Appendix F.
2017 Main Stem Erosion Repair Project
Feasibility Report, May 2016

resourceful. naturally.
engineering and environmental consultants

BARR

November 30, 2015

Bassett Creek Watershed Management Commission
c/o Laura Jester
16145 Hillcrest Lane
Eden Prairie, MN 55346

Re: Phase Ia Cultural Resource Literature Review for the Bassett Creek from Cedar Lake Road to Dupont Avenue N/2nd Avenue N, plus Fruen Mill Site; Minneapolis, MN

Dear Ms. Jester:

Barr Engineering completed a Phase Ia cultural resource literature review for the proposed Bassett Creek Main Stem restoration project, Minneapolis, MN.

The area of potential effect (APE) for this project is of 0.85 mile of Bassett Creek between Glenwood Avenue N and 2nd Avenue N (Figure 1). The APE includes a 50-foot buffer around the creek. For ease of discussion, the Property is divided into three reaches (Reach 1, Reach 2, and Reach 3). Reach 1 extends from Cedar Lake Road to Irving Avenue S and Reach 2 extends from Irving Avenue S. to Dupont Avenue/2nd Avenue N (Figure 2). Reach 3 is adjacent to the Fruen Mill (Figure 3).

This letter report presents the background research and summary and recommendations for the cultural resource literature review for the 2015 wetland delineation study areas.

Background Research

Background research for the project included a records search of files at the Minnesota State Historic Preservation Office (SHPO). SHPO records indicate that there is one known cultural resource, the Fruen Milling Company (HE-MPC-7507), that may be partially within the APE for Reach 3.

Known cultural resources within 1-mile of the APE include 17 archaeological sites and 1,564 historic structures (Table 1). Of these properties, six archaeological sites and 615 historic structures are listed on or considered eligible for the National Register of Historic Places (NRHP).

The Trygg map for this area was reviewed and no cultural features are shown within the vicinity of the APE. Historic maps, aerial photographs, and topographic maps depicting the project area were also reviewed as part of the background research to assess if the APE has the potential to contain cultural resources that could be considered eligible for the NRHP.

Reach 1

Reach 1 extends from Cedar Lake Road to Irving Avenue S. Topographic maps from 1954, 1967, 1972, 1977, 1993 depict structures in close proximity to Bassett Creek along the north creek bank. Structures are visible at the same locations on the 1938 and 1945 aerial photographs and are consistent with the location of the structures marked as the John Hancock Oil Company on the 1924 and 1929 Sanborn Fire Insurance maps. Buildings in the same location are labeled as the Firestone Oil Company on the 1952

Sanborn Fire Insurance map and as A&L Laboratories, Inc. on the 1963 Sanborn Fire Insurance map. Current aerial imagery indicates that the building depicted in the historic aerial photos and maps were razed and replaced by warehouse structures. None of these structures are within the APE.

Two bridges cross Reach 1, the Van White Memorial Boulevard bridge and a small wooden bridge south of N. Irving Avenue. The Van White Memorial Boulevard bridge was constructed between 2009 and 2013 (the bridge is not shown on 2009 aerial imagery, but is present on 2013 aerial imagery). The N. Irving Avenue bridge is present on the 1938 and 1945 aerial photographs and indicated on the topographic maps between 1967 and 1993.

Reach 2

Reach 2 extends from Irving Avenue S. to Dupont Avenue/2nd Avenue N. The historic maps and aerial photographs do not indicate the presence of any buildings within the APE. The N. Irving Avenue bridge is at the eastern end of Reach 2 and the Cedar Lake Avenue bridge is at the western edge of Reach 2. The Cedar Lake Avenue bridge is present on the 1938 and 1945 aerial photographs and indicated on the topographic maps between 1901 and 1993.

Reach 3

Reach 3 is adjacent to the Fruen Milling Company (HE-MPC-7507). Structures associated with the Fruen Mill Complex and Glenwood-Inglewood Water Company are located partially within the APE. A cultural resources assessment was completed in 2014 of the Fruen Mill Complex and Glenwood-Inglewood Water Company (Blondo 2014). The assessment found that these properties did not retain the integrity needed to be listed on the NRHP. The cultural resource assessment also evaluated Bassett Creek Park, located on the west bank of Bassett Creek, and recommended that it be considered potentially eligible for the NRHP. The field survey for this assessment identified hand built retaining walls associate with Bassett Creek Park. These retaining walls are considered contributing elements of the Bassett Creek Park site.

A railroad bridge crosses Bassett Creek south of the Fruen Mill Complex. The 1938 and 1945 aerial photographs show that there were once two bridges each carrying a set of track. Current aerial imagery shows only one bridge with one set of track.

Summary and Recommendations

The Phase Ia cultural resource literature review for the proposed Bassett Creek Main Stem restoration project resulted in the identification of four bridges, portions of structures associated with the Fruen Mill Complex and Glenwood-Inglewood Water Company, and retaining walls associated Bassett Creek Park within the APE. The Fruen Mill Complex and Glenwood-Inglewood Water Company have been recommended as not eligible for the NRHP. Bassett Creek Park has been recommended as potentially eligible for the NRHP and consultation with the Minnesota State Historic Preservation office will be needed to ensure that the project will not result in adverse impacts to the park. Three of the bridges may be more than 50 years old and their eligibility listing on the NRHP has not been evaluated. If these structures will be affected by the proposed project additional evaluation may be required under 36 CFR 800.4.

Sincerely,
Julie Kloss Molina
Barr Engineering

Attachments: Figures

References

Aerial Photographs
1338 and 1945 St. Louis County, Minnesota.

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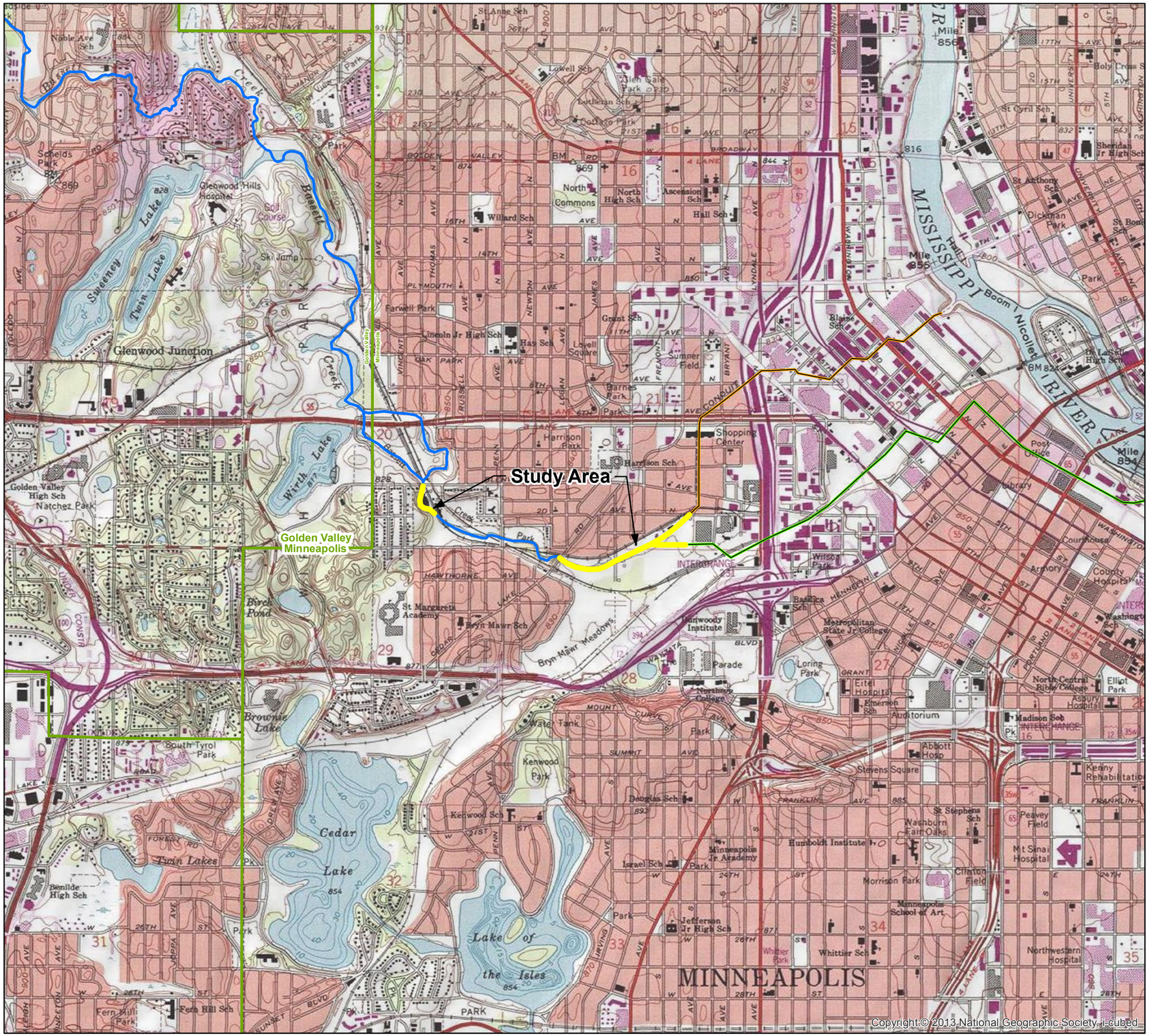
U.S. Works Progress Administration
1940 Real Estate Atlas, Minneapolis, MN, Plates 19A and 19B.

Figures



Study Area

Stream

Old Tunnel

New Tunnel

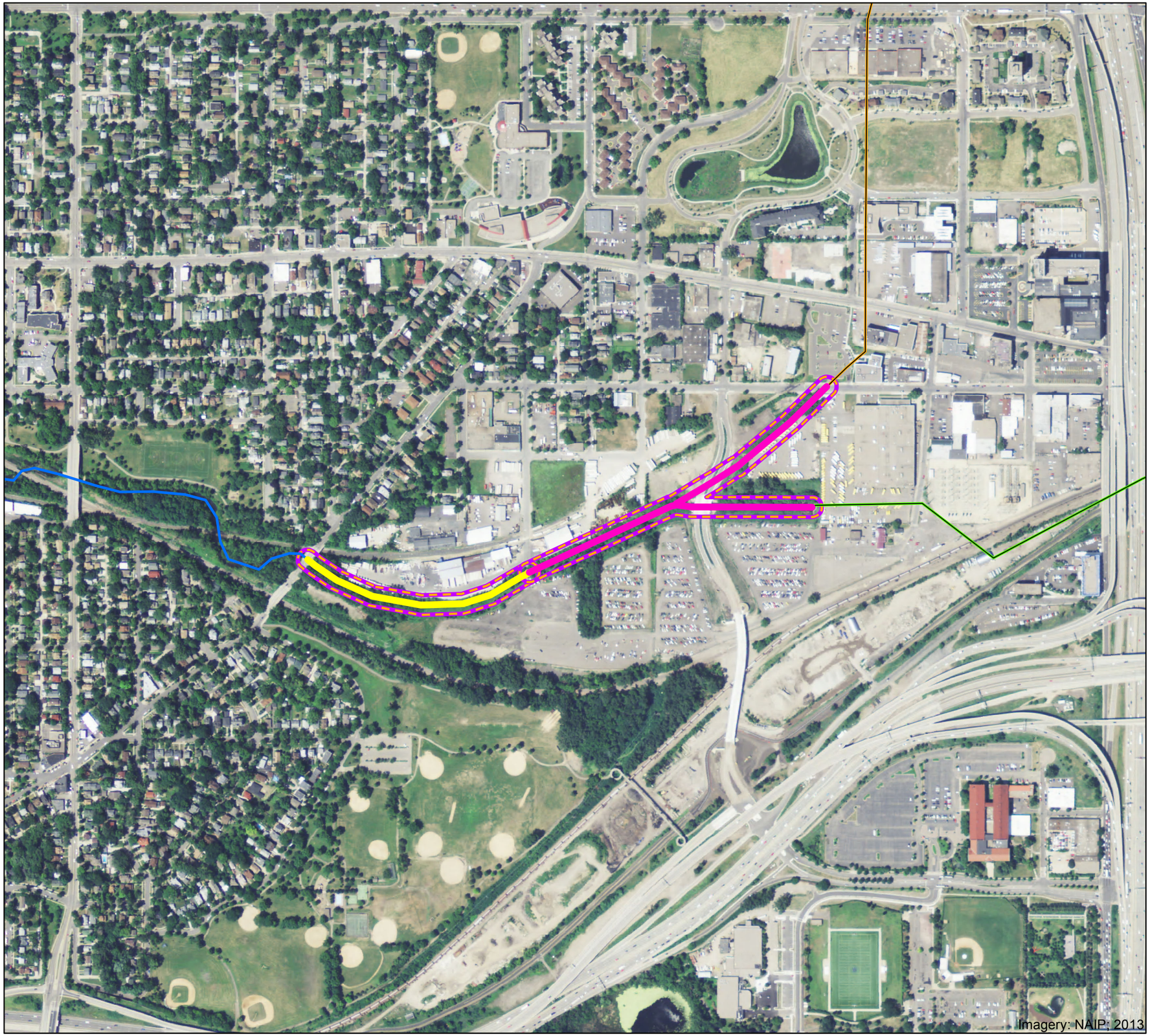
N

Feet

2,000 0 2,000

FIGURE 1

BASSETT CREEK STUDY AREA
Bassett Creek Feasibility Study
Bassett Creek Watershed
Management Commission



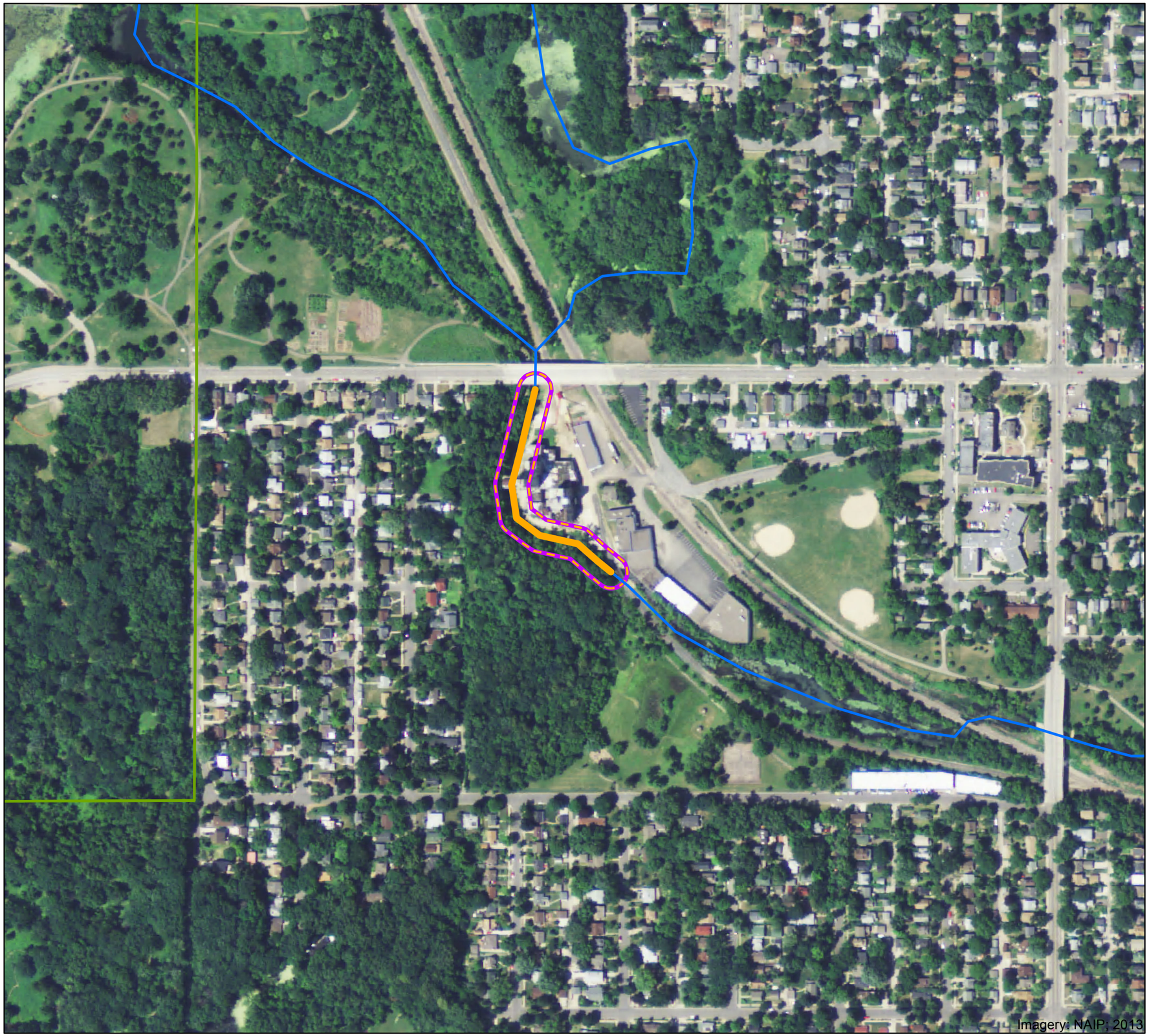
Stream
Old Tunnel
New Tunnel
Cedar Lake Rd to Irving Ave Reach
Irving Ave to Dupont/2nd Ave Reach
50-Foot Study Reach Buffer

N

Feet
500 0 500

FIGURE 2

PROPERTY LAYOUT (EAST)
Bassett Creek Feasibility Study
Bassett Creek Watershed
Management Commission



Stream

Fruen Mill Reach

50-Foot Study Reach Buffer

N

Feet

300 0 300

Bassett Creek Watershed Management Commission

FIGURE 3

PROPERTY LAYOUT (WEST)
Bassett Creek Feasibility Study
Bassett Creek Watershed Management Commission

WSB & Associates, Inc.

Engineering ■ Planning ■ Environmental ■ Construction

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Memorandum

To: ***Melissa Jenny, US Army Corps of Engineers (St. Paul)***

From: ***Erick Francis, WSB & Associates, Inc.***

CC: ***Andrea Weber, Minneapolis Park & Recreation Board***

Date: ***January 10, 2014***

Re: ***Main Stem of Bassett Creek Restoration Project Archaeological Report***
City of Minneapolis and the Minneapolis Park & Recreation Board, MN
WSB Project No. 1165-82

Introduction
On behalf of the City of Minneapolis and the Minneapolis Park and Recreation Board (MPRB), attached is a Cultural Resources Assessment, as requested, for the Main Stem of Bassett Creek Restoration Project Bassett, located within the Cities of Golden Valley and Minneapolis.

Purpose of the Cultural Resource Assessment
As requested by the Army Corps of Engineers (ACOE) and the State of Minnesota Historical Preservation Office (SHPO), this Cultural Resource Assessment was developed to provide further historical information as part of restoration activities for the Main Stem of Bassett Creek Restoration project. The Assessment was developed to Comply section 106 ACOE permitting requirements and includes further results of a project wide survey and evaluation of cultural resources within the project area.

The MPRB would appreciate your prompt review of this attached information and final approval of the permit. If you have any questions or concerns, please contact me at (763) 512-5251 or efrancis@wsbeng.com.

Enclosures

Cultural Resource Assessment
Bassett Creek Main Stem Restoration Project
Golden Valley Road to Irving Avenue North,
Hennepin County, Minnesota

by
Steven J. Blondo, MA
Principal Investigator
Blondo Consulting, LLC

SHPO Review and Compliance Number:

January 10, 2014
FINAL REPORT

BLONDO CONSULTING LLC.
CULTURAL HERITAGE CONSULTING
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Management Summary/Abstract

Blondo Consulting, LLC was retained to complete a cultural resource assessment of the Bassett Creek Main Stem Project, Hennepin County, Minnesota. The Area of Potential Effect (APE) includes the stretch between Golden Valley Road and Irving Avenue North and includes an area adjacent to Bassett Creek where project improvements are to occur. The purpose of the survey was to learn whether any archaeological deposits and subsurface or above ground cultural features exist within the APE prior to the stream bank stabilization. The proposed stream bank stabilization includes balancing the stream banks, and installing soft-engineered BMPs and hard armoring. The project will require permitting by the Army Corps of Engineers and therefore will be subject to review under Section 106 of the National Historic Policy Act (NHPA).

A field visit took place on May 8, 2013. At that time, the APE was walked with Project Manager, Erick Francis of WSB & Associates. Discussions of project plans and stabilization locations took place. Stream bank restoration and stabilization locations were identified adjacent to the current stream and within the 100-year flood plain. These areas were compared to areas identified by Christina Harrison of Archaeological Research Services as having potential for intact subsurface deposits. Blondo Consulting recommends no additional archaeological work. An evaluation of the Fruen Mill Complex, Glenwood-Inglewood Water Company, and Retaining Walls Within Area 6 found that these resources, although historically significant, do not retain sufficient integrity for inclusion in the *National Register*. The Bassett Creek Park was also evaluated as part of the project and found to have historic significance and retain sufficient integrity for *National Register* inclusion. Blondo Consulting recommends the Fruen Mill Complex, Glenwood-Inglewood Water Company, and Retaining Walls Within Area 6 as ***Not Eligible*** for the *National Register*. Blondo Consulting recommends Bassett Creek Park as ***Potentially Eligible*** for the *National Register*.

TABLE OF CONTENTS

1.0 INTRODUCTION

In May 2013, WSB and Associates (WSB), consultant to the Minneapolis Park Board, retained Blondo Consulting, LLC (Blondo Consulting) to complete a cultural resource reconnaissance survey of the Bassett Creek Main Stem and evaluation of the Fruen Mill Complex, Glenwood-Inglewood Water Company, WPA Retaining Walls Within Area 6, and Bassett Creek Park prior to proposed bank stabilization. The purpose of the evaluation is to identify previously unrecorded subsurface deposits and assess whether the resources have historic significance and sufficient integrity to deem them eligible for the *National Register of Historic Places*. The project is being completed under Section 106 due to permitting from the U.S. Army Corps of Engineers. The evaluation portion of the project involved background research and field visit to photograph and assess the historic significance and integrity of the existing structures.

2.0 PROJECT AND SITE DESCRIPTION

Minneapolis Park Board and WSB are proposing improvements and stabilization of the existing stream bank located within Bassett Creek Watershed between Golden Valley Road and Irving Avenue. The Area of Potential Effect (APE) contains the stream bank and area immediately adjacent to the stream bank in nine proposed improvement areas. The APE has been defined as the area where direct adverse effect is likely to occur.

3.0 METHODOLOGY

The proposed project is located in a region where recorded archaeological properties are not numerous, though this may be because of a lack of formal survey. Archaeological properties related to American Indian occupation and activities are usually found along lakes and streams, or former large permanent bodies of water on prominent topographic features (i.e. uplands or terraces).

Background research was completed by Ms. Christina Harrison of Archaeological Research Services in 2011. The literature review was completed at the State Historical Preservation Office (SHPO), and Office of the State Archaeologist (OSA). State archaeological site files, *National Register of Historic Places* (NRHP), historic maps (including Trygg maps and the Andreas Atlas), and current and historic aerial photographs. Winchell's Aborigines of Minnesota (1911) was reviewed to further identify reported archaeological sites and potential for burial mounds and unplatted cemeteries. "Cultural Resource Phase IA Review Conducted for the Bassett Creek Watershed Management Commission Resource Management Plan, Hennepin County, Minnesota" documented Ms. Harrison's findings.

The archaeological investigation involved a field visit on May 8, 2013. During this visit, both stretches of Bassett Creek were walked. Mr. Erick Francis of WSB & Associates explained project locations and proposed stabilization methods. Comparisons to areas identified by Archaeological Research Services as having potential for subsurface deposits were made.

4.0 ENVIRONMENT

The project area falls in Anfinson's Archaeological Region 4: Central Deciduous Lakes. Anfinson's archaeological regions allow us understand the prehistoric environment and better predict where archaeological sites may be located.

Region 4: Central Deciduous Lakes topography consists of "a patchwork of moraines, till plains, and outwash plains" (Anfinson 1988:295). The region is defined by the rivers that flow through and border it. The Mississippi flowing through the region, the St. Croix forming the eastern and rivers draining into the Red River forming the western boundaries. Anfinson tells us that the area has a complex glacial history, "at different times covered by ice lobes from the north, northeast, northwest, and even southwest" (Anfinson 1988:295). The eastern half of the region was free of ice by 13,500 years ago but the Des Moines Lobe covered the western half of the region until about 12,000 years ago.

In pre-settlement times, most of the region's vegetation consisted of "Big Woods bordered with oak in the west, oak woods in the southeast, and mixed coniferous-deciduous forest in [the] north" (Anfinson 1988:296). Marschner describes the natural vegetation as wet prairie or marsh, oak openings and barrens, and big woods (hardwoods – oak, maple, basswood, hickory). Today the area is located in the Eastern Broadleaf Forest Province, Minnesota and NE Iowa Morainal Section, and Big Woods Subsection of the Department of Natural Resources Ecological Classification System (DNR ECS).

4.1 Soils

Anfinson gives a general description of the soils in the area as "medium to coarse textures with prairie soils in the south and west and forest soils in the north and east" (1990:148). County soil data shows a variety of soils within the project area. These soils can be divided into hydric "soils that are water-saturated for long enough periods to produce reduced conditions and affect the growth of plants" (Brady 1999:533) and non-hydric. Hydric soils have less potential to produce archaeological sites than non-hydric soils.

4.2 Geological Background

Wright identifies the physiographic regions overlaying the state. Overlaying the project area is the Eastern St. Croix Moraine (#13) (Wright 1972:570). Wright goes on to describe the area as being "composed of stony, reddish-brown glacial drift" and "less suitable for intensive agriculture than for scenic sighting of country houses" (1972:570).

4.3 Flora and Fauna

Early prehistoric subsistence resources of the area would have included "extinct woodland dwellers such as the giant beaver and mastodants[sic] and smaller animals known in the northern forests of today" (Anfinson 1988:296). Early Middle Prehistoric faunal would have been similar to Late Prehistoric fauna and would have included: white tailed deer, beaver, bear, moose (in the north and east), bison and elk (in the south and

west). Fish and waterfowl as well as wild rice would have been plentiful in wetlands and lakes. Acorns and other nuts, berries and plants would have been available for gathering.

5.0 CULTURAL HISTORY

Statewide contexts have been developed by the Minnesota State Historic Preservation Office (SHPO), which examines Minnesota's recent Prehistoric through Historic past. These contexts are based on archaeological and historic research. They describe the history of the state, and assist in predicting where specific types of sites may occur both geographically and temporally.

American Indian contexts area commonly divided into three major traditions: Paleoindian, Archaic, and Woodland based on significant changes these communities lived and what they ate. Historic contexts are generally divided into Contact and Post-Contact periods. The Contact period begins with early European exploration of the state and continues through the Post-Contact period including settlement and statehood.

Most archaeological sites found within Hennepin County have only been dated to the Pre-Contact period. Exact dating is difficult based on limited testing, analysis, and quantity of artifacts. However, based on the types of artifacts found within the county, it can be assumed that almost all periods of prehistory have the potential to be represented within the project boundaries.

5.1 Pre-Contact Period

5.1.1 Paleoindian Tradition (12,000 to 8,000 Before Present [B.P.])

The Paleoindian Tradition begins at the close of the Pleistocene era and beginning of the Holocene era. Native Communities are small, mobile, and focused on hunting. The glacial ice retreats and Lake Agassiz (located on the edge of Traverse County) drains and prairie vegetation advances into western Minnesota. Archaeological evidence from Paleoindian sites in Minnesota include the Browns Valley Site, 21TR0005, located near the project area reflect the same general characteristics and patterns noted for Paleoindian sites throughout the central United States and Canada. Based on the small number of artifacts recovered from these sites, it can be assumed that these communities hunted a limited number of large animals, mainly mammoth and mastadons. As the Pleistocene era ended and the Holocene era began, these mega fauna gradually died out. Ancient species of bison followed the advance of prairie vegetation, giving Paleoindian people a species to shift their hunting focus to. In addition to hunting large and smaller game, it is likely that gathering wild plant foods supplemented the diet of the Paleoindian people.

Paleoindian people are known for their distinctive stone tools. Projectile points of this period show advanced craftsmanship and include large lanceolate projectile points. Because Paleoindian communities were very small and nomadic, archaeologists have found only sparse, scattered evidence of the Paleoindian people throughout the region.

5.1.2 Archaic Tradition (8,000 to 2,800 B.P.)

The beginning of the Archaic period is marked by adaptation to environmental changes in the form of diet and settlement patterns. Archaic People begin to use more diverse

plant and animal resources. A broader range of tools including new projectile point forms, copper tools, and ground and pecked stone tools appear. Although some research suggests that community size increased during the Archaic period, some archaeological evidence counters that assumption, suggesting that community sizes remained small, and that day-to-day activities took place at a series of seasonal camps (Anfinson 1987:1997). The hunting of bison remained an integral part of life for Archaic people. As with Paleoindian sites, Archaic sites are relatively small and ephemeral.

5.1.3 Woodland Tradition (2,800 B.P. to European Contact)

In the Midwest region, archaeologists tend to divide the Woodland Tradition into three periods: Early, Middle, and Late, however Anfinson (1987a) has suggested that in Minnesota it may be more appropriate to make a single division into Initial and Terminal periods. The manufacture of ceramic vessels, use of bows and arrows, construction of burial mounds, and cultivation of specific plant species, mark the transition into the Woodland Tradition. Archaeologists believe that the Woodland Tradition remained similar to that of the Archaic period, with a dependence upon a diverse, seasonal resource base of plants and animals (Johnson 1988; Anfinson 1987a:222).

Although community sizes have many similarities between the Early Woodland and Late Archaic period, by the Late Woodland period populations are on the rise. This may be due to increased efficiency in regards to how food was acquired. Woodland period sites range from burial mounds to small limited use sites to large village and habitation sites. Sites are located in areas where the community could focus on specific resources to environments capable of sustaining larger communities over longer periods of time.

5.1.4 Plains Village & Mississippian/Oneota Traditions (1,100 B.P. to European Contact)

Terminal Woodland period sites in Minnesota exhibit significant changes in subsistence and settlement patterns. Ceramic vessels with different form and decoration, settlement patterns shifting to larger and more permanent villages (usually near river settings) all mark a change archaeologists refer to as the Plains Village and Mississippian/Oneota Traditions. Archaeological evidence indicates that both the Plains Village and Mississippian complexes relied heavily on bison hunting and intensive corn horticulture.

Archaeologists are unsure how the Oneota complexes developed. Two common theories are prevalent. The first indicates that groups migrating into the Upper Midwest brought with them new cultural traditions. A second theory is that people already living in the area began to adopt cultural changes different from groups around them.

Plains Village and Oneota site types are similar to those associated with the Woodland Tradition. The archaeological remains of these complexes range from burial mounds to small, limited use sites and extensive habitation sites. Site location remains consistent with the Woodland Period.

5.2 Contact/Post-Contact Period (1630 to Present)

This period generally refers to the span of time extending from the first European explorations until intensive Euro-American settlement of the region. Minnesota's historical period began in 1673 when French explorers Marquette and Joliet discovered the upper portion of the Mississippi River. Ten years later, Catholic Missionary Father Louis Hennepin returned to France to write the first book about Minnesota, *Description de la Louisiane*, telling his story of exploring Minnesota and being held captive by the Dakota Indians.

The territory containing modern-day Minnesota was claimed by Spain, France, Great Britain, and eventually the United States. Lieutenant Zebulon Montgomery Pike lead the first United States expedition through Minnesota in 1805. Fort St. Anthony (later Ft. Snelling) was completed between 1819 and 1824, and in 1836 the Wisconsin Territory including a portion of Minnesota, was formed. Minnesota became a territory in 1849 and achieved statehood on May 11, 1858.

The fur trade drove much of the European exploration and settlement in Minnesota through the mid-1800s. While the fur trade impacted the American Indian communities throughout all of Minnesota, European settlement in the area exploded after the 1860s. At that time, intensive settlement and agriculture dramatically transformed the landscape, displacing a large number of American Indians. In 1862 tensions between white settlers and American Indians exploded resulting in the Dakota Conflict. Ultimately, this war left 462 whites and "an unknown but substantial number" of American Indians dead (Anderson and Woolworth 1988). This conflict concluded with the hanging of 38 Dakota Indians in Mankato and the deportation of many others to Santee, Nebraska.

As white settlers made Minnesota their home, farming became the predominant industry. Wheat was the cash crop, and mills sprang up along major waterways across the state, notably in Minneapolis. Minnesota dominated the world in wheat processing until the 1930s. In addition to milling, Minnesota was also a leader in lumbering and iron mining.

Possible archaeological site types associated with this period are generally consistent with those of earlier periods, but the influence of European and Euro-American traders, missionaries, settlers, and industries affected the locations of these sites. This period also includes the settlement patterns, subsistence activities, and economic strategies employed by Euro-American immigrants beginning in the mid-nineteenth century. Associated archaeological and historic site types categorized in the Contact/Post-Contact period include standing structures as well as archaeological sites.

6.0 RESULTS OF BACKGROUND AND ARCHIVAL RESEARCH

6.1 Previously Identified Archaeological Sites

Records searches were conducted at both the State Historic Preservation Office (SHPO) and Office of the State Archaeologist (OSA). The Area of Potential Effect (APE) contains the stream bank and area immediately adjacent to the stream bank in nine proposed improvement areas. The APE has been defined as the area where direct adverse effect is likely to occur. No previously identified archaeological sites have been recorded within the APE. As pointed out by Christina Harrison in her 2011 report "only a few systematic efforts have been made to survey this general area for archaeological evidence" (2011:1).

6.2 Previously Identified Historic Resources

A record search of the project area revealed few recorded historic resources. The Theodore Wirth Park has been surveyed and evaluated as part of the Grand Rounds Park District. This evaluation and report is currently in draft form. Harrison suggests the Theodore Wirth Park is "a contributing property and is likely to be listed on the NRHP" (2011:1). The draft *National Register* nomination form confirms this (Roise et. al 2012). The Fruen Mill Complex, Glenwood-Inglewood Water Company, and Bassett Creek Park, all located near the southern end of the project area are not part of the Grand Rounds and therefore have not been previously surveyed or evaluated. Additional research was conducted for these resources.

6.3 Previous Surveys

The region around the project area has been the subject of several important surveys. The earliest recorded survey was that of T.H. Lewis, who surveyed large areas of the state for earthworks during the latter part of the nineteenth-century (Winchell 1911). Lewis recorded a number of mounds and earthworks in Hennepin County (Winchell 1911). More recently, compliance surveys have played an important role in understanding the distribution of cultural resources. Although a number of Cultural Resource Surveys have been completed within the Watershed, most of the area adjacent to the current project has not been previously surveyed. Christina Harrison and Archaeological Research Services (ARS) completed a preliminary reconnaissance survey along the main stem in 2011. Hess and Roise completed a study of the Grand Rounds which included the Theodore Wirth Park and Parkway in 2011.

7.0 FIELD RESULTS

Steven Blondo conducted a field visit on May 8, 2013. The project area was walked with WSB project manager, Erick Francis. He explained proposed project improvements. Notes and photographs were taken. Comparisons to Harrison's results were made along the way. Improvements consist of a series of stabilization and restoration locations. Improvement efforts include removal of fallen and dead trees, shaping of the eroded stream banks in selected areas, and installation of stream bank stabilization methods such as cross vanes, rock vanes, bio-log, and stone toe protection. Removal and salvage of rip-rap will take place in selected areas and placement of new rip rap where needed. The restoration of disturbed areas will be completed by reseeding with native vegetation and

installation of erosion blanket on disturbed areas. The following describes each of the nine areas in detail.

7.1 Project Site Area 1

Project Site Area 1 is described by ARS encompassing "the stream banks west of a large, now abandoned structure known as the Fruen Mill" (Harrison 2011:3). Proposed improvements within this area include restoration of the westerly bank, removal of deteriorated stone walls, and restoration of trails and walkways. Harrison noted "due to quite severe erosion and undercutting of the concrete footings and structural remains, stabilization efforts will inevitably impact segments of the mill structure which has not yet been assessed for historic significance but appears likely to warrant such an effort, considering that the building as well as its founder played an important role in the development of flour milling and other manufacturing industry in late 19th century Minneapolis" (Harrison 2011:3). A field visit by Blondo Consulting confirmed these findings. Located on the east side of Bassett Creek is the Fruen Mill Complex and Glenwood-Inglewood Water Company. Opposite these businesses is the Bassett Creek Park. Project improvements related to deteriorating stone walls are located within Bassett Creek Park. The following are histories of these resources.

7.1.1 History of the Fruen Mill Complex and Glenwood-Inglewood Water Company

William H. Fruen emigrated from England in 1865. He was a trained machinist and found work with the Boston Screw Company making screws, screw making equipment, and designing new machinery. He became a shareholder and in 1870, moved to the Twin Cities. He then "secured a repair and machine shop in the milling district of Minneapolis" where his skill for designing new machinery became important (Harrison 2011:3). A sketch written by his son, Arthur B. Fruen in 1960, tells "after the historic explosion of the Washburn Mill, Fruen's services were sought to prevent a recurrence, one invention being an alarm bell to indicate shortage of flow of grain between the mill stones and stop the machinery before the surfaces would be injured" (Harrison 2011:3). In 1878, Fruen secured patents on a Water Wheel Governor which replaced all similar devices in Minneapolis mills. "The screw factory was now converted into a plant for manufacturing the governors which automatically regulated the speed of water wheels, and soon were shipped into many foreign countries. This industry proved a financial success" (Harrison 2011:3).

"Although with time, Fruen gained considerable prominence in business and political circles in Minneapolis, he became best known in connection with the supply of spring water to Minneapolis" (Harrison 2011:3). In 1882, Fruen began to utilize the springs near his factory. As the business grew, he developed a one-cent coin machine for dispensing a glass of water. "In 1885, the business began to deliver water in jugs. An ice plant was added and ever since the business has grown to become known as the Glenwood-Inglewood Company" (Harrison 2011:3). Although their histories are intertwined, the Fruen Mill is a separate business from the Glenwood-Inglewood Water Company and therefore are treated as two separate resources for purposes of this report.

The following is a timeline of Fruen Mill history. Written by Sharon Parker under the title "Down by the Old Fruen Mill", it appeared in the Spring 2010 edition of the Minneapolis Oberserver Quarterly. The timeline gives a complete history of the property.

July 15, 1845: William H. Fruen born in Salisbury, Wiltshire, England.

1865: WHF immigrated to Boston, probably April 17. Worked for Boston Screw Co.; became a stockholder in the company.

1870: WHF moved to St. Paul, then Minneapolis, after Boston Screw Co. was taken over by American Screw Co. and plant was closed. Made patterns and built machinery for the mills.

"[Fruen] operated a repair shop for the flour mills on the west side of St. Anthony Falls. Here he assisted the millers with devices to improve and to protect the millstones and other milling equipment from damage."

1874: WHF dammed Bassett's Creek and built a water-powered screw factory. Fruen's partners were "hurt by the recession" and unable to help raise capital. The factory made 8,000 gross of screws a year.

1878: WHF's screw factory was later purchased by the American Screw Co. Fruen was constrained "not to re-engage in the manufacture nor to teach others how to make screw machinery"

WHF subsequently used the building to manufacture the Minneapolis Water Wheel Governor, which he invented and patented, alternatively called Fruen waterwheel governor, which regulated the speed of the water wheels that powered the mills. Fruen's waterwheel governor was a great success and was shipped all over the world, including to England, Japan, and Argentina. Fruen ran this business pretty much full time until 1890 [sic].

May 2, 1878: Washburn A Mill explosion. This led to innovations to prevent a recurrence. WHF contributed to this effort by developing an alarm to signal when the flow of grain between the mill stones was too low. Other innovations, not attributed to Fruen, focused on reducing or eliminating the dust.

1880–1930: Minneapolis leads the nation in flour production

1882: WHF started selling spring water; petitioned City Hall for a franchise to connect to water mains to supply city water to homes and businesses, but was repeatedly turned down, apparently because he wanted too much money.

1884: WHF formed the Glenwood company and began selling water in jugs. (Holcombe says they started selling water in jugs in 1885, but Glenwood dates its origins to 1884)

Dec. 16, 1884: WHF patented a coin-operated machine for dispensing water by the glass. These machines were manufactured in the same building that had once made screws, then waterwheel governors

1890: WHF began experimenting with "steam rolling wheat from which only the exterior bran had been removed, and which was then packaged and sold through grocers as breakfast cereal."

1894: Fruen Cereal Company incorporated, made only whole grain cereals; later changed name to Fruen Milling Company, "as business broadened." Some time after 1894, added feed for livestock to food manufactured, which is when/why the name changed. Alternatively, Holcombe says the cereal/milling company was started in 1896 — I assumed

that Arthur Fruen knew the family business and provided the more accurate date. Milling operations took place in the same building as previous enterprises.

1896: William F. Fruen, son of Wm. H Fruen, took over the Glenwood company when his father retired.

When the Fruens were bottling water under the name Glenwood, "On the adjoining property were bountiful springs belonging to the Inglewood company, which was engaged in the same business. The two plants were competitors for 10 or 11 years." In 1896, the two merged to form Glenwood-Inglewood, Inglewood founder A.E. Holbrook became president, Wm. F. Fruen became secretary. In 1914, the company was delivering about three million gallons of water annually.

1909: Fruen retired from the milling co., son Arthur B. Fruen took over.

1911: Fruen Milling Co. added a feed department.

1912: First concrete construction at the Fruen Mill site.

1913: Typhoid Epidemic in Minneapolis, Glenwood-Inglewood supplies safe drinking water.

Oct. 19, 1917: Wm H. Fruen died, was subsequently buried at Lakewood Cemetery.

1921–1945: Arthur B. Fruen served as Minneapolis city councilman.

1932: J. Donald Fruen joins Glenwood-Inglewood Co.

1950: J. Donald Fruen becomes pres. of Glenwood-Inglewood Co., third generation of Fruens in this position.

1954/5: Expansion of Fruen Milling Co. by addition of 120,000-bushel concrete storage facility, which brings the capacity to 300,000 bushels; new equipment, which increased output to 600–800 tons/day; Fruen "one of the largest millers of diversified cereals and farm feeds in the Upper Midwest." "The lofty elevator tower is a landmark of the Glenwood area of Minneapolis."

1963: Arthur B. Fruen, then age 77, retires from "active" role, but remains chair of Fruen Milling Co.

1970: ConAgr Inc. [sic] bought Fruen Mill . Arthur B. Fruen died Sept. 30.

1971: J. Donald Fruen died at age 69 on August 11; had been chairman of the board of Glenwood-Inglewood Co.; had been pres. of company from 1950 to 1970.

June/July 2004: Frich Development purchased three acres that includes the Fruen Mill, with plans to develop it into luxury condos. Development stymied by access issues across RR tracks — Canadian Pacific grants access, Burlington Northern does not.

Sep. 2004: Deep Rock Water of Denver, Colo., purchased Glenwood Inglewood.

Oct. 2005: An 18-yr-old man falls while exploring the abandoned Fruen Mill. He survives.

January 2006: Fruen Mill Partners LLC purchased Fruen Mill property. Delinquent taxes as of Jan. 2010: $11,114.92.

Oct. 2006: A 32-yr-old man dies after falling through a hole in the floor at the Fruen Mill.

Nov. 18, 2009: Fruen Mill purchased from Fruen Mill Partners LLC by Lippert and Associates LLP.

7.1.2 History of the Bassett Creek Park

In 1930, Arthur Fruen donated 13.4 acres to the Minneapolis Park and Recreation Board. (Parker 2010). This area became known as Bassett's Creek Valley Park. "Several additions, most notably the purchase of 43 acres in 1934, have increased the park's size to over 70 acres. A former dumping ground for local industries; the area was transformed into a park with the assistance of labor from federal work relief programs whose conservation efforts cleaned up the land and restored the creek" (Minneapolis Park & Recreation Board Bassett's Creek Valley Park website accessed 2 January 2014 at www.minneapolisparks.org/default.asp?PageID=4&parkid=272).

A complete history of the park can be found in Smith's *Parks, Lakes, Trails and So Much More: An Overview of the Histories of MPRB Properties*. This history is reprinted below.

> The first land for the park along Bassett's Creek between Bryn Mawr Park and Theodore Wirth Park was acquired in 1930 when Arthur Fruen and the Glenwood-Inglewood Company donated 13.4 acres. Fruen was a city council member and ex-officio park commissioner at the time. In 1934 the park board purchased 43 acres to expand the park.
>
> The land was almost acquired, however, many years earlier. When Bryn Mawr Park, part of the estate of John Oswald, one of the original park commissioners, was purchased from his heirs in 1911 the park board had considered acquiring the valley of Bassett's Creek all the way to Glenwood (Wirth) Park. At that time it was considered a possible parkway route from Loring Park through The Parade and Bryn Mawr to Glenwood Park. In the end the board acquired Bryn Mawr Park only as far west as Cedar Lake Road.
>
> Interest in Bassett's Creek surfaced again in 1924 when park superintendent Theodore Wirth made a survey of the area. He wrote in the 1924 annual report that he believed the land should be owned by the park board and suggested that the "unsightly and unsanitary" land could be made attractive at "comparatively small expense." Opposition to the plan by residents of the area however dissuaded the park board from pursuing the issue.
>
> Wirth noted again in 1929 that the idea of acquiring the creek had been revived and he submitted a plan for the development of the potential park in the 1929 annual report. The acquisition of the park gained impetus in June 1930 when the Fruen family and the Glenwood-Inglewood Company offered to donate more than 13 acres along the creek for the park. Deeds to that land were delivered to the park board in December 1930. Over the next three years, the park board and residents of the area debated how much and what land should be purchased to add to the donated land and how the cost would be assessed to property owners. Assessing property owners for anything during the Great Depression met with opposition. In February 1934 the park board designated 43 acres of land for purchase. The price was less than $14,000, which was assessed on property in the district. It was one of the park board's few land acquisitions from the beginning of the depression until after World War II.
>
> Improvements to the land began almost immediately using labor from federal work relief programs. An old dump at Russell and 2nd Avenue North was raised about five feet and converted into a five-acre ball field. The creek bed was cleaned between

Penn and 6th Avenues North and, where the banks of the creek were steep, stone walls were constructed. In addition a concrete dam was built near the Fruen Mill. The land north of Glenwood Avenue and east of the creek, which had previously been a dump, was graded. Similar work continued in 1935, still with federal assistance, included the deepening of the creek. In 1936, four clay tennis courts were added to the park, two near Glenwood Avenue and two near Chestnut Avenue. Federally funded improvements continued in 1937, most notably the creation of two lagoons.

The park was enlarged in 1944 by more than three acres when the park board agreed to swap two acres of park for more than five acres of railroad land beside the park.

Following the initial improvements to the park with federal funding, very few improvements were made to the park for many years. The next time that Bassett's Creek featured in park plans was in the 1950s when the water flow in the creek was coveted to raise the water levels in the Chain of Lakes to the south. Unlike Minnehaha Creek, Bassett's Creek never seemed to run out of water, so it was considered the best source for more water in the lakes. In 1958 a pipeline and pump were constructed from Bassett's Creek to Brownie Lake. Water pumped into Brownie Lake flowed into Cedar Lake, Lake of Isles, and Lake Calhoun, and eventually reached Lake Harriet.

The new pumping station succeeded in raising the levels of those lakes more than four inches in 1958, but that wasn't enough. After examining several alternatives, including capturing water from air conditioners in downtown office buildings for pumping into the lakes, the park board built a pipeline to the Mississippi River to pump river water to the Bassett's Creek pumping station and from there to the lakes. That pump began operation in 1966 and continued periodically through the 1970s and 1980s.

Another ball field was constructed in the park near Thomas Avenue in 1968 when a swampy section of land was filled. An offer of free fill from a local contractor proved too attractive to pass up. Additional improvements to the park, including the addition of a "totlot" were completed in 1990.

The most recent changes in the park began in 1996 with the creation of a commuter biking trail through the park to connect to Bryn Mawr Park and the Cedar Lake Trail to downtown. The last connection of biking trails occurred in 2002 when the Luce Line Trail was connected through Wirth Park to the Bassett's Creek Trail.

Maynard in his City Pages article discusses the walls. "In 1935, 200 men who got jobs under another employment program, the New Deal's Works Progress Administration (WPA), continued the creek restoration efforts, finally creating a 56-acre park in the area Theodore Wirth had proposed six years earlier. Much of the work they did is still visible today where the stream flows beside the now-closed Fruen Milling Company just off Glenwood Avenue North. Water-damaged banks were braced with retaining walls. A limestone trail was laid beside the creek, and stone steps leading up a steep hill into the neighborhood above were built" (2000).

The series of walls are located within the Park. These walls serve a variety of purposes. Some are retaining walls along park trails, others erosion control for Bassett Creek. Walls are constructed of cut stone or brick. Numerous materials and construction techniques suggest multiple dates and attempts at erosion control. Many of these walls are likely the WPA walls described by Parker and others above as being constructed in the 1930s. Their significance lies with the transfer of land to the Minneapolis Park Board

from the Fruen family and federal relief design and construction within Theodore Wirth Park. The walls retain a moderate degree of integrity. Those located near Bassett Creek however, are in poor condition. They are eroding into the creek and adding to a loss of the park trail.

The Fruen Mill Complex, and Glenwood-Inglewood Water Company have sufficient historical significance for *National Register* eligibility. However, neither retain any degree of integrity. As such, Blondo Consulting recommends the Fruen Mill Complex, and Glenwood-Inglewood Water Company as ***Not Eligible*** for the *National Register*.

Additionally, Blondo Consulting recommends the Bassett Creek Park as ***Potentially Eligible*** for the *National Register*. Stone retaining walls are recommended as contributing to Bassett Creek Park's eligibility. No additional archaeological work is recommended however project improvements should take the eligibility of the Park into effect.

7.2 Project Site Area 2

Project Site Area 2 consists of a narrow landbridge at the northeastern end of Wirth Lake, south of TH 55. The area separates the lake from a small pond created by the widening of Bassett Creek. Harrison notes that the area "encompasses some fairly severe bank erosion" and that the landbridge consists largely of fill "as indicated by the historic debris that was eroding out of the bank: miscellaneous fragments of glass, modern ceramics and metal of the kind common to demolition debris that has been used for landscaping" (Harrison 2011:4). Aerial photographs document the area was constructed in the 1950s. "At the point where the south end of the landbridge abuts a fairly level creek terrace, the Area 2 segment veers east, now exposing natural looking soils without any historic debris" (Harrison 2011:3). The high bank shows massive erosion, probably due to its role as a popular fishing spot. Harrison states that "visual inspection proved negative as did Phase I level testing along the top of the bank" (Harrison 2011:3).

Project improvements within Area 2 include bank restoration and landscaping improvements. It was Harrison's opinion that bank restoration efforts should not harm any archaeological evidence but that landscaping plans should be reviewed by SHPO to insure they do not affect the historic character of the NRHP eligible Theodore Wirth Park. A field visit by Blondo Consulting confirmed these findings. Blondo Consulting recommends that proposed landscaping improvements be completed in consultation with SHPO. Otherwise, no further cultural work is recommended for Area 2.

7.3 Project Site Area 3

Project Site Area 3 is located north of TH 55 at the south end of a series of lagoons. Located within Theodore Wirth Park, these lagoons were constructed by the Civilian Conservation Corps during the 1930s. Project improvements in Area 3 include a temporary drawdown of the ponds to assist with their revegetation. This drawdown is temporary to promote vegetation growth and will not have permanent or longterm impacts to the lagoons. A field visit by Blondo Consulting confirmed these findings. It was

the opinion of Blondo Consulting that the drawdown will not impact cultural landscape resources and no further cultural work is recommended for Area 3.

7.4 Project Site Area 4

Project Site Area 4 is south of Plymouth Avenue and encompasses "a small slice of land between the park trail along the water and the railroad embankment" (Harrison 2011:4). The area is low and wet. Harrison notes that "considering that there are much more inviting areas in the near vicinity, this one appears to lack archaeological potential" (Harrison 2011:4). This portion of Bassett Creek was heavily altered by Federal Relief Crews. Project improvements in Project Site Area 4 include bank restoration and landscaping improvements. A field visit of the area confirmed Harrison's findings of low archaeological potential. Blondo Consulting recommends that proposed landscaping improvements be completed in consultation with SHPO. Otherwise, no further cultural work is recommended for Area 4.

7.5 Project Site Area 5

Project Site Area 5 is located west of Theodore Wirth Parkway. This portion of Bassett Creek was heavily altered by Federal Relief Crews. Harrison notes that the area "encompasses a stretch where the west side of the creek is eroding the 1-2 meter high banks of a terrace that forms the base of a sledding hill" (Harrison 2011:4). Harrison inspected an exposed bank with negative results. Blondo Consulting conducted a field visit of the area, confirming Harrison's results. Proposed project improvements include restoration of the stream bank and landscaping improvements. Blondo Consulting recommends that proposed landscaping improvements be completed in consultation with SHPO. No further cultural work is recommended for Area 5.

7.6 Project Site Area 6

Project Site Area 6 is located west of the park trail within the Theodore Wirth Park. This portion of Bassett Creek was heavily altered by Federal Relief Crews. Harrison states that the creek flows "over apparently man-made rapids" (Harrison 2011:5). The west bank is steeply sloped and deeply eroded. Along the east side is a "level to gently rolling grassy terrace with large areas of bank erosion" (Harrison 2011:5). Harrison inspected these areas of bank erosion with negative results, indicating a lack of archaeological potential. Blondo Consulting visited the area, found similar results. The "man-made rapids" were identified. Along with these rapids, are a series of retaining and landscaping walls described by Harrison as "within the creek, running parallel to its eastern bank, are the crumbling remnants of an approximately 50-60 feet long and 2-3 feet high wall built with irregularly sized and shaped boulders. Its downstream end is in the middle of the creek while its upstream end veers northwest towards the western creek bank, suggesting that the wall used to be a retaining wall along the western bank which since has eroded away creating a second channel between the wall and the west side of the creek" (Harrison 2011:5). It is probable that the "man-made rapids" are in fact remnants of the WPA and CCC retaining walls which have eroded and fallen into the creek. Inspection of the western creek bank show an area which appears to be deeply cut. Portions of the stone wall can be found on either side of this deep erosion cut. Harrison

discusses the possible history of these walls "more than likely, the rock wall and rapids were built at the time the man-made lagoons were created in the park -- a project first proposed by Theodore Wirth in the 1913/1916 park board annual reports but not realized until Bassett Creek was finally dredged and shaped into pools in 1933 as a Civilian Conservation Corps (CCC) project, with additional work and plantings later completed by Works Progress Administration (WPA) crews" (Harrison 2011:4). Harrison suggests further in-depth study to evaluate the walls and rapids. Blondo Consulting completed a field visit and found similar results. However, it is of the opinion of Blondo Consulting, that the "man-made rapids" are actually remnants of the eroding retaining walls. Project improvements in Area 6 include restoration of the stream bank to the east, evaluation and limited treatment of the retaining walls and landscape improvements.

The retaining walls are significant within the history of the development of Theodore Wirth Park and with the context of Federal Relief Construction. The walls found within Area 6 retain little integrity. Many have fallen into Bassett Creek. As such, they do not retain sufficient integrity for inclusion in the *National Register*.

Blondo Consulting recommends the walls as ***Not Eligible*** for the *National Register of Historic Places*. Blondo Consulting recommends that proposed landscaping improvements be completed in consultation with SHPO. Otherwise, no further cultural work is recommended for Area 6.

7.7 Project Site Area 7

Project Site Area 7 is located within the Theodore Wirth Golf Course and is "flanked by approximately two feet high slumping and eroding creek bank" (Harrison 2011:5). This portion of Bassett Creek was heavily altered by Federal Relief Crews. Harrison conducted visual inspection of the area which proved negative and appeared to lack archaeological potential. Blondo Consulting conducted a field visit, confirming these findings. Project improvements in Area 7 include restoration of stream banks and landscape improvements. Blondo Consulting recommends that proposed landscaping improvements be completed in consultation with SHPO. Otherwise, no further cultural work is recommended for Area 7.

7.8 Project Site Area 8

Project Site Area 8 is located within Theodore Wirth Golf Course. Harrison describes the area as "a low wet creek plain that is flanked by higher but much lanscaped golf course which appears lacking in archaeological potential" (Harrison 2011:5). Blondo Consulting conducted a field visit, confirming these findings. Project improvements in Area 8 include restoration of stream banks and landscape improvements. Blondo Consulting recommends that proposed landscaping improvements be completed in consultation with SHPO. Otherwise, no further cultural work is recommended for Project Area 8.

7.9 Project Site Area 9

Project Site Area 9 is located south of Golden Valley Road on the north end of Theodore Wirth Golf Course. Bassett Creek flows through the area which is marked by relatively low and wet terrain. As noted by Harrison, the area has been "impacted by the construction of Golden Valley Road and has no archaeological potential" (Harrison 2011:5). Project improvements for Area 9 include stream bank restoration and landscaping improvements. Blondo Consulting recommends that proposed landscaping improvements be completed in consultation with SHPO. Otherwise, no further cultural work is recommended for Area 7.

8.0 CONCLUSION

Blondo Consulting, LLC was retained to complete a cultural resources reconnaissance investigation for the Bassett Creek Reach 1 Restoration Project, Golden Valley, Hennepin County, Minnesota. The Area of Potential Effect (APE) includes nine (9) maintenance areas along the creek. The purpose of the survey was to learn whether any archaeological deposits or subsurface features exist within the APE prior to the stream bank stabilization. and to evaluate areas within the *National Register* eligible Theodore Wirth Park and the Fruen Mill Complex.

The proposed stream bank stabilization includes sloping of eroded stream banks, and installing soft-engineered BMPs and hard armoring. The project will require permitting by the Army Corps of Engineers and therefore will be subject to review under Section 106 of the National Historic Policy Act (NHPA).

A field visit was completed on May 8, 2013. During this visit, all nine reaches of Bassett Creek were walked. Mr. Erick Francis of WSB & Associates explained project locations and proposed stabilization methods. Comparisons to areas identified by Archaeological Research Services as having potential for subsurface deposits were made. No archaeological materials were encountered. Blondo Consulting, LLC recommends no further archaeological work for the proposed project site locations.

8.1 Evaluation of Resources

For a historic architectural property to be considered important within a cultural resource management they must meet a level of significance and retain historic integrity for *National Register of Historic Places* listing. To be listed on the National Register of Historic Places, a property must be at least 50 years old and meet one or more of four broad criteria:

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

> ***Criterion D:*** Sites that have yielded or may be likely to yield information important in prehistory or history.

Once a site has been shown to be significant under one or more of the four above listed criteria, it must then be shown to be able to convey that significance. This is what the National Register means by integrity. There are seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association.

The Theodore Wirth Park was evaluated in 2012 by Hess and Roise as part of a larger N*ational Register* nomination of the Ground Rounds. The Grand Rounds have been identified as Eligible under Criteria A and C. Two areas of significance were identified: Community Planning and Development; and Landscape Architecture. The period of significance was defined as 1887-1942 and includes early development of the park system and Federal Relief park improvements.

The Fruen Mill Complex is an example of a twentieth-century mill complex. The State Historic Preservation Office does not have a mill context for assisting in evaluation of mill properties. Significance is based on local importance and thorough research is important in assessment. Background research revealed that William Fruen was an important individual in Minneapolis Milling History. His innovation and creation of an alarm system was an important development in the "post Washburn A explosion" era of Minneapolis milling history. Fruen's mill was significant as one of the first to develop and sell breakfast cereal before Minnesota became a leader in breakfast cereal manufacturing. Although the Fruen Mill is historically significant, time and vandalism has adversely effected the integrity of the structure. The Fruen Mill does not retain sufficient integrity for *National Register* inclusion. Blondo Consulting recommends the Fruen Mill Complex as Not Eligible. No further cultural resource work is recommended for the Fruen Mill Complex.

The Glenwood-Inglewood Water Company is adjacent to the Mill Complex and has played an important role in Minneapolis City water history. Many of the original buildings remain including a two story brick office building, water plant, storage and warehouses. Most of the buildings have been remodeled with various additions and improvements. Like the Fruen Mill Complex, the Glenwood-Inglewood Water Company is historically significant but does not retain sufficient integrity for *National Register* inclusion. Blondo Consulting recommends the Glenwood-Inglewood Water Company as Not Eligible. No further cultural resource work is recommended for the Glenwood-Inglewood Water Company.

Bassett Creek Park is located adjacent to the Fruen Mill Complex and Glenwood-Inglewood Water Company. The park is historically significant for its association with the Fruen family, and early park development in the city of Minneapolis. Improvements within the park have been limited or completed in a way which retains the design, setting, and feel of the historic park. Blondo Consulting recommends Bassett Creek Park as Potentially Eligible for *National Register* inclusion. Retaining walls are contributing features within the park. Stream bank stabilization efforts in this area should take the historic

retaining walls into consideration. The salvage of the creekside trail is important in retaining the integrity of Bassett Creek Park.

WPA retaining walls (identified as "man-made rapids and retaining walls") near Project Area 6 are significant as examples of WPA Federal Relief construction within the *National Register* eligible Theodore Wirth Park. The Park is eligible for its significance as an urban park and its association with Theodore Wirth. Although the retaining walls are not specifically mentioned in the *National Register* nomination, the Period of Significance Section states that "between 1933 and 1942, the board used Depression-era federal relief programs to improve the parks and parkways, as well as expand West River Parkway north of Franklin Avenue. Each period of improvement and expansion followed Cleveland's original vision of using natural features as the basis of park creation" (Roise, et. al 2012:4-5). As these retaining walls fall within the period of significance for the Park, they appear to have sufficient significance for *National Register* eligibility. However, the WPA Retaining Walls have compromised integrity as they are falling into the Creek. Blondo Consulting recommends the retaining walls within Area 6 as potentially Not Eligible for inclusion in the *National Regsiter.* No further work is recommended in Area 6.

8.2 Vegetation

Dr. Marjorie Pearson's Theodore Wirth Parkway and Theodore Wirth Park: An Assessment of Significance contains a thorough discussion of vegetation within the park. "When the land that encompasses the park was surveyed for the original township plats in 1847 and 1853, it was covered fairly heavily with a variety of oaks, as well as elm, ash, and aspen trees. The low-lying areas also contained stands of tamaracks, while the body of water, then called the Devil's Mirror, but officially renamed Birch Pond in 1910, was surrounded by birches" (Pearson 2002:10). She continues discussing Wirth's first actions in park development. In addition to improving the road to Birch Pond, he opened "a view down a raving 'thickly covered with birches', and planting shrubs and flowering plants along the banks" (Pearson 2002:10). Tree planting was also one of Wirth's goals. Pearson describes the history as follows.

> In 1908, he set forth a proposal to plant evergreens throughout the park system: "It is my aim to plant evergreens freely in most of our parks and especially throughout woodlands and along our picturesque driveways. It is to be regretted that so fess evergreens have been planted in the past, for while the number of varieties that will do well in our climate may be limited, those that are hardy produce splendid specimens within reasonable time. The few photos [of Minnehaha Park] shown here speak well for evergreens , their individual attractiveness and their unrivaled beauty and consequent value for both summer and winter landscape effects." Between 1908 and 1935, Wirth recorded plantings within Glenwood Park for twenty-two of twenty-seven years. These consisted of 25,488 evergreens, 5,266 shrubs, and 1,016 deciduous trees. Among the varieties of evergreens were Norway spruce, white pine, bull pine, pitch pine, jack pine, balsam fir, cedar, Eastern hemlock, juniper, yew, Black Hills spruce, and arborvitae. Many of these were cultivated in the park system nursery, initially at Lyndale Farmstead, and then relocated to the site of the evergreen cultivation: "Some eight thousand small pines and spruce have been collected in the vicinity of Itasca Park, and they will be planted as an experiment in one section of Glenwood Park. If the planting of such small collected plants proves successful and economical, it is intended to

> follow this method on a large scale in the future. In this way the lack of coniferous growth in our park landscapes will be overcome in a few years." Many of the evergreens planted in the park were placed along the sides of the parkway in the park. Not only would they provide year-round greenery, but would also help conceal the edges of the park property.

The account of clearing is given "selective forest clearing was also a necessary part of park maintenance. This was done to open up views and maintain the health of trees" (Pearson 2002:11). Natural disasters such as a 1925 windstorm and drought in the 1930s also led to the loss of many trees.

Landscaping of the golf course is described by Pearson. "Besides trees and shrubs, the golf course is largely planted with grass. The course was originally sand and then changed to grass in 1935" (Pearson 2002:11).

9.0 RECOMMENDATIONS

The Fruen Mill Complex, Glenwood-Inglewood Water Company, and the WPA Retaining Walls in Area 6 have sufficient historical significance for *National Register* eligibility. However, none retain any degree of integrity. As such, Blondo Consulting recommends the Fruen Mill Complex, Glenwood-Inglewood Water Company, and WPA Retaining Walls in Area 6 as ***Not Eligible*** for the *National Register*.

Additionally, Blondo Consulting recommends the Bassett Creek Park as ***Potentially Eligible*** for the *National Register*. Project improvements should take the eligibility of the Park into effect. No additional archaeological work is recommended with the Project APE.

In regards to landscaping within the *National Register* eligible Theodore Wirth Park, Blondo Consulting recommends consultation with a professional landscape architect and Minnesota SHPO to insure proposed vegetation will not impact the historic character of the park and Grand Rounds. As stated above, within the National Register of Historic Places Registration Form prepared by Roise, et. al (2012:4-5), the period of significance for the Grand Rounds begins in 1884. Other significant dates include: 1906 to 1935, when Theodore Wirth was superintendent; and between 1933 and 1942, when the Park Board used Federal Relief programs to improve the parks and parkways. The end date for the period of significance is 1942.

With any project there is the chance of unanticipated discovery. Should archaeological materials surface during construction, it is advised that a professional archaeologist be consulted. Minnesota Statute 307.08 protects unplatted cemeteries (including burial mounds) and issues guidelines for dealing with unexpected finds. Should human remains be encountered during stream bank stabilization, all work must stop and local law enforcement must be called.

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1972 Quaternary History of Minnesota. In *Geology of Minnesota: A Centennial Volume*, edited by P.K. Sims and G. B. Morey. Minnesota Geological Survey, University of Minnesota, St. Paul.

Main Stem of Bassett Creek Restoration Project

Proposed Project Area

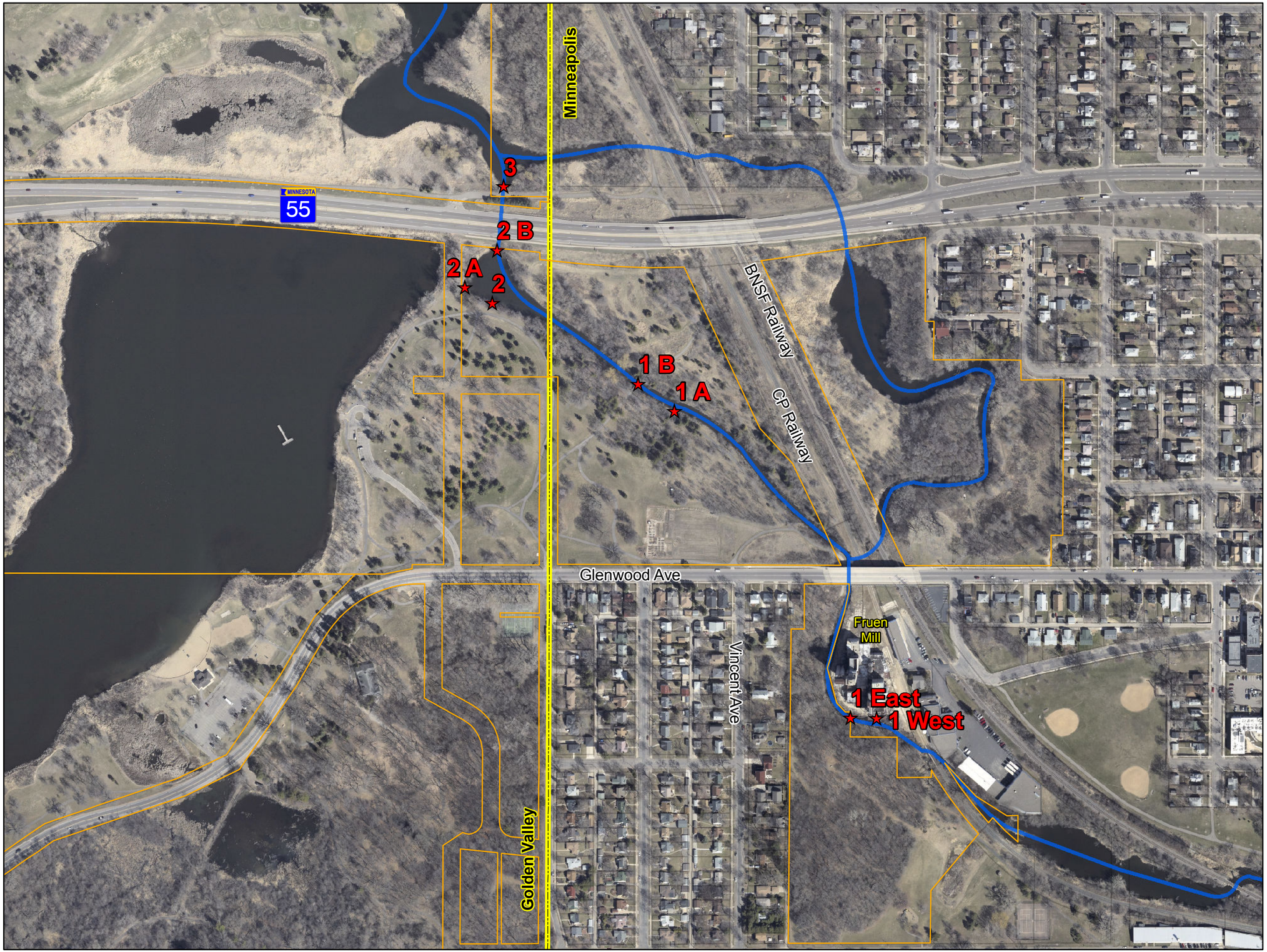
Legend

- Bassett_Creek
- Project Area
- Storm Sewer Manholes
- Storm Sewer
- Watermain
- Sanitary Sewer
- Sanitary Sewer Manhole
- Parcels
- City Boundary

N

0 250 500 1,000 Feet

WSB & Associates, Inc.



Main Stem of Bassett Creek Restoration Project

Proposed Maintenance Locations

Legend

- Proposed Maintenance Locations
- Main Stem of Bassett Creek
- MPRB Property
- City Boundary
- Property Boundaries

N

0 100 200 400 Feet

WSB & Associates, Inc.

Main Stem of Bassett Creek Restoration Project

Proposed Maintenance Locations

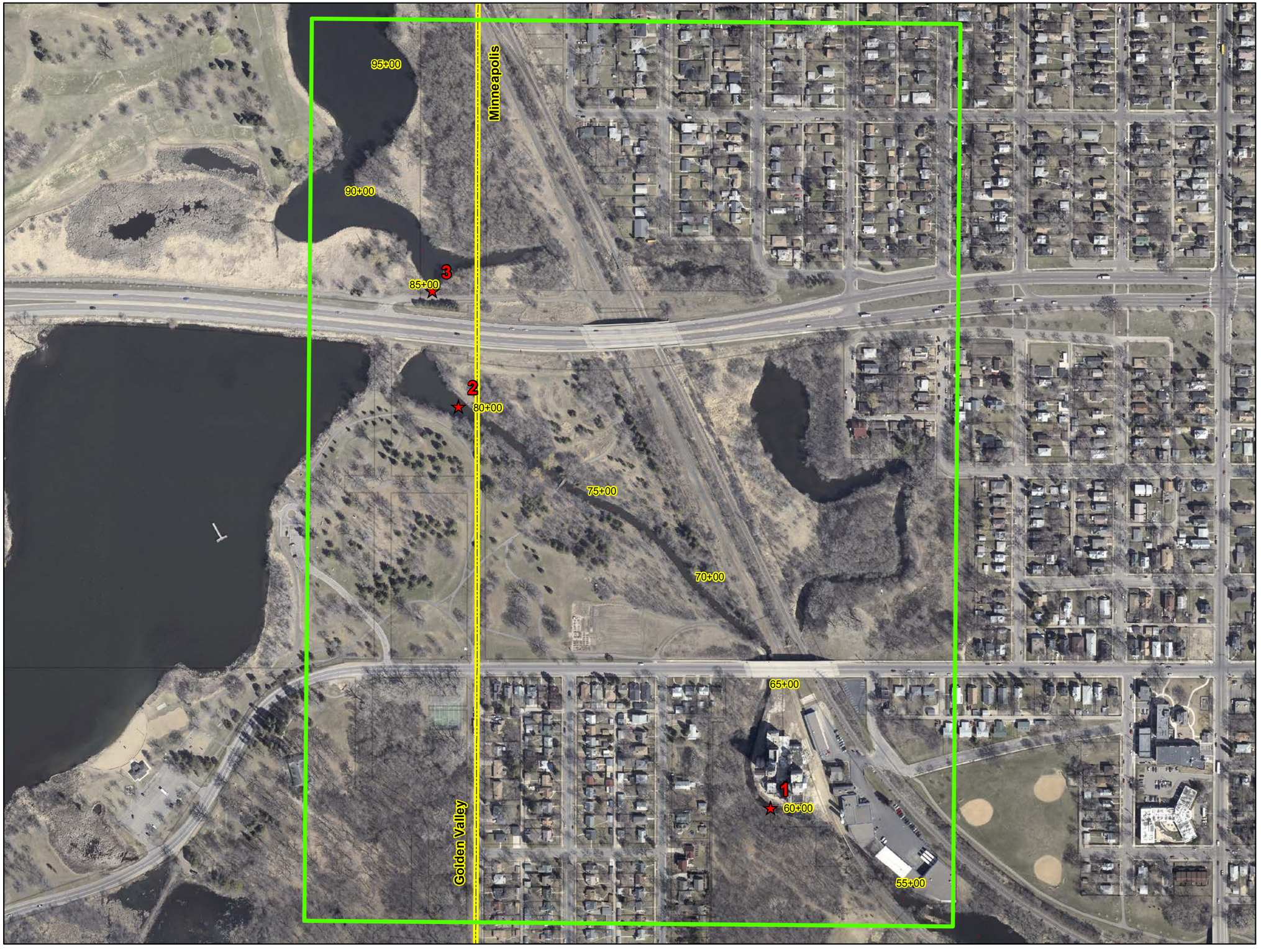
Legend

- Proposed Maintenance Locations
- Main Stem of Bassett Creek
- MPRB Property
- City Boundary
- Property Boundaries

N

0 100 200 400 Feet

WSB & Associates, Inc.



Main Stem of Bassett Creek Restoration Project

Project Area C
Station 95+00-60+00

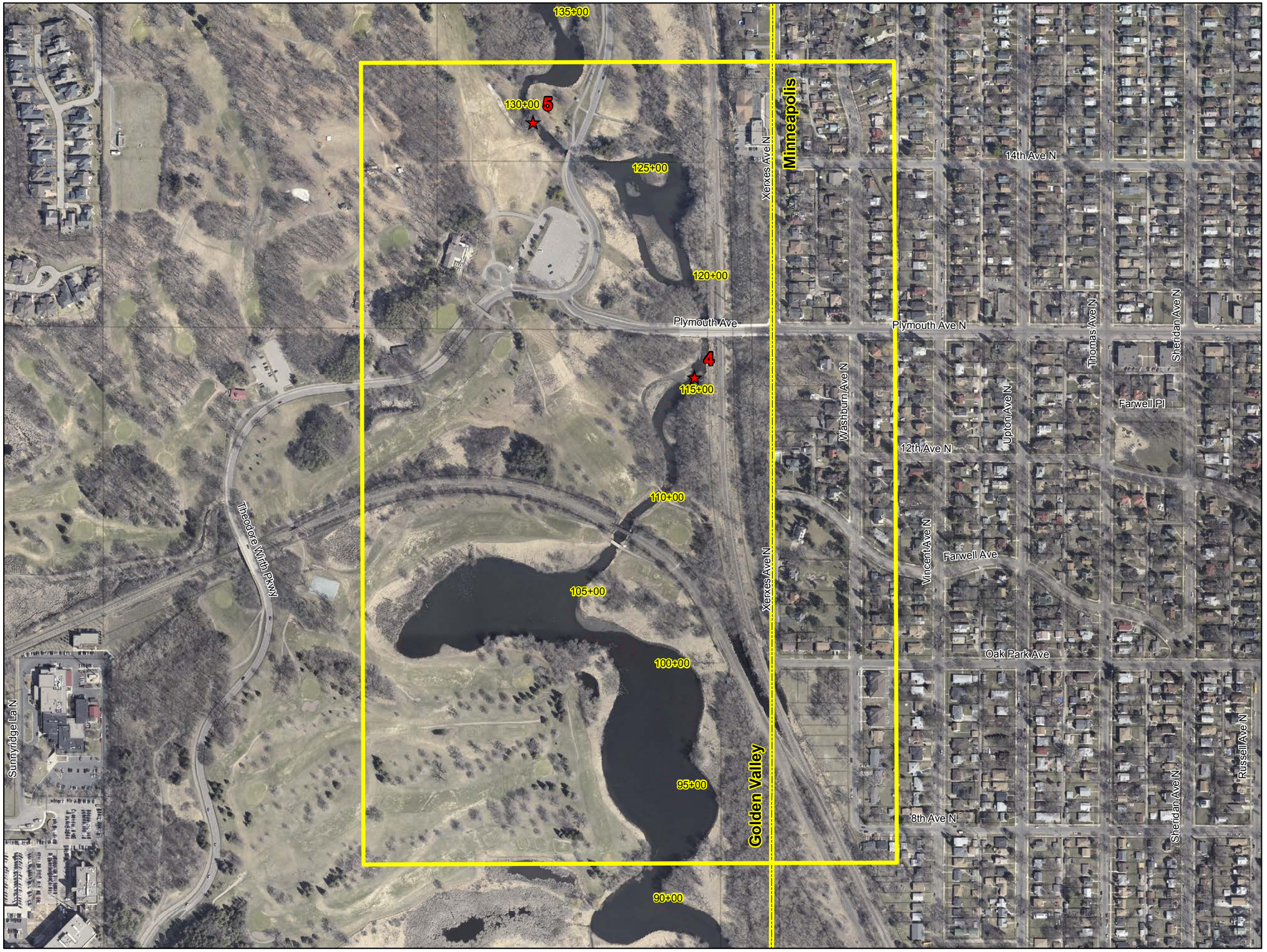
Legend

- BCWMC Maintenance Locations
- Project Area C
- City Boundary
- Property Boundaries

N

0 100 200 400 Feet

WSB & Associates, Inc.



Main Stem of Bassett Creek Restoration Project

Project Area B
Station 130+00-95+00

Legend

- BCWMC Maintenance Locations
- Project Area B
- City Boundary
- Property Boundaries

N

0 100 200 400 Feet

WSB & Associates, Inc.

Minneapolis Park & Recreation Board

Bassett Creek Watershed Management Commission

Main Stem of Bassett Creek Restoration Project

Project Area A
Station 165+00-130+00

Legend

- BCWMC Maintenance Locations
- Project Area A
- City Boundary
- Property Boundaries

N

0 100 200 400 Feet

WSB & Associates, Inc.

Current Aerial of Fruen Mill Complex

Former Location of Building (pre-1950 to post 1971)

Warehouse (post 1971)

Fruen Mill

Mill Office (1914-1930)

Former Location of Railroad Tracks

Main Bottling Building (portions pre-1914)

Storage Building (circa 1914-1930)

Warehouse (post 1971)

Dam

Former Location of Bassett Creek Tailrace

Current Location of Bassett Creek

Current Aerial of Fruen Mill Complex

Current Fruen Mill Complex.

Main Stem of Bassett Creek Restoration Project

Handmade Wall Area

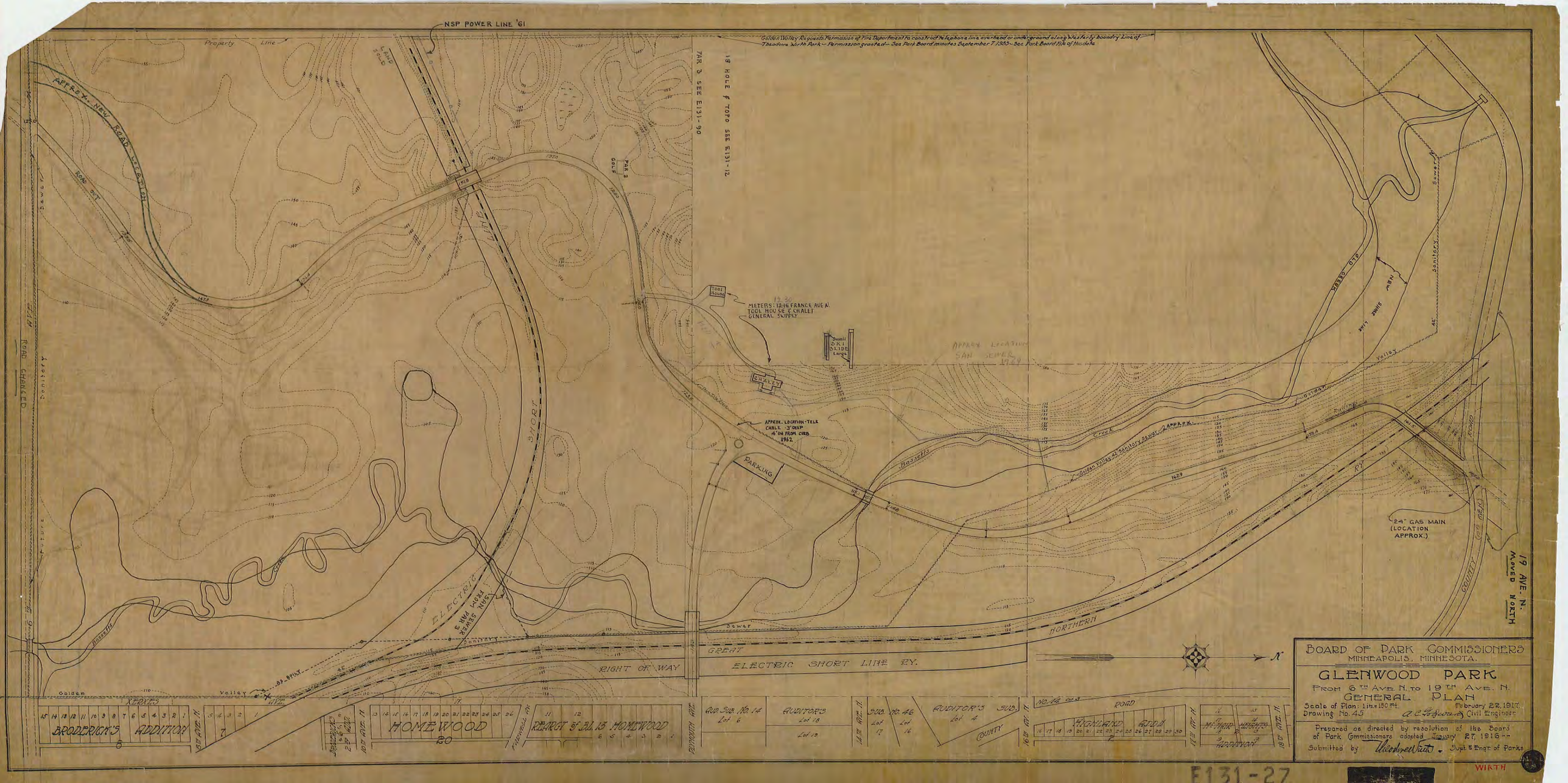
Legend

- Handmade Walls
- GPS_Pts
- BCWMC Maintenance Locations

N

0 25 50 100 Feet

WSB & Associates, Inc.


NSP POWER LINE '61
Golden Valley Requests Permission of Fire Department to construct telephone line overhead or underground along Westerly Boundary Line of Theodore Wirth Park -- Permission granted -- See Park Board minutes September 7 1955 -- See Park Board File of this date
Property Line
APPROX. NEW ROAD USED BY L.V.
ROAD CUT
18 HOLE 9 TOPO SEE E131-90
PAR 3 SEE E131-90
PAR 3 GOLF
TOOL HOUSE
METERS: 12-16 FRANCE AVE N.
TOOL HOUSE & CHALET
GENERAL SUPPLY
CHALET
APPROX LOCATION SAN SEWER 1929
APPROX. LOCATION-TELE CABLE -3' DEEP 4' IN FROM CURB 1962
PARKING
Bassetts Creek
Golden Valley 42" Sanitary Sewer APPROX.
Sewer
Sanitary
Creek
Valley
Road
Bridge
NEW SEWER LINE
24" GAS MAIN (LOCATION APPROX.)
19 AVE. N. MOVED NORTH
COUNTY
ROAD
(DEAD END)
ELECTRIC
SAN SEWER FROM PARK 3
GREAT NORTHERN
RIGHT OF WAY
GREAT ELECTRIC SHORT LINE RY.
Golden Valley
Road
Sanitary Sewer
Bassetts Creek
Property Line
22nd Ave. N.
BRODERICK'S ADDITION
XEROX
HOMEWOOD
REARGT 5th BL 13 HOMEWOOD
Pinehill Rd.
23rd Ave. N.
Sub. No. 14
Lot 6
AUDITOR'S
Lot 18
Lot 19
Sub. No. 46
Lot 17
Lot 16
AUDITOR'S SUB
Lot 4
COUNTY
Sub. No. 14
Lot 5
ROAD
HIGHLAND ADD.
2
ADDITION
18th Ave. N.
N
BOARD OF PARK COMMISSIONERS
MINNEAPOLIS, MINNESOTA.
GLENWOOD PARK
FROM 6TH AVE. N. TO 19TH AVE. N.
GENERAL PLAN
Scale of Plan: 1 in. = 150 Ft.
February 22, 1917.
Drawing No. 45
A. C. Godward Civil Engineer
Prepared as directed by resolution of the Board of Park Commissioners adopted January 27, 1916--
Submitted by Theodore Wirth Supt. & Engr. of Parks
E131-27
WIRTH

CITY OF MINNEAPOLIS

19TH AVE. N. | 18TH AVE. N. | 17TH AVE. N. | 16TH AVE. N. | 14TH AVE. N. | FARWELL AVE. | 10TH AVE. N.

WESTERN CITY LIMITS

XERXES AVENUE NORTH

8TH

TO MISSISSIPPI RIVER

PROP. DAM

TO GLENWOOD LAKE

SIXTH AVENUE NORTH

GREAT NORTHERN RAILROAD ~ OSSEO BRANCH

VICTORY MEMORIAL DRIVE

PLYMOUTH AVE

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE R.R. (SOO LINE)

MINNEAPOLIS, NORTHFIELD & SOUTHERN R.R.

LAGOON "E" EL. 105.0

LAGOON "D" EL. 106.0

LAGOON "B" NATURAL FLOW EL. 106.5

LAGOON "C" EL. 106.0

LAGOON "A" EL. 105.0

LAGOON "G" EL. 112.0

PROPOSED CASCADE

PARKING

THE CHALET

LARGE SKI SLIDE

SMALL SKI SLIDE

PARK EQUIP. GARAGE

CONSTRUCTION SPOIL

CIVILIAN CONSERVATION CORPS CAMP SPA

CAMP EDGE

BRANCH FROM TWIN LAKE

CENTER LINE - EXTENDED - OF FRANCE AVENUE

TWP 118 N. R. 21 W.

LEGEND

- EXCAVATED TO DEPTH
- FILLED TO GRADE
- PARTIALLY FILLED
- TO BE FILLED

NO SHORES SANDED

SCALE IN FEET

0 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1/2 MILE

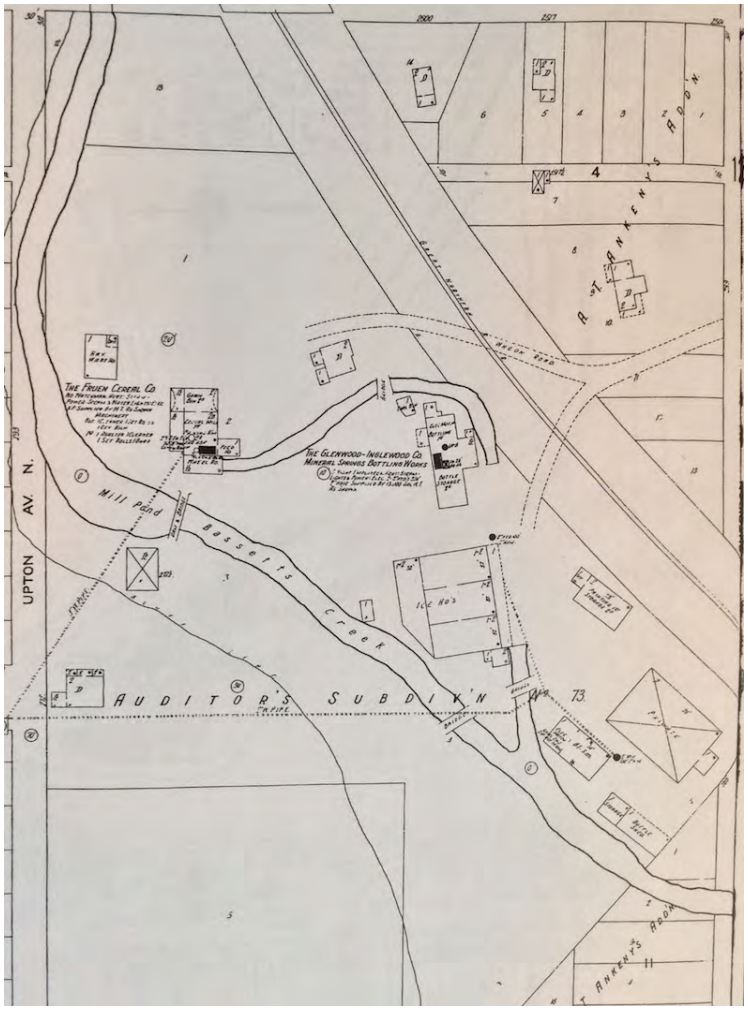
MAP OF PROJECTED DEVELOPMENT OF A SYSTEM OF LAGOONS IN GLENWOOD PARK

BOARD OF PARK COMMISSIONERS
MINNEAPOLIS, MINN.

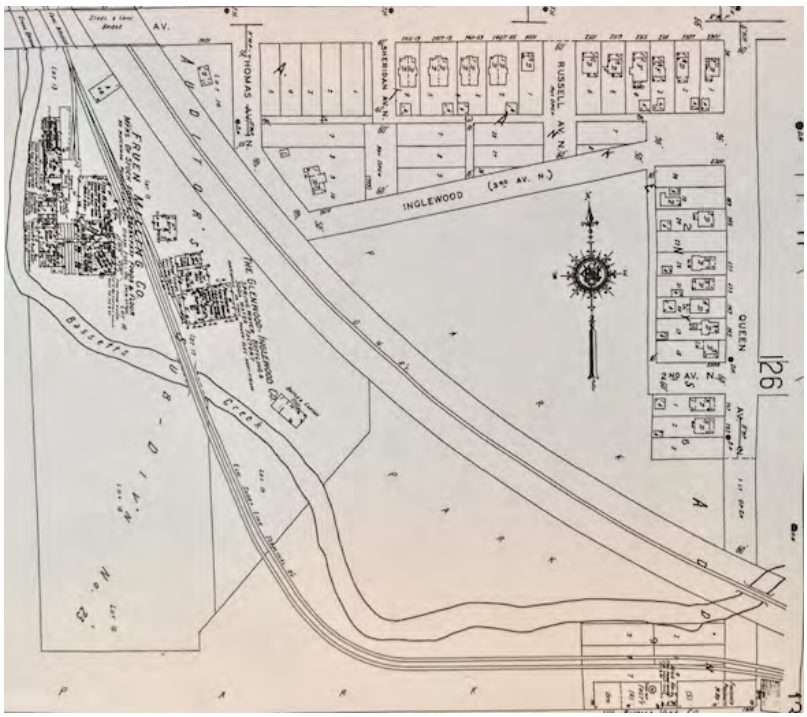
Designed by THEO. WIRTH SUPERINTENDENT EMERITUS
C.A. BOSSEN SUPT. OF PARKS C.E. DOELL ASST. SUPT.
A.E. BERTHE PARK ENGINEER

JANUARY 1937

E131-20



Sanborn Map. 1912-1930.



Sanborn Map. 1950..

Photo 1: Typical Bassett Creek Project Area-note erosional deposition.

Photo 2: Typical Bassett Creek Project Area-note erosional deposition.

Photo 1: Typical Bassett Creek Project Areas within Theodore Wirth Park.

Photo 2: Typical Bassett Creek Project Areas within Theodore Wirth Park.

Photo 3: Eroded Retaining Wall “Rapids”.

Photo 4: Eroded Retaining Wall “Rapids”.

Photo 5: Eroded Retaining Wall “Rapids”.

Photo 6: Eroded Retaining Wall “Rapids”.

Photo 1: Bassett Creek and Fruen Mill Dam.

Photo 2: Fruen Mill.

Photo 3: Rip Rap and Dam.

Photo 4: Dam - Note Rip Rap (left) and Stone Walls (right).

Photo 5: Fruen Mill.

Photo 6: Fruen Mill Grain Silos and Elevator.

Photo 7: Fruen Mill Railroad Car Loading Area.

Photo 8: Fruen Mill Scale.

Photo 9: Looking Downstream From Mill Past Dam.

Photo 10: Looking Upstream from Mill Toward Bassett Creek.

Photo 11: Fruen Mill Power Poles and Silos.

Photo 12: Downstream toward dam, Fruen Mill (right), and Glenwood-Inglewood Water Company (background).

Photo 13: Upstream toward Glenwood Avenue Bridge (eroding trail on left side, Fruen Mill on right).

Photo 14: Upstream toward Glenwood Avenue.

Photo 15: Fruen Mill and Bassett Creek (note slumping creek bank cement slabs).

Photo 16: From Modern Railroad Bridge Upstream toward Glenwood-Inglewood Water Company and Fruen Mill.

Photo 17: Active Railroad.

Photo 18: Fruen Mill Abandoned Railroad.

Photo 19: Deterioration and demolition of Fruen Mill.

Photo 20: Deterioration and demolition of Fruen Mill.

Photo 21: Fruen Mill Access Staircase.

Photo 22: Fruen Mill Dam.

Photo 23: Fruen Mill Side of Creek showing cement debris and rip rap attempts at controlling erosion.

Photo 24: Deteriorating Concrete on Fruen Mill Side of Creek.

Photo 25: Fruen Mill.

Photo 26: Fruen Mill Loading Area.

Photo 27: Fruen Mill.

Photo 1: Glenwood-Inglewood Water Company.

Photo 2: Glenwood-Inglewood Water Company Office Building.

Photo 3: Glenwood-Inglewood Water Company Buildings.

Photo 4: Glenwood-Inglewood Water Company Buildings.

Photo 5: Glenwood-Inglewood Water Company and Railroad.

Photo 1: Bassett Creek Park Retaining Walls.

Photo 2: Bassett Creek Park Retaining Walls.

Photo 3: Bassett Creek Park Retaining Walls.

Photo 4: Bassett Creek Park Stone and Brick Retaining Walls.

Photo 5: Bassett Creek Park Retaining Walls.

Photo 6: Bassett Creek Park Retaining Walls.

Photo 7: Bassett Creek Park Retaining Walls.

Photo 8: Bassett Creek Park Retaining Walls (detail).

Photo 9: Bassett Creek Park Trail.

Photo 10: Bassett Creek Park Trail (note erosion).

Photo 11: Stone Staircase.

Photo 12: Bassett Creek Park Retaining Wall (detail).

Photo 13: Bassett Creek Park Bench and Retaining Walls.

Photo 14: Bassett Creek Park Retaining Wall and Rip Rap along eroding park trail.

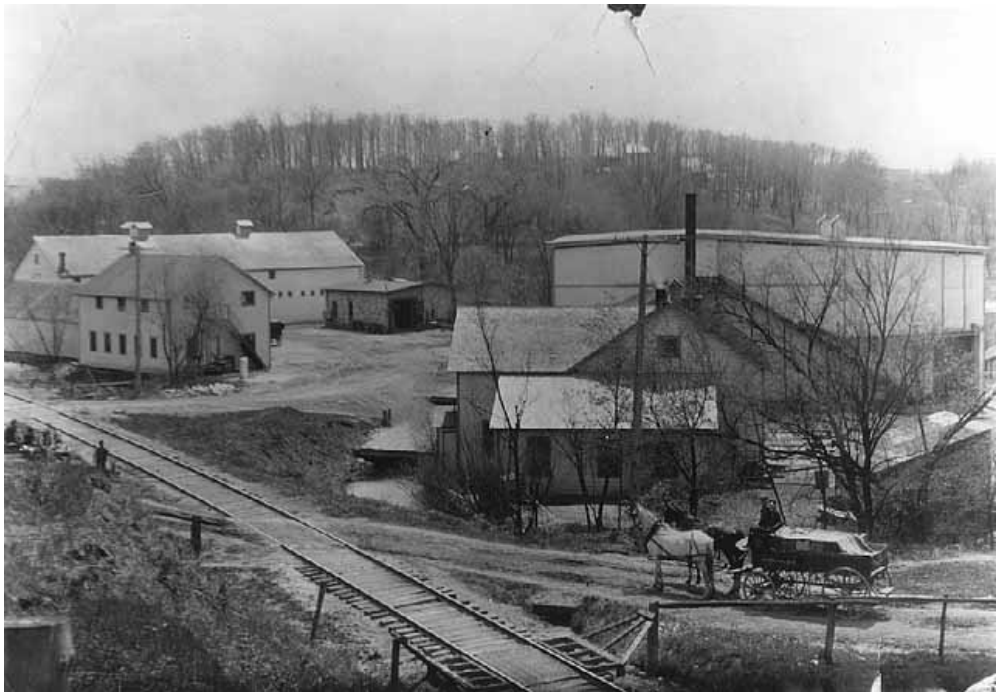
Photo 15: Bassett Creek Park Wooden Retaining Walls.

Photo 16: Bassett Creek Park Cut Stone Retaining Walls, Wooden Retaining Walls, and Stone Staircase.

Photo 17: Bassett Creek Park Cut Stone Retaining Walls - note erosion.

Photo 18: Bassett Creek Park Retaining Walls, staircase, and erosion.

Fruen Milling Company, circa 1908. Photograph from Minnesota Historical Society Collections.



Glenwood Springs Water Company, circa 1910. Photograph from Minnesota Historical Society

Fruen Milling Company, circa 1940. Photograph from Minnesota Historical Society Collections.

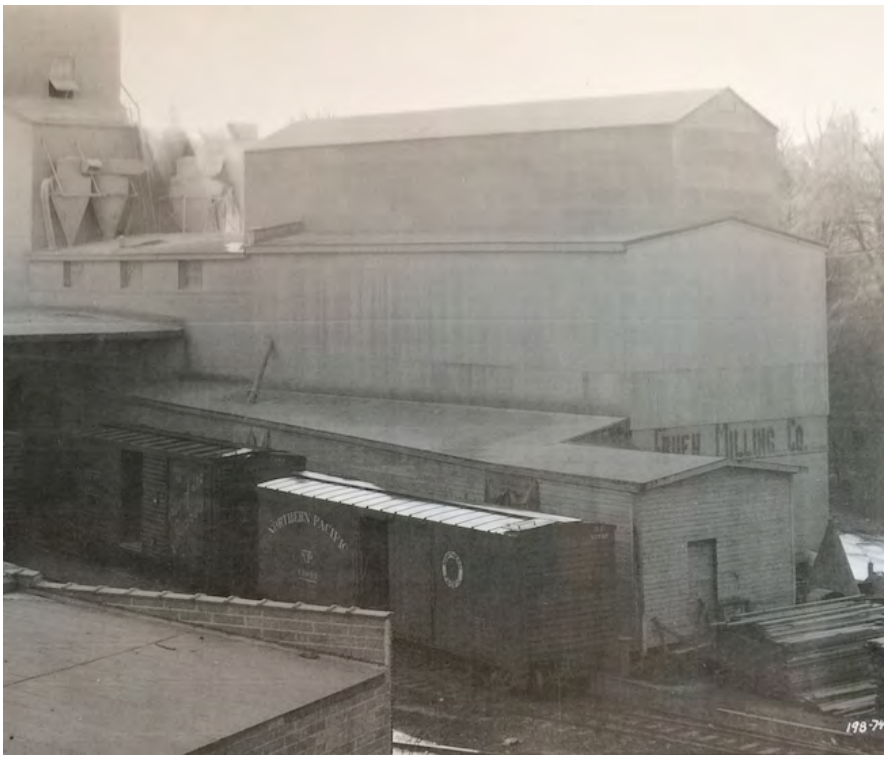
Fruen Milling Company, circa 1940. Photograph from Minnesota Historical Society Collections.

Fruen Milling Company, circa 1963. Photograph from Minnesota Historical Society Collections.

Fruen Milling Company, circa 2012. Photograph from Critical Minneapolis accessed 3 January 2014 at http://www.criticalminneapolis.com/2013/12/18/tragedy-in-bryn-mawr/.

Downstream from Fruen's Mill. Bridge and Dam Visible. 1908.
From Minnesota Historical Society Collections.

Fruen's Mill from 1971 Minneapolis Star Article. January 14, 1971.



Fruen Milling addition, Glenwood and Thomas Avenue North, Minneapolis. November 27, 1950. Minnesota Historical Society Collections.

Fruen Mill Company, Glenwood Avenue at Thomas, Minneapolis. October 7, 1953. Minnesota Historical Society Collections.

Photograph 1. Fruen Mill Office 1940.

Photograph 2. Fruen Mill Office 2013.