DRAFT ENVIRONMENTAL ASSESSMENT

for

Hardin County Radio Communications Tower Facility

Hardin County, Iowa

prepared for

Hardin County Sheriff’s Department

PART 4
ATTACHMENT 1:
ARCHAEOLOGICAL SURVEY

prepared by

WAPSI VALLEY ARCHAEOLOGY
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October  2008
Phase I Intensive Archaeological Survey of a Proposed Radio Tower Northwest of Eldora, Hardin County, Iowa

Wapsi Valley Archaeology
Report #386

Prepared for:
Hardin County Sheriff's Office
Eldora, Iowa

Toby A. Morrow
Principal Investigator

Wapsi Valley Archaeology, Inc.
P.O. Box 244
Anamosa, Iowa 52205
Telephone (319) 462-4760

October 2008
**Locational Information and Survey Conditions**

<table>
<thead>
<tr>
<th>County(ies):</th>
<th>Hardin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quadrangle(s):</td>
<td>Owasa, IA</td>
</tr>
<tr>
<td>Date(s):</td>
<td>1974</td>
</tr>
<tr>
<td>Responsible federal/state agencies:</td>
<td>FCC</td>
</tr>
<tr>
<td>Legal Location:</td>
<td>SW 1/4, SE 1/4 and SE 1/4, NW 1/4, SE 1/4 of Section 26, T88N, R20W, Jackson Township, Hardin County, Iowa.</td>
</tr>
<tr>
<td>UTM coordinates:</td>
<td>15 488170mE 4693970mN</td>
</tr>
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</table>

Project description:
The project involves the construction of a new radio tower east of the Hardin County Home facility northwest of Eldora in rural Hardin County, Iowa. The proposed tower is to be a 350 foot (106.7 m) tall guyed tower with a 300 foot (91.44 m) guy radius. The project also requires an access road measuring approximately 1640 feet (500 m) in length and 15 feet (4.57 m) in width. The total project APE encompasses approximately 20.96 acres (8.49 ha).

**Topography**

Soil associations: The project is situated in the Clarion-Nicolett-Webster soil association. The specific soil units mapped in the project area are Clarion loam, 2 to 5 percent slopes (138B) and Clarion loam, 5 to 9 percent slopes, moderately eroded (138C2). Clarion soils are well drained soils developed in glacial till under a native vegetation of prairie grasses.

Reference: Voy 1985  
Landform: Des Moines Lobe  
Reference: Prior 1991  
Drainage Name: Iowa River

Land use/ground cover/percent visibility: At the time of the fieldwork, the project area was in mature soybeans that had largely defoliated. Ground surface visibility ranged from 25 to 80 percent.

Survey Limitations: Survey conditions were good.

**Archaeological and Historical Information**

Previously reported sites: None  
Previous surveys: None  
Citation(s): N/A
Regional archaeologist contacted:

Toby A. Morrow

Investigation Techniques: Surface survey and subsurface auger testing. Surface reconnaissance was undertaken across the entire project area at 5 meter intervals. At the time of the survey the tower base and the three guy wire anchor positions had been staked. A subsurface auger test was excavated at each of these four staked locations to document soil stratigraphy. Auger tests were excavated well into subsoil in 10 cm arbitrary levels. All sediments were screened through 1/4 inch wire mesh.

Historical sources consulted: Andreas 1970 [1875]; Harris and Warner (1875); North West (1892); Gardner Map and Atlas (1903); Midland Map (1918); Hixson (1930)

Time expended: 1.0 days Person hours: 16 hours
Area surveyed: 20.96 acres 8.49 ha

Contractor and Surveyor Information

Archaeological contractor: Wapsi Valley Archaeology
Address: P.O. Box 244, Anamosa, IA 52205
Surveyor’s Name(s): Kelly Finn, Toby A. Morrow
Date(s) surveyed: 2 and 3 October, 2008
ASSR completed by: Toby A. Morrow
ASSR submitted by: Toby A. Morrow

Attachments Checklist

1. Project location map depicting general project location, scale, and north arrow
2. U.S.G.S. topographic map depicting project limits, scale, north arrow, and date of map
3. Sketch map(s) depicting project limits, scale, north arrow, date of map, all subsurface tests, shovel probes, soil cores, and soil profiles
4. Copies of historical plat map(s) consulted
5. Relevant depiction(s) of soil profiles and soil descriptions
6. References cited section
7. Additional information sheets as necessary

Contractor and ASSR Assurance Control

I (We), the (Co-) Principal Investigator(s): Toby A. Morrow

(sign here),

Address(es) of the agency or person to whom SHPO comments should be mailed:
Primary Contact: Sheriff Tim Smith, Hardin County Sheriff’s Office, 1116 14th Avenue, Eldora, Iowa 50627, Ph. (641) 939-8189
Secondary Contact: Rey Freeman, GeoComm, 13517 Larkin Drive, Minnetonka, Minnesota 55305, Ph. (952) 541-0747
Comments: Background research indicated no archaeological sites had been recorded in or near the project area and that no archaeological surveys had been completed within one mile of the proposed project. Historic plat maps dating from 1875 to 1930 and late 1930s aerial photographs do not illustrate any structures within the project area.

The project area is situated in high, rolling uplands at the headwaters of small unnamed tributaries of Beaver Creek. Surface visibility was good to excellent across the project area during the survey. No prehistoric or historic artifacts were observed on the ground surface. The positions of the tower base and the three guy anchors were staked at the time of the fieldwork. Auger tests were excavated at each of these four locations to document soil stratigraphy. These tests revealed a surficial plowzone from 20 to 25 cm thickness overlying a loamy and gravelly B horizon. No artifacts were recovered from any of these four tests.

The Phase I archaeological survey did not find any significant cultural resources in the proposed area of impact. As a result, no additional archaeological work is recommended.

It should be noted that all archaeological surveys involve sampling. If any cultural resources are unexpectedly found, the federal agency involved with the project should be contacted. If any human remains are encountered, it is required by Iowa law [Code of Iowa, Chapters 263B and 716.5; IAC 685, Ch. 11.1] that all work in the area of the remains be temporarily stopped, security provided for the remains, local law enforcement officials notified to help protect the remains, and the State Burials Program Director contacted immediately at (319) 384-0740. Archaeologists with the State Historical Society of Iowa at (515) 281-4538 and Wapsi Valley Archaeology at (319) 462-4760 can also be called upon to offer advice on matters relating to unanticipated findings of cultural resources.

Reviewer's comments:
References

Andreas, Alfred T.

Gardner Map and Atlas

Harris and Warner

Hixson, W. W.

Iowa Department of Natural Resources
2000 *Landform Regions of Iowa*. Iowa Department of Natural Resources.

Midland Map

North West Publishing

Prior, Jean

Voy, Kermit D.
Table 1. Description of soil profiles in auger tests.

<table>
<thead>
<tr>
<th>Auger No.</th>
<th>Depth (cm)</th>
<th>Description and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-20</td>
<td>Very dark grayish brown (10YR 3/2) loam</td>
</tr>
<tr>
<td></td>
<td>20-35</td>
<td>Very dark gray (10YR 3/1) loam</td>
</tr>
<tr>
<td></td>
<td>35-50</td>
<td>Dark gray (10YR 4/1) loam</td>
</tr>
<tr>
<td>2</td>
<td>0-20</td>
<td>Very dark gray (10YR 3/1) loam</td>
</tr>
<tr>
<td></td>
<td>20-35</td>
<td>Dark gray (10YR 4/1) loam</td>
</tr>
<tr>
<td></td>
<td>35-45</td>
<td>Grayish brown (10YR 5/2) loam</td>
</tr>
<tr>
<td>3</td>
<td>0-20</td>
<td>Very dark grayish brown (10YR 3/2) loam</td>
</tr>
<tr>
<td></td>
<td>20-30</td>
<td>Yellowish brown (10YR 5/4) clay loam</td>
</tr>
<tr>
<td>4</td>
<td>0-25</td>
<td>Very dark gray (10YR 3/1) loam</td>
</tr>
<tr>
<td></td>
<td>25-45</td>
<td>Dark gray (10YR 4/1) loam</td>
</tr>
<tr>
<td></td>
<td>45-55</td>
<td>Gray (10YR 5/1) loam</td>
</tr>
</tbody>
</table>
Figure 1. Map showing Hardin County and the location of the project area.
Figure 2. Iowa landforms showing the Des Moines Lobe and location of the project area. Source: Landform Regions of Iowa. Iowa Department of Natural Resources 2000.
Figure 3. Topography and elevations within the project area. Source. USGS, Owasa, Iowa, 1974, 7.5 series quadrangle maps. Scale: 1:24,000.
Figure 4. Plan map of the project area showing the locations of auger tests, tower base, and anchors. Source: USDA natural color Orthophoto 2006, ISU and MIT, GISU Web site.
Figure 5. Historic plat map of the project area. Source: North West Publishing Co. 1892.

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Figure 6. Historic plat map of the project area. Source: The Midland Map Co. 1918.

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Figure 7. View of the project area, looking north.

Figure 8. View of the project area, looking northwest.
NATIONAL ARCHAEOLOGICAL DATABASE – REPORTS: DATA ENTRY FORM

1. R and C #: 
2. Authors: Toby A. Morrow  
   Publication Date: October 2008 
4. Report Title: 
   Volume #: Report #: 386  NTIS: 
   Publisher: Wapsi Valley Archaeology, Inc.  
   Place: Anamosa, Iowa 
5. Unpublished 
   Sent From: 
   Sent To: 
   Contract #: 
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7. State: Iowa 
   County: Hardin 
   Town: 
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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 
   20.96 acres [7] 
   Des Moines Lobe [4] 
   Iowa River Basin [4] 
   No resources [0] 
10. UTM Zone: 15 Easting: 488170  Northing: 4693970 
    15 Easting:  
    Northing: 
11. Township: 88N 
   Range: 20W
Other Publication Types:
1. Monograph:
   Name:
   Place:

2. Chapter:
   In:    First:    Last:

3. Journal:
   Volume: Issue:    First:    Last:

4. Dissertation:
   Degree:    Ph.D.    LL.D.    M.A.    M.S.    B.A.    B.S.    Institute:

5. Paper:
   Meeting:
   Place:    Date:

6. Other:
   Reference Line:

7. Site #:

8. Quad Map: Owasa, Iowa    Date: 1974