



PHASE IA ARCHAEOLOGICAL SURVEY FOR THE UMORE PARK SAND AND GRAVEL MINING ENVIRONMENTAL REVIEW SERVICES, DAKOTA COUNTY, MINNESOTA

Submitted to:
Short Elliot Hendrickson, Inc.

Submitted by:
The 106 Group Ltd.

September 2009

**PHASE IA ARCHAEOLOGICAL SURVEY FOR THE
UMORE PARK SAND AND GRAVEL MINING
ENVIRONMENTAL REVIEW SERVICES,
DAKOTA COUNTY, MINNESOTA**

**SHPO File No. Pending
The 106 Group Project No. 08-15**

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September 2009

1.0 INTRODUCTION

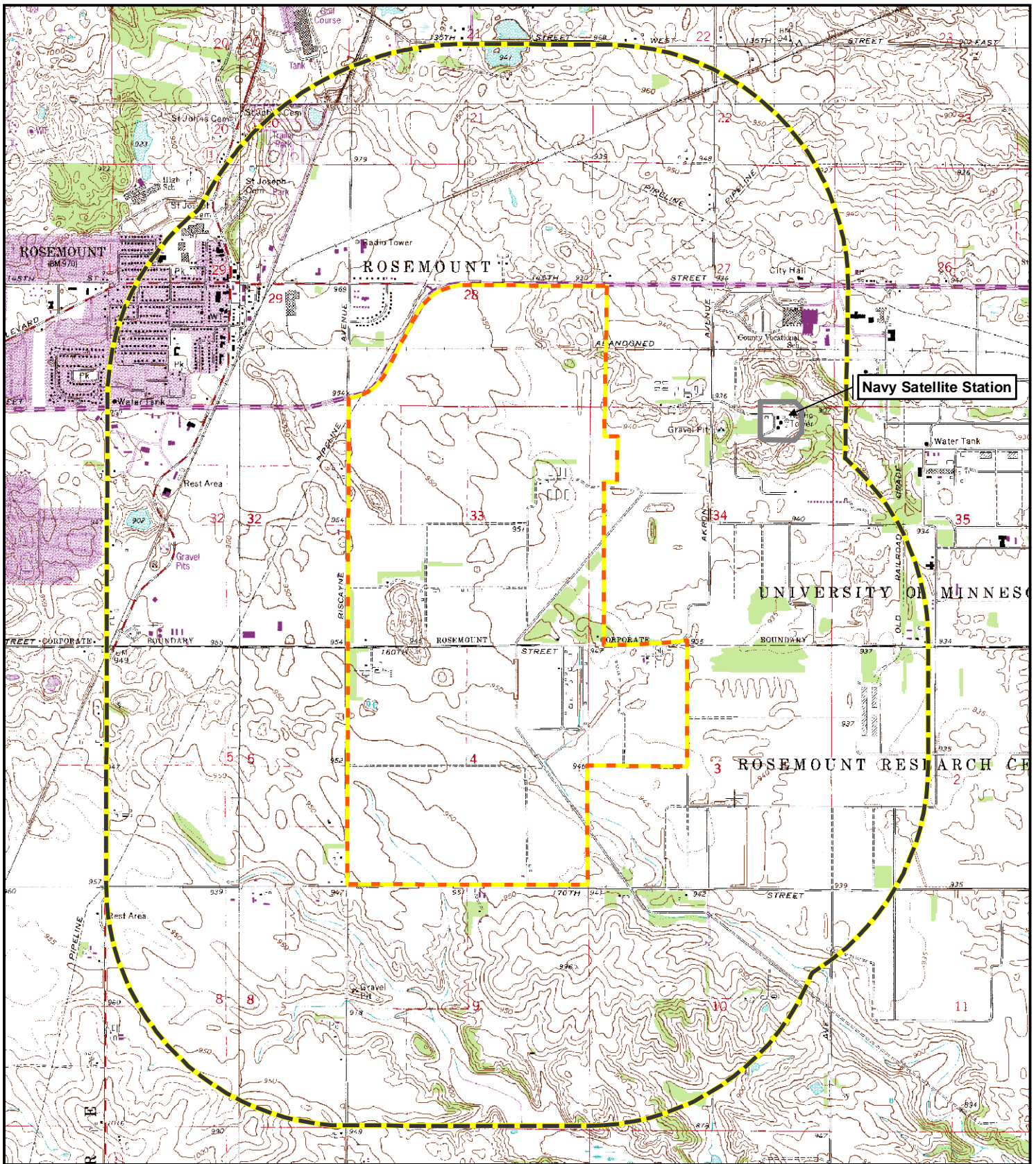
In October and November 2008, and September 2009, the 106 Group Ltd. (106 Group) conducted a Phase IA archaeological survey of the University of Minnesota Outreach, Research and Education (UMore) Park Sand and Gravel Mining Environmental Review Services (UMore Park) project area. The survey was conducted under contract with Short Elliott Hendrickson, Inc. (SEH) for the University of Minnesota.

Since there is currently no federal involvement (e.g., federal permitting and/or funding), the investigation needs only to comply with applicable state mandates governing cultural resources, such as the Minnesota Historic Sites Act, the Minnesota Field Archaeology Act, and the Minnesota Private Cemeteries Act. Therefore, considerations regarding architectural history properties are currently restricted to just those properties within the project area.

The study area for the Phase IA archaeological survey is the same as the project area and includes all areas of proposed construction activities or other potential ground-disturbing activities associated with future development. According to the information provided to the 106 Group by SEH, the project area for the survey consists of a 1,718 acre (695.2 hectares [ha]) section of the UMore Park property in T114N, R19W, sections 3 and 4 and T115N, R19W, sections 27, 28, 33, and 34 of Dakota County, Minnesota (Figure 1). The project area is located within the Southwest Riverine West archaeological sub-region. The UTM coordinates (NAD83/WGS84) for the UMore Park project area are Zone 15, northeast corner: E 492538, N 4953963; northwest corner: E 490815, N 4953213; southeast corner: E 492409, N 4949968; and southwest corner: E 490806, N 4949970. All UTM coordinates were obtained electronically through the use of ESRI GIS software.

The objective of the Phase IA archaeological survey was to identify any archaeological properties within the project area that may require further investigation in order to determine their potential eligibility for listing on the National Register of Historic Places (NRHP), and to assess the potential for unknown archaeological resources located within the project area that may require additional survey.

The Phase IA archaeological survey included a systematic walk-over of the entire project area that was safely accessible at the time of the survey in order to assess the potential for archaeological resources. The following report presents the methodology, previous cultural resources investigations in the project area, results of the Phase IA archaeological survey, and recommendations regarding archaeological resources.



Source: SEH, The 106 Group Ltd., ESRI

Map Produced by The 106 Group Ltd. - 9/23/2009

**UMore Park
Phase IA Archaeological Survey
Dakota County, Minnesota**

Project Location

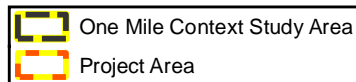
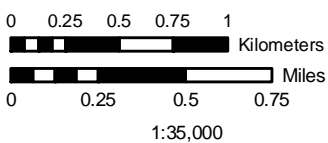


Figure 1

2.0 METHODS

2.1 OBJECTIVES

The primary objectives of the Phase IA archaeological survey were to determine whether the area affected by the proposed project contains any archaeological resources, and if those resources are potentially eligible for listing on the NRHP. All work was conducted in accordance with the SHPO's *Manual for Archaeological Projects in Minnesota* (Anfinson 2005) and *The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation* [48 Federal Register 44716-44740] (National Park Service [NPS] 1983).

2.2 ARCHAEOLOGY

2.2.1 Background Research

On October 10, 2008, background research was conducted using the State Historic Preservation Office (SHPO) site files for information on previously identified archaeological sites, historic properties, and on cultural resources surveys previously conducted within the project area. Additionally, in order to provide a broader archaeological context for the area, previously identified archaeological sites located within one mile (1.6 kilometers [km]) of the archaeological study area were also reviewed.

Multiple documents were consulted including aerial photographs, historical plat maps, and USGS topographic maps. Early land surveyor notes as represented by the Trygg maps were examined to determine potential historical archaeological resources (Trygg 1964). Furthermore, data on the proposed project area soils were reviewed in order to assess the portions of the project area that possessed a higher potential for containing archaeological sites.

In addition, information received from SEH, UMore Park, Barr Engineering, and Dakota County indicating areas with safety concerns were incorporated into the field survey maps. The areas of concern were avoided during the pedestrian survey.

2.3 STUDY AREA

The study area is the same as the project area which is located in T114N, R19W, Sections 3 and 4 and T115N, R19W, sections 27, 28, 33, and 34 of Dakota County, Minnesota (see Figure 1). According to current project plans provided by SEH on August 31, 2009, the project area encompasses 1,718 acres (695.2 hectares [ha]).

2.3.1 Field Methods

The entire project area that was safely accessible at the time of the survey was subjected to systematic pedestrian surface reconnaissance. From October 28th to November 4th, 2008, and on September 15, 2009 systematic pedestrian surface reconnaissance were conducted to ascertain whether above-ground features, such as earthworks or abandoned structural foundations, were present within the area, and to identify areas of high potential for buried archaeological resources. Pedestrian transects were placed 30 m (98 ft.) apart to ensure adequate coverage of the ground surface. The project area consisted mostly of agricultural fields which exhibited a range of 0-100 percent visibility with an average of 70 percent visibility. Several areas were avoided due to safety concerns.

3.0 LITERATURE SEARCH

3.1 PREVIOUS ARCHAEOLOGICAL STUDIES

Research indicated that one archaeological survey has been conducted within the current project area (Sluss and Malmquist 1998). BRW Inc. conducted a Phase I cultural resources study for the proposed County Road 46 project in Dakota County, Minnesota. The project area consisted of a corridor on either side of a drained lake along the proposed road. No cultural material was recovered during the survey. The architectural history survey results are discussed below.

Three previous architectural history surveys were conducted within the project area (Roise and Weber 1993, Sluss and Malmquist 1998, and Lauber 2006). Hess and Roise conducted an architectural survey of the Gopher Ordinance Works (GOW) for the Dakota County Airport project in 1993. The report recommended that the GOW was not eligible for listing on the NRHP due to lack of integrity (Roise and Weber 1993). The property was evaluated again in 1998 by BRW, Inc. The GOW and the Agricultural Experiment Station (AES) were evaluated for listing on the NHRP. The GOW property was evaluated again in 2006 by John Lauber. Neither the GOW nor the AES were eligible due to lack of integrity and age, respectively (Roise and Weber 1993; Sluss and Malmquist 1998; Lauber 2006). This determination was confirmed in a letter from Britta Bloomberg to Alison Brooks dated October 28, 1998.

3.2 PREVIOUSLY RECORDED ARCHAEOLOGICAL SITES

No archaeological sites have been recorded (confirmed) and no sites have been reported (not field checked) within the current project area. In addition, no archaeological sites have been recorded (confirmed) and no sites have been reported (not field checked) within one mile of the current project area (Figure 2).

Although not located within the one mile context study area bounding the current project area Lone Rock has been considered a Traditional Cultural Property (TCP) and a significant landmark to early explorers, and is located on UMore Park property to the southeast of the current project area.

3.3 PREVIOUSLY RECORDED ARCHITECTURAL HISTORY PROPERTIES

There are no historic properties listed on the NRHP within the project area.

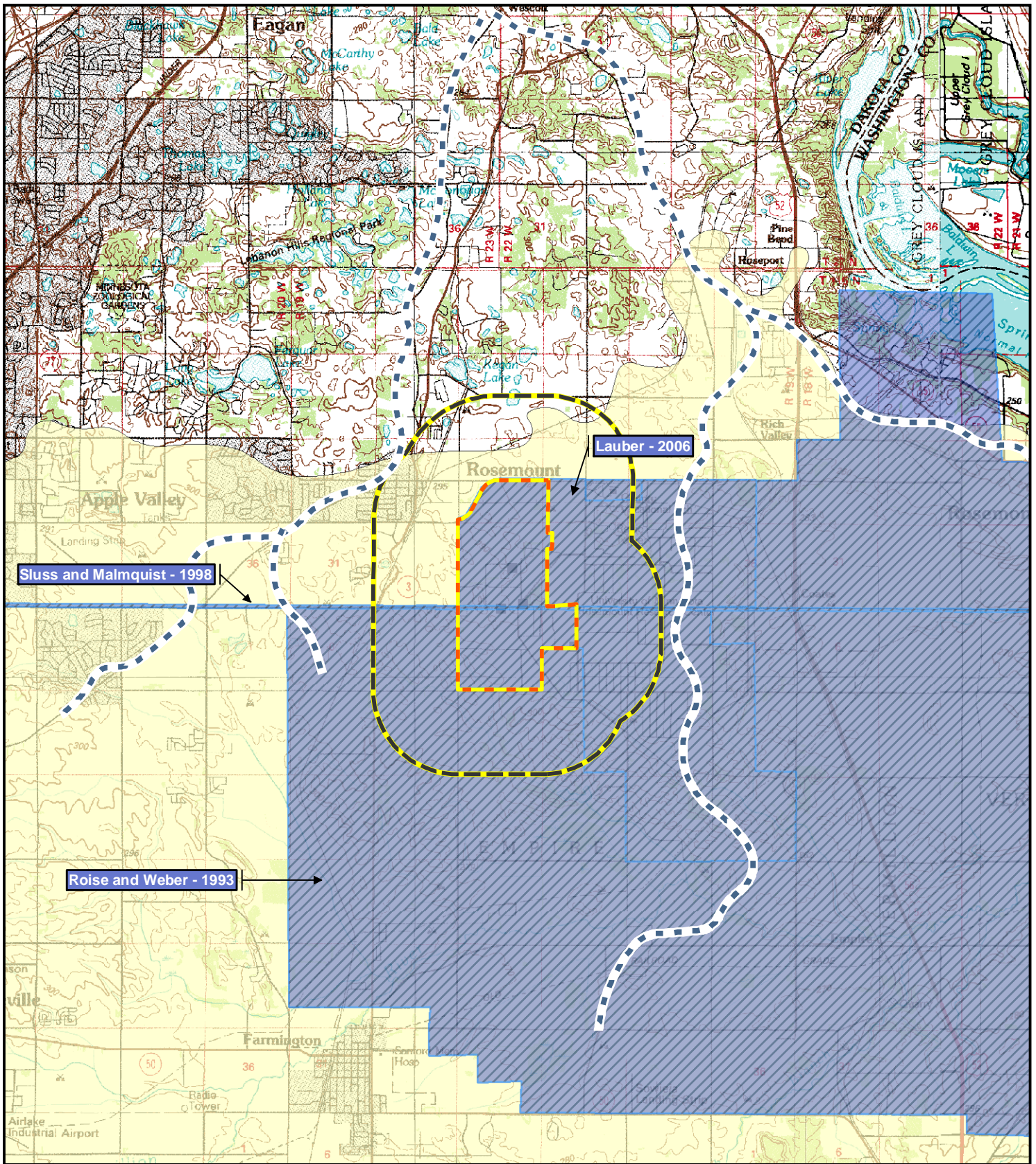
3.4 ENVIRONMENTAL HISTORY OVERVIEW

The project area is located in sections 3 and 4, T114N, R19W, and sections 27, 28, 33, and 34 of T115N, R19W, Dakota County, Minnesota. The project area consists of mainly of agricultural fields, a few small wooded areas, and buildings associated with the University of Minnesota Agriculture Experiment Station. The topography is nearly level

to gently undulating. There are two intermittent drainages depicted on the topographic map in the south end of the project area. The one in the southeast has been channelized and appears to be dry most of the time. The drainage in the southwest was not evident during the field visit and has probably been destroyed by agricultural activities.

Geologically, the project area lies within the Mississippi Valley Outwash geomorphic region. The project area lies within the SLWD soil landscape unit, described as: loamy over sandy, well drained, dark colored soils. The SLWD soil landscape units make up approximately 30 percent of the Mississippi Valley Outwash geomorphic region (Agricultural Experiment Station 1973).

The soil associations for the project area include the Waukegan-Wadena-Hatwick association. The Waukegan-Wadena-Hatwick association is found on level to very steep, well drained to excessively drained soils formed in silty and loamy sediments over sandy outwash, on outwash plains and terraces (Hundley 1983).



Source: SEH, The 106 Group Ltd., ESRI, Trygg 1964, Plat Maps: Andreas 1874, Andreas 1896, Web 1914

Map Produced by The 106 Group Ltd. - 9/23/2009

**Umore Park
Phase IA Archaeological Survey
Dakota County, Minnesota**

Literature Review Results

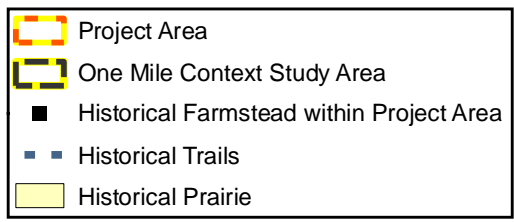
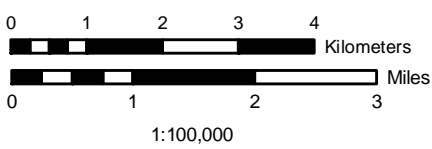


Figure 2

4.0 RESULTS

4.1 PRECONTACT ARCHAEOLOGY

Typically areas considered to have a greater probability to contain archaeological sites include undisturbed soils:

- within 500 feet (ft) (150 meters [m]) of an existing or former water source of 40 acres (19 ha) or greater in extent, or within 500 ft (150 m) of a former or existing perennial stream;
- located on topographically prominent landscape features;
- located within 300 ft (100 m) of a previously reported site; or

There are no natural permanent water sources mapped or visible within the project area. The topography is generally nearly level to gently undulating with no distinctly prominent areas. The conditions in the project area present a low probability to contain precontact archaeological resources.

No cultural material attributable to the precontact period was observed in the project area.

4.2 POST-CONTACT ARCHAEOLOGY

4.2.1 Literature Review

The UMore Park project area, as illustrated on multiple historical and contemporary maps, consists primarily of agricultural fields. According to Trygg (1964), the project area was located at the northern edge a large prairie with Dodd's Road running in a northeast southwest direction approximately one to two miles to the west of the project area (see Figure 2). The Faribault to St Paul Road ran in a north south direction approximately 1.5 miles to the east of the current project area. The Faribault to St Paul Road is pictured running through the middle of the Gopher Ordinance Works (GOW) property. In addition, no wetlands are depicted in the project area (Trygg 1964).

Historical plat maps from 1874, 1896, 1914, 1928, 1956, and 1964 were examined (Andreas, Union, Webb, Security, Thomas, and Title, respectively). The 1874 map depicts eight houses within the project area. One of these houses was owned by Hugh Derham, and a drawing of the house and property appears in the *Illustrated Historical Atlas of the State of Minnesota* (Andreas 1874). The 1896 map depicts six houses and two barns within the project area (Union). The 1914 map illustrates the same six houses but not the two barns. The 1928 map shows no structures within the project area. The 1928 map only depicts structures labeled schools and churches but no houses appear on the maps. The 1956 and 1964 plat maps indicate the project area was owned by the University of Minnesota however, no structures were depicted (Thomas and Title respectively). No wetlands are depicted within the project area on the plat maps.

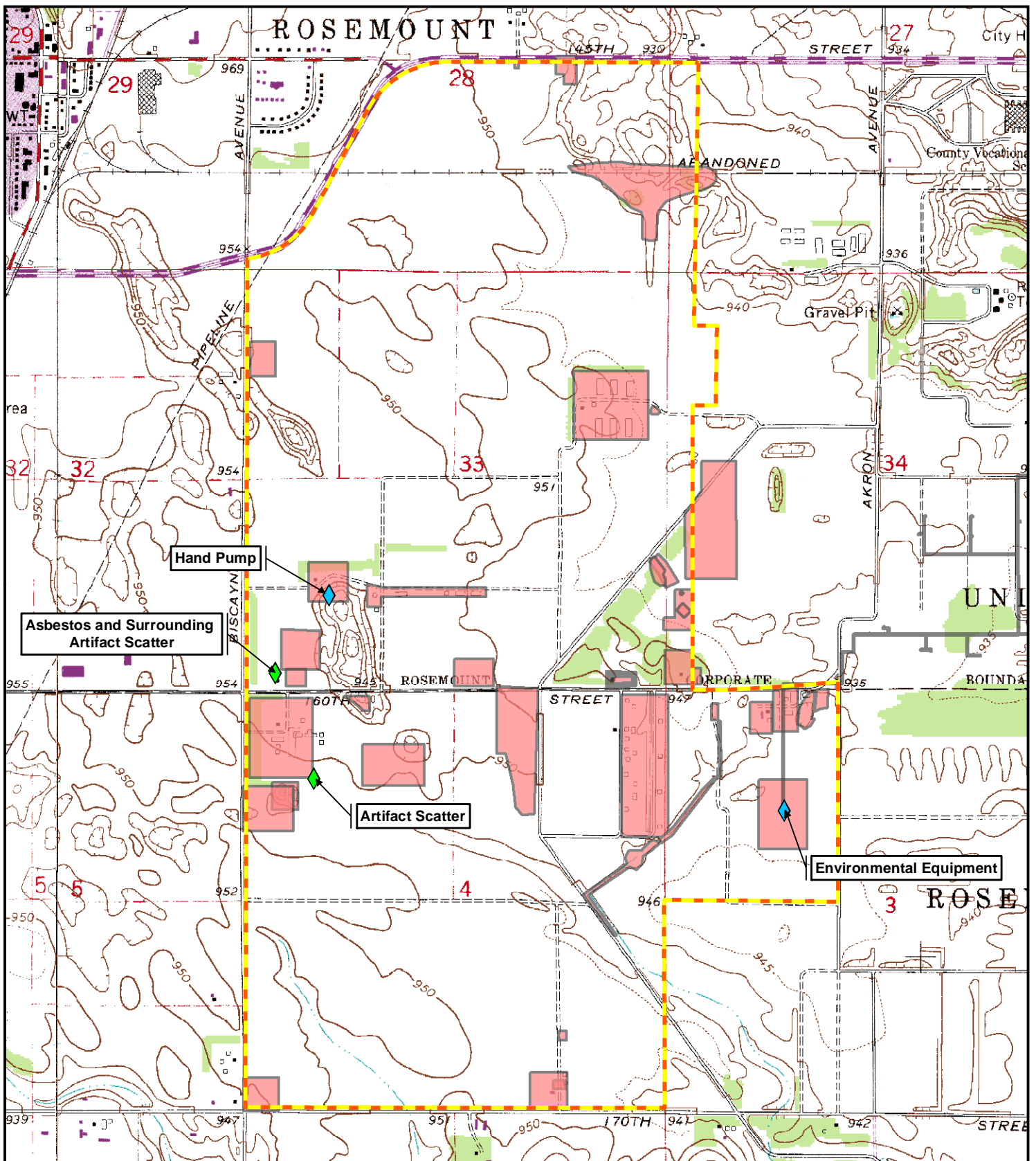
However, this lack of illustrative evidence does not mean that wetlands or other structures were not present at that time.

The aerial photographs of the project area indicate the project area was rural agricultural land in 1940. There are fourteen farms within the project area on the 1940 aerial photographs. Four of the fourteen appear on the early plat maps (Andreas 1874 and Union 1896). UMore Park appears on the 1951, 1957, and 1964 aerial photographs however the houses on the early plat maps are no longer visible on the these later aerial photographs.

The result of the examination of the plat maps indicated that there were twelve locations were historical artifacts and structure foundations may be present (see Figure 2). Ten of these locations contained no trace of the mapped structures. The other two of these locations contained a very light artifact scatter but no visible indications that foundations would be intact. One of these sites is located on the northeast corner of Biscayne and 160th street is a sparse artifact scatter consisting of two pieces of whiteware, some metal fragments, one nail, and what appeared to be a piece of asbestos tile. Due to the presence of the possible asbestos no cultural material was collected from the area. The location of the possible asbestos tile was plotted using GPS and the location submitted to the project manager. The other scatter is on the southeast corner of Biscayne Avenue and 160th Street, where a dairy operation was located. A light scatter of concrete pieces was found on the east edge of this area. The dairy location is listed as an area of concern so the majority of the area was avoided and no material was collected.

In addition, one of the areas contained a recently constructed sewer pipeline lift station. It was apparent from the erosion control measures in place that the topography has been altered and a significant amount of soil was recently removed from the site. The remains of the structure and any associated artifact scatter have most likely been removed during construction of the sewer pipeline lift station. The project was reviewed by SHPO and no cultural resource survey was requested for the area adjacent to the current project area (Jim Roth Metropolitan Council, personal communication May 28, 2009).

No archaeological features or sites were located during the Phase IA archaeological survey of the safely accessible portions of the project area. The majority of the project area was agricultural fields and agricultural facilities. The fields consisted mostly of corn and soybeans with a few areas of turnips, potatoes, tomatoes, broccoli, and other crops. The fields were in various conditions, some were deeply tilled, others were lightly turned over, some were in a second year of no till and others had standing crops that were in the process of being harvested. There were areas of concern which were avoided during survey. Most of these areas were avoided due to suspected dump locations or other agricultural related activities that may have created contamination (Figure 3).



Source: SEH, The 106 Group Ltd., ESRI, Barr Engineering, Dakota County GIS

Map Produced by The 106 Group Ltd. - 9/23/2009

**UMore Park
Phase IA Archaeological Survey
Dakota County, Minnesota**

Archaeological Survey Results

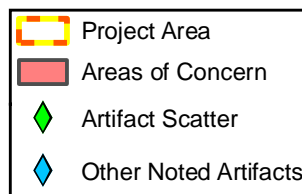
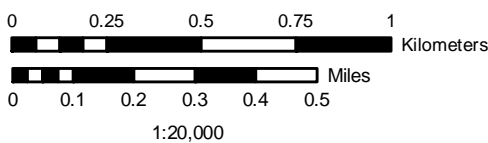


Figure 3

4.3 ARCHITECTURAL HISTORY PROPERTIES

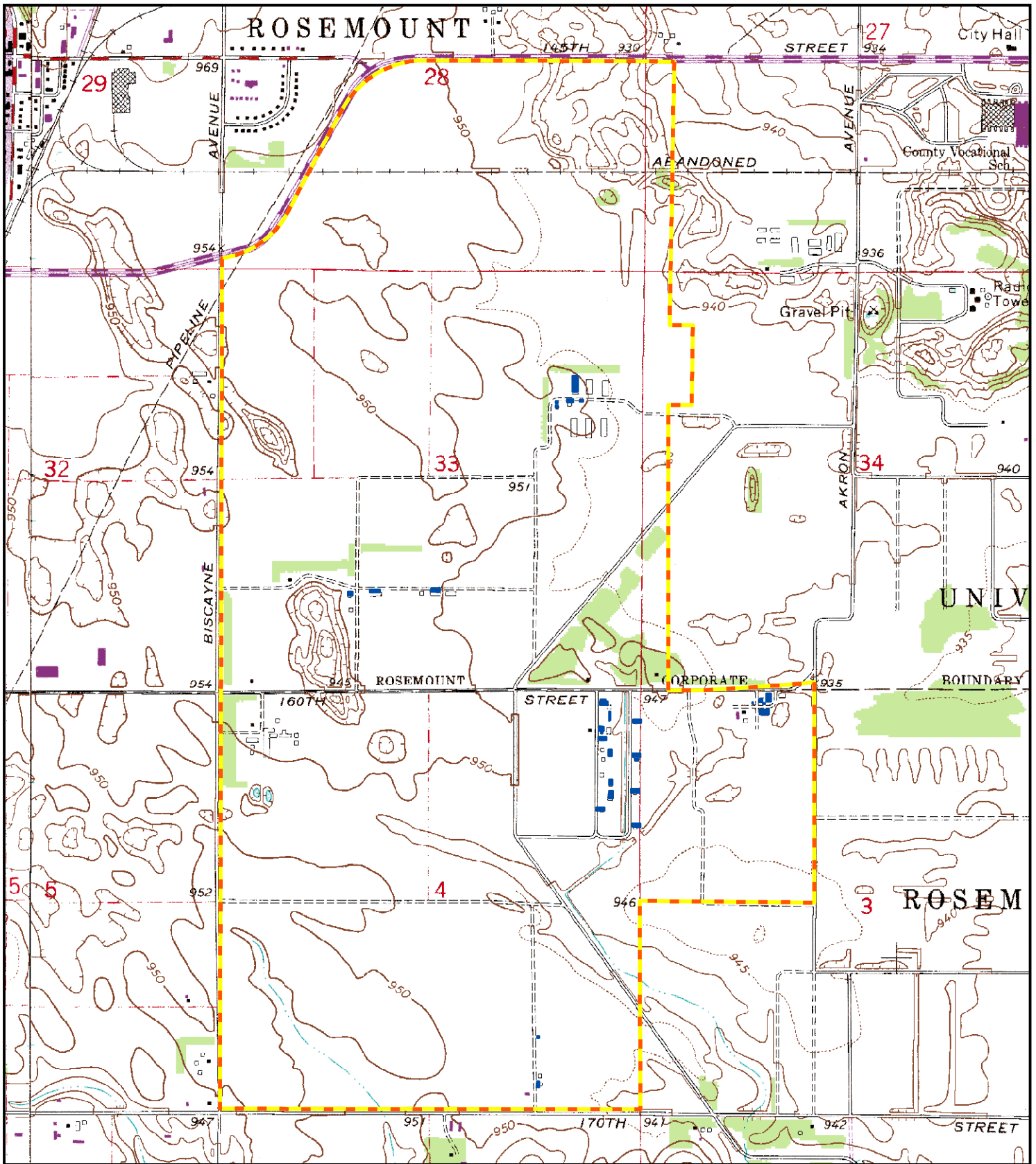
There are no historic properties listed on the NRHP within the current project area. The current regulatory framework requires no further investigation regarding historic properties at this time.

The 106 Group identified 29 architectural history properties within the project area that were over 45 years old (Figure 4). No analysis or recommendations were made regarding these properties during this survey.

In addition, there are three properties within the current project area that lack sufficient integrity to be eligible, but are, according to Lauber (2006), nonetheless “de facto local landmarks” that should be retained and integrated into future uses. These properties are the Patrol Road which served as the boundary for the GOW, the remains of the Solvent Recovery Houses, and the Powder Rest Houses. Although the US Navy Satellite Station is depicted as being located within the current project area (Lauber 2006), it actually lies to the east of the current project area (see Figure 1). In addition, Lauber (2006) recommended that, despite their ineligibility, the SHPO should be consulted to determine if documentation or mitigation should be done before demolition of the remaining GOW buildings. The report written by Lauber and published by the University of Minnesota was not submitted to the SHPO for review or concurrence at the time of this writing (personal communication with Kelly Gragg-Johnson 2008).

4.4 TRIBAL CONSULTATION

Currently, the project is not receiving federal funding or permitting. Should federal funding or permitting be required in the future the lead federal agency is required to initiate formal consultation.



Source: SEH, The 106 Group Ltd., ESRI, Barr Engineering, Dakota County GIS

Map Produced by The 106 Group Ltd. - 9/23/2009

**UMore Park
Phase IA Archaeological Survey
Dakota County, Minnesota**

Extant Properties Over 45 Years Old

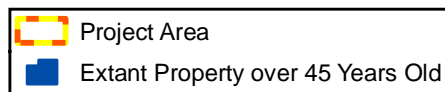
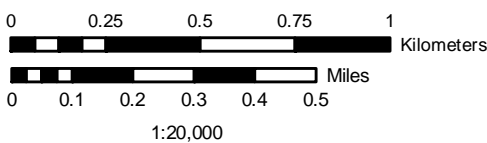


Figure 4

5.0 RECOMMENDATIONS

5.1 ARCHAEOLOGY

No archaeological sites were recorded during this survey. The areas that were avoided due to safety concerns are suspected dump locations or other agricultural related activities that may have created contamination. These areas were observed from adjacent property and do not appear to be likely locations for significant intact archaeological sites.

The 106 Group recommends no further archaeological investigations prior to development.

5.2 ARCHITECTURAL HISTORY

The 106 Group identified 29 architectural history properties within the project area that were over 45 years old. No analysis or recommendations were made regarding these properties during this survey.

Should the project receive federal funding and or permitting in the future, additional survey may be required.

The three properties named as “*de facto landmarks*” (Lauber 2006) within the current project area are not eligible for listing on the NRHP.

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APPENDIX A: PROJECT PERSONNEL

LIST OF PERSONNEL

Project Manager	Jennifer Bring, B.A.
Principal Investigator	Anne Ketz, MA, RPA
Field Supervisor and Researcher	Kristen J. Bastis, MA, RPA
Field Archaeologists	Christopher Moose, B.A. Andrew Rand, B.A.
Graphics and GIS	Nathan Moe, B.A. Brian Schreurs, M.S.