Literature Review and Archaeological Assessment, Bus Rapid Transit G Line, St. Paul, Minnesota.

Report Authors:
Jeremy L. Nienow, Ph.D., RPA

Christopher E-W Rico, M.HSPH.

Nienow Cultural Consultants LLC

Updated Final Report
August 9, 2024

Literature Review and Archaeological Assessment, Bus Rapid Transit G Line, St. Paul, Minnesota.

Submitted To:
Emily Pettis
Cultural Resources Department Manager
Mead & Hunt

Submitted By:
Nienow Cultural Consultants LLC
200 Plato Blvd East
St. Paul, MN 55107

Report Authors:

Jeremy L. Nienow, Ph.D., RPA
and
Christopher E-W. Rico, M.HSPH
Nienow Cultural Consultants LLC

Updated Final Report
August 9, 2024.

MANAGEMENT SUMMARY

The Metro Transit division of Metropolitan Council is proposing to develop the G Line Bus Rapid Transit (BRT) Project. The G Line will be an approximately 11.5-mile BRT corridor extending south from the Little Canada Transit Center in Little Canada to the Dakota County Northern Service Center in West Saint Paul. The G Line is planned to replace two bus routes extending north and south from downtown Saint Paul: a portion of existing Route 62, operating primarily along Rice Street north of downtown Saint Paul; and a portion of existing Route 68, operating primarily along Robert Street south of downtown Saint Paul. The Project will include 32 stations, bus purchases, and bus priority treatments.

The Project is anticipated to receive federal funding from the Federal Transit Administration (FTA) Capitol Investment Grants program as a Small Starts project and has been defined as an undertaking; therefore, it must comply with Section 106 of the National Historic Preservation Act (Section 106), as amended (36 CFR Part 800), and the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508). Additionally, the Project must comply with the Minnesota Historic Sites Act (MS 138.661-138.664) and Minnesota Field Archaeology Act (MS 138.31-138.42).

As part of this process and overall project, Nienow Cultural Consultants LLC was contracted by Mead & Hunt Inc. to provide a literature review and archaeological assessment of potential below ground cultural resources which may be present within the project area. NCC completed review at existing sites and surveys within the project area at the Office of the State Archaeologist and the Minnesota State Historic Preservation Office in March 2024. In addition, NCC also collected relevant historic maps, aerial imagery, environmental, and utility information for the entire corridor from a variety of sources including the Minnesota Historical Society, Ramsey County Historical Society, University of Minnesota, and City of St. Paul. All information was incorporated into a GIS geodatabase and used to identify potential precontact and historic resources within the project area which may still be intact.

NCC looked at the entire project corridor, with a focus on 133 Metro Transit identified potential bus stop and bathroom locations. For each location, NCC carefully reviewed all available information to determine potential for intact cultural resources. A total of three bus stop locations 35,71, and 105 were identified as places where either precontact or historic intact cultural resources may be present. NCC recommends each of these locations be either avoided by selection of alternate bus stop locations. If this is not possible, then NCC recommends archaeological survey be completed within the agreed upon Area of Potential Effect surrounding each location.

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

1.0 INTRODUCTION

The Metro Transit division of Metropolitan Council is proposing to develop the Bus Rapid Transit (BRT) G Line. The G Line will be an approximately 11.5-mile BRT corridor extending south from the Little Canada Transit Center in Little Canada to the Dakota County Northern Service Center in West St. Paul. The G Line is planned to replace two bus routes extending north and south from downtown Saint Paul: a portion of existing Route 62, operating primarily along Rice Street north of downtown Saint Paul; and a portion of existing Route 68, operating primarily along Robert Street south of downtown St. Paul. The Project will include 32 stations, bus purchases, and bus priority treatments.

The Project is anticipated to receive federal funding from the Federal Transit Administration (FTA) Capitol Investment Grants program as a Small Starts project and has been defined as an undertaking; therefore, it must comply with Section 106 of the National Historic Preservation Act (Section 106), as amended (36 CFR Part 800), and the National Environmental Policy Act (NEPA) (40 CFR Parts 1500-1508). Additionally, the Project must comply with the Minnesota Historic Sites Act (MS 138.661-138.664) and Minnesota Field Archaeology Act (MS 138.31-138.42).

As part of this process and overall project, Nienow Cultural Consultants LLC (NCC) was contracted by Mead & Hunt Inc. to provide a literature review and archaeological assessment of potential below ground cultural resources which may be present within the project area. The following report discusses the methods, results, and recommendations of this effort.

2.0 DEFINITION OF PROJECT AREA

The initial route and project area were established by Metro Transit. The overall corridor extends from Little Canada to West St. Paul and passes through the following sections (Figure 1):

Township 29 North, Range 22 West, Sections 6, 7, 18, 19, 30, and 31.

Township 29 North, Range 23 West, Sections 1, 12, 13, 24, 25, and 26.

Township 28 North, Range 22 West, Sections 5, 6, 8, 17, 20, 29, and 30.

As part of the production of a 106 Compliance document (Mead & Hunt 2024), NCC assisted in the definition of an Area of Potential effect (APE) for archaeological resources. An appropriate APE for archaeology includes all areas of proposed construction activities or other potential ground-disturbing activities associated with construction. At each proposed station site, sidewalk and/or lane demolition and excavation will be required to prepare the right-of-way for construction activities. Construction operations will generally be limited to platform locations, with some additional ground disturbing activities performed, as needed, to adjust utilities and establish electrical/communication connectivity to stations. Fiber optic conduit will be placed via directional boring, which will involve the excavation of small-bore pits at periodic intervals along the fiber optic route; the location of these bore pits has yet to be determined, but all construction associated with the fiber optic line will occur within existing roadway right-of-way. Metro Transit has indicated fiber optic will run 42” deep (60” at road crossings) along one side of the route with smaller offshoots on an as needed basis for platforms on the opposite side of the corridor.

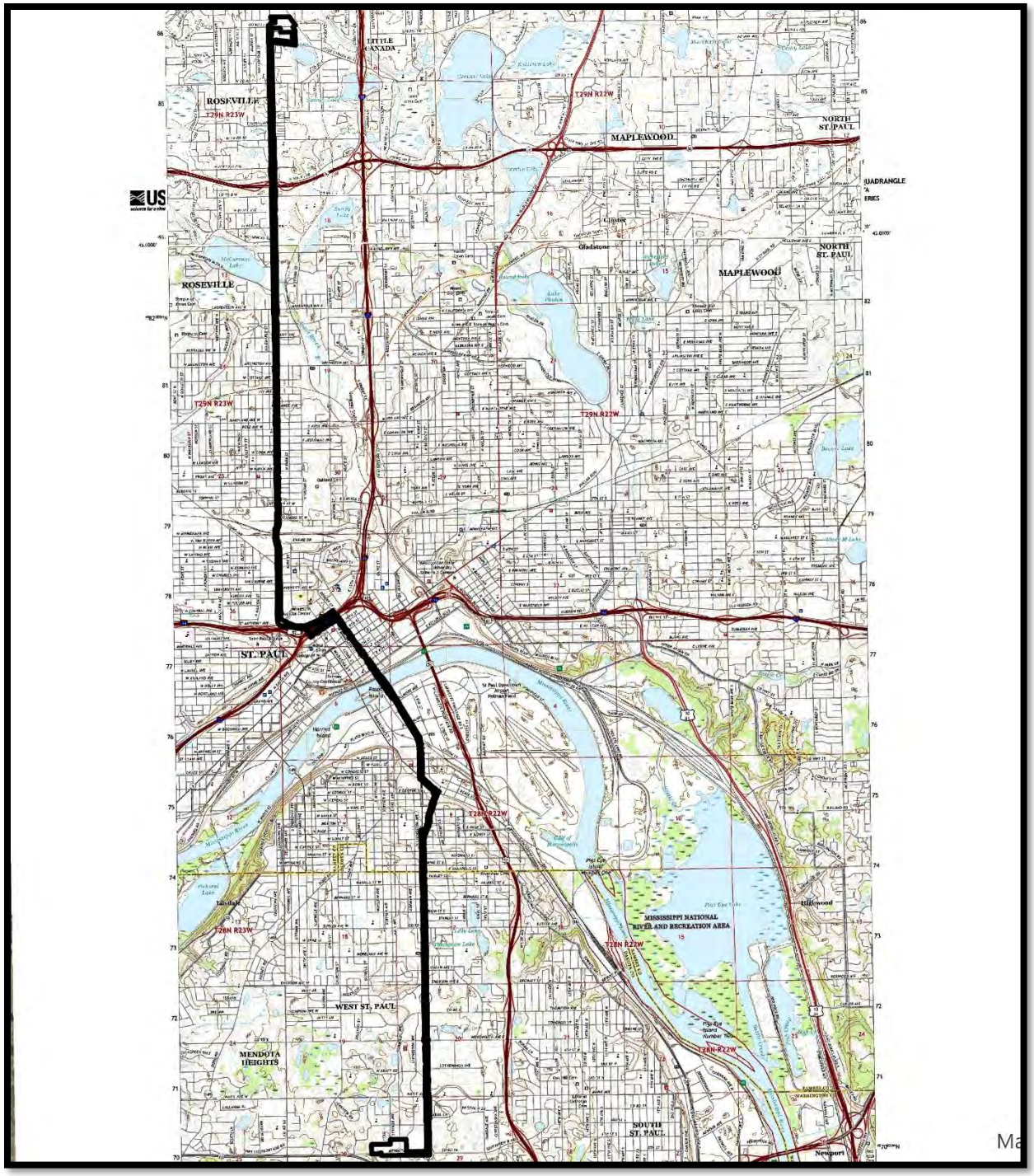


Figure 1: General Project Corridor (Black) over 2022 (1:24,000) St. Paul Topography Map.

Furthermore, NCC provided the following recommendations:

- The archaeological APE should include all areas of proposed BRT platforms and bathroom construction as well as other potential ground disturbing activities including utility (electrical, water, sanitary, fiber optic, etc.) connections.
- The archaeological APE should include all planned and optional platform locations.
- Paved areas and established rights-of-way should not be considered automatically disturbed.
- As the exact location for fiber optic utility placement, including excavation locations for its installation, are not known, a 30ft buffer along both sides of the right-of-way corridor should be used to sufficiently accommodate placement and installation.
- A buffer of 50ft from the center of each proposed platform location should be used to sufficiently accommodate placement and installation.
- As the exact location and orientation of the bathroom locations at each end of the route are not fully understood at this time, the entire parcel within which each is located, should be used for its archaeological APE with a focus on where and which utilities will be tied into each location.

Finally, NCC recommended the completion of a literature review and archaeological assessment of finalized APE. A standard archaeological literature review would emphasize nearby completed archaeological work and archaeological sites, review previously completed project documentation such as environmental and utility work and focus on potential subsurface features which could still be present within the APE. The goal is to determine if archaeological survey is warranted, as outlined in the Minnesota State Historic Preservation Office (SHPO) Archaeology Survey Manual (Anfinson 2005). Review would begin by examining known archaeological sites within one mile of the project area to understand likely site types as well as previous survey efforts which may have been within the project APE. Review is undertaken both at the Office of the State Archaeologist (OSA) and SHPO, as they both contain different types and levels of archaeological documentation.

Beyond these essential materials, NCC also recommends review (where available) of the following:

- Existing utility maps
- Existing soil coring data
- Property plat maps and government land office maps (including Trygg maps)
- Historic atlases and bird's eye images
- Aerial and LiDAR imagery
- Fire insurance maps
- Demolition and construction permits
- Local histories with a focus on transportation and corridor development
- MnModel and other site predictive information

Review of results of the above is discussed in Sections 5 and 6.

3.0 ENVIRONMENTAL SETTING

Archaeologists in Minnesota divide the state into nine archaeo-environmental regions based primarily upon water sources and the dominant varieties of vegetation and natural resources understood to be available within each region during the Woodland Period, or approximately 1,000 BCE to 1750 CE (Arzigian 2008:1). Former State Archaeologist Scott Anfinson formally designed this classification method in his 1990 Publication, *Archaeological Regions in Minnesota and the Woodland Period* after refining earlier iterations (Anfinson 1975). The system helps archaeologists systematically research and analyze Precontact environments in Minnesota, and better predict where archaeological sites may be located based upon identified historically available regional resources. Anfinson used a variety of historic and contemporary sources including land survey records, soil descriptions, micro- and macro-fossil evidence (pollen, snails, etc.), topographic data, and habitat studies to aid in making informed regional designations. (Anfinson 1975:6-7).

The G Line study area is located within Anfinson's region 4, Central Lakes Deciduous Region. The area includes most of central and east central Minnesota and would extend into west-central Wisconsin under a similar classification method. The topography of the region is defined by moraines (masses of large stone and sediments carried and deposited by a glacier), till plains (flat open regions formed by detached glacial sheets which deposit sediments in place as they melt), and outwash plains (flat open regions formed by the deposition of sediments carried by glacial melt waters). The Mississippi River flows through the eastern and central portions of the region and the St. Croix River bounds its eastern extent. (Anfinson 1990:144-147).

The Central Lakes Deciduous region is one of Minnesota's most temperate and is well suited for the growing season, though its climate does vary to some degree. Average rain and snow fall in the region amounts from 22 to 28 inches, while average temperatures range from 12 to 24 degrees Fahrenheit (F) in January, and 78 to 82 degrees F in July. The frost-free season usually lasts up to 160 days in the south and 140 days in the north. Soils in the region reflect its diverse glacial and vegetational history with rich, dark, and soft prairie soils in the south and west and coarse, less structured, and less fertile forest soils found in the north and east. Bedrock outcrops primarily composed of granite can also be found within the region's center and along its eastern edge. Indigenous cultures of the Late Woodland period using agriculture as a method of subsistence (such as Dakota peoples) would likely have been more common in the southern portion of Region 4 with its fertile soils and longer growing season (Anfinson 1990:147-148).

The study area is comprised mostly of moderately well drained fine loamy sands and has an average frost-free period of 145 days. This translates to a likely middle ground of the two climate and topographic extremes described for the north and southern parts of the Central Lakes Deciduous Region (NRCS 2024). As such, the study area was moderately well suited to migratory and later semi-permanent village settlements which became common across the wider southern region of the state during the late Woodland and early Settlement periods. The location and orientation of the Mississippi River within Region 4, the nearby establishment of a military fort (Fort St. Anthony later named Fort Snelling), and trade with local Native Peoples, made St. Paul an early hub for Minnesota settlement (Andrews 1890).

4.0 CULTURE HISTORY

Archaeologists traditionally recognize Minnesota's Precontact culture history as spanning from approximately 14,000 BCE (~16,000 years ago) to the arrival of the first Europeans in the state around 1680 CE (~344 years ago). This span of roughly 16,000 years is condensed into four Periods: the Paleoindian Period, the Archaic Period, the Woodland Period, and the Late Precontact Period. These are further subdivided into Early and Late Paleoindian; Early, Middle, and Late Plains Archaic and Early, Middle, and Late Eastern Archaic; Early and Middle to Transitional and Late Woodland; and in parts of the state, Late Precontact Psinomani complex (Arzigian 2008; Buhta et al. 2014, 2017; Gibbon 2012).

The following is a broad summary of these major contexts as they relate to the study area and is drawn from understandings developed by multiple scholars including Arzigian's (2008) "Minnesota Statewide Multiple Property Documentation Form for the Woodland Tradition;" Buhta et al.'s (2014) *On the Periphery?: Archaeological Investigations of the Woodland Tradition in West Central Minnesota*; Buhta et al.'s (2017) "Minnesota Archaic Tradition: An Archaeological and Paleoenvironmental Overview and Assessment; and Gibbon's (2012) *Archaeology of Minnesota*.

4.1 Paleoindian Period

Minnesota's Paleoindian period dates from around 14,000 to 10,000 BCE and represents the earliest archaeological understanding of the state's Precontact peoples (Buhta et al. 2017). This period is situated toward the end of the last glacial maximum, known as the Wisconsin episode, and is described as a rapid transition from glacial to post glacial conditions, although temperatures were still cold with abundant snowfall during winters. By about 12,000 BCE the state's southern and most of its central portions were free of glacial ice and by 10,000 BCE the ice would have covered only some parts of the northern portion of the state. Prior to 14,000 BCE much of the current bounds of the state and significant portions of North America would have either been covered by glacial ice or dominated by harsh tundra environments making habitation and/or use of what resources may have existed in these regions difficult (Buhta et al. 2017).

Average temperatures for the study area just after 10,000 BCE would have been 10 to 20 degrees colder than our current average, however, this would have been a drastic warming of the Paleo environment which would have mostly been covered by ice and tundra only a few thousand years earlier. During this later time, a large mixed Spruce and Spruce Parkland biome characterized by forests of spruce, ash, and other coniferous types, with isolated grasslands in between, stretched across most of the state. People living during this time are understood to be highly mobile hunter-gatherers relying heavily on medium to large sized animals for food including mastodon and giant beaver, as well as more familiar animals such as white-tailed deer and bison (Buhta et al. 2017).

There are nearly 15,000 numbered archaeological sites within Minnesota though less than 100 are listed with Paleoindian associations, and only two have received verified Carbon-14 dates. The Bradbury Brook site, near Lake Mille Lacs is the oldest known site in Minnesota and was dated using Carbon-14 testing to around 8,000 BCE. Recovered Paleoindian artifacts are almost exclusively made from stone and comprised of tools such as points and blades used for processing meat, hide, and bone—further reflecting utilization of game animals as a primary food source. One of the most ubiquitous and well-known tools of this period are finely crafted large lanceolate points

known as Clovis, Folsom, and Holcombe points. Apart from characteristic differences attributed to their crafting, these points are commonly typified by their flutes which appear as elongated channels meticulously worked into one side of the tool so that it may be attached to a shaft and used as a thrust piercing weapon.

4.2 Archaic Period

In Minnesota, the Archaic period begins approximately 9,500 BCE (~11,500 years ago) and ends around 500 BCE (~2,500 years ago) (Buhta et al. 2017:1). This era is marked by continued changes in the climate and regional environment brought by the retreat of ice during the previous period. Glacial melt water led to the formation of large lakes and rivers across the state which with continuously rising temperatures, helped further diversify ecological resources available to those moving through or living within the study area. The period is distinguished by its middle and late eras (7500 BCE- 500 BCE) which would see the expansion of a vast prairie environment bordered in the northeast by an oak savannah belt which transitioned to pine and spruce forest environments near present day Duluth. By the latter part of this period, a mix of grasslands and boreal forest environment dominated by burr oak and maple overtook this belt region, which then expanded into central and southeast Minnesota to include the project area (Gibbon 2012:65-72).

The middle and late parts of the Archaic Period in Minnesota are markedly different than its earlier part, which is best thought of as a time of transition between the Paleoindian and Archaic Periods. The transition between tool styles and predictable material types becomes apparent by the middle part of the Archaic Period. The absence of ceramics recovered in context with tools is used to further distinguish sites from the Archaic Period as the technology does not emerge within Minnesota's record until around 500 BCE, marking the transition to the Woodland Period within the State (Gibbon 2012:65). More diverse tool sets and materials still appear during this time, however. Larger stones ground into tools such as choppers, mauls, and hammerstones, along with smaller gouges and picks, and fishing equipment such as harpoons, hooks, and nets are found in the central and eastern parts of the state. New materials such as bone and copper became common in the production of some tools during the Late Archaic period (3,000 BCE to 500 BCE) (Gibbon 2012:50-53, 73-85).

Archaic sites in Minnesota are not necessarily uncommon, however, like their Paleo counterparts, many artifact assemblages are made of discrete lithic scatters or isolated find spots not in association with reliably datable materials or features. Furthermore, Archaic and Paleoindian sites are commonly found in association with each other as groups of people continually visited the same areas, creating a mix of artifacts which are typical to different periods in the same setting, thus making refined associations difficult. The density of people living in the region was still small and home ranges could have been as large as 25,000 square miles for some. However, the still warming climate and advancing lifeways which developed as a result continued the steady increase in population. This would give way to further contestation over resource rich areas so home ranges would continue to grow smaller and distinctive identities amongst the people living over regions would continue to change. This cycle encouraged change in technologies and lifeways seen in the subsequent Woodland period (Buhta et al. 2017; Dobbs and Anfinson 1993; Gibbon 2012).

4.3 Woodland Period

The Woodland Period is divided into three eras by archaeologists in Minnesota: Early (200 BCE – 200/300 CE), Middle to Transitional (200/300 CE – 800 CE), and Late (800-1100 CE) (Arzigian 2008:85-86, 106; Gibbon 2012:185). Two aspects which define the period in Minnesota include the appearance of pottery and the construction of burial and effigy mounds, although mound building may have been practiced in the Late Archaic (Birmingham and Rosebrough 2017; Gibbon 2012). A third and perhaps terminal aspect of the period is an increase in more sedentary lifeways. Population and resource availability diversified and continued to grow while progressively restricting, and thereby distinguishing individual groups' home ranges into territories. A smaller home range or territory would have encouraged advancements from horticulture to agriculture as available resources became sparser due to shrinking ranges (Gibbon 2012: 106-110). By the end of the period, groups still would have lived semi-nomadically but with regularly settled summer and winter villages, usually occupying predetermined locations each year. Smaller hunting camps and resource gathering and processing sites continued to be common across the period with subsistence strategies still rooted by relations to the land. Crops such as maize, bean, and squash, became widespread in the south, along with wild rice across much of the north, central, and southeast reaches of the state (Child 2012:1-30; Zilberstein 2015).

Apart from comparatively short variations in climate during the Early and Middle Woodland Periods, and the Little Ice Age which occurred in the latter half of the Late Woodland and Early settlement periods, the environment would have looked much like today in terms of vegetation, wildlife, and landscape. Near the end of the Precontact period, around 1500 CE, cooler and wetter conditions caused by the Little Ice Age encouraged Big Woods species and the larger northeastern forest environment to spread further into the prairie environment in the south and western halves of the state. Fish, white-tailed deer, moose, and foraged foods such as nuts and berries were commonly utilized resources in addition to wild rice and terrestrial crops such as maze, beans, and squash (Arzigian 2008:8-9; Vennum 1988:81-110, 175-188; Aitkin 2007:15-16). Semi-permanent settlements were common by the time of first European contact with some fully permanent villages found near large rivers and lakes.

4.4 Late Precontact Period

The Late Precontact period in Minnesota is a span of 550 years between 1100 CE and 1750 CE (Arzigian 2008:126). When compared to previous periods, the Late Precontact and the Woodland Period are by and large the most well represented in the archaeological record thanks to their more recent deposition and diversity of material artifacts which allow archaeologists to create more detailed ideas of how past peoples lived. As such, this period is referred to by archaeologists through a multitude of descriptors known as "Complexes." (Arzigian 2008: 126).

During this time, Anishinaabeg culture history states a great migration of their peoples was undertaken, from the northeast coast of North America to "the place where the food grows on water," or what we know today as Minnesota and the larger Great Lakes Region (White Earth Nation 2024). Some groups of these peoples, who we know today as the Ojibwe, began to settle in northern parts of the state and Canada before coming further south near the Mille Lacs region by the 1700's. (Whelan 1990:55; White and Westerman 2012:91-93).

Resource diversification and use trends remained consistent with some change in ceramic and lithic technologies. Small triangular points, shell tempered pottery, and the widespread utilization and agricultural management of wild rice and terrestrial crops are commonly cited as distinctions for the period (Arzigian 2008:134; Whelan 1990:55-73). People living during this time continued to hunt and forage for natural resources, although by European contact, Tribes began to harvest these resources for use in the Fur Trade as relationships with Europeans coming to the area developed. (Arzigian 2008:126).

For archaeologists, the more significant aspects of the Woodland and Late Precontact periods in Minnesota are the transition to semi-sedentary lifestyles, and advancements in ceramic technology. Both provide dense and diverse artifact assemblages in addition to indications of lifestyle which follow well-defined paths of advancement through time, greatly assisting in developing refined ideas of how people lived throughout the region. Variances in ceramic and lithic tool production techniques can be grouped and assigned to specific frames of time and cultures thanks to datable organic materials such as animal bone or charred wood found in relation with them.

4.5 Early Contact and Euro American Settlement Periods

The Early Contact and Settlement periods in Minnesota begin between 1650 and 1750 CE and extend into the early 20th century. Beginning around 1850 CE, large swaths of prairie primarily in the southeast of the state would begin to be put into industrial cultivation by settlers coming mostly from New England and settling in areas along the Mississippi River and its major tributaries. By the 1880s and following the expulsion of Dakota Indians from the Minnesota Territory in the wake of the US-Dakota War of 1862, the study area and large regions in the south and west/west central portions of the state saw similar developments in industrial agriculture. Although these prairie regions were still largely open expanses, sparse forest plots planted by settlers, the loss of prairie and forest biome to industrial agriculture, and the cessation of sophisticated land management techniques practiced by Precontact peoples would all constitute significant changes to the Late Woodland Period environment of Minnesota and the study area (Atkin 2007:3-10; Westerman and White 2012:81-131).

4.6 Local Area History

During the Late Woodland and early Euro American Settlement Periods, the Study Area would have been primarily utilized by groups of Mdewakanton Dakota living at Kaposia and other areas a few miles southwest of the Mississippi near the modern bounds of St. Paul (Coues 1895:74-76). Animals and foraged resources abundant within the Study Area such as wild rice, deer, and beaver, were highly sought after for immediate and long-term food stores, in addition to varied utilitarian uses in shelter construction, tool and garment making, medicine, and so on. When the Fur-Trade expanded to the State during the 17th and 18th centuries, those animals would be increasingly utilized for their hides and furs until about 1880 when the trade collapsed. By the mid-1800s, the animals used to produce the trade's most desired goods, such as beaver, bear, and buffalo, were exhausted within the larger Great-Lakes region. Skins and furs from deer, muskrat, mink, and raccoon, were increasingly utilized as other sources suffered population collapse from over hunting and loss of habitat to industrial agriculture and settlement (Nassaney 2015:61).

Indeed, the study area would have been a well-traveled route before and especially during the height of the Fur Trade for it functioned as part of a larger natural transportation corridor between the St. Croix, Mississippi, Minnesota Rivers, and smaller regional watersheds which would have acted as an "Exit-Ramp" from more traversed arterial river ways. Indeed, the study area falls within what was a major throughway for most of the Fur Trade goods headed south from northern Minnesota, Cannada, and the Great Lakes Region via the St. Croix and Mississippi Rivers.

Thanks to its connectivity, regions surrounding the study area became well populated with trading posts representing different people and periods throughout the Fur-Trade era and further demonstrating its overall importance and use as a connecting point. Some of these posts include the American Fur Company's at Snake River and Mendota, the post of Maurice M. Samuel at Sunrise River, the Columbia Fur Company at St. Croix Falls, and those established by various traders near Fort Snelling and areas south along the Mississippi River (Nute 1930:355). After the passing of the Minnesota Road Act by the United States Congress in 1850, the Point Douglas-St. Louis River Road and the Point Douglas-Fort Ripley Road would intersect or lay at the fringes of the study area by 1858. Much of the route where these roads were constructed had already existed long before as routes traveled by groups of Dakota and Ojibwe in the region, further demonstrating its use and importance as a major travel corridor (Singley 1974:14-36; MNDNR 2024a).

Later histories and accounts which come from early settlers within and near the study area often speak of Dakota and Ojibwe disputes, beginning especially in the mid-1700s. During this time, and certainly by the 1800s, Dakota and Ojibwe were more regularly fighting with one another across the state, including areas within the bounds of this study. However, the relationship between these people should not be equated with one of total war or hostility as regular treaties, trade, and intermarriage between the two groups continued (Westerman and White 2012:38-39, 65, 91-92; Roufs 1978:164-166). Nonetheless, hostilities were escalated by the presence of the Fur Trade after 1736 when a group of Dakota attacked a group of French traders near Lake of the Woods who were providing arms and supplies to Ojibwe and using them to harass Dakota in separate encounters. The French responded by providing further arms and supplies to Ojibwe in the region who took great advantage during the Battle of Kathio at Lake Mille Lacs in 1745/1756. In this battle, Ojibwe armed with gunpowder and muskets were able to capture the strongest Dakota settlement in the area which subsequently routed many others from central and northern Minnesota (Roufs 1978:165-166).

Upon wresting Canadian territories from the French and looking to assert their presence in the region, English traders such as Johnathan Carver allied with bands of Dakota, and further complicated relations with Ojibwe who were supported by what remained of the French presence in the region. Fighting continued through the 18th century and slowly pushed Dakota groups out from traditional lands in central and northern Minnesota. By the 19th century, Dakota groups in the state had consolidated within the Lower Mississippi and Minnesota River regions. Ojibwe groups spread south from Lake Superior and began occupying former Dakota villages as far south as those at Lake Mille Lacs. From these regions, the study area and its fringes again became witness to frequent contestation as Ojibwe and Dakota now clashed within its bounds (Westerman and White 2012:60-78; Roufs 1978).

Given the proximity of known Dakota villages to the study area during the Early Contact and Settlement Period, it is likely the region would have primarily been utilized and lived in by these people. However, in 1825 a treaty negotiated between the United States and Dakota and Ojibwe groups at Prairie du Chien complicated each other's understandings of the area. The purpose of the treaty attempted to establish and distinguish territories between Ojibwe and Dakota, hoping this would tamper hostilities between the two and create an environment more hospitable to the Fur-Trade and emerging settler industries. Despite their hostilities, Ojibwe and Dakota groups were regularly agreeing to share regions near the study area through their own seasonal peace treaties, well prior to the 1825 treaty. As such, during negotiation with the United States, both groups identified a number of regions as part of their respective territories. Yet, the treaty failed to consider Ojibwe and/or Dakota notions of ownership and territory as it privileged one's claim to the area over the others.

The Dakota were exiled from Minnesota and treaty territories following the U.S.-Dakota War of 1862. Ojibwe who may have frequented or lived within the study area were sequestered over time to several reservations within the central and northern regions of the state, including at Lake Mille Lacs where an Ojibwe reservation was established following the Treaty of 1855. Four Dakota Reservation Communities exist in Minnesota today, established from the foundations of land allotments provided in 1889 to descendants of a select few who did not participate in the war (Dakota Wicohan 2024). In the wake of these events and with Minnesota's recognition as a state by 1858, settlement contexts within the study area began in earnest.

4.7 Early St. Paul History

St. Paul's early history is dominated by French-Canadian fur traders living and trading amidst the local Native American population in the shadow of nearby Fort Snelling, roughly four miles to the west. In May of 1840, the Reverand Lucien Galtier arrived at the fort and found the area which would one day be St. Paul inhabited by Charles Mousseau on Dayton's Bluff, as well as Joseph Rondo, Vetal Guerin, and Benjamin and Pierre Gervais living in the eventual downtown area. In November of 1841, Galtier dedicated an initial log chapel to St. Paul, and the name was subsequently transferred to the incipient community. Early settlers began to trickle into the area from other frontier settlements to the south and east, such as Galena, Illinois and Prairie du Chien, Wisconsin. When early settlers arrived, they found two clefts in the bluffs along the Upper Mississippi about one mile distant from each other. These upper, at Chestnut Street, and lower, at Jackson Street, landings would establish the town's commercial and disembarkation points, as well as competing civic sentiments for generations to come (Grant and Emery 2004:16).

In 1843, St. Paul was described as a mix of forests, hills, running brooks, ravines, bog-mires, lakes, mosquitoes and snakes, with about a dozen Euro-American settlers and 200 to 300 Native Americans (Miller 1928:96). A post office was established in 1846 with its first postmaster Henry Jackson, who also was the proprietor of a local store (Patterson 1966:83). Minnesota Territory was organized in 1849, the same year the first brick structure was built in St. Paul. The City of St. Paul was incorporated on March 4th, 1854, and comprised roughly 2,400 acres (versus roughly 36,000 today). That same year its first several papers, the *Pioneer*, the *Democrat*, the *Daily Minnesotian*, and the *Daily Times* all appeared. Over this decade, St. Paul's population exploded from 900 in 1849 to 10,000 in 1860. St. Paul would cement its place as the political heart of Minnesota with

statehood in 1858, just as Minneapolis became its commercial hub by the 1870s (Andrews 1890; Nathanson 2019). The first bridge over the Mississippi River at St. Paul was built in 1859, named the Saint Paul Bridge and later the Wabasha Street Bridge, and expansion quickly filled in around the area.

For additional information on the early development of St. Paul, as well as historic contexts for the area, including the impact of urban renewal on the city, a close review of *Phase I and II Cultural Resources Investigations of the Central Corridor Minneapolis, Hennepin County and St. Paul, Ramsey County, Minnesota* (HCRRA 1995) is strongly recommended. The research work completed for the Central Corridor project should be seen as the gold standard for understanding the potential for intact cultural resources in St. Paul. Detailed discussion of development along the project corridor is provided in Section 6.

5.0 ARCHAEOLOGY WITHIN ONE MILE OF THE STUDY AREA

To better understand the potential for both precontact and historic sites with the study area, NCC first defined the project APE and then identified known sites falling within the APE as well as sites within one mile of the APE. Sites are pulled first from the OSA online portal (https://osaportal.gisdata.mn.gov). A request for sites is then made from SHPO of sites within identified topographic sections. These datasets are then cross checked against one another. In addition to this, visits to both the OSA and SHPO offices were completed to compile survey reports related to these sites, as well as other surveys completed near the corridor where sites were not found. Reports reviewed, but not otherwise reference in this report, and included after the references cited section.

A total of 29 sites have been previously identified within one mile of the study area (Table 1) with six being precontact or Native American in origin and the remaining 23 historic or Euro-American. Of these sites, only one site, 21RA0031 (Rondo Ave. at Sears) and one alpha site, 21RAu (St. Anthony Neighborhood), are partially within the project APE with one additional site, 21RA0339 (Lowertown Neighborhood), and one alpha site, 21DKq (Glentoro) immediately adjacent to it. These sites highlight the initial interest in archaeology in the late 1800s and then the advancement of Cultural Resource Management in the later 20th Century. All but one (21DK17) of the precontact or Native American sites are related to Native American burial sites (21DKa, 21RA04, 21RA05) or sacred sites (Carver [21DK27] and Dayton's [21RA28] Caves). Site locations were documented by early archaeological endeavors in the late 1800s and recorded in Winchell's 1911 *Aboriginies of Minnesota*, or in the notes of archaeologist T.H. Lewis. These sites are along the Mississippi River and are strong indicators of continued Native American occupation of this area over the past several thousand years.

Table 1: Sites Within, Adjacent, and Within One Mile of Project Corridor

Site Number / Name	TSR Legal Desc.	Primary Context	References
21DKa Brotzler Mounds	SW/NW Sec. 16 T28N R22W	Precontact: Burial	Winchell 1911; Peterson 1974
21DKq Glentoro	S1/2 Sec. 30 T28N R22W SE1/4 Sec. 25 T28N R23W	Historic: Ghost Town	OSA Site Form 1995
21DK74 Simons Ravine	SE/SE Sec. 17 T28N R22W	Precontact: Artifact Scatter	Harrison 2002
21Rau St. Anthony Avenue Neighborhood	SE/SE Sec. 36 T29N R23W	Historic: Neighborhood	OSA Site Form 2019
21RA04 West St. Paul Mounds	Sec. 8 T28N R22W	Precontact: Burial	OSA Site Form ND; Winchell 1911
21RA05 Dayton's Bluff Mounds	NE/NE Sec. 5 T28N R22W	Precontact: Burial	OSA Site Form ND; Winchell 1911; Eigenberger, Flynn, and Armstrong-Duarte 2022
21RA14 CM St P&P Freight House	NW/NW Sec. 5 T28N R22W	Historic: Commercial	106 Group 1994
21RA19 Ramsey House	SW/NW Sec. 6 T28N R22W	Historic: Residential	OSA Site Form 1980
21RA20 Diamond Joe Freight House/Depot	NW/NW Sec. 5 T28N R22W	Historic: Commercial	106 Group 1994
21RA21 James J. Hill House	NE/NE Sec. 1 T28N R23W	Historic: Residence	Zimmerman et. al. 2003
21RA27 Carver's Cave	SE/SE Sec. 32 T29N R22W	Precontact: TCP	Terrell 2002
21RA28 Dayton's Bluff Cave	SE/SE Sec. 32 T29N R22W	Precontact: TCP	Terrell 2002
21RA30 Central State Capitol Mall	NW/SW Sec. 21 T29N R22W	Historic: Neighborhood	HCRRA 1995
21RA31 Rondo Ave. at Sears	E1/2/SE Sec. 36 T29N R23W	Historic: Neighborhood	HCRRA 1995
21RA32 Washington Street Residential District	SE/NW Sec. 6 T28N R22W	Historic: Residential	Abel, Ketz, Schmidt 1998
21RA35 St. Paul Glass Co. Paint Warehouse	NE/SW Sec. 6 T28N R22W	Historic: Commercial	Abel and Schmidt 1998
21RA36 William Dahl House	NE/SW Sec. 31 T29N R22W	Historic: Residence	Ollendorf and Higginbottom 1997; Abel et. al 1998
21RA37 Osborn Foundry Old Brewery Site	SE/NW Sec. 6 T28N R22W	Historic: Commercial	Ketz 1998
21RA38 Lot 5	NW/SE Sec. 31 T29N R22W	Historic: Residence	Ollendorf and Higginbottom 1997; Abel et. al 1998
21RA39 Lowertown Neighborhood	S1/2 Sec. 31 T29N R22W	Historic: Neighborhood	Ollendorf and Higginbottom 1997; Abel et. al 1998
21RA45 Harriet Island	S1/2 Sec. 6 T28N R22W	Historic: Public Bath	Abel 1999
21RA46 Western-Marshall Cemetery	SW/SE Sec. 36 T29N R23W	Historic: Cemetery	OSA Site Form 2000
21RA47 Armstrong House Relocation Site 7	SE/SW Sec. 6. T28N R22W	Historic: Residence	Terrell 2001
21RA48 North Star Brewery	S1/2/SE Sec. 32 T29N R22W	Historic: Brewery	Terrell and Vermeer 2004
21RA49 The Dacotah / Washington House Hotel	NW/NW Sec. 6 T28N R22W	Historic: Hotel	OSA Site Form 2004a
21RA50 Schnelle	NW/NW Sec. 6 T28N R22W	Historic: Residence	OSA Site Form 2004b
21RA69 State Capitol Marble Mill	NW/SW Sec. 31 T29N R22W	Historic: Marble Mill	Justin 2012
21RA72	SW/SW Sec. 31 T29N R22W	Historic: Commercial	Sather and Ollila 2013
21RA73 Swede Hollow	N1/2 Sec. 32 T29N R22W	Historic: Neighborhood	OSA Site Form 2015; Wolf 2016

The majority of the remaining historic, or Euro-American sites are clustered into downtown St. Paul from the Mississippi River front up through the Capitol grounds. A period of intense archaeological investigation began in the mid-1990s and continued over the next 25 years. A majority of this work has been driven by infrastructure changes in the downtown area including the Central Corridor Project beginning in the early 1990s (HCRRA 1995), the Minnesota Department of Revenue Project in 1997 (Ollendorf and Higginbottom 1997; Abel et. al 1998), the relocation of the Science Museum in 1997 (Abel, Schmidt, Ketz, and Bourgerie 1988), and the Lowertown Ballfield Project in 2013 (Sather and Ollila 2013) among several others. A similar project to create a National Register District for the Capitol complex has also been underway for the last several years (Gallo et al. 2022)

In each of these development projects, archaeologists began with review of existing sites and then completed a detailed review using the documentary record including fire insurance and plat maps, aerial imagery, utility information, building permit and demolition data, and an understanding of urban development and redevelopment in the city center, to identify, evaluate, and mitigate earlier historic resources (foundations, privies, cisterns, wells, etc.) where above ground portions had been demolished and then covered over by two to seven feet or more of fill deposits. These historic resources come from a diverse range of social and economic backgrounds from immigrant shanties (21RA30 and 21RA73) and well to do mansions (21RA19, 21RA21 and 21RA36), to brothels (21RA32) and breweries (21RA37 and 21RA48), hotels (21RA49) and warehouses (21RA72), and even a capitol construction marble milling shop (21RA69). In several situations, subsequent utilities and development activities had been lain through or over these features impacting portions of them, but many were surprisingly intact and consistently provide a wealth of information on the lives of those who lived and worked in these settings. It is important to note these practices of non-complete demolition were prevalent into the 1970s in St. Paul.

Five sites in the downtown area (21RA30, 21RA36, 21RA38, 21RA39, and 21RA72) are discussed here in some additional detail. Three of the sites (21RA36, 21RA38, and 21RA39) were documented during archaeological evaluation, mitigation, and construction monitoring in the Lowertown Neighborhood in St. Paul, Minnesota from August to November 1997 ahead of construction for the Department of Revenue Building located along East 12th Street between 600 to 610 Robert Street and Jackson Street.

The first of the reported sites, is the "Dahl House" site, 21RA36. This dwelling was built by the Irish immigrant William Dahl and his family in 1858. By the middle of the 20th-century the home was one of the last standing buildings from the original Lowertown St. Paul neighborhood dating from the 1850s (Ramsey County 1990:27). The home was placed on the National Register of Historic Places in 1978 (#78001557). In 1997 the Dahl House was removed from its original foundations at 136 13th Street and moved to 508 Jefferson Street. As part of the agreed-upon mitigation effort between Minnesota SHPO and the Department of Revenue the remaining grounds of the Dahl House property were surveyed by archaeologists ahead of construction. Three 1x2m units and two 1x1m units were hand-dug by archaeologists along with 100 square feet of mechanical fill stripping and trenching to expose multiple features related to the Dahl House's period of significance (1858-1885). These units and trenches documented limited amounts of sheet midden material dating to the period of significance along with later 20th century deposits and features. Because the only materials related to the earliest period of historic occupation lacked

vertical and horizontal integrity, very little information about how the Dahl household's daily life shifted over time could be learned from the recovered artifacts (Abel et al. 1998:94-95).

The second site, 21RA38, consisted of multiple 19th and early 20th-century features including limestone walls, an ash pit, and a well-house ruin. Historic research and recovered artifacts suggest these features were related to domestic structures present at this Lowertown St. Paul property dated between 1885-1903 (Abel et al 1998:18-20). The third site from this investigation is 21RA39 "Lowertown Neighborhood." Site features are those identified within the entire city block related to a 19th and 20th century St. Paul neighborhood. These consisted of forty identified features including wells, cisterns, privy vaults, and trash middens dating to the late 19th to early 20th-century residential and commercial activities on this city block. These features were mapped, photo documented, and their contents sampled to determine they were either outside the project's Area of Potential Effect (APE) and/or not related to the stated period of historic significance (1858-1880) established by SHPO in the 'Data Recovery Management Plan' created before the start of the project. Only one feature (Feature 31), a stone lined well, was determined to contain artifacts from the period of significance dating to 1850s-1860s. The ownership and purpose of the well could not be fully determined, but historic photographs and maps suggest it was used to provide water to nearby livestock pens (Abel et al 1998:44-47).

One of the remaining sites, 21RA30, was identified using soil bore testing and historic documentation during archaeological evaluation along the Minnesota State Capitol Mall in 1996. This project investigated potential transit corridors for bus or light-rail service between "downtown Minneapolis, the University of Minnesota campus, the Minnesota State Capitol, and downtown St. Paul" (HCRRA 1995:i). A series of soil borings (Bores 8-10) indicated remnants of a former 19th century neighborhood remained beneath four or more feet of fill. Core 10 was placed in the approximate location of a structure located at 693 Wabasha Street. This core encountered significant amounts of historic material including brick, ceramics, coal, glass, and bone between two to six feet below the current surface grade (HCRRA 1995:80). This finding and those of nearby cores indicated intact buried historic surfaces and features from the 19th century neighborhood were likely intact and were therefore eligible to the National Register under Criterion D for informational value about daily life in this 19th century St. Paul Neighborhood (HCRRA 1995:80-82).

The last archaeological site within the downtown area of note is 21RA72. This site was recorded during construction monitoring for the Lowertown Ballfield located at the corner of 5th Street East and Broadway or 360 North Broadway Street (currently known as CHS Field) on August 7-8, 2013. As grading and removal of asphalt parking lot surfaces were being conducted the archaeological monitors identified thirteen features associated with late-19th to mid-20th century warehouses that were once located here. Nine test pits were placed to investigate these features. The test pits varied in size between six to thirteen meters long and three to four-and-a-half meters wide to expose long sections of foundations to warehouse and other structures (Sather and Ollila 2013:6-12). Features related to four separate warehouse facilities associated with meat-packing and poultry were identified along with unmarked utility trenches and general architectural rubble lenses. None of the warehouse features encountered in 2013 were determined to have enough integrity to be eligible to the National Register (Sather and Ollila 2013:13).

6.0 ARCHAEOLOGICAL ASSESSMENT

In completing an archaeological assessment of the overall project area, NCC began by reviewing known sites within one mile of the project area. As this evolved, the reports related to these sites were carefully read to synthesize the challenges, approaches, and outcomes of major efforts along the corridor. Given how development has unfolded in St. Paul, most of this work was concentrated within the central portion of the project. Included within this work was review of associated environmental soil core data from the Central Corridor project. Accompanying these reports, NCC also reviewed additional reports for projects completed in the immediate vicinity to the APE.

The overall next assessment effort focused on compiling relevant historic and modern information into GIS to see how each of them overlapped with the APE and changed over time. Historical maps, aerial imagery, and modern topographic maps of the project area were collected and georeferenced to a modern ESRI generated Hybrid Imagery Basemap projected on a NAD 83 HARN: Minnesota State Plane Central FIPS 2202 (Meters) coordinate system. Primary data sources included GLO survey maps from 1847, 1853, and 1854; aerial images between 1923 to 1992; an 1884 Hopkins Real Estate Atlas of St. Paul, and historic fire insurance maps from the Rascher and Sanborn map companies from 1885 to 1952. In addition to these, topographic maps from 1896 and 1903 were used to fill gaps where necessary. Sources were made available and collected from The Library of Congress, The Minnesota Historical Society, The University of Minnesota Borchert Map Library, and the Minnesota Geospatial Information Office.

Finally, modern, and historic utilities Shapefile data were provided by the Cities of St. Paul, Roseville, Little Canada, and West St. Paul with further data on storm and water utilities provided by Ramsey County and St. Paul Regional Water Services (SPRWS). This information was used with overlayed maps to further assess the potential for intact below ground cultural resources. The data included storm and sanitary sewers and water locations within the transportation right-of-way. Shapefiles showing utility trench impacts up to 15 feet across were generated by NCC for each data set to further assess utility impacts and are informed by available modern city documents and building standards (City of St. Paul 2024).

Georeferenced Sanborn and Rascher Fire Insurance maps were used as the primary source in determining potential for historical archaeology within the project APE. Upon aligning aerials, GLO maps, and topographic maps, insurance maps were the last to be overlayed and the most scrutinized. Fire insurance maps were the scientific documents of their time and are known to be a highly accurate source of spatial data for use in modern applications, despite their being generated from manual field observations without modern luxuries such as GPS or digital mapping software (Piekielek et al. 2024). In most of the project area, street and/or building layouts have remained unchanged from the time of their recording in a given volume. As such, during the overlay process the outer edges of existing sidewalks, sidewalk corners, and building corners were most often used as guides for aligning lot lines during the overlay process, other features such as street intersections and building features were used when necessary or to further refine the overlay. Usually, if significant differences were found between modern and historical configurations within the APE, it was possible to use adjacent buildings or street configurations which remain unchanged to complete the overlay accurately. If this was not possible, a georeferenced 1884 Hopkins Atlas,

or a 1908 “Curtis’s Revised Atlas of the City of St Paul” were used to first broadly reference a plate based on a lot’s noted number and/or general shape, whereupon its position would be further refined using later insurance maps, aerial photography, and/or what features may have still existed, when possible.

Once the above GIS compilation process was completed, potential precontact and historic site locations were identified, and additional construction and demolition permits were collected on a site-by-site basis.

6.1 Potential Precontact Site Identification Method

Archaeological prospection for precontact sites in Minnesota is primarily determined by proximity to water followed by access to resources and finally topography. For the overall project area, NCC began by overlaying known precontact sites within one mile of the corridor. Next, NCC examined initial Government Land Office maps with a focus on nearby access to rivers, lakes, and wetlands. NCC then looked for nearby stable topographic landforms (uplands, ridges, etc.) and correlated data points with the MnModel precontact landscape suitability layers from the Office of the State Archaeologists online portal (www.osaportal.gisdata.mn.gov). Once completed, areas with high potential for precontact archaeology were then examined for impacts from earlier farming, development and utilities to see if the location retained likely potential for intact precontact cultural materials.

In addition to this, NCC used information provided by the Central Corridor project, specifically environmental soil core data from several locations in downtown St. Paul which are immediately associated with the project APE (HCRRA 1995).

6.2 Potential Historic Site Identification Method

Archaeological prospection for historic sites in Minnesota is primarily focused on frontier narratives, initial settlement locations, and subsequent community expansion and individual lot use. Archaeologists in Minnesota have found the best potential for intact, historic resources within developed and redeveloped urban corridors are typically at the back of lots or along alleyways (HCRRA 1995; Abel et al 1998; Nienow et. al 2020; Nienow 2023) within more deeply buried contexts. Specific examples of these include trash pits, cisterns, privies, cesspools, and wells. This is primarily associated with early sanitation requirements, commercial enterprises, and the general nuisances associated with these types of resources. Intact portions of residential and commercial foundations are also possible prior to modern demolition standards beginning in the 1980s, however, these features often contain primarily construction related debris and thus have a lower potential to relate information about former owners, renters, or customers (Abel et al 1998; Sather and Ollila 2013).

Once completed, areas with high potential for historical archaeology were then examined for impacts from earlier development and utilities to see if the location retained likely potential for intact cultural materials. Supplemental information was gathered from permits and social directories if needed.

6.3 Project Area Development via the Documentary Record

The following is a discussion of the project area with a focus on physical changes to roadways and landscapes. The project has been broken into three sections, one to the south, a central section, and the remaining section to the north.

6.3.1 Southern Project Area

The southern third of the project area begins at the Northern Service Center in the City of West St. Paul, approximately one-third of a mile west of the intersection of Mendota Road East and Robert Street South. The G-Line route enters and exits the Northern Service Center via Mendota Road East and connects to Robert Street South to continue north for two and two-thirds of one mile. At State Street, the route briefly deviates eastward before reconnecting to Robert Street via Concord Avenue. The route then continues north by northwest along Robert Street South for one-half-mile before it reaches the Mississippi River and continues as Robert Street North through downtown St. Paul. This area represents the southern third of the planned G-Line route and includes parts of the City of West St. Paul and the City of St. Paul, within the west halves of Sections 8, 17, 20, 29, and the northeast quarter of Section 30, Township 28N, Range 22W (Figure 2).

The earliest available imagery of the area comes from an 1853 GLO survey map which shows this part of the project area as open prairie, with two fields noted approximately one and two miles east of the southern end of the project corridor, respectively. The closer of the two is noted at the edge of a pond or semi-perennial water source, and the other further east, along the Mississippi River. Several other small ponds or marshes are seen sporadically within one mile of this portion of the project. An early wagon road or foot path noted as “St Paul Road” is shown crossing the corridor twice, once in the northwest quarter of Section 8, and again in the southwest quarter of Section 5, Township 28N, Range 22W (Figure 3).

An 1884 Hopkins Real Estate Atlas of the City of St. Paul represents one of the next earliest sources of visual information available. By this time, St. Paul had started to expand south across the Mississippi with the establishment of the early West Side River Flats neighborhood. Development slowly tapers off as one moves south, and especially after the river bluffs. Notably, the Hopkins Atlas shows several differences from the following maps and images of the area and are discussed below. Beginning at Annapolis Street, the project corridor passes through what was then Lot 7 of “Bidwell’s Addition” with an “F. Sauer” listed as owner (Figure 4). Upon moving out of Bidwell’s Addition, the corridor picks up on a road listed as “Eaton Street” (shown as Robert Street South in later maps). As the corridor shifts to State Street, it is shown passing through what was then Blocks 12, 13, and 21, of the “West St. Paul Real Estate Syndicate” and the “Bryant & Mireas W.S.L. & C. Co. RE-AR.” Divisions (Figure 5). Upon the corridor’s rejoining with Eaton Street via State Street to Concord Avenue, it is next seen crossing through Blocks 8, 3, and 2 of what is shown as “Eaton & Morrison’s Add.,” situated at the base of the river bluffs, between Wood Street and Plato Avenue East. Upon exiting these blocks, the corridor continues down what is shown as “Ducas Street,” (later Robert Street South). Additionally, the path listed as “St. Paul Road” in the 1853 GLO is now a rail line listed as “Minnesota and Northwestern Railroad.”

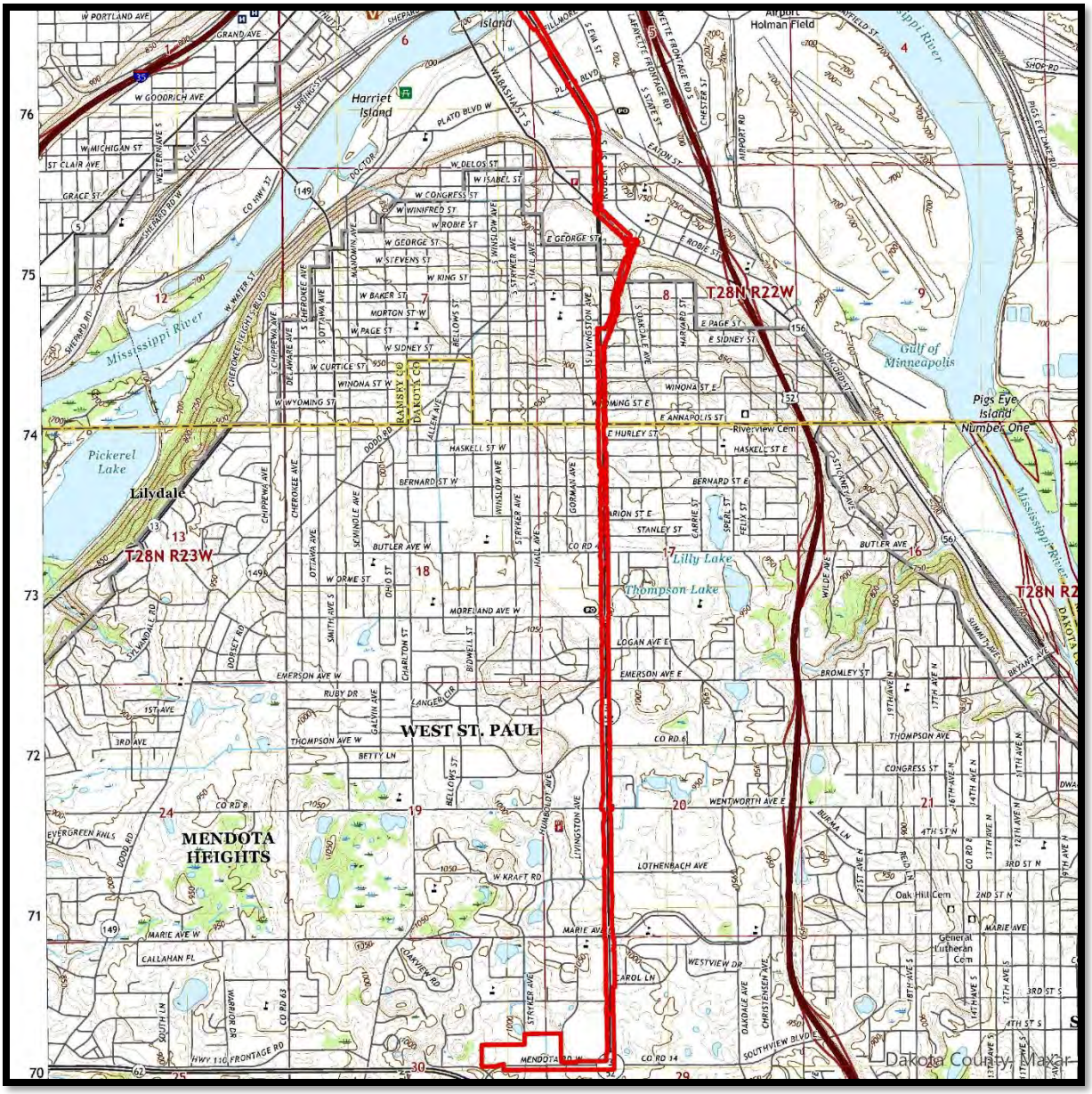


Figure 2: Image Showing 2022 Topographic Map (1:24,000) of St. Paul with Southern Third of Planned G Line Corridor (Red) Overlay.

Figure 3: Image of 1854 GLO Map with Southern Third of Planned G Line Corridor (Red) Overlay.

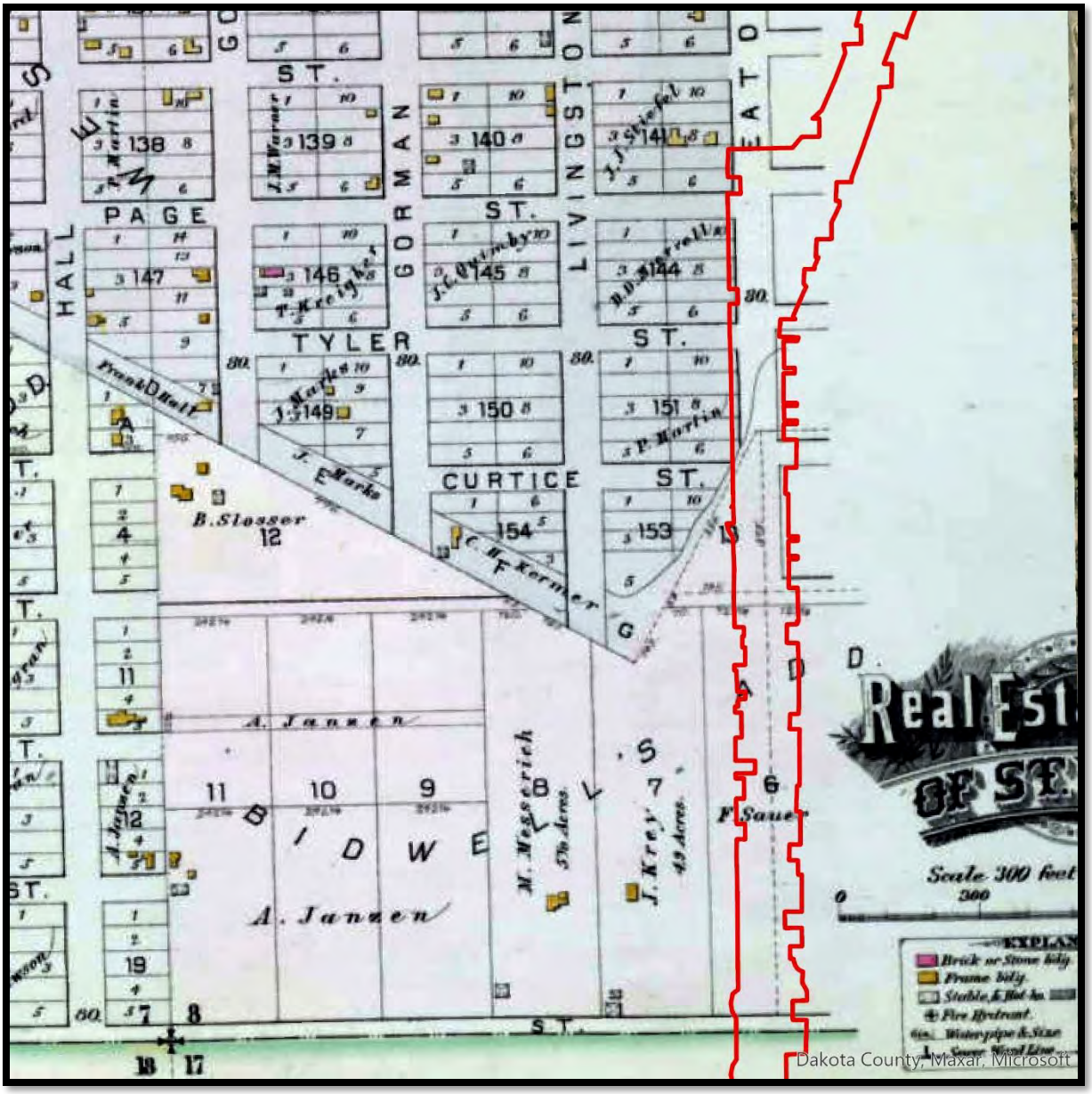


Figure 4: Image of 1884 Hopkins Atlas of St. Paul showing "Bidwell's Addition" with Planned G Line Corridor (Red) Overlay.

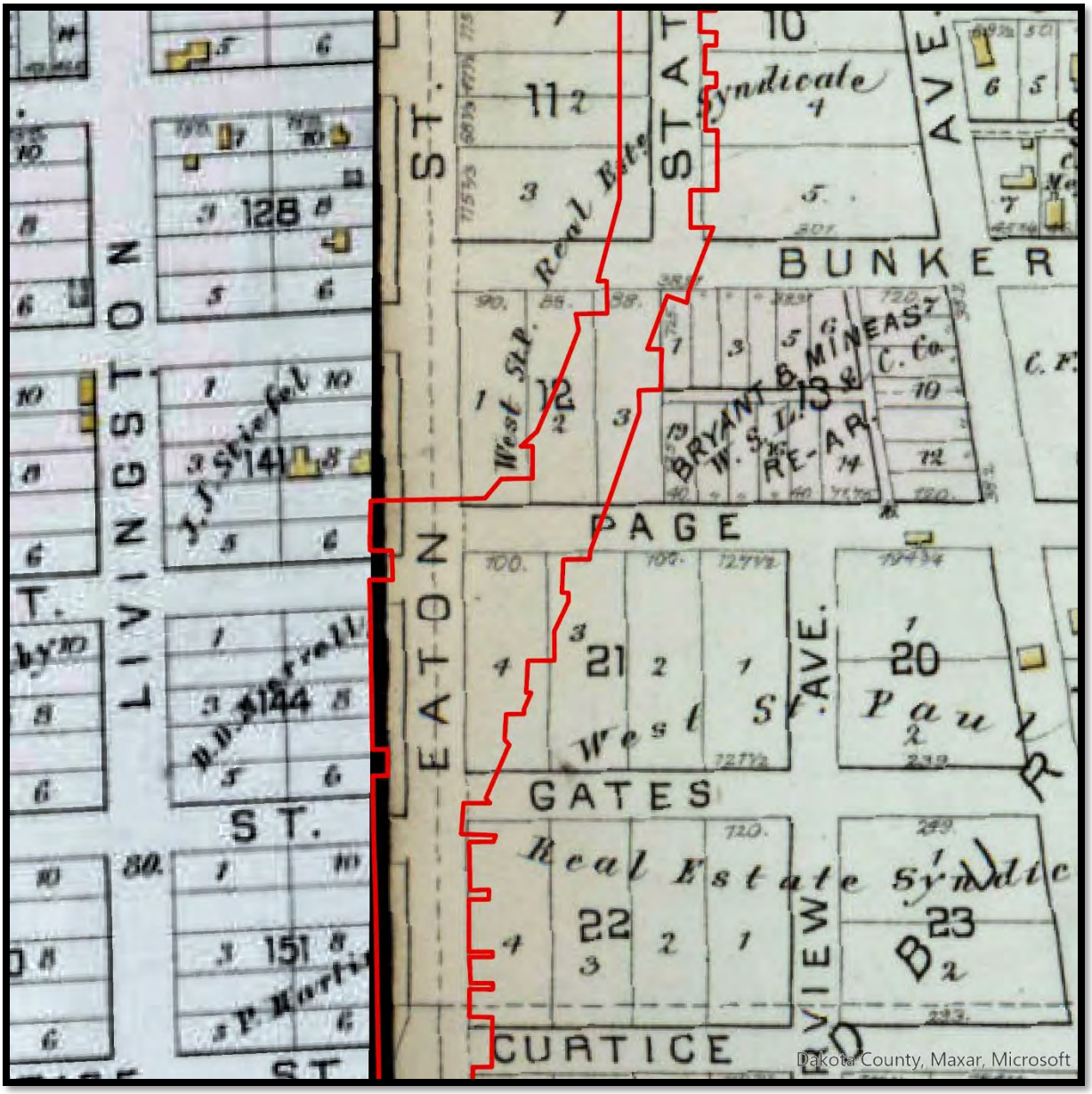


Figure 5: Image of 1884 Hopkins Atlas of St. Paul showing "West St. Paul Real Estate Syndicate" and "Bryant & Mineas' W. S. L. & C. Co" Divisions with Planned G Line Corridor (Red) Overlay.

Differences noted in the early street naming and layouts of this part of the project area are likely due to St Paul's present southern municipal boundary then only recently being established at Annapolis Street. Prior to 1874, this third of the project corridor—from the present Northern Service Center to the Mississippi River—would have fallen under the municipal boundary of West St. Paul (Dakota County Historical Society 2024).

Following its annexation, the area remained largely ignored for the early part of St. Paul's history, though it saw rapid development beginning in 1882 with an influx of Eastern European Jews to Minnesota who along with other groups would come to characterize this part of the city as one of the first true immigrant neighborhoods of St. Paul (Gordon 1949; Hines 2014). At the turn of the century, Syrian and Lebanese immigrants had begun settling in the area, and by the 1930s, a third wave of settlement was started by Hispanic immigrants seeking work from the growing industries in the area. By this point, the West Side Flats neighborhood had gained a local reputation as the "Ellis Island of St. Paul" as it became the first stopping point for many different immigrant groups on their way to settle in the state. As Jewish and Arab communities in the area acquired more financial and social stability, they would begin moving to other parts of the city and state, and by the 1950s the larger area had grown into an enclave for Hispanic Americans and immigrants, a community whose presence is still prevalent within surrounding West St. Paul today (Hines 2014:21; Millett 1996:186).

A 1901 Rascher Fire Insurance Map shows at some point after 1884, the street layouts and naming within this portion of the project corridor were changed to a configuration similar with today's. What were shown as Eaton and Ducas Streets in the 1884 Hopkins Atlas are now listed as Robert Street South. Furthermore, areas shown as city lots where the project corridor had passed through in the 1884 atlas are now portions of the Robert Street and State Street transportation right-of-way (Figures 6 and 7). Structures which may have been present in these lots would have been demolished to make way for the modification of these street alignments.

The southern third of the project area began to be documented via aerial photography starting at the West Side Flats area in 1923, with near complete coverage coming by 1945. In these initial aerials, the flats area is shown to have grown significantly compared to what is depicted by the 1884 Hopkins Atlas. Dense residential development is seen immediately to the east and west of Robert Street with growing industrial and business districts as one moves north toward the river, and/or further west toward Harriet Island. At the time, Robert Street South is seen as the major southern entry point to St. Paul, via Concord Ave. New businesses and residential subdivisions subsequently become more frequent south of the West Side Flats, and along Robert Street. The city of West St. Paul is recognizable with development continuing past the St. Paul city limit at Annapolis Street, now to East Paige and Sydney Streets, before tapering off and turning to rural farm country south of Butler Avenue East. The next available aerial photograph in 1937 sees the West Side Flats area and what is shown of West St. Paul as largely unchanged, excluding a slight increase in building density (Figures 8 and 9).

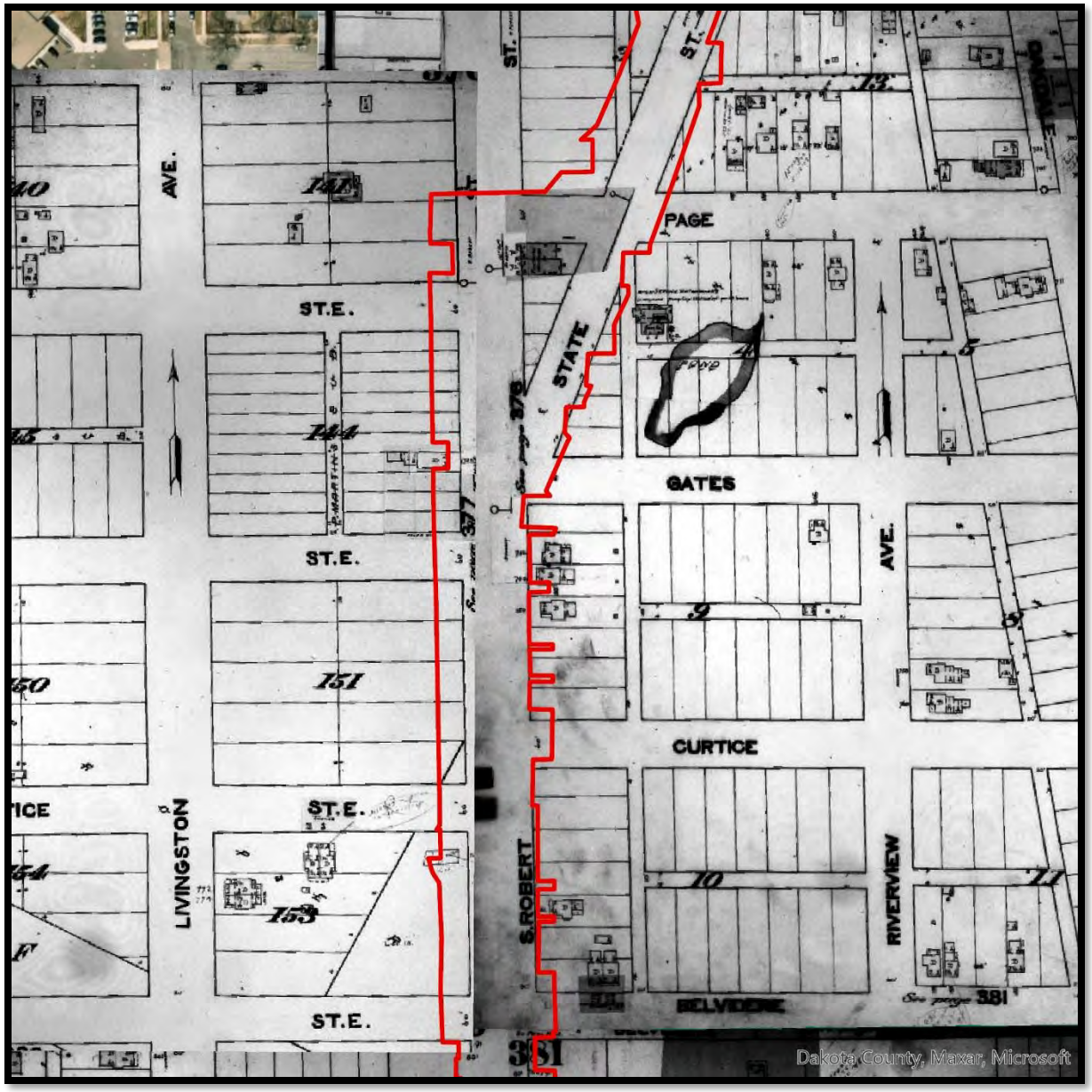


Figure 6: Image of 1901 Rascher Fire Insurance Map Showing an Overlayed Portion of the Southern Third of the Planned G Line Corridor (Red).

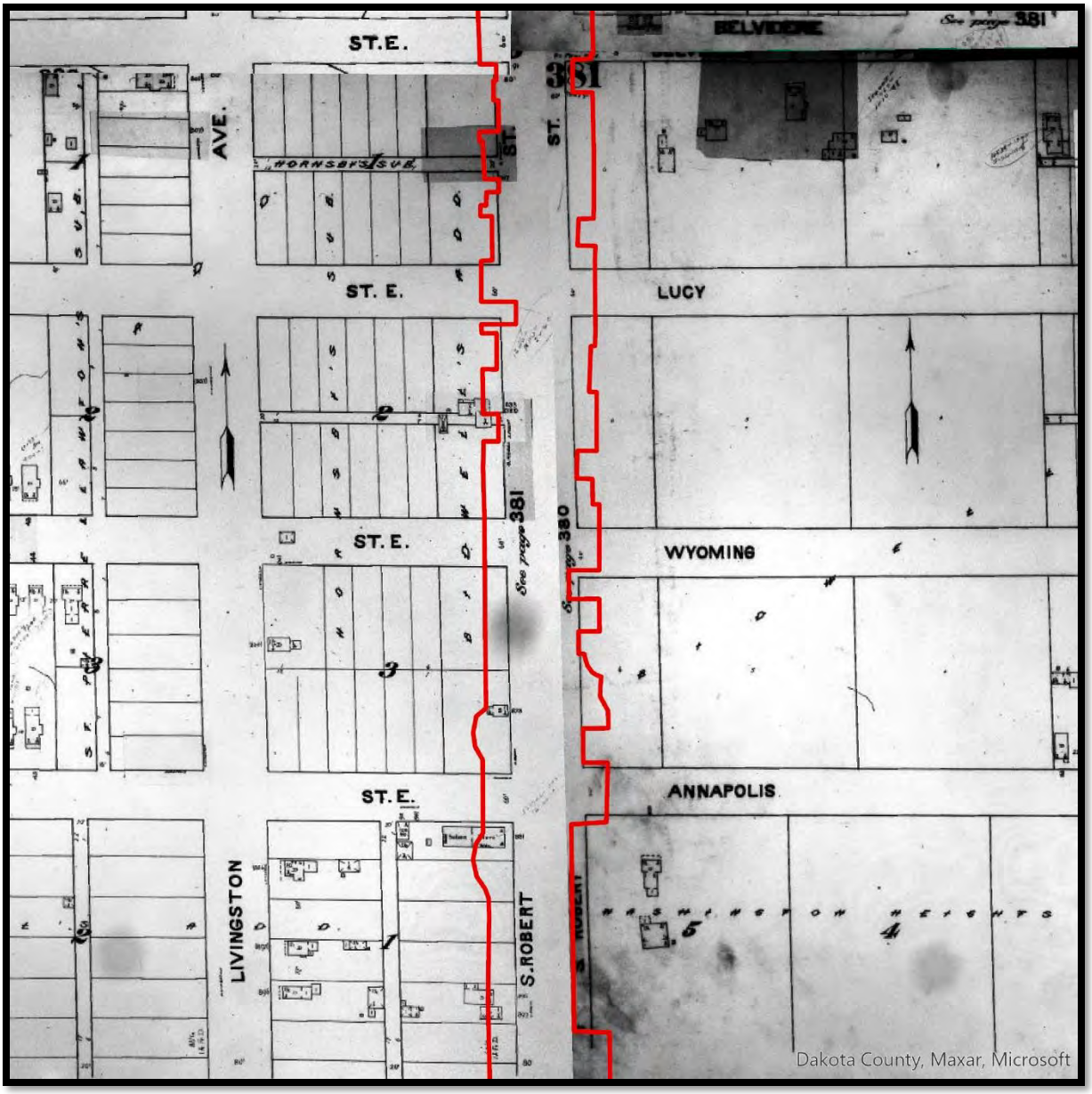


Figure 7: Image of 1901 Rascher Fire Insurance Map Showing an Overlayed Portion of the Southern Third of the Planned G Line Corridor (Red).

Figure 8: Mosaic Image of 1923 Aerial Photographs showing St. Paul and West St. Paul with Planned G Line Corridor (White) Overlay.

Figure 9: Image of 1937 Aerial Photograph Showing St. Paul and West St. Paul with Planned G Line Corridor (White) Overlay.

By 1940, changes to the portions of the project area south of Annapolis Street are apparent. Dense development along Robert Street can now be seen extending to Butler Avenue East before abruptly transitioning back to a rural landscape (Figure 10). Additionally, several lots of what could have been residential housing in the West Side Flats area (near Plato Ave at the East side of Robert) appear to have been redeveloped and replaced by several spurs of the Chicago and Northwestern Railway. Track and some sparsely placed buildings (unidentifiable though likely industrial) are shown here as early as the 1901 Rascher Insurance Map. A 1939 Sanborn Fire Insurance map shows the area more fully developed with seven spurs of track and a grouping of industrial buildings listed as the "Skelly Oil Co."

A 1951 aerial provides the first glimpse of the southernmost portion of the project area, around the present Northern Service Center, showing a still mostly rural area up to Butler Avenue. However, a telling sign of change is shown by an isolated and partially completed residential sub-division less than one half-mile from the present location of the Service Center, at the corner of Robert Street South and Marie Avenue East.

With planning beginning during World War II, by 1956 Congress had passed the Federal Aid Highway Act and enabled the construction of the country's interstate system. The National Housing Act of 1954, and the expansion of existing programs such as the Federal Housing Administration and Minnesota Trunk Highway System further primmed this and other portions of the project area for a development boom (HCRRA 1995:8-12; Gallow et al. 2022:30-31). Additionally, a robust meat processing and packing industry at the nearby St. Paul Stockyards had grown into one of the world's largest and most modern by the 1950s, drawing new residents as workers and their families were attracted to the opportunities being generated in the area (Millett 1996:53-54). By the mid-1960s, the St. Paul Port Authority and the City's Housing and Redevelopment Authority had gone on to clear much of the West Side Flats neighborhood during Urban Renewal projects aimed at developing the present Riverview Industrial Park. In addition to the incentives created from aid programs, the removal of the neighborhood and displacement of its residents likely contributed to intensified development along Robert, now shown extending past Butler Ave to Emerson Avenue East. Congruently, growing commercial districts typical of its new suburban setting begin to more frequently fill in the remaining rural areas between housing subdivisions, and especially at the southernmost portion of this part of the project corridor (Figure 11) (Millett 1996: 188).

Between 1957 and 1964, aerial images show the construction of Interstate-94 and 494, the latter of which would have dramatic effect on the inner city of St. Paul and center portion of the project area, discussed in the following section. Interstate-494 falls adjacent to the southern extent of the project area, and by 1973 Highway-52 had been constructed a little over a mile to the east. With the construction of these more arterial routes, development along this portion of Robert Street appears to have slowed for it would no longer have functioned as the primary entry point to the south side of St. Paul (Glewwe 2015: 114-120). When compared with those earlier, aerial images between 1964 and 1973 show little change to this overall third of the project area. But by the 1980s, a second wave of development is seen along Robert Street, south of Butler Avenue. Evidenced by

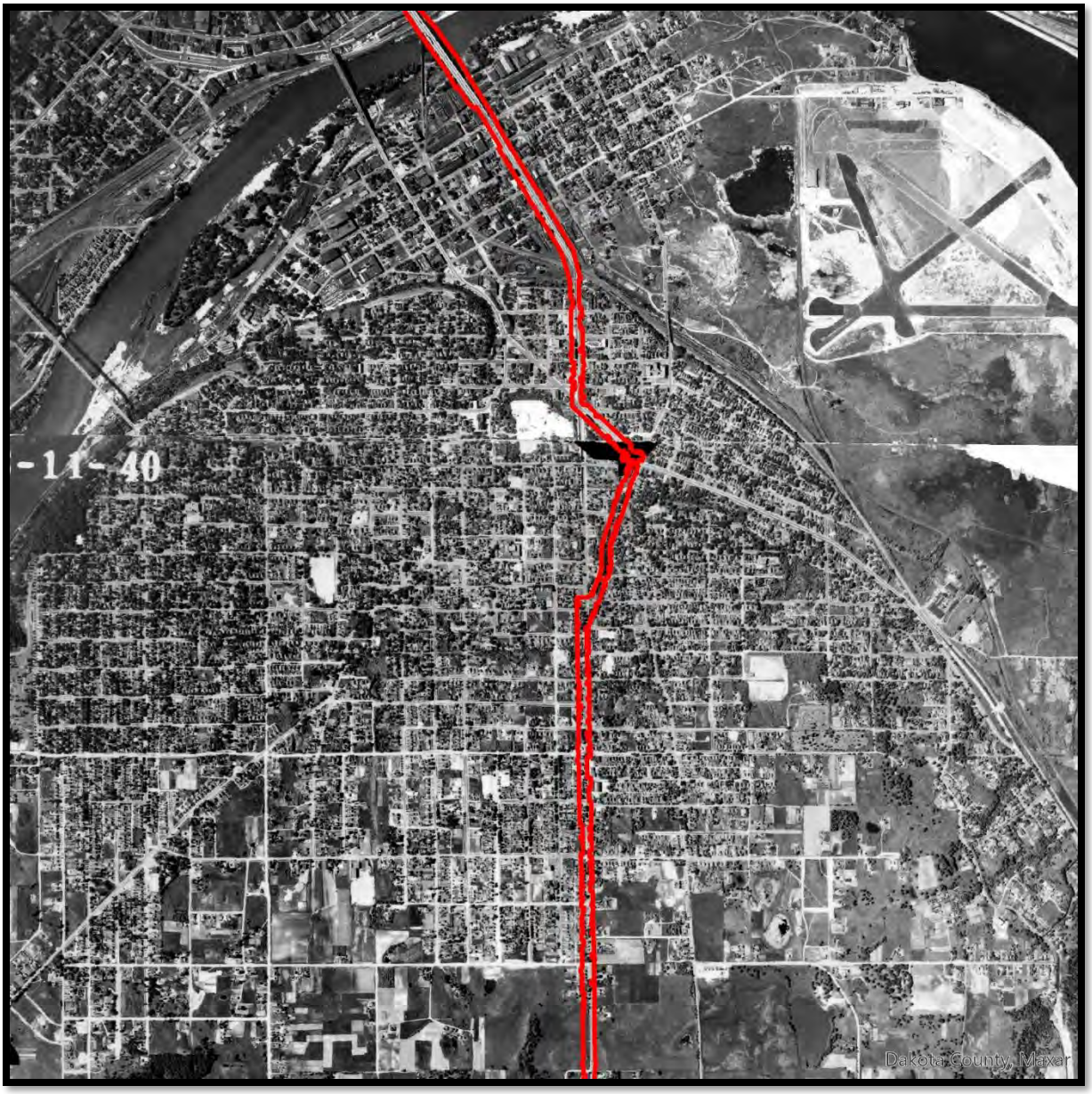


Figure 10: Mosaic Image Showing 1940 Aerials of St. Paul and West St. Paul with Overlay of a portion of the Southern Third of the Planned G Line Corridor (Red).

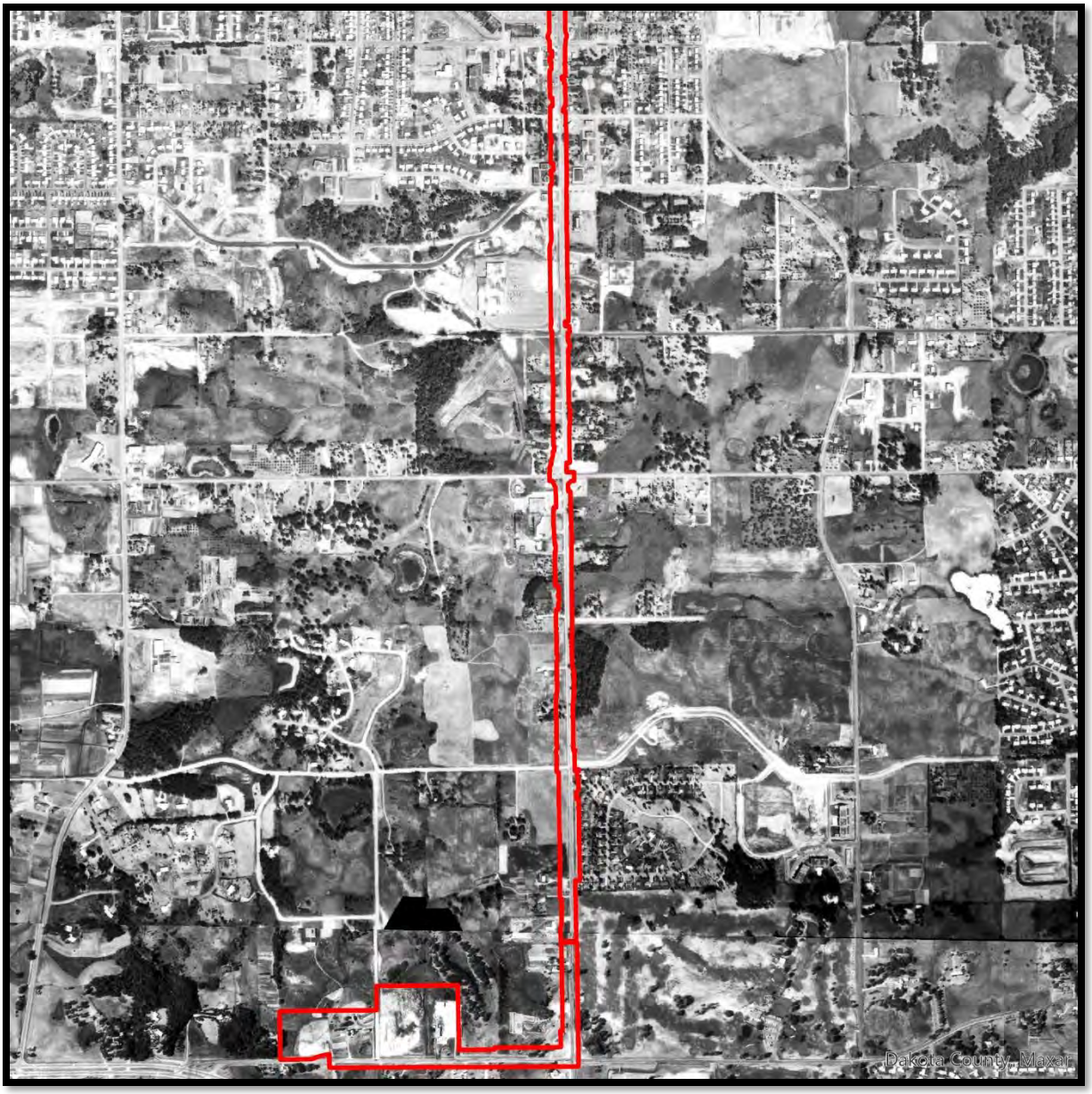


Figure 11: Image Showing 1951 Aerial Photograph of the Southern Portion of the Southern Third of the Planned G Line Corridor (Red).

an expansion of mixed-use developments (though appearing mostly as commercial) now reaching to the southern extent of the project area at the Northern Service Station.

Beginning in the 1960s, and by the 1980s, the West Side Flats neighborhood east of Robert Street is shown completely replaced with industrial and commercial operations. After the 1970s development along the west side of Robert Street in this area, and along either side through the rest of West St. Paul, appears mostly unchanged from its present configuration.

6.3.2 Central Project Area

The middle third of the project corridor continues along Robert Street North starting at the north side of the Mississippi River. From here, the route proceeds along Robert through downtown St. Paul to 12th Street East (just across Interstate-94) at which point it turns west and continues along 12th Street East to 12th Street West. At John Ireland Boulevard, the corridor turns north to follow Rice Street North and continues along this alignment to the St. Paul city limits at Maryland Avenue West. This area represents the middle third of the planned G-Line which primarily includes the center section of the City of St. Paul, (including the Downtown and Capitol areas) within the northeast quarter of Section 6, Township 28N, Range 22W. The route continues through the south half of Section 31 and upon reaching its western boundary, turns north to continue straddling the western extents of Sections 31 and 30, Township 28N, Range 22W, and the eastern extents of Sections 25 and 36 of Township 29N, Range 23W (Figure 12).

The earliest available imagery of this part of the project corridor comes from two GLO map plates dated 1847 and 1854. In the 1847 map, a forked road or footpath is seen emanating from a portion of the project corridor within the downtown area of St. Paul. One arm of this path continues north, the other turns sharply to the east and forks again with one path leading back south towards St. Paul, and the other continuing east. This eastern path is noted as "Road from Stillwater to St. Paul." Several streams are also shown which connect upon their draining into the Mississippi. The single closest meander of these streams comes only within about one mile of the project area. The source appears to be a noted wetland abutting the project corridor within the northwest quarter of Section 31 and southwest quarter of Section 30, Township 28N, Range 22W. A second wetland is shown in the northeast quarter of Section 30, approximately one-half mile east of the project corridor, with a stream also emanating from it. The 1854 GLO shows the wetland which had abutted the project corridor in the 1847 map continues west across the top quarter of Section 36, then north across most of the entirety of Section 25, Township 29N, Range 23W. Excluding the Mississippi River to the south, a single perennial water source is shown by the 1854 map approximately two miles west of this portion of the project corridor (Figure 13).

The 1884 Hopkins Real Estate Atlas shows the next earliest depiction of this portion of the project. Beginning again at the north bank of the Mississippi, the atlas shows several differences in this area when compared with later maps and images. Both the 1884 Hopkins Atlas, and the 1901 Rascher Fire Insurance Map show what are listed as Blocks 32 and 31 of St. Paul Proper falling within the present alignment of Kellogg Boulevard. An earlier route noted as Bench Street abuts them to the south while East 3rd Street is noted to the north; Robert Street North is aligned north to south and separates the two blocks. A series of rail lines and spurs listed as The Chicago,

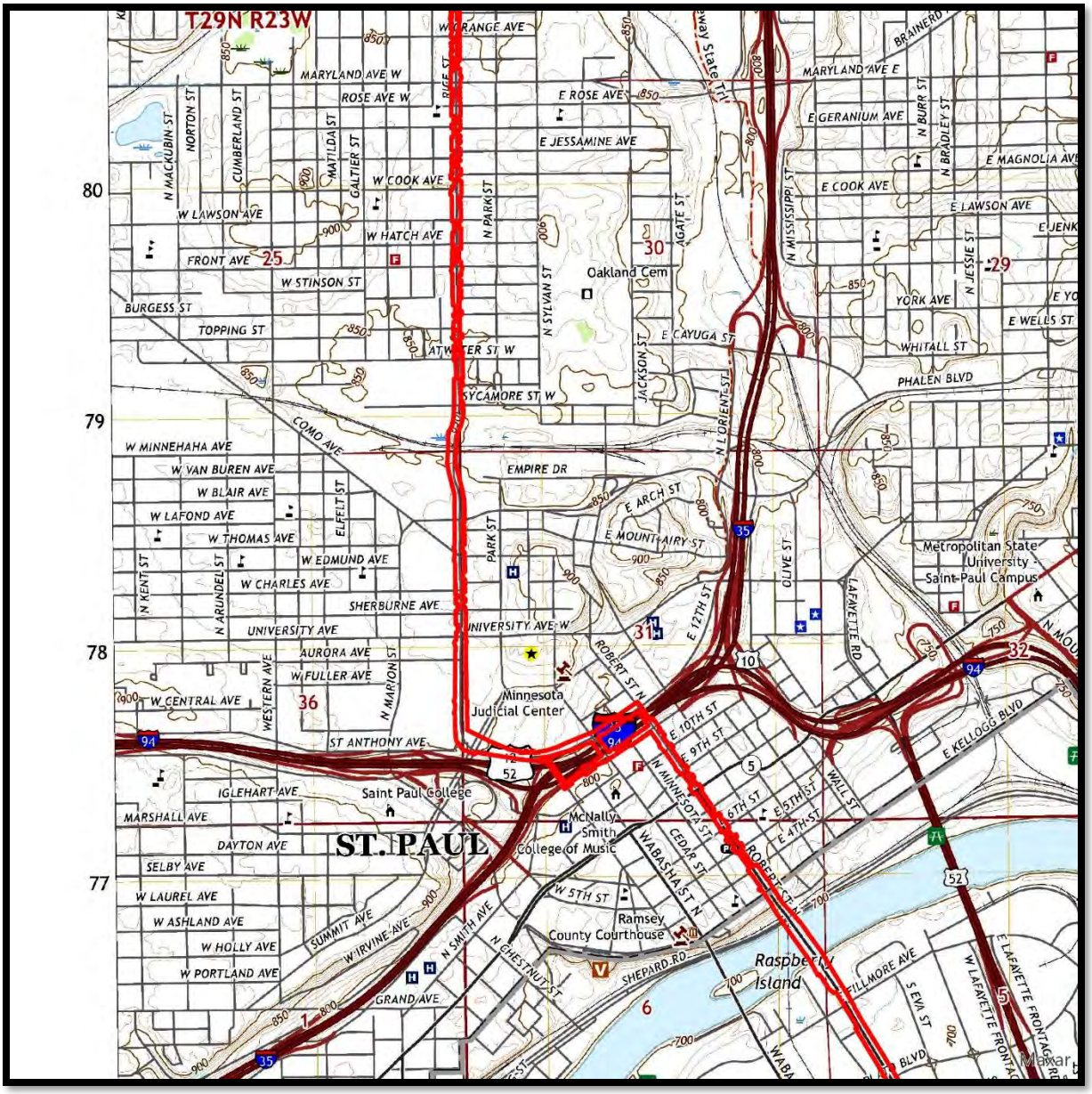


Figure 12: 2022 Topography Map of St. Paul (1:24,000) with Center Third of Planned G Line Corridor (Red) Overlay.

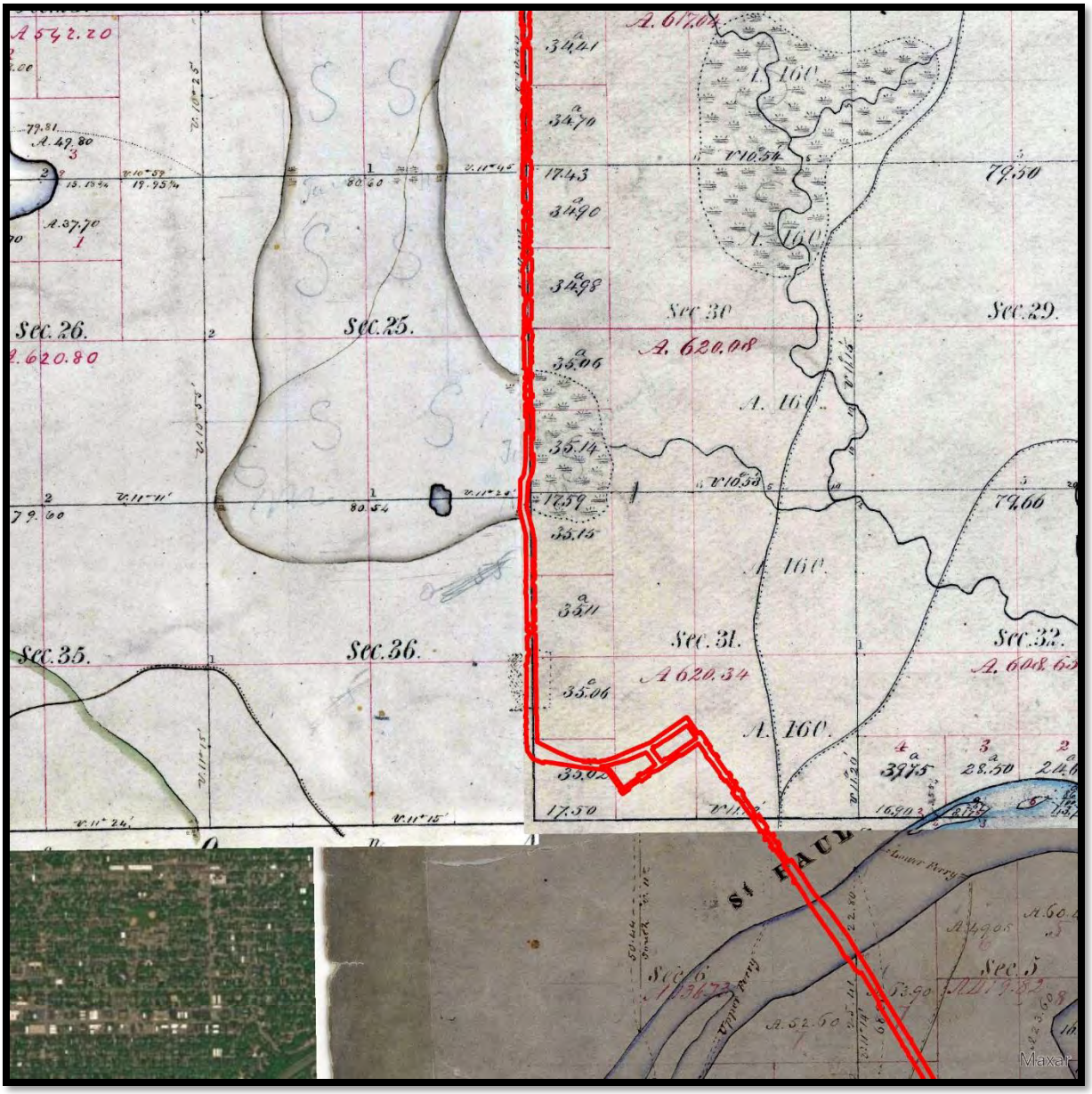


Figure 13: Mosaic of 1847 (Right of Corridor), 1853 (Left of Corridor), and 1854 (Showing Mississippi River) GLO Map Plates with Planned G Line Corridor Overlay (Red).

St. Paul, Minneapolis, and Omaha Railroad is shown below Bench Street at this side of the river flats, along with several freight and maintenance depots. The 1901 Rascher Insurance Map shows a significant rate of growth along Robert Street through this portion of the project area, driven by what is shown to be a rapidly developing downtown area (Figure 14).

By some estimates there would only have been a total of about 1,100 automobiles present within the entire city of St. Paul in 1910, however by 1920, 55,000 had been documented entering and exiting just the downtown area in a single day (Millett 1996: 122). Although at the time the city was connected via a robust public rail and streetcar transportation network (which included this portion of Robert Street and much of Rice Street North), American car culture and its promise of new and expanded freedoms resonated deeply with the American public. Over the next several decades, cities like St. Paul became eager to make drastic changes in their street configurations to accommodate this new and extremely popular mode of transportation (Leyda 2016).

As soon as 1913, the growth of automobile use in the city was already beginning to cause problems, particularly when streetcars would cause vehicle traffic to clog the city's already narrow streets. Beginning in 1913 and subsequent years, the city undertook a series of large redevelopment projects along a corridor of Robert Street North from East 3rd Street to University Avenue West. Of these, two are particularly relevant to the present review of the G-Line corridor. The first project included the widening of Robert Street by 20 feet from East 3rd Street to University Avenue and involved the demolition of the fronts of buildings on the west side of the street to increase its width to 75 feet wide (including sidewalks) (Millett 1996: 120). Later in 1928, a City Beautification project affecting Robert Street between former East 3rd Street and Bench Street saw these and the city blocks between them replaced by Kellogg Boulevard and the Kellogg Mall Park, intended to open views of the surrounding river valley (Gallo 2022; Millett 1996). The 1923 and 1937 aerial photographs illustrate those changes (Figures 15 and 16). Following these efforts, the corridor from the north bank of the river to East 11th Street does not see significant redevelopment of this type again.

In the 1950s, the project corridor from East 11th Street to Rice Street North sees some of the most significant redevelopment episodes of any other location within the overall project area. During this time, two large Urban Renewal projects were carried out which greatly affect the potential for intact archaeological resources within the present project corridor. The first of these affected former residential blocks near the State Capitol which fell between present Rice Street North and its intersection with 12th Street West, all the way east to Robert Street North's intersection with 12th Street East. The other affected residential blocks fell between 11th and 12th Street East, starting at Robert Street North and 12th Street East and continuing to Rice Street North (the current Interstate-94 right-of-way). Sanborn Insurance maps and aerial photography prior to 1950 show these areas containing dense residential blocks (Figures 17 and 18).

The G-Line project corridor and it's east-west alignment along 12th Street East to 12th Street West, including the intersection of Rice Street North, are shown to have once been comprised of at least six city blocks prior to their redevelopment starting in 1953 (Gallo 2022: 48). Among the typical residential dwellings, a 1904 Sanborn Fire Insurance Map shows a former church, lumber yard, and series of immigrant boarding houses directly within the present archaeological AOE. Most

Figure 14: 1901 Rascher Fire Insurance Map Illustrating Growth within Downtown St. Paul with Planned G Line Overlay (Red).

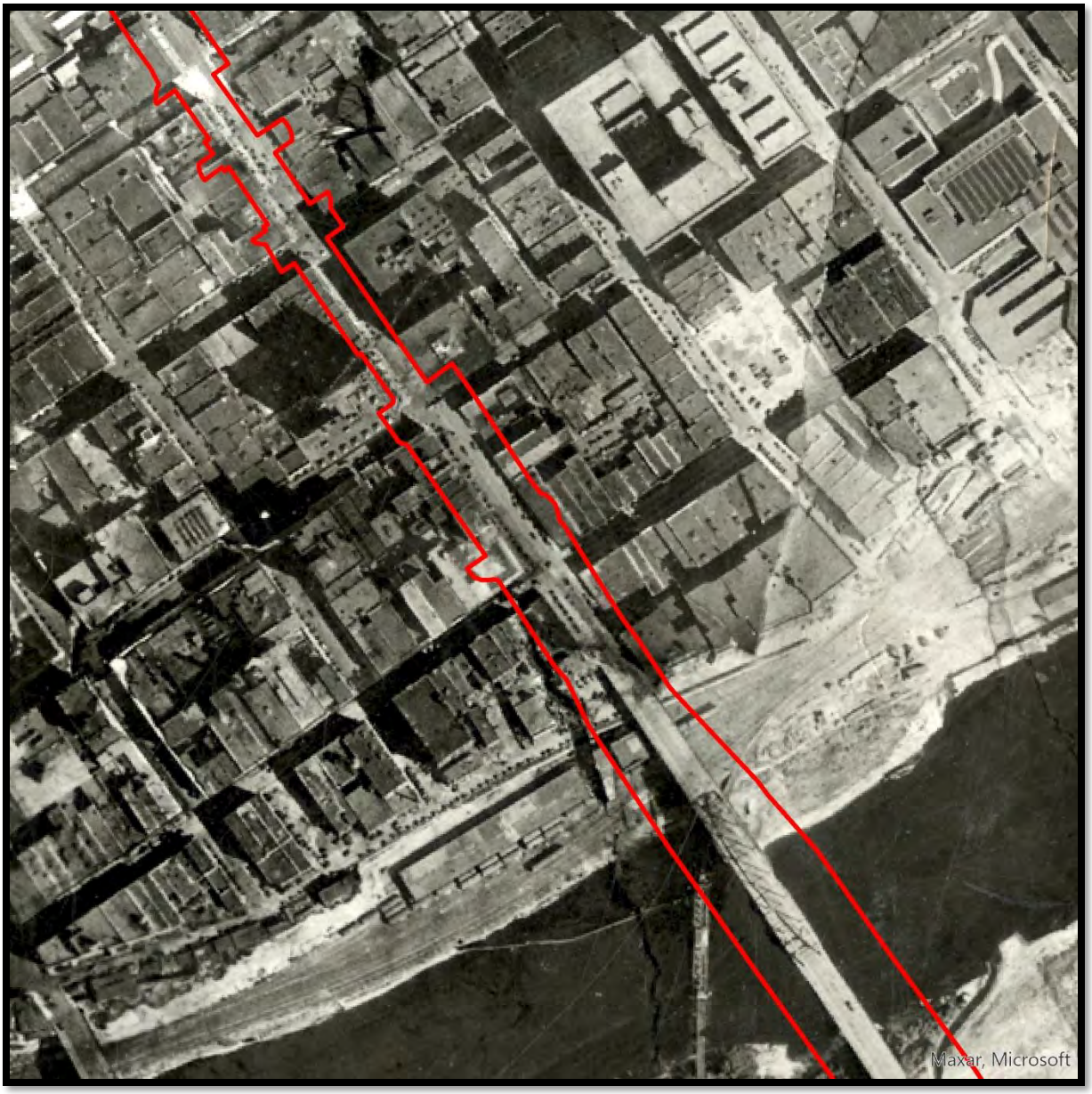


Figure 15: 1923 Aerial Imagery Showing Downtown St. Paul City Blocks 32 and 31, with Planned G-Line Corridor Overlay (Red).

Figure 16: 1937 Aerial Imagery Showing Downtown St. Paul City Blocks 32 and 31, with Planned G-Line Corridor Overlay (Red).

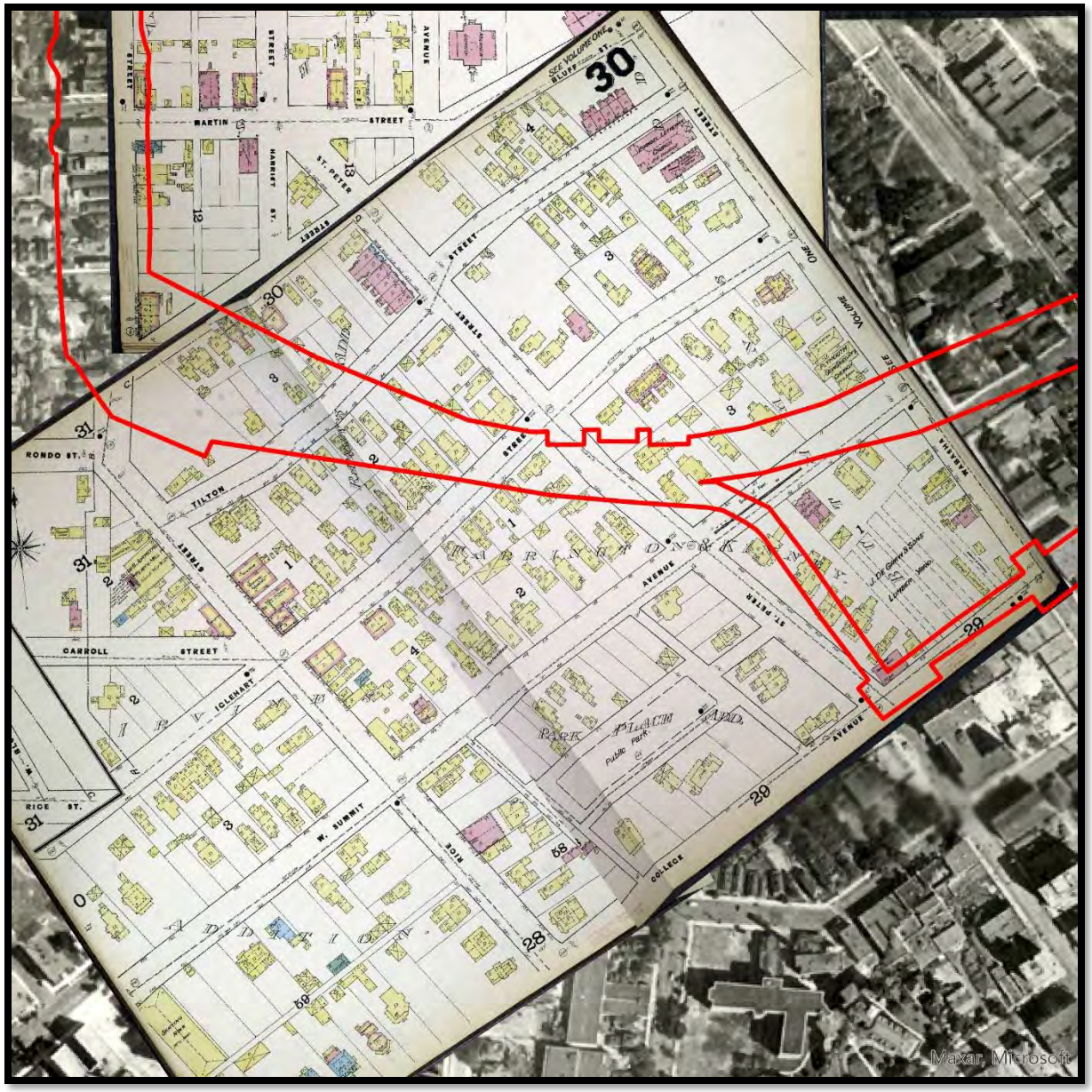


Figure 17: Image of Capitol and Interstate-94 Areas with 1904 Sanborn Insurance Map and Planned G Line Corridor (Red) Overlay.

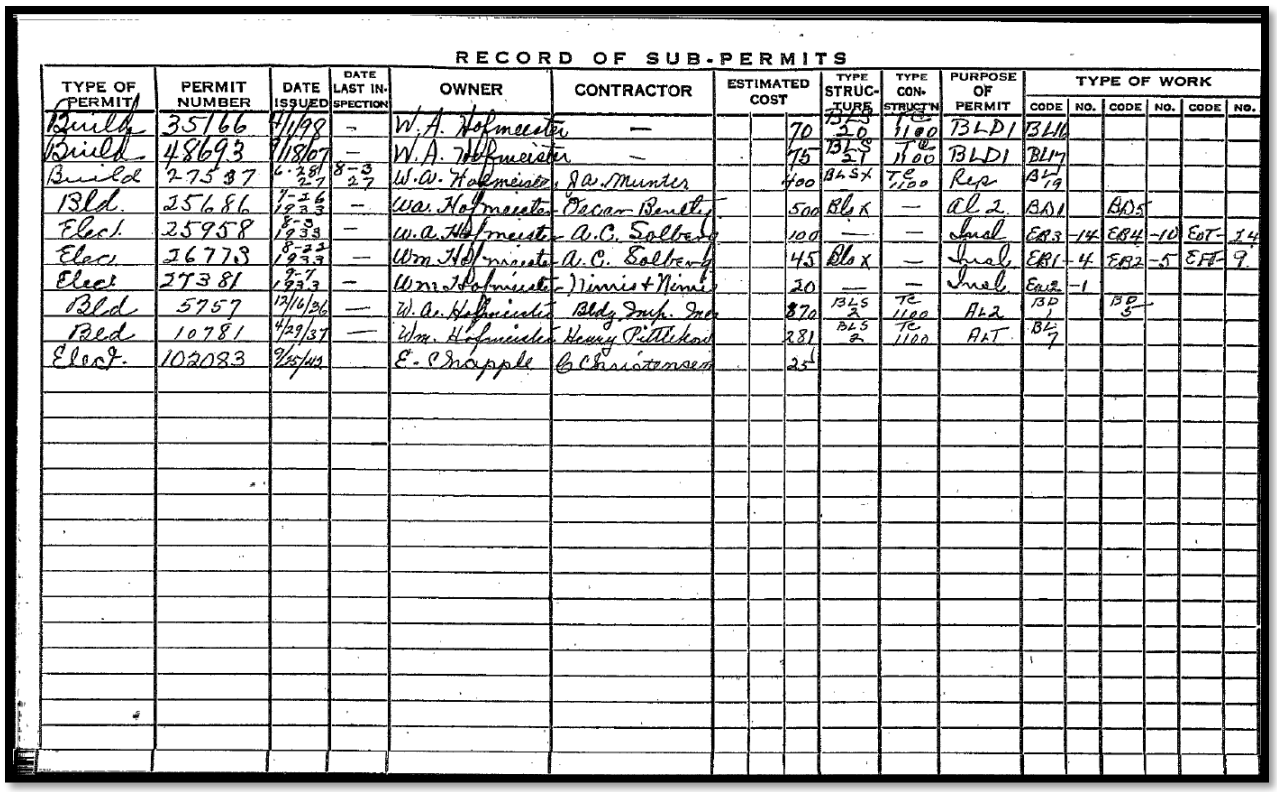
Figure 18: 1923 Aerial Image of Capitol and Interstate-94 Areas with Planned G Line Corridor (White) Overlay.

dwellings and businesses in this area of St. Paul were known to have received indoor plumbing and electricity at a much later time than other parts of the city. Building permit indexes of the area available at the Ramsey County Historical Society were reviewed by NCC and indicate most structures in the area only received those services between 1929 and 1939 (Figure 19). As such, the use of outdoor vault toilets or privies would have been common in the area until at least 1929, and more likely well into the 1930s (HCRRA 1995: 7.2-7.6). Sanitation and demolition standards at the time would not have required the removal of outdoor privies upon a residence receiving indoor plumbing. Structures of this type are subsequently well documented throughout archaeological sites across the Twin Cities as they were commonly used for convenient disposal of household refuse and general debris upon residences receiving indoor plumbing. Based on this information, this area of the corridor has high potential to contain below-ground cultural resources which could provide information about the people living in the area prior to its redevelopment (HCRRA 1995: 7.2-7.6).

A 1966 aerial shows the construction of Interstate-94, between 11th and 12th Streets, involved the demolition of the city blocks previously existing within its planned right-of-way. A 1957 aerial image shows this work likely started during the earlier capitol redevelopment project, as at least two of the blocks within the future alignment appear recently demolished. Unlike the earlier project, the present G-Line corridor does not pass directly through the footprint of these former city blocks and is positioned here more like the rest of the corridor, at the front side of current or former dwellings, within the current and/or historical transportation right-of-way. Furthermore, the construction of Interstate-94 and its significantly lowered grade implies these structures and any materials related to them would likely have been completely removed or disturbed.

Following its east-west alignment near the capitol, the G-Line route transitions back to a north-south alignment at Rice Street North. Maps and aerial imagery do not show significant changes in development along this remaining portion of the corridor, from the capitol area to Maryland Avenue. The 1884 Hopkins Atlas shows this part of St. Paul as already fairly developed up to Pennsylvania Ave and near what is listed as a railyard for the "St. Paul, Minneapolis, and Manitoba Railroad." Beyond this point, the Hopkins Atlas shows the corridor continuing adjacent to Oakland Cemetery, where development begins to taper before falling almost completely off near Front Street, at the northwest side of Oakland Cemetery (Figure 20). The 1901 Rascher Insurance Map shows development north of Pennsylvania Avenue had continued, but at a slower pace compared to other portions of the project area. Recently built dwellings and businesses are shown appearing sparsely on either side of Rice Street. Still, development appears to abruptly drop off beginning again at Front Street.

The 1901 Rascher does show an industrial building (listed as an asphalt works) once existing within the center of the present G-Line APE, just before Rice Street crosses over the railyard, following Pennsylvania Avenue (Figure 21). At the time, Rice Street took a straight path up to and across the railyard, whereas today it is seen bending slightly to the west just before crossing. Aerial images show this change was made between 1960 and 1980. A 1951 Sanborn Fire Insurance Map shows the asphalt operation may have been removed some time prior as it is no longer shown. Several smaller, non-descript buildings are seen within or near the previous building's footprint as



RECORD OF SUB-PERMITS

TYPE OF PERMIT	PERMIT NUMBER	DATE ISSUED	DATE LAST INSPECTION	OWNER	CONTRACTOR	ESTIMATED COST	TYPE STRUCTURE	TYPE CONSTRUCTN	PURPOSE OF PERMIT	TYPE OF WORK CODE	NO.	CODE	NO.	CODE	NO.
Build	35166	4/1/98	—	W.A. Hofmeister	—	70	1&S 2	TC 1100	BLDI	BL10					
Build	48693	9/18/07	—	W.A. Hofmeister	—	75	1&S 2	TC 1100	BLDI	BL17					
Build	27537	6-28-27	8-3-27	W.A. Hofmeister	J.A. Munter	400	BLSX	TC 1100	Rep	BL19					
Bld.	25686	7-16-23	—	Wm. Hofmeister	Oscar Benetz	500	BLX	—	Al 2	BA1		BA5			
Elect.	25958	8-3-23	—	W.A. Hofmeister	A.C. Solberg	100	—	—	Inst	EB3	-14	EB4	-10	EBT	14
Elect.	26773	8-22-23	—	Wm Hofmeister	A.C. Solberg	45	BLX	—	Inst	EB1	-4	EB2	-5	EBT	9
Elect	27381	2-7-23	—	Wm Hofmeister	Nimis + Nimis	20	—	—	Inst	EB2	-1				
Bld	5757	12/6/26	—	W.A. Hofmeister	Bldg Impr. Inc	870	BLS 2	TC 1100	Al 2	BD 1		BD 5			
Bld	10781	4/29/37	—	Wm. Hofmeister	Henry Pittelkow	281	BLS 2	TC 1100	ALT	BL 7					
Elect.	102083	9/25/42		E. C Hopple	G Christensen	25									

Figure 19: Image of a Building Permit Index Card Showing Building Improvements to a Former Property at 82-84 Tilton Avenue (Within the Current 12th Street West Alignment).

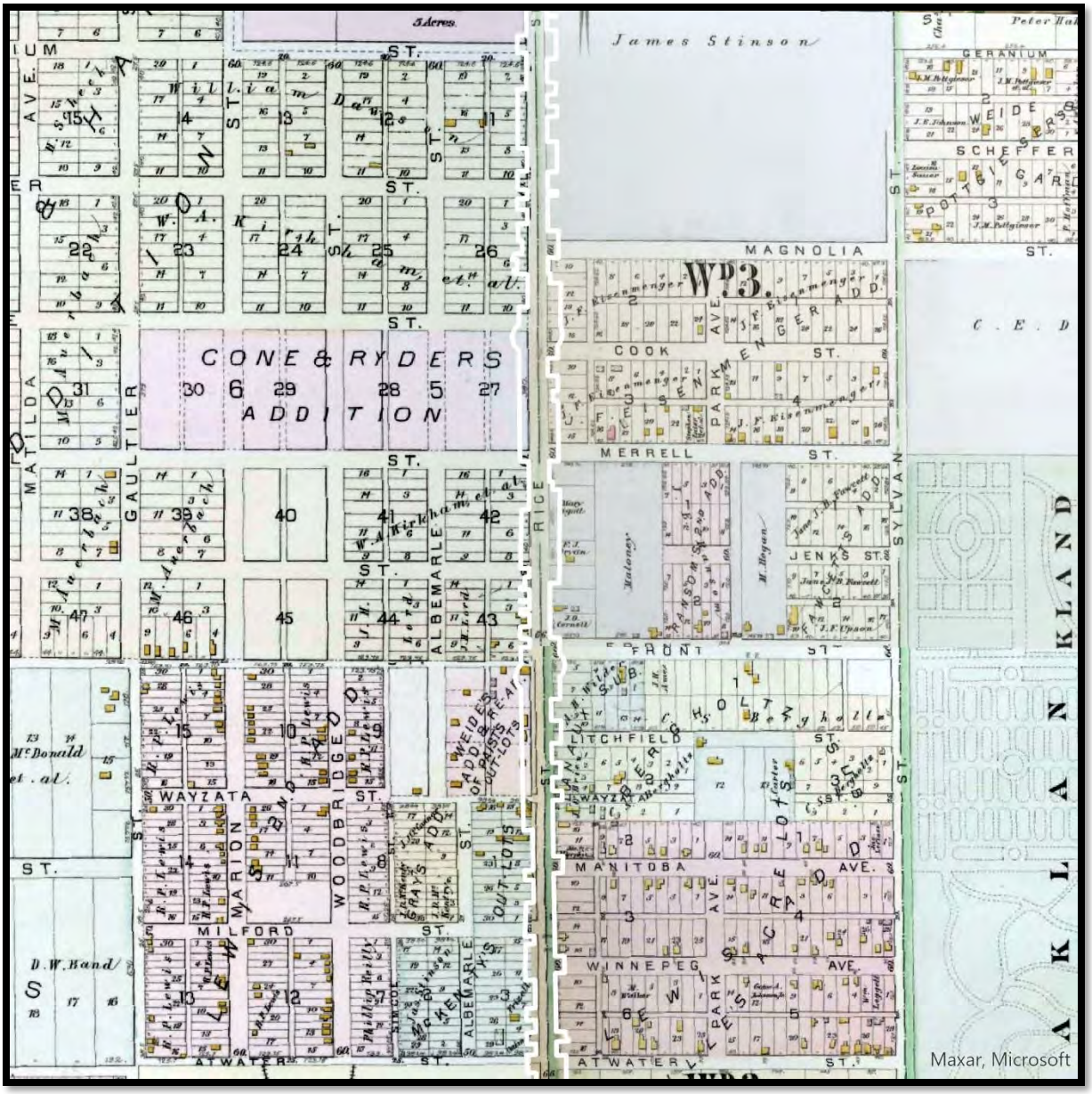


Figure 20: 1884 Hopkins Atlas of St. Paul Showing Development Along Rice Street North with a portion of the Planned G Line Corridor (White) Overlayed.

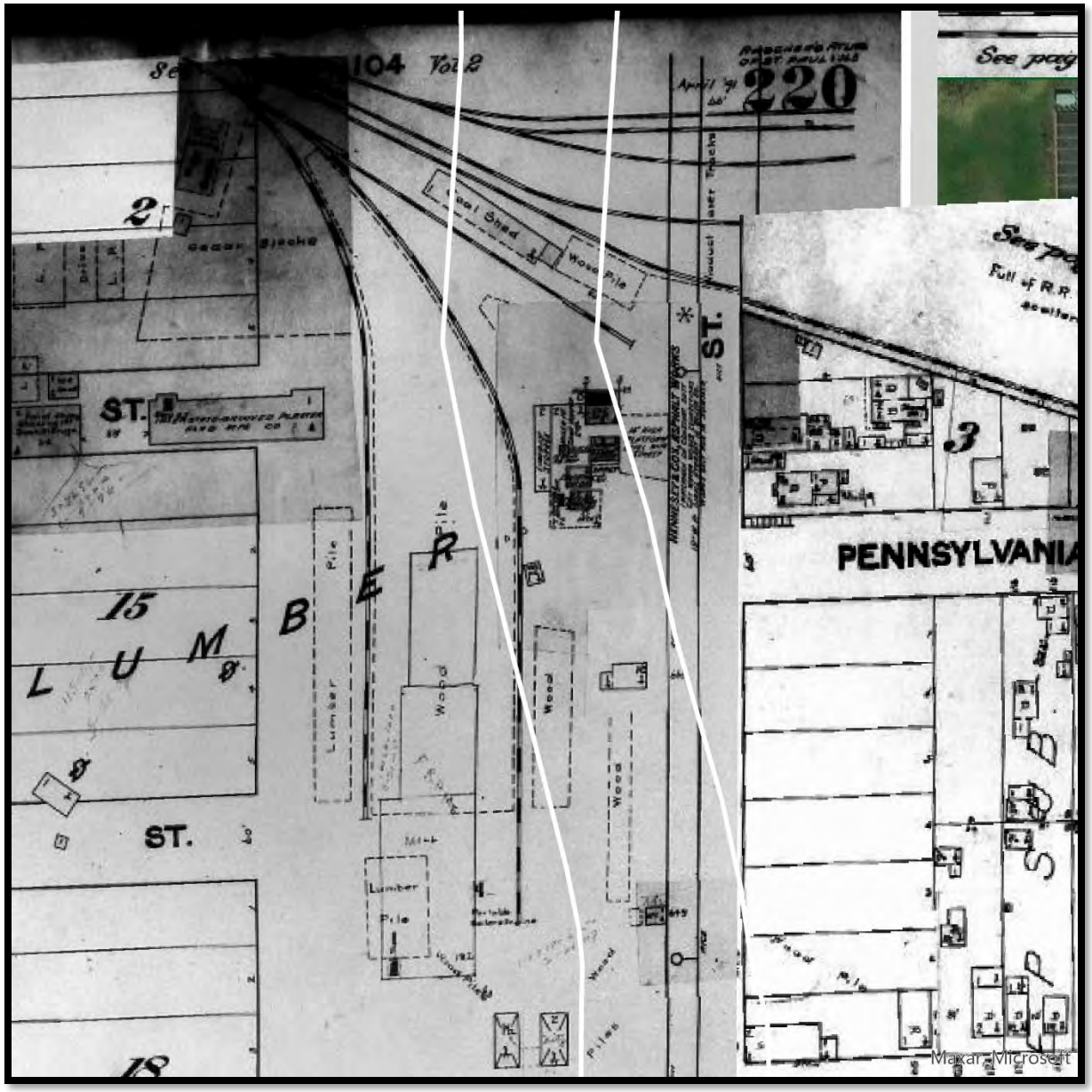


Figure 21: 1901 Rascher Fire Insurance Map Showing Building Locations and Property Information within a Section of the Planned G Line (White) Corridor.

well as a large coal shed, the overall lot is now listed as a coal yard (Figure 22). Aerial photography shows what could be one of the smaller buildings and the lot in use until 1980. Finally, aerials suggest the grade of Rice Street would have been higher than the lot until its alignment changes, where the two are now level with each other. This suggests large amounts of fill were placed here to raise the grade to that of Rice Streets (Figures 23 and 24). Finally, aerials show the southern portion of Rice Street North—from its intersection with 12th Street West to where it crosses the railyard after Pennsylvania Avenue—was widened approximately 50 feet at some point between 1957 and 1966, from two lanes to four lanes. Aerial photography shows the remaining portion of this third of the project, from Front Street to Maryland Avenue, was mostly developed by 1923.

6.3.3 Northern Project Area

The northern third of the G Line corridor continues along Rice Street North beginning at the north side of Maryland Avenue. The route follow's this north/south alignment for approximately three-and-a-half miles before turning east onto Little Canada Road West and Marketplace Drive, where the route terminates. This area includes portions of the cities of Roseville, Maplewood, and Little Cannada along the western bounds of Section 19, 18, 7, and 6, Township 28N, Range 22W; and the eastern bounds of Sections 1, 12, 13, and 24, Township 28N, Range 23W (Figure 25).

The earliest available imagery of this area comes from the 1847 and 1854 GLO maps described in section 6.3.2. The 1854 map shows a large wetland abutting the project corridor in most of Section 24 and the south half of Section 13. There are several perennial water sources in the area with the two closest coming approximately one-and-a-half miles west of the project corridor. The 1847 map also shows several perennial water sources with two situated approximately one mile east of the project corridor followed by the next closest at approximately three miles east. A small field and north-south aligned road are depicted approximately one mile east of the corridor and falling at the border between Sections 5 and 8, Township 28N, Range 22W. There are several perennial water sources noted within one half mile of this area (Figure 26).

There were no insurance maps available for this portion of the project area as it was rural well into the 20th century. However, a 1902 topography map and aerial photographs beginning in the 1950s were available for use in reviewing area development. The 1902 topographic map shows the area as hilly and marshy with a sparse grouping of buildings within the current alignments of the Highway-36, Highway-B, and Rice Street North intersections. Isolated homesteads are seen across the larger region with only one or two others abutting the project corridor further to the north.

A 1953 aerial shows this portion of the project as still semi-rural with significant development only reaching up to Arlington Avenue West, or just one half-mile north of the St. Paul city limits at Maryland Avenue. Beyond this point, sparse development is seen abutting the corridor up to County Road B before transitioning to a rural landscape. Several homes are seen within the APE at the northern terminus of the G-Line route. Aerial imagery drops off after this decade and resumes in 1980 which shows the area much more developed than in 1953. By this point the northern third of the project resembles its southern third in seeing dense suburban residential building along the project corridor, with commercial and industrial buildings as one moves north of the corridor (Figures 27 and 28).

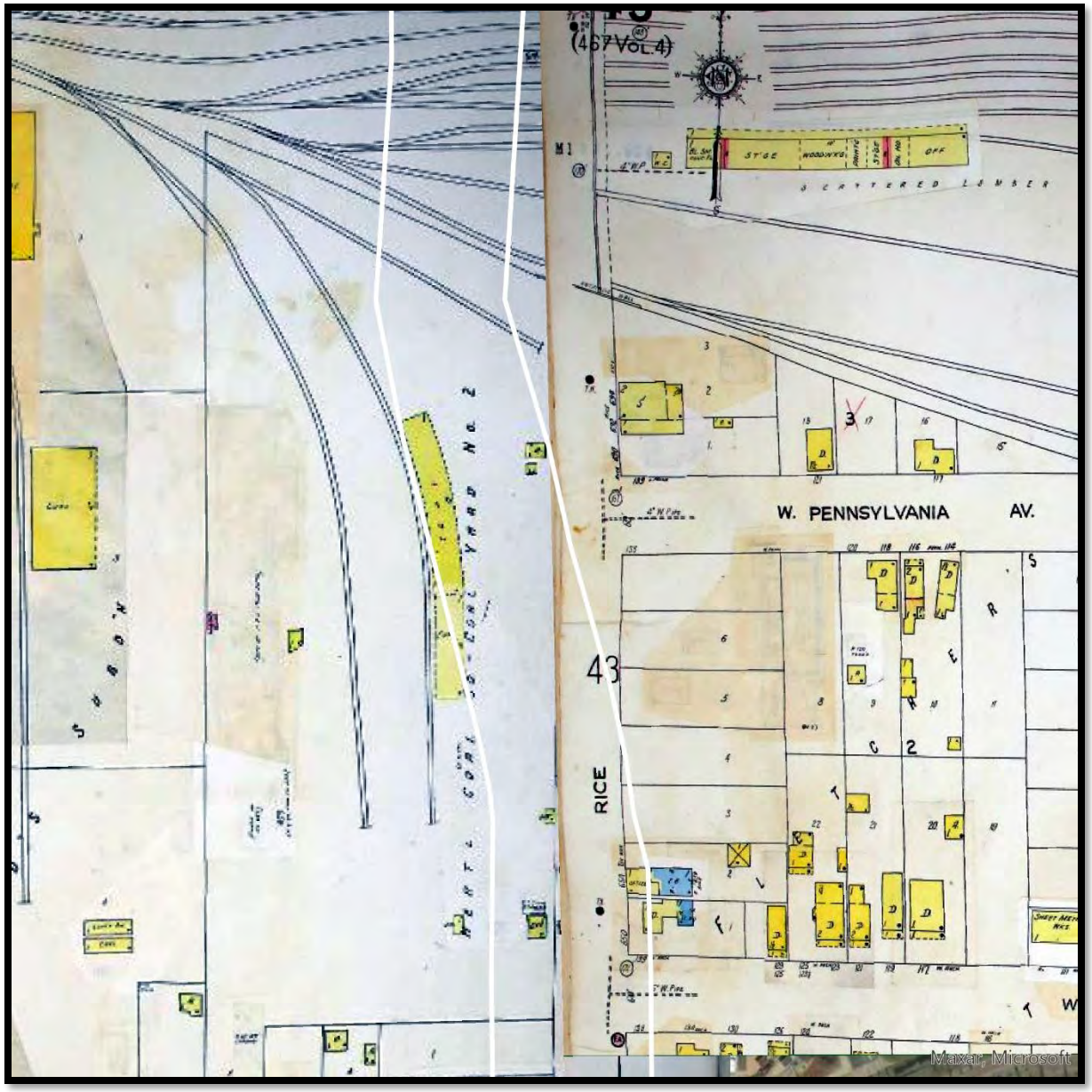


Figure 22: 1951 Sanborn Fire Insurance Map Showing Building Locations and Property Information within a Section of the Planned G Line (White) Corridor.

Figure 23: 1966 Aerial Imagery Showing the Former Alignment of Rice Street North, Between Pennsylvania Avenue West and Sycamore Street West, and a section of the Planned G-Line Corridor (White).

Figure 24: Modern Satellite Imagery Showing the Present Alignment of Rice Street North, Between Pennsylvania Avenue West and Sycamore Street West, and a section of the Planned G-Line Corridor (White).

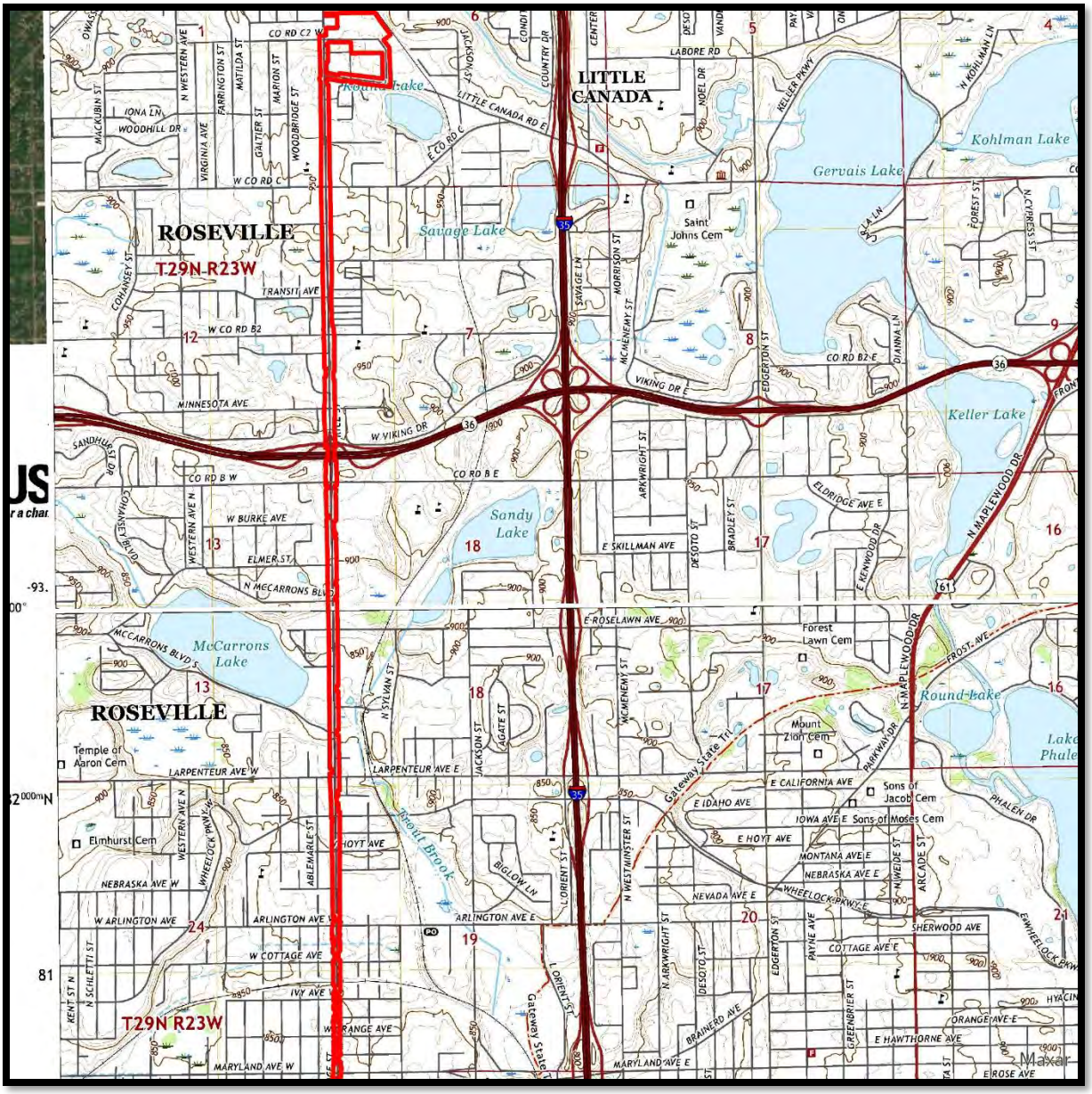


Figure 25: 2022 Topography Map (1:24,000) with Northern Third of the Planned G-Line Corridor Overlay (Red).

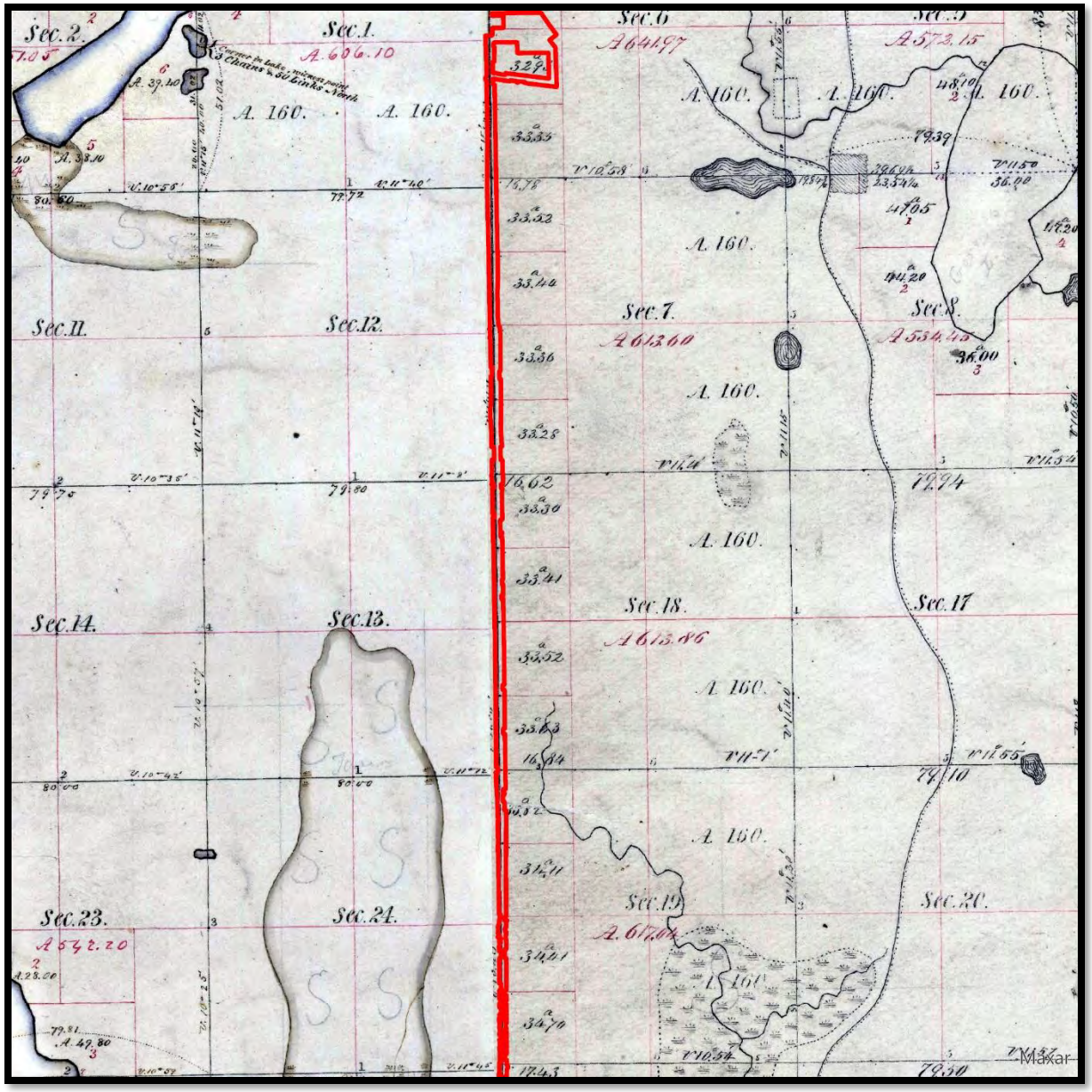


Figure 26: Image Showing 1847 (Right of Corridor) and 1853 (Left of Corridor) GLO Map Plates Overlayed by Northern Third of the Planned G Line (Red).

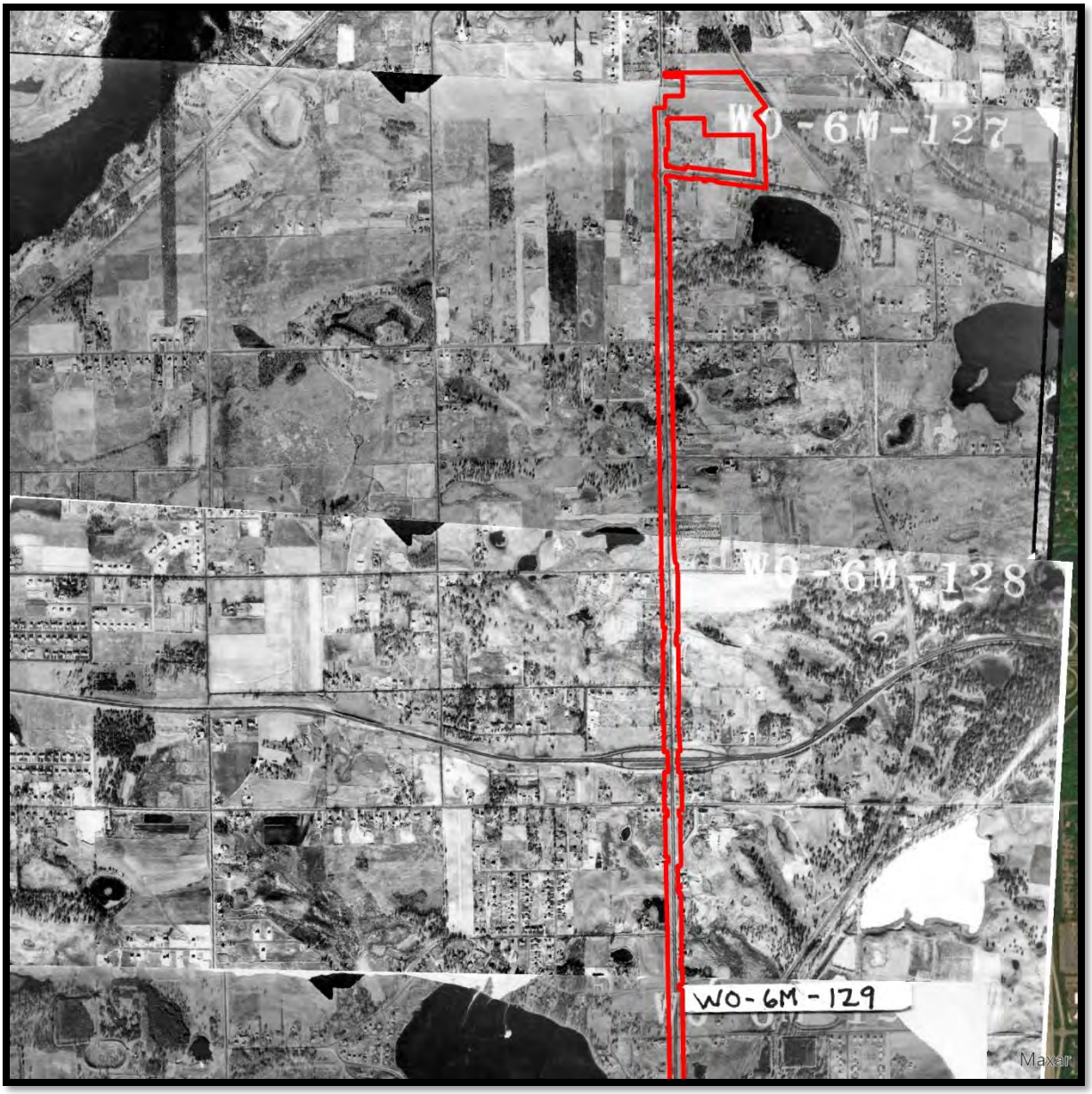


Figure 27: Mosaic Image of 1953 Aerials Showing Development Around the North Portion of the Northern Third of the Planned G-Line Cooridor (Red).

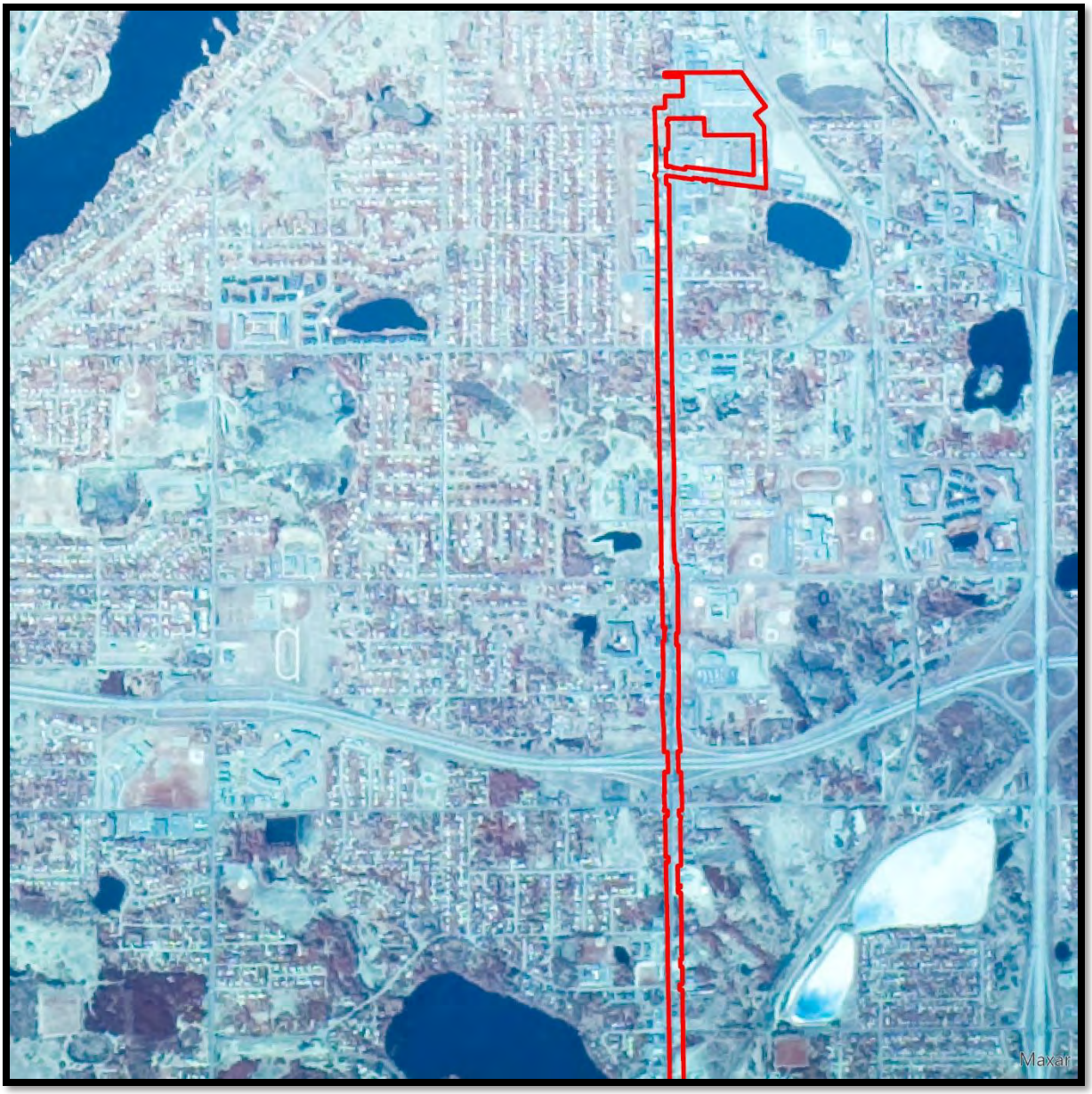


Figure 28: 1980 Aerial Image Showing Development Around the North Portion of the Northern Third of the Planned G-Line Corridor (Red).

6.4 Archaeological Assessment Results

NCC examined the entire project corridor for potential, intact precontact and historic cultural resources, with an emphasis on bus stop and bathroom locations, as these locations had expanded APE's surrounding them with a greater potential to intersect with nearby archaeological materials (see Appendix A). NCC carefully examined all 120 bus stop and 13 bathroom locations provided by Metro Transit (Table 2 and 3). For each location NCC determined first its likely potential for nearby precontact or historic resources. Once this was determined, NCC used available utility and development information to determine the degree of disturbance. If a location possessed both good potential for intact cultural resources and a lack of subsequent disturbance, then it was flagged for potential survey. A total of three locations, 35, 71, and 105 along the G Line corridor were identified as having moderate potential for intact archaeological features (testing potential) based upon their proximity to known utilities, degree of past disturbance, Precontact potential, and/or potential to provide meaningful information. The remaining station points and proposed operator restrooms were determined to have no or low potential for testing and are not recommended for further evaluation.

Table 2: Station Center Points

Field Identification Number	Station	Testing Potential	Reason
0	Little Canada Transit Center	None	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
1	Rice & Little Canada Rd	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
2	Rice & Little Canada Rd	None	Proximity to Known Utilities, Previous Disturbance.
3	Rice & Little Canada Rd	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
4	Rice & County Rd C	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
5	Rice & County Rd C	None	Proximity to Known Utility, Previous Disturbance
6	Rice & County Rd C	None	Proximity to Known Utility, Previous Disturbance.
7	Rice & County Rd B2	None	Proximity to Known Utility, Previous Disturbance.
8	Rice & County Rd B2	Low	Proximity to Known Utility, Previous Disturbance, Low Information Potential, Low Potential.
9	Rice & County Rd B2	None	Proximity to Known Utility, Previous Disturbance.
10	Rice & County Rd B	Low	Proximity to Known Utility, Previous Disturbance, Low Information Potential, Low Potential.
11	Rice & County Rd B	None	Proximity to Known Utility, Previous Disturbance.
12	Rice & County Rd B	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
13	Rice & County Rd B	None	Proximity to Known Utility, Previous Disturbance.
14	Rice & Roselawn	None	Proximity to Known Utility, Previous Disturbance.
15	Rice & Roselawn	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
16	Rice & Larpenteur	None	Proximity to Known Utility, Previous Disturbance.
17	Rice & Larpenteur	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
18	Rice & Larpenteur	None	Proximity to Known Utility, Previous Disturbance.
19	Rice & Arlington	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
20	Rice & Arlington	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
21	Rice & Maryland	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
22	Rice & Maryland	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
23	Rice & Cook	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
24	Rice & Cook	Low	Proximity to Known Utility, Low Potential for Information, Previous Disturbance, Low Potential.

25	Rice & Front	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
26	Rice & Front	None	Previous Disturbance, Low Potential for Information, Low Potential, Proximity to Known Utility.
27	Rice & Atwater	None	Proximity to Known Utility, Previous Disturbance.
28	Rice & Atwater	None	Proximity to Known Utilities, Previous Disturbance.
29	Rice & Como	None	Proximity to Known Utility, Previous Disturbance.
30	Rice & Como	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
31	Rice & Como	None	Proximity to Known Utility, Previous Disturbance.
32	Rice & Como	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
33	Rice & University	Low	Low Potential for Information, Low Potential, Proximity to Known Utility, Previous Disturbance.
34	Rice & University	Low	Proximity to Known Utility, Low Potential for Information, Previous Disturbance, Low Potential.
35	Rice & State Office Building	Moderate	Within Known Site, Soil Coring Shows Intact Cultural Resources.
36	Rice & State Office Building	None	Proximity to Known Utility, Previous Disturbance.
37	Rice & State Office Building	Low	Low Potential for Information, Previous Disturbance, Proximity to Known Utility, Low Potential
38	Cedar & 11th/12th	None	Proximity to Known Utility, Previous Disturbance
39	Cedar & 11th/12th	Low	Low Potential for Information, Previous Disturbance, Proximity to Known Utility.
40	Cedar & 11th/12th	None	Proximity to Known Utilities, Previous Disturbance.
41	Cedar & 11th/12th	None	Proximity to Known Utility, Previous Disturbance.
42	Robert & 10th St	None	Proximity to Known Utility, Previous Disturbance.
43	Robert & 10th St	None	Proximity to Known Utility, Previous Disturbance.
44	Robert & 10th St	Low	Low Potential for Information, Previous Disturbance.
45	Robert & 10th St	Low	Low Potential for Information, Previous Disturbance.
46	Robert & 5th/6th St	Low	Low Potential for Information, Previous Disturbance.
47	Robert & 5th/6th St	None	Proximity to Known Utility, Previous Disturbance.
48	Robert & 5th/6th St	Low	Low Potential for Information, Previous Disturbance.
49	Robert & 5th/6th St	None	Proximity to Known Utility, Previous Disturbance
50	Robert & 5th/6th St	Low	Low Potential for Information, Previous Disturbance.
51	Robert & 5th/6th St	None	Proximity to Known Utility, Previous Disturbance
52	Robert & Kellogg	None	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
53	Robert & Kellogg	Low	Proximity to Known Utility, Low Information Potential, Previous Disturbance.
54	Robert & Fillmore	None	Proximity to Known Utility, Previous Disturbance
55	Robert & Fillmore	Low	Low Potential, Low Information Potential
56	Robert & Plato	None	Proximity to Known Utility, Previous Disturbance
57	Robert & Plato	None	Proximity to Known Utility, Previous Disturbance
58	Robert & Plato	None	Proximity to Known Utility, Previous Disturbance
59	Robert & Isabel	Low	Low Potential, Low Potential for Information
60	Robert & Isabel	Low	Proximity to Known Utility, Low Potential, Low Information Potential
61	Robert & Isabel	None	Proximity to Known Utilities, Previous Disturbance.
62	Robert & Isabel	None to Low	Previous Disturbance, Low Information Potential
63	Robert & Isabel	Low	Low Potential, Low Information Potential
64	Robert & Isabel	Low	Low Potential, Low Information Potential.
65	Robert & Isabel	Low	Low Potential, Low Information Potential.
66	Cesar Chavez & State	Low	Previous Disturbance, Low Potential
67	Cesar Chavez & State	None	Proximity to Known Utilities, Previous Disturbance, Low Potential.

68	Cesar Chavez & State	None	Proximity to Known Utility, Previous Disturbance, Low Potential
69	Cesar Chavez & State	Low	Previous Disturbance, Low Potential, Proximity to Known Utility
70	Cesar Chavez & State	None	Proximity to Known Utilities, Previous Disturbance
71	Cesar Chavez & State	Moderate	No Known Disturbance abutting West of Stop
72	Robert & Sidney/Curtice	None	Proximity to Known Utilities, Previous Disturbance.
73	Robert & Sidney/Curtice	None	Previous Disturbance, Proximity to Known Utilities
74	Robert & Sidney/Curtice	None	Proximity to Known Utilities, Previous Disturbance.
75	Robert & Sidney/Curtice	None	Previous Disturbance, Proximity to Known Utilities
76	Robert & Sidney/Curtice	None	Proximity to Known Utilities, Previous Disturbance.
77	Robert & Annapolis	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential
78	Robert & Annapolis	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential
79	Robert & Annapolis	None	Proximity to Known Utility, Previous Disturbance.
80	Robert & Butler	Low	Proximity to Known Utilities, Previous Disturbance, Low Potential
81	Robert & Butler	None	Previous Disturbance and Proximity to known Utilities
82	Robert & Moreland	None	Proximity to Known Utility, Previous Disturbance.
83	Robert & Moreland	None	Proximity to Known Utility, Previous Disturbance.
84	Robert & Thompson	Low	Proximity to Known Utilities and Low Information Potential
85	Robert & Thompson	None	Proximity to Known Utilities
86	Robert & Thompson	Low	Previous Disturbance, Proximity to Known Utility, and Low Potential
87	Robert & Wentworth	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
88	Robert & Wentworth	None	Proximity to Known Utilities, Previous Disturbance.
89	Robert & Wentworth	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
90	Robert & Marie	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
91	Robert & Marie	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
92	Robert & Marie	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
93	Robert & Mendota	None	Proximity to Known Utility, Previous Disturbance.
94	Robert & Mendota	None	Proximity to Known Utility, Previous Disturbance.
95	Robert & Mendota	None	Proximity to Known Utility, Previous Disturbance.
96	Northern Dakota Service Center	None	Proximity to Known Utility, Previous Disturbance
97	Robert & Sidney	None	Previous Disturbance, Proximity to Known Utility
98	Rice & State Office Buildings	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
99	Rice & Front	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
100	Rice & Larpenteur	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
101	Rice & County Rd B2	None	Proximity to Known Utility, Previous Disturbance.
102	Robert & 10th St	Low	Low Potential for Information, Previous Disturbance
103	Robert & Page	None	Proximity to Known Utilities, Previous Disturbance
104	Robert & Sidney	Low	Low Potential, Previous Disturbance
105	Robert & Sidney	Moderate	Low Disturbance, No utilities near, topography map identified upland.
106	Northern Dakota Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
107	Northern Dakota Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.

108	Northern Dakota Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
109	Northern Dakota Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
110	Northern Dakota Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information, Low Potential.
111	Robert & Butler	Low	Proximity to Utilities, Low Potential.
112	Robert and Butler	None	Proximity to Known Utilities, Low Potential.
113	Robert and Butler	Low	Proximity to Known Utilities, Previous Disturbance.
114	Cesar Chavez & State	Low	Low Potential, Low Information Potential.
115	Robert & Plato	Low	Low Potential, Low Potential for Information
116	Rice & State Office Building	Low	Low Potential for Information, Low Potential, Previous Disturbance, Proximity to Known Utility.
117	Sidney & Robert St S	None	Proximity to Known Utilities, Previous Disturbance.
118	Robert & Wentworth	None	Proximity to Known Utility, Previous Disturbance.
119	Northern Dakota Service Center	Low	Proximity to Known Utility, Previous Disturbance.

Table 3: Operator Restroom Points

Field Identification Number	Station	Testing Potential	Reason
0	Little Canada Transit Station	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
1	Northern Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
2	Little Canada Transit Station	Low	Low Potential, Previous Disturbance, Low Potential for Information.
3	Little Canada Transit Station	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
4	Northern Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
5	Northern Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
6	Northern Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
7	Northern Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
8	Northern Service Center	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
9	Little Canada Transit Station	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
10	Little Canada Transit Station	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
11	Little Canada Transit Station	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.
12	Little Canada Transit Station	Low	Proximity to Known Utility, Previous Disturbance, Low Potential for Information.

6.4.1 Station Points with Moderate Testing Potential

A total of three bus stop locations, 35, 71, and 105 were identified as places where additional survey may be needed.

Station point 35 is located on the western side of Rice Street across the street from the Minnesota Department of Transportation Building. This point is within and at the edge of the northeastern corner of the boundary for site 21RA31 and is approximately 250 Feet north of the northeast corner of the boundary of 21RAu, both sites were identified and recorded following the results of soil bores taken during the 1995 Central Corridor Study (HCRRA 1995). Although the results of coring show the area holds high material integrity and good potential to contain archaeological features, coring also showed those potential features first appearing at a depth of approximately eight feet below the existing grade, at the surface of a filled wetland (HCRRA 1995:7.89-7.91). Clean fill consisting of crushed St. Peter Limestone and black loam and clay were noted beginning at the surface of the wetland at eight feet below grade and extending to an upper level of approximately two feet below grade at which point a lens of mixed clay loam and general refuse extended to one foot below grade. This latter horizon was interpreted as the remnants of a truncated B soil horizon, indicating the late historic A horizon had been completely removed during redevelopment of the area in the 1950s and 1960s (HCRRA 1995).

Because improvements to the planned BRT G line are anticipated to reach a maximum depth of disturbance of five feet below grade at street crossings, and three-and-a-half feet below grade everywhere else, risk of disturbance or adverse effect in this location is not anticipated. However, due to the area being identified as an existing archaeological site (21RA31), station point 35 was given moderate potential for investigative testing as part of the planned G Line route (HCRRA 1995: 7.91). Therefore, it is recommended station point 35 be removed from consideration as a route stop, and an alternative considered. Station point 37 falls approximately 200 feet north of station point 35. While the location of this point could hold similar potential to 35, it falls outside the established bounds of 21RA33. Furthermore, given what is known about soil stratigraphy in the area, Station Point 37 was assessed as having low potential for investigative testing due to prior disturbance, and low potential for information, and should be considered as an alternative (Figure 29).

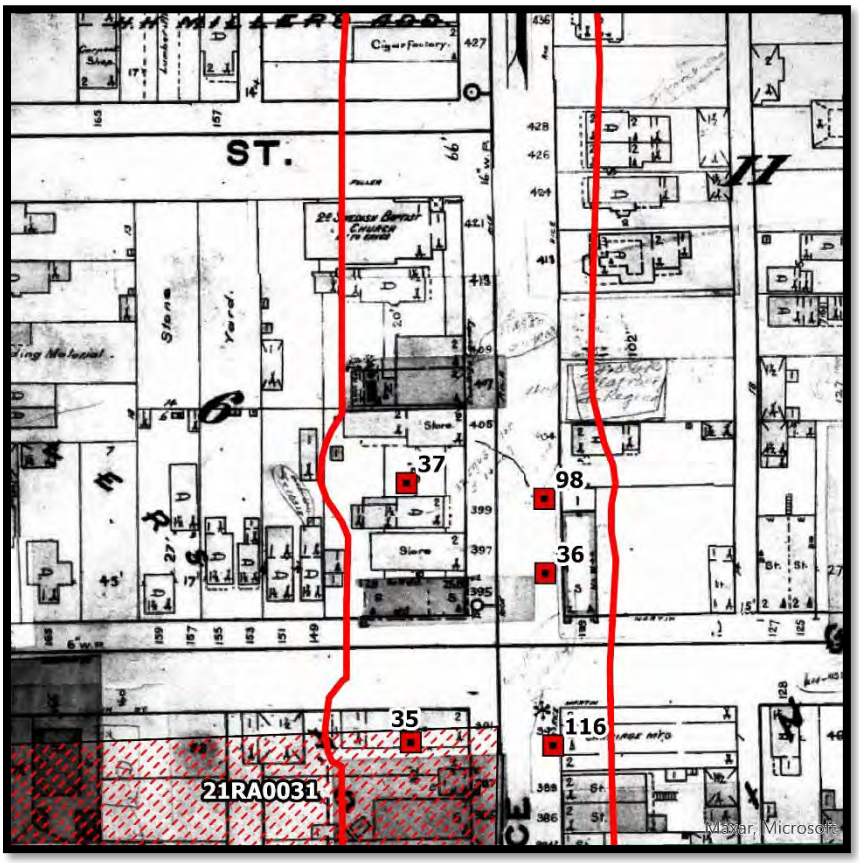


Figure 29: 1901 Rascher Insurance Map Overlayed with Station Center Points 35 and 37 Relative to 21RA0031 Site Boundary.

Station points 71 and 105 were identified as having moderate testing potential for historic and precontact archaeological resources. Station point 71 is located on the southwestern corner of the intersection for Ceasar Chavez Street and State Street has potential for intact historical resources due to its western half appearing to be free from known disturbances (including utilities) and its location relative to the back lot of at least two separate buildings (Figures 30). Station point 105 is located on the northwestern corner of the intersection of Sidney Street and Robert Street identified as having moderate testing potential for precontact artifacts due to its location at the head of a bluff valley and upland near the Mississippi River, indicated by an 1896 topography map of St. Paul (Figure 31). This land feature would have acted as a convenient and accessible thorough way from the lower Mississippi river valley to the uplands of what is now West St. Paul proper. Additionally, the location may be free of major disturbance from utilities or previous development. Alternatives for these station points should be considered. If alternative locations are not available each of these locations should be archaeological surveyed to test for intact cultural resources.

6.4.2 Robert Street Corridor from Kellogg Boulevard to 11th Street East (Downtown St. Paul)

Station points 44, 45, 102, 46, 48, and 50 are located west of the Southbound Robert Street North corridor, which was widened by 20 feet in 1913. These points are therefore located within historically demolished storefronts occupying this portion of Robert Street prior to its widening. These sites were assessed as having low testing potential due to their being located within a historical building footprint as opposed to a backlot. Finally, additional soil probes taken at city Block 19 (bounded north-south by 4th and 5th Street East, or approximately one block west of Robert Street) during the 1995 Central Corridor Study showed fill soils in that area extending to 15 feet below existing grade before encountering sub-soils, indicating no intact cultural soil horizons. Additionally, plastic fragments were found throughout the fill lens, indicating a more recent deposition. These station points were therefore assessed as having low information potential and subsequent low potential for testing (Figures 32).

6.4.3 12th Street East/West to Rice Street North (Capitol Area)

The area of the G Line corridor from the intersection of 12th Street East and Robert Street North to the intersection of 12th Street West and Rice Street North was initially assessed as having the highest potential for below ground cultural resources of any other location along the corridor due the 20th century redevelopment of this area for the capitol complex and the removal of many commercial and residential buildings. While there are no station points proposed for the G Line through this portion of its alignment, the area is still being traversed as part of the G Line route and has been included in the archaeological AOE. NCC must therefore assume fiber optic could still be placed through this area which could disturb potentially intact archaeological features if present. However, upon reviewing the placement of existing utilities through this corridor, NCC has determined that the northbound 12th Street East/West alignment has low potential for testing due to extensive disturbance from the placement of water and sewer utilities in the area. Conversely, there are no known utilities shown traversing the southbound alignment of 12th Street East/West, however, as this portion abuts the Interstate-94 transportation right-of-way, NCC has assessed it as having low potential for testing due to disturbance from the construction of Interstate-94 (Figure 33).

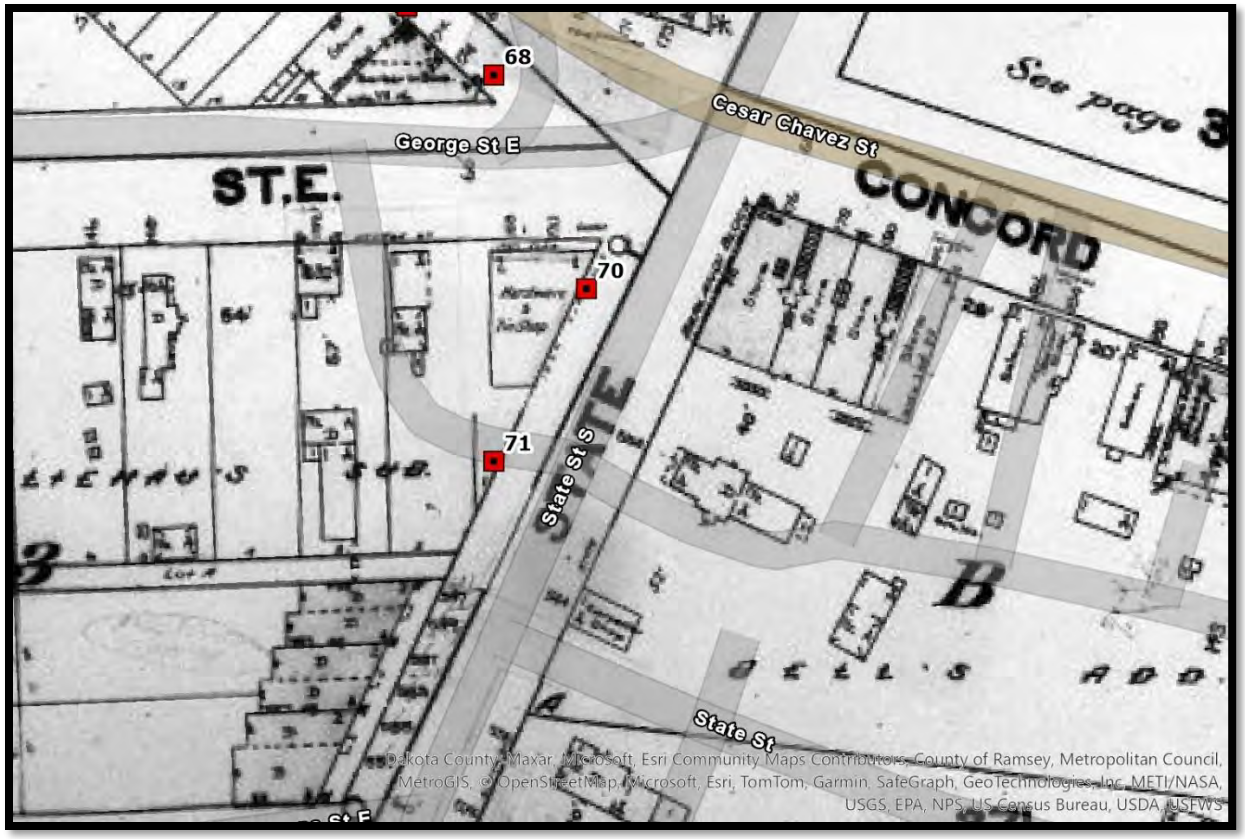


Figure 30: Rascher Fire Insurance Company map plate dated 1901 Showing Station Center Point 71 Relative to Building Backlots.

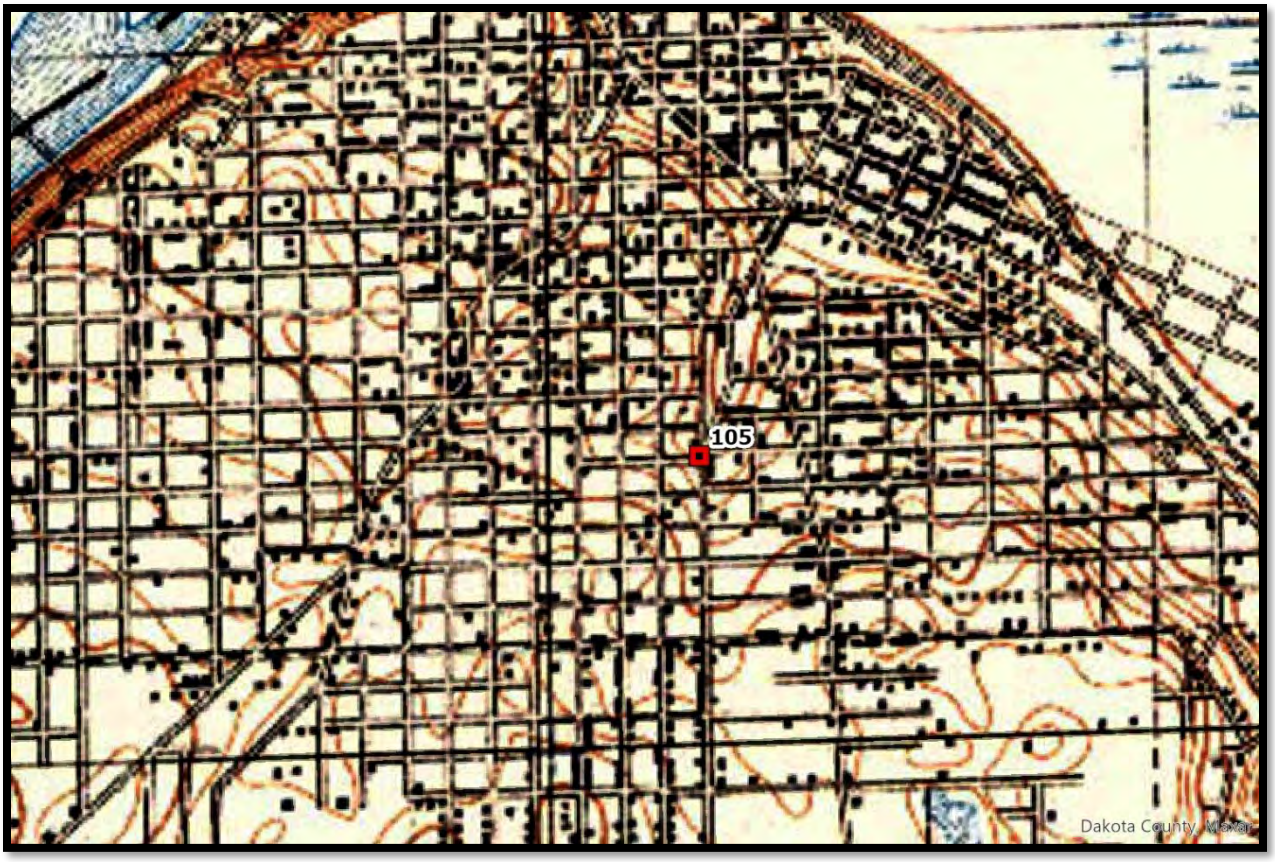


Figure 31: Topographic Map of St. Paul dated 1896 with Station Point 105 Overlayed.

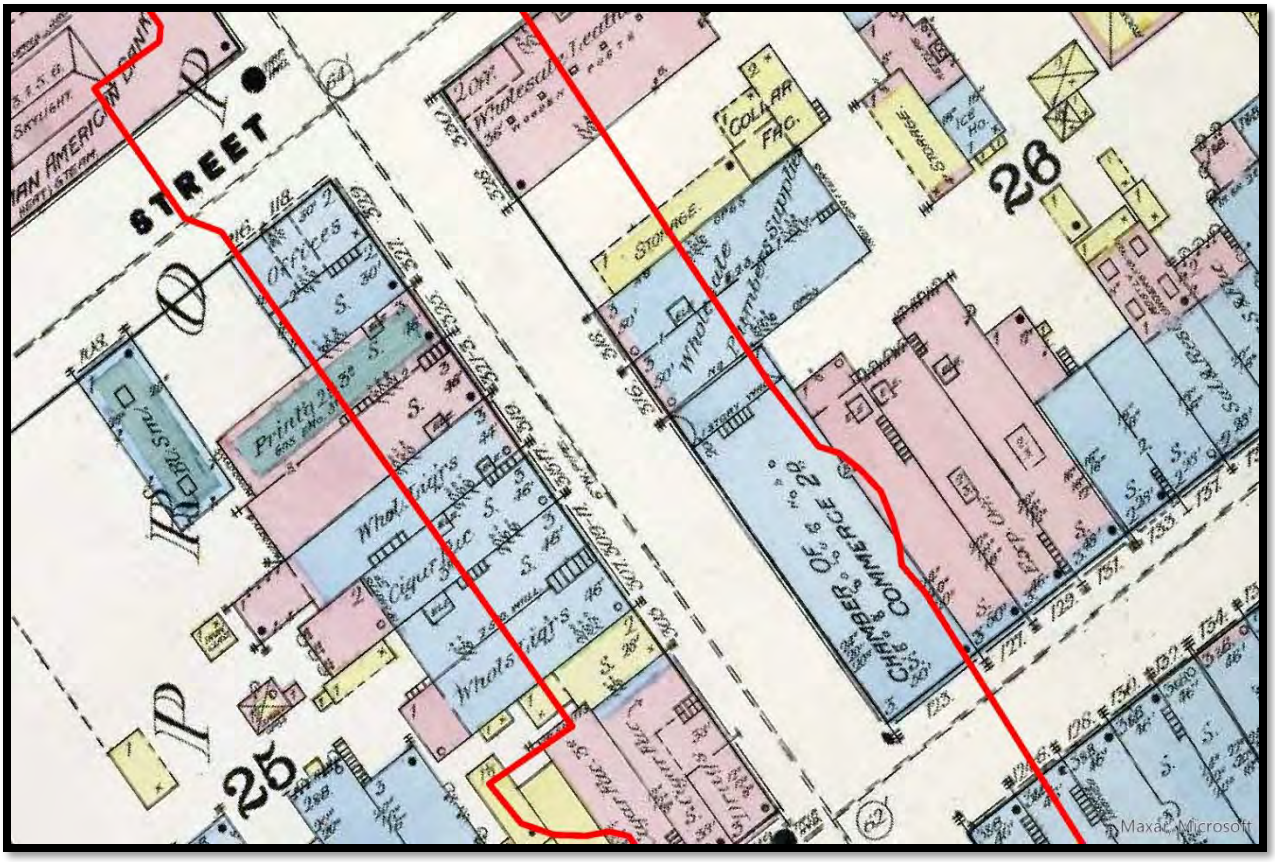


Figure 32: Image of 1885 Sanborn Insurance Map with Planned G Line Corridor (Red) Showing St. Paul City Blocks 25 and 26 to Exemplify Robert Street Expansion.

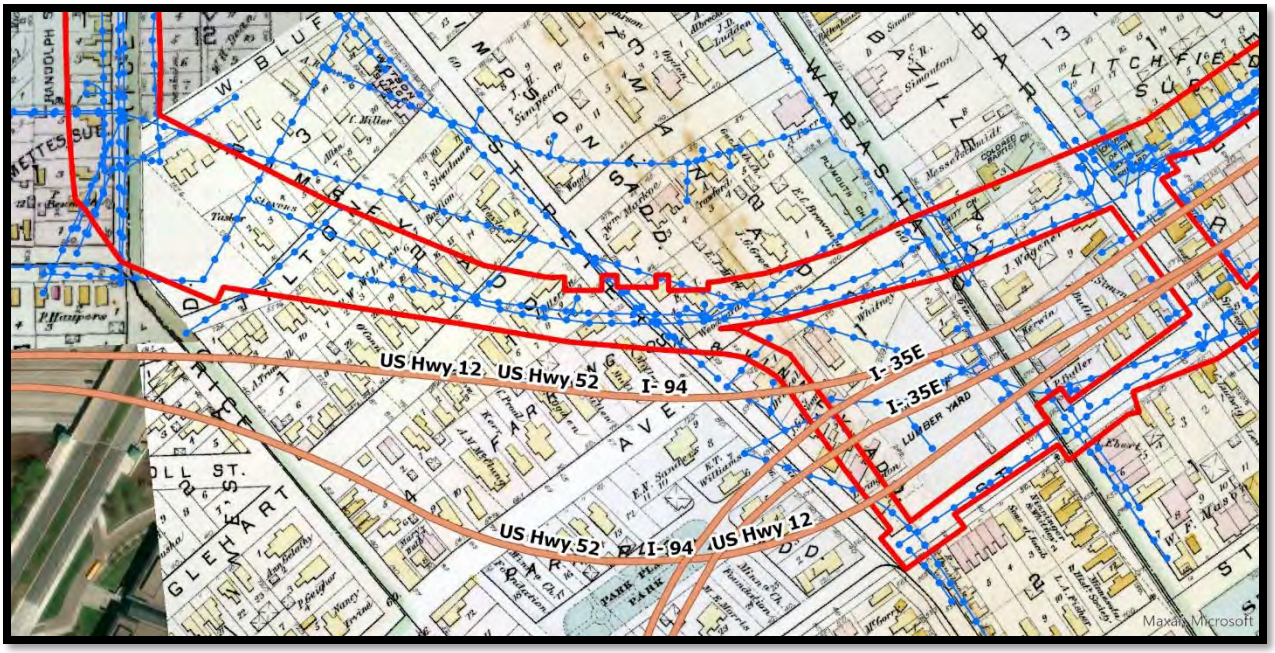


Figure 33: 1884 Hopkins Atlas of St. Paul with G Line 12th Street East/West Alignment (Red), Known Utilities (Blue) and Major Interstates (Tan) Overlayed.

7.0 SUMMARY AND RECOMMENDATIONS

The Metro Transit division of Metropolitan Council is proposing to develop the G Line Bus Rapid Transit (BRT) Project. The G Line will be an approximately 11.5-mile BRT corridor extending south from the Little Canada Transit Center in Little Canada to the Dakota County Northern Service Center in West Saint Paul. The G Line is planned to replace two bus routes extending north and south from downtown Saint Paul: a portion of existing Route 62, operating primarily along Rice Street north of downtown Saint Paul; and a portion of existing Route 68, operating primarily along Robert Street south of downtown Saint Paul. The Project will include 32 stations, bus purchases, and bus priority treatments.

The Project is anticipated to receive federal funding from the Federal Transit Administration Capitol Investment Grants program as a Small Starts project and has been defined as an undertaking; therefore, it must comply with Section 106 of the National Historic Preservation Act (Section 106), as amended (36 CFR Part 800), and the National Environmental Policy Act (40 CFR Parts 1500-1508). Additionally, the Project must comply with the Minnesota Historic Sites Act (MS 138.661-138.664) and Minnesota Field Archaeology Act (MS 138.31-138.42).

As part of this process and overall project, Nienow Cultural Consultants LLC was contracted by Mead & Hunt Inc. to provide a literature review and archaeological assessment of potential below ground cultural resources which may be present within the project area. NCC completed review at existing sites and surveys within the project area at the Office of the State Archaeologist and the Minnesota State Historic Preservation Office in March 2024. In addition, NCC also collected relevant historic maps, aerial imagery, environmental, and utility information for the entire corridor from a variety of sources including the Minnesota Historical Society, Ramsey County Historical Society, University of Minnesota, and City of St. Paul. All information was incorporated into a GIS geodatabase and used to identify potential precontact and historic resources within the project area which may still be intact.

NCC examined the entire project corridor for potential, intact precontact and historic cultural resources, with an emphasis on bus stop and bathroom locations, as these locations had expanded APE's surrounding them with a greater potential to intersect with nearby archaeological materials. NCC carefully examined all 120 bus stop and 13 bathroom locations provided by Metro Transit. For each location NCC determined first its likely potential for nearby precontact or historic resources. Once this was determined, NCC used available utility and development information to determine the degree of disturbance. If a location possessed both good potential for intact cultural resources and a lack of subsequent disturbance, then it was flagged for potential survey.

A total of three locations 35, 71, and 105 along the G Line corridor were identified as having moderate potential for intact archaeological features based upon their proximity to known utilities, degree of past disturbance, Precontact potential, and/or potential to provide meaningful information. For each location NCC recommends an alternative location be selected. If an alternative is unavailable, NCC further recommends archaeological survey at this location. The remaining station points and proposed operator restrooms were determined to have no or low potential for testing and are not recommended for further archaeological testing.

With any project there is the chance of unanticipated discovery. Should archaeological materials surface during any future construction or development, it is advised 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 any earth moving activity, all work must stop, and local law enforcement must be called.

In addition to the above, NCC recommends an Unanticipated Discovery and Monitoring Plan be developed for this project, and periodical, active archaeological monitoring be completed to document the degree of disturbance which occurs during ground disturbing activities. This will facilitate future BRT projects.

REFERENCES CITED

Abel, Elizabeth J.
1999 Phase II Archaeological Evaluation of Harriet Island Regional Park, City of St. Paul, Ramsey County, Minnesota. The 106 Group Ltd. Prepared for the City of St. Paul.

Abel, Elizabeth J. and Andrew J. Schmidt
1998 Phase II Archaeological Investigation for Proposed Improvements to the Chestnut Street – Shepard Road Interchange, City of St. Paul, Ramsey County, Minnesota. The 106 Group Ltd. Prepared for the City of St. Paul.

Abel, Elizabeth J., K.A. Ketz, and A.J. Schmidt
1998 Historical Archaeological Investigation at the Washington Street Site, Science Museum Relocation/Expansion Project, City of Saint Paul, Ramsey County, Minnesota. The 106 Group Ltd. Prepared for the City of St. Paul.

Abel, Elizabeth J., D.K. Higginbottom, K.A. Ketz, A. Ollendorf, and A.J. Schmidt
1998 Archaeological Monitoring, Emergency Salvage Excavation, and Data Recovery Excavations at the Department of Revenue Construction Site, St. Paul, Minnesota. Braun Intertec Corp. and The 106 Group Ltd. Prepared for the Minnesota Department of Administration.

Andrews, C.C.
1890 *History of St. Paul, Minn*. D. Mason & Co. Publishers, Syracuse.

Anfinson, Scott.
1975 *Minnesota Municipal and County Highway Archaeological Reconnaissance Study: First Annual Report 1975*. Minnesota Historical Society, St Paul.
1990 "Archaeological Regions in Minnesota and the Woodland Period." *The Woodland Tradition in the Western Great Lakes: Papers Presented to Elden Johnson*, edited by Guy Gibbon, pp. 135-166. University of Minnesota Publications in Anthropology No. 4, Minneapolis.
2005 *SHPO Manual for Archaeological Projects in Minnesota*. Minnesota Historical Society, St. Paul, MN. http://www.mnhs.org/shpo/survey/archsurvey.pdf

Arzigian, Constance
2008 *Minnesota Statewide Multiple Property Documentation Form for the Woodland Tradition*. Submitted to the Minnesota Department of Transportation. Manuscript on file, State Historic Preservation Office, St. Paul, Minnesota.

Atkins, Annette
2007 *Creating Minnesota: A History from the Inside Out.* Minnesota Historical Society Press, St. Paul.

Bakken, Kent
2011 Lithic Raw Material Use Patterns in Minnesota. PhD dissertation, Program in Interdisciplinary Archaeological Studies, University of Minnesota, Minneapolis.

Birmingham, Robert A. and Amy L. Rosebrough
2017 *Indian Mounds of Wisconsin*. 2nd Edition. University of Wisconsin Press, Madison.

Buhta, Austin A., Scott F. Anfinson, Eric C. Grimm, and L. Adrien Hannus
2014 *On the Periphery?: Archeological Investigations of the Woodland Tradition in West Central Minnesota.* Submitted to the Oversight Board of the Statewide Survey of Historical and Archeological Sites and the Minnesota Historical Society, Contract Series No. 269. Archeology Laboratory, Augustana College, Sioux Falls.
2017 *Minnesota's Archaic Tradition: An Archeological and Paleoenvironmental Overview and Assessment*. Submitted to the Oversight BoaRd. of the Statewide Survey of Historical and Archaeological Sites and the Minnesota Historical Society, Contract Series No. 292. Archeology Laboratory, Augustana College, Sioux Falls.

City of St. Paul
2024 "Standard Plates" *City of St. Paul Public Works Department.* https://www.stpaul.gov/departments/public-works/standard-plates. Accessed: April 29, 2024.

Child, Brenda J.
2012 *Holding Our World Together: Ojibwe Women and the Survival of Community*. Penguin Group, New York.

Coues, Elliot
1895 *The Expeditions of Zebulon Montgromery Pike, To the Headwaters of the Mississippi River, through Louisiana Territory, and in New Spain During the Years 1805-6-7.* Francis P. Harper, New York. Electronic document, http://www.gutenberg.org/files/43774/43774-h/43774-h.htm#Page_81, Accessed December 15, 2023.

Dakota Wicohan
2024 "Dakota of Minnesota." https://dakotawicohan.org/dakota-of-minnesota-history/ Accessed: March, 2024.

Dobbs, Clark A., and Scott F. Anfinson
1993 Archaic Tradition (8000 BP–2500 BP). Outline of Pre-Contact Historic Contexts. Institute for Minnesota Archaeology for Minnesota SHPO.

Eigenberger, E., P. Flynn and A. Armstrong-Duarte
2022 MnDOT LIDAR Burial Study (S.P. 8816-3207). Merjent, Inc. Prepared for Minnesota Department of Transportation.

Gallo, Steve., Tyler Lund-Kyrola, Madeleine T. Bray, Saleh Miller, Nieeta Presley.
2022 "Historic Context Report for the Minnesota State Capitol Area Planning and Context Development Project." Contract Report Submitted To: Minnesota Historical Society and Oversight Board of the *Statewide Survey of Historical and Archaeological Sites.* By: 106 Group. St. Paul, Minnesota.

Gibbon, Guy
2012 *Archaeology Minnesota: The Prehistory of the Upper Mississippi River Region*. University of Minnesota Press, Minneapolis.

Glewwe, Louis A.
2015 *South St. Paul: A Brief History.* The History Press, Charleston, South Carolina.

Gordon, Albert I.
1949 *Jews in Transition.* University of Minnesota Press, Minneapolis.

Grant, John and Milton Emery
2004 Golden Jubilee Ancient Landmark Lodge No. 5, A.F. & A.M. 1854-1904. Bookhaven Press, La Crosse.

Harrison, Christina
2002 Report on Archaeological Reconnaissance Survey Along Proposed Segment of North Urban Regional Trail from Thompson County Park to Kaposia Park, Dakota County, Minnesota. Archaeological Research Services.

Hennepin County Reginal Railroad Authority (HCRRA)
1995 Phase I and II Cultural Resources Investigation of the Central Corridor, Minneapolis, Hennepin County and St. Paul, Ramsey County, Minnesota.

Hines, Rachel.
2014 "Living with the Mississippi." *River Life*. December 2014. Accessed from the University of Minnesota Digital Conservancy, April 23, 2024: https://hdl.handle.net/11299/202956.

Johnson, Craig M.
1990 "Testing and Phase II Evaluation of the Oak Brook Development, Anoka County, Minnesota." *Institute for Minnesota Archaeology Reports of Investigations Number 97.* Institute for Minnesota Archaeology, Minneapolis.

Justin, Michael
2012 Mitigation Data Recovery Report for the University Avenue Tunnel Project, St. Paul, Ramsey County, Minnesota. The 106 Group Ltd. Submitted to the Minnesota Department of Administration.

Ketz, Anne
1998 Monitoring Report for the Science Museum Relocation/Expansion Project, City of Saint Paul, Ramsey County, Minnesota. The 106 Group Ltd. Prepared for the City of St. Paul.

Kiesow, Danielle, Jammi Ladwig, and Ivy Faulkner
2023 Phase I Archaeological Reconnaissance Survey for the Twin Lake Boulevard Improvement Project, Cities of Little Canada and Vadnais Heights, Ramsey County. Minnesota. Bolton & Menk, Inc. Prepared for the City of Little Canada.

Leyda, Julia.
2016 Introduction: "American Mobilities." In *American Mobilities: Geographies of Class, Race, and Gender in US Culture.* Transcript Verlag, Beilefeld: pp. 11–32.

Dakota County Historical Society (DCHS) Mendota/West St Paul Chapter
2024 "A Historical Glimpse of the City of West St. Paul." *Dakota County Historical Society.* Accessed April 23, 2024: https://www.dakotahistory.org/images/HistoryMaps/West-St.-Paul-History-Map.pdf

Mead & Hunt
2024 Section 106 Compliance Plan: G Line Bus Rapid Transit Project. March 2024 Prepared for Metropolitan Council Metro Transit Division, Arterial Bus Rapid Transit Department.

Miller, F. C.
1928 *Saint Paul: Location-Development-Opportunities*. Webb Book Publishing Co., St. Paul.

Millett, Larry.
1996 *Twin Cities: Then and Now.* Minnesota Historical Society Press, St. Paul, Minnesota.

Minnesota Office of the State Archaeologist
2019 Site Inventory Form for Archaeological Site 21RAu. Available on file with the Minnesota Office of the State Archaeologist. St. Paul, Minnesota.
2015 Site Inventory Form for Archaeological Site 21RA73. Available on file with the Minnesota Office of the State Archaeologist. St. Paul, Minnesota.
2004b Site Inventory form for Archaeological Site 21RA50. Available on file with the Minnesota Office of the State Archaeologist, St. Paul, Minnesota.
2004a Site Inventory form for Archaeological Site 21RA49. Available on file with the Minnesota Office of the State Archaeologist, St. Paul, Minnesota.
2000 Site Inventory form for Archaeological Site 21RA46. Available on file with the Minnesota Office of the State Archaeologist, St. Paul, Minnesota.
1995 Site Inventory form for Archaeological Site 21DKq. Available on file with the Minnesota Office of the State Archaeologist, St. Paul, Minnesota.
1980 Site Inventory form for Archaeological Site 21RA19. Available on file with the Minnesota Office of the State Archaeologist, St. Paul, Minnesota.

1975b Site Inventory form for Archaeological Site 21RA05. Available on file with the Minnesota Office of the State Archaeologist, St. Paul, Minnesota.
1975a Site Inventory form for Archaeological Site 21RA04. Available on file with the Minnesota Office of the State Archaeologist, St. Paul, Minnesota.

Nassaney, Michaeal S.
2015 *The Archaeology of the North American Fur Trade.* University of Florida Press.

National Resources Conservation Service (NRCS)
2024 United States Department of Agriculture: National Resources Conservation Service Web Soil Survey <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed 4 December 2023.

Nathanson, Iric
2019 *Images of America: Downtown St. Paul*. Arcadia Publishing, Charleston.

Nienow, Jeremy L.
2015 Archaeological Investigations at Lake Wabasso, Ramsey County, Minnesota. Contract Report submitted to: North Lake Owasso Neighborhood Group and the Office of the State Archaeologist. By: Nienow Cultural Consultants LLC, St Paul, MN.
2023 "RE: Preliminary Archaeological Identification and Evaluation Results and Recommendations, Wadaag Commons, 1900 E. 22nd Street, Minneapolis, Minnesota." Nienow Cultural Consultants Letter submitted June 27,2023 to Redesign, Inc.

Nienow Jeremy L., Fred Sutherland, Alison Hruby, and Laura Koski.
2020 Analysis of Archaeological Materials for 21RA86, 412 Goodrich Ave., St. Paul, Minnesota. Nienow Cultural Consultants. Prepared for Historic Saint Paul.

Nute, Grace Lee.
1930 *Posts in the Minnesota Fur-Trading Area: 1660-1855.* Minnesota Historical Society Press.

Ollendorf, A. L. and D. K. Higginbottom
1997 Cultural Resource Management Investigation: Data Recovery Plan for the Department of Revenue Building, St. Paul, Minnesota. Braun Intertec Corp. Prepared for Minnesota Department of Administration.

Peterson, Leslie
1974 The Minnesota Trunk Highway Archaeological Reconnaissance Survey. Minnesota Historical Society, St. Paul.

Piekielek, Nathan., Connor Henderson, Alia Horvath, Kiersten Hudson, Heather Ross, Jack Swab.
2024 "Accuracy Assessment of Sanborn Fire Insurance Maps." *Penn State University Libraries*, University of Pennsylvania. Accessed April 23, 2024: https://libraries.psu.edu/about/libraries/donald-w-hamer-center-maps-and-geospatial-information/projects/accuracy-assessment

Ramsey County Historical Society
1990 "What's Historic About this Site?, The Dahl House: The Last of Old Lowertown" *Ramsey County History*: 25(1) Spring. Ramsey County Historical Society, St. Paul.

Roufs, Timothy.
1978 "Early Indian Life in the Lake Superior Region." In: *The Minnesota Archaeologist, Vol. 37 No. 4, November*: pp. 157-188.

Sather, Dean T. and Laurie Ollila
2013 Archaeological Monitoring and Visual Reconnaissance for the Lowertown Ballpark Project, Saint Paul, Ramsey County, Minnesota. Summit Envirosolutions, Inc. Submitted to Ryan A+E, Inc.

Singley, Grover
1974 *Tracing Minnesota's Old Government Roads.* Minnesota Historical Society Press.

Terrell, Michell M.
2002 Determination of Eligibility of Carver's Cave (21RA27) and Dayton's Bluff Cave (21RA28), Bruce Vento Nature Sanctuary Project, St. Paul, Ramsey County, Minnesota. The 106 Group Ltd. Submitted to the City of St. Paul.
2001 Phase II Archaeological Evaluation of Site 7 (The Plastics Lot) in Preparation for the Armstrong House Relocation for the Smith Avenue Transit Hub, City of St. Paul, Ramsey County, Minnesota. The 106 Group Ltd. Submitted to the City of St. Paul.

Terrell, Michelle M. and Andrea C. Vermeer
2004 Archaeological Monitoring and Phase I/II Archaeological Survey and Evaluation for the Bruce Vento Nature Sanctuary at Lower Phalen Creek, St. Paul, Ramsey County, Minnesota. The 106 Group Ltd. Prepared for City of St. Paul.

The 106 Group Ltd.
1994 Phase II Archaeological Investigations, Shepard Road Alternative A-3 and Warner Road C.M.St.P.&P. Railroad Freight House, Shepard/Warner/East CBD Bypass Project, Saint Paul, Minnesota. The 106 Group Ltd. Submitted to the City of St. Paul.

Whelan, Mary K.
1990 "Late Woodland Subsistence Systems and Settlement Size in the Mille Lacs Area." edited by Guy Gibbon, pp. 54-73. University of Minnesota Publications in Anthropology No. 4, Minneapolis.

White Earth Nation
2024 *History of White Earth*. Accessed: March 1, 2024. https://whiteearth.com/history

Winchell, N. H.
1911 *Aboriginies of Minnesota.* Minnesota Historical Society, St. Paul.

Wolf, Kelly
2016 *Swede Hollow Archaeology Project: An Examination of the History, Lifeways, and Sanitation of Swede Hollow in Saint Paul, Minnesota.* Master's Thesis, University of Minnesota.

Vennum, Thomas, Jr.
1988 *Wild Rice and the Ojibwe People.* Minnesota Historical Society Press, St. Paul.

Zimmerman, Lary J., Federick Cooperistian Anderson, Jennifer Gilpin, Julia Prokop, and Cara Weiss.
2003 Archeological Evaluation of the Hillside Garden Areas at the James J. Hill House (21RA0021), St. Paul, MN. Minnesota Historical Society Department of Archaeology, St. Paul.

Zilberstein, Anya
2015 "Inured to Empire: Wild Rice and Climate Change." *The William and Mary Quaterly,* Vol 72, No. 1 (January): pp. 127-158.

REPORTS REVIEWED BUT NOT CITED

Bielakowski, Andrew P., Amanda S. Adams, and Jeff D. Anderson
2005 "Phase I Archaeological Survey and Geomorphological Investigation for the High Bridge Pipeline Project, Saint Paul, Ramsey and Dakota Counties, Minnesota." Contract Report Submitted to: Barr Engineering Company. Submitted by: The 106 Group Ltd.

Environmental Research and Technology, INC.
1981 "Archaeological Survey of the I-35E Pleasant Avenue and Shepard Road Corridors St. Paul, Minnesota." Contract Report Submitted to Barton-Aschman Associates, Inc. Submitted by: Environmental Research & Technology, Inc.

Grant E. Goltz Soils Consulting
1994 "Data Collection for Mounds boulevard Parkway Restoration, City of St. Paul, Division of Parks and Recreation, Ramsey County, Minnesota." Contract Report Submitted by Grant E. Goltz Soils Consulting. Submitted to: Minnesota Indian Affairs Council.

Hutter, L. Renée, and Ollila, S.H. Laurie
2009 "Re: Diamond Products Site Historical Review." Contract Report Submitted to: Eric Hesse, Liesch Associates, Inc. Submitted by: Summit Envirosolutions.

Loucks Associates
2006 Cultural Resources Review of the Northeast Quadrant Property T29N R22W SE 1/4 of Section 31 Lots 1-6, Block 6, Lots 1-6, Block 3, Lots 1-10, Blocks. St. Paul, Minnesota" Contract Report Submitted to: The Lander Group. Submitted by: Loucks Associates.

Terrell, Michelle M.
2018 "Re: Phase I Archaeological Investigations, Solar PV Installation, Cass Gilbert Memorial Park, St. Paul, Ramsey County, Minnesota." Contract Report Submitted to: Shelly Santine, Cundy, Santine & Associates Architects, LLC. Submitted by: Two Pines Resource Group, LLC.
2019 "Gold Line Supplemental Phase I Archaeological Survey Ramsey and Washington Counties, Minnesota." Contract Report Submitted to: Metro Gold Line Bus Rapid Transit Project. Submitted by: Two Pines Resource Group LLC.

The 106 Group Ltd.
1998 "Archaeological Monitoring Report for the Wabasha Street Bridge Replacement city of St. Paul Ramsey County Minnesota." Contract Report Submitted to: Leon Pearson, City of St. Paul. Submitted by: The 106 Group Ltd.

Schmidt, Andrew J., Anne Ketz, and Mollie Lyon
1999 "Sibley Street Pedestrian Way Project, St. Paul, Minnesota: Phase I Cultural Resources Investigation." Contract Report Submitted to: SRF Consulting Group, Inc. and City of St. Paul. Submitted By: The 106 Group Ltd.

Vermeer, Andrea C. and Hudak, Curtis M.
2008 "Phase I Geoarchaeological Investigations for the Trunk Highway 52 Lafayette Bridge Replacement Project, St. Paul, Ramsey County, Minnesota." Contract Report Submitted to: Minnesota Department of Transportation and Federal Highway Administration. Submitted by: Summit Envirosolutions, Inc. and Foth Infrastructure and Environment, LLC.

APPENDIX A:

PROJECT AREA MAPS SHOWING

BATHROOM AND STATION LOCATIONS

NOTE: Modern Utilities Symbolized on Maps
Include Storm, Water, and Sanitary Where Available.
Local Utilities Including Electrical, Signal, Cable, etc. are not Symbolized.

Appendix A contains sensitive information and has been removed from this version of the report.