature 8). Photograph taken on July 19, 2025.



Figure 81. Paxton Hershey Canal: Feature 9, the corrugated steel flume allowing the Paxton Hershey Canal to pass over the Suburban canal. Crew member for scale. Photograph taken on July 19, 2025.



Figure 82. Paxton Hershey Canal: Feature 10, concrete box culvert. View to the west. Photograph taken on July 19, 2025.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with this segment recommended as non-contributing. This irrigation canal has been used continually for over 130 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). The segment of the irrigation canal is a simple earthen ditch with modern features dating to the 1980s. These components do not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). This canal was substantially altered by maintenance between 1982 and 1989, and the canal channel is poorly defined in places. As a result, this segment retains poor integrity of location, design, setting, materials, workmanship, feeling, and association. This segment of the Paxton Hershey Canal does not provide any new information on irrigation canal designs, methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the Paxton Hershey Canal is within the survey area and APE of the proposed project and will be impacted. Specifically, this segment is within the inventory corridor of a proposed staging area; however, this segment of the canal does not contain historic features and is non-contributing to overall site eligibility. Furthermore, the physical attributes of the canal do not support, and are not necessary to support eligibility under Criterion A. Based on this, the proposed project will not affect this site, and no avoidance or further work is recommended.

Birdwood Canal

This historic linear resource is located within the floodplain of Birdwood Creek, a tributary of the North Platte River. Sediment is alluvial loam to silt loam, and sandy loam. Vegetation is primarily grass

pasture, hayfields, and riparian woodlands with wetlands adjacent to portions of the canal. Surface visibility averages 10 percent. Existing disturbances include erosion, and structural decay of the canal infrastructure. The recorded segment measures 4,170 ft (1,271 m) long and 12 ft (4 m) wide, covering 5,084 sq m of private lands (Figure 1c; Figure 83).

The historic Birdwood Canal was constructed by John Bratt & Co in 1894 and 1895. Historically, the canal was 12 mi long and irrigated 10,000 acres of farmland (Akers 1897). In 1942 a proposal was made to install a rating flume in the canal 700 ft downstream of the headgate (Kimmel 1942). It was also noted that Mr. Welch was “becoming irritated” that the irrigation commissioner had to drive through his yard every day to access the canal. This suggests the current access road to the east side of the headgate was established after this memorandum was prepared in 1942.

This recorded segment of the historic Birdwood Canal consists of the canal channel and three features including the diversion dam (Feature 1), the headgate (Feature 2), and one rating flume (Feature 3). The canal is an excavated earthen channel with low banks and occasional sediment berms. The channel measures approximately 12 ft wide along the recorded segment. Debris along the right descending bank (east side) of this canal includes a modern gas grill, a steel railroad rail, and a pile of dead trees that also contains modern and mid- to late twentieth-century trash.

Feature 1 is the diversion dam. It measures approximately 32 ft long and 16 ft wide, including the downstream apron width (Figure 84). The dam includes an intermediate concrete pier dividing the dam into two cells housing the wood plank gates. The sidewalls support a wood plank access platform with steel cable railings. The sidewalls measure 80 ft long including the wing walls. A steel railroad rail spans the dam on the upstream side and supports the access platform and the 4-x-4-inch nominal dimension posts which are used to support wood plank gates that are held in place with water pressure. The historic gate structures and formal mechanisms to raise and lower the gates are no longer present. This structure is in very poor condition.

Feature 2 is the canal headgate located on the left descending bank of Birdwood Creek immediately upstream of the diversion dam (Figure 85). The headgate structure is composed of four large corrugated steel culverts with a concrete abutment wall on the upstream side measuring approximately 70 ft long. The culverts measure 4.5 ft in diameter and are approximately 12 ft long. The top of the headgate is covered with soil, overlaid by a two-track access road. In several locations the culverts under the road are collapsing and the structure is failing. The upstream concrete abutment wall houses four steel water control gates. The gates are raised and lowered by hand operated screw mechanisms.

Feature 3 is located approximately 690 ft downstream from the headgate (Figure 86). This feature was initially interpreted as a side channel gate to let overflow back into Birdwood Creek. However, plans for the installation of a rating flume were filed in 1942 and illustrate the structure at a similar location, approximately 700 ft downstream of the headgate (Kimmel 1942). This rating flume consists of a gate set into a concrete wall. The wood gate is mounted on a steel frame and operated by a wheel screw crank. The concrete retaining wall is approximately 15 ft long. The wood gate is rotten and overgrown with vegetation. This rating flume does not appear to have been utilized in a considerable amount of time.

The existing disturbances from erosion, and agricultural activities indicate a low potential for intact buried cultural materials. Additionally, six on-survey shovel tests (ST23, ST24, ST25, ST59, ST60, ST61) were excavated within the inventory corridor adjacent to the canal. These shovel tests were excavated to depths ranging from 60 cm bgs to 130 cm bgs and did not encounter any buried surfaces, features, or artifacts (see Appendix D, Table D-1).



Figure 83. Birdwood Canal: channel overview looking south. Photograph taken on July 18, 2025.



Figure 84. Birdwood Canal: Feature 1, diversion dam with crew member for scale. View to the southeast. Photograph taken on July 18, 2025.



Figure 85. Birdwood Canal: Feature 2, headgate with crew member for scale. View to the south. Photograph taken on July 18, 2025.



Figure 86. Birdwood Canal: Feature 3, disused rating flume. View to the southwest. Shovel extending 3 ft above ground for scale. Photograph taken on July 18, 2025.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with this segment recommended as non-contributing. This irrigation canal has been used continually for 130 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). The irrigation canal is a simple earthen ditch, and the concrete dam and headgate architecture is functional with no embellishments, and the design is common to irrigation diversion dams built throughout the twentieth century. As a result, this site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location is intact for the primary features such as the diversion dam, headgate, and rating flume; however, these components are in very poor condition. As a result, the integrity of design, setting, materials, workmanship, feeling, and association have been eliminated by structural decomposition. This segment of the Birdwood Canal does not provide any new information about historic diversion dam, headgate, or rating flume designs, irrigation canal designs or methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the Birdwood Canal is within the survey area and APE of the proposed project and will be impacted. Specifically, the proposed impacts to the site include complete replacement of the failing headgate which will be 4–5 ft higher than the current structure; installation of reliable and safer gates and controls for the diversion dam, installation a safer access platform and 42 inch high handrails and lighting to improve safety; and the gates and associated equipment will be updated to allow automated operation. Lastly, the grading behind the sidewalls will be backfilled and restored. The physical attributes of the canal have been modified and are severely deteriorated, and the proposed improvements will substantially alter these structures. However, the physical components at this site do not support, and are not necessary to support eligibility under Criterion A. Based on this, the proposed project will not affect this site and no avoidance or further work is recommended.

Suburban Canal

This historic linear resource is located within the floodplain of the North Platte River. Sediment is alluvial loam to sandy loam. Vegetation is primarily grasses and cornfields with 60 percent bare ground between the rows of corn. Existing disturbances include erosion and structural decay of the canal infrastructure. This recorded segment measures 4,416 ft (1,346 m) long and 20 ft (6 m) wide, covering approximately 8,076 sq m of private lands (Figure 1d; Figure 87).

The historic Suburban Canal was constructed in the summer and fall of 1894 by a group of farmers. The canal was originally called the Farmers' and Merchants' Canal and measured approximately 18 mi long. It began at the North Platte River 14 mi west of North Platte, Nebraska and irrigated approximately 10,000 acres of land. The canal was purchased by the Suburban Irrigation District in 1897 after the passing of the Wright Law, which formed the district (Akers 1897). In 1919 the district put out a bid for the construction of a concrete headgate and dam (McNamara 1919b). The plans (McNamara 1919a) developed in response to the solicitation were approved in 1920. These plans illustrate a 450 ft long piling dam with an 80 ft scouring gate containing eight concrete cells divided by intermediate piers with a 16 ft wide downstream apron. The abutting headgate measures 36 ft long and 16 ft wide, including the downstream apron and is divided into four cells separated by intermediate piers. Each cell housed one of four gates. The downstream sidewalls are 24 ft long with 10 ft wing walls. The riverside retaining walls are 24 ft and 26 ft long with 6 ft and 8 ft long wing walls (McNamara 1919a).



Figure 87. Suburban Canal: channel overview looking south. Photograph taken on July 19, 2025.

This recorded segment of the historic Suburban Canal consists of the canal channel and four features including the headgate (Feature 1), the diversion dam (Feature 2), one culvert and sediment road crossing (Feature 3), and stockpiles of soil and railroad ties for erosion control (Feature 4). The canal is an earthen channel approximately 15–20 ft wide that is excavated into the natural ground surface with sediment berms of excavated materials on both sides. The berms are overgrown with grasses.

Feature 1 is the headgate measuring 36 ft long and 16 ft wide, including the downstream apron (Figure 88 and Figure 89). It has 24 ft long sidewalls with 10 ft wing walls, and the river side retaining walls measure 24 and 26 ft long with 6 and 8 ft long wing walls. The characteristics match the 1919 plans by McNamara (1919a). Changes since the 1919 plans include a concrete wall closing off one cell on the east end leaving operational three of the steel gates rather than four. The headgate has been spanned by a 3 ft wide concrete access platform which was not illustrated in the 1919 plans. This platform has the tracks of a *Felis catus* (domestic cat) made when the concrete was wet. This concrete platform was poured on top of wood planks. These planks are beginning to rot and undermine the integrity of the concrete platform. The three steel gates are mounted on a steel I beam frame and are opened and closed with a handyman jack. These gates were also not illustrated on the 1919 plans and were likely installed in the 1960s along with the radial water gates in the diversion dam (Feature 2) (Glenn Bowers, Twin Platte Natural Resource Division, personal communication on July 15, 2025). Erosion under the headgate is causing sediment subsidence behind the riverside retaining walls and the structure is cracked in multiple places.

Feature 2 is the diversion dam which measures approximately 130 ft long and 25 ft wide, including the downstream apron width (Figure 90). This is considerably shorter than the 450 ft long planned piling dam illustrated by McNamara (1919a). The dam includes water control gates on the left descending bank, a spillway in the center, and two smaller water control gates on the right descending

bank adjacent to the east end of the headgate. The dam gate structure with the water control gates measures approximately 45 ft long, and the spillway is 75 ft long. Two concrete cells house two sheet steel gates adjacent to the headgate. These gates are 10 ft long each and have been permanently sealed closed. A wood plank access platform spans these two abandoned gates. The dam has a 5 ft wide concrete access platform spanning the water control gates. This dam houses two radial steel water gates that are operated by electric motors. These radial gate structures are not illustrated on the 1919 plans (McNamara 1919a). Concrete riprap has been placed upstream and downstream of the dam gates and slipway to address erosion issues which still persist. The dam has cracked concrete in multiple locations. When water levels are low, the rotted failed wood pilings of the pre-1919 structure are visible under the concrete apron and undermine the structural integrity of the overlaying structure.

Feature 3 is an access road crossing over the canal made from 10 ft long concrete retaining walls, a 5 ft diameter steel culvert, plastic sheeting, and concrete riprap covered in soil and gravel (Figure 91). This crossing measures 42 ft long and 23 ft wide and is modern in age.

Feature 4 is a large stockpile of sediment and modern concrete railroad ties in an area measuring 330 ft long and 30 ft wide on the east side of the canal (Figure 92).

All sediments around the canal, dam, headgate, and other structures have been severely disturbed by construction of the canal, continued maintenance, erosion, access road and county road construction, and maintenance, as well as agricultural activity. Due to these disturbances, the potential for intact buried cultural materials is negligible.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with this segment recommended as non-contributing. This irrigation canal has been used continually for over 130 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). The irrigation canal is a simple earthen ditch, and the concrete dam and headgate architecture is functional with no embellishments, and the design is common to irrigation diversion dams built throughout the twentieth century. As a result, this site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location is intact for the primary features such as the diversion dam and headgate. The integrity of design, setting, materials, workmanship, feeling, and association have been impacted by maintenance and alteration of the headgate and diversion dam structures. Therefore, this segment of the Suburban Canal does not provide any new information about historic diversion dam, headgate, or irrigation canal designs, or methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the Suburban Canal is within the survey area and APE of the proposed project and will be impacted. Specifically, the proposed impacts to the site include regrading of the north bank to address erosion, completely replace the headgate and add riprap below the new apron as well as extend the steel sheet pile walls across the river upstream from the diversion dam and headgate; and install steel sheet piles on the downstream side of the diversion dam and spillway. Stairs, ladders, 42-inch-high handrails and lighting will be added to improve safety; and the gates and associated equipment will be updated to allow automated operation. These proposed modifications will substantially alter the structures; however, the physical attributes of the canal have already been substantially modified and do not support and are not necessary to support eligibility under Criterion A. Based on this, the proposed project will not affect this site and no avoidance or further work is recommended.



Figure 88. Suburban Canal: Feature 1, headgate. View to the southeast. Photograph taken on July 19, 2025.



Figure 89. Suburban Canal: Feature 1, headgate with crew member for scale. View to the north. Photograph taken on July 19, 2025.



Figure 90. Suburban Canal: Feature 2, diversion dam. View to the west. Photograph taken on July 19, 2025.



Figure 91. Suburban Canal: Feature 3, culvert and concrete retaining wall access road crossing. View to the northeast. Photograph taken on July 19, 2025.



Figure 92. Suburban Canal: Feature 4, sediment and railroad tie stockpile for erosion control. View to the south. Photograph taken on July 19, 2025.

Cody Dillon Canal

This historic linear resource is located on the first terrace above the right descending bank of the North Platte River. Sediment is alluvium varying from loam to silt loam, sandy loam, and sand. Vegetation is primarily grasses, scattered trees, and small wetland areas adjacent to portions of the canal. Surface visibility averages 10 percent. Existing disturbances include erosion and structural decay. The recorded segment of this historic canal measures 5,910 ft (1,801 m) long and averages 20 ft (6 m) wide, covering 10,806 sq m of private lands (Figure 1e; Figure 93).

The historic Cody Dillon Canal was proposed and owned by William F. “Buffalo Bill” Cody and Isaac Dillon. Each were owners of large tracts of land near the North Platte River, including Mr. Cody’s Scout’s Rest Ranch in North Platte, Nebraska. Cody and Dillon partnered to build the canal in December 1893. The Cody & Dillon Canal Company continued purchasing 100 ft wide ROWs into 1894 (Lincoln County Courthouse Deed Record 1894b). The canal was completed in 1894 and irrigated 10,000 acres of land near North Platte. The canal was originally 13 mi long, leading from 10 mi north of North Platte along the Cody and Dillon ranches, then extending along the north side of the city eastwards and ending at the confluence of the North and South Platte Rivers (Akers 1897). This canal is one of three irrigation projects Mr. Cody was instrumental in constructing. The same year the Cody Dillon Canal was started, Mr. Cody also embarked on organizing the Shoshone Land and Irrigation Company in Wyoming with the Cody Canal being built in 1895. He attempted to build a second larger canal in the Bighorn Basin between 1897 and 1904 (Bonner 2015).

This recorded segment of the historic Cody Dillon Canal consists of the canal channel and five features including a gaging station (Feature 1), a culvert road crossing (Feature 2), a return gate (Feature 3), the headgate (Feature 4), and a vehicle bridge (Feature 5). The diversion dam is upstream approximately 2,180 ft and is outside the current inventory area. In the survey area the canal is straight



Figure 93. Cody Dillon Canal: channel overview looking east from a culvert road crossing of the canal (Feature 2). Photograph taken on July 21, 2025.

channel with low banks. The channel is beginning to meander due to erosion. Wetland vegetation is intruding into the channel. Between the effects of bank erosion, siltation and vegetation growth, the channel width varies from 12 to 27 ft.

Feature 1 is a gaging station built from a 4 ft diameter corrugated steel culvert that has been placed vertically on a slab concrete foundation (Figure 94). The shed measures approximately 6 ft tall with a conical roof made of sheet steel. The gaging instrumentation is locked behind the sheet steel door. The door is mounted into a steel frame welded into the site of the culvert shed structure. A radio control transmitter/receiver is mounted on the side of the shed. Concrete sidewalls are located north of the gaging station along the canal channel and are spanned by a milled lumber plank access platform.

Feature 2 is a culvert and sediment road crossing of the canal channel located 120 ft downstream from the gaging station (Figure 95). The crossing measures 34 ft long and 30 ft wide. The culverts are made from 0.25-inch-thick steel tanks that have the ends cut off. The rusted tanks were painted white. They are riveted at the seams and are 4 ft in diameter. The original function of these tanks is unknown, but considering the robust construction they may have been boilers. Similar culverts have been used for a crossing at the Paxton Hershey Canal.

Features 3 and 4 are immediately next to each other. Feature 3 is a return gate that regulates the amount of water available to the headgate (Feature 4). This return gate is located on the left descending bank (north side) of the canal and empties water into the North Platte River (Figure 96 and Figure 97). The return gate is a concrete structure measuring 30 ft long and 10–12 ft wide sidewalls and 8 ft long upstream wing walls. The downstream apron measures approximately 12 ft wide. The structure is divided into four cells which house one gate each. The gates are wood planks slid into steel rails. Plastic sheeting has been placed on the upstream side of the wood gates so water pressure will hold it in place and stop leaks. At the time of recording the plastic was torn in several places and the gates were leaking badly. To address concrete cracks, spalls, and structural weaknesses, the sidewalls and the intermediate concrete piers between the gates have been reinforced by additional concrete at the base. These reinforcements are old enough to be worn and cracking.

The return gate is spanned by a decayed wood plank access platform. The concrete structure is in overall poor physical condition.

Feature 4 is the headgate (Figure 98). It is a concrete structure measuring 12 ft wide with 24 ft long sidewalls. The upstream wing wall measures 8 ft long. The gate has two cells separated by one intermediate pier. Each cell houses one wood plank gate. The wood gates are set into steel rails and are raised and lowered by a simple lever utilizing a steel pipe and clay bricks.

Feature 5 is a severely decayed and structurally weak milled plank vehicle bridge that measures 12 ft long and 10 ft 5 inches wide (Figure 99). The planks are fastened to eight wood stringers with wire spikes and nails. The structure sits on concrete abutments that are immediately downstream of the headgate abutment walls.

All sediments around the canal, return gate, and headgate, and other structures have been severely disturbed by construction of the canal and continued maintenance of the channel, and erosion. The sediment between the return gate, headgate and the canal channel was deposited by dump trucks in recent years to mitigate severe erosion (Glenn Bowers, Twin Platte Natural Resource Division, personal communication on July 21, 2025). Based on these factors, the potential for intact buried cultural materials is negligible.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP. This irrigation canal has been used continually for over 130 years supporting agricultural and economic development in the region, thus its construction was associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). Additionally, this canal was partially owned by William F. Cody, and is emblematic of his commitment to fund irrigation projects, an expensive practice that was the centerpiece of his push to develop agriculture in the arid west, and would ultimately bankrupt him (Bonner 2015). Within the context of Mr. Cody's life and fortunes, this site is associated with the lives of significant persons in our past (Criterion B). The irrigation canal is a simple earthen ditch with few engineered enhancements.



Figure 94. Cody Dillon Canal: Feature 1, gaging station. View to the west. Photograph taken on July 21, 2025.



Figure 95. Cody Dillon Canal: Example of the riveted steel tank repurposed as a culvert at Feature 2 the culvert and sediment road crossing. View to the west. Photograph taken on July 21, 2025.



Figure 96. Cody Dillon Canal: Feature 3 return gate, looking northwest towards the North Platte River. Photograph taken on July 21, 2025.



Figure 97. Cody Dillon Canal: Feature 3 return gate, looking southwest towards the canal channel. Photograph taken on July 21, 2025.



Figure 98. Cody Dillon Canal: Feature 4 headgate. View to the south. Photograph taken on July 21, 2025.



Figure 99. Cody Dillon Canal: Feature 5, decayed wood vehicle bridge. View to the east from the access platform of the headgate (Feature 4). Photograph taken on July 21, 2025.

The concrete return gate and headgate architecture is functional with no embellishments, and the design is common to irrigation diversion dams built throughout the twentieth century. As a result, this site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location is intact for the primary features such as the return gates and headgate, but the integrity of design, setting, materials, workmanship, feeling, and association have been impacted by the maintenance, repairs and structural decay. As a result, the Cody Dillon Canal does not provide any new information about historic diversion dams, headgate, or irrigation canal designs, or methods of construction, technology, or function, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

The Cody Dillon Canal is within the inventory area and APE of the proposed project and will be impacted. Specifically, the proposed impacts to the site include replacing the western sidewall of the return gate structure, evaluating the eastern sidewall, repairing cracks in the headgate, seal minor cracks in all concrete walls, seal gaps between old concrete repairs and the upper wall sections, patch spalled concrete throughout as needed, remove sediment from the headgate apron, and restore the grade along the wing walls and protect from further erosion; as well as installing new access platforms, and 42-inch high handrails, stairs, ladders, and lighting for improved safety; remove Feature 4 and replace it with a new canal crossing structure with adequate abutment foundations, install automated gates, and extend the upstream concrete apron. These proposed alterations will impact the deteriorated historic structures; however, the physical attributes of the canal are deteriorated and do not support and are not necessary to support eligibility under Criterion A or B. Based on this, the proposed project will not affect this site, and no avoidance or further work is recommended.

Omaha & Republican Valley Railway Company / Union Pacific Railroad Tracks

This site is the historic alignment of the Omaha & Republican Valley (O&RV) Railway Company and later the Union Pacific Railroad. This railroad track is still active and in use by the Union Pacific Railroad. The O&RV Railway Company began acquiring the ROW for the tracks within the project area in 1884 (Lincoln County Deed Records. 1884). This company was a wholly owned subsidiary of the Union Pacific Railroad and its entire purpose was to procure ROWs to build feeder tracks that routed traffic and commerce to the main line (UtahRails.net 2010). In 1898 the O&RV Railway was sold to the Union Pacific Railroad (UtahRails.net 2010). This railroad has been documented in two segments with Segment 1 passing through the Keith Lincoln survey parcel, and Segment 2 spanning between the North Platte and Paxton Hershey survey parcels (see Figure 1a and Figure 1b). The tracks were encountered at the ends of proposed access road corridors.

Segment 1

Segment 1 is situated within the Keith-Lincoln inventory parcel at the north end of the proposed access road corridor. In this area the track crosses a flat plain along the north side of the North Platte River Valley. Sediment is alluvium varying from loam to silt loam, and sandy loam. Vegetation within the ROW is grasses with occasional trees along the ROW fences. Surface visibility averages 30 percent. Existing disturbances include continued use, maintenance, and replacement of railroad components. The first recorded segment measures 4,017 ft (1,224 m) long and 50 ft (15 m) wide including double tracks ballast gravel, covering 18,360 sq. m of private lands (Figure 1a; Figure 100).

This segment of the historic O&RV / Union Pacific Railroad consists of a double set of modern steel railroad tracks supported by modern concrete railroad ties with gravel ballast. The road crossing is a concrete flush crossing. No historic elements were observed within the inventory area.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with Segment 1 recommended as non-contributing. The O&RV Railway connected dozens of towns along the tracks between North Platte, Nebraska, and Scottsbluff, Nebraska. The construction of this line was important to the economic and commercial development of northwestern Nebraska, and maintaining the economic viability of the Union Pacific Railroads which was a major driver of development across the American West. This site is associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). This site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location is intact; but, the historic rails, ties, and road crossings have been modernized and completely replaced with modern materials such as the flush concrete road crossings and concrete ties. These upgrades have eliminated the integrity of design, setting, materials, workmanship, feeling, and association. As a result, the physical components of this site do not provide any new information on historic railroad transportation, construction, technology, or economics, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the historic O&RV / Union Pacific Railroad is within the inventory area and APE of the proposed project. Specifically, each segment is encountered at the start of a proposed access road route. However, each of these segments has poor physical integrity and does not contribute to overall eligibility of the site. Additionally, the physical aspects of this site do not support eligibility under Criterion A, and the proposed project will not alter nor damage the functioning railroad tracks. Based on this, the O&RV / Union Pacific Railroad will not be affected. No avoidance or further work is recommended.



Figure 100. O&RV / Union Pacific Railroad: Segment 1 overview at the north end of the Keith Lincoln access road corridor survey area. View to the west. Photograph taken on July 15, 2025.

Segment 2

Segment 2 is situated within the North Platte inventory area at the south end of a proposed access road corridor and extends to the southern end of the proposed Paxton Hershey access road corridor. In this area the track crosses flat ground along the south side of the North Platte River Valley. Sediment is alluvium varying from loam to silt loam, and sandy loam. Vegetation within the ROW is grasses with occasional bushes and trees along the ROW edges. Vegetation within the ROW is grasses with occasional trees along the ROW fences. Surface visibility averages 20 percent. Existing disturbances to this site include continued use, maintenance, and replacement of railroad components. The second recorded segment of this railroad measures 10,115 ft (3,083 m) long and 50 ft (15 m) wide, including double tracks ballast gravel, covering 46,245 sq. m of private lands (Figure 1b; Figure 101 and Figure 102).

This segment of the historic O&RV / Union Pacific Railroad consists of a double set of modern steel railroad tracks supported by modern concrete railroad ties with gravel ballast. The road crossings in the North Platte and Hershey Paxton survey parcels are both concrete flush crossings with asphalt approaches. No historic elements were observed within the inventory area.

If this linear resource were to be documented as an architectural or archaeological site it would be recommended eligible for inclusion in the NRHP with Segment 2 recommended as non-contributing. The O&RV Railway connected dozens of towns along the tracks between North Platte, Nebraska, and Scottsbluff, Nebraska. The construction of this line was important to the economic and commercial development of northwestern Nebraska, and maintaining the economic viability of the Union Pacific Railroads which was a major driver of development across the American West. This site is associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). This site is not associated with the lives of significant persons in our past (Criterion B). This site does not contain architecture that may embody the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or that



Figure 101. O&RV / Union Pacific Railroad: Segment 2, overview at the south end of the North Platte / Platte Valley access road corridor. View to the southwest. Photograph taken on July 16, 2025.



Figure 102. O&RV / Union Pacific Railroad: Segment 2, overview at the south end of the Paxton Hershey access road corridor. View to the southwest. Photograph taken on July 16, 2025.

represents a significant and distinguishable entity whose components may lack individual distinction (Criterion C). The integrity of location is intact; but, the historic rails, ties, and road crossings have been modernized and completely replaced with modern materials such as the flush concrete road crossings and concrete ties. These upgrades have eliminated the integrity of design, setting, materials, workmanship, feeling, and association. As a result, the physical components of this site do not provide any new information on historic railroad transportation, construction, technology, or economics, and has not yielded and is not likely to yield information important in prehistory or history (Criterion D).

This segment of the historic O&RV / Union Pacific Railroad is within the inventory area and APE of the proposed project. Specifically, each segment is encountered at the start of a proposed access road route. However, each of these segments has poor physical integrity and does not contribute to overall eligibility of the site. Additionally, the physical aspects of this site do not support eligibility under Criterion A, and the proposed project will not alter nor damage the functioning railroad tracks. Based on this, the O&RV / Union Pacific Railroad will not be affected. No avoidance or further work is recommended.

VIII. RECOMMENDATIONS AND SUMMARY

Sites 25LN148, LN00-260, LN00-261, and KH00-104 are recommended not eligible for inclusion in the NRHP. No avoidance or further work is recommended for these sites and architectural resources. The seven historic linear resources, including the Keith Lincoln Canal, North Platte Canal, Paxton Hershey Canal, Birdwood Canal, Suburban Canal, Cody Dillon Canal, and O&RV / Union Pacific Railroad are recommended as eligible for inclusion in the NRHP under Criterion A. The Cody Dillon Canal is also recommended as eligible under Criterion B. However, each of the recorded segments of these historic linear resources retain poor physical integrity and are recommended as non-contributing to the overall eligibility of each site. Furthermore, the eligibility of these sites as important events (Criterion A), and for association with an important person (Criterion B for the Cody Dillon Canal), is not dependent upon the physical characteristics of these sites. As a result, no avoidance or further work is recommended for these resources and a determination of no historic properties effected is recommended for the East Clear Creek Watershed Environmental Assessment project.

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APPENDIX A. STUDY AREA RECORDS REVIEW MAPS AT 1:24,000 SCALE

(maps removed)

APPENDIX B. PREVIOUSLY RECORDED HISTORIC STRUCTURES WITHIN THE STUDY AREA

Table B-1. Previously Identified Historic Structures.

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
KH00-079	Extant	1935	Not Provided	Telegraph Exchange	Eligible: Individual
KH00-078	Extant	1885	School	School	Eligible: Individual
KH00-081	Extant	1923	School	School	More Information Needed
LN06-167	Extant	1908	Field House	Sam Deitrich House	Eligible: Individual
LN08-021	Extant	1919	Vanarskall, William House	Paulman, Arlis	More Information Needed
LN06-748	Extant	1948	Woodgate Garage Building	Machine Shed	Listed District: Contributing
LN00-032	Extant	1914-15	Sutherland State Aid Bridge (Birdwood Bridge)	Linc04, C005661710	Listed: Individual
LN00-031	Non-Extant	1927-28	Hershey State Aid Bridges	Linc03, C005612930; C0056112935	Not Eligible
LN00-033	Non-Extant	1923	Birdwood Creek Bridge	Linc01, C005602205	Not Eligible
KH00-076	Extant	1904	House	House	More Information Needed
KH07-002	Extant	1908	House	House	More Information Needed
LN06-560	Extant	1907	Lamb Building	Former Hospital	Listed District: Contributing
KH00-075	Non-Extant	1908	Farmhouse	Farmhse & Barn	Not Eligible
KH00-077	Extant	1900	Farm	Farm	More Information Needed
KH00-080	Extant	1922	Not Provided	Farm	More Information Needed
LN06-074	Extant	1918	House	Everley, Kathryn, House	Not Eligible
LN06-057	Extant	2003	Metal Panel Building	Dollar General	Listed District: Non- contributing
LN08-020	Extant	1900	Coates, Frank House	Dike, Hazel House	More Information Needed
LN06-712	Extant	Ca. 1948	Auto Dealership/Garage	Cornhusker Tractor	Listed District: Contributing
KH07-001	Extant	1890	Comm Bldg/Shop	Comm Bldg/Shop	More Information Needed
LN06-075	Extant	1940	House	Chambers, Grace, House	Not Eligible
LN00-012	Extant	1886; 1887	Scouts Rest Ranch	Buffalo Bill Ranch State Historical Park	Listed: Individual
LN08-012	Extant	1914	Spaulding, Earl House	Aly, Howard House	More Information Needed
LN00-001	Extant	1930	Taft School	7Th Day Adventist Church/School	Eligible: Individual
LN00-002	Extant	1921	Platte Valley School Dist 8		Not Eligible
LN00-003	Extant	1915	Barn and Windmill		More Information Needed
LN00-004	Extant	1923	Maria Lutheran Church		More Information Needed
LN00-005	Extant	1885	Stone Farmhouse		Eligible: Individual
LN00-024	Extant	Not Provided	Brady Union Pacific Depot		More Information Needed
LN00-025	Extant	Not Provided	Hershey Union Pacific Depot & Trains In Cody Park		More Information Needed
LN00-026	Extant	Not Provided	Farmstead		Not Eligible
LN00-056	Extant	1947	Pawnee Drive-In Theater		Eligible: Individual
LN00-182	Extant	1927	Farm With Non-contributing House		More Information Needed
LN00-183	Extant	1920	Farmhouse On Non-contributing Farm		More Information Needed
LN00-185	Extant	1910	Farmstead		More Information Needed
LN00-188	Extant	1910	Abandoned Farmstead		More Information Needed
LN00-189	Extant	1885	Abandoned Farmhouse		More Information Needed
LN00-190	Extant	1915	Ranch		More Information Needed
LN00-193	Extant	1885	Abandoned Farmhouse		More Information Needed
LN00-194	Extant	1890	Riverside Cemetery		More Information Needed
LN00-195	Extant	1905	House & Barn		Eligible: Individual
LN00-196	Extant	1915	Farmstead		More Information Needed
LN00-197	Extant	1920	Farmstead		More Information Needed
LN00-198	Extant	1920	Barn On Non-contributing Farm		More Information Needed
LN00-199	Extant	1900; 1925	Farmstead		More Information Needed
LN00-200	Extant	1900; 1920	Farmstead		More Information Needed
LN00-201	Extant	1927	Farmstead		More Information Needed
LN03-001	Extant	Not Provided	Former Bank		Not Eligible
LN03-002	Non-Extant	Not Provided	Garage		Not Eligible
LN03-003	Extant	Not Provided	House		Not Eligible
LN03-004	Extant	Not Provided	House		More Information Needed
LN03-005	Extant	1920	Commercial Building		More Information Needed
LN03-006	Extant	1905	House		More Information Needed

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
LN03-007	Extant	1905	House		More Information Needed
LN03-008	Extant	1925	Hershey Water Tower		More Information Needed
LN03-009	Extant	1900	House		More Information Needed
LN03-010	Extant	1890	House		More Information Needed
LN03-011	Extant	1900	House		More Information Needed
LN03-012	Extant	1905	House		More Information Needed
LN03-013	Extant	1900	House		More Information Needed
LN03-014	Extant	1905	House		More Information Needed
LN03-015	Extant	1927; 1930	Abandoned Motel Court		Eligible: Individual
LN03-016	Extant	1890	House		More Information Needed
LN03-017	Extant	1900	House		More Information Needed
LN03-018	Extant	1910	House		More Information Needed
LN03-019	Extant	1905	House		More Information Needed
LN03-021	Extant	1908	House		Eligible: Individual
LN03-022	Extant	1910	House		Eligible: Individual
LN03-023	Extant	1915	House		More Information Needed
LN03-024	Extant	1915	House		More Information Needed
LN03-104		Not Provided	Not Provided		More Information Needed
LN05-184		Not Provided	Not Provided		More Information Needed
LN06-001	Extant	Not Provided	House		More Information Needed
LN06-002	Extant	Not Provided	House		Not Eligible
LN06-003	Extant	1895	House		Eligible: Individual
LN06-004	Extant	1895	House		Eligible: Individual
LN06-005	Extant	Not Provided	House		Not Eligible
LN06-006	Extant	Not Provided	House		Not Eligible
LN06-007	Extant	Not Provided	House		Not Eligible
LN06-008	Extant	Not Provided	House		Not Eligible
LN06-009	Extant	1908	House		Eligible: Individual
LN06-011	Extant	1910	House		Eligible: Individual
LN06-012	Extant	1908	House		Eligible: Individual
LN06-013	Extant	Not Provided	Iddings-Hornbacher House		More Information Needed
LN06-014	Extant	1900	House		Eligible: Individual
LN06-015	Extant	1910	House		Eligible: Individual
LN06-016	Extant	1910	House		Eligible: Individual
LN06-017	Extant	Not Provided	House		Not Eligible
LN06-018	Extant	Not Provided	House		Not Eligible
LN06-019	Extant	Not Provided	House		Eligible: Individual
LN06-020	Extant	1935	House		Eligible: Individual
LN06-021	Extant	1935	House		Eligible: Individual
LN06-022	Extant	Not Provided	House		Not Eligible
LN06-023	Extant	Not Provided	House		Not Eligible
LN06-024	Extant	1938	House		Eligible: Individual
LN06-026	Non-Extant	1909	Washington School		Not Eligible
LN06-027	Non-Extant	1930	North Platte High School		Not Eligible
LN06-028	Extant	1893	House		Eligible: Individual
LN06-029	Extant	1890	House		Eligible: Individual
LN06-030	Extant	1940	House		Eligible: Individual
LN06-042	Extant	Not Provided	1St United Presbyterian Church		Not Eligible
LN06-043	Extant	1925; 1965	1St Evangelical Church		Eligible: Individual
LN06-052	Non-Extant	1923	Roosevelt School		Not Eligible
LN06-053	Extant	1949	Church Of Christ		Not Eligible
LN06-054	Non-Extant	1908	Lincoln High School		Not Eligible
LN06-055	Extant	Not Provided	House		Not Eligible
LN06-056	Extant	Not Provided	Duplex		More Information Needed
LN06-058	Extant	1900	House		Not Eligible
LN06-059	Extant	1910	House		Not Eligible
LN06-060	Extant	1910	House		Not Eligible
LN06-061	Extant	1910	House		Eligible: Individual
LN06-076	Extant	1917	House		More Information Needed
LN06-077	Extant	1937	House		More Information Needed
LN06-078	Extant	1928	House		Eligible: Individual
LN06-079	Extant	1935	House		More Information Needed
LN06-080	Extant	1935	House		More Information Needed
LN06-081	Extant	1935	House		More Information Needed
LN06-082	Extant	1913	House		More Information Needed

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
LN06-083	Extant	1915	House		More Information Needed
LN06-084	Extant	1908	House		More Information Needed
LN06-085	Extant	1915	House		More Information Needed
LN06-086	Extant	1937	House		More Information Needed
LN06-087	Extant	1890	House		More Information Needed
LN06-088	Extant	1929	House		More Information Needed
LN06-089	Extant	1917	House		More Information Needed
LN06-090	Extant	1917	House		More Information Needed
LN06-091	Extant	1925	House		More Information Needed
LN06-092	Extant	1927	House		More Information Needed
LN06-093	Extant	1925	House		More Information Needed
LN06-094	Extant	1910	House		More Information Needed
LN06-095	Extant	1910	House		More Information Needed
LN06-096	Extant	1918	House		More Information Needed
LN06-097	Extant	1918	House		More Information Needed
LN06-098	Extant	1918	House		More Information Needed
LN06-099	Extant	1937	House		More Information Needed
LN06-100	Extant	1937	House		More Information Needed
LN06-101	Extant	1938	House		More Information Needed
LN06-102	Extant	1920	House		More Information Needed
LN06-103	Extant	1938	House		Eligible: Individual
LN06-105	Extant	1895	House		More Information Needed
LN06-106	Extant	1937	Duplex		More Information Needed
LN06-107	Extant	1928	House		More Information Needed
LN06-108	Extant	1938	House		Eligible: Individual
LN06-110	Extant	1920	House		More Information Needed
LN06-111	Extant	1928	House		More Information Needed
LN06-112	Extant	1895	House		More Information Needed
LN06-113	Extant	1938	Duplex		More Information Needed
LN06-114	Extant	1915	House		More Information Needed
LN06-115	Extant	1920	House		More Information Needed
LN06-116	Extant	1915	House		More Information Needed
LN06-117	Extant	1927	House		Eligible: Individual
LN06-118	Extant	1938	House		More Information Needed
LN06-119	Extant	1890	House		More Information Needed
LN06-120	Extant	1927	House		More Information Needed
LN06-121	Extant	1938	House		Eligible: Individual
LN06-122	Extant	1895	House		Eligible: Individual
LN06-123	Extant	1918	House		More Information Needed
LN06-124	Extant	1938	House		Eligible: Individual
LN06-125	Extant	1938	House		Eligible: Individual
LN06-126	Extant	1917	House		More Information Needed
LN06-127	Extant	1928	House		More Information Needed
LN06-128	Extant	1925	House		More Information Needed
LN06-129	Extant	1925	House		Eligible: Individual
LN06-130	Extant	1920	House		More Information Needed
LN06-131	Extant	1918	House		More Information Needed
LN06-132	Extant	1915	House		More Information Needed
LN06-133	Extant	1918	House		More Information Needed
LN06-134	Extant	1915	House		More Information Needed
LN06-135	Extant	1917	House		More Information Needed
LN06-136	Extant	1920	House		More Information Needed
LN06-137	Extant	1920	House		More Information Needed
LN06-138	Extant	1920	House		More Information Needed
LN06-140	Extant	1925	House		More Information Needed
LN06-147	Extant	1937	House		Eligible: Individual
LN06-148	Extant	1937	House		Eligible: Individual
LN06-149	Extant	1910	House		More Information Needed
LN06-150	Extant	1920	House		More Information Needed
LN06-151	Extant	1915	House		More Information Needed
LN06-152	Extant	1920	House		Eligible: Individual
LN06-153	Extant	1920	House		More Information Needed
LN06-154	Extant	1890	House		More Information Needed
LN06-155	Extant	1920	House		More Information Needed
LN06-156	Extant	1908	Duplex		More Information Needed

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
LN06-157	Extant	1937	House		Eligible: Individual
LN06-158	Extant	1920	House		Eligible: Individual
LN06-159	Extant	1927	House (Now Florist Shop)		Eligible: Individual
LN06-160	Extant	1935	Comm Bldg		More Information Needed
LN06-161	Extant	1895	House		More Information Needed
LN06-162	Extant	1895	House		Eligible: Individual
LN06-164	Extant	1895	House (Now Commercial On 1St Level)		More Information Needed
LN06-165	Extant	1915	House		Eligible: Individual
LN06-166	Extant	1910	House (Now Apts)		More Information Needed
LN06-168	Extant	1927	House		Eligible: Individual
LN06-169	Extant	1895	House & Apt Building		More Information Needed
LN06-170	Extant	1900	House		More Information Needed
LN06-171	Extant	1913	Former Hospital (Now Apt)		Eligible: Individual
LN06-172	Extant	1905	House		Not Eligible
LN06-173	Extant	1917	House		More Information Needed
LN06-174	Extant	1895	House		More Information Needed
LN06-175	Extant	1895; 1928	House		More Information Needed
LN06-179	Extant	1915	House		More Information Needed
LN06-180	Extant	1890	Boarding House (Now Apt)		More Information Needed
LN06-181	Extant	1895	House		More Information Needed
LN06-182	Extant	1915	House		More Information Needed
LN06-183	Extant	1910	House		Eligible: Individual
LN06-184	Extant	1890	House		Eligible: Individual
LN06-185	Extant	1905	House		More Information Needed
LN06-186	Extant	1918	Former Fire Station		Eligible: Individual
LN06-187	Extant	1900	House		More Information Needed
LN06-188	Extant	1937	Duplex		Eligible: Individual
LN06-189	Extant	1913	House		More Information Needed
LN06-190	Extant	1918	House		More Information Needed
LN06-191	Extant	1925	House		More Information Needed
LN06-192	Extant	1890	House		More Information Needed
LN06-193	Extant	1918	House		More Information Needed
LN06-194	Extant	1920	House		More Information Needed
LN06-211	Extant	1900	House		More Information Needed
LN06-212	Extant	1935	House		More Information Needed
LN06-213	Extant	1936	House		More Information Needed
LN06-214	Extant	1935	House		More Information Needed
LN06-215	Extant	1936	House		More Information Needed
LN06-216	Extant	1936	House		More Information Needed
LN06-217	Extant	1937	House		More Information Needed
LN06-218	Extant	1937	Duplex		More Information Needed
LN06-219	Extant	1935	House		More Information Needed
LN06-220	Extant	1937	House		More Information Needed
LN06-221	Extant	1927	House		More Information Needed
LN06-222	Extant	1927	House		More Information Needed
LN06-223	Extant	1927	House		More Information Needed
LN06-224	Extant	1925	House		More Information Needed
LN06-225	Extant	1918	House		More Information Needed
LN06-226	Extant	1918	House		More Information Needed
LN06-227	Extant	1920	House		More Information Needed
LN06-228	Extant	1925	House		More Information Needed
LN06-229	Extant	1918	House		More Information Needed
LN06-230	Extant	1937	House		More Information Needed
LN06-231	Extant	1918	House		More Information Needed
LN06-232	Extant	1920	House		More Information Needed
LN06-233	Extant	1915	House		More Information Needed
LN06-234	Extant	1920	House		More Information Needed
LN06-235	Extant	1920	House		More Information Needed
LN06-236	Extant	1920	House		More Information Needed
LN06-237	Extant	1925	House		More Information Needed
LN06-238	Extant	1925	House		More Information Needed
LN06-239	Extant	1924	House		More Information Needed
LN06-240	Extant	1920	House		More Information Needed
LN06-241	Extant	1905	House (Sod Or Adobe)		Eligible: Individual

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
LN06-242	Extant	1920	House		More Information Needed
LN06-243	Extant	1920	House		More Information Needed
LN06-244	Extant	1920	House		More Information Needed
LN06-245	Extant	1918	House		More Information Needed
LN06-246	Extant	1918	House		More Information Needed
LN06-247	Extant	1915	House		More Information Needed
LN06-248	Extant	1905	House		More Information Needed
LN06-249	Extant	1923	House		More Information Needed
LN06-250	Extant	1890	House		More Information Needed
LN06-252	Extant	1927	House		More Information Needed
LN06-253	Extant	1927	Former Commerce Building/House (Now Apts)		More Information Needed
LN06-254	Extant	1925	Duplex		More Information Needed
LN06-255	Extant	1915	House		More Information Needed
LN06-256	Extant	1935	House		More Information Needed
LN06-257	Extant	1937	House		More Information Needed
LN06-258	Extant	1927	House		More Information Needed
LN06-259	Extant	1937	House		More Information Needed
LN06-262	Extant	1937	House		More Information Needed
LN06-264	Extant	1937	House		More Information Needed
LN06-265	Extant	1937	House		More Information Needed
LN06-266	Extant	1937	House		More Information Needed
LN06-267	Extant	1937	House		More Information Needed
LN06-268	Extant	1937	House		More Information Needed
LN06-269	Extant	1937	House		More Information Needed
LN06-270	Extant	1942	House		More Information Needed
LN06-272	Extant	1942	House		More Information Needed
LN06-274	Extant	1940	Duplex		More Information Needed
LN06-275	Extant	1940	Duplex		More Information Needed
LN06-276	Extant	1940	Duplex		More Information Needed
LN06-277	Extant	1940	House		Eligible: Individual
LN06-561	Extant	1923	Commercial Building		Listed District: Contributing
LN06-562	Extant	1922	Commercial Building		Listed District: Contributing
LN06-563	Extant	1916	Julius Mogensen Building		Listed District: Contributing
LN06-564	Extant	1935	Cody Park		Eligible: Individual
LN06-565	Extant	1921 and 1923	Buick Building and Eshelman's Feed Store		Listed District: Contributing
LN06-566	Extant	1920	House		More Information Needed
LN06-567	Extant	1890	House		More Information Needed
LN06-571	Extant	1900	House		More Information Needed
LN06-572	Extant	1910	House		More Information Needed
LN06-573	Extant	1925	Boarding House		More Information Needed
LN06-574	Extant	1925	House		Eligible: Individual
LN06-575	Extant	1905	House		Eligible: Individual
LN06-576	Extant	1905	House		More Information Needed
LN06-577	Extant	1910	House		More Information Needed
LN06-578	Extant	1885	House		Eligible: Individual
LN06-579	Extant	1927	Duplex		More Information Needed
LN06-583	Extant	1905	House		More Information Needed
LN06-584	Extant	1915	House		Eligible: Individual
LN06-585	Extant	1940	Commerce Building/Warehouse		More Information Needed
LN06-586	Extant	1910	House		More Information Needed
LN06-587	Extant	1910	House		More Information Needed
LN06-588	Extant	1905	House		More Information Needed
LN06-589	Extant	1905	House		Eligible: Individual
LN06-590	Extant	1910	House		More Information Needed
LN06-591	Extant	1890; 1920	House		More Information Needed
LN06-592	Extant	1915	House		More Information Needed
LN06-593	Extant	1905	House		More Information Needed
LN06-594	Extant	1925	House		More Information Needed
LN06-595	Extant	1905	House		More Information Needed
LN06-596	Extant	1905	House		More Information Needed
LN06-597	Extant	1928	House		More Information Needed

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
LN06-598	Extant	1900	House		More Information Needed
LN06-599	Extant	1927	House		More Information Needed
LN06-600	Extant	1920	House		More Information Needed
LN06-606	Extant	1940	House		Eligible: Individual
LN06-607	Extant	1940	House		Eligible: Individual
LN06-608	Extant	1937	House		More Information Needed
LN06-609	Extant	1942	House		More Information Needed
LN06-610	Extant	1940	House		More Information Needed
LN06-623	Extant	1940	House		More Information Needed
LN06-624	Extant	1937	House		More Information Needed
LN06-625	Extant	1937	Urban Farm (Federal Farm)		More Information Needed
LN06-626	Extant	1937	House		More Information Needed
LN06-627	Extant	1885	Urban Farm		More Information Needed
LN06-628	Extant	1937	Urban Farm (Federal Farm)		More Information Needed
LN06-629	Extant	1937	Urban Farm (Federal Farm)		More Information Needed
LN06-630	Extant	1915	House		More Information Needed
LN06-632	Extant	1928	House		More Information Needed
LN06-649	Extant	1920	House		More Information Needed
LN06-651	Extant	1940	House		More Information Needed
LN06-652	Extant	1925	House		More Information Needed
LN06-653	Extant	1925	House		More Information Needed
LN06-654	Extant	1920	House		More Information Needed
LN06-655	Extant	1910	House		More Information Needed
LN06-656	Extant	1948	Gas Station		More Information Needed
LN06-657	Extant	1947	Gas Station		More Information Needed
LN06-658	Extant	1920	Former Filling Station (Now Cafe)		More Information Needed
LN06-659	Extant	1917	House		More Information Needed
LN06-660	Extant	1913	House		More Information Needed
LN06-661	Extant	1905	House		More Information Needed
LN06-662	Extant	1905	House		More Information Needed
LN06-663	Extant	1900	House		More Information Needed
LN06-664	Extant	1938	House		Eligible: Individual
LN06-665	Extant	1905	House		More Information Needed
LN06-666	Extant	1915	House		More Information Needed
LN06-667	Extant	1890	House		Eligible: Individual
LN06-668	Extant	1937	House		More Information Needed
LN06-669	Extant	1917	House		More Information Needed
LN06-670	Extant	1927	House		More Information Needed
LN06-671	Extant	1908	House		More Information Needed
LN06-672	Extant	1908	House		More Information Needed
LN06-673	Extant	1925	Abandoned Commerce Building		More Information Needed
LN06-674	Extant	1905	House		Eligible: Individual
LN06-675	Extant	1937	House		Eligible: Individual
LN06-676	Extant	1915	House		More Information Needed
LN06-677	Extant	1927	Duplex		Eligible: Individual
LN06-678	Extant	1920	House		More Information Needed
LN06-679	Extant	1920	House		More Information Needed
LN06-680	Extant	1918	House		More Information Needed
LN06-681	Extant	1890	House		More Information Needed
LN06-682	Extant	1937	House		More Information Needed
LN06-683	Extant	1920	House		More Information Needed
LN06-684	Extant	1920	House		More Information Needed
LN06-685	Extant	1918	House		More Information Needed
LN06-686	Extant	1918	House		More Information Needed
LN06-687	Extant	1920	House		Eligible: Individual
LN06-688	Extant	1890	House		More Information Needed
LN06-689	Extant	1918	House		More Information Needed
LN06-690	Extant	1942	House		More Information Needed
LN06-691	Extant	1890	Residential Garage		More Information Needed
LN06-692	Extant	1937	Log Cabin Cafe, Filling Station & Cafe		Eligible: Individual
LN06-693	Extant	1947	Lazy J Motel (Now Apts)		More Information Needed
LN06-694	Extant	1947	Wagon Wheel Motel (Now Apts)		More Information Needed
LN06-695	Extant	1917	Former Filling Station		More Information Needed
LN06-696	Extant	1947	Motel Cabin		More Information Needed

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
LN06-697	Extant	1948	Trails West Cafe Sign		More Information Needed
LN06-698	Extant	1885	North Platte Cemetery		Eligible: Individual
LN06-699	Extant	1940	Western Motel (Formerly Aquila Court)		More Information Needed
LN06-700	Extant	1947	El Rancho Motel (Now Apts)		More Information Needed
LN06-701	Extant	1937	Former Motel (Now Apts)		More Information Needed
LN06-702	Extant	1908	House		More Information Needed
LN06-703	Extant	1937	Cedar Lodge Motel Court		Eligible: Individual
LN06-705	Extant	1960	Sunset Mobile Park		More Information Needed
LN06-706	Extant	1950	Scout Motel Sign		More Information Needed
LN06-707	Extant	1955	Rambler Motel		More Information Needed
LN06-708	Extant	1960	Stop Inn Motel		More Information Needed
LN06-709	Extant	1950	Former Motel		More Information Needed
LN06-710	Extant	1940	North Platte Bakery and Coffee Shop Neon Sign		More Information Needed
LN06-719	Extant	Not Provided	House		More Information Needed
LN06-720	Extant	1955	National Guard Readiness Center & Garage Facility		Eligible: District
LN06-721	Extant	1972	Circular House		More Information Needed
LN06-726	Not Provided	Not Provided	Not Provided		More Information Needed
LN06-739	Extant	1947	Electric Co		Listed District: Contributing
LN06-740	Extant	1915	Broadmoor Hotel		Listed District: Contributing
LN06-741	Extant	1915	Ritner Hotel		Listed District: Non-contributing
LN06-745	Not Provided	Not Provided	Not Provided		More Information Needed
LN06-746	Extant	1925	Woodgate Building		Listed District: Contributing
LN06-747	Extant	1917	Leypoldt and Pennington		Listed District: Contributing
LN06-749	Extant	1947	Franks Farm Equipment		Listed District: Contributing
LN06-750	Not Provided	Not Provided	Not Provided		More Information Needed
LN06-751	Not Provided	Not Provided	Not Provided		More Information Needed
LN06-753	Not Provided	Not Provided	Not Provided		More Information Needed
LN06-754	Extant	1945	Schlientz Implement Co		Listed District: Contributing
LN06-755	Extant	Ca. 1942	Neve Building		Listed District: Contributing
LN08-001	Extant	1912	Wesleyan Church (Now Boutique & Fitness Center)		More Information Needed
LN08-002	Extant	1912	Sutherland Depot		Not Eligible
LN08-003	Extant	1912	First Security Bank		Not Eligible
LN08-004	Extant	1912	House		More Information Needed
LN08-005	Non-Extant	Not Provided	Grace Lutheran Church		Not Eligible
LN08-006	Extant	1890	Rodeo Office		More Information Needed
LN08-007	Extant	1890	House		More Information Needed
LN08-008	Extant	1905	House		More Information Needed
LN08-010	Extant	1891	House		More Information Needed
LN08-011	Extant	1915	House		More Information Needed
LN08-013	Extant	1915	House		More Information Needed
LN08-014	Extant	1920	House		Eligible: Individual
LN08-015	Extant	1917	House		More Information Needed
LN08-016	Extant	1908	House		More Information Needed
LN08-017	Extant	1900	House		More Information Needed
LN08-018	Extant	1915	House		More Information Needed
LN08-019	Extant	1927; 1937	Filling Station & Service Garage		Eligible: Individual
LN08-022	Extant	1915	House		More Information Needed
LN08-023	Extant	1920	House		More Information Needed
LN08-024	Extant	1890	House		More Information Needed
LN08-025	Extant	1918	House		More Information Needed
LN08-026	Extant	1890; 1880	House With Former House		More Information Needed
LN08-027	Extant	1917	House		More Information Needed
LN08-028	Extant	1900	House		More Information Needed
LN08-029	Extant	1905	House		More Information Needed

SHPO ID	Extant	Date	Structure Type/Name	Other Name(s)	NR Status/Eligibility
LN08-030	Extant	1915	House		More Information Needed
LN08-031	Extant	1917	House		More Information Needed
LN08-032	Extant	1910	House		More Information Needed
LN08-033	Extant	1928	Commerce Garage/Auto Dealership		More Information Needed
LN08-034	Extant	1920	Commerce Building		More Information Needed
LN08-035	Extant	1931	Former Sutherland Town Hall		More Information Needed
LN08-036	Extant	1910	House		More Information Needed
LN08-037	Extant	1920	House		More Information Needed
LN08-038	Extant	1895	House		More Information Needed
LN08-039	Extant	1938	House		Eligible: Individual
LN08-040	Extant	1917	House		More Information Needed
LN08-041	Extant	1927	Former Filling Station		Eligible: Individual
LN08-042	Extant	1927	Former Filling Station/Cafe		More Information Needed
LN08-043	Extant	1927; 1950	Park Motel & Service Station		More Information Needed
LN08-044	Extant	1927	Former Motel Court (Now Apts)		Eligible: Individual
LN08-045	Extant	1950	Service Station/Restaurant		More Information Needed
LN08-046	Extant	1930	Former Filling Station		Eligible: Individual
LN08-048	Extant	1927-1930	Lincoln Hwy Marker		Eligible: Individual
LN08-049	Extant	1890	Abandoned House		More Information Needed
LN08-050	Extant	1925	Split Log House		Eligible: Individual
LN08-051	Extant	1905	House		More Information Needed
LN08-052	Extant	1900	Adobe Brick House		Eligible: Individual
LN08-053	Extant	1900	Abandoned Elevator		More Information Needed
LN00-258	Extant	Not Provided	Frels Sod House		Eligible: Individual
LN06-787	Extant	Ca. 1920	Best Laundry		Listed District: Contributing
LN06-788	Extant	Ca. 1942	Shrake Auto Body		Listed District: Contributing
LN06-801	Extant	1921	Ideal Dairy		Listed District: Contributing
LN06-802	Extant	1921	Warehouse		Listed District: Contributing
LN06-804	Extant	1920	Woodgate Building		Listed District: Contributing
LN06-806	Extant	1929	Commercial Building		Listed District: Contributing
LN06-807	Extant	1960	Commercial Building		Listed District: Non-contributing
LN06-809	Extant	1915	Nelson and Co		Listed District: Non-contributing
LN06-810	Extant	1915	Commercial Building		Listed District: Non-contributing
LN06-811	Extant	1920	Logan Buick		Listed District: Contributing
LN06-813	Extant	1921	Hay and Feed Building		Listed District: Non-contributing
LN06-818	Extant	2009	UHaul		Listed District: Non-contributing
LN08-055	Extant	Not Provided	Rodeo Grounds		Eligible: Individual

APPENDIX C. GENERAL LAND OFFICE LAND PATENT RECORDS WITHIN THE STUDY AREA

Table C-1. GLO Land Patent Records within the Study Area.

Section	Patentee	Date	Accession Number	Authority	County
18	Frederick N Dick	11/16/1891	TC-0194-390	1873 Timber Culture Act	Lincoln
18	Frederick Silvernail	7/14/1891	NE2070.496	1862 Homestead Act	Lincoln
20	Hugh T Crocket	3/10/1876	NE2030.098	1862 Homestead Act	Lincoln
20	Frederick A Landers	4/5/1877	NE2030.158	1862 Homestead Act	Lincoln
22	Edward Calhoun	9/20/1876	NE2030.112	1862 Homestead Act	Lincoln
22	George G Ensign	3/4/1882	NE2030.375	1862 Homestead Act	Lincoln
22	William Hubartt	2/20/1877	NE2030.147	1862 Homestead Act	Lincoln
22	John R Worthley	10/14/1890	NE2060.237	1862 Homestead Act	Lincoln
28	Josephus Hubartt	3/7/1890	NE2050.247	1862 Homestead Act	Lincoln
28	Charles F Ormsby	3/10/1875	NE1920.054	1820 Sale Cash Act	Lincoln
28	Franklin Peale	10/30/1874	NE2030.016	1862 Homestead Act	Lincoln
28	Leicester Walter	4/30/1874	NE2030.001	1862 Homestead Act	Lincoln
30	Sylvester Beezley	10/30/1874	NE2030.012	1862 Homestead Act	Lincoln
30	James N Calhoon	2/20/1877	NE2030.146	1862 Homestead Act	Lincoln
30	John Landers	9/20/1876	NE2030.110	1862 Homestead Act	Lincoln
30	Edward Thorp	9/20/1876	NE2030.111	1862 Homestead Act	Lincoln
30	Samuel W Young	10/30/1874	NE2030.011	1862 Homestead Act	Lincoln
32	Henry Barrett	3/10/1875	NE1920.035	1820 Sale Cash Act	Lincoln
32	Joseh Chandler	10/30/1874	NE2030.019	1862 Homestead Act	Lincoln
32	Morgan W Davis	6/30/1876	NE2030.109	1862 Homestead Act	Lincoln
32	Beach I Hinman	7/15/1873	NE1920.001	1820 Sale Cash Act	Lincoln
32	Nathaniel Russell	7/15/1873	NE1920.004	1820 Sale Cash Act	Lincoln
34	Illinois Industrial University, Morell C Keith	3/2/1874	AGS-0347-001	1862 State Grant-Agri College	Lincoln
34	Illinois Instrial University, Otto Uhlig	3/2/1874	AGS-0347-004	1862 State Grant-Agri College	Lincoln
34	Seymour P Laing	5/20/1875	NE2030.054	1862 Homestead Act	Lincoln
34	Thomas C Patterson	4/30/1874	NE2030.007	1862 Homestead Act	Lincoln
6	George Bobbitt	10/30/1874	NE2030.010	1862 Homestead Act	Lincoln
22	George Bobbitt	4/10/1875	NE2030.047	1862 Homestead Act	Lincoln
6	John P Ell	4/30/1874	NE2030.003	1862 Homestead Act	Lincoln
6	Illinois Industrial University, William Woodhurst	3/2/1874	AGS-0347-003	1862 State Grant-Agri College	Lincoln
6	Augustus Smith	4/30/1874	NE2030.004	1862 Homestead Act	Lincoln
6	Russell J Wyman	7/15/1873	NE1920.003	1820 Sale Cash Act	Lincoln
26	Sofia Grupe	12/12/1907	MV-0699-108	1862 Homestead Act	Lincoln
26	Dennis McKillip	11/3/1910	160057	1862 Homestead Act	Lincoln
28	Hezekiah Ramsey	1/27/1904	NE0740.466	1862 Homestead Act	Lincoln
28	George Schlapp	7/31/1903	NE2340.014	1820 Sale Cash Act	Lincoln
28	Laura Shaw	1/23/1914	379709	1862 Homestead Act	Lincoln
28	William Siebold	4/5/1895	TC-0213-002	1873 Timber Culture Act	Lincoln
4	William Siebold	3/7/1890	NE2050.180	1862 Homestead Act	Lincoln
30	William W Groves	4/20/1911	191851	1862 Homestead Act	Lincoln
32	Daniel B McNeal	7/30/1891	NE2080.131	1862 Homestead Act	Lincoln
32	Austin D McNeil	2/14/1894	TC-0204-196	1873 Timber Culture Act	Lincoln
32	John T Schmalzried	5/9/1890	NE2060.059	1862 Homestead Act	Lincoln
32	Arthur Toops	11/29/1913	368091	1862 Homestead Act	Lincoln
34	William Doebke	2/7/1910	109850	1862 Homestead Act	Lincoln
34	Helen M Ritner, Helen M Randall	4/6/1889	NE2050.020	1862 Homestead Act	Lincoln
4	Helen M Ritner, Helen M Randall	5/23/1893	TC-0201-207	1873 Timber Culture Act	Lincoln
34	William C Ritner	1/2/1895	TC-0209-181	1873 Timber Culture Act	Lincoln
34	William C Ritner	5/21/1889	NE1930.382	1820 Sale Cash Act	Lincoln
2	Lorenzo D George	7/25/1898	NE2140.220	1862 Homestead Act	Lincoln

2	John Mehlhop	6/20/1888	NE2040.407	1862 Homestead Act	Lincoln
2	Louis Peterson	4/25/1894	TC-0204-475	1873 Timber Culture Act	Lincoln
4	Charles Bolin	3/1/1890	NE1950.129	1820 Sale Cash Act	Lincoln
4	Milton W Caywood	8/2/1889	NE1940.013	1820 Sale Cash Act	Lincoln
4	Andrew Nelson	11/9/1891	NE2100.014	1862 Homestead Act	Lincoln
6	Samuel A Ballinger	6/20/1888	NE2040.427	1862 Homestead Act	Lincoln
6	Allen G McNeel	2/20/1894	TC-0204-241	1873 Timber Culture Act	Lincoln
6	Georgie McNeel	1/11/1892	NE2100.478	1862 Homestead Act	Lincoln
8	John Tilford	11/16/1891	TC-0194-387	1873 Timber Culture Act	Lincoln
8	Isaac V Zook	3/17/1903	NE1910.438	1862 Homestead Act	Lincoln
26	Isaac V Zook	5/6/1889	NE2050.117	1862 Homestead Act	Lincoln
10	Guy C Barton	4/18/1890	TC-0187-205	1873 Timber Culture Act	Lincoln
10	Evin Dalton	9/10/1885	NE02040.155	1862 Homestead Act	Lincoln
10	Ransom Davis	4/6/1889	NE2050.004	1862 Homestead Act	Lincoln
10	William J Ferrell	9/10/1885	NE2040.156	1862 Homestead Act	Lincoln
10	David S Thomas	1/20/1880	NE2030.240	1862 Homestead Act	Lincoln
12	Lester Walker	5/11/1900	NE2840.031	1873 Timber Culture Act	Lincoln
14	Louis C Bayer	9/30/1889	NE1940.058	1820 Sale Cash Act	Lincoln
14	Patrick Grady	4/4/1891	NE2060.408	1862 Homestead Act	Lincoln
14	John Hardan	4/10/1875	NE2030.041	1862 Homestead Act	Lincoln
14	William Landgraf	12/10/1894	TC-0208-448	1873 Timber Culture Act	Lincoln
14	Martin Sorensen	2/20/1883	NE2030.499	1862 Homestead Act	Lincoln
18	Thomas Frazier	4/4/1891	NE2060.386	1862 Homestead Act	Lincoln
12	Thomas Frazier	11/16/1891	TC-0194-411	1873 Timber Culture Act	Lincoln
18	Loren E Jones	1/11/1892	NE2100.435	1862 Homestead Act	Lincoln
18	John K Ottenstein	11/13/1895	TC-0219-002	1873 Timber Culture Act	Lincoln
18	William C Winter	1/11/1892	NE2100.438	1862 Homestead Act	Lincoln
20	William Dickinson	3/7/1890	NE2050.237	1862 Homestead Act	Lincoln
20	George Hawley	5/5/1893	NE2120.105	1862 Homestead Act	Lincoln
20	Patrick Kelly	10/14/1890	NE2060.248	1862 Homestead Act	Lincoln
20	William Lee Park	10/26/1892	TC-0198-276	1873 Timber Culture Act	Lincoln
22	Benjamin Contal	2/1/1875	NE2030.031	1862 Homestead Act	Lincoln
22	Charles H Egleston	5/20/1875	NE2030.050	1862 Homestead Act	Lincoln
22	Wade M Johns	10/30/1874	NE2030.014	1862 Homestead Act	Lincoln
22	Thomas M Kirby	2/1/1875	NE2030.027	1862 Homestead Act	Lincoln
22	Clifton Newkirk	5/20/1875	NE2030.053	1862 Homestead Act	Lincoln
22	Stephen B Phillips	2/1/1875	NE2030.028	1862 Homestead Act	Lincoln
22	Joseph Seigle	6/10/1875	NE2030.057	1862 Homestead Act	Lincoln
24	Lorenzo MaComber	12/5/1884	NE1920.336	1820 Sale Cash Act	Lincoln
24	Walter G Thomas	7/2/1886	NE2040.298	1862 Homestead Act	Lincoln
24	Walter J Thomas	1/11/1892	TC-0195-177	1873 Timber Culture Act	Lincoln
24	John D Weir	6/4/1887	NE1920.485	1820 Sale Cash Act	Lincoln
26	Frank J Frederici	7/2/1886	NE2040.180	1862 Homestead Act	Lincoln
26	John Frederici	4/6/1889	NE2050.072	1862 Homestead Act	Lincoln
26	Reuben R Hine	8/25/1882	NE2030.416	1862 Homestead Act	Lincoln
26	Emory W Murphy	1/25/1892	NE2010.234	1820 Sale Cash Act	Lincoln
28	James H Bobbitt	8/4/1891	TC-0193-239	1873 Timber Culture Act	Lincoln
28	Mathew Nagle	1/20/1880	NE2030.235	1862 Homestead Act	Lincoln
28	George Smallwood	2/20/1883	NE2030.491	1862 Homestead Act	Lincoln
28	George Smallwood	7/2/1886	NE2040.168	1862 Homestead Act	Lincoln
28	Albert M Stoddard	4/10/1882	NE2030.395	1862 Homestead Act	Lincoln
30	Samuel A Johnston	5/20/1875	NE2030.055	1862 Homestead Act	Lincoln
30	Zachariah Johnston	10/1/1877	NE2030.169	1862 Homestead Act	Lincoln
30	Zechariah Johnston	10/1/1880	NE2030.301	1862 Homestead Act	Lincoln
30	Oscar W Sullivan	3/17/1897	NE2140.040	1862 Homestead Act	Lincoln

32	Lois Emmons	7/2/1886	NE2040.246	1862 Homestead Act	Lincoln
32	Anders O Kocken	8/4/1891	TC-0193-238	1873 Timber Culture Act	Lincoln
32	Aaron Mills	9/26/1890	NE1970.251	1820 Sale Cash Act	Lincoln
32	William H Smith	3/29/1888	NE1920.491	1820 Sale Cash Act	Lincoln
34	Lucy Allsup, Ralph W Allsup	7/21/1923	912574	1862 Homestead Act	Lincoln
34	Franklin Burk	4/10/1875	NE2030.048	1862 Homestead Act	Lincoln
34	Herman Kallenberg	2/1/1875	NE2030.035	1862 Homestead Act	Lincoln
34	James Smallwood	6/24/1878	NE2030.209	1862 Homestead Act	Lincoln
34	Henry Wilkinson	6/24/1878	NE2030.210	1862 Homestead Act	Lincoln
2	John N Bonner	6/28/1895	TC-0215-399	1873 Timber Culture Act	Lincoln
2	Thomas G Rowley	8/25/1882	NE2030.441	1862 Homestead Act	Lincoln
2	Almond S Senter	10/26/1883	NE1920.279	1820 Sale Cash Act	Lincoln
4	William Scharman	8/14/1893	NE2120.231	1862 Homestead Act	Lincoln
4	Andrew Scharmann	7/30/1891	NE2080.172	1862 Homestead Act	Lincoln
4	Lucien Stebbins	4/18/1890	TC-0187-209	1873 Timber Culture Act	Lincoln
4	Lucien Stebbins	6/20/1888	NE2040.441	1862 Homestead Act	Lincoln
6	Anne Clark	11/16/1895	TC-0218-325	1873 Timber Culture Act	Lincoln
6	Thomas L Dwyer	5/15/1890	NE1960.217	1820 Sale Cash Act	Lincoln
6	William H O'Connell	10/14/1890	NE2060.223	1862 Homestead Act	Lincoln
6	Herman Steinhausen	10/14/1890	NE2060.258	1862 Homestead Act	Lincoln
11	Rollin Emmons	11/15/1875	NE2030.079	1862 Homestead Act	Lincoln
11	Johseph Mackle	4/5/1877	NE2030.159	1862 Homestead Act	Lincoln
11	John E Obeime	11/14/1894	NE2020.188	1820 Sale Cash Act	Lincoln
11	Jesse Osterhout	2/1/1875	NE2030.033	1862 Homestead Act	Lincoln
26	Arthur L Kesterson	1/18/1921	790810	1862 Homestead Act	Lincoln
26	Owen T Lytle	6/19/1914	415319	1862 Homestead Act	Lincoln
28	John I Bartholomew	12/15/1923	923755	1916 Stock Raising Act	Lincoln
28	John Boyle	3/21/1913	319838	1862 Homestead Act	Lincoln
28	Nellie M Boyle	11/7/1950	1130291	1820 Sale Cash Act	Lincoln
32	Jens Christensen	5/1/1906	NE.010.085	1862 Homestead Act	Lincoln
32	William A Dikeman	10/13/1898	NE2770.460	1873 Timber Culture Act	Lincoln
2	William A Dikeman	12/20/1892	NE2020.141	1820 Sale Cash Act	Lincoln
32	Christen Jensen	1/30/1905	NE2980.006	1862 Homestead Act	Lincoln
32	Edward Lunkwitz	12/1/1905	NE3000.374	1862 Homestead Act	Lincoln
34	Evictor B Dikeman	7/25/1895	TC-0217-176	1873 Timber Culture Act	Lincoln
34	Samuel F Dikeman	12/27/1898	NE2140.301	1862 Homestead Act	Lincoln
34	John R Ritner	10/14/1890	NE2060.262	1862 Homestead Act	Lincoln
4	John R Ritner	4/25/1894	TC-0204-466	1873 Timber Culture Act	Lincoln
34	Elijah M Smith	6/30/1905	NE3000.126	1862 Homestead Act	Lincoln
12	Walter Beauchamp	11/22/1894	NE2020.199	1820 Sale Cash Act	Lincoln
12	Philip Klenk	4/6/1889	NE1930.217	1820 Sale Cash Act	Lincoln
14	Patrick Manion	4/6/1889	NE2050.083	1862 Homestead Act	Lincoln
14	Clinton L Patterson	12/5/1884	NE1920.404	1820 Sale Cash Act	Lincoln
14	Irving E Van Doran	2/17/1887	NE1920.453	1820 Sale Cash Act	Lincoln
14	James Ware	1/22/1896	NE2020.223	1820 Sale Cash Act	Lincoln
18	James Cannon	5/16/1890	NE1960.028	1820 Sale Cash Act	Lincoln
18	Jerry M Dewyer	12/9/1890	NE1980.080	1820 Sale Cash Act	Lincoln
18	William Miller	1/7/1890	NE1940.245	1820 Sale Cash Act	Lincoln
18	William A Paxton	4/24/1893	NE2010.357	1820 Sale Cash Act	Lincoln
14	William A Paxton	11/13/1895	TC-0219-014	1873 Timber Culture Act	Lincoln
20	Charles S Guthrie	11/27/1888	NE1930.004	1820 Sale Cash Act	Lincoln
28	Charles S Guthrie	4/25/1895	TC-0214-383	1873 Timber Culture Act	Lincoln
20	George H Sisson	10/26/1892	TC-0198-293	1873 Timber Culture Act	Lincoln
20	George H Sisson	9/15/1891	NE2080.359	1862 Homestead Act	Lincoln
20	Maggie A Wetzel, Maggie A Veach	2/20/1890	NE1940.339	1820 Sale Cash Act	Lincoln

22	John H Hershey	12/5/1884	NE1920.401	1820 Sale Cash Act	Lincoln
22	James B McKee	2/6/1892	NE2010.251	1820 Sale Cash Act	Lincoln
22	William J Patterson	12/5/1884	NE1920.403	1820 Sale Cash Act	Lincoln
22	Xavier Toillion	4/23/1892	NE2110.189	1862 Homestead Act	Lincoln
24	Henry A Parsons	10/3/1892	NE2110.402	1862 Homestead Act	Lincoln
24	Edward M Stannard	4/3/1890	NE1950.382	1820 Sale Cash Act	Lincoln
24	George E Sullivan	12/4/1893	TC-0203-449	1873 Timber Culture Act	Lincoln
24	William H Sullivan	2/18/1892	NE2110.092	1862 Homestead Act	Lincoln
26	Thomas W Anderson	5/9/1890	NE2060.135	1862 Homestead Act	Lincoln
26	Fanny W Brooks, William M Brooks	3/17/1897	NE2140.037	1862 Homestead Act	Lincoln
26	Mathew L Brown	3/7/1890	NE2050.397	1862 Homestead Act	Lincoln
28	Annie S Guthrie	4/6/1889	NE1930.143	1820 Sale Cash Act	Lincoln
30	Henry H Cook	3/7/1890	NE2050.219	1862 Homestead Act	Lincoln
30	Serphene J Koch	11/7/1950	1130287	1820 Sale Cash Act	Lincoln
30	Frank L Lawrence	1/25/1892	NE2010.239	1820 Sale Cash Act	Lincoln
30	Thomas McGrath	8/9/1884	NE2040.135	1862 Homestead Act	Lincoln
30	Thomas McGrath	7/24/1888	NE2040.482	1862 Homestead Act	Lincoln
32	Leafie Davis	6/4/1887	NE1920.483	1820 Sale Cash Act	Lincoln
32	Fred D Nowell	1/2/1897	TC-0224-002	1873 Timber Culture Act	Lincoln
34	Irving B Bostwick	6/20/1888	NE2040.439	1862 Homestead Act	Lincoln
34	Christopher Haverland	4/20/1891	NE2060.460	1862 Homestead Act	Lincoln
34	John Q Thacker	4/48/1890	TC-0187-230	1873 Timber Culture Act	Lincoln
26	Porter O Buchanan	9/15/1891	NE2080.226	1862 Homestead Act	Lincoln
26	Porter O Buchanan	6/17/1898	NE2770.134	1873 Timber Culture Act	Lincoln
26	Mary E Dehaven	5/21/1889	NE1930.426	1820 Sale Cash Act	Lincoln
26	Benjamin A Dikeman	4/23/1892	NE2110.192	1862 Homestead Act	Lincoln
34	Edward Gentry	12/9/1909	94290	1862 Homestead Act	Lincoln
34	Thornton A Roberts	2/16/1906	NE3010.002	1862 Homestead Act	Lincoln
34	William Roberts	11/16/1895	TC-0218-321	1873 Timber Culture Act	Lincoln
34	William Roberts	5/5/1897	NE2140.060	1862 Homestead Act	Lincoln
2	John Bratt	6/28/1895	TC-0215-385	1873 Timber Culture Act	Lincoln
2	Frank Case	2/6/1899	NE2140.339	1862 Homestead Act	Lincoln
2	Alexander Fenwick	1/16/1891	NE1980.155	1820 Sale Cash Act	Lincoln
2	Sillas J Sillasen	9/15/1893	NE2120.288	1862 Homestead Act	Lincoln
6	Frank Coker	10/13/1898	NE2140.261	1862 Homestead Act	Lincoln
6	James McElhenney	6/30/1915	481023	1862 Homestead Act	Lincoln
14	Charles W Keys	5/9/1890	NE2060.034	1862 Homestead Act	Lincoln
14	Charles Lawrence	9/21/1891	NE1990.435	1820 Sale Cash Act	Lincoln
14	William H Wetzel	9/21/1891	NE1990.433	1820 Sale Cash Act	Lincoln
20	William H Dudley	6/17/1891	NE2070.327	1862 Homestead Act	Lincoln
20	Reuben Ellsworth	5/11/1900	NE2840.037	1873 Timber Culture Act	Lincoln
20	David Love	1/30/1905	NE2980.047	1862 Homestead Act	Lincoln
20	Carl Walter	5/16/1898	NE2140.196	1862 Homestead Act	Lincoln
22	John C Ahlborn	8/26/1895	TC-0217-303	1873 Timber Culture Act	Lincoln
22	Thomas Hayes	3/24/1891	NE2050.488	1862 Homestead Act	Lincoln
22	Francis P Murphy	11/9/1891	NE2100.279	1862 Homestead Act	Lincoln
22	Roy Thompson	1/16/1891	NE1980.131	1820 Sale Cash Act	Lincoln
24	George R Golvin	3/7/1890	NE2050.395	1862 Homestead Act	Lincoln
24	Leonard Laubner	1/23/1899	NE2140.324	1862 Homestead Act	Lincoln
24	Augustus B Murphy	3/7/1890	NE2050.308	1862 Homestead Act	Lincoln
24	William Ware	5/9/1890	NE2060.136	1862 Homestead Act	Lincoln
26	Edward Bird	10/13/1910	157474	1820 Sale Cash Act	Lincoln
26	Friedrich Bran	6/24/1878	NE2030.178	1862 Homestead Act	Lincoln
26	Mary A Golvin, Mary A Crook	4/3/1890	NE1950.426	1820 Sale Cash Act	Lincoln
26	Charles A Loker	7/12/1898	NE2140.207	1862 Homestead Act	Lincoln

28	Frank J Cook	10/14/1890	NE2060.238	1862 Homestead Act	Lincoln
28	Catherine A Veach	5/21/1895	TC-0213-417	1873 Timber Culture Act	Lincoln
28	Catherine A Veach	6/7/1893	NE2120.107	1862 Homestead Act	Lincoln
28	John Veach	5/21/1895	TC-0213-416	1873 Timber Culture Act	Lincoln
28	John Veach	11/23/1891	NE2100.357	1862 Homestead Act	Lincoln
30	Oscar Louis B Berndes	4/6/1889	NE1930.206	1820 Sale Cash Act	Lincoln
30	Henry Coker	3/21/1898	NE2760.277	1873 Timber Culture Act	Lincoln
30	Harry C Lord	9/15/1891	NE2080.245	1862 Homestead Act	Lincoln
30	Michael Wanke	9/15/1891	NE2080.357	1862 Homestead Act	Lincoln
32	Louis Bamsberger	7/2/1886	NE2040.161	1862 Homestead Act	Lincoln
32	Gustav Dringman	12/7/1899	NE2140.444	1862 Homestead Act	Lincoln
32	Esther Dringmann	12/6/1909	94197	1862 Homestead Act	Lincoln
34	Frank P Brewer	10/25/1888	NE2040.497	1862 Homestead Act	Lincoln
34	William G Cormican	10/11/1890	NE1970.472	1820 Sale Cash Act	Lincoln
34	John Keith	1/13/1893	TC-0198-466	1873 Timber Culture Act	Lincoln
34	Charles B Wood	8/29/1902	NE2590.491	1862 Homestead Act	Lincoln
12	John Coker	10/15/1895	TC-0218-045	1873 Timber Culture Act	Lincoln
12	John Coker	6/17/1891	NE2070.364	1862 Homestead Act	Lincoln
14	Charley Malm	8/31/1905	NE2990.149	1862 Homestead Act	Lincoln
20	Joseph H Fulton	3/17/1892	NE2020.114	1820 Sale Cash Act	Lincoln
20	Thurber Harvey	5/16/1890	NE1960.073	1820 Sale Cash Act	Lincoln
20	Thurber Harvey	8/14/1893	NE2120.253	1862 Homestead Act	Lincoln
20	Frederick Paustag	11/9/1891	NE2100.037	1862 Homestead Act	Lincoln
22	John H Abshire	7/20/1892	NE2110.266	1862 Homestead Act	Lincoln
28	John H Abshire	8/26/1895	TC-0217-319	1873 Timber Culture Act	Lincoln
32	John H Abshire	4/25/1895	TC-0214-387	1873 Timber Culture Act	Lincoln
22	William Abshire	6/29/1891	NE1990.356	1820 Sale Cash Act	Lincoln
22	Carl Bussemer	1/11/1892	NE2100.459	1862 Homestead Act	Lincoln
22	William H Kalkofen	11/1/1901	NE2860.069	1873 Timber Culture Act	Lincoln
24	Feeley F Cook	7/30/1891	NE2080.175	1862 Homestead Act	Lincoln
24	Archibald E Foyer	5/10/1898	NE2140.176	1862 Homestead Act	Lincoln
24	Bernard S Gummere	5/3/1913	330899	1862 Homestead Act	Lincoln
26	Samuel E Anderson	5/27/1913	337475	1862 Homestead Act	Lincoln
26	John Frank	5/5/1891	NE2070.183	1862 Homestead Act	Lincoln
26	Hugh Gribben	5/21/1895	TC-0213-421	1873 Timber Culture Act	Lincoln
28	Norman S Collins	6/10/1913	340499	1862 Homestead Act	Lincoln
30	Fayette Brown	11/16/1912	300788	1862 Homestead Act	Lincoln
30	John A Ellison	7/20/1892	NE2110.297	1862 Homestead Act	Lincoln
30	John A Ellison	3/23/1901	NE2850.153	1873 Timber Culture Act	Lincoln
32	Ralph O Chamberlain	5/11/1918	630029	1820 Sale Cash Act	Lincoln
32	John H Conway	9/15/1891	NE2080.336	1862 Homestead Act	Lincoln
32	Michael E Conway	7/20/1892	NE2110.268	1862 Homestead Act	Lincoln
32	Eutis Quinn	3/3/1921	798993	1862 Homestead Act	Lincoln
34	Michael Conway	11/28/1896	TC-0223-170	1873 Timber Culture Act	Lincoln
34	Isaac Dillon	4/3/1896	TC-0221-083	1873 Timber Culture Act	Lincoln
26	Emma L Feddersen, Emma L Hunwartzen	9/15/1893	NE2120.351	1862 Homestead Act	Keith
26	Thomas S Fenlon	5/31/1894	NE2010.405	1820 Sale Cash Act	Keith
28	Thomas S Fenlon	7/6/1893	NE2120.110	1862 Homestead Act	Keith
26	William D Harris	1/23/1899	NE2140.325	1862 Homestead Act	Keith
26	Bennett Smith	11/9/1891	NE2100.007	1862 Homestead Act	Keith
28	George F Cotrill	12/4/1893	TC-0203-478	1873 Timber Culture Act	Keith
28	George W Hartman	4/3/1890	NE1950.456	1820 Sale Cash Act	Keith
28	Simon A Stowell	6/18/1901	NE0720.406	1862 Homestead Act	Keith
30	Lewis K Hutton	6/13/1893	TC-0201-367	1873 Timber Culture Act	Keith
30	Lewis K Hutton	8/2/1889	NE2050.150	1862 Homestead Act	Keith

30	John Lute	1/20/1894	NE2120.378	1862 Homestead Act	Keith
24	John Lute	7/15/1899	NE2810.397	1873 Timber Culture Act	Keith
30	Francis A Stroup	2/3/1910	109080	1820 Sale Cash Act	Keith
32	Alonzo Lee	1/17/1913	310465	1862 Homestead Act	Keith
32	Herman Wahrenbrock	3/1/1912	250914	1862 Homestead Act	Keith
34	Elmer P Mason	12/7/1899	NE2820.251	1873 Timber Culture Act	Keith
22	Elmer P Mason	11/3/1892	NE2110.436	1862 Homestead Act	Keith
34	Edmund L Pease	2/16/1906	NE3000.493	1862 Homestead Act	Keith
34	Fred E Pease	7/1/1912	281734	1820 Sale Cash Act	Keith
34	Antonie Reikat, Ferdinand Reikat	11/4/1899	NE2140.406	1862 Homestead Act	Keith
8	John Burke	8/26/1896	TC-0221-401	1873 Timber Culture Act	Keith
8	Anna B Cary	1/12/1897	NE2140.015	1862 Homestead Act	Keith
8	William S Gunnell	8/6/1896	NE2090.479	1862 Homestead Act	Keith
8	Pearl P Maddox	10/12/1911	229517	1820 Sale Cash Act	Keith
14	John H Lute	11/5/1908	27263	1862 Homestead Act	Keith
18	George A Bartholomew	2/17/1887	NE1920.447	1820 Sale Cash Act	Keith
18	Patrick H McEvoy	6/11/1895	TC-0215-355	1873 Timber Culture Act	Keith
20	Louis Aufengarten	12/15/1894	TC-0209-087	1873 Timber Culture Act	Keith
20	Frances P Cahill	1/27/1914	380819	1862 Homestead Act	Keith
20	Frances P Cahill	7/30/1891	NE2080.021	1862 Homestead Act	Keith
20	John J Richert	8/19/1890	NE2060.176	1862 Homestead Act	Keith
22	Frederick Lute	4/15/1891	NE1990.076	1820 Sale Cash Act	Keith
22	John C Palmer	10/13/1898	NE2770.492	1873 Timber Culture Act	Keith
24	Henry Sudman	1/16/1891	NE1980.096	1820 Sale Cash Act	Keith
26	George P Boardman	6/27/1912	280497	1862 Homestead Act	Keith
26	George P Boardman	9/2/1909	77164	1862 Homestead Act	Keith
26	Elisha C Rice	11/3/1892	NE2110.435	1862 Homestead Act	Keith
26	Elisha C Rice	11/24/1899	NE2820.216	1873 Timber Culture Act	Keith
28	Elizabeth C Bassett, Elizabeth C Cahill	11/28/1910	163573	1862 Homestead Act	Keith
28	Frank P Cahill	11/12/1900	NE2840.435	1873 Timber Culture Act	Keith
34	George Daugherty	5/27/1913	337488	1862 Homestead Act	Keith
34	Henry F Hartwig	4/12/1920	744664	1862 Homestead Act	Keith
12	Arthur Brittingham	12/4/1893	TC-0203-438	1873 Timber Culture Act	Keith
12	William F Knight	7/19/1897	NE2140.142	1862 Homestead Act	Keith
12	Adam Miller	12/20/1892	NE2020.139	1820 Sale Cash Act	Keith
12	Adam Miller	12/7/1899	NE2140.411	1862 Homestead Act	Keith
24	Gottlieb Shock	2/5/1912	245804	1862 Homestead Act	Keith

APPENDIX D. ON-SURVEY SUBSURFACE TEST RESULTS

Table D-1. Shovel Test Data.

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST01	Keith Lincoln, Figure 1a	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Loam	plowzone, few roots, no gravels	No	NA	No cultural materials
ST01	Keith Lincoln, Figure 1a	Stratigraphic	30-42	10YR 5/2 graysih brown	Sandy Clay Loam	few roots,, dense pebbles	No	NA	No cultural materials
ST01	Keith Lincoln, Figure 1a	Stratigraphic	42-60	10YR 3/3 Dark Brown	Sandy Loam	few roots, few pebbles	No	NA	No cultural materials
ST01	Keith Lincoln, Figure 1a	Stratigraphic	60-65	10YR 6/3 Pale Brown	Sandy Clay	no roots, few pebbles	No	Consecutive sterile levels	No cultural materials
ST02	Keith Lincoln, Figure 1a	Stratigraphic	0-15	10YR 4/4 dark yellowish brown	Loamy Sand	moderate roots, few pebbles	No	NA	No cultural materials
ST02	Keith Lincoln, Figure 1a	Stratigraphic	15-70	10YR 7/3 very pale brown	Sand	few roots, few pebbles	No	Consecutive sterile levels	No cultural materials
ST03	Keith Lincoln, Figure 1a	Stratigraphic	0-20	10YR 4/4 dark yellowish brown	Loamy Sand	dense grass roots, no gravels	No	NA	No cultural materials
ST03	Keith Lincoln, Figure 1a	Stratigraphic	20-65	10YR 6/3 Pale Brown	Sand	few roots, no gravels	No	NA	No cultural materials
ST03	Keith Lincoln, Figure 1a	Stratigraphic	65-80	10YR 7/3 very pale brown	Sand	no roots, dense gravels	No	Consecutive sterile levels	No cultural materials
ST04	Keith Lincoln, Figure 1a	Stratigraphic	20-65	10YR 6/3 Pale Brown	Sand	few roots, no gravels	No	NA	No cultural materials
ST04	Keith Lincoln, Figure 1a	Stratigraphic	65-70	10YR 7/3 very pale brown	Sand	no roots, dense gravels	No	Consecutive sterile levels	No cultural materials
ST05	Keith Lincoln, Figure 1a	Stratigraphic	20-50	10YR 5/6 Yellowish Brown	Sand	few roots, no gravels	No	NA	No cultural materials
ST05	Keith Lincoln, Figure 1a	Stratigraphic	50-70	10YR 6/3 Pale Brown	Sand	no roots, dense gravels	No	Consecutive sterile levels	No cultural materials
ST06	Keith Lincoln, Figure 1a	Stratigraphic	0-60	10YR 3/2 Very Dark Grayish Brown	Silt Loam	few roots, few gravels	No	Consecutive sterile levels	No cultural materials
ST07	Keith Lincoln, Figure 1a	Stratigraphic	0-31	10YR 3/2 Very Dark Grayish Brown	Loam	plowzone, few roots in cornfield, moderate rounded gravels.	No	NA	No cultural materials
ST07	Keith Lincoln, Figure 1a	Stratigraphic	31-60	10YR 3/3 Dark Brown	Silt Loam	no roots. moderate rounded gravels	No	Consecutive sterile levels	No cultural materials
ST08	Keith Lincoln, Figure 1a	Stratigraphic	0-50	10YR 5/2 graysih brown	Loamy Sand	few roots, few gravels	No	NA	No cultural materials
ST08	Keith Lincoln, Figure 1a	Stratigraphic	50-65	10YR 4/2 Dark Grayish Brown	Loamy Sand	few roots, few gravels	No	Consecutive sterile levels	No cultural materials
ST09	Keith Lincoln, Figure 1a	Stratigraphic	0-45	10YR 5/2 graysih brown	Silt Loam	few roots in cornfield, no gravels	No	NA	No cultural materials
ST09	Keith Lincoln, Figure 1a	Stratigraphic	45-60	10YR 4/3 Brown	Loamy Sand	few roots in cornfield, few gravels	No	Consecutive sterile levels	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST10	Keith Lincoln, Figure 1a	Stratigraphic	0-45	10YR 5/2 graysih brown	Silt Loam	plowzone, few roots in cornfield, no gravels	No	NA	No cultural materials
ST10	Keith Lincoln, Figure 1a	Stratigraphic	45-60	10YR 4/3 Brown	Loamy Sand	few roots in cornfield, few gravels	No	Consecutive sterile levels	No cultural materials
ST11	North Platte, Figure 1b	Stratigraphic	0-30	10YR 3/3 Dark Brown	Loamy Sand	plowzone, moderate roots, very few pebbles	No	NA	No cultural materials
ST11	North Platte, Figure 1b	Stratigraphic	30-75	10YR 4/3 Brown	Loam	few roots, very few pebbles	No	NA	No cultural materials
ST11	North Platte, Figure 1b	Stratigraphic	75-85	10YR 6/2 light yellowish gray	Sandy Clay	no roots, few pebbles, iron oxide inclusions	No	ending in subsoils	No cultural materials
ST12	North Platte, Figure 1b	Stratigraphic	0-35	10YR 4/2 Dark Grayish Brown	Loamy Sand	moderate roots, moderate gravels	No	NA	No cultural materials
ST12	North Platte, Figure 1b	Stratigraphic	35-58	10YR 5/6 Yellowish Brown	Sand	few roots, moderate gravels	No	NA	No cultural materials
ST12	North Platte, Figure 1b	Stratigraphic	58-70	gley in a medium gray-blue	Sandy Clay	no roots, few gravels	No	ended in waterlogged gley soils	No cultural materials
ST13	Paxton Hershey, Figure 1b	Stratigraphic	0-65	10YR 5/3 Brown	Sand	few roots, moderate gravels	No	Consecutive sterile levels	No cultural materials
ST14	Paxton Hershey, Figure 1b	Stratigraphic	0-28	10YR 4/2 Dark Grayish Brown	Loamy Sand	plowzone, few roots, very few pebbles	No	NA	No cultural materials
ST14	Paxton Hershey, Figure 1b	Stratigraphic	28-60	10YR 3/3 Dark Brown	Loamy Sand	no roots, very few pebbles	No	Consecutive sterile levels	No cultural materials
ST15	Paxton Hershey, Figure 1b	Stratigraphic	0-30	10YR 4/2 Dark Grayish Brown	Loamy Sand	plowzone, few roots, very few pebbles	No	NA	No cultural materials
ST15	Paxton Hershey, Figure 1b	Stratigraphic	30-60	10YR 3/3 Dark Brown	Loamy Sand	no roots, very few pebbles	No	Consecutive sterile levels	No cultural materials
ST16	Paxton Hershey, Figure 1b	Stratigraphic	0-30	10YR 3/3 Dark Brown	Loamy Sand	plowzone, moderate roots, very few pebbles	No	NA	No cultural materials
ST16	Paxton Hershey, Figure 1b	Stratigraphic	30-42	10YR 4/3 Brown	Loam	few roots, very few pebbles	No	NA	No cultural materials
ST16	Paxton Hershey, Figure 1b	Stratigraphic	42-50	10YR 6/2 light yellowish gray	Sandy Clay	no roots, few pebbles, iron oxide inclusions	No	ending in subsoils	No cultural materials
ST17	Paxton Hershey, Figure 1b	Stratigraphic	0-35	10YR 3/2 Very Dark Grayish Brown	Silt Loam	plowzone.few roots, no gravels	No	NA	No cultural materials
ST17	Paxton Hershey, Figure 1b	Stratigraphic	35-55	10YR 4/2 Dark Grayish Brown	Loam	no roots, no gravels	No	Consecutive sterile levels	No cultural materials
ST18	Paxton Hershey, Figure 1b	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Loam	plowzone, few roots, very few pebbles	No	NA	No cultural materials
ST18	Paxton Hershey, Figure 1b	Stratigraphic	30-46	10YR 4/2 Dark Grayish Brown	Silt Loam	few roots, no pebbles	No	NA	No cultural materials
ST18	Paxton Hershey, Figure 1b	Stratigraphic	46-60	10YR 4/3 Brown	Clay Loam	no roots, few gravels	No	subsoil	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST19	Paxton Hershey, Figure 1b	Stratigraphic	0-35	10YR 3/3 Dark Brown	Loam	plowzone, few roots, few gravels	No	NA	No cultural materials
ST19	Paxton Hershey, Figure 1b	Stratigraphic	35-60	10YR 4/3 Brown	Sandy Loam	no roots, few gravels	No	Consecutive sterile levels	No cultural materials
ST20	Paxton Hershey, Figure 1b	Stratigraphic	0-35	10YR 3/3 Dark Brown	Loam	few roots, few gravels	No	NA	No cultural materials
ST20	Paxton Hershey, Figure 1b	Stratigraphic	35-60	10YR 4/3 Brown	Sandy Loam	no roots, few gravels	No	Consecutive sterile levels	No cultural materials
ST21	Paxton Hershey, Figure 1b	Stratigraphic	0-30	10YR 3/3 Dark Brown	Loam	plowzone, few roots, few gravels	No	NA	No cultural materials
ST21	Paxton Hershey, Figure 1b	Stratigraphic	30-50	10YR 4/3 Brown	Sandy Loam	no roots, few gravels	No	Consecutive sterile levels	No cultural materials
ST22	Paxton Hershey, Figure 1b	Stratigraphic	0-40	10YR 3/3 Dark Brown	Loamy Sand	plowzone, moderate roots, very few pebbles	No	NA	No cultural materials
ST22	Paxton Hershey, Figure 1b	Stratigraphic	40-50	10YR 4/3 Brown	Loam	few roots, very few pebbles	No	Consecutive sterile levels	No cultural materials
ST23	Birdwood, Figure 1c	Stratigraphic	0-25	10YR 4/3 Brown	Loamy Sand	moderate roots, no gravels	No	NA	No cultural materials
ST23	Birdwood, Figure 1c	Stratigraphic	25-60	10YR 5/3 Brown	Sand	few roots, no gravels	No	Consecutive sterile levels	No cultural materials
ST24	Birdwood, Figure 1c	Stratigraphic	0-20	10YR 4/3 Brown	Loamy Sand	moderate roots, no gravels	No	NA	No cultural materials
ST24	Birdwood, Figure 1c	Stratigraphic	20-42	10YR 5/3 Brown	Sand	few roots, no gravels	No	NA	No cultural materials
ST24	Birdwood, Figure 1c	Stratigraphic	42-55	10YR 6/3 Pale Brown	Sand	no roots, no gravels	No	Consecutive sterile levels	No cultural materials
ST25	Birdwood, Figure 1c	Stratigraphic	0-12	10YR 4/3 Brown	Loamy Sand	moderate roots, no gravels	No	NA	No cultural materials
ST25	Birdwood, Figure 1c	Stratigraphic	12-35	10YR 5/3 Brown	Sand	few roots, no gravels	No	NA	No cultural materials
ST25	Birdwood, Figure 1c	Stratigraphic	35-62	10YR 4/2 Dark Grayish Brown	Loamy Sand	possible buried A horizon. few roots, few gravels	No	NA	No cultural materials
ST25	Birdwood, Figure 1c	Stratigraphic	62-100	10YR 6/3 Pale Brown	Sand	few roots, few gravels	No	NA	No cultural materials
ST25	Birdwood, Figure 1c	Stratigraphic	100-110	10YR 5/6 Yellowish Brown	Sand	redox layer with no roots, few gravels	No	NA	No cultural materials
ST25	Birdwood, Figure 1c	Stratigraphic	110-120	10YR 6/1 gray	Sand	wet sand. no roots, few gravels	No	NA	No cultural materials
ST25	Birdwood, Figure 1c	Stratigraphic	120-130	10YR 6/3 Pale Brown	Sand	water infiltration	No	water infiltration and consecutive sterile levels	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST26	Birdwood, Figure 1c	Stratigraphic	0-48	10YR 3/3 Dark Brown	Loamy Sand	plowzone, moderate roots, few pebbles	No	NA	No cultural materials
ST26	Birdwood, Figure 1c	Stratigraphic	48-60	10YR 4/3 Brown	Sand	fewcroits, few pebbles	No	Consecutive sterile levels	No cultural materials
ST27	Birdwood, Figure 1c	Stratigraphic	0-30	10YR 4/2 Dark Grayish Brown	Loamy Sand	plowzone, roots in comfield, few pebbles	No	NA	No cultural materials
ST27	Birdwood, Figure 1c	Stratigraphic	30-50	10YR 4/3 Brown	Sand	no roots, few pebbles	No	Consecutive sterile levels	No cultural materials
ST28	Birdwood, Figure 1c	Stratigraphic	0-60	10YR 4/2 Dark Grayish Brown	Loamy Sand	few roots, few pebbles	No	Consecutive sterile levels	No cultural materials
ST29	Birdwood, Figure 1c	Stratigraphic	0-50	10YR 4/2 Dark Grayish Brown	Loamy Sand	few roots, few pebbles	No	NA	No cultural materials
ST29	Birdwood, Figure 1c	Stratigraphic	50-60	10YR 6/3 Pale Brown	Sand	no 4oots, moderate pebbles	No	Consecutive sterile levels	No cultural materials
ST30	Suburban, Figure 1d	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	plowzone, moderate roots in cornfield, few gravels	No	NA	No cultural materials
ST30	Suburban, Figure 1d	Stratigraphic	30-55	10YR 3/3 Dark Brown	Loamy Sand	few roots, few gravels	No	NA	No cultural materials
ST30	Suburban, Figure 1d	Stratigraphic	55-65	10YR 4/3 Brown	Loamy Sand	no roots, moderate gravels	No	Consecutive sterile levels	No cultural materials
ST31	Suburban, Figure 1d	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	plowzone, moderate roots in cornfield, few gravels	No	NA	No cultural materials
ST31	Suburban, Figure 1d	Stratigraphic	30-55	10YR 3/3 Dark Brown	Loamy Sand	few roots, few gravels	No	NA	No cultural materials
ST31	Suburban, Figure 1d	Stratigraphic	55-65	10YR 4/3 Brown	Loamy Sand	no roots, moderate gravels	No	Consecutive sterile levels	No cultural materials
ST32	Suburban, Figure 1d	Stratigraphic	0-34	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	plowzone, moderate roots in cornfield, few gravels	No	NA	No cultural materials
ST32	Suburban, Figure 1d	Stratigraphic	34-51	10YR 3/3 Dark Brown	Loamy Sand	few roots, few gravels	No	NA	No cultural materials
ST32	Suburban, Figure 1d	Stratigraphic	51-61	10YR 4/3 Brown	Loamy Sand	no roots, moderate gravels	No	Consecutive sterile levels	No cultural materials
ST33	Suburban, Figure 1d	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Loam	plowzone, few roots, few gravels	No	NA	No cultural materials
ST33	Suburban, Figure 1d	Stratigraphic	30-44	10YR 3/3 Dark Brown	Loam	few roots, few gravels	No	NA	No cultural materials
ST33	Suburban, Figure 1d	Stratigraphic	44-55	10YR 5/6 Yellowish Brown	Sand	no roots, redox with moderate gravels	No	subsoil and Consecutive sterile levels	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST34	Suburban, Figure 1d	Stratigraphic	0-28	10YR 3/2 Very Dark Grayish Brown	Loam	few roots, few gravels	No	NA	No cultural materials
ST34	Suburban, Figure 1d	Stratigraphic	28-40	10YR 3/3 Dark Brown	Loam	few roots, few gravels	No	NA	No cultural materials
ST34	Suburban, Figure 1d	Stratigraphic	40-50	10YR 5/6 Yellowish Brown	Sand	no roots, redox with moderate gravels	No	subsoil and Consecutive sterile levels	No cultural materials
ST35	Suburban, Figure 1d	Stratigraphic	0-40	10YR 4/2 Dark Grayish Brown	Loamy Sand	moderate roots, very few pebbles	No	NA	No cultural materials
ST35	Suburban, Figure 1d	Stratigraphic	40-60	10YR 5/3 Brown	Sand	few roots, few pebbles	No	Consecutive sterile levels	No cultural materials
ST36	Cody Dillon, Figure 1e	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	plowzone in Bayfield. dense roots, no gravels	No	NA	No cultural materials
ST36	Cody Dillon, Figure 1e	Stratigraphic	30-65	10YR 4/2 Dark Grayish Brown	Loamy Sand	few roots, very few gravels	No	NA	No cultural materials
ST36	Cody Dillon, Figure 1e	Stratigraphic	65-75	10YR 4/3 Brown	Loamy Sand	no roots, very few gravels	No	Consecutive sterile levels	No cultural materials
ST37	Cody Dillon, Figure 1e	Stratigraphic	0-15	10YR 4/3 Brown	Loamy Sand	dense roots, few gravels	No	NA	No cultural materials
ST37	Cody Dillon, Figure 1e	Stratigraphic	15-40	2.5/N Gley 1	Clay Loam	moderate roots, no gravels	No	ending in wet clay gley sediments in wetland margin	No cultural materials
ST38	Cody Dillon, Figure 1e	Stratigraphic	0-34	2.5/N Gley	Loam	dense roots, no gravels	No	NA	No cultural materials
ST38	Cody Dillon, Figure 1e	Stratigraphic	34-50	3/10Y Gley 1	Sandy Clay Loam	moderate roots, no gravels	No	ending in wet clay gley sediments in wetland margin	No cultural materials
ST39	Cody Dillon, Figure 1e	Stratigraphic	0-25	10YR 2/2 Very Dark Brown	Loam	dense roots, no gravels	No	NA	No cultural materials
ST39	Cody Dillon, Figure 1e	Stratigraphic	25-31	2.5/N Gley	Sandy Clay Loam	moderate roots, no gravels	No	NA	No cultural materials
ST39	Cody Dillon, Figure 1e	Stratigraphic	31-40	3/10Y Gley 1	Clay Loam	few roots, no gravels	No	ending in wet clay gley sediments in wetland margin and Consecutive sterile levels	No cultural materials
ST40	Cody Dillon, Figure 1e	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Loam	dense roots, few gravels	No	NA	No cultural materials
ST40	Cody Dillon, Figure 1e	Stratigraphic	30-45	10YR 6/3 Pale Brown	Loamy Sand	moderate roots, very few gravels	No	NA	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST40	Cody Dillon, Figure 1e	Stratigraphic	45-50	2.5/N Gley	Sandy Clay Loam	few roots, few gravels	No	ending in wet clay gley sediments in wetland margin and Consecutive sterile levels	No cultural materials
ST41	Keith Lincoln, Figure 1a	Stratigraphic	0-22	10YR 4/2 Dark Grayish Brown	Silt Loam	pebbles and cobbles	No	Consecutive sterile levels	No cultural materials. road construction and pond drainage
ST41	Keith Lincoln, Figure 1a	Stratigraphic	22-32	10YR 6/1 Gray	Sandy Loam	Pebbles and Cobbles	No	Consecutive sterile levels	No cultural materials. road construction and drainage.
ST42	Keith Lincoln, Figure 1a	Stratigraphic	0-20	10YR 4/4 dark yellowish brown	Loamy Sand	dense grass roots, no gravels	No	NA	No cultural materials
ST42	Keith Lincoln, Figure 1a	Stratigraphic	20-60	10YR 6/3 Pale Brown	Sand	few roots, no gravels	No	NA	No cultural materials
ST44	Keith Lincoln, Figure 1a	Stratigraphic	0-20	10YR 4/4 dark yellowish brown	Loamy Sand	dense grass roots, no gravels	No	NA	No cultural materials
ST44	Keith Lincoln, Figure 1a	Stratigraphic	20-60	10YR 6/3 Pale Brown	Sand	few roots, no gravels	No	NA	No cultural materials
ST45	Keith Lincoln, Figure 1a	Stratigraphic	0-60	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	Consecutive sterile levels	No cultural materials
ST46	Keith Lincoln, Figure 1a	Stratigraphic	0-60	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	Consecutive sterile levels	No cultural materials
ST47	Keith Lincoln, Figure 1a	Stratigraphic	0-60	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	Consecutive sterile levels	No cultural materials
ST48	Keith Lincoln, Figure 1a	Stratigraphic	0-23	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	Consecutive sterile levels	No cultural materials
ST48	Keith Lincoln, Figure 1a	Stratigraphic	23-33	10YR 5/1 GRAY w/redox	Silt Loam	none	No	o	
ST49	Keith Lincoln, Figure 1a	Stratigraphic	0-30	10YR 4/3 Brown	Silt Loam	plowzone, pebbles	No	Consecutive sterile levels	No cultural materials
ST49	Keith Lincoln, Figure 1a	Stratigraphic	3'0-50	10YR 4/3 Brown	Silt Loam	pebbles	No	Consecutive sterile levels	No cultural materials
ST50	Keith Lincoln, Figure 1a	Stratigraphic	0-45	10YR 5/2 graysih brown	Silt Loam	plowzone, few roots in cornfield, no gravels	No	NA	No cultural materials
ST50	Keith Lincoln, Figure 1a	Stratigraphic	45-50	10YR 4/3 Brown	Loamy Sand	few roots in cornfield, few gravels	No	Consecutive sterile levels	No cultural materials
ST51	Keith Lincoln, Figure 1a	Stratigraphic	0-45	10YR 5/2 graysih brown	Silt Loam	plowzone, few roots in cornfield, no gravels	No	NA	No cultural materials
ST51	Keith Lincoln, Figure 1a	Stratigraphic	45-60	10YR 4/3 Brown	Loamy Sand	few roots in cornfield, few gravels	No	Consecutive sterile levels	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST52	North Platte, Figure 1b	Stratigraphic	0-30	10YR 3/3 Dark Brown	Loamy Sand	plowzone, moderate roots, very few pebbles	No	NA	No cultural materials
ST52	North Platte, Figure 1b	Stratigraphic	30-60	10YR 4/3 Brown	Loam	few roots, very few pebbles	No	NA	No cultural materials
ST53	North Platte, Figure 1b	Stratigraphic	0-30	10YR 3/3 Dark Brown	Loamy Sand	plowzone, moderate roots, very few pebbles	No	NA	No cultural materials
ST53	North Platte, Figure 1b	Stratigraphic	30-60	10YR 4/3 Brown	Loam	few roots, very few pebbles	No	NA	No cultural materials
ST54	North Platte, Figure 1b	Stratigraphic	0-30	10YR 4/3 Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST54	North Platte, Figure 1b	Stratigraphic	30-43	10YR 6/1 Gray	Sand	none	No	consecutive sterile soils	No cultural materials
ST55	Paxton Hershey, Figure 1b	Stratigraphic	0-60	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials. In agricultural field
ST56	Paxton Hershey, Figure 1b	Stratigraphic	0-60	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	Consecutive sterile levels	No cultural materials. ag field
ST57	Paxton Hershey, Figure 1b	Stratigraphic	0-35	10YR 3/3 Dark Brown	Loam	plowzone, few roots, few gravels	No	NA	No cultural materials
ST57	Paxton Hershey, Figure 1b	Stratigraphic	35-60	10YR 4/3 Brown	Sandy Loam	no roots, few gravels	No	Consecutive sterile levels	No cultural materials
ST58	Paxton Hershey, Figure 1b	Stratigraphic	0-43	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	NA	No cultural materials
ST58	Paxton Hershey, Figure 1b	Stratigraphic	43-53	10YR 6/2 Light Brownish Gray	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST59	Birdwood, Figure 1c	Stratigraphic	0-60	10YR 6/4 Light Yellowish Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST60	Birdwood, Figure 1c	Stratigraphic	0-25	10YR 4/3 Brown	Loamy Sand	moderate roots, no gravels	No	NA	No cultural materials
ST60	Birdwood, Figure 1c	Stratigraphic	25-60	10YR 5/3 Brown	Sand	few roots, no gravels	No	Consecutive sterile levels	No cultural materials
ST61	Birdwood, Figure 1c	Stratigraphic	0-60	10YR 6/4 Light Yellowish Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST62	Birdwood, Figure 1c	Stratigraphic	0-60	10YR 6/4 Light Yellowish Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST63	Birdwood, Figure 1c	Stratigraphic	0-8	10YR 3/4 Dark Yellowish Brown	Silt Loam	roots	No	consecutive sterile soils	No cultural materials
ST63	Birdwood, Figure 1c	Stratigraphic	21-Aug	10YR 2/1 Black	Silt Loam	roots	No	consecutive sterile soils	No cultural materials
ST63	Birdwood, Figure 1c	Stratigraphic	21-31	10YR 6/1 gray	Sand	roots	No	consecutive sterile soils	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST64	Birdwood, Figure 1c	Stratigraphic	0-30 s	10YR 4/3 Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST64	ST65	Stratigraphic	30-43	10YR 6/1 Gray	Sand	none	No	consecutive sterile soils	No cultural materials
ST65	Birdwood, Figure 1c	Stratigraphic	0-33	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST65	Birdwood, Figure 1c	Stratigraphic	33-43	10YR 6/1 Gray	Sand	none	No	consecutive sterile soils	No cultural materials
ST66	Suburban, Figure 1d	Stratigraphic	0-30	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	plowzone, moderate roots in cornfield, few gravels	No	NA	No cultural materials
ST66	Suburban, Figure 1d	Stratigraphic	30-50	10YR 3/3 Dark Brown	Loamy Sand	few roots, few gravels	No	NA	No cultural materials
ST66	Suburban, Figure 1d	Stratigraphic	50-60	10YR 4/2 Dark Grayish Brown	Loamy Sand	no roots, moderate gravels	No	Consecutive sterile levels	No cultural materials
ST67	Suburban, Figure 1d	Stratigraphic	0-25	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	plowzone, moderate roots in cornfield, few gravels	No	NA	No cultural materials
ST67	Suburban, Figure 1d	Stratigraphic	24-46	10YR 3/3 Dark Brown	Loamy Sand	few roots, few gravels	No	NA	No cultural materials
ST67	Suburban, Figure 1d	Stratigraphic	46-60	10YR 4/2 Dark Grayish Brown	Loamy Sand	no roots, moderate gravels	No	Consecutive sterile levels	No cultural materials
ST68	Suburban, Figure 1d	Stratigraphic	0-60	10YR 4/2 Dark Grayish Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST69	Cody Dillon, Figure 1e	Stratigraphic	0-50	10YR 4/2 Dark Grayish Brown	Sandy Loam	none	No	consecutive sterile soils	No cultural materials
ST69	Cody Dillon, Figure 1e	Stratigraphic	50-60	10YR 3/2 Very Dark Grayish Brown	Sandy Loam	none	No	consecutive sterile soils	No cultural materials
ST70	Cody Dillon, Figure 1e	Stratigraphic	0-10	10YR 4/4 dark yellowish brown	Sandy Clay Loam	none	No	consecutive sterile soils	No cultural materials
ST70	Cody Dillon, Figure 1e	Stratigraphic	Oct-51	Gley 1 2.5N black	Clay Loam	none	No	consecutive sterile soils	No cultural materials
ST71	Cody Dillon, Figure 1e	Stratigraphic	0-40	10YR 2/2 Very Dark Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST71	Cody Dillon, Figure 1e	Stratigraphic	40-50	Gley 1 2.5N black	Clay Loam	none	No	consecutive sterile soils	No cultural materials
ST72	Cody Dillon, Figure 1e	Stratigraphic	0-50	10YR 2/2 Very Dark Brown	Silt Loam	none	No	consecutive sterile soils	No cultural materials
ST72	Cody Dillon, Figure 1e	Stratigraphic	40-50	Gley 1 2.5N Black	Clay Loam	none	No	consecutive sterile soils	No cultural materials
ST73	Cody Dillon, Figure 1e	Stratigraphic	0-47	10YR 3/2 Very Dark Grayish Brown	Loam	dense roots, few gravels	No	NA	No cultural materials

Shovel Test Number	Survey Parcel Location	Stratigraphic or Arbitrary Levels?	Depth (cm bgs)	Munsell No., Other Colors (Combine color columns in report table)	Soil Texture	Inclusions	Contact with Bedrock or Regolith?	Test Terminated Due To:	Results
ST73	Cody Dillon, Figure 1e	Stratigraphic	47-55	2.5/N Gley	Sandy Clay Loam	few roots, few gravels	No	ending in wet clay gley sediments in wetland margin and Consecutive sterile levels	No cultural materials
ST74	Cody Dillon, Figure 1e	Stratigraphic	47-61	10YR 6/1 Gray	Sand	none	No	consecutive sterile soils	No cultural materials
ST75	North Platte, Figure 1b	Stratigraphic	0-33	5YR 2.5/2 very dusky red	Silt Loam	plowzone, few roots, no gravels	No	NA	No cultural materials
ST75	North Platte, Figure 1b	Stratigraphic	33-64	5YR 5/4 reddish brown	fine sandy loam	no roots, no gravels	No	consecutive sterile soils	No cultural materials
ST76	North Platte, Figure 1b	Stratigraphic	0-29	5YR 2.5/2 very dusky red	Silt Loam	plowzone, few roots, no gravels	No	NA	No cultural materials
ST76	North Platte, Figure 1b	Stratigraphic	29-77	5YR 5/4 reddish brown	fine sandy loam	no roots, no gravels	No	NA	No cultural materials
ST76	North Platte, Figure 1b	Stratigraphic	77-112	5YR 5/2 weak red	Silt Loam	no roots, few gravel inclusions	No	NA	No cultural materials
ST76	North Platte, Figure 1b	Stratigraphic	112-129	5YR 6/2 pale red	Clay	contact with water table	No	consecutive sterile soils	No cultural materials
ST77	North Platte, Figure 1b	Stratigraphic	0-18	5YR 2.5/2 very dusky red	Silt Loam	few roots, no gravels	No	NA	No cultural materials
ST77	North Platte, Figure 1b	Stratigraphic	18-65	5YR 5/4 reddish brown	fine sandy loam	no roots, few gravels	No	NA	No cultural materials
ST77	North Platte, Figure 1b	Stratigraphic	65-70	5YR 5/2 weak red	Silt Loam	no roots, no gravel inclusions, compacted sediments	No	consecutive sterile soils	No cultural materials
ST78	North Platte, Figure 1b	Stratigraphic	0-31	5YR 2.5/2 very dusky red	Silt Loam	plowzone, dense roots, no gravels	No	NA	No cultural materials
ST78	North Platte, Figure 1b	Stratigraphic	31-50	5YR 5/2 weak red	Silt Loam	few roots, few gravels	No	consecutive sterile soils	No cultural materials
ST79	North Platte, Figure 1b	Stratigraphic	0-16	5YR 2.5/2 very dusky red	Silt Loam	dense roots, no gravels	No	NA	No cultural materials
ST79	North Platte, Figure 1b	Stratigraphic	16-43	5YR 5/4 reddish brown	fine sandy loam	no roots, no gravels	No	NA	No cultural materials
ST79	North Platte, Figure 1b	Stratigraphic	43-47	5YR 5/2 weak red	Silt Loam	no roots, few gravel inclusions	No	consecutive sterile soils	No cultural materials
ST80	North Platte, Figure 1b	Stratigraphic	0-37	10YR 4/2 Dark Grayish Brown	fine sand	moderate roots, few gravels	No	NA	No cultural materials
ST80	North Platte, Figure 1b	Stratigraphic	37-65	7.5YR 6/3 light borwn	fine sand	moderate roots, gravel bar deposit	No	consecutive sterile soils	No cultural materials