A Level III Cultural Resources Survey of the Proposed Spring Creek Drainage Improvement Project in Lincoln County, South Dakota

Lower Big Sioux Archaeological Region

Submitted by

Kogel Archaeological Consulting Services
1818 West 26th Street
Sioux Falls, South Dakota 57105

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Troy Kogel
Principal Investigator

Prepared for

Clark Engineering Corporation
1410 West Russell Street
Sioux Falls, South Dakota 57104
A Level III cultural resources survey was conducted in the Lower Big Sioux Archaeological Region for Clark Engineering Corporation of Sioux Falls, South Dakota. The proposed project area is located near Sioux Falls, South Dakota. The proposed project involves the replacement and/or addition of culverts, raising the elevation of a road surface, stream channel drainage improvements, a temporary access road, and storm water detention pond. A background records search revealed two segments of the former Chicago, Rock Island, and Pacific Railroad (Site 39LN2016) within the proposed project area. Three cultural resources surveys have been previously conducted within portions of the proposed project area. Kogel Archaeological Consulting Services personnel conducted a Level III cultural resources survey on August 20 and 21, 2012, examining a total of approximately 24.4 acres (9.8 hectares). No new historic properties were identified during the current survey. Two segments of the former Chicago, Rock Island & Pacific Railroad are crossed by the proposed project area and were revisited during the current survey. At Crossing #1 of Site 39LN2016, a cement arch and portions of the railroad berm was damaged by recent flooding. No further work is recommended at Crossing #1 provided that the proposed work is conducted within the proposed project area. Crossing #2 contains an intact cement arch and railroad berm. Avoidance of these features at Crossing #2 of Site 39LN2016 is recommended. A determination of no adverse effect is recommended provided that the proposed work at Crossing #1 can be conducted within the proposed project area and the cement arch and the railroad berm at Crossing #2 are avoided by the proposed project. Cultural resource clearance is recommended for the proposed project if these two conditions are met.
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INTRODUCTION

General Project Location

The proposed project area is located in southeast South Dakota within Lincoln County (Figure 1). The proposed project area is located approximately 1 mile (1.6 kilometers) southeast of the city of Sioux Falls. The area surveyed is located within the Lower Big Sioux Archaeological Region as outlined in the *South Dakota State Plan for Archaeological Resources* (Winham and Hannus 1991). The legal location of the project area is provided in Table 1.

![Map of Lincoln County, South Dakota with Proposed Project Area highlighted](image)

**Figure 1.** General location of the proposed project area within Lincoln County, South Dakota.

<table>
<thead>
<tr>
<th>Township</th>
<th>Range</th>
<th>Section</th>
<th>1/4</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>100N</td>
<td>49W</td>
<td>17</td>
<td>NE1/4 of the SE1/4</td>
<td>Lincoln</td>
</tr>
<tr>
<td>100N</td>
<td>49W</td>
<td>16</td>
<td>SW1/4</td>
<td>Lincoln</td>
</tr>
<tr>
<td>100N</td>
<td>49W</td>
<td>16</td>
<td>SW1/4 of the SE1/4</td>
<td>Lincoln</td>
</tr>
<tr>
<td>100N</td>
<td>49W</td>
<td>21</td>
<td>NW1/4, NE1/4 &amp; SE1/4</td>
<td>Lincoln</td>
</tr>
<tr>
<td>100N</td>
<td>49W</td>
<td>22</td>
<td>SW1/4</td>
<td>Lincoln</td>
</tr>
</tbody>
</table>

**Table 1.** Project Area Legal Location.

Project Description

The lead federal agency for the proposed project is the Federal Emergency Management Agency (FEMA). The proposed project area encompasses a total of 24.4 acres (9.8 hectares) along the banks of Spring Creek and an unnamed, intermittent tributary of Spring Creek (Figure 2). The work for the project will be conducted at or near the ground surface. The proposed project includes the replacement and/or addition of culverts, channel drainage improvements to the unnamed tributary of Spring Creek, raising the...
elevation of a road surface, a temporary access road, and a storm water detention pond. Details of the project area are summarized below in Table 2 and keyed to the map in Appendix C. The map in Appendix C also depicts the significant residential and infrastructure development that has occurred over the last 20-30 years. All of the culvert improvements will occur within existing road rights-of-way. The temporary access road parallels the north side of the railroad berm, connecting Chateau Court to the stream crossing. The access road will provide passage of work vehicles to the stream and railroad berm at Crossing #1.

<table>
<thead>
<tr>
<th>Project Areas</th>
<th>Dimensions (ft)</th>
<th>Type of Improvement</th>
<th>Cultural Resource Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td>5660 x 100</td>
<td>Channel improvements, culvert replacement</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>120 x 100</td>
<td>Culvert replacement</td>
<td>None</td>
</tr>
<tr>
<td>8</td>
<td>80 x 80</td>
<td>Culvert replacement</td>
<td>None</td>
</tr>
<tr>
<td>9</td>
<td>100 x 60</td>
<td>Culvert addition</td>
<td>None</td>
</tr>
<tr>
<td>10</td>
<td>175 x 135</td>
<td>Culvert addition</td>
<td>None</td>
</tr>
<tr>
<td>11</td>
<td>150 x 150</td>
<td>Modify railroad crossing</td>
<td>Site 39LN2016</td>
</tr>
<tr>
<td></td>
<td>650 x 50</td>
<td>Access road</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>200 x 100</td>
<td>Culvert replacement</td>
<td>None</td>
</tr>
<tr>
<td>13</td>
<td>600 x 600</td>
<td>Water retention pond</td>
<td>Site 39LN2016</td>
</tr>
<tr>
<td>14</td>
<td>200 x 100</td>
<td>Increase road surface elevation</td>
<td>None</td>
</tr>
</tbody>
</table>
Figure 2. Proposed project area, previously conducted cultural resources surveys (Emerson and Emerson 1979; Hannus 1989; and Shierts 1994), and Crossings #1 and #2 of the former Chicago, Rock Island & Pacific Railroad (Site 39LN2016), shown on USGS 7.5’ quadrangle Harrisburg (1962).
Environmental Setting

Flint (1955) called the region in which the project area is located the Coteau Des Prairies physiographic province. The Coteau Des Prairie is a flatiron shaped plateau extending from North Dakota and gradually descends into the upland area south of Sioux Falls. The Coteau is drained by the Big Sioux River which divides the province in half. The eastern half of the Coteau is characterized by stream valleys while the western half of the province is dotted with permanent and intermittent lakes and sloughs (Hogan and Fouberg 2001:16-17). The project area is situated on a nearly flat plain and a stream valley. The elevation of the project area ranges from a low of approximately 1330 feet (405 meters) above sea level (asl) at the intersection of Spring Creek and 479th Avenue to a high of approximately 1410 feet (430 meters) asl near the northernmost extent of the channel improvement project area. Spring Creek is located within the proposed project area and provides drainage for the surrounding region. According to the Natural Resource Conservation Service's Web Soil Survey (2012), nine specific soils are mapped within/near the proposed project area in Lincoln County (Table 3). The construction and the dismantling of the Chicago, Rock Island & Pacific Railroad and construction of a residential development have impacted the proposed project area. The ground surface visibility ranged from 10 to 40 percent, with an average visibility of 20 percent. The project area was characterized by forbs and short and tall grasses.

Table 3. Specific Soils Within Or Near The Project Area In Lincoln County, South Dakota.

<table>
<thead>
<tr>
<th>NRCS Map Unit Symbol</th>
<th>Soil Name</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ca</td>
<td>Chancellor-Tetonka silty clay loams</td>
<td>Lincoln</td>
</tr>
<tr>
<td>Cd</td>
<td>Chancellor-Viborg silty clay loams</td>
<td>Lincoln</td>
</tr>
<tr>
<td>EaB</td>
<td>Egan silty clay loam (3-6 percent slopes)</td>
<td>Lincoln</td>
</tr>
<tr>
<td>EcB</td>
<td>Egan-Chancellor silty clay loams (0-4 percent slopes)</td>
<td>Lincoln</td>
</tr>
<tr>
<td>La</td>
<td>Lamo silty clay loam</td>
<td>Lincoln</td>
</tr>
<tr>
<td>SkD2</td>
<td>Shindler-Egan complex (0-9 percent slopes)</td>
<td>Lincoln</td>
</tr>
<tr>
<td>SuF</td>
<td>Steinauer-Shindler clay loams (24-40 percent slopes)</td>
<td>Lincoln</td>
</tr>
<tr>
<td>WhA</td>
<td>Wentworth-Chancellor silty clay loams (0-2 percent slopes)</td>
<td>Lincoln</td>
</tr>
<tr>
<td>Ws</td>
<td>Worthing silty clay</td>
<td>Lincoln</td>
</tr>
</tbody>
</table>

RECORDS SEARCH AND BACKGROUND RESEARCH RESULTS

Ms. Jane Watts, Records Manager of the Archaeological Research Center in Rapid City, South Dakota, conducted a files search and reported the results on August 7, 2012. According to the records search results, the former Chicago, Rock Island & Pacific Railroad is crossed by the proposed project area in two locations (Figure 2). Three previous cultural resources surveys (Emerson & Emerson 1979; Hannus 1989; and Shierts 1994) have been conducted within the proposed project area. The Emerson and Emerson survey (1979) examined a corridor along the half-section line for an overhead electric power line. The
Shierts survey (1994) examined an area parallel to 479th Avenue at the Spring Creek crossing for a bridge replacement project. The Hannus survey (1989) examined a corridor along the eastern right-of-way of Highway 11 for an electric power line. Nine previous cultural resources surveys (Buhta 2010; Byrne 2010a & 2010b; Lueck & Winham 2004; McClelland 2010; Palmer et al 2002; Sigstad 1973; Strait & Lueck 1997; and Williams 2011) have been conducted within one-mile of the proposed project area. One archaeology site, 39LN94, is located within one mile of the proposed project area. Site 39LN94 was recorded as a farmstead and is located a half mile north of the proposed project area. Numerous homes are located near the project area but, they are located outside of the proposed project area.

Atlases/plat maps were examined for potential historic structure or archaeology site locations. On July 18, 2012, three atlases (Andreas 1884; Midwest Atlas Company 1964; and Peterson 1904) were consulted at the Center for Western Studies, Augustana College, Sioux Falls, South Dakota. Also, two atlases/plat maps (Ogle 1910; The Farmer 1929) were consulted at the Historic Map Works website and one United States Geological Survey 7.5’ quadrangle (Harrisbrug 1962) was checked for potential historic structure/site locations. No potential historic structures or site locations were depicted within the proposed project area on any of the atlases or maps.

FIELDWORK

Kogel Archaeological Consulting Services personnel conducted the Level III cultural resources survey on August 20 and 21, 2012. Troy Kogel served as Principal Investigator and conducted the fieldwork for the proposed project. The proposed project area was examined by conducting a 100% pedestrian ground survey. In the channel improvement project area, two transects were walked parallel to each bank of the intermittent stream, each transect examined a corridor width of 25 feet (7.5 meters). Many parallel transects were walked until the remaining road crossings, access road, and water detention pond were investigated. Two segments of the former Chicago, Rock Island and Pacific Railroad, Site 39LN2016, were revisited during the current survey. The two segments of the Chicago, Rock Island and Pacific Railroad are discussed further below.

Due to the current drought conditions, the dry bed of Spring Creek was walked to check for cultural resources. The nearly continuous cut bank exposure provided a rare opportunity to check for buried cultural resources that may be exposed in the cut bank. An example of the Spring Creek cut bank is shown below (Figure 3). No buried cultural resources were observed in the cut bank profiles.
A total of eleven bucket auger tests were excavated to determine the soil profile within the project area and check for the presence of cultural resources (Figure 4). The results of the bucket augers are summarized in Table 4 below. Bucket Augers 1-6 were excavated within the proposed water detention pond project area and were aligned on a north/south axis, from the crest of a hill to a flat plain. Bucket Augers 1-6 were placed in an area that had not been previously surveyed and were in a topographic location that were expected to hold archaeological deposits. Bucket Augers 7-11 were placed in areas along the channel improvement project area (project improvement numbers 1-6 in Figure 4). Because of the small size of the project area and the previous disturbances
associated with road construction, no bucket augers were excavated in culvert improvement areas (project improvements numbered 7-12 in Figure 4). The soil matrix from the bucket augers was passed through a ¼” wire mesh. No cultural artifacts were recovered from any of the bucket auger excavations.

Figure 4. Location of Bucket Augers 1-11.
### Table 4. Summary of Bucket Augers 1-11.

<table>
<thead>
<tr>
<th>Bucket Auger</th>
<th>Depth (cm)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-20</td>
<td>Very dark grayish brown (10YR3/2) silty loam.</td>
</tr>
<tr>
<td></td>
<td>20-32</td>
<td>Brown (10YR4/3) silty loam.</td>
</tr>
<tr>
<td></td>
<td>32-65</td>
<td>Brown (10YR5/3) silty loam, gravel increases with depth.</td>
</tr>
<tr>
<td>2</td>
<td>0-22</td>
<td>Very dark grayish brown (10YR3/2) silty loam.</td>
</tr>
<tr>
<td></td>
<td>22-32</td>
<td>Dark yellowish brown (10YR4/4) rocky, silty loam.</td>
</tr>
<tr>
<td>3</td>
<td>0-14</td>
<td>Very dark grayish brown (10YR3/2) silty loam.</td>
</tr>
<tr>
<td></td>
<td>14-34</td>
<td>Grayish brown (10YR5/2) silty loam, gravel amount increases with depth.</td>
</tr>
<tr>
<td></td>
<td>34-42</td>
<td>Brown (10YR5/3) silty loam, gravel.</td>
</tr>
<tr>
<td></td>
<td>42-50</td>
<td>Pale brown (10YR6/3) silty loam, gravel with calcium carbonate inclusions.</td>
</tr>
<tr>
<td>4</td>
<td>0-18</td>
<td>Black (10YR2/1) silty loam</td>
</tr>
<tr>
<td></td>
<td>18-32</td>
<td>Dark grayish brown (10YR4/2) silty loam</td>
</tr>
<tr>
<td></td>
<td>32-48</td>
<td>Pale brown (10YR6/3) loam, gravel and calcium carbonate inclusions increase with depth</td>
</tr>
<tr>
<td>5</td>
<td>0-23</td>
<td>Black (10YR2/1) silty loam</td>
</tr>
<tr>
<td>6</td>
<td>0-26</td>
<td>Black (10YR2/1) silty loam</td>
</tr>
<tr>
<td></td>
<td>26-71</td>
<td>Very dark gray (10YR3/1) silty, sandy loam</td>
</tr>
<tr>
<td>7</td>
<td>0-40</td>
<td>Very dark grayish brown (10YR3/2) loamy silt</td>
</tr>
<tr>
<td>8</td>
<td>0-30</td>
<td>Very dark grayish brown (10YR3/2) loamy silt</td>
</tr>
<tr>
<td></td>
<td>30-34</td>
<td>Very dark grayish brown (10YR3/2), gravelly</td>
</tr>
<tr>
<td></td>
<td>34-90</td>
<td>Very dark grayish brown (10YR3/2) sandy, silty loam</td>
</tr>
<tr>
<td>9</td>
<td>0-16</td>
<td>Black (10YR2/1) loam</td>
</tr>
<tr>
<td></td>
<td>16-102</td>
<td>Black (10YR2/1) clayey loam</td>
</tr>
<tr>
<td>10</td>
<td>0-20</td>
<td>Very dark grayish brown (10YR3/2) loam</td>
</tr>
<tr>
<td></td>
<td>20-90</td>
<td>Very dark grayish brown (10YR3/2) clayey loam</td>
</tr>
<tr>
<td></td>
<td>90-100</td>
<td>Dark gray (10YR4/1) clay</td>
</tr>
<tr>
<td>11</td>
<td>0-25</td>
<td>Very dark brown (10YR2/2) clayey loam</td>
</tr>
<tr>
<td></td>
<td>25-43</td>
<td>Very dark grayish brown (10YR3/2) clayey loam</td>
</tr>
<tr>
<td></td>
<td>43-74</td>
<td>Very dark grayish brown (10YR3/2) silty loam</td>
</tr>
<tr>
<td></td>
<td>74-90</td>
<td>Dark grayish brown (10YR4/2) clayey loam</td>
</tr>
<tr>
<td></td>
<td>90-98</td>
<td>Yellowish brown (10YR5/4) clay</td>
</tr>
</tbody>
</table>

### Chicago, Rock Island & Pacific Railroad (Site 39LN2016)
#### Crossing #1

Crossing #1 of the Chicago, Rock Island & Pacific Railroad, a National Register of Historic Places eligible property, was revisited during the current survey. This crossing of the railroad consists of a berm and a partially destroyed single arch, cement stream crossing. The Chicago, Rock Island & Pacific
Railroad was abandoned in the early 1970’s (Hufstetler and Bedeau 2007:73; Lincoln County History Committee 1985: 155). Shortly after the railroad was abandoned, the rails and ties were removed. Due to recent flooding events, the cement arch stream crossing was partially destroyed (Figures 5-6). Approximately ¾ of the cement arch has fallen into the creek/stream bed. The berm has been gradually eroding ever since (Figure 7). The proposed work at this crossing include the removal of the cement fragments in the stream bed, removal of the standing portion of the cement arch, and adding a slope of 2:1 or 3:1 to the end of the berm to increase safety and minimize future erosion.

The National Register of Historic Places eligibility status of this property has been diminished by the flood damage to the railroad berm and the cement arch stream crossing. No further cultural resources work is recommended at this crossing of the railroad. The proposed work at this crossing of the Chicago, Rock Island, & Pacific is recommended to proceed provided that the work is conducted within the proposed project area (Figure 8).

Figure 5. Overview at Crossing #1 of the former Chicago, Rock Island & Pacific Railroad (Site 39LN2016) within the proposed project area, view to the east. Photograph taken by Troy Kogel on August 20, 2012.
Figure 6. Overview at Crossing #1 of the former Chicago, Rock Island & Pacific Railroad (Site 39LN2016) within the proposed project area, view from the stream bed, to the south. Photograph taken by Troy Kogel on August 20, 2012.

Figure 7. Collapsing railroad berm at Crossing #1 on the west side of the unnamed intermittent stream, view to the north. Photograph taken by Troy Kogel on August 20, 2012.
Chicago, Rock Island & Pacific Railroad (Site 39LN2016)
Crossing #2

Crossing #2 of the Chicago, Rock Island & Pacific Railroad consists of a railroad berm and a cement arch stream crossing (Figures 9-10). The cement arch stream crossing contains a brick lined arch and the cement façade is stamped with a construction date of 1898 (Figure 11). The Chicago, Rock Island & Pacific Railroad was abandoned in the early 1970’s (Hufstetler and Bedeau 2007:73; Lincoln County History Committee 1985: 155). After the railroad was abandoned, the rails and ties were subsequently removed, but the cement arch stream crossing retains its original characteristics that would contribute to its National Register of Historic Places eligibility. Avoidance of the cement arch stream crossing and railroad berm is recommended. If the berm and cement arch can be avoided by the proposed project, no further cultural resources work is recommended for this segment of the former Chicago, Rock Island & Pacific Railroad.
Figure 9. Overview of the former Chicago, Rock Island & Pacific Railroad (Site 39LN2016) berm paralleling the proposed water detention pond, view from 479th Avenue, to the west. Photograph taken by Troy Kogel on August 20, 2012.

Figure 10. Overview of the cement arch stream crossing of the former Chicago, Rock Island & Pacific Railroad (Site 39LN2016) within the proposed project area, view to the north. Photograph taken by Troy Kogel on August 20, 2012.
Figure 11. Construction date of the cement arch crossing at Spring Creek, view to the north. Photograph taken by Troy Kogel on August 20, 2012.

SUMMARY AND RECOMMENDATIONS

In summary, a total of approximately 24.4 acres (9.8 hectares) were surveyed in Lincoln County, South Dakota, in anticipation of drainage improvements to Spring Creek and its unnamed, intermittent tributary. Two segments the former Chicago, Rock Island & Pacific Railroad (Site 39LN2016), was revisited during the current survey. Crossing #1 of the Chicago, Rock Island & Pacific Railroad has been partially destroyed by recent flooding. This segment of the railroad lacks the physical integrity that would contribute to its eligibility as National Register of Historic Places property. The proposed work is recommended to proceed provided that the work is conducted within the proposed project area. Crossing #2 of the Chicago, Rock Island & Pacific Railroad contains an intact, cement arch stream crossing and railroad berm that parallels the proposed water detention pond. This segment of the railroad retains the physical integrity that would contribute to its eligibility as a National Register of Historic Places property. Avoidance of the berm and concrete, arch stream crossing is recommended. If the berm and cement arch stream crossing can be avoided, no further cultural resources work is recommended.

Based on the previous disturbances from residential development and absence of cultural remains in the cut bank profiles and in the bucket augers, indicates there is little potential for buried, undiscovered cultural deposits in the proposed project area. A determination of no adverse effect is recommended for the proposed project. Cultural resource clearance is recommended. Although it is
unlikely, if the proposed project uncovers items that may be of archaeological, architectural, or historic interest, the State Historic Preservation Office of South Dakota should be contacted immediately.

STATE PLANNING

This portion of the Lower Big Sioux Archaeological Region contained one previously recorded historic property. This finding contributes positive location information to the management of the Lower Big Sioux Archaeological Region.

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Shierts, Brenda A.

Sigstad, John S.

Strait, James D. & Edward Lueck

The Farmer

United States Geological Survey (USGS)

Web Soil Survey
2012 Natural Resource Conservation Service’s website is available at: 
http://websoilsurvey.nrcs.usda.gov/app/

Williams, Roger

Winham, R. Peter and L. Adrien Hannus
APPENDIX A

Chicago, Rock Island & Pacific Railroad Updated Site Forms (39LN2016)

Crossing #1 and Crossing #2
### LOCATIONS

<table>
<thead>
<tr>
<th>Legal Locations</th>
<th>Section</th>
<th>Twp</th>
<th>Rg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE1/4 NW1/4, SE1/4</td>
<td>21</td>
<td>100N</td>
<td>49W</td>
</tr>
</tbody>
</table>

### COMPONENTS

<table>
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<tr>
<th>Site Type</th>
<th>Time Period</th>
<th>Cultural Affiliation</th>
</tr>
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<tbody>
<tr>
<td>Railroad</td>
<td>A.D. 1861-</td>
<td>Euro-American</td>
</tr>
</tbody>
</table>

### COMMENTS

Comments/site description (i.e. artifacts/features observed)

The railroad berm and cement arch of the Chicago, Rock Island & Pacific Railroad has been damaged by a recent flooding. The rails and ties have been removed when the railroad was abandoned in the early 1970's. Approximately 3/4 of the cement arch at the stream crossing has been destroyed. Erosion has damaged part of the berm.

Evaluation/collection methods

Due to the flood damage, this segment of the railroad does not retain any characteristics that would contribute to its eligibility as a National Register of Historic Places property.

Owner name/address/attitude

Unknown

Name

Troy Kogel

Date

August 30, 2012

Project

Spring Creek Drainage Improvement Project
A Level III Cultural Resources Survey of the
Proposed Spring Creek Drainage Improvement
Project in Lincoln County, South Dakota

SD STATE ARCHAEOLOGICAL RESEARCH CENTER

SITE MAP

Location of Crossing #1 of the Chicago, Rock Island & Pacific railroad (Site 39LN2016) in the SE1/4, NW1/4, SE1/4 of Section 21, T100N, R49W depicted on USGS 7.5’ Harrisburg quadrangle (1962).

SITE LOCATION

Overview of the flood damaged segment of the Chicago, Rock Island & Pacific Railroad (Site 39LN2016), in the SE1/4, NW1/4, SE1/4 of Section 21, T100N, R49W, view to the east (Photograph taken by Troy Kogel, August 20, 2012).
### SD STATE ARCHAEOLOGICAL RESEARCH CENTER

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<td>39LN2016</td>
<td>C, R.I., &amp; P Railroad</td>
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#### Other No
- Crossing #: 2

#### Map Reference
- Harrisburg

#### Arch. Region
- Lower Big Sioux

#### Vegetation
- Short Grass

#### UTM Zone
- E/N

#### Surf. visibility
- 1%

#### Site elevation
- 405 m

#### Condition
- Disturbed

#### Site Dim. N-S
- 1 m

#### Area
- 400 ha

#### Depth
- cm

#### Nearest Water Type
- Intermittent Stream

#### Name
- Spring Creek

#### Distance
- 1 m

#### Elevation
- 400 M

#### Direction
- Bank B

#### Legal Locations
- N1/2, SE1/4, SE1/4
- Section 21, Twp 100N, Rg 49W

#### COMPONENTS

#### Site Type
- Railroad

#### Time Period
- A.D. 1861

#### Cultural Affiliation
- Euro-American

#### COMMENTS

**Comments/site description (i.e. artifacts/features observed)**

This segment of the Chicago, Rock Island & Pacific Railroad contains a railroad berm and a cement arch stream crossing that parallels the proposed project area.

**Evaluation/collection methods**

This segment of the former Chicago, Rock Island & Pacific railroad retains features that would contribute to its Nation Register if Historic Places eligibility. Avoidance of the railroad berm and the cement arch stream crossing is recommended.

**Owner name/address/attitude**

Name: Troy Kogel
Date: August 30, 2012

**Project**

Spring Creek Drainage Improvement Project
Location of Crossing #2 of the Chicago, Rock Island & Pacific railroad (Site 39LN2016) in the N1/2, SE1/4, SE1/4 of Section 21, T100N, R49W depicted on USGS 7.5’ Harrisburg quadrangle (1962).

Overview of the cement single span arch at the Chicago, Rock Island & Pacific Railroad (Site 39LN2016), in the N1/2 of the SE1/4 of the SE1/4 of Section 21, T100N, R49W, view to the north (Photograph taken by Troy Kogel, August 20, 2012).
Overview of the segment of the former Chicago, Rock Island & Pacific Railroad (Site 39LN2016) that parallels the water detention pond, in the N1/2 of the SE1/4 of the SE1/4 of Section 21, T100N, R49W, view to the west (Photograph taken by Troy Kogel, August 20, 2012).
Appendix B

National Archaeological Database Form
A Level III Cultural Resources Survey of the Proposed Spring Creek Drainage Improvement Project in Lincoln County, South Dakota

Database Doc Number:
NATIONAL ARCHAEOLOGICAL DATABASE - REPORTS: DATA ENTRY FORM

1. R and C #

2. Authors: Kogel, Troy

Year of Publication 2012

3. Title: A Level III Cultural Resources Survey of the Proposed Spring Creek Drainage Improvement Project in Lincoln County, South Dakota

4. Report Title: 
Volume #: Report #: NTIS: 
Publisher: 
Place: 

5. Unpublished
Sent From: Kogel Archaeological Consulting Services, 1818 West 26th Street, Sioux Falls, SD 57105
Sent To: Clark Engineering Corporation, 1410 West Russell Street, Sioux Falls, South Dakota, 57104
Contract #: 

6. Federal Agency: FEMA

7. State: SD
County Lincoln
Town

8. Work Type 31

9. Keyword: 0 - Types of Resources/Features 1 - Generic Terms/Research Questions 2 - Taxonomic Names 3 - Artifact Types/Material Classes 4 - Geographic Names/Locations 5 - Time Periods 6 - Project Names/Study Unit 7 - Other Key Words
24.4 acres [7] [ ]
Site 39LN2016 [2] [ ]
Lower Big Sioux Arch. Region [6] [ ]
Lincoln County [4] [ ]
Chicago, Rock Island & Pacific Railroad [0] [ ]

10. UTM Zone: 14 Easting: Northing:

11. Township: Range: 100N 49W
A Level III Cultural Resources Survey of the Proposed Spring Creek Drainage Improvement Project in Lincoln County, South Dakota

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Appendix C

Spring Creek Project Improvement Map
A Level III Cultural Resources Survey of the Proposed Spring Creek Drainage Improvement Project in Lincoln County, South Dakota

Spring Creek Project Improvements Map.