Phase I Archaeological Investigation for the Nine Mile Creek Regional Trail Project, Edina and Minnetonka, Hennepin County, Minnesota

S.P. 091-090-078 MnDOT Contract No. 06450 Minnesota Archaeological License No. 14-018 Deco Project No. 1-5

Authorized and Sponsored by:
Minnesota Department of Transportation
and the Federal Highway Administration

Prepared by:
Deco Cultural Services LLC

Level K

October 2014 - FINAL

Phase I Archaeological Investigation for the Nine Mile Creek Regional Trail Project, Edina and Minnetonka, Hennepin County, Minnesota

Submitted to: Minnesota Department of Transportation 395 John Ireland Boulevard

and

Three Rivers Park District 3000 Xenium Lane North Plymouth, MN 55441

St. Paul, MN 55155

Prepared by:



Cultural Services LLC

207 4th Avenue North South St. Paul, MN 55075

Report Author: Andrea C. Pizza, Ph.D., RPA

Final - October 2014

MANAGEMENT SUMMARY

Three Rivers Park District (Three Rivers) is planning to construct the Nine Mile Creek Regional Trail, a pedestrian trail, in Edina and Minnetonka, Hennepin County, Minnesota. Because this project is using federal funds, it is subject to review under Section 106 of the National Historic Preservation Act of 1966, as amended. To assist Three Rivers with Section 106 compliance, the Minnesota Department of Transportation (MnDOT) and Three Rivers contracted with Deco Cultural Services LLC (Deco) to conduct a Phase I archaeological investigation of the project area of potential effects (APE). The objective of the Phase I investigation, which included literature review and field survey components, was to identify known archaeological sites and previously unrecorded archaeological sites within the APE that are potentially eligible or known to be eligible for listing in the National Register of Historic Places (National Register). The investigation was conducted in September of 2014. Andrea Pizza served as Principal Investigator.

The APE was determined by the MnDOT Cultural Resources Unit Project Manager to consist of the horizontal and vertical construction limits in T117N, R22W, Section 36; T117N, R21W, Section 31; T116N, R21W, Sections 5, 6, 8, and 9; and T28N, R24W, Sections 31 and 32. It comprises 12.2 acres located in the Central Lakes Deciduous South archaeological sub-region. The Phase I archaeological investigation identified no archaeological sites within the APE. No further archaeological work, therefore, is recommended prior to or during construction for the Nine Mile Creek Regional Trail Project.

CONTENTS

MANAGE	MENT SUMMARY	i			
INTRODU	JCTION	1			
1.1	PROJECT DESCRIPTION	1			
1.2	AREA OF POTENTIAL EFFECTS	1			
1.3	STRUCTURE OF THE REPORT	3			
METHOD	DS	4			
2.1	LITERATURE REVIEW	4			
2.2	FIELD SURVEY	5			
LITERATU	JRE REVIEW RESULTS	6			
3.1	PREVIOUS INVESTIGATIONS	6			
3.2	PRECONTACT ARCHAEOLOGY	6			
3.3	HISTORICAL ARCHAEOLOGY	6			
3.4	HISTORIC CONTEXTS	6			
SURVEY	RESULTS	7			
4.1	AREA A	7			
4.2	AREA B	7			
4.3	AREA C	13			
4.4	AREA D	13			
4.5	AREA E	14			
4.6	AREA F	15			
4.7	AREA G	15			
4.8	AREA H	16			
SUMMAI	MARY OF RECOMMENDATIONS				
REFEREN	REFERENCES CITED				
APPENDIX A: MINNESOTA ANNUAL ARCHAEOLOGICAL LICENSE					

FIGURES

Figure 1. Project location and APE	
TABLES	
Table 1. Legal locations of project APE	1

INTRODUCTION

Three Rivers Park District (Three Rivers) is planning to construct the Nine Mile Creek Regional Trail, a pedestrian trail, in Edina and Minnetonka, Hennepin County, Minnesota. Because this project is using federal funds, it is subject to review under Section 106 of the National Historic Preservation Act of 1966, as amended. To assist Three Rivers with Section 106 compliance, the Minnesota Department of Transportation (MnDOT) and Three Rivers contracted with Deco Cultural Services LLC (Deco) to conduct a Phase I archaeological investigation of the project area of potential effects (APE). The investigation was conducted in September of 2014.

1.1 PROJECT DESCRIPTION

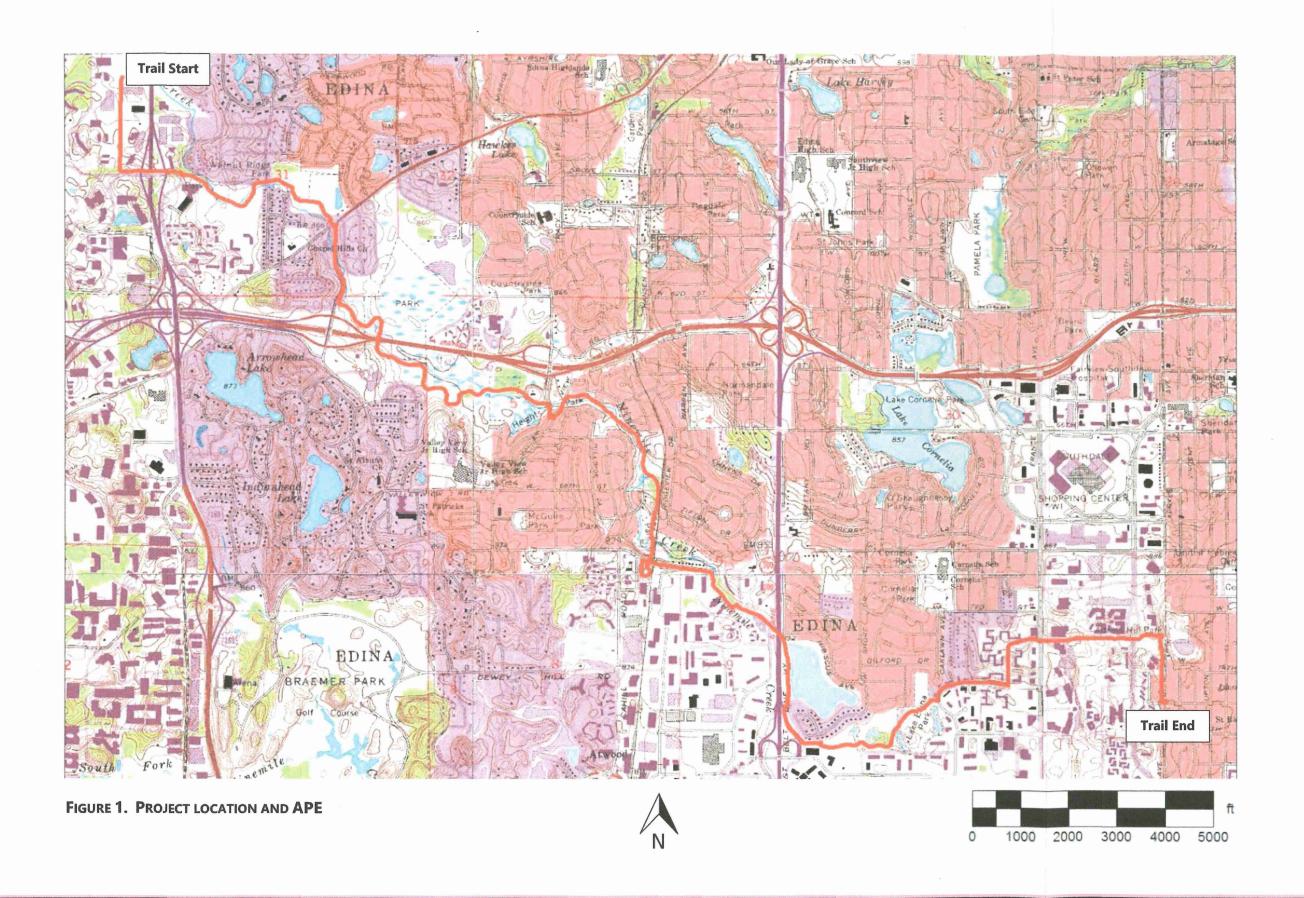
The proposed project consists of the construction of a pedestrian trail that will follow a generally northwest-southeast trajectory in proximity to Nine Mile Creek and connect to existing trails (Figure 1). On the northwest, it will connect to a trail at Opportunity Court in Minnetonka, and on the southeast, it will connect to a trail at Xerxes Avenue and West 75th Street, at the eastern boundary of Edina. The trail will generally be a paved trail measuring ten feet in width and ten inches deep. Some segments, however, will be located in wetlands and will therefore require the construction of boardwalks. Bridges over the creek will be constructed in two locations, both within a boardwalk segment in the vicinity of the intersection of Valley Lane and Creek Drive.

1.2 AREA OF POTENTIAL EFFECTS

The legal locations for the APE for archaeology are provided in Table 1. The UTM (NAD 83, Zone 15) coordinates are northwest end: 468127E 4972417N, southeast end: 474822E 4968266N. Coordinates were generated electronically using ACME Mapper 2.1 (http://mapper.acme. com). The APE consists of the horizontal and vertical construction limits for the project, as described above.

TABLE 1. LEGAL LOCATIONS OF PROJECT APE

Township	Range	Sections	Quarter Sections
117N	22W	36	E-E-NE
117N	21W	31	S-SW-NW, NE-NW-SW, N-NE-SW, N-NW-SE, SE-NW-SE, E-SW-SE, SW-SE-SE
116N	21W	5	S-NW, S-SW-NE, SW-SE-NE, W-NE-SE, SE-NE-SE, E-SE-SE
		6	NE-NW-NE, W-NE-NE, SE-NE-NE, NE-SE-NE
		8	N-NE-NE
		9	NW-NW, SW-NE-NW, NW-SE-NW
28N	24W	31	W-SW-NW, W-NW-SW, N-S-SW, SE-NE-SW, W-NW-SE, NE-NW-SE, N-NE-SE,
			E-SE-NE
		32	N-S-NW, SE-SE-NW, NE-NE-SW



1.3 STRUCTURE OF THE REPORT

The subsequent chapter describes the methods used in the investigation, followed by two chapters detailing the results of the literature review and the field survey. The final chapter summarizes the cultural resources management recommendations for the project. Appendix A contains the Minnesota Annual Archaeological License under which the project was conducted.

METHODS

The objective of the Phase I archaeological investigation was to identify known archaeological sites and any previously unrecorded archaeological sites that are potentially eligible or known to be eligible for listing in the National Register of Historic Places (National Register) within the APE, based on the significance criteria outlined below:

- Criterion A association with events that have made a significant contribution in our past;
- Criterion B association with the lives of persons significant in our past;
- Criterion C embodiment of the distinctive characteristics of a type, period, or method of
 construction; or representation of the work of a master; possession of high artistic values; or
 representation of a significant and distinguishable entity whose components may lack
 individual distinction; and
- Criterion D potential to yield information important to prehistory or history (National Park Service 2002)

All work was conducted per MnDOT's Cultural Resources Unit Project Requirements (MnDOT 2011), the SHPO Manual for Archaeological Projects in Minnesota, (Anfinson 2005), and The Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (National Park Service 1983).

2.1 LITERATURE REVIEW

A database query request was submitted to the SHPO on August 26, 2014. Once the results were received, relevant files held at the SHPO were reviewed to obtain information on previously recorded archaeological sites within one mile of the APE and on archaeological surveys previously conducted within the APE. Subsequently, historical maps, historical and current aerial photographs, current topographic maps, and soil surveys were consulted to obtain information on the environmental and land-use history of the APE, and by extension, its potential for containing previously unidentified, intact archaeological sites.

Archaeological potential is assessed based on a combination of historical and current topographic conditions, proximity to water sources and wetlands, and other natural and built environmental factors within and adjacent to a given location. Locations consistently occupied by water bodies or wetlands, subject to frequent inundation, or characterized by poor drainage or slopes of greater than 20 percent would not be conducive to human occupation, and therefore have low potential for containing archaeological sites.

Conditions indicative of greater precontact archaeological potential include situations on drier, upland landforms in proximity to a natural water source or wetlands; topographic prominence; or access to an extractive resource. Surrounding environmental conditions, however, that can increase or mitigate the archaeological potential of a given location must be taken into account. Proximity to a wetland, for example, would be less indicative of archaeological potential in an area with several large lakes than in an area where sizeable bodies of water are few and far between.

Proximity to previously recorded precontact sites points to high precontact archaeological potential because the previously recorded sites tend to be in areas with a desirable combination of environmental conditions. In addition, the extent of archaeological sites often cannot be fully defined during a single project, so unrecorded resources often exist just outside of the known boundaries of previously identified sites.

The assessment of an area's potential to contain historical archaeological resources is based largely on an examination of historical documents and maps, as well as secondary sources, for information indicating the occupation of an area by residences, farmsteads, businesses, industrial properties, towns, camps, and the like. Locations in or near identified occupations are considered to hold higher potential for containing historical archaeological resources. These are not limited to the locations of buildings, as often the most important information comes from deposits within associated features, such as privies, cisterns, or middens, which were located away from primary buildings. For areas where documentation is not available, the same conditions governing precontact archaeological potential can apply, as environmental conditions conducive to precontact occupation and use were similarly conducive to later occupation and use.

Because the contact period bridges the precontact period and the historical period, the assessment of an area's potential to contain contact-period archaeological resources draws upon a combination of the methods used to assess precontact and historical-period archaeological potential.

2.2 FIELD SURVEY

A Phase I archaeological survey was performed on September 9-11, 2014. Andrea Pizza served as Principal Investigator and conducted the fieldwork with Grady Larimer.

A visual reconnaissance was conducted to refine the assessment of archaeological potential that had occurred through the literature review. Any areas identified as having moderate to high potential for containing archaeological resources were subject to systematic shovel testing. Shovel testing intervals varied from 10 meters (33 feet), in locations that appeared to have the potential for intact horizons, to 60 meters (197 feet) in areas where shovel testing was conducted primarily to confirm apparent disturbance. In some shovel-tested segments, elimination of trail portions with clear evidence for disturbance, steep slopes, or inundation resulted in large spaces between clusters of regular-interval shovel tests.

Based on the vertical APE for the proposed trail, all shovel tests were excavated to a depth of 40 centimeters below the surface, into subsoil (C horizon), or until an obstruction preventing further excavation was reached, depending on which condition was first encountered. Soils were screened through ¼" mesh to ensure the consistent recovery of artifacts. Shovel test data were recorded on standardized forms and included the name of the designated test area in which the shovel test was located; a description of the soil profile including depths, Munsell® color designations, and textures; whether the shovel test was positive or negative; and the types of artifacts encountered with their associated depth ranges. Shovel test locations were recorded using a DeLorme Earthmate® PN-60 GPS unit.

LITERATURE REVIEW RESULTS

3.1 PREVIOUS INVESTIGATIONS

No previous archaeological surveys have encompassed portions of the Nine Mile Creek Regional Trail Project APE.

3.2 PRECONTACT ARCHAEOLOGY

No precontact archaeological sites previously have been identified in or within one mile of the Nine Mile Creek Project APE.

3.2.1 Precontact Archaeological Potential

The Nine Mile Creek Regional Trail Project, as its name implies, is located in proximity to Nine Mile Creek as it is currently configured. In addition, near its eastern end, a segment runs parallel to the west shore of Lake Edina. Historical maps indicate that the route of Nine Mile Creek has undergone some modification. While a 1925 map shows the route to be similar to that of today, maps dating to 1873 and earlier indicate a more direct northwest-southeast trajectory within Section 5 and a tapering off of the creek near the east edge of Section 6 of T116N, R21W. In addition, Lake Edina historically existed as a large wetland that appears to have extended beyond its current western shore to Nine Mile Creek (GLO 1854; Wright 1873; W. W. Hixson and Co. 1925). Generally, the route of the creek is close enough to its original path that drier areas in proximity to it were considered to retain at least moderate potential for containing precontact archaeological resources. The portion of the proposed trail to the west of Lake Edina, likely within a former wetland, was considered less likely to contain precontact archaeological resources.

3.3 HISTORICAL ARCHAEOLOGY

No historical-archaeological sites previously have been identified in or within one mile of the Nine Mile Creek Project APE.

3.3.1 Historical Archaeological Potential

Aerial photographs indicate that the project APE was rural/agricultural through at least 1956, but substantial suburban development took place over the following 15 years and beyond. No vestiges of its former rural character remain. As historical-period deposits would have been at or near the surface at the time of development, none of these are likely to have survived intact, particularly given modern construction practices. The project APE was therefore considered to have low potential for containing archaeological resources dating to the historical period.

3.4 HISTORIC CONTEXTS

Because no archaeological sites were identified during the Phase I archaeological field survey for the Nine Mile Creek Regional Trail Project, historic contexts would be extraneous to and therefore are not included in this report.

SURVEY RESULTS

The Phase I archaeological investigation for the Nine Mile Creek Regional Trail Project identified no archaeological sites within the APE.

For ease of reference in the field, areas subject to systematic survey were designated Areas A through H (Figures 2a-2e). The survey results are provided by designated area below. The remainder of the APE comprises wetlands, which have low archaeological potential, and areas disturbed by previous road construction, trail construction, utility installation, and urban development, which are unlikely to contain intact archaeological sites.

4.1 AREA A

Area A is a segment of the proposed trail that extends southeast of Duncan Lane east of its intersection with Lincoln Drive within a wooded creek terrace (see Figure 2a). As a higher and drier area in proximity to Nine Mile Creek, Area A was considered to have moderate to high potential for containing precontact archaeological resources. The woods line the edge of greenspace for a property occupied by large office buildings and parking lots and are downslope from these. While moderate amounts of buckthorn and the presence of a nearby manhole suggested previous disturbance along the proposed trail, the presence of a few older trees within the woods indicated the possibility for some intact deposits.

Seven shovel tests were excavated along a single transect that followed the centerline of the proposed trail. A 15-meter (49-foot) interval was employed between shovel tests, except in a couple of instances in which the interval had to be extended slightly to avoid a gully and evidence of drain tile. Soils within the shovel tests were largely disturbed, with approximately 20 centimeters of topsoil present over heavily mottled soils with inconsistent textures. A drain tile fragment was encountered near the base of the westernmost shovel test. The only potentially intact soils were located in the easternmost shovel test, which was the farthest from the office property and nearest Nine Mile Creek. This test contained a black (10YR 2/1) sandy loam to 32 centimeters below the surface over banded silts and sands as would be expected from creek flooding episodes. With the exception of the drain tile fragment, no cultural materials were encountered in any of the shovel tests.

4.1.1 Recommendations

Based on the level of disturbance and absence of cultural materials in this location, no further archaeological work is recommended within Area A prior to or during construction for the Nine Mile Creek Regional Trail Project.

4.2 AREAB

Area B is a segment of the proposed trail located within a wooded creek terrace, and it extends southwest and then south off of Londonderry Drive west of its intersection with Londonderry Road (see Figure 2a). As a higher and drier area in proximity to Nine Mile Creek, it was considered to have moderate to high potential

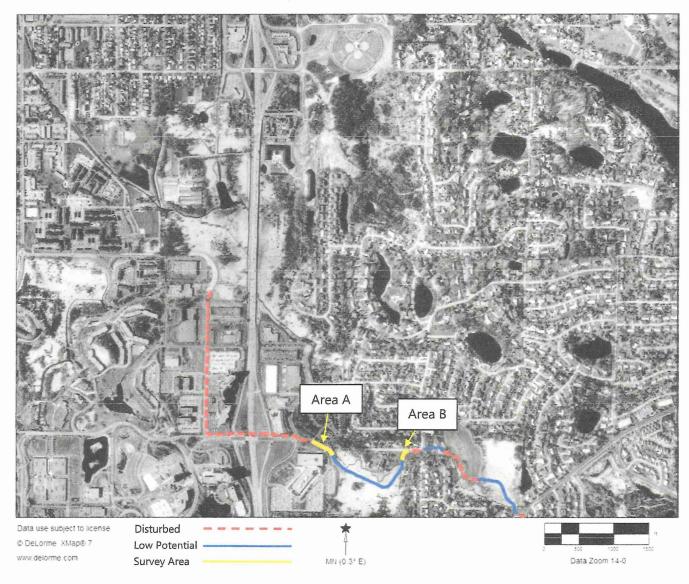


FIGURE 2A. LOCATION OF SURVEY RESULTS

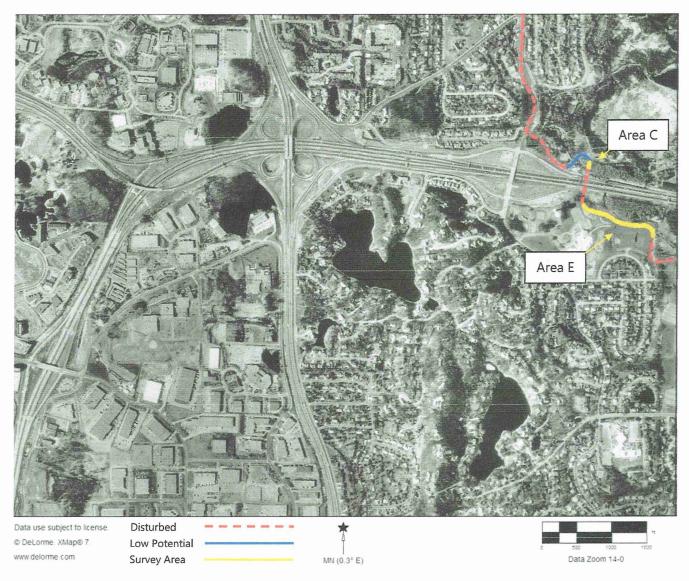


FIGURE 2B. LOCATION OF SURVEY RESULTS



FIGURE 2c. LOCATION OF SURVEY RESULTS

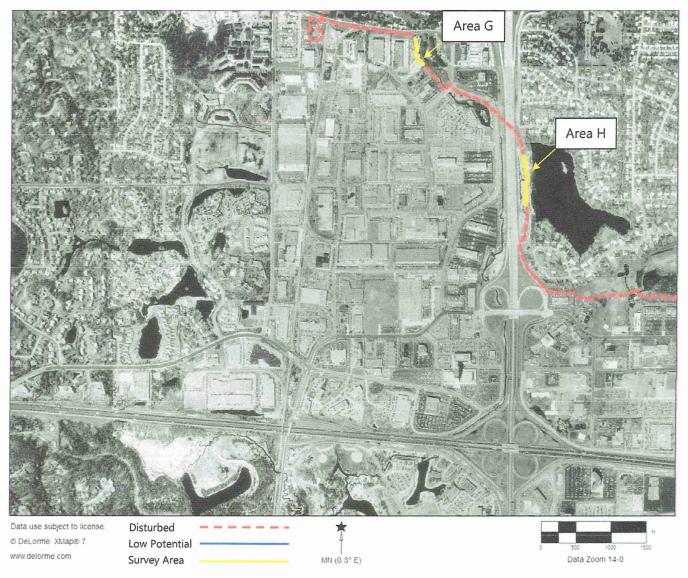


FIGURE 2D. LOCATION OF SURVEY RESULTS

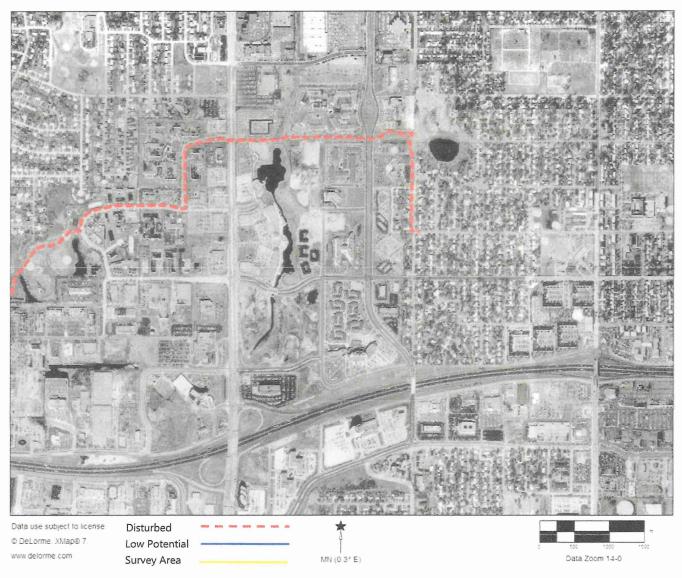


FIGURE 2E. LOCATION OF SURVEY RESULTS

for containing precontact archaeological resources. Three shovel tests were excavated in Area B. The first, which was located just inside the edge of the woods along Londonderry Drive, readily evidenced disturbance throughout, with heavily mottled clays and loams present. Walking farther from the road, it became apparent that the northern portion of Area B was situated on a large, artificial berm that was likely created during road construction and abruptly transitioned to a lower and more natural-looking terrace. Shovel testing therefore was resumed on the lower terrace, which accommodated two shovel tests spaced 10 meters (33 feet) apart. Soils in these shovel tests included a very dark grayish brown (10YR 3/2) loam A horizon, 5 to 10 centimeters thick, over a dark brown to dark yellowish brown (10YR 4/3-4/4) silt loam B horizon. A third horizon was encountered in one of the tests at 28 centimeters below the surface, consisting of a dark yellowish brown (10YR 4/6) sandy loam. All shovel tests in Area B were negative for cultural materials.

4.2.1 Recommendations

Based on the combination of disturbance and absence of cultural materials in this location, no further archaeological work is recommended within Area B prior to or during construction for the Nine Mile Creek Regional Trail Project.

4.3 AREA C

Area C is a segment of the proposed trail located north of Highway 62, east of the highway's intersection with Gleason Road (see Figure 2b). This segment is south of a portion of the proposed trail that runs through a substantial swale, prior to which on the west the proposed trail follows an existing paved trail. While it appeared to be within another creek terrace, observation of the ground suggested previous disturbance; low piles of soil were visible, and it appeared that a two-track road may once have been present adjacent to the proposed trail.

Area C accommodated two shovel tests spaced 15 meters (49 feet) apart. Both of these tests confirmed disturbance within the APE, with mottled clay and loam in a range of colors and with heavy gravel and cobbles underlying a shallow black (10YR 2/1) loam. No artifacts were encountered in either shovel test.

4.3.1 Recommendations

Based on the level of disturbance and absence of cultural materials in this location, no further archaeological work is recommended within Area C prior to or during construction for the Nine Mile Creek Regional Trail Project.

4.4 ARFAD

The segment of the proposed trail designated as Area D is west of Tracy Avenue, north of its intersection with Valley View Road, and it follows the edge of a landscaped and manicured church property (see Figure 2c). Although this relatively high and dry area in proximity to Nine Mile Creek would be considered to have moderate to high potential for containing precontact archaeological sites, information provided to the

MnDOT CRU Project Manager indicated that this location had been bladed during construction of the church, thus testing in this area was meant primarily to confirm that no intact deposits were present.

Because of the likelihood of disturbance, three shovel tests were excavated at 45-meter (148-foot) intervals. These readily confirmed disturbance within the APE, with the sod layer resting upon clear fill deposits that included mixed soils with highly variable textures and colors, rocks, and gravel. The easternmost shovel test held a plastic fragment, while asphalt was present in the next shovel test to the west. No archaeological materials were encountered.

4.4.1 Recommendations

Based on the level of disturbance and absence of cultural materials in this location, no further archaeological work is recommended within Area D prior to or during construction for the Nine Mile Creek Regional Trail Project.

4.5 AREAE

Area E is a segment of the proposed trail that begins south of Highway 62 opposite Area C and extends south and east along the grounds of Creek Valley Elementary School (see Figure 2b). As it appeared to follow the edge of a creek terrace, it would typically be considered to have moderate to high potential for containing precontact archaeological sites; however, it was anticipated that construction of the school, landscaping of the grounds, and the creation of athletic fields would have filled over any potential resources beneath or resulted in the destruction of any potential resources within the vertical APE.

Six shovel tests were excavated in Area E. The first shovel test was located within a wooded area just south of the highway, heavy with buckthorn. The next, located 15 meters (49 feet) to the south, was outside of the woods in an area heavy with multiple types of invasive plants. Soils in these two tests were similar, with a very dark grayish brown silt loam, 28 centimeters deep, over a brown (10YR 4/3) clay subsoil. Beyond the second test, the proposed trail follows along a large steep slope for some distance, beyond which shovel testing resumed. The third shovel test was located where the proposed trail finds more level ground. Although slightly higher topographically than the creek, the soil profile demonstrated it to be within a wetland, with a dark gray (10YR 4/1) wet silt, 16 centimeters deep, overlying gley. The final three shovel tests, therefore were established on the next topographically higher landform, where the trail followed the edge of an athletic field. The fourth and fifth shovel tests were spaced 60 meters (197 feet) apart on the north edge of the field. These contained 12 centimeters of clean topsoil over obvious fill, and one test produced a modern, one-inch-square ceramic tile from between 30 and 40 centimeters below the surface. The final shovel test was placed on the east side of the field, with similar soil profile results. No archaeological materials were encountered in any of the shovel tests.

4.5.1 Recommendations

Based on the combination of disturbance, low archaeological potential, and absence of cultural materials in this location, no further archaeological work is recommended within Area E prior to or during construction for the Nine Mile Creek Regional Trail Project.

4.6 AREAF

Area F is located on a small rise, well south and east of Area E and separated from it by a segment of the proposed trail that traverses low-lying areas along the edge of athletic fields (see Figure 2c). The area of these fields was likely occupied by wetlands before the fields were constructed, as they are immediately bordered by cattails and other wetland vegetation.

The rise appeared to be artificially built up; therefore, a shovel test was excavated mainly to confirm disturbance. Soils were disturbed within the shovel test, consisting of 10 centimeters of a dark gray (10YR 4/1) silt loam over heavily mixed, gravelly fill, and it was negative for cultural material.

4.6.1 Recommendations

Based on the level of disturbance and absence of cultural materials in this location, no further archaeological work is recommended within Area F prior to or during construction for the Nine Mile Creek Regional Trail Project.

4.7 AREAG

The segment of the proposed trail designated as Area G extends southeast from 70th Street West, west of its intersection with Metro Boulevard, and it follows near Nine Mile Creek in a wooded area between large industrial complexes (see Figure 2d). Area G runs through two narrow terrace edge-like landforms that were separated by a wetland. Based on their relative topographic prominence and proximity to the creek, landforms such as these would typically be considered to have high potential for containing precontact archaeological sites; however, some disturbance was anticipated based on the proximity of the segment to the industrial properties.

Each landform accommodated four shovel tests spaced 15 meters (49 feet) apart. The four shovel tests on the southern landform were inconsistent in their soil profiles, and the soil colors encountered were atypical for the project area. The upper horizon consisted of a black (7.5YR 2/1) silt loam that extended to at least 40 centimeters below the surface in the southern two tests and to 17 centimeters below the surface in the northern two. In the southern of the northern two tests, it was underlain by a similar soil with dark reddish brown (2.5YR 3/4) mottling, which in turn rested on a very dark gray (7.5YR 3/1), compact sandy silt loam, encountered at 38 centimeters below the surface. In the northernmost test, the second horizon encountered was a mix of the horizons above and below it, the lower horizon being a dark brown (7.5YR 4/4) coarse sand with cobbles, gravel, and some silt, present at 33 centimeters below the surface. These four tests were negative for cultural material. Upon finishing the fourth test and moving north, a storm drain into the creek was observed, which undoubtedly augmented the level of disturbance within its vicinity.

The northern landform was found to be more disturbed, with only the upper horizon described above present to 40 centimeters below the surface, except it was combined with substantial cobbles and gravel. In these tests, plastic fragments, a piece of whiteware, a colorless glass fragment, and large chunks of poured concrete were encountered, indicating disturbance and recent deposition.

4.7.1 Recommendations

Based on the level of disturbance and recent nature of the deposits in this location, no further archaeological work is recommended within Area G prior to or during construction for the Nine Mile Creek Regional Trail Project.

4.8 AREAH

Area H is a segment of the proposed trail that runs parallel to and between Highway 100 and the west shore of Lake Edina (see Figure 2d). Although it follows a high ridge overlooking the lake, this area appeared on some historical maps as within wetlands, making it likely that the ridge was artificially created. Shovel testing in this area was therefore conducted primarily to confirm this probability.

The first two shovel tests were spaced 15 meters (49 feet) apart, south of where the trail runs through a steeply sloped area. From there, the third shovel test was spaced 87 meters (285 feet) to the south of the second, to avoid another steep slope, and the subsequent and remaining two shovel tests were spaced at 45-meter (148-foot) intervals. All shovel tests were clearly disturbed, with a shallow, very dark brown (10YR 2/2) loam heavy with gravel and cobbles overlying obvious fill. The northernmost shovel test contained a wire nail at approximately 25 centimeters below the surface, and a concrete fragment between 30 and 40 centimeters below the surface, while the southernmost test yielded a scrap of tin foil from between 20 and 30 centimeters below the surface. No other cultural materials were encountered. Beyond Area H to the south, the proposed trail runs through an even more disturbed area, as indicated by abrupt shifts in the ground surface and invasive vegetation. No additional shovel tests therefore were excavated.

4.8.1 Recommendations

Based on the level of disturbance and recent nature of the deposits in this location, no further archaeological work is recommended within Area H prior to or during construction for the Nine Mile Creek Regional Trail Project.

SUMMARY OF RECOMMENDATIONS

No archaeological sites were identified during the course of the Phase I archaeological investigation for the Nine Mile Creek Regional Trail Project. The entire APE for the Nine Mile Creek Regional Trail Project is disturbed, has low archaeological potential, and/or was found negative for archaeological resources. It is therefore recommended that no further archaeological work is necessary prior to or during construction for the project.

REFERENCES CITED

Anfinson, Scott F.

2005 SHPO Guidelines for Archaeological Projects in Minnesota. State Historic Preservation Office, St. Paul.

General Land Office

1854 Original Public Land Survey Plat Map of Minnesota. Available online at: http://www.gis.state.mn.us/GLO/Index.htm.

Minnesota Department of Transportation

2011 MnDOT's Cultural Resources Unit (CRU) Project and Report Requirements. Available online at http://www.dot.state.mn.us/culturalresources/consultants/CRU%20Consultant%20Guidelines%202 011.pdf.

National Park Service

1983 Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. Available online at http://www.nps.gov/history/local-law/arch_stnds_0.htm.

2002 How to Apply the National Register Criteria for Evaluation. Available online at http://www.nps.gov/nr/publications/bulletins/nrb15.

W. W. Hixson & Co.

1925 Plat Book of Minnesota. W. W. Hixson & Co., Rockford, IL.

Wright, George B.

1873 Map of Hennepin County, Minnesota. Geo. B. Wright and G. Jay Rice, St. Paul, MN.

APPENDIX A MINNESOTA ANNUAL ARCHAEOLOGICAL LICENSE

APPLICATION FOR MINNESOTA ANNUAL ARCHAEOLOGICAL RECONNAISSANCE SURVEY LICENSE

This license only applies to reconnaissance (Phase I) surveys conducted under Minnesota Statutes 138.31-.42 during . Separate licenses must be obtained for site evaluation (Phase II) surveys, for major site investigations (Phase III), for burial site authentications under Minnesota statutes 307.08, and for survey work that will continue into another calendar year. Only the below listed individual is licensed as a Principal Investigator, not the institution/agency/company or others who work for that entity. The licensed individual is required to comply with all the conditions attached to this license form. Permission to enter land for the purposes of archaeological investigation must be obtained from the landowner or land manager.

Name: Andrea C. Pizza
Institution/Agency/Company Affiliation: <u>Two Pines Resource Group, LLC</u> to Deco Cultural Services LLC 3-14-14 BAK
Title/Position: Senior Archaeologist and Historian
Address: 17711 260th Street, Shafer, MN 55074
Work Phone: 651-257-4766 E-Mail: acpizza@twopinesresource.com
Name of Advanced Degree Institution: The University of Arizona Year: 2006
Name of Department: <u>Anthropology</u> Degree: <u>MA MS X PhD</u>
Purpose: (check all that may apply) CRM X Academic Research Institutional Field School
Type of Land: (check all that may apply) State Owned X County Owned X Township/City Owned X Other non-federal public List:
MHS Repository Agreement # 632 to 648 3-14-14 BAK Other Approved Curation Facility:
Previous License: Year 2013 Type Annual Number 13-13
Signed (applicant): Date: Date:
Required Attachments: Curriculum Vita and Documentation of Appropriate Experience for previously unlicensed individuals.
Submit one copy of this form and attachments to: Office of the State Archaeologist, Ft. Snelling History Center, St. Paul, MN 55111 612-725-2411 612-725-2729 FAX 612-725-2427 email: mnosa@state.mn.us
Minnesota Historical Society Approval: State Archaeologist Approval: Date: 1-22-14 Date: 1/2/14
License Number: 14-018 Form Date: 2/15/11