



Gold Line

BUS RAPID TRANSIT PROJECT ENVIRONMENTAL ASSESSMENT

Environmental Assessment Appendix A Technical Report

Community and Social Resources

September 2019



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ATTACHMENT

Attachment A-4-1: Existing and Planned Land Use Maps



ACRONYMS AND ABBREVIATIONS

2040 TPP	<i>2040 Transportation Policy Plan</i>
2040 RPPP	<i>2040 Regional Parks Policy Plan</i>
2040 WRPP	<i>2040 Water Resources Policy Plan</i>
AA	Alternatives Analysis
ACS	American Community Survey
Agencies	Federal Transit Administration and Metropolitan Council
BMP	Best Management Practice
BRT	Bus Rapid Transit
BRTOD	Bus Rapid Transit-Oriented Development
CAC	Community Advisory Committee
CBAC	Community and Business Advisory Committee
CMC	Corridor Management Committee
CPIP	Community and Public Involvement Plan
Council	Metropolitan Council
DNR	Minnesota Department of Natural Resources
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
FESTEC	Fostering an Eastside Transit Equity Conversation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GCC	Gateway Corridor Commission
GDP	Gross Domestic Product
GMP	Twin Cities Metropolitan Area Gross Domestic Product
GSP	Gross State Product
HIA	Health Impact Assessment
I-	Interstate
LWCF	Land and Water Conservation Fund
LPA	Locally Preferred Alternative
LRT	Light Rail Transit
MEPA	Minnesota Environmental Policy Act
MLS	Multiple Listing Service



MnDOT CRU	Minnesota Department of Transportation Cultural Resources Unit
MnSHPO	Minnesota State Historic Preservation Office
MOT	Maintenance of Traffic
MSAT	Mobile Source Air Toxics
NEPA	National Environmental Policy Act of 1969
NFPA	National Fire Protection Association
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
OMF	Operations and Maintenance Facility
PA	Programmatic Agreement
PEP	Public Engagement Plan
Project	METRO Gold Line Bus Rapid Transit Project
TH	Trunk Highway
TOD	Transit-Oriented Development
Uniform Relocation Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act
USDOT	U.S. Department of Transportation
VMT	Vehicle Miles Traveled



4. COMMUNITY AND SOCIAL RESOURCES TECHNICAL REPORT

4.1. Introduction

This report was prepared in support of the METRO Gold Line Bus Rapid Transit (BRT) Project (Project) Environmental Assessment (EA). It provides results of the analysis of impacts to community and social resources from the Project for the No-Build Alternative, Build Alternative 1 and Build Alternative 2. It also addresses the Hazel Street Station Option and the Dedicated Guideway Option at Hadley Avenue and 4th Street design options for Alignment C of Build Alternatives 1 and 2.

The National Environmental Policy Act (NEPA)^{1,2} and the Minnesota Environmental Policy Act (MEPA)³ provide the general basis of consideration for discussing community and social impacts. Specific laws, regulations and executive orders apply to the evaluation of some community and social resources, such as residential and business acquisitions and displacements and safety and security. The regulatory context section references applicable specific statutory or regulatory laws for each resource.

This report evaluates the following community and social resources: land use compatibility; community facilities, character and cohesion; acquisitions, displacements and relocations; visual quality and aesthetics; business and economic; and safety and security. This report also evaluates the Project's impacts to and environmental justice populations. The *Cultural Resources Technical Report* in **Appendix A** discusses Project-related impacts to cultural resources. The *Final Section 4(f) and 6(f) Evaluation Technical Report* in **Appendix A** provides the preliminary determinations for protected recreation and historic properties. The *Indirect Effects and Cumulative Impacts Technical Report* in **Appendix A** discusses Project-related indirect and cumulative effects to resources.

The analysis defined for each resource a “study area” – a geographic space where potential impacts to the resource were evaluated – based on the Project’s “potential limits of disturbance,” or the area in which the Project would be built. In some cases, the study area extends beyond the potential limits of disturbance, so the analysis could evaluate impacts to adjacent or nearby resources; for example, neighborhood boundaries may extend beyond the Project’s potential limits of disturbance.

Table 4.1-1 summarizes the study areas for each resource this report evaluates.

¹ *The National Environmental Policy Act of 1969, as amended. (“The Public Health and Welfare,” Title 42, U.S. Code (USC), Sec. 4321 et seq. (1969)). Available at: <https://www.gpo.gov/fdsys/pkg/USCODE-2011-title42/pdf/USCODE-2011-title42-chap55-sec4321.pdf>. Accessed November 2018.*

² *Council on Environmental Quality. “Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act.” 2005 reprint of “Protection of Environment,” Title 40, Code of Federal Regulations (CFR), Parts 1500-1508. Available at: https://www.energy.gov/sites/prod/files/NEPA-40CFR1500_1508.pdf. Accessed October 2018.*

³ *“Environmental Policy,” Chap. 116D., Minnesota Statutes, 2018. Available at: <https://www.revisor.mn.gov/statutes/cite/116D>. Accessed May 2018.*



TABLE 4.1-1: COMMUNITY AND SOCIAL ANALYSIS RESOURCE STUDY AREAS

Resource Evaluated	Study Area Definition	Basis for Study Area
Land Use Plan Compatibility	½-mile around the proposed alignments for operating phase impacts; the area within the potential limits of disturbance for construction phase impacts	A ½-mile radius commonly used by transit planners to represent the distance transit-users are willing to walk to access a station
Community Facilities, Character and Cohesion	½-mile around the proposed alignments	A ½-mile radius commonly used by transit planners to represent the distance transit users are willing to walk to access a transit station
Acquisitions, Displacements and Relocations	Within or adjacent to the potential limits of disturbance	Encompasses land and property that Project construction or operation may need
Visual Quality and Aesthetics	Views from the vantage point of a person at ground level	Project components and features visible from the alignment and nearby properties
Business and Economic	Within the potential limits of disturbance	Limits of potential direct impacts on properties
Safety and Security	Within the potential limits of disturbance	Reflects limits of potential direct impacts and proximity of proposed alternatives to places with special safety or security issues
Environmental Justice	½-mile around proposed alignments	A ½-mile is the industry standard for the maximum distance that a transit-user will walk to a station. A ½-mile catchment area around a transitway station is used to measure population and employment in the station areas.

4.1.1. Overview of Build Alternatives

The *Alternatives Technical Report* in **Appendix A** of this EA provides descriptions of the two Build Alternatives evaluated within the EA, Build Alternative 1 (A1-BC-D3) and Build Alternative 2 (A2-BC-D3). The difference between the two Build Alternatives is within Alignment A in downtown Saint Paul. Alignment A2 of Build Alternative 2 would terminate at Union Depot, and Alignment A1 of Build Alternative 1 would terminate approximately 1 mile to the west at the Smith Avenue Transit Center. The Federal Transit Administration (FTA) and Metropolitan Council (Council) based the anticipated long- and short-term impacts from the Build Alternatives on the 15% Concept Plans for the Project (see **Appendix B**).

4.1.2. Overview of No-Build Alternative

NEPA requires that the Project analysis includes the No-Build Alternative to provide a base point from which to evaluate the potential impacts, benefits and costs of the Build Alternatives, as well as a potential outcome of the



EA process. The No-Build Alternative represents the existing transportation system as the Council's *2040 Transportation Policy Plan (2040 TPP)*⁴ presents it—with only planned and programmed improvements, and without the Project. Therefore, construction and operation of the Project is not included in the No-Build Alternative. Section 2.6.1 of the *Alternatives Technical Report* in **Appendix A** list some of the funded highway and transit projects in the 2040 TPP that are included in the No-Build Alternative.

The following summary provides a consolidated discussion of the No-Build Alternative for the community and social resources evaluated in this report. This summary assumes future conditions in 2040 in the resource study area if the Project were not built.

4.1.2.1. Land Use Plan Compatibility

The No-Build Alternative would not convert land to a transportation use due to the Project, and it would not directly displace any residents or businesses; however, other development projects generally would occur to support the population and employment growth, which could lead to displacements and land use changes. The No-Build Alternative, generally, would not be compatible with local comprehensive plans and regional policy, which call for supporting the development and implementation of transit improvements and TOD. All of the draft 2040 comprehensive plans for the corridor communities and adopted 2040 comprehensive plans all mention and support the Project, making the No-Build Alternative inconsistent with those plans.⁵ Additionally, the No-Build Alternative would be explicitly incompatible with the Council's fiscally constrained 2040 TPP regional transportation policy document.

4.1.2.2. Community Facilities, Character and Cohesion

The No-Build Alternative would have no associated long-term or short-term impacts to community character, facilities, or cohesiveness within communities within the study area because the Project would not be built. Under the No-Build alternative, neighborhoods and communities would likely develop according to adopted plans. Development would likely be different in the study area without the Project as development tends to be denser around transit. Other transportation and development projects could lead to the acquisition and displacement of property, increased congestion and impacts to air quality and noise. Other projects could also impact the cohesiveness of neighborhoods without providing the benefits of transit service.

4.1.2.3. Acquisitions, Displacements and Relocations

The No-Build Alternative would not produce long-term or short-term acquisitions, displacements or relocations within the study area because the Project would not be built. Other transportation and development projects could lead to the acquisition and displacement of property throughout the study area, depending on factors such as available right-of-way and the type and location of the development. Public transportation and development projects would be required to comply with applicable state and federal acquisition regulations, such as the

⁴ Metropolitan Council. 2040 Transportation Policy Plan. Adopted January 2015. Available at: [https://metro council.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan-\(1\)/The-Adopted-2040-TPP-\(1\).aspx](https://metro council.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan-(1)/The-Adopted-2040-TPP-(1).aspx). Accessed November 2018.

⁵ The 2040 comprehensive plans for Saint. Paul, Maplewood, Oakdale and Woodbury are currently in draft stages. Landfall has adopted its 2040 comprehensive plan.



Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Relocation Act)⁶ and Minnesota Statutes Chapter 117.⁷

4.1.2.4. Visual Quality and Aesthetics

The No-Build Alternative would have no associated long-term or short-term impacts to visual resources within the study area because the Project would not be built. Visual quality and aesthetic conditions under the No-Build Alternative would change due to landscape and other improvements due to existing roadway facilities and other development projects, as completed over time. Local land use regulations, such as zoning limits on buildings, would also determine the level of impact future development will have on visual and aesthetic resources.

4.1.2.5. Business and Economic Resources

The No-Build Alternative would not have any long-term or short-term economic impacts to businesses within the study area because the Project would not be built. The Project would not create new short-term or long-term jobs. The No-Build Alternative would not provide the transportation benefits of implementing the Project such as providing a new transportation option within the corridor. The No-Build Alternative also would not provide the economic benefits typically associated with transit projects such as economic development and property redevelopment near station areas.

4.1.2.6. Safety and Security

The No-Build Alternative would have no associated long-term or short-term impacts to safety or security within the study area because the Project would not be built. No additional pedestrian or bicycle crossings (at-grade or grade-separated) would be created.

4.1.2.7. Environmental Justice

The No-Build Alternative would not result in disproportionately high and adverse effects on environmental justice populations. However, the positive effects of the Project would also not be realized, such as frequent, all-day service in both directions, faster boarding times, real-time departure information, enhanced stations with more amenities, enhanced security and transfers, as well as quality pedestrian access to transit enhancements that connects to the region's second largest job concentration in downtown Saint Paul, many educational institutions, health services, and healthy food sources.

⁶ "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Relocation Act)" Title 42, USC Sec 4601. Available at: <https://www.gpo.gov/fdsys/pkg/USCODE-2017-title42/html/USCODE-2017-title42-chap61-subchap1-sec4601.htm>. Accessed May 2018.

⁷ 2018 Minnesota Statutes. Chapter 117 Eminent Domain. Available at: <https://www.revisor.mn.gov/statutes/cite/117>. Accessed November 2018.



4.2. Land Use Plan Compatibility

This section evaluates Project-related impacts to land use.

4.2.1. Regulatory Context and Methodology

4.2.1.1. Regulatory Context

No specific laws or executive orders regulate the consideration of land use impacts as part of preparing NEPA review documents. NEPA and MEPA form the general basis for consideration of land use issues, and these acts focus on the productive and enjoyable harmony between people and the environment and promoting efforts to eliminate or minimize damage to the environment.

At the local level, under the Metropolitan Land Use Planning Act of 1976⁸ and in response to rapid urbanization of the Twin Cities Metropolitan Area, the Minnesota Legislature declared all metropolitan governmental units interdependent, and it established requirements and procedures for comprehensive, coordinated land use planning. Local governments and the Council, which is the region's metropolitan planning organization, coordinate to jointly control growth in the region. Each local government must submit land use plans to the Council, which checks for consistency with current regional growth and development plans: *Thrive MSP 2040*,⁹ the 2040 TPP,¹⁰ the *2040 Regional Parks Policy Plan (2040 RPPP)*,¹¹ and the *2040 Water Resources Policy Plan (2040 WRPP)*.¹²

Local municipalities have land use controls available to them in the form of comprehensive plans. These plans determine community goals and development aspirations and dictate public policy and land use to reach these goals. Every 10 years, each city completes and updates, when necessary, a comprehensive plan that guides land use through a 20-year planning horizon. The Council authorizes the local unit of government to place its plan into effect after finding that the local plan to be in conformance to and consistent with regional plans and policies.

4.2.1.2. Methodology

The study area is in Ramsey and Washington counties in the eastern part of the Twin Cities Metropolitan Area. The study area is defined for the land use analysis as the jurisdictions in which the Project would be located. Operating phase impacts to land use are evaluated within ½-mile of the proposed alternatives. Transit planners commonly use the ½-mile radius to represent the distance transit-users are willing to walk to access a station. Along Alignments B and C, the study area is limited to land north of I-94 within ½-mile of the alternatives because

⁸ "Metropolitan Area," Chap. 473, Minnesota Statutes, Sec. 473.851 et seq. 1976. Available at: <https://www.revisor.mn.gov/statutes/cite/473.851>. Accessed May 2018.

⁹ Metropolitan Council. Thrive MSP 2040: One Vision, One Metropolitan Region. Adopted May 28, 2014. Available at: <https://metro council.org/Planning/Projects/Thrive-2040/Thrive-MSP-2040-Plan.aspx?source=child>. Accessed October 2018.

¹⁰ Metropolitan Council. 2040 Transportation Policy Plan. Adopted January 2015. Available at: [https://metro council.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan-\(1\)/The-Adopted-2040-TPP-\(1\).aspx](https://metro council.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan-(1)/The-Adopted-2040-TPP-(1).aspx). Accessed November 2018.

¹¹ Metropolitan Council. 2040 Regional Parks Policy Plan. Available at: <https://metro council.org/Parks/Planning/Parks-Policy-Plan.aspx>. Last modified November 28, 2018. Accessed March 2019.

¹² Metropolitan Council. 2040 Water Resources Policy Plan. Available at: <https://metro council.org/Wastewater-Water/Planning/2040-Water-Resources-Policy-Plan.aspx>. Last modified May 9, 2018. Accessed May 2018.



the freeway interrupts the potential momentum of station-adjacent new development and land use changes. Therefore, this analysis excludes potential impacts to land uses south of I-94 along Alignments B and C.

The analysis used land use data from comprehensive plans for the cities of Saint Paul, Maplewood, Landfall, Oakdale and Woodbury. In addition, the Saint Paul Planning Commission and City Council adopted station area plans for the Mounds Boulevard, Earl Street, Etna Street, White Bear Avenue and Sun Ray stations in October 2015 and amended the plans in February 2019. The station area plans update the city's comprehensive plan and supersede other area plans. Also, the cities of Oakdale and Maplewood adopted Bus Rapid Transit Oriented Plans (BRTOD) in May 2018 and March 2019, respectively. as part of their 2040 comprehensive plan updates.

These source documents include:

- *Saint Paul for All: 2040 Comprehensive Plan* (draft – 2018)¹³
- *City of Saint Paul Gold Line Station Area Plans* (adopted October 2015; amended February 2019)¹⁴
- *City of Maplewood 2040 Comprehensive Plan* (draft – November 2018)¹⁵
- *Maplewood Station BRTOD Plan* (adopted Jan. 28, 2019)¹⁶
- *City of Landfall Village 2040 Comprehensive Plan* (adopted 2017)¹⁷
- *City of Oakdale 2040 Comprehensive Plan* (draft – 2018)¹⁸
- *Helmo Station BRTOD Plan* (adopted May 2018)¹⁹
- *Woodbury 2040 Comprehensive Plan* (draft – July 2018)²⁰

¹³ *City of Saint Paul*. *Saint Paul for All: 2040 Comprehensive Plan*. Available at: <https://www.stpaul.gov/departments/planning-economic-development/planning/2040-comprehensive-plan>. Last modified March 2018. Accessed May 2018.

¹⁴ *City of Saint Paul*. *Gold Line Station Area Plans*. Available at: <https://www.stpaul.gov/sites/default/files/Media%20Root/Planning%20%26%20Economic%20Development/2019%20Gold%20Line%20Station%20Area%20Plans%20amended%20%28reduced%29.pdf>. Last modified February 20, 2019. Accessed April 2019.

¹⁵ *City of Maplewood*. *2040 Comprehensive Plan (Draft)*. Available at: <https://www.maplewoodmn.gov/1718/2040-Comprehensive-Plan>. Last modified November 2018. Accessed December 2018.

¹⁶ *Gold Line Partners*. *Maplewood Station BRTOD Plan*. Available at <http://thegatewaycorridor.com/station-area-planning/maplewood-maplewood-station-area/>. Last modified January 2019. Accessed April 2019.

¹⁷ *City of Landfall Village*. *2040 Comprehensive Plan*. Available at: <http://citcms.cityoflandfall.com/FileUpload/2040%20Comp%20Plan%20Update%2009182017.pdf>. Last modified September 18, 2017. Accessed May 2018.

¹⁸ *City of Oakdale*. *Oakdale 2040 Comprehensive Plan*. Available at: <https://indd.adobe.com/view/082d99c5-6f6a-41e5-98d8-3df67df508b1>. Last modified 2018. Accessed May 2018.

¹⁹ *Gold Line Partners*. *Helmo Station BRTOD Plan*. Available at: <https://www.ci.oakdale.mn.us/DocumentCenter/View/3644/Helmo-Station-BRTOD-Plan-PDF>. Last modified May 2018 (Reformatted April 2019). Accessed June 2019.

²⁰ *City of Woodbury*. *2040 Comprehensive Plan (Draft)*. Available at: https://www.woodburymn.gov/departments/planning/draft_2040_comprehensive_plan.php. Last modified 2018. Accessed November 2018.



Information from the comprehensive plans was supplemented by historic and recent aerial photography, field inspections and local knowledge of the study area. Assessment of compatibility with existing land uses was based on the Council's 2016 Generalized Land Use Inventory.²¹ Assessment of 2040 planned land uses was based on a review of local community comprehensive plans.

The Council's 2040 Generalized Planned Land Use file was not available at the time of this analysis; therefore, the Project collected 2040 land use plan data from the local communities and created a generalized 2040 land use file to examine the study area planned land use. As shown in **Figure 4.2-1** and **Figure 4.2-2**, the Project categorized the community-designated planned land use categories into 13 generalized land use categories.

4.2.2. Affected Environment

The following sections describe the existing and planned land use conditions within the land use study area. **Attachment A-4-1** includes each city's existing and planned land use maps as they appear in their comprehensive plans.

4.2.2.1. Existing Land Use

Figure 4.2-1 shows existing land use near Alignments A1, A2 and B.

Figure 4.2-2 shows existing land use near Alignments C and D3.

²¹ Metropolitan Council. "2016 Generalized Land Use Inventory". Available at: <https://metro council.org/Data-and-Maps/Data/Metadata/Landuse-Hist-Research.aspx>. Accessed April 2019.



FIGURE 4.2-1: EXISTING LAND USE ALONG ALIGNMENTS A1, A2 AND B

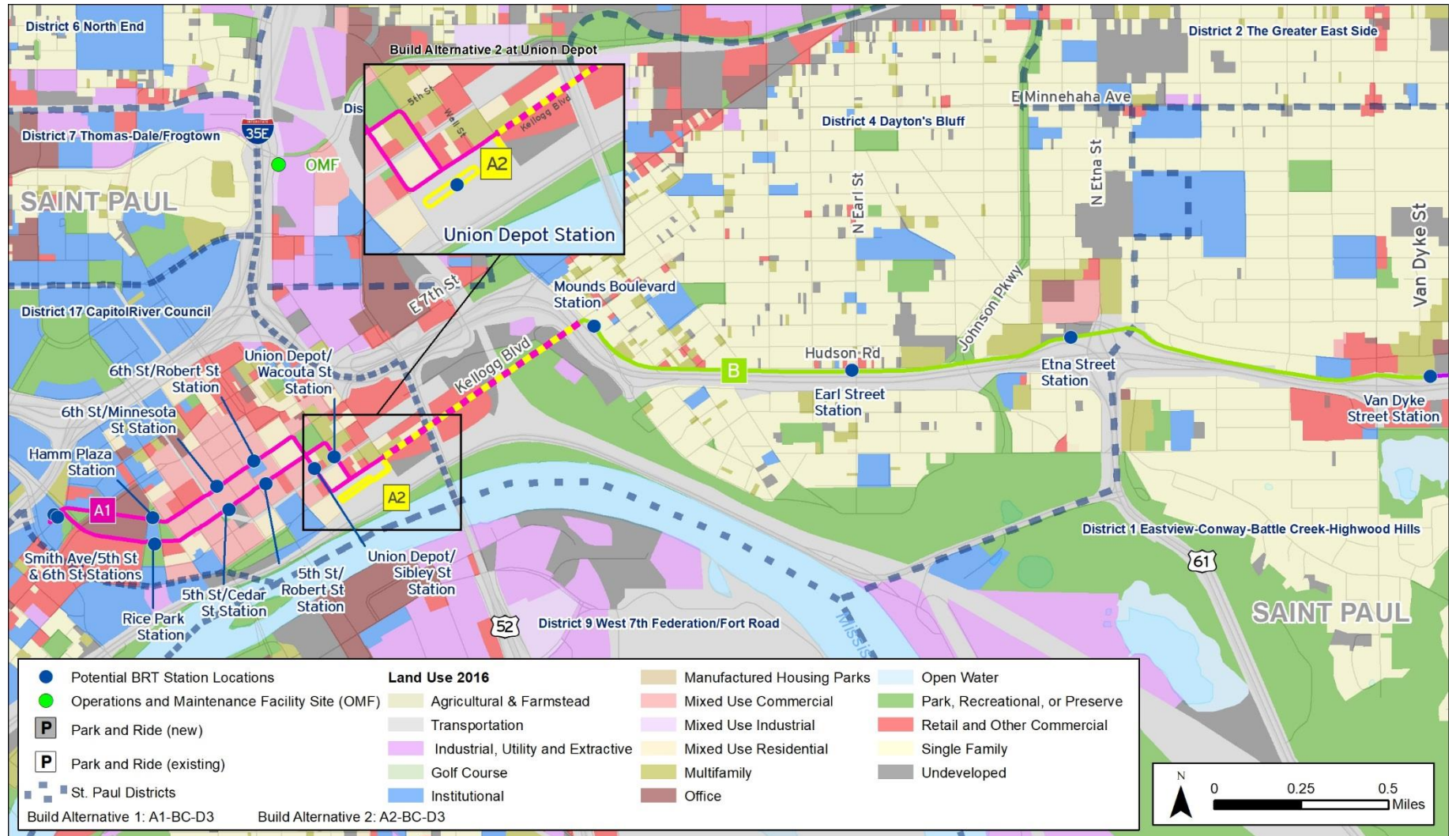
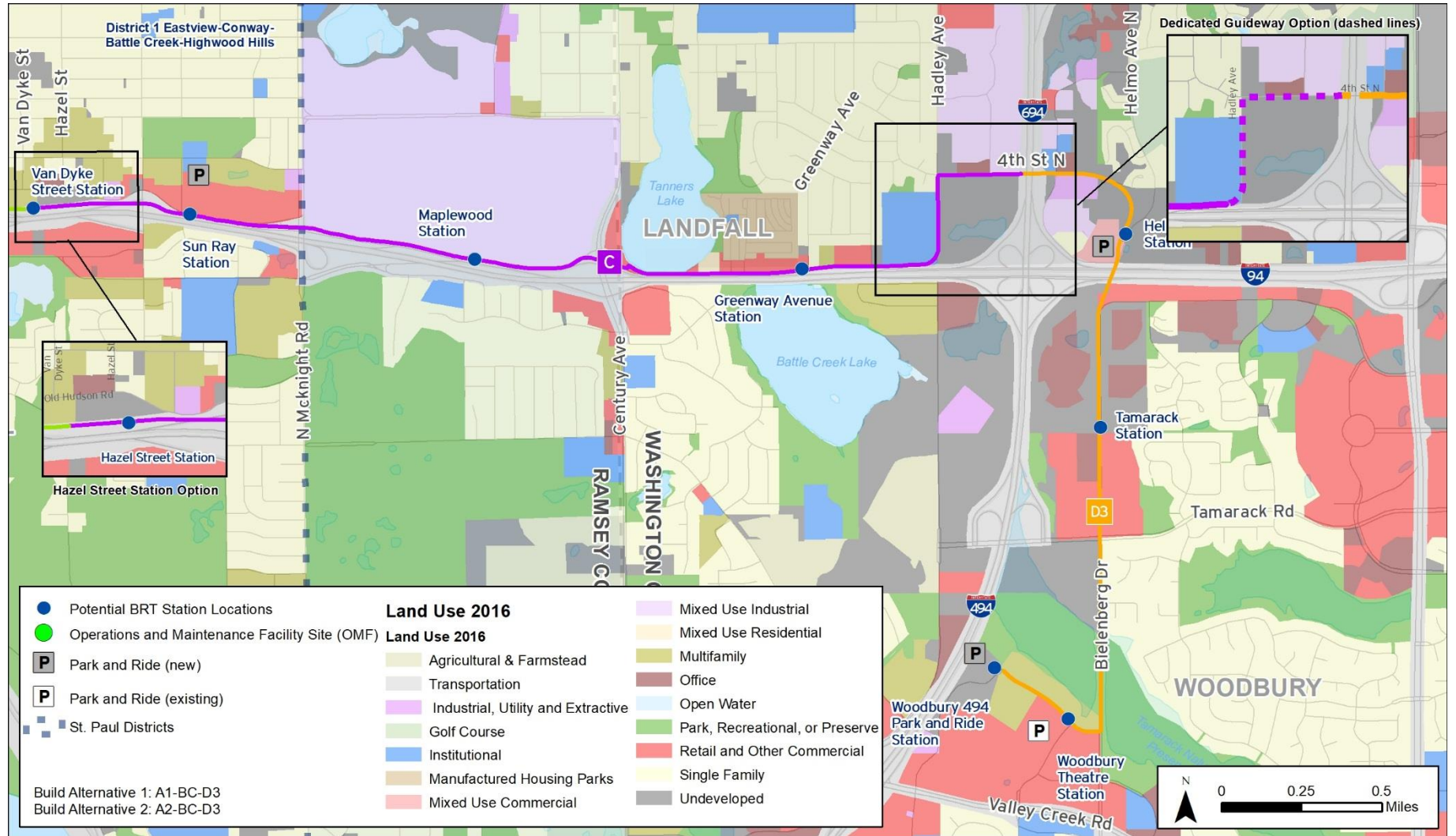




FIGURE 4.2-2: EXISTING LAND USE ALONG ALIGNMENTS C AND D3





ALIGNMENT A1 (SMITH AVENUE TO MOUNDS BOULEVARD)

Alignment A1 is in downtown Saint Paul and is bordered by the Mississippi River and open space along the riverbank to the south, and primarily industrial, high-density mixed use commercial and retail, institutional, and medium-high-density residential uses to the north and west.

To the east of downtown and on the east end of Alignment A1, existing land use transitions to transportation and commercial uses associated with the Union Depot in Saint Paul, open space in the Bruce Vento Nature Sanctuary, and then into residential uses in the Dayton's Bluff neighborhood.

Saint Paul is home to 17 distinct districts, of which Alignment A1 traverses two: The portion of Alignment A1 west of Lafayette Road is located within the Capitol River District, and the portion east of Lafayette Road is in the Dayton's Bluff District.

Figure 4.2-1 shows existing land use near Alignment A1.

ALIGNMENT A2 (UNION DEPOT TO MOUNDS BOULEVARD)

Alignment A2 starts in downtown Saint Paul at the Union Depot. Land uses near Union Depot primarily consist of retail and other commercial, along with multifamily residential. At the east end, Alignment A2 follows the same route as Alignment A1 along Kellogg Boulevard crossing through open space in the Bruce Vento Nature Sanctuary, and then transitioning into residential use in the Dayton's Bluff neighborhood.

Figure 4.2-1 shows existing land use near Alignment A2.

ALIGNMENT B (MOUNDS BOULEVARD TO WHITE BEAR AVENUE)

Existing land use along Alignment B is mostly single-family residential and scattered multifamily housing with some exceptions: two large institutional uses near the Mounds Boulevard Station,²² a small cluster of commercial uses at the intersection of Earl Street and Hudson Road; a multi-tenant office complex and several large apartment buildings near the Etna Street Station; and automobile-oriented commercial uses and clustered multifamily housing near the Van Dyke Street Station and Hazel Street Station Option.

Adoption of the station area plans did not change existing land use along Alignment B; rather, the City rezoned the areas around stations to allow denser development in a pedestrian-friendly pattern, as described below.²³

- **Mounds Boulevard Station:** Parcels near the intersection of 3rd Street and Maria Avenue have been rezoned T1, the lowest intensity Traditional Neighborhood designation. The Traditional Neighborhood designation requires adherence to pedestrian-friendly design standards and accommodates denser development on a scale of T1 to T4, with T4 allowing for densest development.
- **Earl Street Station:** Parcels near the intersection of Earl Street and Hudson Road have been rezoned T2, allowing for denser development. Parcels to the east of the Earl Street/Hudson Road intersection were rezoned RM1 (residential multifamily housing), and parcels south of I-94 and immediately adjacent to Earl Street were rezoned RT1, which allows for two-family housing.
- **Etna Street Station:** Parcels just north of the station were rezoned to T3, and two parcels west of the station were rezoned to RM2 and RM3, which allow for the second highest and highest intensity multifamily residential development, respectively.

²² Metropolitan State University and Dayton's Bluff Elementary School and Recreation Area.

²³ The Saint Paul City Council adopted the associated rezonings on Oct. 14, 2015.



Alignment B passes through two Saint Paul neighborhoods. Areas west of Etna Street are located within the Dayton's Bluff neighborhood, and areas to the east are in the Conway-Battle Creek-Highwood Hills neighborhood.

Within the Dayton's Bluff neighborhood is the Dayton's Bluff Heritage Preservation District, designated by the City of Saint Paul in 1992. See **Attachment A-4-1** for a map of the district.

Figure 4.2-1 shows existing land use near Alignment B.

ALIGNMENT C (WHITE BEAR AVENUE TO I-694)

Alignment C would pass through the Conway, Battle Creek and Highwood Hills neighborhoods of Saint Paul.

Within the City of Saint Paul

The western section of Alignment C between White Bear Avenue and McKnight Road is in the City of Saint Paul. Established, single-family residential land uses with some clusters of multifamily housing comprise most land uses north of Wilson Avenue, which runs parallel to Alignment C. South of Wilson Avenue, along I-94, are commercial and retail land uses, mostly in strip-mall format and anchored by the Sun Ray Shopping Center, the only large-scale shopping center in the corridor west of I-494/I-694. Based on the adopted *Gold Line Station Area Plans*, the City of Saint Paul has rezoned the immediate areas around the following stations to allow for denser development in a pedestrian-friendly pattern.²⁴

- **Van Dyke Street Station/Hazel Street Station Option:** Parcels immediately adjacent to the proposed station location were rezoned to T3. Parcels to the north of the station along Hazel Street were rezoned to RM2, which allows for mid to high density multifamily development. The commercial uses along Old Hudson Road to the west and east of the proposed station and south of I-94 were all rezoned to T2. These changes are also near the Hazel Street Station Option.
- **Sun Ray Station:** The Sun Ray Shopping Center parcel was rezoned to T4, which allows for the highest density development. Two additional parcels to the east and north of the shopping center were rezoned to T3. Commercial parcels along Old Hudson Road near Ruth Street were rezoned to T2.

Figure 4.2-2 shows existing land use near Alignment C in Saint Paul.

Within the City of Maplewood

The middle portion of Alignment C extends approximately 1 mile, from McKnight Road to Century Avenue, in the City of Maplewood. The 3M campus, a mixed-use industrial land use, comprises most of the area's land use. The campus is centered around a 14-story headquarters building and surrounded by 3- to 6-story office and research and development facilities. North of the campus are established, single-family residential neighborhoods with some multifamily housing.

Figure 4.2-2 shows existing land use near Alignment C in Maplewood.

Within the City of Landfall

The City of Landfall is located north of I-94 between the east side of Tanners Lake and Greenway Avenue. Alignment C does not pass through Landfall but follows its southern border on Hudson Boulevard. Landfall residents would be served by a station at Greenway Avenue.

²⁴ The Saint Paul City Council adopted the associated rezonings on Oct. 14, 2015.



Landfall is home to approximately 760 residents. The majority of its 53-acre land area is occupied by Landfall Terrace, a 301-unit manufactured home site. The city has two commercial businesses along the north side of Hudson Boulevard.

Figure 4.2-2 shows existing land use near Alignment C in Landfall.

Within the City of Oakdale

The easternmost portion of Alignment C is in the City of Oakdale between Century Avenue and I-694. Adjacent land use is a mix of commercial, public, industrial, office, and vacant uses. Low-density, single family residential neighborhoods are located north of the commercial and institutional parcels along Hudson Boulevard.

Figure 4.2-2 shows existing land use near Alignment C in Oakdale.

ALIGNMENT D3 (I-694 TO WOODBURY 494 PARK-AND-RIDE)

Within the City of Oakdale

The northern portion of Alignment D3 is in the City of Oakdale in the northeast quadrant of I-694 and I-94. Alignment D3 would cross I-94 on a new bridge connecting Helmo Avenue with Bielenberg Drive in the City of Woodbury. This bridge is included in both cities' comprehensive plans.

Existing land uses along this portion of Alignment D3 include office, industrial, undeveloped, a pocket of single family residential along Hudson Boulevard near the I-94/I-694 interchange, and institutional, office, and medium-density single family residential uses north of 4th Street. At the intersection of Helmo Avenue and Hudson Boulevard, mixed-use industrial uses are to the west with open spaces to the east.

Within the City of Woodbury

Existing land uses along Bielenberg Drive between Hudson Road and Tamarack Road include office, commercial and undeveloped. The businesses in this area have natural features such as water, trees, open space, and wetlands separating the larger buildings, each with large parking lots. Along the southeast quadrant of the Tamarack Road and Bielenberg Drive intersection, existing land use is primarily single family residential, duplexes, and water/wetlands located at the southern end of Alignment D3. In the southwest quadrant of the Tamarack Road and Bielenberg Drive intersection, open space, undeveloped, and water/wetland uses dominate until reaching Guider Drive, where mixed use and commercial properties and parking surround the Woodbury Theatre Station and the Woodbury 494 Park-and-Ride Station.

4.2.2.2. Planned Land Use

Figure 4.2-3 shows the 2040 planned land use near Alignments A1, A2 and B.

Figure 4.2-4 shows the 2040 planned land use near Alignments C and D3.



FIGURE 4.2-3: PLANNED 2040 LAND USE ALONG ALIGNMENTS A1, A2 AND B

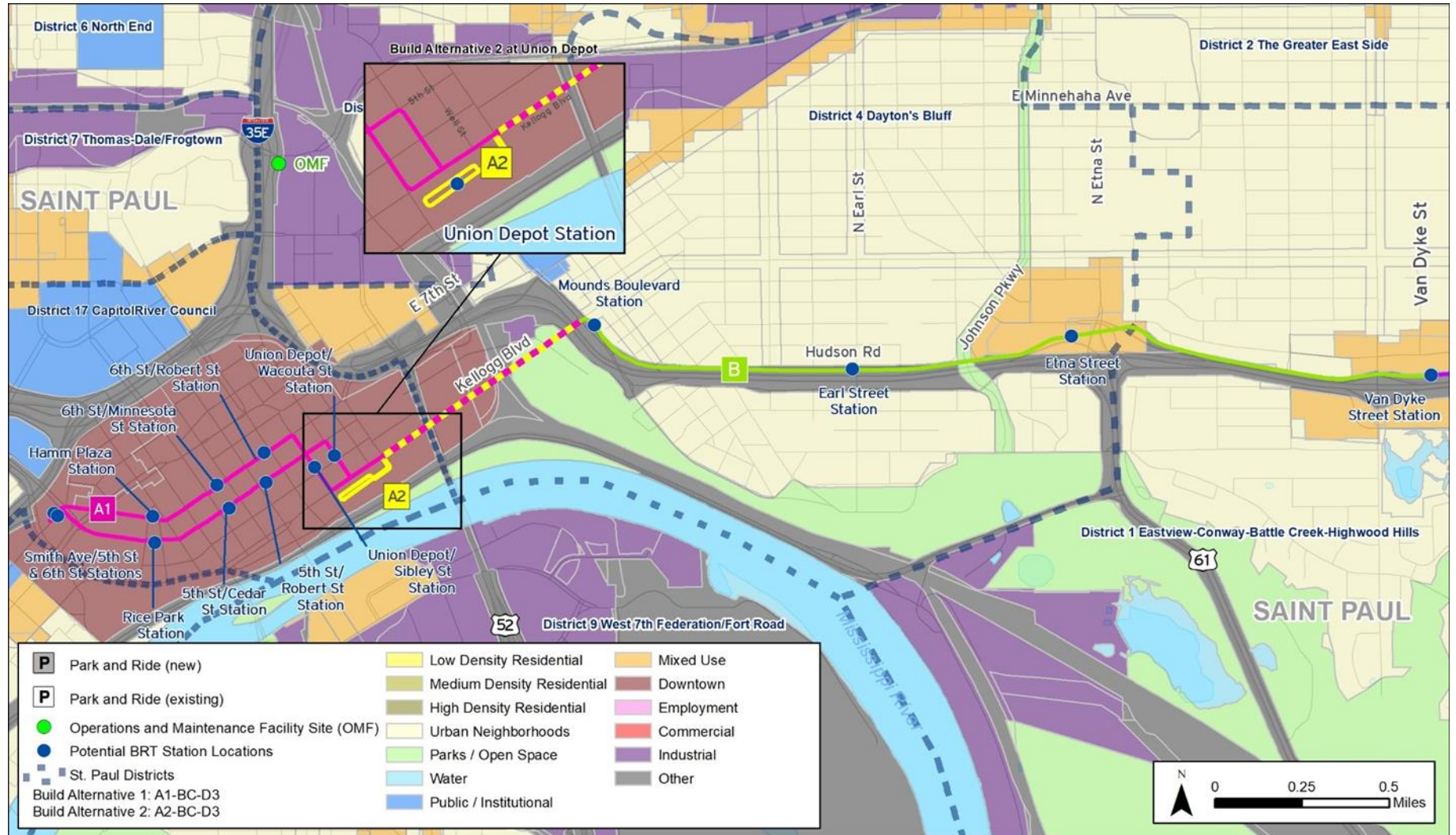
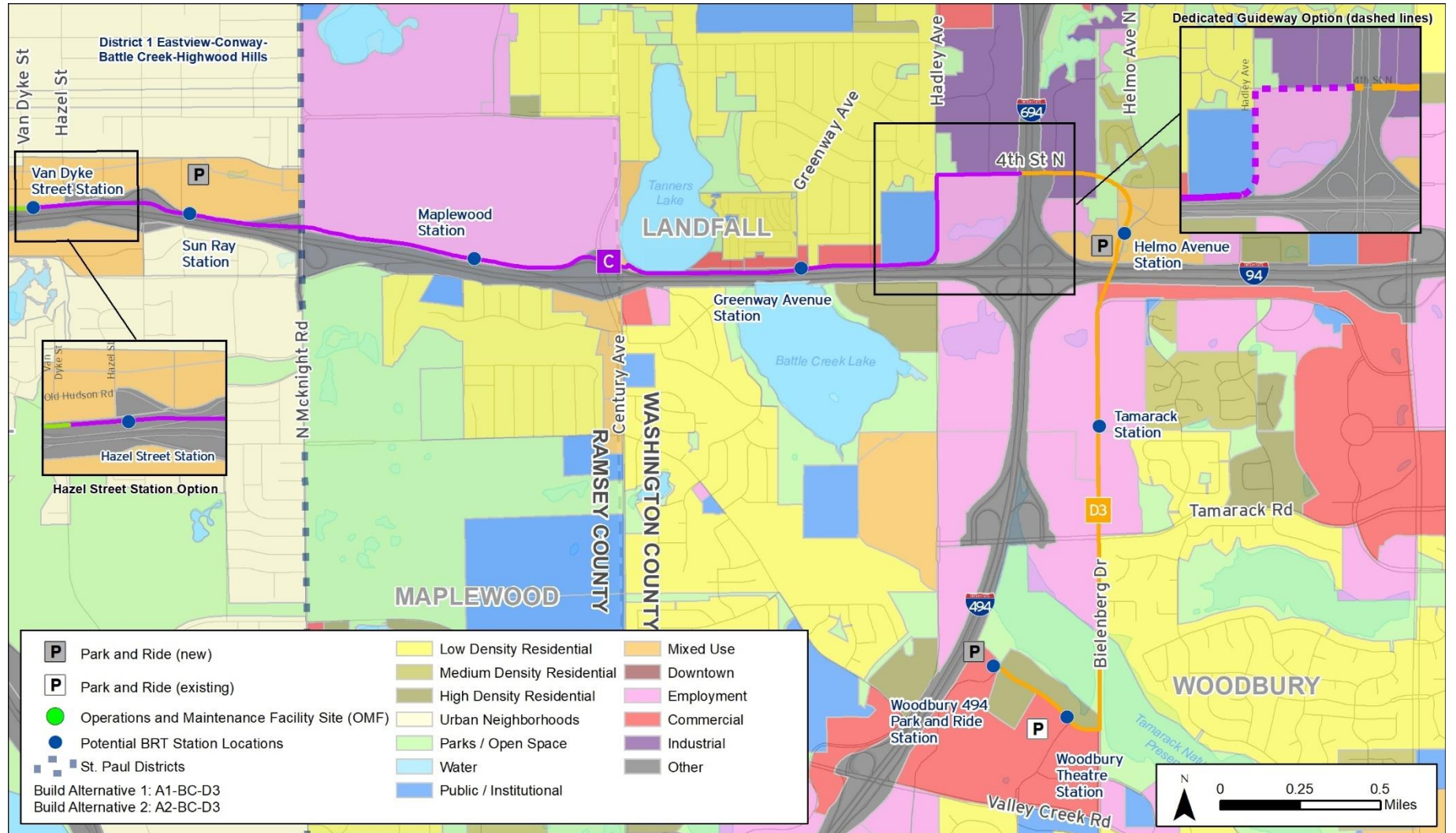




FIGURE 4.2-4: PLANNED 2040 LAND USE ALONG ALIGNMENTS C AND D3





ALIGNMENT A1 (SMITH AVENUE TO MOUNDS BOULEVARD)

The 2040 planned land use near Alignment A1 in Saint Paul is categorized as downtown. The draft *Saint Paul for All: 2040 Comprehensive Plan* (Draft) describes the downtown area around Alignment A1 as the mixed-use core of Saint Paul that provides the greatest employment and housing density in the city.

The draft land use plan also identifies “Neighborhood Nodes” throughout the city that are planned as compact, mixed use areas close to residences that would be denser concentrations of development compared with adjacent land use. The 2040 land use plan identified four Neighborhood Nodes in the downtown area near Alignment A1.

Figure 4.2-3 shows the 2040 planned land use near Alignment A1.

ALIGNMENT A2 (UNION DEPOT TO MOUNDS BOULEVARD)

The 2040 planned land use near Alignment A2 in Saint Paul is categorized as downtown. The draft *Saint Paul for All: 2040 Comprehensive Plan* describes the downtown area as the mixed-use core of Saint Paul that provides the greatest employment and housing density in the city.

Figure 4.2-3 shows the 2040 planned land use near Alignment A2.

ALIGNMENT B (MOUNDS BOULEVARD TO WHITE BEAR AVENUE)

The 2040 planned land use near Alignment B is categorized as urban neighborhood with mixed use nodes around the Etna Street station, Van Dyke Street Station and Hazel Street Station Option.

According to the draft *Saint Paul for All: 2040 Comprehensive Plan*, the urban neighborhood areas along Alignment B are planned for primarily residential areas with a range of housing types. The mixed-use areas are planned for a mix of land uses and allow the highest densities outside of downtown. The draft 2040 plan designates three Neighborhood Nodes along Alignment B that incorporate the Mounds Boulevard, Earl Street and Etna Street station areas.

In the Dayton’s Bluff Heritage Preservation District, the Saint Paul Heritage Preservation Commission reviews land use changes or planned new construction. The *Dayton’s Bluff Historic District Handbook*²⁵ provides guidance on the conservation of historic buildings in this district.

Figure 4.2-3 shows the 2040 planned land use near Alignment B.

ALIGNMENT C (WHITE BEAR AVENUE TO I-694)

Within the City of Saint Paul

The 2040 planned land use along Alignment C in Saint Paul is mixed use. The *Gold Line Station Area Plans* for White Bear Avenue and Sun Ray station areas call for land use intensity commensurate with adjacency to a transitway. The mixed uses planned along Alignment C in Saint Paul include commercial, retail, office, small-scale industry, and institutional, with densities ranging from 30 to 150 units per acre. The 2040 plan also designates the White Bear Avenue and Sun Ray station areas as Neighborhood Nodes.

Within the City of Maplewood

²⁵ *The Saint Paul Heritage Preservation Commission. The Dayton’s Bluff Historic District Handbook. Available at: <https://www.stpaul.gov/DocumentCenter/View2/15226.pdf>. Last modified 1992. Accessed November 2018.*



The planned 2040 land use along Alignment C to the north of I-94 in Maplewood is employment. This area includes the 3M Campus. According to Maplewood's draft *2040 Comprehensive Plan*, planned land use for this area supports major employment centers along with the construction of frequent and reliable transit service to benefit large employment centers.

Figure 4.2-4 shows the 2040 planned land use near Alignment C in Saint Paul.

Within the City of Landfall

The 2040 planned land use for Landfall to the north of Alignment C is commercial and low-density residential. According to Landfall's adopted *2040 Comprehensive Plan*, planned land use within the city is residential and commercial, consistent with existing land use.

Figure 4.2-4 shows the 2040 planned land use near Alignment C in Landfall.

Within the City of Oakdale

The north side of I-94 along Alignment C in Oakdale is planned for commercial, low-density residential, institutional, employment and industrial land uses. According to Oakdale's draft *2040 Comprehensive Plan*, land uses are expected to remain consistent throughout the planning timeframe, except for areas specifically identified for redevelopment and new development projects within the study area.

Oakdale created the *Tanners Lake Proposed Redevelopment Plan* to address the aging businesses on the western edge of Tanners Lake. The proposed plan seeks to utilize the shoreline and scenic views along Tanners Lake and redevelop with new retail, restaurant and office opportunities.

Developable parcels remain along Hudson Boulevard, and development of office and limited business uses is expected in the northwest quadrant of the I-94/I-694 interchange. Industrial and commercial uses are planned to intensify in areas north of 4th Street. Reconstruction of the 4th Street Bridge over I-694 is included in Oakdale's comprehensive plan.

Figure 4.2-4 shows the 2040 planned land use near Alignment C in Oakdale.

ALIGNMENT D3 (I-694 TO WOODBURY 494 PARK-AND-RIDE)

Within the City of Oakdale

The planned 2040 land use along the northern portion of Alignment D3 (north of 4th Street) in Oakdale is industrial, employment and mixed use. Medium-density residential and parks/open space is planned for the area northeast of this portion of Alignment D3.

In response to plans for the Project, the portion of Helmo Avenue south of 4th Street and extending to Hudson Boulevard, is planned for mixed-use BRTOD. This designation allows for higher-density uses such as townhomes and apartment buildings, office-industrial, professional office, and commercial/retail.

Figure 4.2-4 shows the 2040 planned land use near Alignment D3 in Oakdale.

Within the City of Woodbury

The planned 2040 land use along Alignment D3 in Woodbury is employment around the Tamarack Station, and predominately commercial use around the Woodbury Theatre and Woodbury 494 Park-and-Ride stations.

According to Woodbury's draft *2040 Comprehensive Plan*, high-quality office developments are the focus of the employment use area around the Tamarack Station. High-quality retail shopping and services along major roadways near higher-density housing and employment centers is the focus for the planned commercial use area

around the Woodbury Theatre and Woodbury 494 Park-and-Ride stations. Woodbury policies within each of these 2040 land use designations call for consideration of pedestrian and transit-users, promoting high-density development, and encouraging and cooperating with businesses and transit-providers to offer the most effective and efficient transit system possible.

The draft *2040 Comprehensive Plan* includes a “Gold Line Station Area Planning” section to guide more specifically BRTOD practices around the proposed Woodbury stations.

Figure 4.2-4 shows the 2040 planned land use near Alignment D3 in Woodbury.

4.2.3. Planning Context

This section provides a summary of policy and planning documents that are the basis for evaluating land use compatibility for the Project.

4.2.3.1. Local Plan Compatibility

As required by Minnesota Statutes Chapter 473.864, each city, township and county in the seven-county Twin Cities Metropolitan Area must review and update comprehensive plans at least once every 10 years. The latest required comprehensive plan update was for a 2040 planning horizon.

The communities in the study arear have prepared 2040 comprehensive plans, with most plans currently under review by the Council. The City of Landfall has adopted an updated 2040 comprehensive plan and the cities of Saint Paul, Maplewood, Oakdale and Woodbury have draft updates available for public review while under review by the Council. The land use policies described in the 2040 draft comprehensive plans are compatible with the Project. These plan updates frequently identify and consider the Project route when envisioning future land use, growth and development in the proposed station areas.

CITY OF SAINT PAUL

The City released a draft of its *Saint Paul for All: 2040 Comprehensive Plan* in November 2018. The Project is compatible with the City of Saint Paul’s local land use planning policies found within the draft 2040 plan.

The land use chapter of the draft plan encourages multimodal and transit-oriented development (TOD) through planned and associated land use policies. The first citywide land use policy reads: “... *encourage transit-supportive density and direct the majority of growth to areas with the highest existing or planned transit capacity.*” The draft plan seeks to achieve more evenly distributed community amenities, employment opportunities and housing choices across 56 Neighborhood Nodes, which include transit station areas. The draft 2040 plan supports mixed use and high-density developments that promote walking and transit.

The transportation chapter of the draft 2040 plan also supports TOD and transit. Under the goal of providing more transportation choices, transportation policy T-27 reads, “*Improve public transit mode share and support quality public transit in all parts of the city through strategic establishment of transit-supportive land use intensity and design, working with transit providers to improve their services offerings, and supporting transit facilities.*” The plan recognizes the importance of providing quality transit options in high-density areas and working with Metro Transit to ensure all transit users have safe access to employment opportunities and community events.

In 2015 the City of St. Paul adopted the *City of Saint Paul Gold Line Station Area Plans*, and the Council authorized in April 2016 that the station area plans go into effect. The document includes plans for the areas around the proposed Mounds Boulevard, Earl Street, Etna Street, White Bear Avenue and Sun Ray stations. The Station Area Plans were amended in February 2019 to update the White Bear station location. The White Bear Station Area Plan now states the station should be south of Hazel Street where it is visible from Old Hudson Road.



The *Gold Line Station Area Plans* designate the Earl Street Station, Etna Street Station, White Bear Avenue Station and Sun Ray Station areas as “neighborhood centers.” The City of Saint Paul Comprehensive Plan calls for targeting growth in Neighborhood Centers while balancing density and scale of development with other objectives, including consistency with the prevailing character and overall density of the area. The comprehensive plan explicitly recognizes that growth in Neighborhood Centers would be achieved through the development of housing types at densities that support transit and promote walking. The station plan for Mounds Boulevard anticipates little change as this area is predominately residential.

CITY OF MAPLEWOOD

Within the City of Maplewood, the Project is compatible with local land use planning policies. The City of Maplewood released a draft version of its *2040 Comprehensive Plan* in November 2018. The draft plan supports efforts to encourage high-density and mixed-use neighborhoods in targeted areas near transit options. Additionally, the draft 2040 plan speaks directly of the Project as a regional transit investment that would improve accessibility and mobility in the region. The City of Maplewood is pursuing strategies to ensure the safety of transit-riders; for example, the draft plan identifies a future bridge project over I-94 that would provide pedestrians and bicyclists safe access to the Maplewood Station.

CITY OF LANDFALL

The Project is compatible with the *City of Landfall Village 2040 Comprehensive Plan* that includes the goal of providing access to transit for all residents. A supporting objective of this goal is to maintain a working partnership with the regional transit provider. The plan identifies the Project as a planned service facility for the community. Landfall’s draft 2040 plan notes that the Greenway Avenue Station in Oakdale would provide close and convenient transit access for the residents of Landfall.

CITY OF OAKDALE

The Project is compatible with Oakdale’s draft *2040 Comprehensive Plan*. The draft plan promotes the continual improvement of transit access and has a goal of providing transit service for all residents. The draft plan recognizes that a strong transit system provides benefits for residents, businesses, and the environment. Consistent with the Project, the plan supports the rebuilding of the 4th Street bridge over I-694 to include space for a dedicated pedestrian walkway and Gold Line BRT guideway. Further, the plan added a “BRT-oriented development” land use designation for the area surrounding the Helmo Avenue Station.

One policy within the draft 2040 plan relates to small area plans that guide investment and provide recommendations for land use, density and pedestrian and transit use, among other factors. The city recently adopted its *Helmo Station BRTOD Plan* in response to the planned Project route. This plan calls for the development of a new mixed-use neighborhood, which Oakdale anticipates would include the Project BRT station and an adjoining public plaza, medium- and high-density residential units, professional offices and retail, and open space.

The plan also includes parking to accommodate commuters who use the Project BRT, with future consideration for a shared-use parking structure for increased development intensity. The plan for the Helmo Avenue Station area calls for a 100-space park-and-ride facility which is consistent with the Project’s 15% Concept Plans (see **Appendix B**) that also anticipate 100 spaces at the park-and-ride facility.

Oakdale’s draft 2040 plan indicates that the City will prepare a similar plan for the Greenway Avenue Station.

CITY OF WOODBURY

The Project is compatible with the City of Woodbury’s local land use planning policies. The draft 2040 Woodbury Comprehensive plan calls for a multimodal approach to transportation, inclusive of transit, pedestrian and bicycle



travel. This draft plan includes a Gold Line station-area planning section, which provides BRTOD principles for development around the proposed Woodbury stations. The first goal of the station area would be to “define and implement Woodbury’s vision for a vibrant, transit-supportive station area that meets Woodbury’s community and architectural standards,” the plan states. Further, the draft 2040 plan lists coordinating with Metro Transit on the Project among its short-term (zero to two years) and midterm (two to five years) improvements.

4.2.3.2. Regional Plan Compatibility

The Council’s 2040 TPP includes the Project and identifies the Locally Preferred Alternative (LPA) in its fiscally-constrained transit investment plan. The 2040 TPP acknowledges that the Counties Transit Improvement Board identified the Project as a funding priority for its Phase 1 Program of Projects.

A 2018 update to the 2040 TPP identifies the Project as a planned “transitway expansion assumed to be funded within the current revenue scenario.” The 2018 update acknowledges the importance of BRT scalability and adaptability to meet changes in transit demand over time.²⁶

The *Thrive MSP 2040 Transportation Policy Plan* also supports the Project. The plan recommends that the region increase transit service and transit-supporting land uses around transit stations. The Project is specifically identified as a planned transitway expansion with funding priority.

4.2.4. Environmental Consequences

4.2.4.1. Operating Phase (Long-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

Implementation of transit service as included in the Project would be compatible with the local land use planning policies of Saint Paul, Maplewood, Landfall, Oakdale and Woodbury, and with the regional transportation plan. Potential conversions of existing land use to transportation right-of-way would be carried out in accordance with local plans, policies and regulations. Acquisitions and displacements are covered under Section 4.4 of this report.

Hazel Street Station Option

In February 2019, the city amended its Gold Line Station Area Plan to change the recommended station location in the White Bear Avenue Station area from Van Dyke Street to Hazel Street based on public input received during the Project’s design advancement. Prior to this, the plan included a station at Van Dyke Street, therefore this EA evaluates a station at both locations. The Hazel Street Station Option would be located just east of the Van Dyke Street Station and would be within the ½ mile station planning area.

Dedicated Guideway option at Hadley Avenue and 4th Street

This design option would convert more land to transportation use than under mixed traffic in Alignment C due to the slightly larger right-of-way footprint required for the dedicated BRT lanes; however, this option would be compatible with local plans because it would provide the BRT guideway that is an essential component of

²⁶ Metropolitan Council. 2040 Transportation Policy Plan – Chapter 6. Available at: <https://metro council.org/Transportation/Planning-2/Key-Transportation-Planning-Documents/Transportation-Policy-Plan/tpp-update/2018-Transportation-Policy-Plan-Update/Chapter-6-Transit-Investment-Direction-and-Plan.aspx>. Last modified October 2018 Update. Accessed December 2018. “

Oakdale's *Helmo Station BRTOD Plan*, adopted in April 2018, and the *Greenway Avenue Station Small Area Plan*, which is not yet complete.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 is consistent with local plans and policies including the *Draft Saint Paul for All: 2040 Comprehensive Plan* (March 2018) that shows the Gold Line BRT as a planned transitway terminating at Union Depot. Since Alignment A2 would terminate at Union Depot, this alternative would serve a smaller portion of the mixed-core of Saint Paul that provides the greatest employment and housing density in the city in accordance with the Downtown designation shown in 2040 Comprehensive Plan.

4.2.4.2. Construction Phase (Short-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

Build Alternative 1 generally would produce the following short-term impacts to land use:

- Traffic detours resulting in traffic increases through residential neighborhoods
- Noise, dust, and visual impacts due to construction
- Temporary effects to land use due to staging areas

These impacts do not create compatibility issues with planning policy documents. Other resource analyses in this report (**Section 4.3. Community Facilities, Character and Cohesion**) or in the other technical reports in **Appendix A** (for example, Section 5.8. Noise and Vibration in the *Physical and Environmental Resources Technical Report*) address the Project-related negative impacts listed above.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Short-term impacts would be the same as Build Alternative 1 except the impacts would be less since Alignment A2 terminates at Union Depot instead of extending to Smith Avenue.

HAZEL STREET STATION OPTION

Short-term impacts would be the same as the Van Dyke Station except the construction-related impacts would occur at Hazel Street instead of Van Dyke Street.

DEDICATED GUIDEWAY OPTION AT HADLEY AVENUE AND 4TH STREET

Short-term impacts under the Dedicated Guideway Option would be greater than the mixed-traffic alignment in Alignment C because the Dedicated Guideway Option may require additional work in the right-of-way and reconstruction of the bridge over I-694.

4.2.5. Avoidance, Minimization and/or Mitigation Measures

The Council does not anticipate impacts to land use because the Build Alternatives would be compatible with land use planning documents; therefore, the Council does not propose avoidance, minimization or mitigation measures for either Build Alternative 1 or Build Alternative 2. Ongoing coordination with local communities would occur for the placement of BRT stations and park-and-ride facilities.



4.3. Community Facilities, Character and Cohesion

This section evaluates Project-related impacts to community facilities, character and cohesion.

4.3.1. Regulatory Context and Methodology

No specific laws or executive orders regulate how impacts to community facilities, character and cohesion resulting from transit projects are evaluated. NEPA and MEPA form the general basis of consideration of these potential social impacts.

This impact analysis consists of two parts: an analysis of potential impacts to community facilities and an analysis of impacts to community character and cohesion. The community facilities impact analysis is based on the geographic location of such facilities as schools, colleges, libraries, community centers, parks, medical facilities, places of worship, police and fire departments, and community service organizations in relation to the proposed Build Alternatives.

The resource study area is the area within ½-mile of the proposed alignments. Transit planners commonly use a ½-mile radius to represent the distance transit-users are willing to walk to a transit station. The analysis evaluated community facilities within 200 feet of the proposed alignments for potential impacts from construction and operation of the Project, including property acquisitions and displacements, loss of parking, access changes, visual changes, and noise impacts. The analysis evaluated community facilities located beyond 200 feet from but within ½-mile of the Project alignments only for potential impacts to access and visual aesthetics.

The community character and cohesion impacts analysis is based on established neighborhood boundaries or local knowledge of other cohesive areas such as subdivisions or college or corporate campuses. Cohesive areas were evaluated for any physical or visual divide of communities and negative alteration of community connections.

Community data for the analysis was obtained from comprehensive plans for the cities of Saint Paul,²⁷ Maplewood,²⁸ Landfall,²⁹ Oakdale,³⁰ and Woodbury.³¹ This data was supplemented by recent aerial photography, available GIS shapefiles and parcel data, input from public involvement activities, and internet search results for community organizations. Impacts to community facilities and cohesion were informed by findings presented in the following sections of technical reports in **Appendix A** of this EA:

²⁷ City of Saint Paul. Comprehensive Plan – Adopted February 2010. Available at: <https://www.stpaul.gov/departments/planning-economic-development/planning/citywide-plans>. Last modified February 24, 2010. Accessed May 2018.

²⁸ City of Maplewood. Comprehensive Plan (Draft). Available at: <https://www.maplewoodmn.gov/1718/2040-Comprehensive-Plan>. Last modified November 2018. Accessed December 2018.

²⁹ City of Landfall Village. 2040 Comprehensive Plan. Available at: <http://citcms.cityoflandfall.com/FileUpload/2040%20Comp%20Plan%20Update%2009182017.pdf>. Last modified September 18, 2017. Accessed May 2018.

³⁰ City of Oakdale. 2008 Comprehensive Plan. Available at: <https://www.ci.oakdale.mn.us/201/Comprehensive-Plan>. Last modified 2008. Accessed May 2018.

³¹ City of Woodbury. Draft 2040 Comprehensive Plan Available at: https://www.woodburymn.gov/departments/planning/draft_2040_comprehensive_plan.php. Last modified 2018. Accessed November 2018.



- Section 3.2. Traffic and Section 3.4. Parking and Driveways in the *Transportation Resources Technical Report* in **Appendix A**
- Section 4.4. Acquisitions, Displacements and Relocations and Section 4.5. Visual Quality and Aesthetics
- Section 5.8. Noise and Vibration in the *Physical and Environmental Resources Technical Report* in **Appendix A**

Parks are different than other community facilities in that they are also subject to evaluation in the context of Section 4(f) of the Department of Transportation Act of 1966³², which governs the use of public park and recreation lands, government-owned wildlife lands, and historic resources. See the *Section 4(f) and Section 6(f) Resources Technical Report* in **Appendix A** for a discussion of potential impacts to Section 4(f) properties.

Also related to parklands, the Outdoor Recreation Grant Program administered by the Minnesota Department of Natural Resources (DNR) assists local governments in acquiring parklands and developing or redeveloping outdoor recreation facilities. According to the Outdoor Recreation Grant Program Fiscal Year 2017 Program Manual,³³ “All land improved or acquired with assistance from this grant program must be retained and operated solely for outdoor recreation.” This mirrors regulations of Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LWCF)³⁴ (16 USC § 4601-4 et seq), which guards against the conversion of parklands planned, acquired, or developed with LWCF dollars. Outdoor recreational lands funded through the LWCF are protected as Section 6(f) properties and evaluated for impacts in the *Section 4(f) and Section 6(f) Resources Technical Report* in **Appendix A**.

Minnesota has adopted the LWCF grant guidelines for the administration of the Outdoor Recreation Grant Program; therefore, parks that have received state grant funds are subject to requirements similar to parks that have received LWCF funds. It is within these guidelines that parklands included in the Outdoor Recreation Grant Program and within 200 feet of the Project alignment were evaluated.

In addition to the grants made by the DNR, the Council provides grants for acquisition of regional parkland. The 2040 RPPP¹¹ includes System Protection Policies to “*Protect public investment in acquisition and development by assuring that every component in the system is able to fully carry out its designated role as long as a need for it can be demonstrated.*” The 2040 RPPP update requires a restrictive covenant record all the parkland that regional funding has helped acquire. The restrictive covenant ensures that the regional parks system uses the parkland in perpetuity and ensures no sale, lease or mortgage of the parkland or other conveyance, restriction or encumbrance against the property unless the Council approves the action in writing, and the approval is recorded against the property. Additionally, any conversion of regional parkland to another use requires the Council to approve an equally valuable land or facility exchange. It is within these guidelines that the analysis evaluated parklands under the purview of System Protection Policies and located within 200 feet of the Project alignment.

³² “Section 4(f) of the Department of Transportation Act of 1966, as amended,” 49 U.S. Code, Sec 303 et seq. Available at: <https://www.gpo.gov/fdsys/pkg/USCODE-2009-title49/html/USCODE-2009-title49-subtitle1-chap3-subchapl-sec303.htm>. Accessed May 2018.

³³ Minnesota Department of Natural Resources. “Outdoor Recreation Grant Program – 2018 Program Manual”. Available at: http://files.dnr.state.mn.us/assistance/grants/recreation/outdoor_rec/program_manual.pdf. Last modified October 2017. Accessed May 2018.

³⁴ “Land and Water Conservation Fund Act of 1965, as amended,” Title 16, U.S. Code, Sec. 4601–4 et seq. Available at: https://www.parks.ca.gov/pages/21491/files/16_usc_sec_4601_f_3%20lwcf_act.pdf. Accessed May 2018.

4.3.2. Affected Environment

This section describes each of the cities along the proposed Build Alternatives: Saint Paul, Maplewood, Landfall, Oakdale and Woodbury. Where applicable, the sections provide descriptions of formally recognized neighborhoods within these cities. This discussions in the following sections use the term “neighborhood” to mean a geographic area within a Project corridor city. This section also inventories the corridor cities’ community facilities.

These community descriptions provide context for subsequent discussion about displacements and relocations, community facilities, cohesion within communities, and safety and security concerns associated with the Project. The analysis identifies existing physical features such as roadways or major topographical changes that may represent barriers between communities and neighborhoods, as well as roadways that provide connectivity within communities.

4.3.2.1. City of Saint Paul

Saint Paul is organized into 17 geographic districts, each of which has a name and a number.³⁵ The Project would serve three of the districts in Saint Paul as shown on **Figure 4.3-1**, **Figure 4.3-3** and **Figure 4.3-4**.

Alignments A1 and A2 would pass through District 17 – Downtown and end in District 4 – Dayton’s Bluff. Alignment B would start in District 4 – Dayton’s Bluff and end in District 1 – Eastview-Conway-Battle Creek-Highwood Hills. Each district is composed of several neighborhoods or sub-districts.

Alignment B would follow Mounds Boulevard to Hudson Road in the Dayton’s Bluff neighborhood then continue on Hudson Road north of I-94 through the Eastview-Conway-Battle Creek-Highwood Hills neighborhoods of District 1 to east of White Bear Avenue. Alignment C would begin just east of White Bear Avenue and extend into Maplewood, Landfall, and Oakdale to I-694.

The Project would cross over the Bruce Vento Nature Sanctuary in mixed traffic on the Kellogg Boulevard Bridge. The Council awarded the City of Saint Paul grants for acquisition of regional parkland for the Bruce Vento Nature Sanctuary, which is part of the Bruce Vento Regional Trail corridor. In accordance with the System Protection Policies listed in the 2040 RPPP, restrictive covenants were placed on the Bruce Vento Nature Sanctuary property ensuring that the parkland is used in perpetuity for regional parks system purposes.

DISTRICT 17 – DOWNTOWN

District 17 – Downtown encompasses all of downtown Saint Paul and includes the central business district, the Lowertown historic warehouse district, and the State Capitol Building and environs. The Downtown District is cohesive, with a regular street grid connecting the central business district and Lowertown. Alignments A1 and A2 would pass through the Downtown District and use the Kellogg Boulevard Bridge to access District 4 – Dayton’s Bluff. Kellogg Boulevard is an important connection through downtown Saint Paul and one of the few connections between downtown and the east side of Saint Paul. As shown in **Figure 4.3-1**, several community facilities are near Alignments A1 and A2 in District 17 – Downtown including St. Paul City Hall, Saint Joseph’s Hospital and the Excel Energy Center along with many other museums, parks and government buildings.

³⁵ Saint Paul is divided into 17 districts, each with a district council that is an autonomous, 501(c)(3) nonprofit agency that provides residents in the district an opportunity to become involved in city planning.



DISTRICT 4 – DAYTON’S BLUFF

District 4 – Dayton’s Bluff neighborhood is bounded by Phalen Boulevard to the north, Swede Hollow Park and Highway 52 to the west, Birmingham Street and Barclay Street on the east, and the Mississippi River and Warner Road to the south. I-94 bisects the neighborhood and separates the Dayton’s Bluff Heritage Preservation District and the business district on East 7th Street from the small, mostly residential part of the neighborhood south of I-94. The northern part of Dayton’s Bluff is cohesive with a regular street grid. Alignment B would travel on Hudson Road through Dayton’s Bluff, just north of I-94. Community facilities within District 4 include Metropolitan State University, Dayton’s Bluff Elementary and Recreation Center, along with places of worship, parks and other schools. **Figure 4.3-2** shows the District 4 – Dayton’s Bluff neighborhood boundaries and the community facilities located within the Project study area.

DISTRICT 1 – EASTVIEW-CONWAY-BATTLE CREEK-HIGHWOOD HILLS

District 1 is composed of four neighborhoods: Eastview, Conway, Battle Creek, and Highwood Hills. The district is bounded by Minnehaha Avenue to the north, Birmingham Street and Warner Road on the west, McKnight Road on the east, and the Mississippi River to the south. I-94 cuts directly through the northern part of the district, separating the Eastview and Conway Neighborhoods to the north of I-94 from the Battle Creek and Highwood Hills Neighborhoods to the south. Alignment B would travel on Hudson Road on the north side of I-94 and on Old Hudson Road through District 1. Community facilities present within District 1 include Conway Field and Community Recreation Center, Sun Ray Transit Center, and numerous parks, places of worship, schools and other community assets. **Figure 4.3-3** shows the District 1 boundaries and the community facilities located within the Project study area.



FIGURE 4.3-2: COMMUNITY RESOURCES ALONG ALIGNMENT B IN SAINT PAUL DISTRICT 4 – DAYTON'S BLUFF

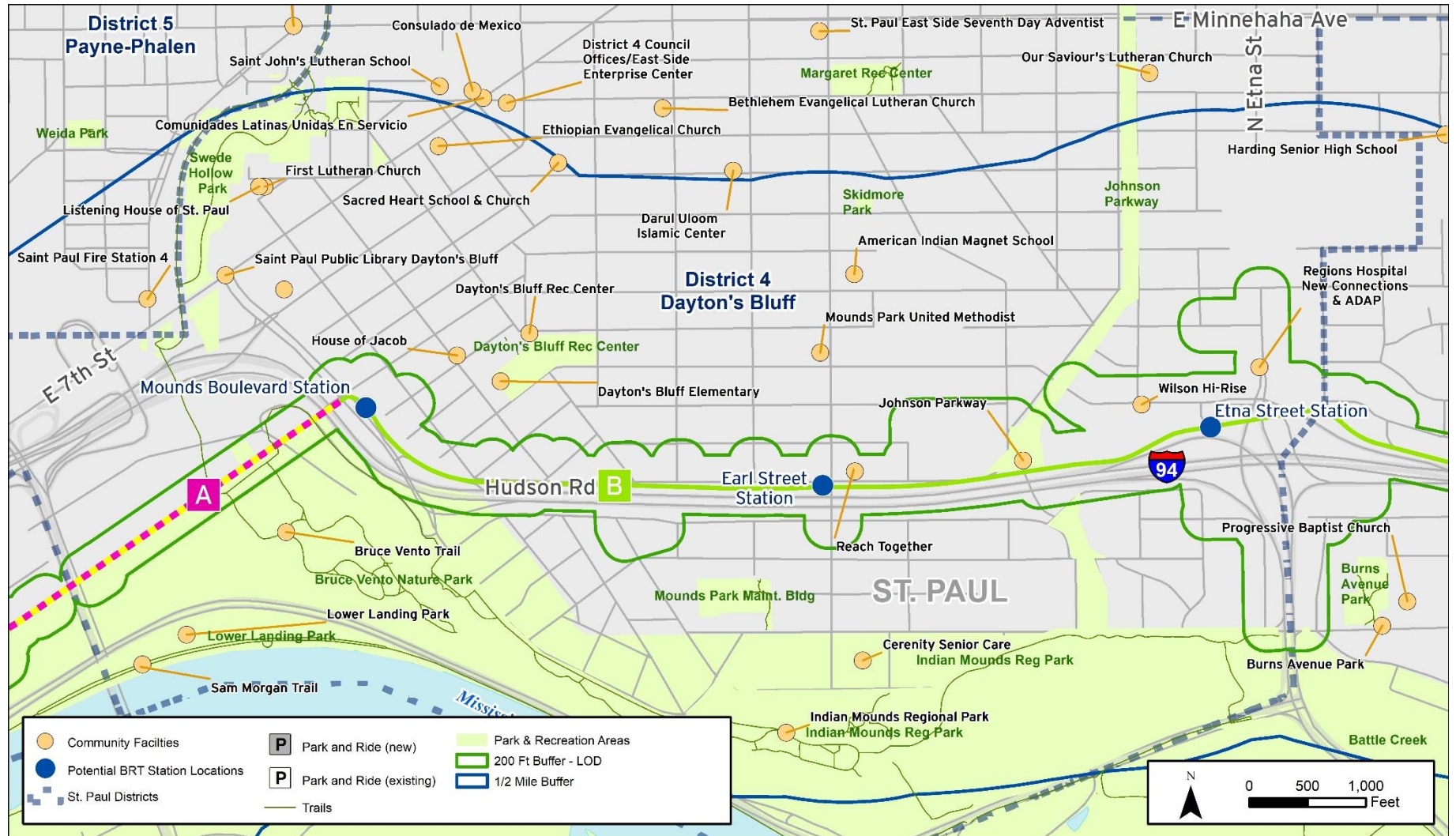
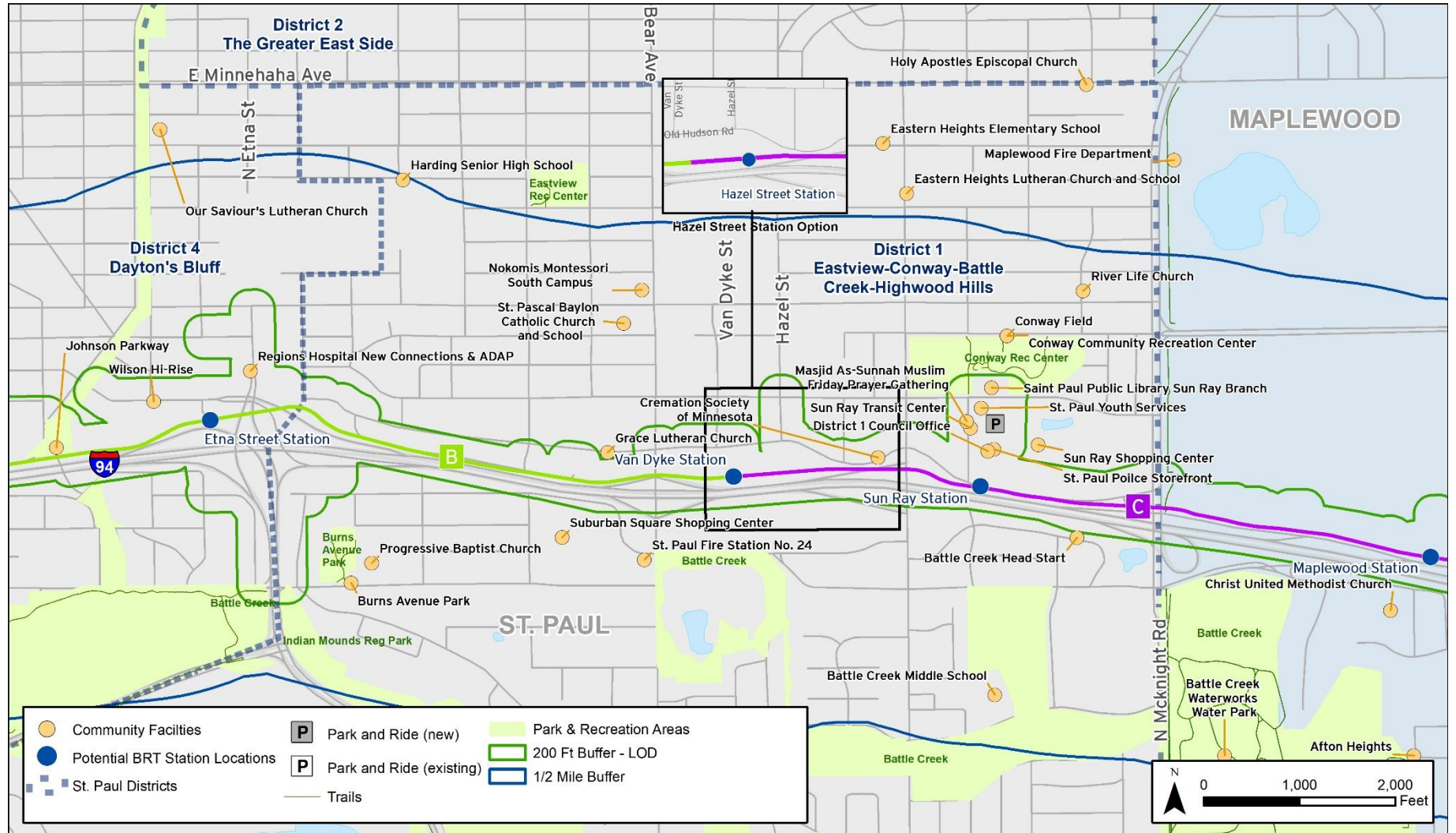




FIGURE 4.3-3: COMMUNITY RESOURCES ALONG ALIGNMENTS B AND C IN SAINT PAUL DISTRICT 1 – EASTVIEW-CONWAY-BATTLE CREEK-HIGHWOOD HILLS





4.3.2.2. City of Maplewood

Maplewood has 13 officially recognized neighborhoods within its boundaries. Alignment C would pass through the Beaver Lake Neighborhood with a station at the 3M campus that would also serve the Battle Creek Neighborhood to the south. Alignment C would run parallel to Hudson Road, and this section of Alignment C in Maplewood would be located entirely within the 3M campus. Community facilities near Alignment C in Maplewood include Battle Creek Park, Afton Heights Park and the Christ United Methodist Park.

BEAVER LAKE NEIGHBORHOOD

The Beaver Lake Neighborhood extends the width of Maplewood in this area, from McKnight Road on the west to Century Avenue on the east. Its northern boundary is the freight train track north of Maryland Avenue and its southern boundary is I-94. The 3M campus consumes the southern quarter of the neighborhood and is bounded to the north by residential neighborhoods and undeveloped land. The 3M campus presents an iconic sight and is a major employer, though its internal circulation and private roadways coupled with I-94 to the south act as barriers to connectivity between the Beaver Lake Neighborhood and Battle Creek Neighborhood to the south.

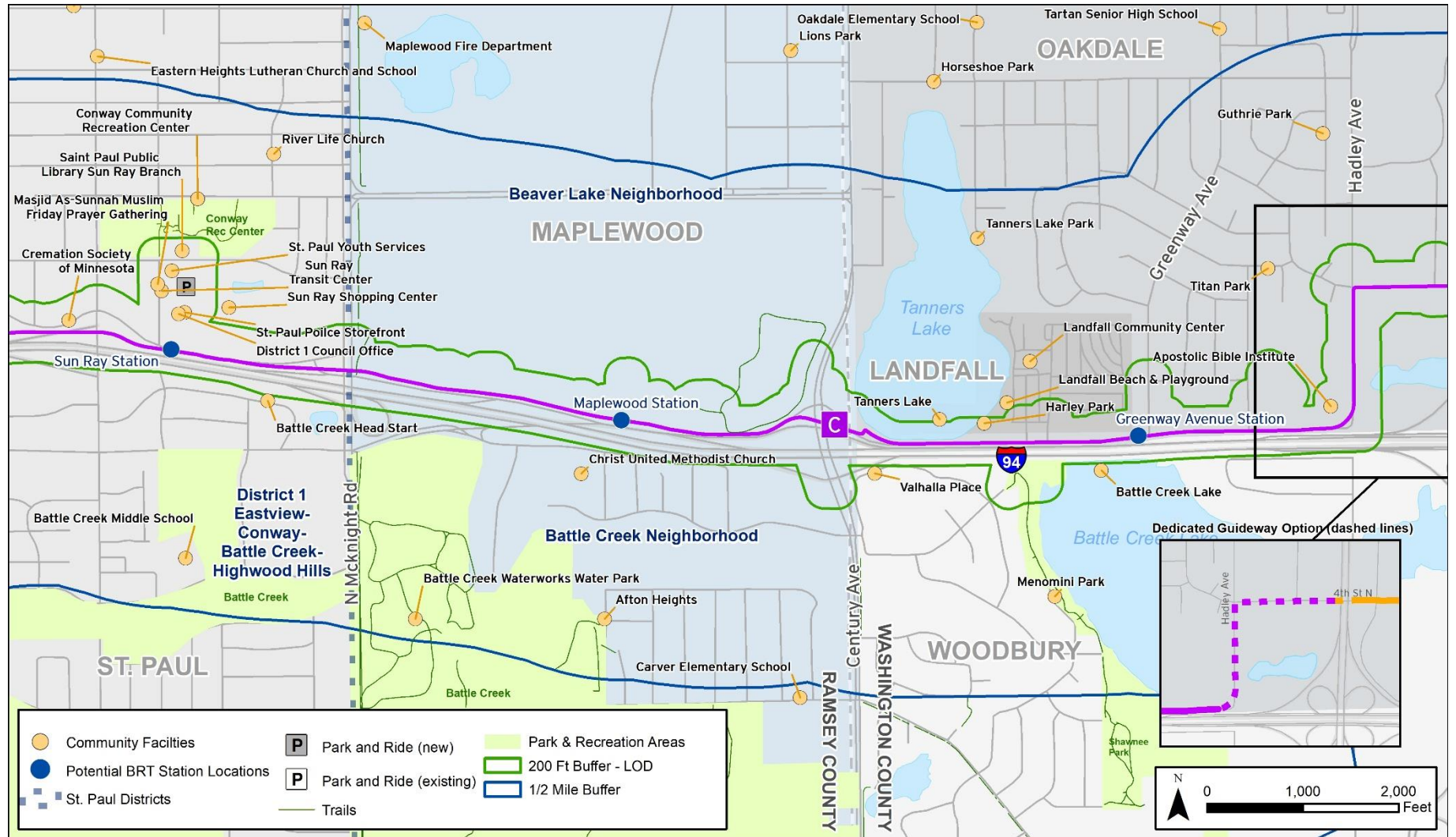
BATTLE CREEK NEIGHBORHOOD

The Battle Creek Neighborhood is a small residential neighborhood to the south of Alignment C and is bound by I-94 to the north and Lower Afton Road to the south. I-94 acts as a major barrier to the residential area to the north. Battle Creek Park forms the western boundary of the neighborhood and acts as a buffer between the neighborhood and the railroad yard and industrial uses along the Mississippi River. Century Avenue acts as the boundary between the Battle Creek Neighborhood and the City of Woodbury. Century Avenue's change in land use, from single family residential to more auto-oriented commercial uses, diminishes connectivity to neighborhoods to the east.

Figure 4.3-4 shows the neighborhoods and the community facilities located within the Project study area in Maplewood.



FIGURE 4.3-4: COMMUNITY FACILITIES ALONG ALIGNMENT C IN MAPLEWOOD, LANDFALL AND OAKDALE





4.3.2.3. City of Landfall

Landfall does not have officially recognized neighborhoods within its boundaries. The city is located on 53 acres of land, bound by Tanners Lake to the west, Greenway Avenue to the east, 5th Avenue to the north, and Hudson Boulevard to the south. Landfall consists of the Landfall Terrace manufactured home park, an RV park, and two commercial properties on the southern boundary. There are no major barriers within Landfall. However, the city's streets are internal to the community, having only two points of ingress and egress and no direct connections to adjacent neighborhoods to the north and east in Oakdale. Alignment C would use Hudson Boulevard immediately south of Landfall, and the Greenway Avenue Station would serve the community. Community facilities within Landfall include Harley Park, Landfall Community Center and the Landfall Beach and Playground. **Figure 4.3-4** shows the neighborhoods and the community facilities located within the Project study area in Landfall.

4.3.2.4. City of Oakdale

Oakdale does not have officially recognized neighborhoods within its boundaries. I-694 is a major barrier in Oakdale, separating industrial uses that line both sides of the highway. In this area, the Project would cross over I-694 at 4th Street. Oak Marsh Golf Course is also a barrier in Oakdale, separating 4th Street from residential areas to the north. Finally, I-94 separates Oakdale from Woodbury to the south, with just one connection between the two communities on Inwood Avenue/Radio Drive. Alignment D3 would pass through Oakdale, turning south towards Woodbury near the intersection of 4th and Helmo Avenue. Community facilities in Oakdale include Saint Mary's University, Apostolic Bible Institute and Miniapple International Montessori Schools, along with a number of parks. **Figure 4.3-4** and **Figure 4.3-5** show the neighborhoods and the community facilities located within the Project study area in Oakdale.

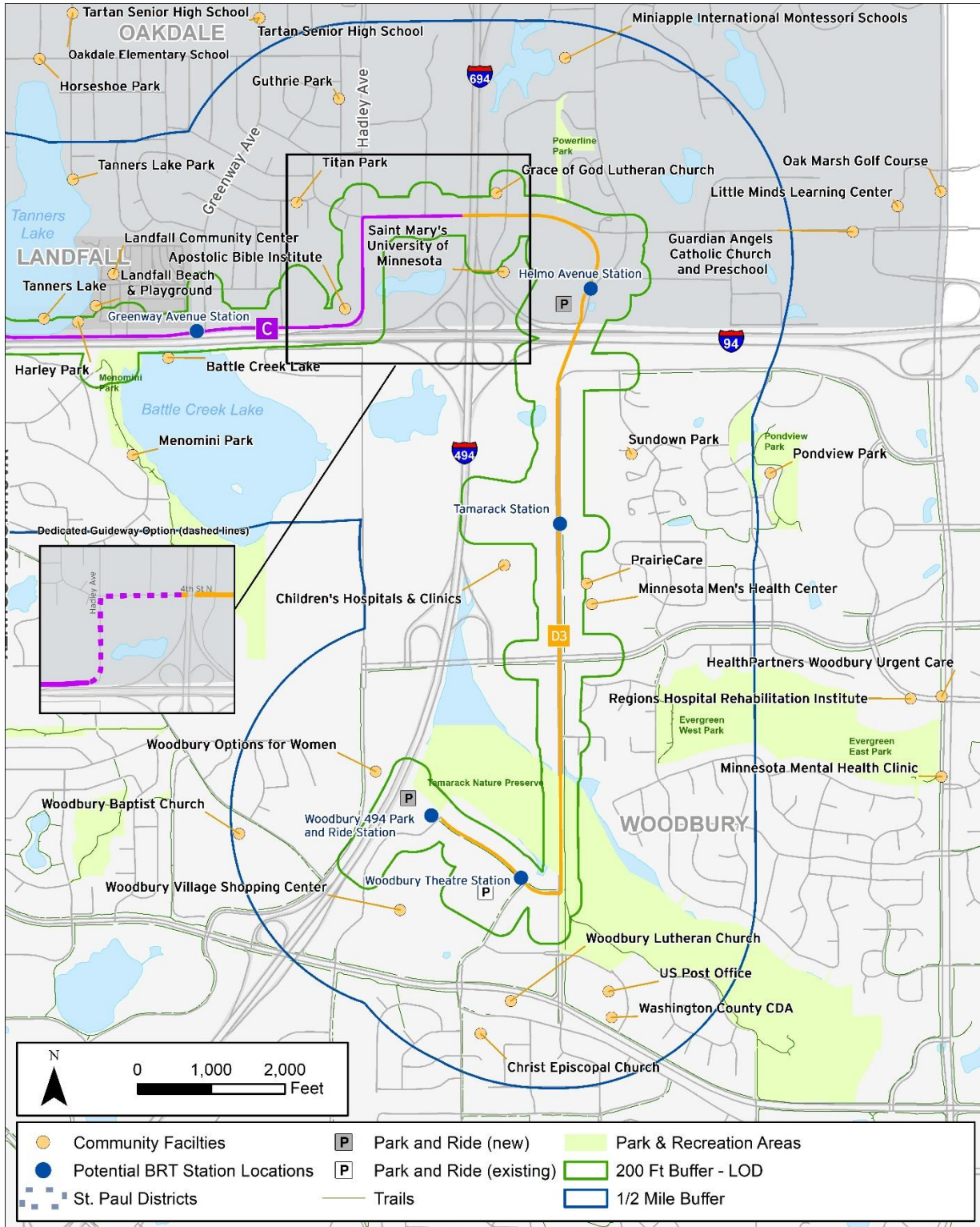
4.3.2.5. City of Woodbury

Woodbury does not have officially recognized neighborhoods within its boundaries. Radio Drive and Woodbury Drive are two major north-south arterial roadways that carry high volumes of traffic and act as barriers between neighborhoods and developments. Similarly, I-494 separates the northwest corner of the city from the concentrations of commercial development to the east. Valley Creek Road is a major east-west connector in the more developed northern half of Woodbury, and Tamarack Road provides connectivity in the emerging area surrounding Bielenberg Drive.

Connections between subdivisions are generally only on collector streets, which function as barriers between neighborhoods except at access points. As discussed above, I-94 is currently a barrier between Woodbury and Oakdale to the north. Alignment D3 would pass south through Woodbury along Bielenberg Drive. Community facilities within Woodbury include several health-care facilities near the Tamarack Station, places of worship and shopping near Woodbury Theatre. Also, the Tamarack Nature Preserve that includes 2 miles of trails is located to the east and west of Bielenberg Drive adjacent to this section of the alignment. **Figure 4.3-5** shows the neighborhoods and the community facilities located within the Project study area in Woodbury.



FIGURE 4.3-5: COMMUNITY FACILITIES ALONG ALIGNMENTS C AND D3 IN LANDFALL, OAKDALE AND WOODBURY





4.3.3. Environmental Consequences

This section evaluates potential direct access, parking, noise, visual, and property acquisition³⁶ impacts to community facilities within 200 feet of the Project alignments and evaluates impacts to community cohesion and character. The analysis also includes an evaluation of potential impacts to community facilities beyond 200 feet but within ½-mile of the proposed alignments.

4.3.3.1. Operating Phase (Long-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

The following discussion evaluates the potential access changes, loss of parking, noise impacts, visual changes, and property acquisition and displacement impacts of the Project alignments on existing community facilities and the character and cohesion of the communities.

Alignment A1 (Downtown Saint Paul)

The analysis identified 23 community facilities within 200 feet of Alignment A1, and more within ½-mile of the alignment. **Table 4.3-1** lists these facilities, all of which are in the City of Saint Paul.

TABLE 4.3-1: COMMUNITY FACILITIES ALONG ALIGNMENT A1

Community Facility	Distance from Alignment A1 ³⁷	Location
Bruce Vento Nature Sanctuary	<200 feet	4th St. E. and Commercial St.
Bruce Vento Regional Trail	<200 feet	4th St. E. and Commercial St.
College of Saint Scholastica	<200 feet	340 Cedar St.
Catholic Charities Opportunity Center	<200 feet	183 Old 6th St. W.
Depot Tot Lot	<200 feet	4th and Sibley streets
District 17 Council Offices	<200 feet	101 5th St. E.
Hamm Memorial Plaza	<200 feet	99 6th St. W.
Hamm Memorial Psychiatric Clinic	<200 feet	408 St. Peter St.
Landmark Center	<200 feet	75 5th St.
Landmark Plaza	<200 feet	379 St. Peter St.
Mears Park	<200 feet	221 5th St. E.
Minnesota Museum of American Art	<200 feet	350 Robert St. N

³⁶ The number of acquisitions and displacements are based on the 15% Concept Plans and are approximate and subject to change as the Project advances.

³⁷ Indicates distance from Alignment A1. The Council reviewed community facilities within 200 feet of Alignment A1 for impacts to access, parking, noise, visual quality and property acquisition; the Council assumed community facilities more than 200 feet from the proposed alignments would not experience impacts, and it evaluated them only for impacts related to access and visual quality.



Community Facility	Distance from Alignment A1³⁷	Location
Minnesota Virtual High School	<200 feet	180 5th St. E.
Mississippi National River Recreation Area	<200 feet	No address
Ordway Center	<200 feet	345 Washington St.
Palace Theatre	<200 feet	17 7th Place W.
Proactive Healthcare	<200 feet	101 5th St. E.
Rice Park	<200 feet	109 4th St. W.
Roy Wilkins Auditorium	<200 feet	175 Kellogg Blvd. W.
Saint Paul Downtown YMCA	<200 feet	194 6th St. E.
Saint Paul Radiology Administration	<200 feet	166 4th St. E.
Union Depot	<200 feet	214 4th St. E.
Xcel Energy Center	<200 feet	199 Kellogg Blvd. W.
American Red Cross	>200 feet	100 Robert St. S.
Assumption Catholic Church	>200 feet	51 7th St. W.
Cathedral of Saint Paul	>200 feet	239 Selby Ave.
Central Presbyterian Church	>200 feet	500 Cedar St.
Christopher Place	>200 feet	286 Marshall Ave.
Church of Saint Louis	>200 feet	506 Cedar St.
Church of Scientology	>200 feet	505 Wabasha St. N.
Creative Arts Secondary School	>200 feet	65 Kellogg Blvd. E.
Culture Park	>200 feet	122 Kellogg Blvd. E.
Downtown Alano Society	>200 feet	520 Robert St. N.
First Baptist Church	>200 feet	499 Wacouta St.
Fitzgerald Theater	>200 feet	10 Exchange St. E.
Freeman Office Building	>200 feet	625 Robert St. N.
George Latimer Central Library	>200 feet	90 4th St. W.
Germanic-American Institute	>200 feet	301 Summit Ave.
Harriet Island Regional Park	>200 feet	200 Dr. Justus Ohage Blvd.
James J. Hill Center	>200 feet	80 4th St. W.
James J. Hill House	>200 feet	240 Summit Ave.
Lower Landing Park	>200 feet	200 Warner Road
Lowertown Ballpark/CHS Field	>200 feet	360 N. Broadway St.



Community Facility	Distance from Alignment A1 ³⁷	Location
Minnesota Children’s Museum	>200 feet	10 E. 7th St.
Minnesota Department of Revenue	>200 feet	600 Robert St. N.
Minnesota Department of Transportation	>200 feet	395 John Ireland Blvd.
Minnesota History Center	>200 feet	345 W. Kellogg Blvd.
Minnesota State Patrol	>200 feet	444 Cedar St. #130
National Guard (Minnesota)	>200 feet	600 Cedar St.
Pedro Park	>200 feet	114 10th St. E.
Ramsey County Courthouse	>200 feet	15 Kellogg Blvd. W.
Ramsey County Department of Community Human Services	>200 feet	160 Kellogg Blvd. E.
Raspberry Island Regional Park	>200 feet	2 Wabasha St.
SafeZone Drop-In Center	>200 feet	130 7th St. E.
Sam Morgan Regional Trail	>200 feet	Parallel to Shepard and Warner Roads
Saint Mary’s Church	>200 feet	261 8th St. E.
Saint Paul City Hall	>200 feet	15 Kellogg Blvd. W.
Saint Paul College	>200 feet	235 Marshall Ave.
Saint Paul Farmers’ Market	>200 feet	290 5th St. E.
Saint Paul Fire Station 8	>200 feet	100 11th St. E.
Saint Paul Fire Station 4	>200 feet	505 Payne Ave.
Saint Paul Radiology	>200 Feet	514 St. Peter St.
Saint Paul Rivercenter	>200 feet	175 Kellogg Blvd. W.
Science Museum of Minnesota	>200 feet	120 Kellogg Blvd. W.
Union Gospel Mission	>200 feet	109 E. 9th St.

Access Changes

Alignment A1 would operate partly in dedicated bus lanes and partly in mixed traffic in downtown Saint Paul in a manner like other bus transit currently operating in downtown (see the 15% Concept Plans in **Appendix B**). A new traffic signal at the Kellogg Boulevard/Wacouta Street intersection would allow buses to turn left from southbound Wacouta Street onto eastbound Kellogg Boulevard. No driveways would be closed, and intersections and driveways would not be converted to right-in/right-out access only along this alignment. As a result, no access impacts to community facilities within 200 feet of Alignment A1 are anticipated from the Project and it would not affect community character and cohesion along the alignment.



Loss of Parking

Along Alignment A1, 27 on-street parking spaces would be removed. The loss of parking spaces would generally occur near proposed platform locations. Alignment A1 would eliminate:

- Four on-street spaces on the east side of Sibley Street between 4th and 5th streets
- Three on-street spaces on the south side of 6th Street between Washington and 7th streets
- Thirteen on-street spaces on the south side of 5th Street between Robert and Jackson streets
- Four on-street spaces on the east side and three on-street spaces on the west side of Wacouta Street between 5th and 4th streets. For a total of seven on-street spaces being eliminated

The area around Alignment A1 has a high density of community facilities since it is in downtown Saint Paul. However, the loss of these 27 spaces is not expected to adversely impact community facilities within 200 feet of Alignment A1 since it is in an area with many other on-street and off-street parking facilities typical of downtown locations. Also, the loss of these spaces is not expected to affect community character and cohesion since it would not create any new physical or visual divisions between neighborhoods.

Noise Impacts

No long-term noise impacts were identified for the Project. Therefore, no long-term noise impacts to community facilities within 200 feet of Alignment A1 would occur and would not affect community character and cohesion would occur from noise along Alignment A1.

Visual Changes

Several views with high visual quality were identified along Alignment A1 including historic sites/districts and parks, along with panoramic views of the St. Paul Skyline and Mississippi River from Dayton's Bluff. Low visual impacts are expected for Rice Park and moderate visual impacts are expected for Hamm Plaza along Alignment A1. These visual impacts are not expected to affect community facilities within 200 feet of Alignment A1. Also, these visual changes would not impact community character and cohesion since buses currently operate in downtown and stop at existing bus stops. Also, the alignment would not create any new physical or visual barriers between neighborhoods.

Property Acquisitions and Displacements

The Project would cross over the Bruce Vento Nature Sanctuary in mixed traffic on the Kellogg Boulevard Bridge. The Council awarded the City of Saint Paul grants for acquisition of regional parkland for the Bruce Vento Nature Sanctuary, which is part of the Bruce Vento Regional Trail corridor. In accordance with the System Protection Policies listed in the 2040 RPPP³⁸, restrictive covenants were placed on the Bruce Vento Nature Sanctuary property ensuring that the parkland is used in perpetuity for regional parks system purposes, however the Project would not need to acquire property from this sanctuary and thus would not result in a conversion of the Bruce Vento Nature Sanctuary to a non-recreation use. See the *Section 4(f) and Section 6(f) Resources Technical Report* in **Appendix A** for more information about the sanctuary.

³⁸ Metropolitan Council. 2040 Regional Parks Policy Plan. Available at: <https://metro council.org/Parks/Planning/Parks-Policy-Plan.aspx>. Last modified November 28, 2018. Accessed March 2019.



Alignment A1 would require permanent partial acquisition of two parcels along the alignment, amounting to 0.1 acre (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions). The partial acquisitions would not produce impacts to any community facilities within 200 feet of the alignment.

The Council does not anticipate the partial acquisitions to affect community character or cohesion because the partial acquisitions would be small portions of parcels along the edges of property.

Impacts Beyond 200 Feet but Within ½-Mile of the Proposed Alignment

Consideration of access and visual impacts determined that the Project would not have impacts to community facilities beyond 200 feet but within ½-mile of Alignment A1 based on their distance from the proposed alignment and lack of access changes. Therefore, Alignment A1 would not present physical or social barriers and would not affect community character and cohesion.

Alignment B (Mounds Boulevard to White Bear Avenue)

The analysis identified five community facilities within 200 feet of Alignment B, and more within ½-mile of the alignment. **Table 4.3-2** lists these facilities, all of which are in the City of Saint Paul.

TABLE 4.3-2: COMMUNITY FACILITIES ALONG ALIGNMENT B

Community Facility	Distance from Alignment B ³⁹	Location
Grace Lutheran Church	<200 feet	1730 Old Hudson Road
Johnson Parkway	<200 feet	Johnson Parkway at I-94
Reach Together	<200 feet	1075 Hudson Road
Regions Hospital ADAP	<200 feet	445 Etna St.
Wilson Hi-Rise	<200 feet	1300 Wilson Ave.
American Indian Magnet School	>200 feet	1075 3rd St. E.
Battle Creek Regional Park	>200 feet	75 Winthrop St. S.
Bruce Vento Nature Sanctuary	>200 feet	4th St. E. and Commercial St.
Bruce Vento Regional Trail	>200 feet	4th St. E. and Commercial St.
Burns Avenue Park	>200 feet	1463 Burns Ave.
Cerenity Senior Care	>200 feet	200 Earl St.
Dayton’s Bluff Recreation Center	>200 feet	800 Conway St.
Dayton’s Bluff Elementary School	>200 feet	262 Bates Ave.
Ethiopian Evangelical Church	>200 feet	770 E. 7th St., Saint Paul

³⁹ Indicates distance from Alignment B. The Council reviewed community facilities within 200 feet of Alignment B for impacts related to access, parking, noise, visual quality and property acquisition; the Council assumed community facilities more than 200 feet from the proposed alignments would not experience impacts, and it evaluated them only for impacts related to access and visual quality.



Community Facility	Distance from Alignment B ³⁹	Location
First Lutheran Church	>200 feet	463 Maria Ave.
Harding Senior High School	>200 feet	1540 6th St. E
House of Jacob Church	>200 feet	284 Bates Ave.
Indian Mounds Regional Park	>200 feet	10 Mounds Blvd.
Lower Landing Park	>200 feet	200 Warner Road
Metropolitan State University	>200 feet	700 7th St. E
Mounds Park United Methodist Church	>200 feet	1049 Euclid St.
Nokomis Montessori Magnet School – South	>200 feet	525 White Bear Ave.
Progressive Baptist Church	>200 feet	1505 Burns Ave.
Sacred Heart School and Church	>200 feet	840 6th St. E.
Saint Paul Fire Station 4	>200 feet	505 Payne Ave.
Saint Paul Fire Station 24	>200 feet	273 White Bear Ave.
Saint Paul Public Library Dayton's Bluff	>200 feet	645 7th St. E.
Saint Pascal Baylon Catholic Church and School	>200 feet	1757 Conway St.
Sam Morgan Regional Trail	>200 feet	Parallel to Shepard and Warner roads
Suburban Square Shopping Center	>200 feet	1668 Suburban Ave.
Swede Hollow Park	>200 feet	615 7th St. E.

Access Changes

Alignment B would operate in a dedicated guideway along Hudson Road on the north side of I-94. To accommodate the dedicated guideway, Hudson Road would be converted from two-way traffic to one-way westbound traffic between Frank Street and Wilson Avenue (see the 15% Concept Plans in **Appendix B**). This roadway conversion would occur next to one community facility, Reach Together, within 200 feet of the alignment along Hudson Road. Reach Together assists and provides services to refugees and immigrants. This roadway conversion is not expected to impact access to Reach Together because the property does not currently have driveway access from Hudson Road and the facility would retain existing alley and sidewalk access. The one-way configuration was advanced as part of the Project's design after discussion with neighborhood residents and business owners as a way of not removing on-street parking in the area around the Earl Street Station. Because access to Reach Together is not changing, these changes would not affect community facilities within 200 feet of Alignment B.

The dedicated guideway along Alignment B would not present a new physical or social barrier because the guideway would be located on the edge of neighborhoods along I-94, which already constitutes a physical barrier between neighborhoods. Also, the dedicated guideway would not preclude vehicles, pedestrians and bicyclist from crossing the dedicated guideway because the design would use painted striping/markings, rather than a physical barrier, to delineate the guideway from regular traffic and parking lanes along with the use of mountable curbs and median breaks at cross streets.



Loss of Parking

Along Alignment B, 29 on-street spaces would be lost between Maria Avenue and Maple Street on the north side of Hudson Road. No community facilities within 200 feet of the alignment are present along this section of Alignment B. The on-street parking spaces near the Reach Together community facility along Hudson Road just east of Earl Street would not be impacted by this alignment.

Further east along Alignment B, 116 on-street parking spaces would be permanently eliminated along the south side of Hudson Road between Old Hudson Road and the Hudson Road dead end past Kennard Street. These lost parking spaces are approximately 250 feet from the nearest entrance to Grace Lutheran Church, which fronts Old Hudson Road. It is expected that Grace Lutheran Church patrons would continue to use the existing adjoined parking lot on their property or use the existing on-street spaces along Old Hudson Road in front of the church.

Based on this review, the impact to on-street parking spaces along Alignment B would not impact community facilities within 200 feet of the alignment because they are either not present in impacted areas or have alternate parking available. Also, the parking impacts for Alignment B would not affect community character and cohesion since the adjacent properties have off-street parking available and no new physical or visual divisions between neighborhoods would be created.

Noise Impacts

No long-term noise impacts were identified for the Project. Therefore, no long-term noise impacts to community facilities within 200 feet of Alignment B would occur and would not affect community character and cohesion would occur from noise along Alignment A1.

Visual Changes

The Project would build a BRT bridge parallel to the I-94 bridge along Alignment B, which could have a moderate impact on Johnson Parkway's visual quality. The new bridge and its building materials would be harmonious in scale, massing and materials to the existing I-94 Bridge. No additional visual changes to community facilities within 200 feet of Alignment B are expected.

Some residential areas along Hudson Road would experience visual change from the introduction of the BRT guideway, increased traffic volumes and the loss of roadside vegetation buffers in front of noise barriers. Visual mitigation to affected residential properties along Alignments B will be addressed in the Engineering Phase of this Project.

These visual changes are not expected to affect community cohesion since operating phase improvements remain within the existing right-of-way and no new physical or visual divisions between neighborhoods would be created.

Property Acquisitions and Displacements

As previously stated, the Project would cross over the Bruce Vento Nature Sanctuary in mixed traffic on Kellogg Boulevard within Alignment A and proximate to Alignment B. Restrictive covenants put in place by the Council and the City of Saint Paul protect the Bruce Vento Nature Sanctuary from conversion to a non-recreation use. The Project determined that there would be no need for parkland property acquisition and that the Project would not result in a conversion of the Bruce Vento Nature Sanctuary to a non-recreation use.

Alignment B would require permanent partial acquisition of seven parcels along the alignment (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions). The partial acquisitions would affect one community facility within 200 feet of the alignment, Grace Lutheran Church, just west of White Bear Avenue. The partial acquisition of the church parcel would impact approximately 5,000 square feet of the parcel for a stormwater facility. While there is a potential impact to the church due to property acquisition, the stormwater



facility will occupy existing open land and would not impact existing church operations. The Project would require temporary and permanent easements to Johnson Parkway from the guideway, a new sidewalk and storm sewer pipes related to the inlets and outlets for a stormwater facility (see the *Section 4(f) and 6(f) Resources Technical Report* in **Appendix A**). The Project would not produce impacts to acquisitions or displacements of any other community facilities within 200 feet of the alignment. Under the Hazel Street Station Option, one partial acquisition at a residential parcel would be avoided, with no change to impact on community facilities within 200 feet of the alignment.

The Council does not anticipate the partial acquisitions to affect community character or cohesion because the partial acquisitions generally would be strips along the edges of property; the frontages of single-family residential areas would remain intact. The Project would partially acquire only one parcel, which has no buildings, along Mounds Boulevard in the Dayton’s Bluff neighborhood.

Impacts Beyond 200 Feet but Within ½-Mile of the Proposed Alignment

Consideration of access and visual impacts determined that the METRO Gold Line BRT Project would not have impacts to community facilities beyond 200 feet but within ½-mile of Alignment B based on their distance from the proposed alignment. All effects would be confined to limited areas and would not present substantial physical or social barriers.

Alignment C (White Bear Avenue to I-694)

The analysis identified 10 community facilities within 200 feet of Alignment C, and more within ½-mile of the alignment. **Table 4.3-3** lists these facilities.

TABLE 4.3-3: COMMUNITY FACILITIES ALONG ALIGNMENT C

Community Facility	Distance from Alignment C ^a	Address	City
Apostolic Bible Institute	<200 feet	6944 Hudson Blvd.	Oakdale
Cremation Society of Minnesota	<200 feet	1979 Old Hudson Road	Saint Paul
District 1 Community Council Office	<200 feet	2105 Old Hudson Road	Saint Paul
Masjid As-Sunnah Islamic Center	<200 feet	373 Pederson St.	Saint Paul
Harley Park	<200 feet	2899 Hudson Blvd.	Landfall
Saint Paul Public Library Branch	<200 feet	2105 Wilson Ave.	Saint Paul
St. Paul Youth Services	<200 feet	2100 Wilson Ave.	Saint Paul
Saint Paul Police Department – Battle Creek Police Storefront	<200 feet	2107 Old Hudson Road	Saint Paul
Sun Ray Transit Center	<200 feet	364 Pederson St.	Saint Paul
Tanners Lake	<200 feet	No address	Landfall
District 1 Community Council Offices	>200 feet	2105 ½ Old Hudson Road	Saint Paul
Afton Heights Park	>200 feet	63 N. Sterling	Maplewood
Battle Creek	>200 feet	No address	Saint Paul, Maplewood, Woodbury



Community Facility	Distance from Alignment C ^a	Address	City
Battle Creek Head Start	>200 feet	2181 Suburban Ave.	Saint Paul
Battle Creek Lake	>200 feet	No address	Woodbury
Battle Creek Middle School	>200 feet	2121 Park Drive N.	Saint Paul
Battle Creek Regional Park	>200 feet	60 Ruth St. S.	Saint Paul, Maplewood
Battle Creek Waterworks Water Park	>200 feet	2401 Upper Afton Road	Maplewood
Christ United Methodist Church	>200 feet	2500 Hudson Place	Maplewood
Conway Community Recreation Center and Field	>200 feet	2090 Conway St.	Saint Paul
Guthrie Park	>200 feet	602 Guthrie Ave. N.	Oakdale
Landfall Beach and Playground	>200 feet	9 Aspen Way	Landfall
Landfall Community Center	>200 feet	44th Avenue	Landfall
Menomini Park	>200 feet	225 Meadow Lane	Woodbury
River Life Church	>200 feet	520 N. Howard St.	Saint Paul
Shawnee Park	>200 feet	6515 Scheel Drive	Woodbury
Sun Ray Shopping Center	>200 feet	2197 Hudson Road	Saint Paul
Titan Park	>200 feet	4th Street Place N.	Oakdale
Tanners Lake Park	>200 feet	400 Glenbrook Ave. N.	Landfall
Valhalla Place	>200 feet	6043 Hudson Road	Woodbury

^a Indicates distance from Alignment C. The Council reviewed community facilities within 200 feet of Alignment C for impacts related to access, parking, noise, visual quality and property acquisition; the Council assumed community facilities more than 200 feet from the proposed alignments would not experience impacts, and it evaluated them only for impacts related to access and visual quality.

Access Changes

Alignment C would affect driveway access for two community facilities within 200 feet of the alignment (see the 15% Concept Plans in **Appendix B**). St. Paul Youth Services has three existing access points on Pedersen Street and one on Wilson Avenue. Construction of the new surface park-and-ride lot would require the removal of two existing driveways to optimize parking and circulation within the new surface park-and-ride. Additional access for St. Paul Youth Services would be provided within the new park-and-ride. Driveway access would be removed at the southeast corner of the Apostolic Bible Institute along Hadley Avenue. The driveway would be replaced with a new driveway 180 feet north of the existing access point along Hadley Avenue. These access changes are not expected to adversely impact community facilities since alternate access points would be maintained and/or new access points would be restored.

A portion of Alignment C would operate in a dedicated guideway. The guideway is not expected to impact community character and cohesion since it would be located on the edge of predominately commercial properties to the north of I-94 and Hudson Road. Also, the dedicated guideway would not preclude vehicles, pedestrians and bicyclists from crossing the dedicated guideway because the design would use painted striping/markings, rather



than a physical barrier, to delineate the guideway from regular traffic and parking lanes, along with the installation of mountable curbs and median breaks at cross-streets.

Neither the Hazel Street Station Option nor the Dedicated Guideway Option at Hadley Avenue and 4th Street would produce additional impacts to access.

Loss of Parking

Alignment C would construct a park-and-ride facility at the Sun Ray Station, which would permanently remove 27 of the 68 existing off-street parking spaces for St. Paul Youth Services. The park-and-ride lot would have a total of 150 parking spaces for METRO Gold Line transit-users. The Council will continue to coordinate with the City of Saint Paul and St. Paul Youth Services in an effort to further minimize parking impacts as the Project advances through the Project Development and Engineering phases.

Alignment C would partially acquire property at the Sun Ray Shopping Center, eliminating 132 of the property's 973 off-street parking spaces, or 13.5 percent of its lot. The City of Saint Paul parking requirements for the Sun Ray Shopping Center indicate that the existing parking supply at the shopping center is greater than required. The spaces eliminated as part of the Project are farthest from the entrances to the shopping center. The Council will continue to coordinate with the Sun Ray Shopping Center in an effort to further minimize parking impacts as the Project advances through the Project Development and Engineering phases.

Alignment C would partially acquire land along the edge of the Apostolic Bible Institute property, eliminating approximately eight surface-lot parking spaces or 7 percent of the institute's 118 off-street spaces – a minimal impact to the community facility. The Council will continue to coordinate with the Apostolic Bible Institute in an effort to further minimize parking impacts as the Project advances through the Project Development and Engineering phases.

An additional 51 on- and off-street parking spaces would be lost along Alignment C but would not impact any community facilities within 200 feet of the alignment. Also, the Council does not anticipate the loss of parking from Alignment C would impact community character and cohesion because the Project would not create new physical or visual divisions between neighborhoods.

Parking impacts would remain the same under both the Hazel Street Station Option and the Dedicated Guideway Option at Hadley Avenue and 4th Street.

Noise Impacts

The Project would not produce long-term noise impacts; therefore, no long-term Project-related noise would impact community facilities within 200 feet of Alignment C, or community character or cohesion along the alignment. Neither the Hazel Street Station Option nor the Dedicated Guideway Option at Hadley Avenue and 4th Street would produce additional impacts to noise.

Visual Changes

Alignment C includes three features of high visual quality: the 3M campus, Tanners Lake and Battle Creek Lake. The Council does not anticipate major Project-related changes to the visual quality of these features or for community facilities within 200 feet of Alignment C. The Project would not produce impacts to community character and cohesion along the alignment. Neither the Hazel Street Station Option nor the Dedicated Guideway Option at Hadley Avenue and 4th Street would produce additional impacts to visual quality.

Property Acquisitions and Displacements

Alignment C would require one full parcel acquisition that could result in commercial displacements if parcel is occupied, however this would not affect community facilities within 200 feet of the alignment (see the 15%



Concept Plans in **Appendix B** for locations of permanent acquisitions). The existing 2.9-acre commercial property includes auto service related business and is located on a small strip of land between Tanners Lake and Hudson Boulevard just south of a cluster of three other commercial businesses. The commercial property to be acquired is not an anchor development and its removal would not affect the functionality of the other nearby commercial businesses. The Project would benefit connectivity and cohesion in the area by adding new pedestrian connections that will allow east-west connectivity over Geneva Avenue and north-south connectivity across the freeway.

Alignment C would require a total of 13 permanent partial parcel acquisitions that would affect some community facilities within 200 feet of the alignment.

The proposed Sun Ray Station Park and Ride off Pedersen Street would require the partial parcel acquisition from St. Paul Youth Services. This acquisition would impact the parking lot but would not impact the Youth Services building (see Loss of Parking section). The existing Sun Ray Transit Center would not be impacted as part of the Project. The Project park-and-ride lot would be built around the existing transit center.

Alignment C would require partial acquisition of the Sun Ray Shopping Center for a stormwater facility and surface park-and-ride lot, which would primarily impact the parking lot off Hudson Road (see Loss of Parking). The Battle Creek Police storefront and the District Council 1 offices are both located in the Sun Ray Shopping Center. The entirety of the shopping center building would remain intact, including the police storefront and District Council 1 offices.

Alignment C would require partial parcel acquisition from the Apostolic Bible Institute located at the northwest corner of Hudson Boulevard and Hadley Avenue for the guideway and a pedestrian trail. The partial acquisition would result in a strip taking along the edges of the parcel and would not impact the facility's buildings (see Loss of Parking). Also, the Council identified a secondary BMP location that would require partial acquisition of land on the western side of Apostolic Bible Institute's property. The secondary BMP location would not impact the facility's buildings.

Other partial acquisitions would occur at residential and commercial parcels along Alignment C but would not impact any other community facilities within 200 feet of the alignment.

The partial acquisitions required for Alignment C are not expected to affect community character and cohesion because the partial acquisitions would generally consist of strip acquisitions along the edges of properties. Plus, the partial acquisitions primarily occur within commercial areas that face I-94 and are not contained within residential areas.

Impacts would remain the same under both the Hazel Street Station Option and the Dedicated Guideway Option at Hadley Avenue and 4th Street.

Impacts Beyond 200 Feet but Within ½-Mile of the Proposed Alignment

Consideration of access and visual impacts determined that the Project would not have any impacts to community facilities beyond 200 feet but within ½-mile of Alignment C based on their distance from the proposed alignment. Effects would be confined to limited areas and would not present substantial physical or social barriers. Impacts would remain the same under both the Hazel Street Station Option and the Dedicated Guideway Option at Hadley Avenue and 4th Street.

Alignment D3 (I-694 to Woodbury 494 Park-and-Ride)

The analysis two community facilities within 200 feet of Alignment D3, and more are within ½-mile of the alignment. **Table 4.3-4** lists these facilities.



TABLE 4.3-4: COMMUNITY FACILITIES ALONG ALIGNMENT D3

Community Facility	Distance from Alignment D3 ⁴⁰	Address	City
Grace of God Lutheran Church	<200 feet	420 Hayward Ave. N.	Oakdale
Tamarack Nature Preserve	<200 feet	1825 Tower Drive	Woodbury
Children’s Hospitals & Clinics	>200 feet	628 Bielenberg Drive	Woodbury
Christ Episcopal Church	>200 feet	7305 Afton Road	Woodbury
Evergreen West Park	>200 feet	1033 Tamberwood Trail	Woodbury
Miniapple International Montessori Schools	>200 feet	780 Helmo Ave. N.	Oakdale
Minnesota Men’s Health Center	>200 feet	683 Bielenberg Drive	Woodbury
Pondview Park	>200 feet	475 Woodduck Drive	Woodbury
PrairieCare	>200 feet	659 Bielenberg Drive	Woodbury
Saint Mary’s University of Minnesota – Oakdale Center	>200 feet	7200 Hudson Blvd. N.	Oakdale
Sundown Park	>200 feet	No address	Woodbury
US Post Office	>200 feet	7595 Currell Boulevard	Woodbury
Washington County CDA	>200 feet	7645 Currell Boulevard	Woodbury
Woodbury Lutheran Church	>200 feet	7380 Afton Road	Woodbury
Woodbury Options for Women	>200 feet	1103 Weir Drive	Woodbury
Woodbury Baptist Church	>200 feet	6695 Upper Afton Road	Woodbury
Woodbury Village Shopping Center	>200 feet	Valley Creek Road and Valley Creek Plaza	Woodbury

Access Changes

Alignment D3 would not require any driveway closure or access changes, therefore no community facilities within 200 feet of the alignment would have access impacts.

Alignment D3 would include both dedicated guideway and mixed traffic operations. The guideway is not expected to impact community character and cohesion since it would primarily be within existing right-of-way through a predominately commercial area. Also, the dedicated guideway would not preclude vehicles, pedestrians and bicyclist from crossing the dedicated guideway because the design would use painted striping/markings, rather than a physical barrier, to delineate the guideway from regular traffic and parking lanes along with the use of mountable curbs and median breaks at cross streets. Plus, a proposed new multi-modal bridge over I-94 between

⁴⁰ Indicates distance from Alignment D3. The Council reviewed community facilities within 200 feet of Alignment D3 for impacts related to access, parking, noise, visual quality and property acquisition; the Council assumed community facilities more than 200 feet from the proposed alignments would not experience impacts, and it evaluated them only for impacts related to access and visual quality.



Helmo Avenue and Bielenberg Drive would increase multimodal access and improve community connectivity between Oakdale and Woodbury.

Loss of Parking

Alignment D3 would eliminate approximately 213 off-street parking spaces; however, this loss of parking would not impact community facilities within 200 feet of the alignment.

The Project would fully acquire one parcel from Crossroads Properties Inc. to construct the Helmo Avenue Station Park and Ride, which would eliminate 156 parking spaces; however, the Council does not anticipate this parking loss would impact community character and cohesion within Alignment D3. The park and ride would add 100 spaces, and the Project's Woodbury 494 Park and Ride lot would add 200 spaces; therefore, Alignment D3 would create 300 parking spaces – a net increase of 87 spaces.

Noise Impacts

The Project would not produce long-term noise impacts; therefore, no long-term Project-related noise would impact community facilities within 200 feet of Alignment D3, or community character or cohesion along the alignment.

Visual Changes

Alignment D3 would not produce long-term impacts to features of high visual quality; therefore, the Project would not produce visual changes to community facilities within 200 feet of the alignment.

The dedicated guideway would have low impact on visual quality for future residences along Helmo Avenue, and the Helmo Avenue Station Park and Ride lot would have a low-moderate impact on visual quality for residents along Guider Drive. The Council does not anticipate Project-related visual impacts to affect community cohesion because long-term improvements would remain within the existing right-of-way, and the Project would not produce new physical or visual divisions between neighborhoods.

The Engineering Phase would address mitigation measures for impacts to visual quality for residential properties along Alignment D3.

Property Acquisitions and Displacements

Alignment D3 would partially acquire 13 parcels, and it would fully acquire one parcel from Crossroads Properties Inc. to construct the Helmo Avenue Station Park-and-Ride, which would displace approximately 18 businesses (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions). The acquisitions and business displacements would not impact community facilities within 200 feet of the alignment. Also, the Project would cross the Tamarack Nature Preserve in mixed traffic on Bielenberg Drive, however the Project would not result in a conversion of the Tamarack Nature Preserve to a transportation use consistent with the Outdoor Recreation Grant Program guidelines (See the *Section 4(f) and 6(f) Resources Technical Report* in **Appendix A**).

The acquisitions for Alignment D3 are not expected to impact community character and cohesion because the partial acquisitions would generally consist of strip acquisitions along the edges of properties in predominately commercial areas. The commercial property primarily contains a mixture of auto and truck-related uses. The full acquisition of Crossroads Properties Inc. for the Park-and-Ride is not expected to affect community character and cohesion because the City of Oakdale is planning to redevelop the lands around the Park-and-Ride into a mixed-use TOD district in accordance with the Helmo Station BRTOD Plan.



Impacts Beyond 200 Feet but Within ½-Mile of the Proposed Alignment

Consideration of access and visual impacts determined that the Project would not have any impacts to community facilities beyond 200 feet but within ½-mile of Alignment D3 based on their distance from the proposed alignment. Effects would be confined to limited areas and would not present substantial physical or social barriers.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would produce the same long-term impacts to community facilities, character and cohesion as Build Alternative 1, with the exception of Alignment A2. Alignment A2 would have BRT vehicles operate in dedicated guideway throughout the Union Depot property and in mixed traffic to the east of Union Depot along Kellogg Boulevard, within the public right-of-way, similar to existing buses operating downtown. Alignment A2 would not impact community character and cohesion because it would not separate neighborhoods or cause any physical barriers or visual divides between neighborhoods and other cohesive areas.

Alignment A2 (Union Depot to Mounds Boulevard)

The analysis identified three community facilities within 200 feet of Alignment A2 and more within a ½-mile of the alignment. **Table 4.3-5** lists these facilities, which are all in downtown Saint Paul.

TABLE 4.3-5: COMMUNITY FACILITIES ALONG ALIGNMENT A2

Community Facility	Distance from Alignment A2 ⁴¹	Location
Bruce Vento Nature Sanctuary	<200 feet	4th St. E. and Commercial St.
Bruce Vento Regional Trail	<200 feet	4th St. E. and Commercial St.
Union Depot	<200 feet	214 4th Street E
College of Saint Scholastica	>200 feet	340 Cedar St.
Creative Arts Secondary School	>200 feet	65 Kellogg Blvd. E.
Culture Park	>200 feet	122 Kellogg Blvd. E.
Depot Tot Lot	>200 feet	4th and Sibley streets
District 17 Council Offices	>200 feet	101 5th St. E.
First Baptist Church	>200 feet	499 Wacouta St.
Harriet Island Regional Park	>200 feet	200 Dr. Justus Ohage Blvd.
Landmark Plaza	>200 feet	379 St. Peter St.
Lower Landing Park	>200 feet	200 Warner Road
Lowertown Ballpark/CHS Field	>200 feet	360 N Broadway St.
Mears Park	>200 feet	221 5th St. E.

⁴¹ Indicates distance from Alignment A2. The Council reviewed community facilities within 200 feet of Alignment A2 for impacts related to access, parking, noise, visual quality and property acquisition; the Council assumed community facilities more than 200 feet from the proposed alignments would not experience impacts, and it evaluated them only for impacts related to access and visual quality.



Community Facility	Distance from Alignment A2⁴¹	Location
Minnesota Museum of America Art	>200 feet	350 Robert St. N.
Minnesota State Patrol	>200 feet	444 Cedar St. # 130
Minnesota Virtual High School	>200 feet	180 5th St. E.
Pedro Park	>200 feet	114 10th St. E.
Proactive Healthcare	>200 feet	101 5th St. E.
Ramsey County Courthouse	>200 feet	15 Kellogg Blvd. W.
Ramsey County Department of Community Human Services	>200 feet	160 Kellogg Blvd. E.
Raspberry Island Regional Park	>200 feet	2 Wabasha St.
SafeZone Drop-In Center	>200 feet	130 7th St. E.
Sam Morgan Regional Trail	>200 feet	Parallel to Shepard and Warner roads
Saint May's Church	>200 feet	261 8th St. E.
Saint Paul City Hall	>200 feet	15 Kellogg Blvd. W.
Saint Paul Downtown YMCA	>200 feet	194 6th St. E.
Saint Paul Farmers' Market	>200 feet	290 5th St. E.
Saint Paul Fire Station 4	>200 feet	505 Payne Ave.
Saint Paul Public Library Dayton's Bluff	>200 feet	645 7th St. E.
Saint Paul Radiology Administration	>200 feet	166 4th St. E.
Union Gospel Mission	>200 feet	109 E 9th St.

Access Changes

Alignment A2 would not require any driveway closures or access changes, therefore community facilities within 200 feet of the alignment would not be impacted by access changes and no community character or cohesion impacts would occur.

Loss of Parking

Alignment A2 would not require any parking losses, therefore community facilities within 200 feet of the alignment would not be impacted by parking losses and no community character or cohesion impacts would occur.

Noise Impacts

No long-term noise impacts were identified for the Project. Therefore, no long-term noise impacts to community facilities within 200 feet of Alignment A2 would occur and would not affect community character or cohesion from noise would occur along Alignment A2.



Visual Changes

Alignment A2 would not impact views with high-quality visual features, therefore community facilities within 200 feet of the alignment would not be visually impacted and no community character or cohesion impacts would occur.

Property Acquisitions and Displacements

Alignment A2 would not require any acquisitions or displacements, therefore community facilities within 200 feet of the alignment would not have property impacts and no community character or cohesion impacts would occur.

Impacts Beyond 200 Feet but Within ½-Mile of the Proposed Alignment

Consideration of access and visual impacts determined that Alignment A2 would not have any impacts to community facilities beyond 200 feet but within ½-mile of the alignment based on their distance from the alignment. Effects would be confined to limited areas and would not present substantial physical or social barriers.

4.3.3.2. Construction Phase (Short-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

Although temporary in nature, construction phase impacts may affect community facilities, character, and cohesion. Traffic detours could increase traffic through residential neighborhoods or change access to community facilities. Similarly, sidewalk and trail closures and detours could affect pedestrian or bicycle traffic patterns. Construction impacts such as increased levels of noise and dust may temporarily affect neighborhood character, primarily in areas that are relatively quiet. The presence of large construction equipment may be perceived as visually disruptive, resulting in temporary effects to community character, particularly in residential settings.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would produce the same short-term impacts as Build Alternative 1. However, the impacts for Build Alternative 2 would not extend into Downtown Saint Paul, as Alignment A2 has a western terminus of Union Depot.

4.3.4. Avoidance, Minimization and/or Mitigation Measures

The Council does not anticipate adverse Project-related impacts to community facilities along Alignments A1, A2 and D3; therefore, they do not propose avoidance, minimization or mitigation measures for these alignments under either Build Alternative 1 or Build Alternative 2.

The Project could produce potentially adverse impacts to community facilities along Alignments B and C for Build Alternative 1 and Build Alternative 2 due to anticipated property acquisitions, as **Section 4.4 Acquisitions and Displacements** describes. In areas where the Project would result in parking impacts, the Council would compensate property owners based on the terms of the agreement between the parties in accordance with the Uniform Relocation Act and Minnesota Statutes Chapter 117. The Council will coordinate with these cities to identify specific parking mitigation measures and support long-term parking policy decisions that are in the best interest of the cities and the communities. The Council will invite all property owners directly affected by potential Project-related right-of-way acquisitions to Project public meetings and engagement events. Utilizing these mitigation measures, the Council does not anticipate adverse Project-related impacts to community character or cohesion along any of the alignments.



The Council would stage or phase Project construction, provide signage and utilize signal-control requirements for roads, trails and sidewalks to maintain access for neighborhoods and community facilities throughout construction. The Council would develop specific mitigation plans during the Engineering Phase and utilize best management practices (BMPs) such as working with staff at community facilities to provide appropriately timed notice of construction-related activities; maintaining access to existing bus stops; and alerting the public to detours. The Council would coordinate its efforts with the corridor cities and comply with local noise ordinances.

4.4. Acquisitions, Displacements and Relocations

This section evaluates Project-related impacts to property acquisition, and residential and commercial displacements and relocations.

4.4.1. Regulatory Context and Methodology

Specific regulations govern the displacement and relocation of residents and businesses resulting from publicly funded transportation projects. The Uniform Relocation Act requires public agencies to compensate landowners for property the agencies acquire for public uses. The Project would acquire property in accordance with the Uniform Relocation Act, whose objective is to provide fair and equitable treatment to people whose real property is acquired or who are displaced because of federally funded projects; to provide relocation assistance; and to provide decent, safe and sanitary housing within the displaced person's financial means. Project-related property acquisition is also subject to the regulations within Chapter 117 of the Minnesota Statutes, which require compensation and standardized relocation benefits. The Uniform Relocation Act and the Minnesota Statutes requirements apply to full and partial acquisitions, displacement, and permanent and temporary easements.

This section discusses the following types of real estate transactions and impacts:

- **Full acquisition:** Purchase of all fee-simple landownership rights of a property
- **Partial acquisition:** Purchase of a portion of an overall property. A partial acquisition could include fee-simple or easement acquisitions.
- **Displacement:** Displacement results from full acquisition of property and its conversion to a transportation land use. Displacements are measured by housing unit or business, not tax parcel. For example, acquiring an apartment building on a single tax parcel with six units would result in six residential displacements.
- **Easement:** An easement is the purchase of the temporary or permanent right to use land belonging to another party for a particular use. A project might purchase a temporary easement from a property owner for construction-related activities such as storing materials and equipment, providing access to construction areas or site grading. A temporary easement would then restore the property to a condition that is acceptable and comparable to its pre-construction use, depending on the agreement. A permanent easement purchased from a property owner could permanently locate infrastructure on the property without completely diminishing the property owner's use of the land. Examples of uses provided by permanent easements include stormwater management, drainage channels or storm drains, utilities, sloping, grading and tunnels.

This analysis identifies the types of properties; the locations, sizes and numbers of parcels; and the resulting displacements for Project-related acquisitions for construction. The analysis estimated potential acquisitions using the potential limits of disturbance and approximate right-of-way requirements for the Project. These limits encompass land and property that the Project may need for construction or operation. The Council will further refine the acquisition, and displacement and relocation requirements as the Project design advances during the Engineering Phase.



4.4.2. Affected Environment

Development within the Project study area includes residential, commercial, industrial, institutional, park and transportation uses. **Section 4.1.1** identifies and describes existing land uses along the Project alignments. Section 5.2 of the *Physical and Environmental Resources Technical Report* in **Appendix A** addresses utilities and possible Project-related utility relocations.

4.4.3. Environmental Consequences

4.4.3.1. Operating Phase (Long-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

Build Alternative 1 would fully acquire two parcels that have a combined area of 11.1 acres. The 15% Concept Plans in **Appendix B** illustrate the locations of the Project’s proposed partial and full acquisitions.

Table 4.4-1 lists the Project-related partial and full parcel acquisitions by Build Alternative.

TABLE 4.4-1: ACQUISITIONS BY BUILD ALTERNATIVE

Alternative	Partial (Parcels)	Partial (Acres)	Full (Parcels)	Full (Acres)
Build Alternative 1 (A1-BC-D3)	35	27.9	2	11.1
<i>With Hazel Street Station Option^a</i>	34	27.8	2	11.1
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	35	28.5	2	11.1
Build Alternative 2 (A2-BC-D3)^b	33	27.8	2	11.1
<i>With Hazel Street Station Option^c</i>	32	27.7	2	11.1
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	33	28.4	2	11.1

^a No permanent acquisition will be required for the Hazel Street Station Option. The partial acquisition of 0.09 acres at Summit Senior Living is eliminated with this option. Partial acquisition for Alignment B drops to 34 parcels at 27.8 acres.

^b See the **Build Alternative 2 (A2-BC-D3)** subsection in **Section 4.4.3.1** for a summary of long-term impacts for Build Alternative 2.

^c No permanent acquisition will be required for the Hazel Street Station Option. The partial acquisition of 0.09 acres at Summit Senior Living is eliminated with this option. Partial acquisition for Alignment B drops to 32 parcels at 27.7 acres.

Displacements under the Build Alternatives were limited to commercial businesses; no institutional entities or housing units were displaced. **Section 4.6** includes information about financial and other types of compensation to which federal and state laws and regulations entitle businesses the Project displaces.

Table 4.4-2 shows the approximate number of displacements by Build Alternative.



TABLE 4.4-2: DISPLACEMENTS BY BUILD ALTERNATIVE

Alternative	Housing (Units)	Businesses ^a
Build Alternative 1 (A1-BC-D3)	0	Approximately 21
<i>With Hazel Street Station Option</i>	<i>0</i>	<i>Approximately 21</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>0</i>	<i>Approximately 21</i>
Build Alternative (A2-BC-D3)^b	0	Approximately 21
<i>With Hazel Street Station Option</i>	<i>0</i>	<i>Approximately 21</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>0</i>	<i>Approximately 21</i>

^a The number of displacements is approximate and is subject to change. The Council will further refine acquisition, displacement and relocation needs as the Project design advances during the Project Development and Engineering phases.

^b See the **Build Alternative 2 (A2-BC-D3)** subsection in **Section 4.4.3.1** for a summary of long-term impacts for Build Alternative 2.

Acquisitions

The Council anticipates that Build Alternative 1 would require permanent acquisition of publicly and privately held residential, commercial, industrial and institutional parcels (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions).

Table 4.4-3 lists by alignment the parcels the Project would fully or partially acquire.

TABLE 4.4-3: BUILD ALTERNATIVE 1 ACQUISITIONS BY ALIGNMENT

Alignment	Partial (Parcels)	Partial (Acres)	Full (Parcels)	Full (Acres)
Alignment A1	2	0.1	–	–
Alignment B ^a	7	2.8	–	–
Alignment C	13	12.5	1	2.9
<i>With Hazel Street Station Option</i>	<i>13</i>	<i>12.5</i>	<i>1</i>	<i>2.9</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>13</i>	<i>13.2</i>	<i>1</i>	<i>2.9</i>
Alignment D3	13	12.5	1	8.2

^a With the Hazel Street Station Option, partial acquisition for Alignment B drops to six parcels at 2.7 acres.



Table 4.4-4 lists the types of affected parcels by alignment.

TABLE 4.4-4: BUILD ALTERNATIVE 1 TYPES OF AFFECTED PARCELS BY ALIGNMENT

Alignment	Partial Res. ^a	Full Res. ^a	Partial Com. ^b	Full Com. ^b	Partial Inst. ^c	Full Inst. ^c
Alignment A1		–	2	–	–	–
Alignment B ^d	5	–	1	–	1	–
Alignment C	2	–	9	1	2	–
<i>With Hazel Street Station Option</i>	2	–	9	1	2	–
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	2	–	9	1	2	–
Alignment D3	1	–	11	1	–	–

^a Partial and full residential parcel acquisitions.

^b Partial and full commercial and industrial parcel acquisitions.

^c Partial and full institutional parcel acquisitions.

^d Hazel Street Station Option reduces Alignment B partial residential parcels to four.

Displacements and Relocations

The Council anticipates that the Project would fully acquire two commercial parcels, which could displace multiple businesses, depending on the number operating on the parcel. Displacements include commercial and industrial businesses; Build Alternative 1 would not displace residential or institutional entities. **Section 4.6** includes information about financial and other types of compensation to which federal and state laws and regulations entitle businesses the Project displaces.

The Council evaluates relocation potential for displaced businesses based on the availability of similar commercial properties within the same or a nearby community. Only as an exercise to assess current real estate market conditions, the Council searched the Multiple Listing Service (MLS) to locate replacement properties for residents and businesses whose properties the Project may need to acquire, and it compared the number of potentially displaced properties with the number of available comparable properties (assuming they would be available when Project construction begins). The Council also used the MLS search results to locate potential commercial properties based on type of use in or near the community where Project-related displacements could occur; however, this methodology cannot predict future availability of suitable properties.

Should the Project proceed to construction, displaced businesses would receive relocation assistance in accordance with federal and state laws and regulations, their individual needs, and current market availability.

Table 4.4-5 provides the number of potential business displacements by alignment.



TABLE 4.4-5: BUILD ALTERNATIVE 1 DISPLACEMENTS BY ALIGNMENT

Alignment	Housing (Units)	Businesses ^a
Alignment A1	0	0
Alignment B	0	0
Alignment C	0	Approximately 3
<i>With Hazel Street Station Option</i>	0	Approximately 3
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	0	Approximately 3
Alignment D3	0	Approximately 18

^a Number of displacements is estimated and subject to change. The Council will further refine acquisition, displacement and relocation needs as the Project design advances during the Project Development and Engineering phases.

Alignment A1 (Smith Avenue to Mounds Boulevard)

Construction of the BRT guideway for Alignment A1 would not relocate residences or businesses.

Alignment B (Mounds Boulevard to White Bear Avenue)

Construction of the BRT guideway for Alignment B would not relocate residences or businesses.

Alignment C (White Bear Avenue to I-694)

Alignment C construction would require full acquisition of one 2.9-acre parcel zoned for commercial use for construction of the guideway. Crossroad Properties Inc. own the parcel. The Project would relocate all eligible businesses located on the parcel prior to BRT construction. For purposes of the EA, approximately three relocations are assumed; however, the Council will work with the property owner during the Project Development and Engineering phases to determine the actual relocation impacts.

Neither the Hazel Street Station Option nor the Dedicated Guideway Option at Hadley Avenue and 4th Street would relocate residences or businesses.

Alignment D3 (I-694 to Woodbury 494 Park-and-Ride)

Alignment D3 construction would require full acquisition of one 8.2-acre commercial parcel at 7500 Hudson Blvd. for construction of the Helmo Avenue Park-and-Ride. Crossroads Properties Inc. owns the parcel, which contains multiple companies. Alignment D3 would displace approximately 18 businesses.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Acquisitions

Build Alternative 2 generally would produce the same long-term impacts to acquisitions as Build Alternative 1; however, the downtown area of Alignment A2 would not require partial acquisition of any parcel. **Table 4.4-1** lists the Project-related partial and full parcel acquisitions by Build Alternative.



Displacements and Relocations

Build Alternative 2 would produce the same long-term impacts to displacements and relocations as Build Alternative 1. **Table 4.4-2** shows the approximate number of displacements for Build Alternative 2. Displacements were limited to commercial businesses; no institutional entities or housing units were displaced.

4.4.3.2. Construction Phase (Short-Term) Impacts

Construction activities would result in short-term impacts due primarily to activities requiring temporary construction easements. A temporary construction easement is an agreement that allows an agency limited-time use of a property – without purchasing it – for the purpose of a construction project; when construction is done, the agency restores the property to its pre-easement condition and terminates the easement.

The Project would need temporary construction easements at various locations along the BRT guideway. The size of the easements would depend on the types of construction activities for which the Project would use the property, and the types of land uses in the area. For example, a vacant property would provide a larger easement, whereas easements adjacent to developed property likely would be smaller to reduce or avoid impacts.

Each Build Alternative alignment would need property for staging and other activities throughout all or part of the Project construction period. Temporary construction easements or leases could fulfill all staging needs. Contractors could also negotiate directly with owners the use of additional property as needed.

Section 4.6 addresses construction-related impacts to businesses and economic resources.

Project construction also would likely require temporary modifications to or closures of some existing property access. The *Transportation Resources Technical Report* in **Appendix A** includes more information related to transit, access closures and parking, and pedestrian and bicycle facilities.

BUILD ALTERNATIVE 1 (A1-BC-D3)

Build Alternative 1 would require temporary easements for 199 parcels comprising a 24.5-acre area; the Dedicated Guideway Option at Hadley Avenue and 4th Street would require an additional five parcels for a total 204 parcels comprising a 26-acre area.

Table 4.4-6 lists by alignment these temporary easements.

TABLE 4.4-6: BUILD ALTERNATIVE 1 CONSTRUCTION EASEMENTS BY ALIGNMENT

Alignment	Temporary Easements (Parcels)	Temporary Easements (Acres)
Alignment A1	23	0.4
Alignment B	137	2.2
Alignment C	19	11.1
<i>With Hazel Street Station Option</i>	19	11.1
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	24	12.6
Alignment D3	20	10.8



BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would require temporary easements for 177 parcels comprising a 24.2-acre area; the Dedicated Guideway Option at Hadley Avenue and 4th Street would require an additional five parcels for a total 182 parcels comprising a 25.7-acre area. Fewer temporary easements are required for Build Alternative 2 due to Alignment A2 ending at Union Depot, rather than the Smith Avenue Transit Center under Alignment A1.

Table 4.4-7 lists by alignment these temporary easements.

TABLE 4.4-7: BUILD ALTERNATIVE 2 CONSTRUCTION EASEMENTS BY ALIGNMENT

Alignment	Temporary Easements (Parcels)	Temporary Easements (Acres)
Alignment A2	1	0.1
Alignment B	137	2.2
Alignment C	19	11.1
<i>With Hazel Street Station Option</i>	19	11.1
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	24	12.6
Alignment D3	20	10.8

4.4.4. Avoidance, Minimization and/or Mitigation Measures

Avoidance, minimization and mitigation measures apply to both Build Alternative 1 and Build Alternative 2. This section describes the measures the Council will implement to mitigate the Project’s long-term and short-term acquisition and displacement impacts. The Council will continue its efforts to avoid property acquisitions as the Project advances through the Project Development and Engineering phases. The Council would provide fair market compensation and relocation assistance, where applicable, to mitigate private property impacts that result in compensable losses, as federal and state laws and regulations require. The Council would invite all property owners directly affected by potential Project-related right-of-way acquisitions to Project public meetings and engagement events.

When acquiring property, the Council would provide property owners payment of fair market compensation and relocation assistance in accordance with the requirements of the Uniform Relocation Act, the FTA⁴² and Minnesota Statutes Chapter 117. For nonresidential displacements, the Council would provide the following services:

- Relocation advisement
- A minimum of 90 days’ written notice to vacate
- Reimbursement for moving and reestablishment expenses

⁴² Federal Transit Administration. “Grant Management Requirements”. Circular 5010.1D. November 1, 2018. Available at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/C_5010_1D_Finalpub.pdf. Accessed November 2018.



Although the law requires a minimum of 90 days' written notice to vacate for nonresidential displacements, a right-of-way agent and an appraiser would contact displaced owners before they receive written notice. Relocation advisory services ensure that the Council coordinates relocation activities with the property owners. Several other reimbursable incidental expenses related to relocation might also be provided to businesses if they are determined to be actual, reasonable and necessary.

4.5. Visual Quality and Aesthetics

This section evaluates Project-related impacts to the existing landscape character of the Project corridor including physical development, vegetation, other natural features, visually sensitive landmarks and sensitive viewers. The analysis also evaluates potential impacts to the visual character of the areas adjacent to the Project.

4.5.1. Regulatory Context and Methodology

4.5.1.1. Regulatory Context

Visual and aesthetic resources are subject to U.S. Department of Transportation (USDOT) regulation. Federal Highway Administration (FHWA) published a guidance document⁴³ that presents an approach to identify visual resources and assess potential project impacts to these resources.

FHWA guidance, which is specific to highway projects, was selected as the foundation for this analysis because the Project is also a linear transportation facility. Federal regulations require visual impacts to be addressed for resources and properties protected by Section 106 of the National Historic Preservation Act of 1966⁴⁴ and Section 4(f) of the Department of Transportation Act of 1966.⁴⁵ No specific federal or state visual regulatory requirement applies to parklands or to properties that are not listed or eligible for listing on the National Register of Historic Places (NRHP). NEPA and MEPA form the general basis for consideration of potential visual impacts to these other properties not protected under Section 106. The *Cultural Resources Technical Report* in **Appendix A** addresses Project-related impacts to the visual quality of historic properties.

4.5.1.2. Methodology

The visual impact assessment documents the area of visual effect (i.e., study area), describes existing visual quality or visual resources, characterizes typical viewing experiences from adjacent neighbors or travelers, and qualitatively describes how the visual character of the study area will change due to the Project. The right-of-way for Project elements and the adjacent properties with a visual connection to the Project comprise the study area. In select instances, the extent of analysis was expanded to account for specific features that were visible by field observation along the proposed transitway because of topography, physical scale, architectural distinction, or

⁴³ Federal Highway Administration. Guidelines for the Visual Impact Assessment of Highway Projects. January 2015. Available at: https://www.environment.fhwa.dot.gov/env_topics/other_topics/VIA_Guidelines_for_Highway_Projects.aspx. Accessed May 2018.

⁴⁴ "Effect of Undertaking on Historic Property", Title 54, USC, Sec. 306108. 2014. Available at: https://www.ecfr.gov/cgi-bin/text-idx?SID=4908d84d9d15501f57c7d9bbb46147f1&mc=true&node=se36.3.800_116&rqn=div8. Accessed May 2018.

⁴⁵ "Section 4(f) of the Department of Transportation Act of 1966," as amended, Title 49, USC, Sec. 303 et seq. Available at: <https://www.gpo.gov/fdsys/pkg/USCODE-2009-title49/html/USCODE-2009-title49-subtitle-chap3-subchapl-sec303.htm>. Accessed May 2018.



other considerations. The study area was studied and inventoried using mapping and direct observation from field visits conducted in 2015, 2016 and 2018.

A description of the existing visual context of each alignment is provided as a basis for understanding the affected environment in which this Project would be introduced. The following includes specific features of visual quality that comprise the existing environment and are generally described in this technical report without value or preference:

- **Natural environment:** includes the land, water, and vegetation that compose the natural environment. Although natural features may have been altered by people, features that are primarily geological or biological in origin are considered natural but may be modified by people.
- **Cultural environment:** includes the buildings, structures, infrastructure, and artifacts that compose the surrounding built environment. These are features that were constructed by people and are not considered natural.
- **Project environment:** includes all structural and landscape features defined as part of the Project. These are the constructed structural features that would be introduced in the environment as part of the Project. For this Project, the features include both the guideway and other infrastructure modified by the Project. Landscape features may include trees and other vegetation that would be introduced as part of the Project.

The 15% Concept Plans (see **Appendix B**) and potential identified right-of-way impacts were considered in evaluating the potential visual change to the study area. Physical project elements that would change visual quality include:

- **Stations:** Stations would include a shelter with places to sit, lighting, ticket vending machines, and transit information.
- **Guideway:** The guideway is the roadway where the BRT vehicles would primarily operate in exclusive bus-only lanes. The guideway would look much like a typical road with an asphalt, bituminous, or concrete surface, curbs and gutters.
- **Bridges:** Bridges or underpasses would be used in certain locations to avoid impacts to vehicular traffic, bypass major topographic changes or include a pedestrian connection. Each bridge or underpass would be designed to fit into its neighborhood and corridor context.
- **Noise barriers and retaining walls:** Noise barriers, existing and new, may be used at specific locations along the guideway to mitigate noise and vibration. Retaining walls may be used to accommodate a change in topography and stabilize slopes near the guideway or stations. They can be constructed of various materials such as concrete and brick.
- **Park-and-ride facilities:** Surface parking lots would be located at the Sun Ray, Helmo Avenue and Woodbury 494 Park-and-Ride stations to accommodate commuting travelers. These facilities would look much like a typical parking lot with an asphalt surface and stall striping.

These project elements can be designed to be aesthetically attractive and to be compatible with the surroundings. Additionally, the potential for new transit-oriented development in the future could improve the visual quality of the area's built environment.

Figure 4.5-1 shows an example of the BRT guideway and a station.



FIGURE 4.5-1: ILLUSTRATION OF TYPICAL STATION AND DEDICATED GUIDEWAY AT 3M CAMPUS



The analysis used a rating system consistent with FHWA guidance (high, moderate or minimal) to qualitatively assess the level of visual contrast⁴⁶ that Project elements would have on visual resources. The following definitions summarize each classification:

- **High:** Introduction of new elements that would result in a major visual contrast where elements may obstruct views or substantially alter character
- **Moderate:** Introduction of new elements that would have a noticeable visual contrast where elements may obstruct or alter views or character
- **Minimal/Low:** Introduction of new elements that would have minor visual contrast where elements are similar to existing features

4.5.2. Affected Environment

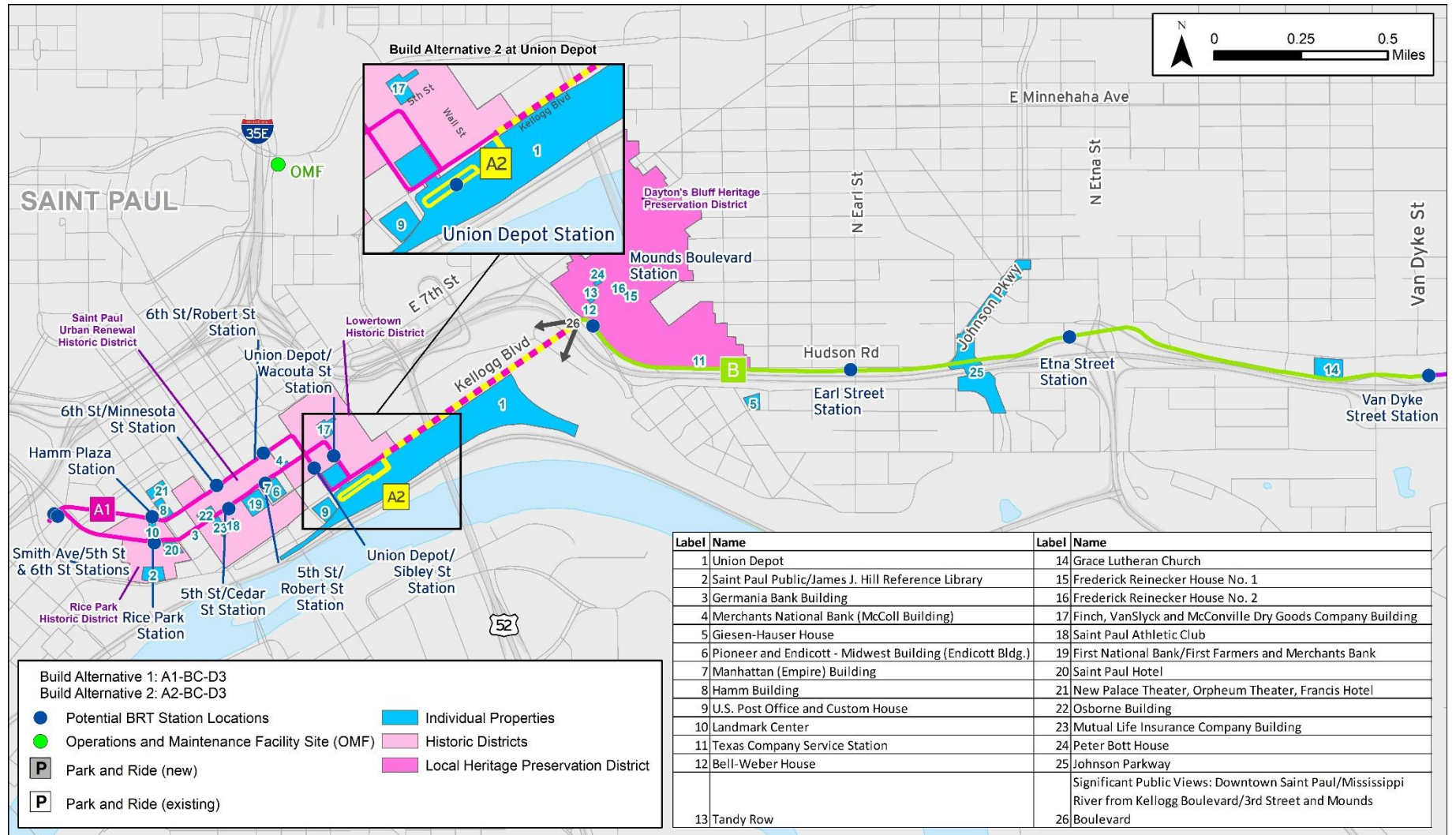
The study area includes developed urban and suburban communities extending from downtown Saint Paul through the eastern Twin Cities Metropolitan Area. Travelling from west to east, the study area includes a downtown urban context (Saint Paul) transitioning to a service drive parallel to I-94 (Hudson Road, Hudson Boulevard), jogging north and then east through lower density land uses, and finally turning south including a new bridge connection over I-94 to terminate in a suburban context (Woodbury). Visual resources along the route include views to downtown Saint Paul and the Mississippi River, Historic Johnson Parkway, 3M campus, Tanners Lake, and Battle Creek Lake. Project elements introduced into this environment include new stations, shared and dedicated guideways, bridges with associated ancillary structures, and park-and-ride lots. For each alignment under consideration, a summary of the general visual context is provided along with a list of identified high-visual

⁴⁶ “Visual contrast” is the degree of perceived change that occurs in the landscape due to alterations necessary for a project.



quality features and an assessment of the impact to both visual quality and visual resources within the study area (see **Figure 4.5-2** and **Figure 4.5-3**).

FIGURE 4.5-2: HIGH-VISUAL QUALITY FEATURES AND DISTRICTS WITHIN ALIGNMENTS A1, A2 AND B^a



^a Figure intended to provide visual context only



4.5.2.1. Alignment A1 (Smith Avenue to Mounds Boulevard)

Alignment A1 in downtown Saint Paul would operate on existing streets beginning at Smith Avenue with a westbound route on West 6th Street and an eastbound route on West 5th Street. In this alignment, there are numerous notable built features along the Project route. Examples include Landmark Center, Rice Park, Hamm Plaza, the Saint Paul Central Library, First Farmers and Merchants/First National Bank, and Union Depot. In addition, the route passes through the Rice Park Historic District, the Saint Paul Urban Renewal Historic District, and the Lowertown Historic District.

Two stations along Alignment A1 would be in front of high-visual quality features: the Hamm Plaza and Rice Park stations. The rest of the stations are either within historic districts or near features of high visual quality (see **Figure 4.5-4**).

FIGURE 4.5-4: UNION DEPOT/WACOUTA STREET STATION LOCATION



Alignment A1 continues to the east to the Lowertown neighborhood of Saint Paul and operates on existing streets. The Lowertown neighborhood is composed of turn-of-the-century warehouse buildings that have mostly been retrofitted with offices, lofts, and retail shops. There are employees and residents in these retrofitted buildings that have views onto Alignment A1. The Lowertown Historic District is bound by 7th Street to the north, Jackson Street to the west, Broadway Street to the east, and Kellogg Boulevard to the south. The district includes Union Depot, which is also listed on the NRHP for its historic and architectural significance. Both Union Depot and the Lowertown Historic District are considered high-visual quality features in the corridor.

As Alignment A1 progresses east, it would use the Kellogg Boulevard Bridge to cross over the Bruce Vento Nature Sanctuary and I-94 to Mounds Boulevard. Views of the Bruce Vento Nature Sanctuary and the Mississippi River can be seen from the Kellogg Boulevard Bridge and are not considered high-visual quality features because the vista also includes several active railroad lines and large parking lots to the west, and a warehouse and billboards along I-94 to the east.

4.5.2.2. Alignment A2 (Union Depot to Mounds Boulevard)

Alignment A2 would begin at Union Depot south of Kellogg Boulevard. Bus stop facilities currently exist at this location, and the Project would add new station features (see **Figure 4.5-5**). Alignment A2 would leave the Union Depot bus deck, turn right on Kellogg Boulevard and continue to the east on Kellogg Boulevard to the Lowertown neighborhood of Saint Paul and operates on existing streets. Both Union Depot and the Lowertown Historic District are corridor features of high visual quality. As in Alignment A1, as Alignment A2 progresses east it would use the



Kellogg Boulevard Bridge to cross over the Bruce Vento Nature Sanctuary and I-94 to Mounds Boulevard. Views of the Bruce Vento Nature Sanctuary and the Mississippi River can be seen from the Kellogg Boulevard Bridge and are not considered high-visual quality features because the vista also includes several active railroad lines and large parking lots to the west and a warehouse and billboards along I-94 to the east.

FIGURE 4.5-5: EXISTING UNION DEPOT BUS DECK



4.5.2.3. Alignment B (Mounds Boulevard to White Bear Avenue)

Alignment B begins at the intersection of Kellogg Boulevard/3rd Street and Mounds Boulevard, traveling east on the north side of Mounds Boulevard and along the I-94 off-ramp.

On the east end of the Kellogg Boulevard Bridge, Dayton's Bluff offers an unobstructed view of the downtown Saint Paul skyline and the Mississippi River, which is considered a high-visual quality feature. Two residential properties east of Kellogg Boulevard/3rd Street and two residences and an apartment building on Conway Street overlook Mounds Boulevard have a view of the downtown Saint Paul skyline and the Mississippi River, which are considered high-visual quality features. These views are identified as "Significant Public Views" in the *City of Saint Paul Comprehensive Plan*,⁴⁷ in which Strategy 3.17 aims to "preserve significant public views through standards that regulate such impacts as height, bulk, scale, and view corridor" (see **Figure 4.5-6**).

⁴⁷ City of Saint Paul. "Land Use". Available at: <https://www.stpaul.gov/sites/default/files/Media%20Root/Planning%20%26%20Economic%20Development/web%20Land%20Use%202-18-10.pdf>. Page 46. Last modified 2008. Accessed May 2018.



FIGURE 4.5-6: VIEW OF DOWNTOWN SAINT PAUL SKYLINE FROM KELLOGG BOULEVARD/3RD STREET AND MOUNDS BOULEVARD



Source: SRF Consulting, 2015.

Between Wilson Avenue and Griffith Street, the dedicated guideway would be located between I-94 and a modified Hudson Road. The guideway would cross over Johnson Parkway on a new BRT-exclusive bridge and continue to the north side of the Trunk Highway (TH) 61 interchange. With its wide, planted medians, Johnson Parkway is a high-visual quality feature, though its feeling of enclosure diminishes somewhat near I-94 (see **Figure 4.5-7**).

FIGURE 4.5-7: JOHNSON PARKWAY AT I-94





Within the TH 61 interchange, the guideway would operate on a new BRT-exclusive bridge passing over TH 61, Etna Street and I-94 entrance and exit ramps. The guideway would follow the north side of the westbound I-94 off-ramp, then continue between Hudson Road and I 94, passing below White Bear Avenue.

4.5.2.4. Alignment C (White Bear Avenue to I-694)

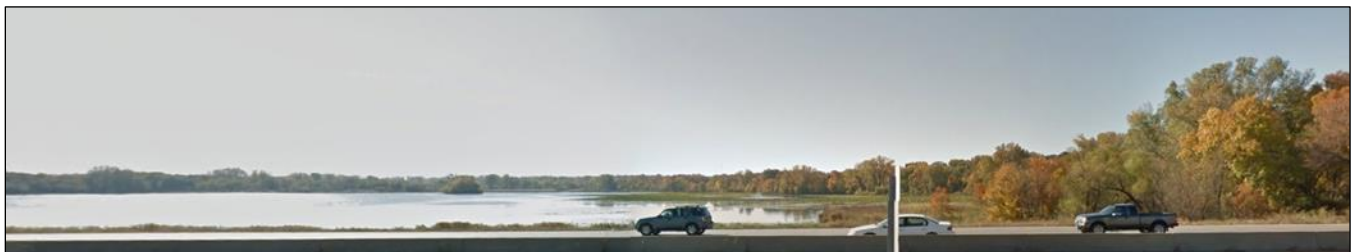
Alignment C would operate in a dedicated guideway parallel to and just north of I-94 from east of White Bear Avenue to just east of Ruth Street where it would transition to the south side of Hudson Road. Between White Bear Avenue and Ruth Street, nearby land uses are generally commercial with residential neighborhoods farther to the north and south.

Adjacent to the Sun Ray Shopping Center, the guideway would run on the south side of Hudson Road, with a station on the west side of the shopping center and a park-and-ride north of the shopping center adjacent to the existing Sun Ray Transit Center. The guideway would then continue on the north side of Hudson Road, crossing McKnight Road on a new BRT-exclusive bridge, continuing along the south side of 3M campus. Alignment C would then cross Century Avenue on new BRT-exclusive bridge that would end on the east side of Century Avenue south of Tanners Lake. BRT would then operate in mixed traffic until just before Greenway Avenue where it would enter a split dedicated guideway along Hudson Boulevard. The guideway would turn north and follow Hadley Avenue to 4th Street where it would transition to mixed traffic. Three high-visual quality features are located along Alignment C: the 3M Headquarters building and campus (see **Figure 4.5-8**), Tanners Lake and Battle Creek Lake (see **Figure 4.5-9**).

FIGURE 4.5-8: 3M HEADQUARTERS BUILDING AS SEEN FROM I-94



FIGURE 4.5-9: BATTLE CREEK LAKE AS SEEN FROM HUDSON BOULEVARD



Source: Google Streetview. Accessed 2015, 2016

There are no high-visual quality features adjacent to the proposed Hazel Street Station Option or along the Dedicated Guideway Option.



4.5.2.5. Alignment D3 (I-694 to Woodbury 494 Park-and-Ride)

Alignment D3 would cross I-94 on a new multi-modal bridge, connecting Helmo Avenue and Bielenberg Drive. The alignment would continue south on Bielenberg Drive in a center running guideway to Nature Path where BRT service would then transition to operate in mixed traffic and then turn right (west) on Guider Drive on a shared guideway and terminate on the Woodbury 494 Park-and-Ride Station (see **Figure 4.5-10**). No high-visual quality features were identified along Alignment D3.

FIGURE 4.5-10: WOODBURY 494 PARK-AND-RIDE STATION (FUTURE LOCATION)



4.5.3. Environmental Consequences

4.5.3.1. Operating Phase (Long-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

The Project would result in low to moderate visual contrast in the landscape due to alterations necessary for the Project. The Project would not result in a major change where elements may obstruct views or substantially alter visual character.

Table 4.5-1 summarizes the long-term Project-related visual contrast by Build Alternative.

TABLE 4.5-1: LONG-TERM VISUAL AND AESTHETIC IMPACTS BY BUILD ALTERNATIVE

Alternative	Resource/Impacted	Visual Contrast
Build Alternative 1 (A1-BC-D3)	Rice Park Historic District	Low
	Rice Park	Low
	Hamm Plaza	Moderate
	Saint Paul Urban Renewal Historic District	Low-Moderate
	Union Depot	Low-Moderate
Build Alternative 2 (A2-BC-D3) ^a	Union Depot	Low
Build Alternative 1 (A1-BC-D3) and Build Alternative 2 (A2-BC-D3) ^a	Lowertown Historic District	Low-Moderate
	Saint Paul skyline and Mississippi River	Low



Alternative	Resource/Impacted	Visual Contrast
	Dayton's Bluff Heritage Preservation District and residences adjoining Mounds Boulevard Stations	Moderate
	Residences on Hudson Road from Maria Avenue to Johnson Parkway	Moderate
	Johnson Parkway	Moderate
	Residences on Hudson Road from Johnson Parkway to Etna Street	Moderate
	Residences on Hudson Road from Etna Street to Grace Lutheran Church	Moderate
	Apartments north of proposed Van Dyke Station and Heritage Estates	Low-Moderate
	3M campus	Moderate
	Tanners Lake	Low-Moderate
	Residences near Greenway Avenue Station	Low-Moderate
	Battle Creek Lake	Low
	Future residences adjoining proposed Helmo Avenue Station and park-and-ride	Low
	Residences along Bielenberg Drive and Guider Drive	Low-Moderate
	Apartment buildings on Guider Drive facing Woodbury 494 Park-and-Ride Station	Low-Moderate
<i>Hazel Street Station Option</i>	Apartment building on Hudson Road	Low-Moderate
<i>Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	Apostolic Bible Institute and residences adjoining Hadley Avenue	Low

^a See the **Build Alternative 2 (A2-BC-D3)** subsection in **Section 4.5.3.1** for a summary of long-term impacts for Build Alternative 2.

Alignment A1 (Smith Avenue to Mounds Boulevard)

Numerous visual resources are along Alignment A1 (see **Figure 4.5-2**), particularly in downtown Saint Paul. The Project would use existing streets in the downtown area and buses operate within the district and stop at existing bus stops. Some locations such as Smith Avenue, Rice Park, Hamm Plaza, 6th Street/Robert Street, 6th Street/Minnesota Street, 5th Street/Cedar Street have existing bus shelters and other site furnishings. Proposed stations downtown would have a smaller footprint that would still include a shelter, pylon sign, and ticket vending machine. The level of visual contrast for stations with existing bus shelters is anticipated to be low, resulting in minimal visual impacts because the proposed station would introduce similar visual elements (for example, shelter and site furnishings). Historic districts downtown include: Rice Park Historic District, Saint Paul Urban Renewal Historic District, and Lowertown Historic District. Rice Park, Hamm Plaza and Union Depot are also discussed because of proposed stations adjacent to these high-visual quality features.



There are numerous employees and residents with views onto Alignment A1. Because buses and stations are part of this existing visual environment and changes due to the Project are minimal; therefore, these viewers will not experience visual impacts.

The Section 106 consultation process will also inform the design as it advances, including informing design modifications to avoid, minimize and mitigate visual impacts to historic properties in downtown Saint Paul. Resolution of adverse effects will be completed in under the terms of the Section 106 Programmatic Agreement (PA) as the Project advances through the Project Development and Engineering phases. If any adverse effects are identified, FTA will consult with MnSHPO and other consulting parties per the terms of the PA to consider avoidance, minimization, and/or mitigation measures to resolve the adverse effect. Prior to FTA assessing effects of the Project on historic properties, the Council will make efforts to design the Project elements within and in the vicinity of historic properties in accordance with the Secretary of the Interior's Standards for the Treatments to the extent feasible, while still meeting the Purpose and Need, in order to minimize Project effects on historic properties. See the *Cultural Resources Technical Report* of **Appendix A** for additional information on this process.

Rice Park Historic District

Alignment A1 (Eastbound on 5th Street) would pass through the Rice Park Historic District (Westbound on 6th Street) adjacent to the northern edge of this district. Buses currently operate within the district and stop at existing bus stops; thus, the level of visual contrast would be low resulting in minimal impacts to Rice Park Historic District (see **Figure 4.5-2**).

Rice Park

The proposed Rice Park Station is located on the northern side of Rice Park where an existing bus shelter is located. The new BRT shelter will have a slightly larger footprint than the current bus shelter but overall would be smaller in size than other proposed shelters downtown, specifically to minimize visual impacts to Rice Park. The proposed shelter would also be similar in form, scale, color and materials as the existing shelter. There will also be new site furnishings introduced at this station and all these new amenities would complement the historic setting and preserve existing views to and from the park. Minimal visual impacts are anticipated for Rice Park because the level of visual contrast would be low (see **Figure 4.5-2**).

Hamm Plaza

The existing bus shelter located at Hamm Plaza and 6th Street would be enlarged to accommodate a new BRT station and site furnishings. The footprint of the new shelter would be larger than the existing bus shelter and may partially obstruct views of Hamm Plaza and adjacent historic properties. Due to the partial obstruction of these views, and introduction of a larger station and site furnishings will result in a moderate level of visual contrast to Hamm Plaza (see **Figure 4.5-2**).

Saint Paul Urban Renewal Historic District

Alignment A1 would pass through the Saint Paul Urban Renewal Historic along 5th and 6th streets. Buses and LRT currently operate within and adjacent to the district and the introduction of additional BRT buses within this district would result in a low level of visual contrast. The Council proposes one BRT station in this district at 5th Street/Cedar Street, and three stations adjacent to this historic district (on 5th Street/Robert Street, 6th Street/Robert Street and 6th Street/Minnesota Street) (see **Figure 4.5-2**).

The Council anticipates a low level of visual contrast for proposed stations at 6th Street/Robert Street, 6th Street/Minnesota Street and 5th Street/Robert Street because existing bus shelters and other site furnishings already alter the setting. A low-moderate level of visual contrast is anticipated for the new BRT station at 5th and



Cedar streets within the Saint Paul Urban Renewal Historic District, because the Project would introduce a new shelter and other site furnishings to this location.

Lowertown Historic District

Alignment A1 would pass through (both eastbound and westbound route) the southern edge of the Lowertown Historic District on Kellogg Boulevard. Buses and LRT currently operate within the district and the introduction of additional BRT buses would result in a low level of visual contrast. Two new BRT stations are proposed in this historic district (on Sibley Street and Wacouta Street) (see **Figure 4.5-2**). A low-moderate level of visual contrast is anticipated for the proposed stations near Union Depot because the project would introduce a new shelter and associated site furnishings at locations without existing bus shelter facilities; however, the project would be viewed in the context of the Green Line LRT Station in front of Union Depot.

Union Depot

Alignment A1 would pass along the northern edge of the property on Kellogg Boulevard. Local and express buses currently operate on Kellogg Boulevard and the introduction of additional BRT buses would result in a low level of visual contrast. Views of Union Depot would not be obstructed by Sibley Street or Wacouta Street Stations. The level of visual contrast is anticipated to be low-moderate because a new shelter and site furnishings would be introduced to Sibley Street and Wacouta Street. Union Depot's role as a historic railroad hub and current regional multimodal transportation center with LRT, inter-city rail service, and local, express and intercity bus service is reinforced by the addition of BRT service, and buses operating near and parked at Union Depot are part of the visual context of the building.

Alignment B (Mounds Boulevard to White Bear Avenue)

High-visual quality features were identified along Alignment B include: the view of the downtown Saint Paul Skyline and Mississippi River from Dayton's Bluff, Dayton's Bluff Heritage Preservation District, and Johnson Parkway.

Saint Paul Skyline

Similar to the skyline view from Kellogg and Mounds boulevards, views of the downtown Saint Paul skyline and Mississippi River would be periodically blocked by passing METRO Gold Line buses operating on Mounds Boulevard and Hudson Road. However, because Mounds Boulevard carries 16,800 vehicles each day, including approximately 120 buses carrying local and express route passengers, as well as freight-hauling trucks, the addition of METRO Gold Line buses on Mounds Boulevard would have a low level of visual contrast to the downtown Saint Paul skyline and Mississippi River. Views of the Saint Paul skyline from Hudson Boulevard are limited; where they do exist, transportation features such as I-94, its noise barrier, and signage would remain visually dominant to viewers.

Dayton's Bluff Heritage Preservation District

A new station would be introduced at Mounds Boulevard along with a new dedicated guideway in this district (see **Figure 4.5-2**). The introduction of a new shelter and platform with site furnishings, guideway, and associated noise barriers would result in a moderate level of visual contrast within this heritage preservation district. This district is a local heritage preservation district and is not covered under the terms of the Section 106 PA.

Hudson Road from Maria Avenue to Johnson Parkway

The Project will introduce new dedicated guideway (additional pavement) and reduce the existing vegetation in front of noise barriers facing the neighborhood. This will result in a moderate level of contrast that is anticipated to be visible to neighboring residences and travelers. Bus traffic will be introduced in this residential neighborhood



where previously there was none. There will be a low level of visual contrast perceptible for westbound I-94 travelers as noise barriers will be relocated closer to I-94 resulting in reduction of vegetation and introduction of new retaining walls to accommodate of the BRT-exclusive bridge and dedicated guideway.

Johnson Parkway

The existing I-94 bridge over Johnson Parkway is a low-profile, clear span, low-arch structure, with a façade of buff colored Mankato Kasota Stone. The new BRT-exclusive bridge at Johnson Parkway would be immediately parallel to the I-94 bridge. Due to the construction of a new guideway bridge, there will be vegetation clearing and grading required to accommodate this new structure and associated retaining walls. There is also a residence west of the bridge that would have direct, unobstructed views of the new guideway bridge (see **Figure 4.5-2**) resulting in moderate visual contrast.

The Section 106 process will also inform the design as it advances, including informing design modifications to avoid, minimize and mitigate visual impacts to Johnson Parkway. Resolution of adverse effects will be completed in under the terms of the Section 106 PA as the Project advances through the Project Development Phase. If any adverse effects are identified, FTA will consult with MnSHPO and other consulting parties per the terms of the PA to consider avoidance, minimization, and/or mitigation measures to resolve the adverse effect. Prior to FTA assessing effects of the Project on historic properties, the Council will make efforts to design the Project elements within and in the vicinity of historic properties in accordance with the Secretary of the Interior's Standards for the Treatments to the extent feasible, while still meeting the Purpose and Need, in order to minimize Project effects on historic properties. See the *Cultural Resources Technical Report* of **Appendix A** for additional information about this process.

Hudson Road from Johnson Parkway to Etna Street

A multi-story apartment building east of Johnson Parkway (Wilson Ridge Apartments) would have views of moderate visual contrast due to the removal of mature overstory trees to accommodate new noise barriers being constructed adjacent to the apartment complex. Single-family residences immediately west of the proposed Etna Street Station may have partially to unobstructed views of the proposed station, widened guideway, stormwater facilities, and retaining walls required for a new guideway bridge over TH61/ Etna Avenue. These modifications would be viewed in context with existing I-94 and off-ramps at Etna Street and resulting visual contrast is anticipated to be low-moderate. Residences east of the new BRT-exclusive bridge near the Etna Street station would have views of moderate visual contrast resulting from the introduction of a new noise barriers and grading modifications to accommodate the dedicated guideway to Hudson Road.

Hudson Road East of Etna Street to Grace Lutheran Church

Residents along Hudson Road east of Etna Street and west of Grace Lutheran Church (see **Figure 4.5-2**) would have views of moderate visual contrast resulting from increased traffic volumes and removal of roadside vegetation. The introduction of a daily BRT service on a low traffic volume segment of roadway would result in a noticeable increase in traffic for these residents. Vegetation blocking a portion of the I-94 noise barrier would be removed, further diminishing visual quality for properties facing Hudson Road.

The Section 106 process will also inform the design as it advances, including informing design modifications to avoid, minimize and mitigate visual impacts to Grace Lutheran Church. Resolution of adverse effects will be completed in under the terms of the Section 106 PA as the Project advances through the Project Development Phase. If any adverse effects are identified, FTA will consult with MnSHPO and other consulting parties per the terms of the PA to consider avoidance, minimization, and/or mitigation measures to resolve the adverse effect. Prior to FTA assessing effects of the Project on historic properties, the Council will make efforts to design the Project elements within and in the vicinity of historic properties in accordance with the Secretary of the Interior's Standards for the Treatments to the extent feasible, while still meeting the Purpose and Need, in order to



minimize Project effects on historic properties. See the *Cultural Resources Technical Report* of **Appendix A** for additional information on this process.

Alignment C (White Bear Avenue to I-694)

Residences and three high-visual quality features were identified along Alignment C: the 3M campus, Tanners Lake and Battle Creek Lake.

Residential

Existing residences and future residents at the apartment complex adjacent to the Van Dyke Station (and Hazel Street Station Option) would have direct, unobstructed views of the project. These modifications would be viewed in context with existing I-94 and resulting visual contrast is anticipated to be low-moderate.

3M Campus

The 3M campus currently looks out over I-94 and Hudson Road; the guideway and station would be within the urban transportation context and not affect the view from the campus. The guideway would, however, remove a narrow segment of the lawn in front of the building, which would alter the physical setting. The level of visual contrast at the 3M center is anticipated to be moderate due to the introduction of the dedicated guideway, trails, and station (see **Figure 4.5-3**). At McKnight Road and Century Avenue, new BRT-exclusive bridges would be introduced and viewed in the context of existing I-94 bridges; thus, the resulting visual contrast is anticipated to be moderate.

The Section 106 process will also inform the design as it advances, including informing design modifications to avoid, minimize and mitigate visual impacts to 3M Historic District. Resolution of adverse effects will be completed in under the terms of the Section 106 PA as the Project advances through the Project Development Phase. If any adverse effects are identified, FTA will consult with MnSHPO and other consulting parties per the terms of the PA to consider avoidance, minimization, and/or mitigation measures to resolve the adverse effect. Prior to FTA assessing effects of the Project on historic properties, the Council will make efforts to design the Project elements within and in the vicinity of historic properties in accordance with the Secretary of the Interior's Standards for the Treatments to the extent feasible, while still meeting the Purpose and Need, in order to minimize Project effects on historic properties. See the *Cultural Resources Technical Report* of **Appendix A** for additional information on this process.

Tanners Lake

The existing setting adjacent to Tanners Lake is impeded by existing development, signs, billboards, and transmission lines along the lake. The introduction of a BRT-exclusive bridge, dedicated guideway, and trails would result in a low-moderate level of visual contrast for this high-visual quality resource (see **Figure 4.5-3**). The Project would be viewed in the context of these existing modifications and the presence of I-94 would dominate views from Tanners Lake.

BRT buses would operate in mixed traffic on Hudson Boulevard with a station located at Greenway Avenue. The south side Greenway Avenue Station will be in the foreground of adjacent residences and will have a low-moderate level of visual contrast because the station would be viewed in the context of I-94 which dominates the viewshed.

Battle Creek Lake

BRT buses operating on Hudson Boulevard would result in a low level of visual contrast and views from Battle Creek Lake would be dominated by I-94, which carries approximately 82,000 vehicles each day including trucks and buses (see **Figure 4.5-3**).



Hazel Street Station Option

Existing residences and future residents at the apartment complex adjacent to the Hazel Street Station Option would have direct, unobstructed views of the project. These modifications would be viewed in context with existing I-94 and resulting visual contrast is anticipated to be low-moderate.

Dedicated Guideway Option at Hadley Avenue and 4th Street

There are no high-visual quality features along this segment of Alignment C, therefore this option would not produce long-term impacts to high-visual quality features. The level of visual contrast would be low at Apostolic Bible Institute because the parking lot would be reconfigured and the driveway relocated to accommodate guideway changes on Hudson Road and Hadley Avenue.

Alignment D3 (I-694 to Woodbury 494 Park-and-Ride)

There are no high-visual quality features located along Alignment D3. The construction of a new multi-modal bridge over I-94 connecting Helmo Avenue and Bielenberg Drive would be consistent with existing conditions; bridges associated with I-494/I-694 and I-94 are prominently featured in existing views. Due to the existing transportation context, introduction of the Project would result in a low level of visual contrast.

Residential

Future residences facing Helmo Drive to the west will overlook a new dedicated guideway, Helmo Avenue Station and a surface park-and-ride. The introduction of these Project elements would result in a low level of visual contrast and would be viewed in the context of future transit-oriented development currently planned for this area.

Residences along Bielenberg Drive and Guider Drive would have views of low visual contrast associated with the guideway and existing Woodbury Theatre park-and-ride. Residents along Guider Drive facing the new surface park-and-ride lot to the west would have views of moderate visual contrast associated with the new parking lot, new station and electric charging infrastructure at I-494 and Guider Drive, which is undeveloped (see **Figure 4.5-10**).

Operation and Maintenance Facility

The existing Metro Transit East Metro Garage would be used as the Operations and Maintenance Facility (OMF) for the Project. The East Metro Garage would not require any physical modifications to the site. It is assumed that operator changes on the Project would occur on the alignment and not at the OMF. As a result, additional bus traffic to and from the OMF would be viewed in the context of other buses traveling to and from this facility. Based on these factors, minimal level of visual contrast is expected due to the use of the Metro Transit East Metro Garage.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Long-term impacts are the same as Build Alternative 1, except for Alignment A2. **Table 4.5-1** summarizes the long-term Project-related visual contrast for Build Alternative 2.

Alignment A2 (Union Depot to Mounds Boulevard)

Lowertown Historic District

Alignment A2 would pass along the southern edge of the Lowertown Historic District on Kellogg Boulevard, like Alignment A1. Buses and LRT currently operate within the historic district and the introduction of additional BRT buses would result in a low level of visual contrast for this district (see **Figure 4.5-2**).



Union Depot

The proposed terminus station at Union Depot uses an existing bus-turn-around and there are existing bus station furnishings at this location. Alignment A2 would utilize the existing station facilities with the addition of charging infrastructure and Project station elements at Union Depot (south of Kellogg Boulevard); therefore, a low level of visual contrast for Build Alternative 2 is anticipated due to the introduction of new charging infrastructure and site furnishings for the station.

The Section 106 process will also inform the design as it advances, including informing design modifications to avoid, minimize and mitigate visual impacts to historic properties in downtown Saint Paul. Resolution of adverse effects will be completed in under the terms of the Section 106 PA as the Project advances through the Project Development Phase. If any adverse effects are identified, FTA will consult with MnSHPO and other consulting parties per the terms of the PA to consider avoidance, minimization, and/or mitigation measures to resolve the adverse effect. Prior to FTA assessing effects of the Project on historic properties, the Council will make efforts to design the Project elements within and in the vicinity of historic properties in accordance with the Secretary of the Interior's Standards for the Treatments to the extent feasible, while still meeting the Purpose and Need, in order to minimize Project effects on historic properties. See the *Cultural Resources Technical Report* of **Appendix A** for additional information on this process

4.5.3.2. Construction Phase (Short-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

Anticipated effects on visual resources during construction would be similar to those of typical roadway projects, including the presence of heavy equipment and traffic control measures. Users in buildings or on streets and trails that are in visual proximity to the guideway would encounter views of the construction. Where the guideway passes adjacent to residential neighborhoods, construction activities would likely be perceived as visually disruptive in these typically more peaceful residential settings.

Alignment A1 (Smith Avenue to Mounds Boulevard)

Alignment A1 would operate on existing streets and new stations would be constructed at Smith Avenue/6th Street, Smith Avenue/5th Street, Hamm Plaza, Rice Park, 6th Street/Minnesota Street, 5th Street/Cedar Street, 6th Street/Robert Street, 5th Street/Robert Street, Union Depot/Wacouta Street, Union Depot/Sibley Street. Construction of these stations would cause temporary visual contrast to adjoining properties and sensitive viewers.

Alignment B (Mounds Boulevard to White Bear Avenue)

Construction of the guideway along Mounds Boulevard would be visually disruptive to residents on Conway Street, Surrey Avenue, and Euclid Street as trees that buffer the neighborhood from Mounds Boulevard are removed. Similarly, residents living near the intersection of Hudson Road and Bates Avenue and on Hudson Road between Bates Avenue and Maple Street would experience visual disruption as adjacent noise barriers are demolished and reconstructed during construction of the guideway.

Because the limits of disturbance is highly constrained, construction of the guideway along Hudson Road would be visually disruptive to the residents whose homes face Hudson Road, generally between Wilson Avenue and Griffith Street and to a lesser extent between Hazelwood and Kennard Streets, where homes are set back farther from Hudson Road. Similarly, businesses that front on Hudson Road near Earl Street would also experience temporary visual disruptions during construction of the guideway and station at this location. Construction in this vicinity would also include relocation of the noise barriers between I-94 and Hudson Road, so residents and businesses may also be temporarily exposed to views of interstate infrastructure and traffic during construction.



Construction of a new BRT-exclusive bridge over Johnson Parkway may result in temporary visual contrast for several nearby residences and users of the parkway. Construction of the guideway south of Wilson Ridge apartments would have visual contrast as construction in this vicinity would also include relocation of the noise barrier between I-94 the apartment building, and removal of vegetation, so residents may also be temporarily exposed to views of the interchange during construction.

Construction of a new bridge within the TH 61 interchange, Etna Street and I-94 entrance and exit ramps will have temporary visual contrast that would be visible for nearby businesses and residences.

Alignment C (White Bear Avenue to I-694)

Construction of dedicated guideways, park-and-ride lots and stations will have temporary visual impacts to adjoining properties and travelers.

Construction of the BRT-exclusive bridges, retaining walls, stations and guideway will be highly visible from 3M campus and to travelers on I-94, Hudson Road and McKnight Road south of Wilson Avenue. Construction of the bridge over Century Avenue would be visible to travelers on Century Avenue and I-94.

Hazel Street Station Option

Construction of the Hazel Street Station Option would cause temporary visual contrast during construction of the station at this location.

Dedicated Guideway Option at Hadley Avenue and 4th Street

Construction of the Dedicated Guideway Option would be consistent with construction outlined in Alignment C. Work on a center running dedicated guideway would require reconfiguration of the parking lot at Apostolic Bible Church and have temporary views of visual contrast during construction. Construction will also be more extensive on 4th Street including a new bridge over I-694. This would result in temporary visual change to businesses to the north.

Alignment D3 (I-694 to Woodbury 494 Park-and-Ride)

Construction of the guideway, stations, and infrastructure along Alignment D3 would result in temporary contrast that would be visible to nearby residences and businesses.

Construction of a surface lot at the Woodbury 494 Park-and-Ride Station, at the southern terminus of Alignment D3, would produce temporary contrast visible to residents of the Barrington apartments (see **Figure 4.5-10**).

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would produce the same short-term visual contrast as Build Alternative 1, except within Alignment A2.

Alignment A2 (Union Depot to Mounds Boulevard)

Construction of the station and electric charging facilities at Union Depot would cause temporary visual contrast during construction at this location. This would be evident to transit users at the depot but would not be visible to residential viewers.



4.5.4. Avoidance, Minimization and/or Mitigation Measures

The Council does not anticipate Build Alternative 1 or Build Alternative 2 would produce major changes to the visual character of the Project corridor. The design process would address potential low to moderate visual contrast.

As the Project moves into the Engineering Phase, design to mitigate impact to the Significant Views of Downtown Saint Paul and the Mississippi River at the Mounds Boulevard Stations and the Dayton's Bluff Heritage Preservation District will be coordinated with the City of Saint Paul to comply with the Significant Public Views goal in the Saint Paul comprehensive plan (Strategy 3.17) "preserve significant public views through standards that regulate such impacts as height, bulk, scale, and view corridor."

The design of the new BRT-exclusive bridges over Johnson Parkway and near the 3M campus would use visually compatible details and materials to further minimize impacts and match the new bridge with the existing I-94 bridge. Appropriate design and landscaping techniques would minimize the impact from vegetation removal and introduction of built features. Landforms to accommodate the new bridges will be designed to restore slope and landform to be consistent with the existing setting. Vegetation would be retained and restored, as appropriate to be consistent with existing massing and species. Landscape plans for areas adjacent to elevated structures, retaining walls, and noise barriers would be developed. The Section 106 PA will inform design modifications to avoid, minimize and mitigate visual impacts to historic properties. Resolution of adverse effects will be completed under the terms of the PA as the Project advances through the Project Development and Engineering phases (see **Appendix C** for the Section 106 PA).

Visual-quality related mitigation to all affected residential properties will be addressed in the Engineering phase of this Project. Stations would be designed to be aesthetically attractive and to complement their surroundings. Station design and aesthetics will be addressed during continued design advancement during the Project Development and Engineering phases and through ongoing outreach efforts conducted in the surrounding neighborhoods.

The impacts to visual resources during construction will be further minimized by staging construction activity to minimize the duration to the extent possible, restoring areas disturbed during construction and regularly utilize BMPs to remove debris and equipment from residential areas.

4.6. Business and Economic Resources

This section evaluates Project-related impacts to commercial uses, businesses and economic resources. The following sections support the information presented:

Section 4.1.1 includes an evaluation of land use impacts, and **Figure 4.2-1** and **Figure 4.2-2** show existing land uses near the Project corridor. **Section 4.4** includes an evaluation of both residential and commercial right-of-way impacts. Section 3.4 of the *Transportation Resources Technical Report* in **Appendix A** includes a parking analysis.

While the focus of this section is on potential impacts the Project may have on commercial establishments, the Project is also positioned to have positive economic impacts to the corridor cities and region. As discussed in the *Purpose and Need Technical Report* in **Appendix A**, one goal of the Project is to support economic development in the corridor by maximizing the number of people served by transit and maximizing future development opportunities.



4.6.1. Regulatory Context and Methodology

No specific laws or executive orders regulate the topic of economic impacts. NEPA⁴⁸ and MEPA⁴⁹ form the general basis of consideration for economic issues. The operating phase (long-term) and construction phase (short-term) impacts of the Project were evaluated in terms of both direct and indirect economic impacts. The construction phase that represents the short-term impacts is defined as 2018-2024 to capture the Project Development phase, engineering, and construction, though actual construction activity takes place during 2022-2024.

Operating phase impacts include direct and permanent impacts of the Project such as acquisition of right-of-way, loss of on-street parking, and changes in traffic patterns, as well as induced impacts on travel behavior and regional and statewide economic activity. Construction phase impacts are defined as impacts generally temporary in nature associated with constructing the Project.

The study area for the direct impacts on commercial uses, businesses and economic resources is defined as the Project's potential limits of disturbance, as identified in the 15% Concept Plans, and illustrated in **Figure 4.6-1** and **Figure 4.6-2**. The direct impacts were identified by analyzing the potential displacements required to construct the 15% Concept Plans.

The direct impacts documented include the number of businesses displaced, the number of commercially zoned properties that are to be fully acquired for the Project, the number of parking spaces that are being eliminated and/or added and the net parking impacts; the number of commercial properties with a reduction in access points; and the estimated market value of parcels that are no longer taxable. At this time, parcels that will no longer be taxable are in Washington County. The estimated market value of these parcels is based on information from the Washington County Department of Property Records and Taxpayer Services.

The induced economic impacts of the Project were analyzed on a regional and statewide level using the Metropolitan Council's REMI-PI model, an economic forecasting and policy analysis tool employed to project future economic impacts for each of the Gold Line Build Alternatives as well as the No-Build Alternative.⁵⁰ The No-Build Alternative reflects the economic growth path found in the Council's regional forecast to 2040, last updated in June 2017.⁵¹

Data inputs and assumptions used for the REMI-PI model include the Capital Cost Estimate for the 15% Concept Plans as well as the Project's sources of capital and operating funding, both as documented in the Financial Analysis Environmental Assessment Technical Report. Additional inputs include the regionwide net new transit trips and regionwide net reduction of vehicle miles travelled (VMT) for the 2040 horizon year for both Build Alternatives. The net new transit trips and net reduction in VMT are used to calculate the household budgetary

⁴⁸ *The National Environmental Policy Act of 1969, as amended.* ("The Public Health and Welfare," Title 42, USC, Sec. 4321 et seq.). Available at: <https://www.gpo.gov/fdsys/pkg/USCODE-2011-title42/pdf/USCODE-2011-title42-chap55-sec4321.pdf>. Accessed November 2018.

⁴⁹ "Environmental Policy," Chap. 116D., *Minnesota Statutes, 2018*. Available at: <https://www.revisor.mn.gov/statutes/cite/116D>. Accessed May 2018.

⁵⁰ *The Council analyzed and documented the types of regional and statewide impacts of the Project using a REMI-PI model to generate year-by-year estimates. The results of the model analysis were documented in an Internal Memorandum dated Dec. 10, 2018, from Todd Graham to the Metro Transit Gold Line Project Office.*

⁵¹ *A detailed explanation of the REMI-PI model is documented in Regional Economic Models Inc. "Model Equations", 2017. Available at: www.remi.com/wp-content/uploads/2017/10/Model-Equations-v2_1.pdf. Accessed November 2018.*



savings associated with transit usage as well as the livability improvements associated with the reduction in air pollution due to reduced VMT.⁵²

4.6.2. Affected Environment

4.6.2.1. Existing Economic Activity

ALIGNMENT A1 (SMITH AVENUE TO MOUNDS BOULEVARD)

Alignment A1 runs through the Saint Paul central business district, which is the region's second largest job center with more than 60,000 private and public-sector jobs in office, retail, civic, and hospitality settings. **Figure 4.6-1** shows the locations of job and activity centers along Alignment A1. On the western side of Downtown and at the west end of the Project, the Xcel Energy Center is home to the Minnesota Wild hockey team. On the eastern side of downtown near and including Union Depot, the Lowertown Historic District is an urban village characterized by artists' studios, galleries, maker-spaces, offices, and restaurants, CHS Field – home to the St. Paul Saints baseball team as well as retail space in renovated warehouse buildings. Alignment A1 would pass by several of these renovated buildings along Kellogg Boulevard before crossing the Kellogg Boulevard Bridge to Mounds Boulevard.

ALIGNMENT A2 (UNION DEPOT TO MOUNDS BOULEVARD)

Alignment A2 runs from Union Depot east along Kellogg Boulevard to Mounds Boulevard, following the same route as Alignment A1 through the eastern side of downtown's Lowertown Historic District and its studios, galleries, maker spaces, offices and restaurants, and passing within 2 blocks of CHS Field. **Figure 4.6-1** shows the location of job and activity centers along Alignment A2.

ALIGNMENT B (MOUNDS BOULEVARD TO WHITE BEAR AVENUE)

Alignment B would serve a small cluster of locally owned retail businesses at Hudson Road and Earl Street with a station at Earl Street. The Etna Street Station is adjacent to the Metro 94 Business Center, which has office and industrial tenants. Alignment B would also pass just south of retail and commercial uses at White Bear Avenue. **Figure 4.6-1** shows the location of job and activity centers along Alignment B.

ALIGNMENT C (WHITE BEAR AVENUE TO I-694)

Commercial, retail, and office uses line much of Alignment C. **Figure 4.6-2** shows for the location of job and activity centers along Alignment C. In Saint Paul, Alignment C would serve the retail and commercial areas of White Bear Avenue via the Van Dyke Street Station (or the Hazel Street Station Option). The Sun Ray Shopping Center will have a station on the west end of the strip mall. The 291,000 square-foot shopping center is home to approximately 30 retail stores and restaurants, including a large grocer and a discount department store. East of McKnight Road in Maplewood, Alignment C would serve the 3M campus with a station on the south side of the campus. Alignment C would then pass by a range of retail and commercial establishments along Hudson Boulevard in Landfall and Oakdale.

⁵² See Metropolitan Council Internal Memorandum dated Dec. 10, 2018, from Todd Graham to the Metro Transit Gold Line Project Office for detailed REMI-PI model data inputs and assumptions.



ALIGNMENT D3 (I-694 TO WOODBURY 494 PARK-AND-RIDE)

Alignment D3 is surrounded by a mix of commercial, retail, office, and industrial uses, though many properties have yet to be developed. **Figure 4.6-2** shows the location of job and activity centers along Alignment D3. Southeast and southwest of 4th Street at Helmo Avenue in Oakdale is a small concentration of office, shipping, commercial, and light industrial activities. South of I-94 along Bielenberg Drive is the former Hartford Life Insurance building and corporate campus (500 Bielenberg Drive), which is now occupied by other office uses (e.g., 3M, Assurant), large lot office and industrial uses. The Tamarack Hills development is located at Bielenberg Drive north of Tamarack Road and consists primarily of medical office space, retail, and hospitality businesses. At the southern end of Alignment D3 is the Woodbury Theatre and Woodbury Village Shopping Center, with a variety of national retailers, food establishments, grocers, and services.



FIGURE 4.6-1: JOB CENTERS ALONG ALIGNMENTS A1, A2 AND B

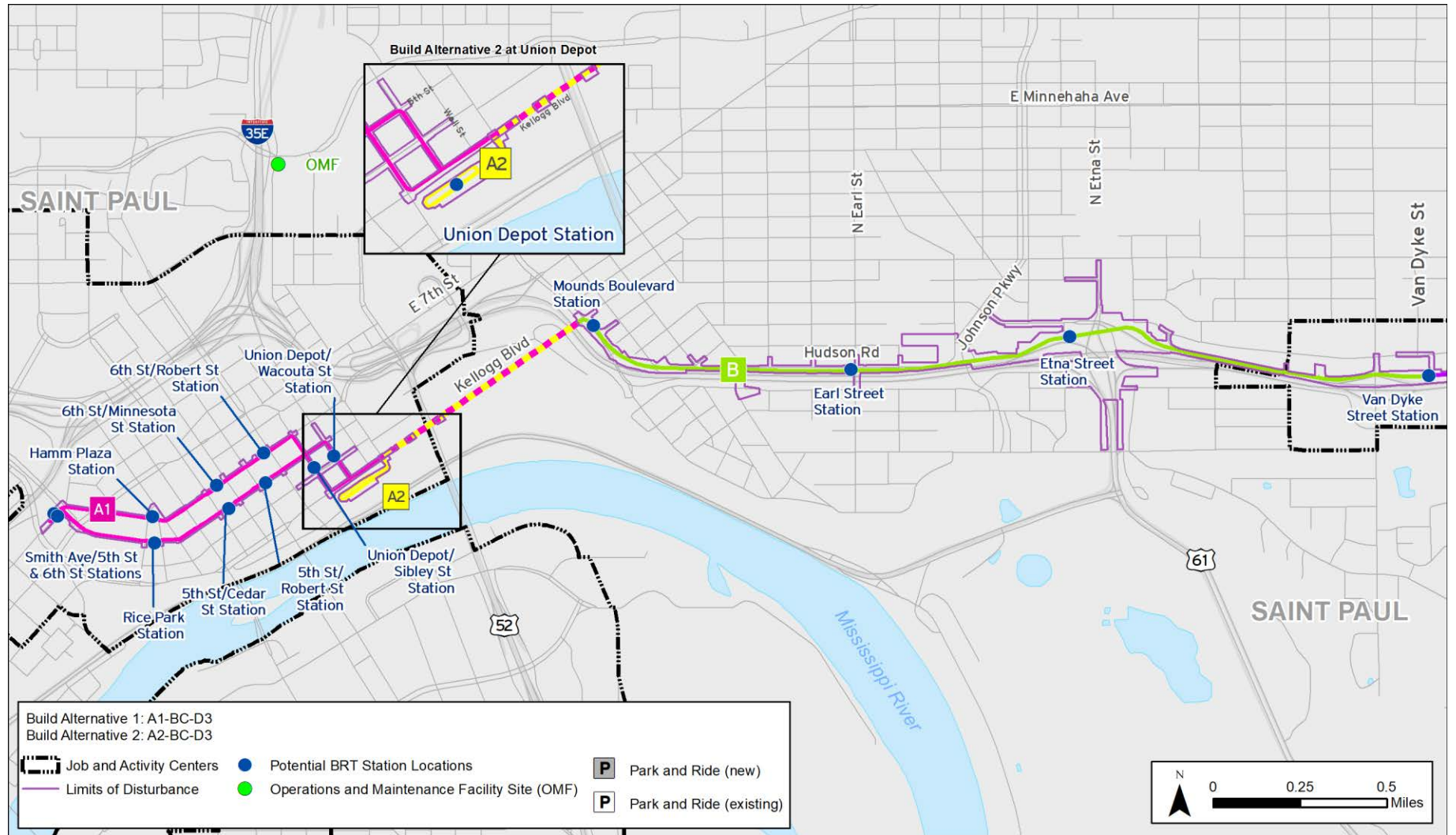
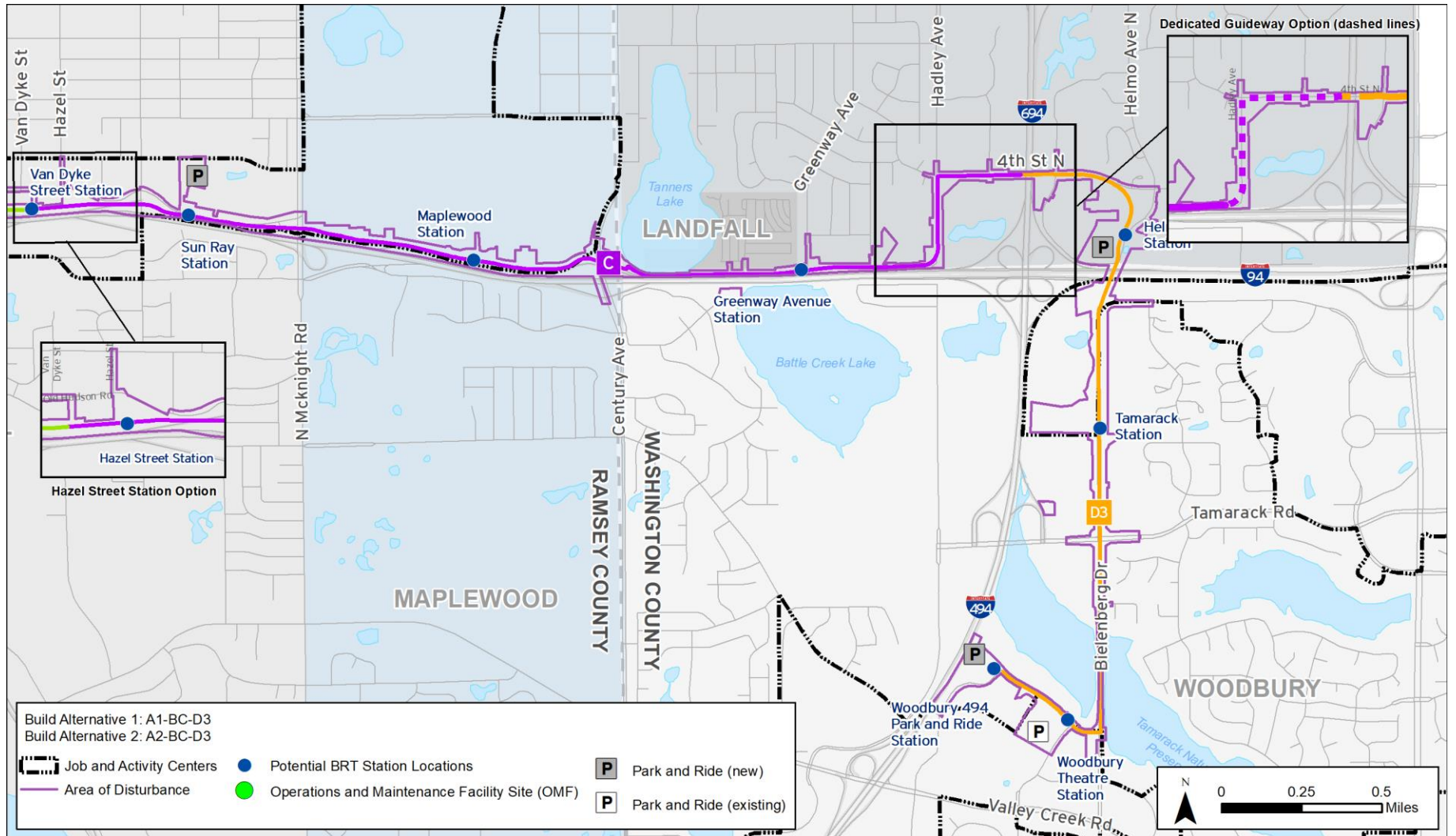




FIGURE 4.6-2: JOB CENTERS ALONG ALIGNMENTS C AND D3





4.6.3. Environmental Consequences

4.6.3.1. Operating Phase (Long-Term) Impacts

The Project would result in several types of direct impacts to existing businesses in the study area. This section evaluates these direct economic impacts including the following:

- Displacement of commercial uses due to right-of-way acquisition
- Loss of on- and off-street parking and changes to commercial property access due to location of BRT within the street right-of-way
- Reduction in parking revenue due to removal of metered on-street parking spaces
- Other property acquisition due to right-of-way acquisition resulting in full acquisition and reduced property tax collection

Table 4.6-1 summarizes the Project’s operating phase impacts by Build Alternative.

TABLE 4.6-1: DIRECT IMPACTS TO USES BY ALTERNATIVE

Alternative	Total Impact ^a
Build Alternative 1 (A1-BC-D3)	<ul style="list-style-type: none"> • Approximately 21 businesses displaced^b • 2 full commercial parcel acquisitions • 153 net parking spaces removed • \$3,486,900 estimated market value of property no longer taxable • 146 more jobs over the No Build, 2040 • \$359 million Gross State Product, 2040 • \$427 million Gross State Product, 2045 • \$179 million increase in personal income, 2045
<i>With Hazel Street Station Option</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^b</i> • <i>2 full commercial parcel acquisitions</i> • <i>153 net parking spaces removed</i> • <i>\$3,486,900 estimated market value of property no longer taxable^c</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^a</i> • <i>2 full commercial parcel acquisitions</i> • <i>153 net parking spaces removed</i> • <i>\$3,486,900 estimated market value of property no longer taxable^c</i>
Build Alternative 2 (A2-BC-D3)^d	<ul style="list-style-type: none"> • Approximately 21 businesses displaced^b • 2 full commercial parcel acquisitions • 126 net parking spaces removed • \$3,486,900 estimated market value of property no longer taxable • 142 more jobs over the No Build, 2040 • \$342 million in Gross State Product, 2040 • \$410 million in Gross State Product, 2045 • \$162 million increase in personal income, 2045



Alternative	Total Impact ^a
<i>With Hazel Street Station Option</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^b</i> • <i>2 full commercial parcel acquisitions</i> • <i>126 net parking spaces removed</i> • <i>\$3,486,900 estimated market value of property no longer taxable^c</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^b</i> • <i>2 full commercial parcel acquisitions</i> • <i>126 net parking spaces removed</i> • <i>\$3,486,900 estimated market value of property no longer taxable^c</i>

^a Net change in parking spaces, including proposed off-street spaces.

^b The number of displacements is approximate and is subject to change. The Council will further refine acquisition, displacement and relocation needs as the Project design advances during the Project Development and Engineering phases.

^c In 2018, these properties produced \$115,738 in tax revenue. While this will be a reduction in the property tax base, other proximate land could appreciate, reflecting the value created by the new transitway. As the amounts of tax base loss and gain have not been quantified, the present analysis assumes, for convenience, that the net impact to tax revenue is zero.

^d See the **Build Alternative 2 (A2-BC-D3)** subsection in **Section 4.6.3.1** for a summary of long-term impacts for Build Alternative 2.

BUILD ALTERNATIVE 1 (A1-BC-D3)

Alignment A1 (Smith Avenue to Mounds Boulevard)

Construction of the guideway would largely occur within existing roadway right-of-way through this alignment; however, constructing 10 stations mostly along 5th and 6th streets would result in a loss of 27 on-street parking spaces (14 metered and 13 un-metered spaces) near the stations to provide sufficient station access for Project vehicles. The loss of 14 metered on-street parking spaces would result in approximately \$90,000 in lost parking revenue per year in 2018 dollars.⁵³ At the intersection of 4th and Wacouta streets, two of four bordering properties are occupied by surface or structured parking facilities; Union Depot, a hub for local and regional bus and rail transit service, is located in the southwest corner. As such, it is anticipated that the loss of the metered on-street parking spaces would not have a measurable impact on commercial uses along Alignment A1. No other potential business impacts are anticipated on Alignment A1.

Table 4.6-2 Table 4.6-2 summarizes the Alignment A1's direct impacts to business and economic resources in the study area.

⁵³ The approximate annual cost was determined based on location of metered spaces to be removed, parking rates at these locations as well as hours and days of enforcement and information. As parking rates increase during event days, a conservative assumption was made that the event rate would apply to 10 percent of the parking enforcement hours.



TABLE 4.6-2: DIRECT IMPACTS TO USES ALONG ALIGNMENT A1

Type of Impact	Magnitude of Impact
Number of businesses displaced	0 businesses
Number of commercially zoned properties fully acquired	0 properties
Number of parking spaces eliminated	27 spaces (14 metered, 13 unmetered)
Number of parking spaces added	0 spaces
Net parking impact	27 spaces eliminated
Number of commercial properties with reduction in access points	0 properties
Estimated market value of parcels no longer taxable	\$0

Alignment B (Mounds Boulevard to White Bear Avenue)

While construction of Alignment B would require property acquisitions, most of the needed property is partial impacts to residential property and would be acquired via permanent easements (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions).

Stormwater facility construction for this alignment would require an approximately 5,000-square-foot permanent easement from Grace Lutheran Church, 1730 Old Hudson Road. Guideway construction would also, primarily, eliminate 145 parking spaces along Alignment B. Nearly all lost spaces along Alignment B would be in residential areas on Hudson Road between Maria Avenue and Griffith Street and between Old Hudson Road and the cul-de-sac to the east of Kennard Street.

Parking on the north side of Hudson Road between Old Hudson Road and Kennard Streets has been retained in response to community input regarding the importance of on-street parking in the area for local businesses. However, all south side on-street parking in this area will be removed for the guideway (see the parking analysis in Section 3.4 of the *Transportation Resources Technical Report* in **Appendix A** for additional information). No impacts to commercial properties are expected from the loss of parking spaces. One commercial property along Alignment B would lose one of two site-access points: The Project would permanently close the driveway on Hudson Road for Leo’s Chow Mein; however, the Project would not impact the driveway on Earl Street.

Table 4.6-3 Table 4.6-3: Direct Impacts to Uses Along Alignment B summarizes the direct impacts to business and economic resources in the study area for Alignment B.

TABLE 4.6-3: DIRECT IMPACTS TO USES ALONG ALIGNMENT B

Type of Impact	Magnitude of Impact
Number of businesses displaced	0 businesses
Number of commercially zoned parcels fully acquired	0 properties
Number of parking spaces eliminated ^a	145 spaces
Number of parking spaces added	0 spaces
Net parking impact ^a	145 spaces eliminated
Number of commercial properties with reduction in access points	0 properties



Type of Impact	Magnitude of Impact
Estimated market value of commercial parcels no longer taxable	\$0

^a The Federal Transit Administration and the Council do not anticipate impacts to commercial properties from the loss of parking spaces along Alignment B. Section 3.4 of the Transportation Resources Technical Report in **Appendix A** includes information about Project-related impacts to on- and off-street parking.

Alignment C (White Bear Avenue to I-694)

Construction of Alignment C would require acquisitions including permanent easements and the full acquisition of a commercial parcel (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions). The Council would obtain required permanent easements from both commercial and residential parcels. Crossroads Properties Inc. owns the commercial parcel at 2757 Hudson Blvd. The acquisition of this parcel is needed to support construction of the guideway as well as the reconstruction of local Hudson Road and Hudson Boulevard North. The acquisition of this parcel could displace approximately three businesses and result in the removal of 27 off-street private parking spaces. Near Harley-Davidson, 2899 Hudson Blvd. N., Project construction would eliminate 16 on-street and eight off-street parking spaces to accommodate the guideway and pedestrian facilities. The Sun Ray Shopping Center would lose approximately 132 off-street spaces to accommodate the guideway and local travel lanes and pedestrian facilities. North of the shopping center, St. Paul Youth Services, 2100 Wilson Ave., would lose approximately 27 off-street spaces to accommodate the new surface park-and-ride lot. St. Paul Youth Services has three existing access points on Pedersen Street and one on Wilson Avenue.

Construction of the park-and-ride lot would require the removal of two existing driveways to optimize parking and circulation within the lot. Additional access for St. Paul Youth Services would be provided within the lot. At the Apostolic Bible Institute, 6944 Hudson Blvd., the Project would eliminate eight off-street parking spaces to accommodate the guideway. One driveway access at the southeast corner of Apostolic Bible Institute would be relocated to 180 feet north of the existing access point along Hadley Avenue.

Neither the Hazel Street Station Option nor the Dedicated Guideway Option at Hadley Avenue and 4th Street would produce long-term impacts to parking, businesses or economic resources.

Table 4.6-4 summarizes the direct business and economic impacts in the study area for Alignment C.

TABLE 4.6-4: DIRECT IMPACTS TO USES ALONG ALIGNMENT C

Type of Impact	Magnitude of Impact
Number of businesses displaced ^a	Approximately 3 businesses
<i>With Hazel Street Station Option</i>	<i>Approximately 3 businesses</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>Approximately 3 businesses</i>
Number of commercially zoned parcels fully acquired	1 parcel
<i>With Hazel Street Station Option</i>	<i>1 parcel</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>1 parcel</i>
Number of parking spaces eliminated	218 spaces
<i>With Hazel Street Station Option</i>	<i>218 spaces</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>218 spaces</i>



Type of Impact	Magnitude of Impact
Number of off-street parking spaces added	150 spaces
<i>With Hazel Street Station</i>	<i>150 spaces</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>150 spaces</i>
Net parking impact	68 spaces eliminated
<i>With Hazel Street Station Option</i>	<i>68 spaces eliminated</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>68 spaces eliminated</i>
Number of commercial properties with reduction in access points	1 property
<i>With Hazel Street Station Option</i>	<i>1 property</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>1 property</i>
Estimated market value of commercial parcels no longer taxable ^b	\$441,700

^a The number of displacements is approximate and is subject to change. The Council will further refine acquisition, displacement and relocation needs as the Project design advances during the Project Development and Engineering phases.

^b 2018 estimated market values according to Washington County Department of Property Records and Taxpayer Services. Includes the value of the commercial parcel that would need to be fully acquired by the Project: PINs 31.029.21.33.0007, 31.029.21.33.0008 and 31.029.21.33.0009.

Alignment D3 (I-694 to Woodbury 494 Park-and-Ride)

Construction of Alignment D3 would require one full commercial parcel acquisition (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions). A multi-tenant commercial building is located on the parcel, which is owned by Crossroads Properties and is located at 7500 Hudson Blvd. The Project would need to acquire the entire eight-acre property to develop, and provide access to, the Helmo Park-and-Ride surface lot. This acquisition would displace approximately 18 businesses.

Two commercial properties would lose off-street parking along Alignment D3. The full acquisition of the Crossroads parcel at 7500 Hudson Blvd. would result in a loss of 156 private off-street spaces and would be replaced by the Helmo Park-and-Ride, adding 100 public parking spaces. The construction of the new bridge over I-94 would eliminate 57 spaces from the HOM Furniture store. A new park-and-ride at the Woodbury 494 Station would add 200 public off-street parking spaces. No surface parking at the Woodbury Theatre would be lost. There is no on-street parking along Alignment D3; therefore, the Project would not result in any loss of on-street parking spaces along Alignment D3.

Table 4.6-5 summarizes the direct impacts to business and economic resources impacts in the study area for Alignment D3

TABLE 4.6-5: DIRECT IMPACTS TO USES ALONG ALIGNMENT D3

Type of Impact	Magnitude of Impact
Number of businesses displaced ^a	Approximately 18 businesses
Number of commercially zoned parcels fully acquired	1 parcel
Number of parking spaces eliminated	213 spaces
Number of parking spaces added	300 spaces



Net parking impact	87 spaces added
Number of commercial properties with reduction in access points	0 properties
Estimated market value of commercial parcels no longer taxable ^b	\$3,045,200

^a Number of displacements is estimated and subject to change. The Council will further refine acquisition, displacement and relocation needs as the Project design advances during the Project Development and Engineering phases.

^b 2018 estimated market values according to by Washington County Department of Property Records and Taxpayer Services. Includes the value of the commercial parcel that would need to be fully acquired by the Project: PIN 32.029.21.43.0022.

Statewide Economic Impact

The economic impact of Build Alternative 1 includes marginal savings benefits to commuters who switch from travel by private automobile to travel by transit. Spending of these savings and the direct effect of new employment in the operation of Gold Line are the main long-term benefits. This is offset by the negative economic impacts of the tax burden of Gold Line – \$229 million in local sales tax collections – which reduces disposable income, and thus local consumer spending and local investment activity. The analysis found that Build Alternative 1 would positively impact the economic environment in the Project area by \$3.0 million per year by 2040, of which 78 percent is realized in 2024. The impact is mainly due to financial savings associated with the shift from personal automobiles to public transit. Build Alternative 1 is anticipated to produce the following economic impacts statewide:

- For the first 10 years of Project operation, the state gross domestic product (GSP) would be lower than in the No-Build Alternative condition
- After 2034, employment and economic activity would rebound and grow compared with the No-Build Alternative, after travel behavior and economic activity have fully adjusted. The Project’s economic impact surpasses the public Project cost in 2045. From 2041 to 2045, the GSP increases by \$69 million, and in 2045 the cumulative additional GSP would be \$427 million over the No-Build Alternative
- Minnesota would add 146 more jobs by 2040 than in the No-Build Alternative condition. The Project would incite some construction activity displacement, substituting for some construction activity that would have taken place if not for the Project, and advancing some construction before 2025 that would otherwise have occurred after 2025. Employment could be slightly below the No-Build Alternative during this time
- The Council anticipates the Project would create 55 permanent jobs for BRT operations and maintenance
- The Project would motivate new transit-riders to reduce their automobile travel; therefore, the Project would reduce automobile travel by 17,600 daily vehicle miles traveled (VMT), reducing auto ownership costs by \$2.6 million per year. This mode shift would phase in but is 78 percent mature in 2024, the first year of service
- After the Project is built, statewide indirect and induced impacts of the construction itself would quickly taper off

Table 4.6-6 summarizes the statewide economic impacts of Build Alternative 1.

TABLE 4.6-6: BUILD ALTERNATIVE 1 STATEWIDE ECONOMIC IMPACTS

Type of Impact ^a	Magnitude of Impact
Increase in employment over No-Build Alternative, 2040	146 jobs
Permanent Metro Transit operations and maintenance employment	55 jobs
Additional jobs in other industries	91 jobs



Type of Impact ^a	Magnitude of Impact
Change in GSP over No-Build Alternative, 2040	\$359 million
Change in GSP over No-Build Alternative, 2045	\$427 million
Annual reduction in auto ownership costs, 2028	\$2.6 million
Annual increase in household transit expenses, 2028	\$1.94 million

^a The Council identified the types of regional and statewide impacts shown in **Table 4.6-6** and **Table 4.6-7** using an REMI-PI model to generate year-by-year estimates of the total regional effects of the Project. All impacts are in 2016 dollars. (Metropolitan Council REMI-PI model results from Dec. 10, 2018.)

Table 4.6-7 summarizes the long-term, net statewide benefits of Build Alternative 1.

TABLE 4.6-7: BUILD ALTERNATIVE 1 STATEWIDE LONG-TERM NET ECONOMIC IMPACTS

Type of Impact ^a	2018-2024 7 Years (Millions of \$)	2025-2040 16 Years (Millions of \$)	2041-2045 5 Years (Millions of \$)
GSP	\$409	-\$50	\$69
Construction	\$160	-\$38	\$15
Professional and technical services	\$66	\$35	\$11
All other private sector	\$160	-\$81	\$28
Transit and ground passenger transportation	\$2	\$31	\$11
All other government	\$21	\$3	\$4
Personal Income	\$252	-\$137	\$64
Employment (jobs multiplied by years)	4,396 jobs	49 jobs	737 jobs

^a The Council identified the types of regional and statewide impacts shown in **Table 4.6-6** and **Table 4.6-7** using an REMI-PI model to generate year-by-year estimates of the total regional effects of the Project. All impacts are in 2016 dollars. (Metropolitan Council REMI-PI model results from December 10, 2018.)

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2's business and economic impacts are the same as Build Alternative 1 for the operating phase. The only difference is that the Project would not go through downtown Saint Paul under Build Alternative 2 as differentiated under Alignment A2. Table 4.6-1 summarizes the Project's operating phase impacts for Build Alternative 2.

Alignment A2 (Union Depot to Mounds Boulevard)

Beginning at Union Depot, Alignment A2 would operate in mixed traffic along the Kellogg Avenue bridge. There are no anticipated parking losses and would not affect commercial properties along Alignment A2, as shown in **Table 4.6-8**.



TABLE 4.6-8: DIRECT IMPACTS TO USES ALONG ALIGNMENT A2

Type of Impact	Magnitude of Impact
Number of businesses displaced	0 businesses
Number of commercially zoned parcels fully acquired	0 businesses
Number of on-street parking spaces lost	0 spaces lost
Number of off-street parking spaces lost	0 spaces lost
Number of off-street parking spaces added	0 spaces added
Net parking impact	0 spaces lost
Number of commercial properties with reduction in access points	0 properties
Estimated market value of parcels no longer taxable	\$0

Statewide Economic Impact

Build Alternative 2 would positively impact the economic environment by \$2.6 million per year by 2040. This impact is mainly due to savings associated with the mode shift from personal automobiles to public transit. The impacts of Build Alternative 2 are summarized below and in **Table 4.6-9**.

- For the first 10 years of Project operation, the state GSP would be lower than in the No-Build Alternative condition
- Minnesota will add 142 more jobs by 2040 than in the No-Build Alternative condition. The Project will incite some construction activity displacement, substituting for some construction activity that would have taken place if not for the project, and advancing some construction before 2025 that would otherwise have occurred after 2025. Employment could be slightly below the No-Build Alternative during this time, though not significantly so.
- After 2034, employment and economic activity do rebound and grow relative to the No-Build Alternative, once travel behavior and economic activity have fully adjusted. The project’s economic impact surpasses the public project cost in 2045. From 2041 to 2045, the GSP increases by \$68 million and in 2045 the cumulative additional GSP will be \$410 million over the No-Build Alternative.
- The Council anticipates the Project would create 55 permanent jobs for BRT operations and maintenance
- The Project would motivate new transit-riders to reduce their automobile travel; therefore, the Project would reduce automobile travel by 15,750 daily VMT, reducing auto ownership costs by \$2.4 million per year. This mode shift would phase in between 2024, but is 78 percent mature in 2024, the first year of service.

Following the conclusion of the construction phase, the statewide indirect and induced impacts of the construction itself will quickly taper off, as **Table 4.6-9** shows.

TABLE 4.6-9: BUILD ALTERNATIVE 2 STATEWIDE ECONOMIC IMPACTS

Type of Impact ^a	Magnitude of Impact
Increase in employment over No-Build Alternative, 2040	142 jobs
Permanent Metro Transit operations and maintenance employment	55 jobs



Additional jobs in other industries	87 jobs
Increase in GSP over No-Build Alternative, 2045	\$410 million
Annual reduction in auto ownership costs, 2028	\$2.4 million
Annual increase in household transit expenses, 2028	\$1.68 million

^a The Council identified the types of regional and statewide impacts shown in **Table 4.6-9** and **Table 4.6-10** using an REMI-PI model to generate year-by-year estimates of the total regional effects of the Project. All impacts are in 2016 dollars. (Metropolitan Council REMI-PI model results from Dec. 10, 2018.)

Table 4.6-10 summarizes the long-term, net statewide benefits of Build Alternative 2.

TABLE 4.6-10: BUILD ALTERNATIVE 2 STATEWIDE LONG-TERM NET ECONOMIC IMPACTS

Type of Impact ^a	2018-2024 7 Years (Millions of \$)	2025-2040 16 Years (Millions of \$)	2041-2045 5 Years (Millions of \$)
GSP	\$393	-\$51	\$68
Construction	\$153	-\$35	\$15
Professional and technical services	\$66	\$33	\$10
All other private sector	\$152	-\$81	\$28
Transit and ground passenger transportation	\$2	\$29	\$11
All other government	\$20	\$3	\$4
Personal income	\$240	-\$140	\$62
Employment (jobs multiplied by years)	4,221 jobs	22 jobs	722 jobs

^a The Council identified the types of regional and statewide impacts shown in **Table 4.6-9** and **Table 4.6-10** using an REMI-PI model to generate year-by-year estimates of the total regional effects of the Project. All impacts are in 2016 dollars. (Metropolitan Council REMI-PI model results from Dec. 10, 2018.)

4.6.3.2. Construction Phase (Short-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

Under Build Alternative 1, businesses could expect activities to be temporarily affected by changes in customer access, on-street parking availability, service access, traffic flow, and congestion during construction activities. For more information on these impacts, refer to the *Transportation Resources Technical Report* in **Appendix A**.

Depending on the intensity and duration of construction activities, businesses dependent on ease of customer access may experience a loss of revenue during this time. Businesses with outdoor activities, such as outdoor dining or outdoor storage of products or materials, could also experience negative impacts due to noise, dust, or other nuisance conditions during nearby construction activities. For more information on these impacts, refer to the “Noise and Vibration” and “Air Quality” sections in the *Physical and Environment Resources Technical Report* in **Appendix A**.



Businesses that rely on providing customers with a quiet atmosphere may also be affected during nearby construction activities. Businesses may experience short-term disruptions of utility services during construction activities if utilities need to be moved or replaced. For more information on these impacts, refer to Section 5.2, “Utilities,” in the *Physical and Environment Resources Technical Report* located in **Appendix A**.

Table 4.6-11 summarizes the short-term business and economic impacts by Build Alternative.

TABLE 4.6-11: SHORT-TERM BUSINESS AND ECONOMIC IMPACTS BY ALTERNATIVE

Alternative	Total Impact
No-Build Alternative	No economic effects
Build Alternative 1 (A1-BC-D3)	<ul style="list-style-type: none"> • Approximately 21 businesses displaced^a • 862 parking spaces eliminated • 3,967 jobs added to Metro region employment in 2024 • 1,494 jobs added to Metro region construction industry employment in 2024 • \$207 million increase in personal income for the Metro area over the No-Build Alternative, 2024 • \$46 million increase in personal income for the Greater Minnesota area over the No-Build Alternative, 2024 • \$252 million increase in personal income for the State over the No-Build Alternative, 2024 • \$376 million increase in gross domestic product for the Metro area (GMP over the No Build, 2024 • \$33 increase in Gross Domestic Product (GDP) for the Greater Minnesota area over the No-Build Alternative, 2024 • \$409 increase in GSP over the No-Build Alternative, 2024
<i>With Hazel Street Station Option</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^a</i> • <i>862 parking spaces eliminated</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^a</i> • <i>862 parking spaces eliminated</i>



Alternative	Total Impact
Build Alternative 2 (A2-BC-D3)^b	<ul style="list-style-type: none"> • Approximately 21 businesses displaced^a • 835 parking spaces eliminated • 3,808 jobs added to Metro region employment in 2024 • 1,433 jobs added to Metro region construction industry employment in 2024 • \$196 million increase in personal income for the Metro area over the No-Build Alternative, 2024 • \$44 million increase in personal income for the Greater Minnesota area over the No-Build Alternative, 2024 • \$240 million increase in personal income for the State over the No-Build Alternative, 2024 • \$361 million increase in GMP over the No-Build Alternative, 2024 • \$32 million increase in GDP for the Greater Minnesota area over the No-Build Alternative, 2024 • \$393 million increase in GSP over the No-Build Alternative, 2024
<i>With Hazel Street Station Option</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^a</i> • <i>835 parking spaces eliminated</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<ul style="list-style-type: none"> • <i>Approximately 21 businesses displaced^a</i> • <i>835 parking spaces eliminated</i>

^a Number of displacements is estimated and subject to change. The Council will further refine acquisition, displacement and relocation needs as the Project design advances during the Project Development and Engineering phases.

^b See Build Alternative 2 (A2-BC-D3) section below for a summary of impacts for Build Alternative 2.

Temporary parking impacts affected by changes in and reductions to on- and off-street parking during construction, would impact businesses and other uses in the Project corridor. Depending on the intensity and duration of construction activities, businesses dependent on the availability of customer parking may experience a loss of revenue during this time. For more information on these impacts, refer to Section 3.4 of the *Transportation Resources Technical Report* located in **Appendix A**.

Table 4.6-12 summarizes the short-term Project-related parking impacts by alignment.

TABLE 4.6-12: SHORT-TERM PARKING IMPACTS TO USES BY ALIGNMENT

Alignment	Parking Spaces Project Construction Would Eliminate
Alignment A1	27 total; 0 temporarily removed
Alignment B ^a	404 total; 259 temporarily removed
Alignment C	218 total; 0 temporarily removed
<i>With Hazel Street Station Option</i>	<i>218 total; 0 temporarily removed</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	<i>218 total; 0 temporarily removed</i>



Alignment	Parking Spaces Project Construction Would Eliminate
Alignment D3	213 total; 0 temporarily removed
Alignment A2 ^b	0 total; 0 temporarily removed

^a Loss of on-street parking spaces along Alignment B is not anticipated to impact commercial properties. Section 3.4 of the Transportation Resources Technical Report in **Appendix A** discusses on- and off-street parking impacts.

^b See the **Build Alternative 2 (A2-BC-D3)** section below for a summary of impacts for Build Alternative 2.

Under Build Alternative 1, business displacement and changes to access included as part of the operating phase would take place within the construction phase as well. Parking impacts along Alignments A1, B, C and D3 are also expected during construction, though many of the spaces along Alignments B and C would be restored after construction is concluded. Long-term parking impacts are reported in **Table 4.6-1** Table 4.6-1 and Section 3.4, “Parking and Driveways,” in the *Transportation Resources Technical Report* in **Appendix A**.

Businesses clustered around Hudson Road and Etna Street along Alignment B may be negatively affected by temporary loss of on-street parking during the construction phase of the Project. In response to community concerns, on-street parking on the north side of Hudson Road between Old Hudson Road and Kennard Street would be included in the redesign and reconstruction of Hudson Road; thus, on-street impacts to businesses would be limited to the construction phase of the Project.

Parking spaces eliminated along Alignment C in the construction phase of the Project include spaces at Harley-Davidson, St. Paul Youth Services, the Sun Ray Shopping Center and the Apostolic Bible Institute. A 150-space park-and-ride would be constructed at the Sun Ray Shopping Center.

Regional and Statewide Economic Impact

The construction phase would also impact the regional and state economy. The cumulative employment in the Metro region is estimated to be 3,967 more job-years (person-years of employment) in the Build Alternative 1 than the No-Build Alternative, of which 1,494 (45 percent) job-years will be in construction industry. The cumulative gross domestic product for the metro area (GMP) will be \$376 million more than the construction phase GMP of the No Build.

The Project will create jobs available to Greater Minnesota residents, but most of these jobs will be in the Metro region. Cumulative employment located at Greater Minnesota worksites during the construction phase will be 429 job-years. The cumulative GDP for Greater Minnesota will increase by \$33 million during the construction phase; this amount only counts production at businesses in Greater Minnesota.

Statewide, the cumulative employment for the construction phase will be 4,396 more job-years in Build Alternative 1 than in the No Build. Additional workers employed during the construction phase will predominantly come from the Metro region and surrounding areas: \$207 million (82 percent) of the personal income gained will be paid to Metro region workers and \$46 million (18 percent) to Greater Minnesota workers. The cumulative gross domestic product for the state (GSP) will be \$409 million more for Build Alternative 1 than the No-Build Alternative.

Table 4.6-13 shows the types and magnitudes of potential Project-related impacts to the regional and statewide economy.



TABLE 4.6-13: BUILD ALTERNATIVE 1 REGIONAL AND STATEWIDE ECONOMIC IMPACTS

Type of Impact ^a	Magnitude of Impact
Metro Region	
Increase in employment over the No-Build Alternative, 2024	3,967 jobs
Increase in construction industry jobs over the No-Build Alternative, 2024	1,494 job-years
Increase in Gross Domestic Product for the Metro area (GMP) over No-Build Alternative, 2024	\$376 million
Greater Minnesota	
Increase in employment over the No Build, 2024	429 jobs
Increase in Gross Domestic Product for the Greater Minnesota area (GMP) over the No Build, 2024	\$33 million
Statewide	
Increase in employment over the No Build, 2024	4,396 jobs
Increase in personal income over the No Build, 2024	\$252 million
Metro region workers	\$207 million
Greater Minnesota workers	\$46 million
Increase in Gross Domestic Product for the State (GSP) over the No Build, 2024	\$409 million

^a The Council identified the types of regional and statewide impacts shown in **Table 4.6-13** using an REMI-PI model to generate year-by-year estimates of the total regional effects of the Project. All dollars are 2016 constant dollars.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Short-term impacts would be the same under Build Alternative 2 as Build Alternative 1; however, there would be no parking impacts along Alignment A2. Impacts along Alignments B, C and D3 would be the same as Build Alternative 1.

Regional and Statewide Economic Impact

The cumulative employment in the Metro region will be 3,808 more job-years (person-years of employment) in Build Alternative 2 than the No-Build Alternative, of which 1,433 job-years will be in construction industry. The cumulative GMP will be \$361 million more than the construction phase GMP of the No-Build Alternative.

The Project will create jobs available to Greater Minnesota residents, but most of these jobs will be in the Metro region. Cumulative employment located at Greater Minnesota worksites during the construction phase will be 413 job-years. The cumulative GDP for Greater Minnesota will increase by \$32 million during the construction phase; this amount only counts production at businesses in Greater Minnesota.

Statewide, the cumulative employment for the construction phase will be 4,221 more job-years in Build Alternative 2 than in the No-Build Alternative. Additional workers employed during the construction phase will predominantly come from the Metro region and surrounding areas: \$196 million (82 percent) of the personal income gained would be paid to Metro region workers, and \$44 million (18 percent) to Greater Minnesota area workers. The cumulative GSP would be \$393 million more for Build Alternative 2 than for the No-Build Alternative.



Table 4.6-14 shows the types and magnitudes of potential Project-related impacts to the regional and statewide economy for Build Alternative 2.

TABLE 4.6-14: BUILD ALTERNATIVE 2 REGIONAL AND STATEWIDE ECONOMIC IMPACTS

Type of Impact ^a	Magnitude of Impact
Metro Region	
Increase in employment over No-Build Alternative, 2024	3,808 jobs
Increase in construction industry jobs over No-Build Alternative, 2024	1,433 jobs
Increase in GMP over No-Build Alternative, 2024	\$361 million
Increase in personal income over No-Build Alternative, 2024	\$196 million
Greater Minnesota	
Increase in employment over No-Build Alternative, 2024	413 jobs
Increase in GDP for greater Minnesota over No-Build Alternative, 2024	\$32 million
Increase in personal income over No-Build Alternative, 2024	\$44 million
Statewide	
Increase in employment over No-Build Alternative, 2024	4,221 jobs
Increase in personal income over No-Build Alternative, 2024	\$240 million
Increase in GSP over No-Build Alternative, 2024	\$393 million

^a The Council identified the types of regional and statewide impacts shown in Table 4.6-14 using an REMI-PI model to generate year-by-year estimates of the total regional effects of the Project. All dollars are 2016 constant dollars.

Neither the Hazel Street Station Option nor the Dedicated Guideway Option at Hadley Avenue and 4th Street would produce short-term impacts to parking or businesses.

4.6.4. Avoidance, Minimization and/or Mitigation Measures

Avoidance, minimization and mitigation measures apply to both Build Alternative 1 and Build Alternative 2. The Council would provide property owners payment of fair market compensation and relocation assistance in accordance with the requirements of the Uniform Relocation Act and Minnesota Statutes Chapter 117, as Section 4.4 describes.

The design process sought to minimize impacts while preserving Project benefits. For example, through design refinements included in the 15% Concept Plans (see Appendix B), impacts to businesses at the Sun Ray Shopping Center were avoided or minimized. Similarly, in response to concerns identified with the impacts to parking near Earl Street businesses on Alignment B, the street, guideway, and station design were changed to minimize the impacts to on-street parking spaces in the long term.



4.7. Safety and Security

This section evaluates Project-related impacts to the safety and security of passengers, pedestrians, motorists and the public. The FTA, through the Fixing America's Surface Transportation Act,⁵⁴ intends to achieve the highest practical level of safety and security for all transit modes.

4.7.1. Regulatory Context and Methodology

4.7.1.1. Regulatory Context

Federal, state and local codes and standards would require the anticipated owner and operator of the Project, Metro Transit, to comply with safety and security requirements for facilities. These requirements include applicable parts of the following guidance publications:

- National Fire Protection Association 130, *Standard for Fixed Guideway Transit and Passenger Rail Systems*, 2017 edition
- 2012 *International Fire Code*®, as amended
- 2015 Minnesota State Building Code
- National Fire Protection Association (NFPA) 101®, *Life Safety Code*®, 2015 edition, and International Organization for Standardization guidelines
- American National Standards Institute and American Society for Testing and Materials standards

FTA provides safety and security oversight for major capital projects,⁵⁵ and it recommends the Project design should meet the following minimum objectives:

- Identify and eliminate hazards with appropriate safety design concepts and/or alternative designs
- Use fixed, automatic or other protective safety devices to control hazards the Project design cannot eliminate
- Use warning signals and devices if neither designs nor safety devices can effectively eliminate or control an identified hazard
- Provide procedures to control hazards that protective safety devices cannot minimize

⁵⁴ *Fixing America's Surface Transportation Act, Pub. L. No. 114-94, 129 Stat. 1312 (2015)*. Available at: <https://www.congress.gov/114/plaws/publ94/PLAW-114publ94.pdf>. Accessed November 2018.

⁵⁵ "Safety and Security Guidance for Recipients with Major Capital Projects," covered under "Project Management Oversight," Title 49, CFR, Part 633. Available at: https://www.govregs.com/regulations/title49_chapterVI_part633_subpartB. Accessed November 2018.



The Project proposes using Crime Prevention Through Environmental Design principles for all passenger facilities, in accordance with the Council's *Regional Transitway Guidelines*⁵⁶ and *Station and Support Facility Design Guidelines User Guide* (amended March 2016).⁵⁷

4.7.1.2. Methodology

The safety analysis considers how Project implementation could impact the safety of transit customers and pedestrians, bicyclists and motorists along the alignments, and whether the Project has adequate police, fire and emergency services to serve BRT facilities and users. The security analysis considers the potential for crime and measures to prevent crime.

The study area includes facilities within and adjacent to the Project's potential limits of disturbance, as estimated at this stage, and it considers the proximity of the proposed alignments to schools, playgrounds and other places with special safety or security concerns.

4.7.2. Affected Environment

The police and fire departments and emergency response units of the communities adjacent to the Project provide public safety and security services along the corridor. Each of the corridor cities has a system for responding to emergencies such as weather, fire, rescue incidents, hazardous materials and homeland security issues. Metro Transit has a 24-hour police department that provides security services for its transit customers and employees in vehicles and transit facilities.

The Project would interact with existing multimodal transportation infrastructure along the corridor including roadways and bicycle and pedestrian facilities that would be used by transit riders and the public. The following parks are located near the Project alignments:

- Rice Park located at Washington and 5th streets in downtown Saint Paul is adjacent to the Project
- The Depot Tot Lot located at 4th and Sibley streets in downtown Saint Paul is adjacent to the Project.
- Mears Park located at 5th and Wacouta streets in downtown Saint Paul, is adjacent to the Project
- Menomini Park located along Meadow Lane in Woodbury is directly west of Battle Creek Lake and south of the Project
- Powerline Park located near Helmo Avenue and 4th Street in Oakdale includes trails that are near the Project along 4th Street
- Tamarack Road Trail located along the east side of Bielenberg Drive between Nature Path and Tamarack Road in Woodbury is adjacent to the Project

These areas may have special safety or security concerns. All other parks and all schools in the Project corridor are farther from the alignments, reducing the likelihood of children being nearby.

⁵⁶ Metropolitan Council. "Regional Transitway Guidelines – Twin Cities Region". Publication No. 35-12-006. Adopted February 22, 2012, amended February 2015 and March 2016. Available at <http://www.metrocouncil.org/Transportation/Publications-And-Resources/RegionalTransitwayGuidelines-pdf.aspx>. Accessed November 2018.

⁵⁷ Metropolitan Council. "Station and Support Facility Design Guidelines User Guide – A Supplement to the Regional Transitway Guidelines". Available at <http://www.metrocouncil.org/METC/files/ea/ea8d03e-2d7a-4e61-b045-391dbe737999.pdf>. Accessed November 2018.



4.7.3. Environmental Consequences

4.7.3.1. Operating Phase (Long-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

The Project would introduce a new transit feature in the Project corridor that could generate some initial safety concerns from residents and visitors as they become accustomed to the bus operations; however, the Project service would be similar to other bus transit modes already operating in area communities, therefore the Council does not anticipate the Project to produce new safety hazards or security concerns. The same safety and security measures provided to the METRO system would apply to the Project including patrols by the Metro Transit Police Department. The Project would maintain all existing pedestrian crossings and provide new pedestrian connections and sidewalks to access BRT stations where necessary. The Project would add bike facilities north and south of the Earl Street Station and along Bielenberg Drive. See the 15% Concept Plans in **Appendix B** for the location of new pedestrian connections and sidewalks.

The Council identified the following Project improvements to safely control movement of the BRT at intersections and provide adequate infrastructure to accommodate buses, pedestrians and park-and-ride traffic near stations:

- The Project would construct new traffic signals at full-access intersections through which the guideway would be center or side running to safely control movements of vehicles, pedestrians, bicycles and BRT
- The Project would design the guideway to accommodate emergency vehicle access throughout the corridor
- The Project would use stripings or markings rather than a physical barrier to delineate the guideway clearly from regular traffic and parking lanes
- The Project would feature mountable curbs and median breaks at cross streets such as Hudson Road and Cypress Street combined with limited parking restrictions

The Project would include level boarding platforms at stations that are raised 14 inches above pavement at the boarding edge. The station designs would include components essential for traveler safety and security including wheelchair ramps, lighting, security systems and information displays. Also, the level boarding platforms would have a 2-foot-long detectable warning strip at the edge of the platform to warn pedestrians about the grade change between the platform and the pavement. At stations located on medians and where side platforms have significant grade changes, station platforms would have fencing on the side not used to access the buses.

Project stations would feature public-address systems, video monitoring and emergency telephones. A public-address system, with both speakers and signs, would convey information to people with impaired hearing, complying with federal Americans with Disabilities Act⁵⁸ requirements.

The Project would include general lighting of station platforms, and vehicular and pedestrian circulation lighting that is consistent with established guidelines. The Project would provide emergency lighting in all public areas and platforms, and it would provide pedestrian lighting along walkways, crosswalks, ramps, stairs and bicycle-storage areas. Illuminated areas within station boundaries would include vehicular traffic areas, bus loading and unloading zones, and park-and-ride facilities.

The Metro Transit Police Department and local law enforcement authorities would be jointly responsible for the safety and security of the Project's facilities and environs. These agencies already have in place policies to

⁵⁸ *Americans With Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 328 (1990). Available at: http://library.clerk.house.gov/reference-files/PPL_101_336_AmericansWithDisabilities.pdf. Accessed November 2018.*



protect and secure transit-users and the public. Metro Transit's licensed police force enforces public safety on and near the transit system, and it would routinely patrol and secure the Project's stations, guideway and BRT vehicles, as well as nearby bus routes and stops.

The parks identified under **Section 4.7.2** would not have safety or security impacts due to their proximities to existing transit facilities or distances from the Project. For example, BRT service would not be out of context adjacent to The Depot Tot Lot because the playground abuts roadways with existing LRT and express bus services.

The Council does not anticipate adverse impacts to safety and security resulting from the Project with the implementation of the above measures as part of the Project's adherence to BRT design guidelines and inclusion of oversight from security agencies.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would have the same long-term safety and security concerns as Build Alternative 1; however, Alignment A2 would not go through downtown Saint Paul. Therefore, the Council would not apply the Project's safety and security measures downtown past Union Depot.

Hazel Street Station Option

This option would not produce additional long-term impacts to safety and security.

Dedicated Guideway Option at Hadley Avenue and 4th Street

This option would construct new traffic signals to safely control movements of vehicles, pedestrians, bicycles and BRT buses at full-access intersections through which the guideway would be center or side running.

4.7.3.2. Construction Phase (Short-Term) Impacts

BUILD ALTERNATIVE 1 (A1-BC-D3)

Construction activity associated with Build Alternative 1 may pose a safety risk to workers and the public. Short-term impacts to workers include potential, temporary, personal-safety hazards such as worker-vehicle conflict in restricted spaces near traffic; working in deep and confined spaces during utility relocations and construction, exposure to hazardous utility pipe coatings or materials, and exposure to contaminants during soil excavation and drilling work.

Public safety, particularly as it relates to people who encroach upon open excavation sites and other construction activity, is an issue the Council would address by creating and implementing safety programs, public information efforts and selected protective measures. Construction equipment operation, materials delivery and other construction site activity may temporarily negatively impact safety on adjacent roadways and pedestrian areas. The Council and Metro Transit would coordinate with local law enforcement and emergency response personnel to develop a Safety and Security Management Plan and a Safety and Security Certification Plan, which would specify applicable safety and security precautions for the Project.

Construction would include a temporary access road from Woodbine Court to the proposed stormwater detention pond that would utilize and temporarily close a bike and pedestrian trail at Menomini Park. A detour trail would safely reroute users around the construction zone. This alternative would also require reconstructing the Tamarack Road Trail along the east side of Bielenberg Drive between Nature Path and Tamarack Road.



Hazel Street Station Option

This option would not produce additional long-term impacts to safety and security. The only difference is that construction-related safety and security risks would be shifted from the Van Dyke Station construction footprint to the Hazel Street Station construction footprint.

Dedicated Guideway Option at Hadley Avenue and 4th Street

This option may have greater construction-related safety and security risks than mixed traffic in this segment of Alignment C because this option would require additional work in the right-of-way and reconstruction of the bridge over I-694.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would manage safety and security risks during construction with the same measures as Build Alternative 1; however, construction-related safety and security risks would not apply in downtown Saint Paul between Smith Avenue and Union Depot because Alignment A2 would end at Union Depot.

4.7.4. Avoidance, Minimization and/or Mitigation Measures

While no long-term impacts are identified for the Build Alternatives, the Council will implement measures to avoid impacts to safety and security within the Project corridor. In addition to the components included in the design of the Project, as discussed under subsection **Build Alternative 1 (A1-BC-D3)** in **Section 4.7.3.1**, the Council would establish a Safety and Security Management Plan and a Safety and Security Certification Plan to guide safety and security policies for the Project during design and construction. These plans would include requirements for design criteria, preliminary hazard analyses, threat and vulnerability analyses, construction safety and security, operational staff training and emergency response measures. The preliminary hazard analysis would assess hazards associated with the Project and develop appropriate mitigation measures. These plans would also specify actions and requirements of Metro Transit and its police force to maintain safety and security during BRT operations. Project design features would also comply with NFPA standards as confirmed by the Council's consultation with the Saint Paul Fire Department chief. The Council would develop these plans as the Project advances through the Project Development and Engineering phases.

The Metro Transit Police Department and local law enforcement authorities would be jointly responsible for the safety and security of the Project's facilities and environs. Metro Transit's licensed police force enforces public safety on and near the transit system, and it would routinely patrol and secure the Project's stations, guideway and BRT vehicles, as well as nearby bus routes and stops.

The Council would coordinate with city, county and state law enforcement agencies to develop the safety and security plans for the Project. Notifications and outreach to impacted communities could include mass media public-service announcements, roadway or trail closure signage, community meetings or public events. The Council would be responsible for communicating to the public information related to safety and security during Project construction and operations.

During construction, the Council would secure construction sites with fencing and security gates to prevent access by individuals who do not have clearance. The Council would maintain federal Occupational Safety and Health Administration (OSHA) and Minnesota OSHA standards for construction site personnel safety. The Council will also implement measures to avoid and mitigate risks associated with utility relocations, including implementing a confined space entry safety plan, remediating contaminated soils prior to utility excavations, and remediating and disposing of hazardous pipe coatings and materials impacted by utility relocations.

The Project is being designed to facilitate multimodal transportation options with greater emphasis on transit, bicycle, and pedestrian modes as demonstrated by the construction of park-and-ride facilities at Sun Ray Station,



Helmo Avenue Station, and Woodbury 494 Park-and-Ride Station. As the Project advances through the Project Development and Engineering phases, efforts will continue to avoid and minimize impacts to businesses during Project construction, such as coordinating with corridor businesses and providing maintenance of traffic, maintenance of access, business signage, and advanced communication of construction activities.

4.8. Environmental Justice

This section evaluates Project-related impacts to minority and low-income populations, in compliance with environmental justice guidance.

4.8.1. Regulatory Overview

Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 1994) requires the USDOT and the FTA to make environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of programs, policies, and activities on minority populations and/or low-income populations (collectively “environmental justice populations”). FTA defines a minority person as one who self-identifies as American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino, and/or Native Hawaiian/Pacific Islander. FTA incorporates environmental justice and non-discrimination principles into transportation planning and decision-making processes and project-specific environmental reviews. Furthermore, USDOT Order 5610.2(a) sets forth steps to prevent disproportionately high and adverse effects on minority or low-income populations through Title VI⁵⁹ analyses and environmental justice analyses conducted as part of federal transportation planning and NEPA provisions. Whether an adverse effect is disproportionately high on minority and low-income populations depends on whether that effect is predominantly borne by an environmental justice population, or will be suffered by the environmental justice population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-environmental justice population.

The NEPA process requires federal agencies such as the FTA to consider whether the environmental effects of projects proposed for federal funding have a potential to significantly affect the surrounding environs. Agencies must consider whether a federally funded project would have an environmental justice impact regardless of the NEPA class of action. Consistent with NEPA, the executive order, and the USDOT order, the FTA and Council have considered three principles of environmental justice throughout the development of the Project:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects of the Project, on minority and low-income populations
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations

⁵⁹ Title VI of the Civil Rights Act of 1964. Available at <https://www.transit.dot.gov/title6>. Accessed November 2018.



The environmental justice analysis this technical report presents is based on the FTA's published framework⁶⁰ for executing an environmental justice analysis within the NEPA environmental review process.

4.8.2. Methodology

4.8.2.1. Resource Study Area

The environmental justice analysis defines the resource study area as the area within ½-mile of the Build Alternatives. For the analyses of minority and low-income populations, the resource study area includes each census block or block group that intersects the ½-mile area or is completely within the ½-mile area. Transit-planning industry professionals use this radius because they consider ½-mile to be roughly the maximum distance that a transit-user will walk to a station. The FTA uses ½-mile catchment areas around transitway stations to measure population and employment in the station areas.

4.8.2.2. Data Sources

Decennial Census of Population and Housing data was the Council's primary source for mapping and locating minority populations within the study area. The U.S. Census Bureau conducts the census every 10 years to collect information about the country's population and its growth trends, and data related to homeownership, gender, age, race and ethnicity.⁶¹ The Council used 2010 census data to quantify minority populations at the block level, which is the smallest geographic unit for which census race and ethnicity data is available.

The Council primarily used data from the bureau's American Community Survey (ACS) 2012-2016 5-Year Estimates for mapping the study area's low-income populations at the block-group level, which is the smallest geographic unit for which low-income population data is available. The ACS is an ongoing survey that provides up-to-date data about age, gender, race, family and relationships, income and benefits, health insurance, education, veteran status, disabilities, where people work and how they get there, where people live, and how much people pay for some essentials. Communities, state governments and federal programs can then use this annual dataset to plan investments and services.⁶² The bureau administers the ACS continually and, unlike the census, it utilizes a random sampling of people from all counties and county-equivalents in the United States.⁶³

4.8.2.3. Identifying Minority and Low-Income Populations

The FTA Circular 4703.1 defines **minority populations** as a readily identifiable group or groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed or transient persons such as migrant workers or Native Americans whom a project would similarly affect. A "minority" is an

⁶⁰ Federal Transit Administration. "Environmental Justice Policy Guidance for Federal Transit Administration Recipients". Circular C4703.1. August 15, 2012. Available at: <https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/environmental-justice-policy-guidance-federal-transit>. Accessed May 2018.

⁶¹ U.S. Census Bureau. "Explore the Form". Available at: <http://www.census.gov/2010census/about/interactive-form.php>. Accessed November 2018.

⁶² U.S. Census Bureau. "What is the American Community Survey?" Available at: <http://www.census.gov/programs-surveys/acs/about.html>. Accessed November 2018.

⁶³ U.S. Census Bureau. "American Community Survey: Methodology". Available at <http://www.census.gov/programs-surveys/acs/methodology.html>. Accessed November 2018.



individual who is American Indian/Alaska Native, Asian, Black or African American, Hispanic or Latino, and/or Native Hawaiian/Pacific Islander.

The Council used 2010 census data to map the percentages of minorities in each census block in the study area. Corridors of Opportunity grantees and other community organizations and programs, extensive public outreach for the Project's alternatives analysis (AA) study and NEPA processes, and outreach for the Gateway Gold Line BRT Health Impact Assessment (HIA)⁶⁴ further recognized the presence of minority populations in the corridor.

As defined in FTA Circular 4703.1, a low-income person has a median household income at or below the U.S. Department of Health and Human Services' poverty guidelines, which vary by the number of persons in a family and the age of the family members. Moreover, a low-income population is any readily identifiable group of low-income persons who live in geographic proximity, and if circumstances warrant, geographically dispersed or transient persons such as migrant workers or Native Americans whom the Project would similarly affect.⁶⁵

ACS data were used to map the percentage of low-income residents in each block group in the study area. Similar to minority populations, engagement work by Corridors of Opportunity grantees and other community organizations, extensive public engagement as part of the AA study and NEPA processes, and outreach as part of the Gateway Gold Line BRT HIA contributed to discerning and documenting low-income populations in the study area. The *Public and Agency Coordination Technical Report* in **Appendix A** includes more information about engagement efforts.

4.8.3. Environmental Justice Populations in the Study Area

For broader context and reference, the analysis compared the study area with data within each corridor city (Saint Paul, Maplewood, Landfall, Oakdale, and Woodbury), Washington and Ramsey counties, the seven-county Twin Cities Metropolitan Area (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington counties) and the state of Minnesota. The analysis found that the study area has a higher percentage of minority populations than the state of Minnesota, the seven-county metropolitan area, and Ramsey and Washington counties.

About 44.1 percent of the residents within the ½-mile study area reported themselves as minorities. Saint Paul is the city in the study area with the highest minority population, also at 44.1 percent. This is nearly double the seven-county metropolitan area figure of 23.7 percent. Maplewood and Landfall also exceed the seven-county metropolitan area figure for percentage of population identifying as minority, with 27.4 percent and 37.6 percent, respectively; Oakdale and Woodbury have lower percentages of population identifying as minority than the seven-county metropolitan area, with 20.9 percent of residents identifying as minority in both cities.

Table 4.8-1 summarizes the minority populations within the resource study area for the Project.

⁶⁴ Gateway Corridor Project Team. Gateway Gold Line Bus Rapid Transit: A Closer Look at Health and Land Use Project Summary. May 2016. Available at: <http://thegatewaycorridor.com/wp-content/uploads/2016/09/2016-05-26-HIA-project-summary-FINAL.pdf>. Accessed November 2018.

⁶⁵ Office of the Assistant Secretary for Planning and Evaluation. U.S. Department of Health and Human Services. "U.S. Federal Poverty Guidelines Used to Determine Financial Eligibility for Certain Federal Programs". Available at: <https://aspe.hhs.gov/poverty-guidelines>. Accessed November 2018.



TABLE 4.8-1: MINORITY POPULATIONS WITHIN THE RESOURCE STUDY AREA

	Total Population	Non-Minority Population	Minority Population	Percent Minority
Minnesota	5,303,925	4,405,142	898,783	16.9%
Twin Cities Metropolitan Area	2,849,567	2,173,218	676,349	23.7%
Ramsey County	508,640	340,194	168,446	33.1%
Washington County	238,136	204,111	34,025	14.3%
City of Saint Paul	285,068	159,437	125,631	44.1%
City of Maplewood	38,018	27,598	10,420	27.4%
City of Landfall	686	428	258	37.6%
City of Oakdale	27,378	21,658	5,720	20.9%
City of Woodbury	61,961	49,016	12,945	20.9%
Study Area	49,750	27,798	21,952	44.1%

Source: U.S. Census Bureau, 2010 Decennial Census, Table P5: Hispanic or Latino Origin by Race

Figure 4.8-1 and Figure 4.8-2 show the percentages of minority populations in the study area by alignment.⁶⁶

⁶⁶ The analysis used thresholds of 10, 30 and 50 percent to visually differentiate among high- and low-percentage minority blocks, with consideration of natural breaks in the data and of values presented in Table 4.8-1 and to maintain consistent thresholds throughout the corridor.



FIGURE 4.8-1: MINORITY POPULATIONS ALONG ALIGNMENTS A1, A2 AND B

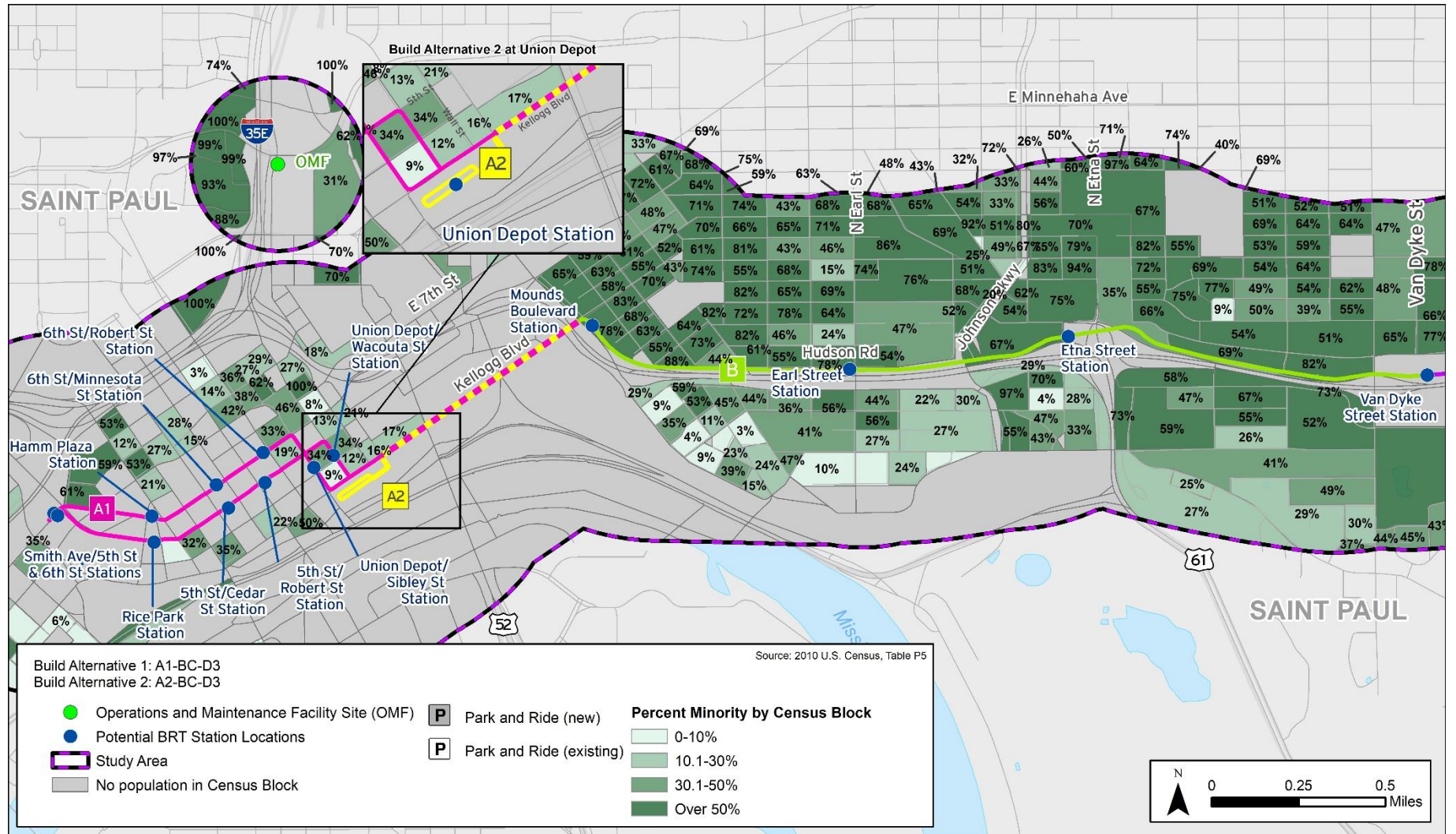
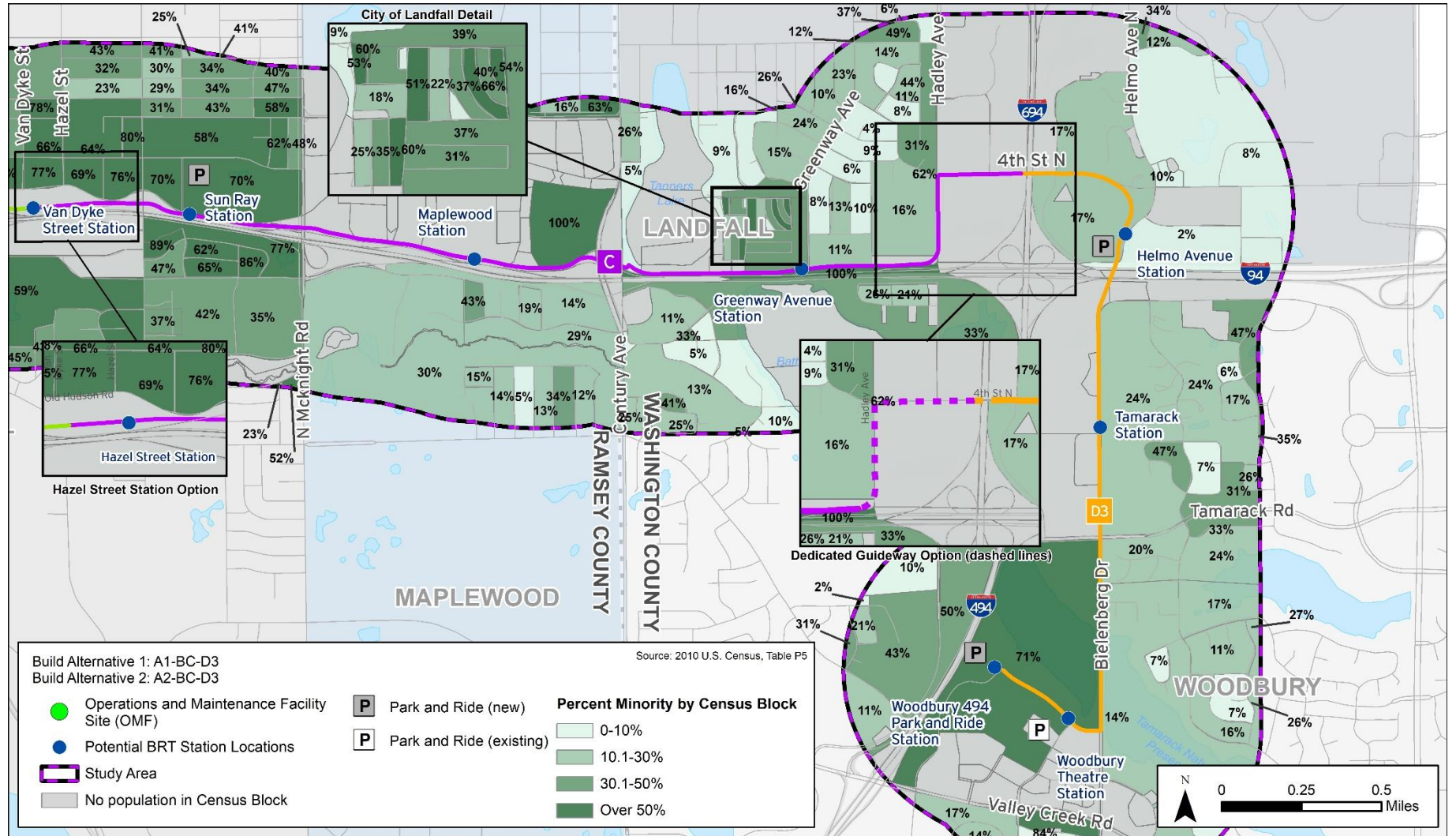




FIGURE 4.8-2: MINORITY POPULATIONS ALONG ALIGNMENTS C AND D3





As shown in **Table 4.8-2**, the percentage of low-income individuals (people whose household income is below the federally established poverty level) in the Project study area is higher than that of Ramsey and Washington counties and the seven-county metropolitan area. One city, Landfall (34.8 percent), has a higher low-income rate than the study area (22.1 percent).

TABLE 4.8-2: LOW-INCOME POPULATIONS BY STATE, COUNTY, CITY AND CORRIDOR

	Population for Low-Income Determination	Non-Low-Income	Low- Income	Percent Low-Income
Minnesota	5,327,019	4,749,823	577,196	10.8%
Seven-County Twin Cities Metropolitan Area	2,930,188	2,627,996	302,192	10.3%
Ramsey County	517,710	435,458	82,252	15.9%
Washington County	244,976	232,480	12,496	5.1%
City of Saint Paul	289,516	227,111	62,405	21.6%
City of Maplewood	38,780	35,206	3,574	9.2%
City of Landfall	782	510	272	34.8%
City of Oakdale	27,779	26,026	1,753	6.3%
City of Woodbury	66,411	64,219	2,192	3.3%
Study Area	79,201	61,677	17,524	22.1%

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates, Table C17002: Ratio of Income to Poverty Level in the Past 12 Months⁶⁷

Figure 4.8-3 and **Figure 4.8-4** show the percentages of low-income populations in the study area by alignment.

⁶⁷ Thresholds of 10, 20 and 30 percent were used to visually differentiate among high- and low-percentage low-income block groups, with consideration of natural breaks in the data and of values presented in **Table 4.8-2** and to maintain consistent thresholds throughout the study area.



FIGURE 4.8-3: LOW-INCOME POPULATIONS ALONG ALIGNMENTS A1, A2 AND B

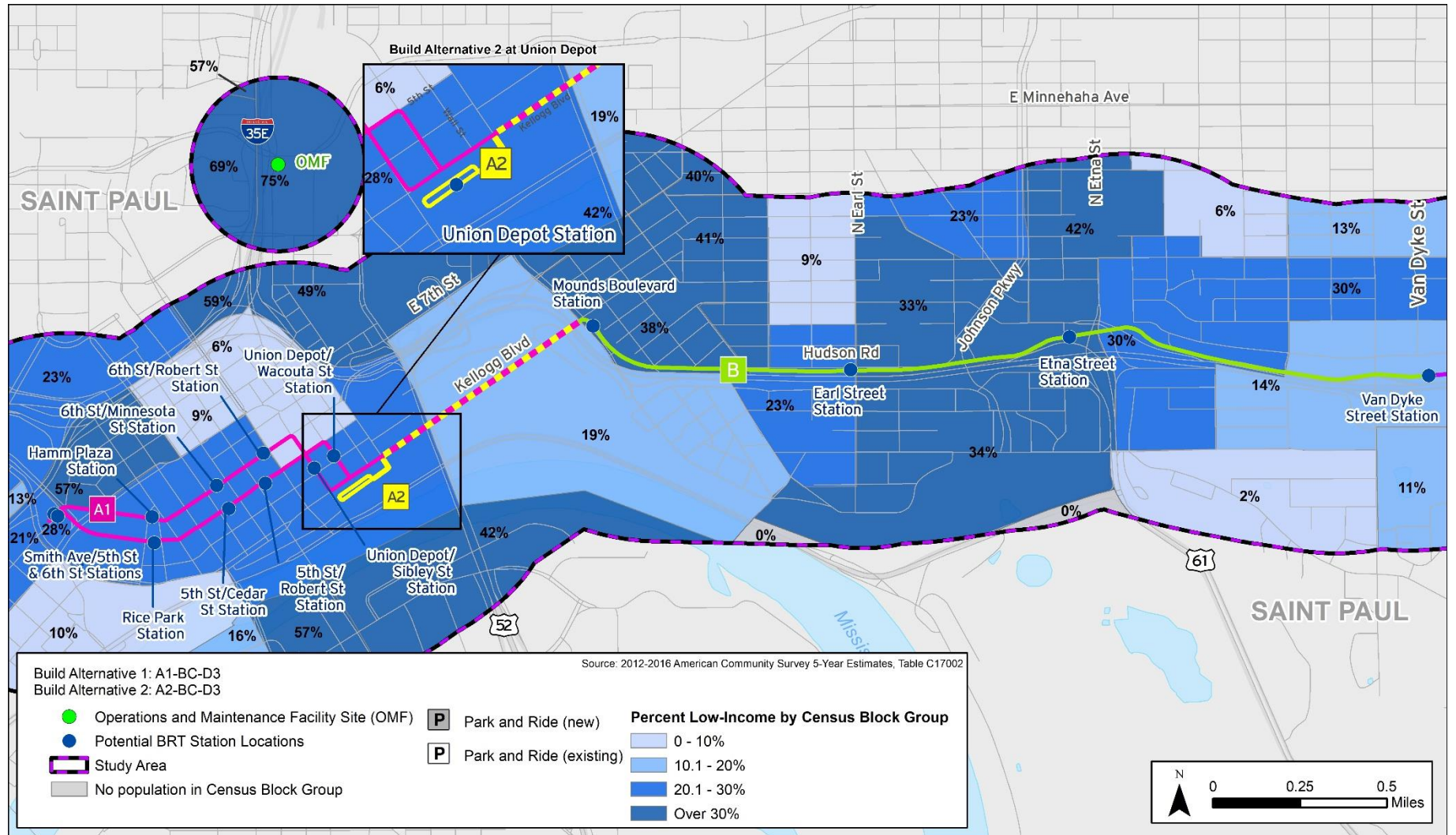
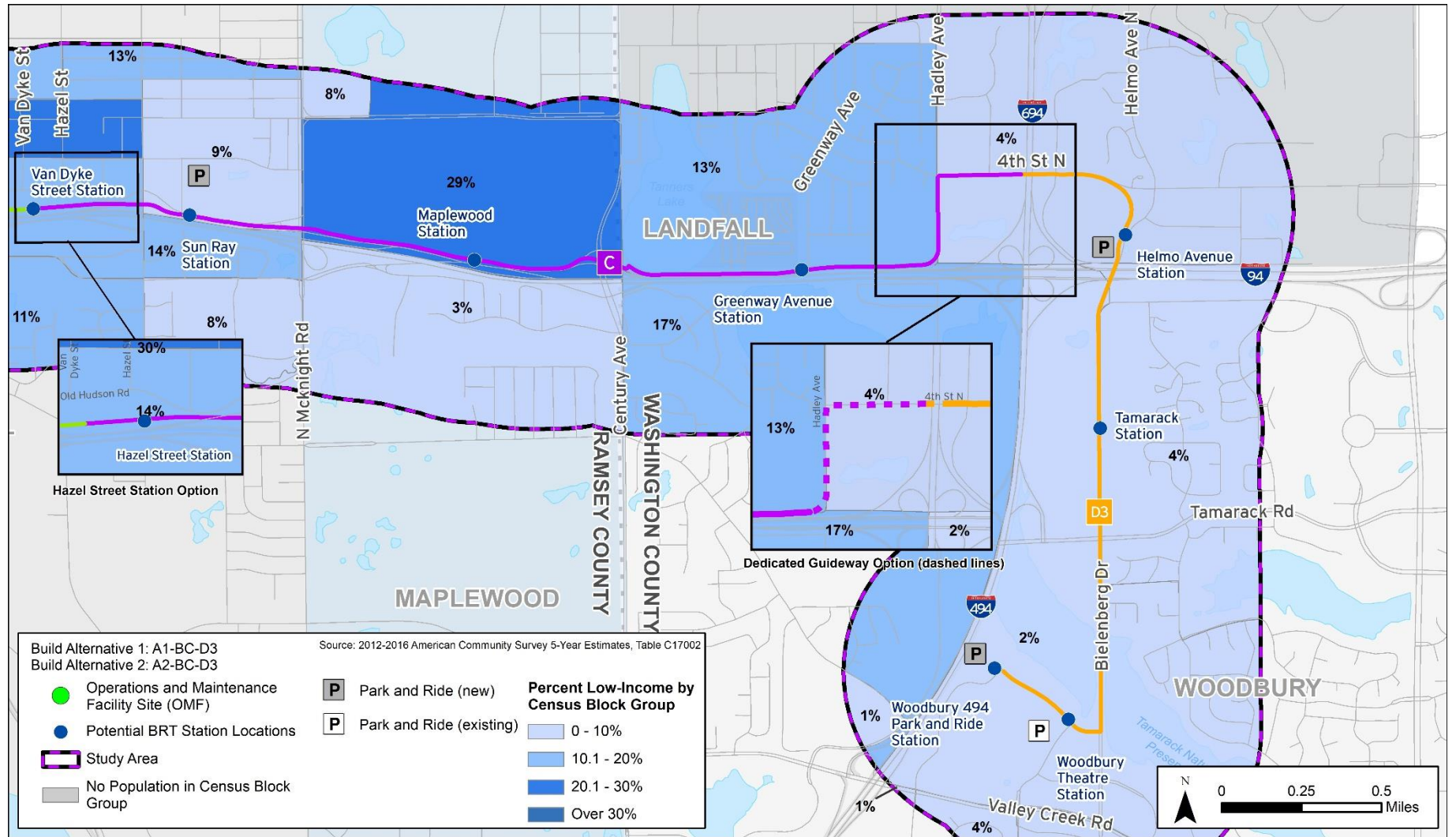




FIGURE 4.8-4: LOW-INCOME POPULATIONS ALONG ALIGNMENTS C AND D3





While ACS data is helpful in establishing a general demographic picture of the Project corridor, a wide range of engagement strategies and techniques has given a more nuanced understanding of the populations living and working in the Project study area. Public outreach to environmental justice populations within the Project study area was and continues to be of high importance to the Council and Project stakeholders. Further discussion of engagement efforts can be found in the *Public and Agency Coordination Technical Report* in **Appendix A**.

4.8.4. Public Engagement

4.8.4.1. Project Engagement Efforts

In 2010, the Gateway Corridor Commission (GCC) initiated the AA study to investigate transit improvement alternatives along the Gateway Corridor. Early in the study process, the Gateway Corridor project staff established a framework for public outreach that engaged stakeholders through public meetings, open houses, stakeholder presentations, email newsletters, social media and a project website. The project advisory bodies developed a public engagement plan (PEP) that described strategies for encouraging public input and outlined opportunities for early and ongoing public involvement in the planning process.

In January 2018, the Project entered the Project Development Phase and the Council became the local lead agency for the Project. At this time, the formal name of the Project changed from Gateway Corridor to the METRO Gold Line BRT Project. Project advisory bodies drafted a communications and public involvement plan (CPIP) to update the earlier efforts and rebrand the Project. The PEP and CPIP support the commitment of the Council, Metro Transit and the Project's local funding partners to engage the public and stakeholders during the Project Development Phase.

In 2013, the Community Advisory Committee (CAC) came together through an open application process. A GCC subcommittee selected the CAC's 19 members, who represented the residents, business owners and community organizations interested in and affected by the project. The CAC met from August 2013 to December 2016 on an as-needed basis. In 2018, the Community and Business Advisory Committee (CBAC) formed through an open application process to continue the work of the CAC. The CBAC is composed of a community member and business representative from each station area, as well as three at-large members appointed by the chair of the Council and the Ramsey and Washington county commissioners to ensure the committee includes diverse viewpoints. Women comprise 50 percent of the CBAC and people of color comprise 30 percent. Members schedule meetings of the CBAC on an as-needed basis, which averages about once a month. The Project website includes the CBAC membership, agenda, meeting minutes and meeting materials. Anyone is welcome to attend the CBAC meetings, which the committee holds in transit -accessible locations.

The *Public and Agency Coordination Technical Report* in **Appendix A** includes a list of all the stakeholder meetings held throughout the environmental process. Meetings ranged from widely advertised, Project-sponsored public open houses to individual meetings that Project staff attended at the request of business owners and resident groups in the corridor. Project staff also attended events and meetings sponsored by cities, neighborhood associations, and community organizations.



4.8.4.2. Environmental Justice-Related Outreach Efforts and Outcomes

A concerted effort to engage low-income and minority residents in the Project planning began in 2011 when, as part of the Corridors of Opportunity initiative,⁶⁸ a group called East Side Prosperity Campaign received a grant to specifically engage residents living on the east side of Saint Paul in participation, decision-making, and leadership roles related to Project planning and implementation. As shown in **Figure 4.8-1**, **Figure 4.8-2**, **Figure 4.8-3** and **Figure 4.8-4**, the east-side neighborhoods of Saint Paul are racially and ethnically diverse and are also home to a high percentage of low-income individuals. The East Side Prosperity Campaign was a partnership among the American Indian Family Center, the Hmong American Partnership, the Culture Wellness Center, Casa de Esperanza, and District Councils 4 and 5, and each reached out to their constituencies regarding the Gold Line BRT Project. In 2012 the partnership received a second grant from the Corridors of Opportunity initiative to continue their work with east side residents.

The Corridors of Opportunity initiative and its associated funding ended in 2013; however, in the spring of 2013, Saint Paul District Councils 1, 2, 4 and 5, the East Side Prosperity Campaign, and the East Side Area Business Association came together to develop and implement a project to continue engaging the community in transit planning. Called Fostering an East Side Transit Equity Conversation (FESTEC), an organizing apprenticeship was created to provide training and engagement strategies to a team of 10 ethnically diverse community organizers who represent the demographic characteristics of Saint Paul's east side neighborhoods. The organizers were charged with engaging underrepresented voices around transit development early, developing a set of transit equity ideas and priorities, and creating a plan to sustain community engagement as transit is planned on the east side. Through the FESTEC initiative, the team of organizers engaged hundreds of east side residents through focus groups and community group meetings at high schools, senior residences, community recreation centers, marketplaces, and playgrounds.

East Side Prosperity Campaign and FESTEC efforts to engage east side residents around transit issues created an awareness of the Project among neighborhood residents, as well as strong relationships between Project staff and community organizers. In 2014 FESTEC evolved to its current organization, East Side Transit Equity, which builds on the Transit Equity Covenant established in 2013 through community engagement and organizing.⁶⁹ Project staff continues to be invited to represent the Project at events and meetings put on by the partner organizations, and the organizations continue to promote Gold Line BRT Project events to their members. One FESTEC community organizer was a Gateway Corridor CAC member, and several other CAC members knew about the transit Project and joined the committee because of the outreach conducted by the East Side Prosperity Campaign and FESTEC.

The East Side Prosperity Campaign, FESTEC, neighborhood organizations, and advocacy groups have facilitated participation in the Project by many members of environmental justice communities, some of whom would not have learned about or participated in the Project through more conventional approaches. The Project team valued these connections and the input received. They have maintained relationships with environmental justice communities and are plugged into a network of people, organizations, and events that have been and will

⁶⁸ *Corridors of Opportunity is an initiative funded by a three-year (2011-2013), \$5 million Sustainable Communities grant from the Federal Department of Housing and Urban Development, in partnership with the Department of Transportation and the Environmental Protection Agency. Opportunity funds were used to accelerate the build out of a regional transit system for the Twin Cities while advancing economic development and ensuring that people of all incomes and backgrounds share in resulting opportunities.*

⁶⁹ *Dayton's Bluff Community Council. East Side Transit Equity (formerly Fostering East Side Transit Equity Conversations). Available at: <http://www.daytonsbuff.org/our-community/festec/>. Accessed September 2016.*



continue to be effective at disseminating Project information and soliciting Project input from low-income and minority communities.

The Gateway Gold Line BRT HIA coincided with outreach for the environmental process and provided additional opportunities for corridor residents and businesses to learn about the Project. Committee meetings, questionnaires, workshops and data gathered as part of the HIA provided additional information to Washington and Ramsey counties, the Council and the FTA regarding low-income and minority populations in the resource study area.

While Project staff was able to connect with low-income and minority residents through established organizations in Saint Paul, place-based and neighborhood organizations are scarce in the suburban communities, and staff used other techniques to reach out to residents in Maplewood, Landfall, Oakdale, Woodbury and Lake Elmo. These efforts included Project-specific open houses; presentations to business associations, city councils, planning commissions, religious and civic groups, and student groups; high-profile, well-advertised lunch events with notable speakers; and Project tables at dozens of community events. The *Public and Agency Coordination Technical Report* in **Appendix A** includes more information about public outreach methods and the input gathered.

The diversity of Project meeting locations and formats, materials and information sources has involved the environmental justice communities in the Project in the following ways:

- Community and neighborhood organizations and advocacy groups have organized their own Project-related meetings and events and have used their contacts and networks to attract new participants and make the most of opportunities related to the transitway investment
- Members of environmental justice communities served on the CAC and continue to serve on the CBAC and have become knowledgeable and invested stakeholders in the Project; these participants are informed and help share Project information within their communities
- Throughout the environmental process, members of environmental justice communities have met with staff to resolve individual property or business issues related to the Project
- Project staff consistently hold public meetings and open houses in environmental justice communities, and members of environmental justice communities attend these meetings; staff have become acquainted with people who live and work in the corridor and have gained a nuanced view of people's issues and concerns.
- Some members of environmental justice communities stay up to date on the Project by monitoring the Project website and subscribing to the Project email list
- Gold Line BRT Project fact sheets are translated in Hmong, Karen, Somali and Spanish languages
- Coordination occurs with local reporters who represent print, electronic, and television network media; news sources include city and neighborhood newspapers and minority and ethnic media
- On one occasion, flyers were distributed to every door in Landfall, a community of approximately 300 manufactured homes, to announce a Project meeting and ice cream social at the park in Landfall
- Door knocking occurred in the environmental justice communities around the proposed Mounds Boulevard and Maria Avenue station area and Van Dyke Street and Hazel Street station area to remind residents of the upcoming neighborhood meetings, as well as gather input on preferences on the options for those unable to make the events

Input received and information disseminated at individual and committee meetings, open houses, tours, and public hearings have affected the design of the Project in several significant ways:



- Community members aided in defining the scope of the environmental review through robust participation in the environmental Scoping process⁷⁰
- The following changes were made to the design of the Project:
 - A new traffic signal proposed at the intersection of the I-94 westbound ramp and Mounds Boulevard would provide a pedestrian crossing and improve pedestrian safety
 - In response to concerns about loss of parking near Earl Street businesses, the street, guideway and station design were changed to avoid on-street parking space loss
 - Project design adjustments were made east of Conway Street and west of Etna Street in Saint Paul to avoid acquisition of an apartment building that would have displaced hundreds of residents, including minority residents and residents with Section 8 vouchers
 - New pedestrian connections were included to the TH 61 interchange with I-94
 - In response to concerns about business impacts, BRT would operate in mixed traffic along Hudson Boulevard in Landfall
 - Based on feedback from a neighborhood meeting held for residents near White Bear Avenue and Ruth Street in Saint Paul about where the Project should locate a station in the area, both station locations are being carried forward in this EA; a station at Hazel Street or at Van Dyke Street, between White Bear Avenue and Ruth Street will be analyzed to identify impacts and receive agency and public input to help identify the location of the station to advance into the next phase of the Project

4.8.5. Environmental Justice Impacts Analysis

4.8.5.1. Operating Phase (Long-Term) Impacts

A multistep process was used to identify the potential for disproportionately high and adverse effects on environmental justice populations. Whether an adverse effect is disproportionately high on minority and low-income populations depends on whether that effect is predominantly borne by an environmental justice population, or will be suffered by the environmental justice population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-environmental justice population.⁷¹

First, resources were selected because impacts tend to be localized and have the potential for disproportionately high and adverse effects on environmental justice populations for these resources. These resources are:

- Transit
- Traffic
- Pedestrian and bicycle facilities

⁷⁰ Washington County Regional Railroad Authority, Ramsey County Regional Railroad Authority, Metropolitan Council. Gateway Corridor Scoping Decision Document. October 2014. Available at: <https://www.metrotransit.org/Data/Sites/1/media/about/improvements/gold-line/scoping-decision-document.pdf>. Accessed November 2018.

⁷¹ Federal Transit Administration. "Environmental Justice Policy Guidance for Federal Transit Administration Recipients". Circular C4703.1. August 15, 2012. Available at: <https://www.transit.dot.gov/regulations-and-guidance/fta-circulars/environmental-justice-policy-guidance-federal-transit>. Accessed May 2018.



- Parking and driveways
- Land use
- Community facilities, character and cohesion
- Acquisitions and displacements
- Cultural resources
- Visual and aesthetic
- Business and economic impacts
- Safety and security
- Noise and vibration
- Air quality

Other resources evaluated in this EA were not considered because they either presented no impacts or there would be no adverse impacts with mitigation (operating phase or construction).

As stated in the FTA Circular, determination of whether an activity will result in a “disproportionately high and adverse effect” is defined as an adverse effect that:

- Is predominantly borne by a minority population and/or low-income population, or
- Will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population

Using these guidelines, the FTA and Council made findings whether the Project will result in disproportionately high and adverse effects on environmental justice populations. **Table 4.8-3** Table 4.8-3 summarizes the construction phase (short-term) and operating phase (long-term) effects on environmental justice populations that would occur due to implementation of the Project.

TABLE 4.8-3: SUMMARY OF EFFECTS ON ENVIRONMENTAL JUSTICE POPULATIONS

Impact Resources	Operating Phase	Construction Phase
Parking and Driveways	No	No
Community Facilities, Character and Cohesion	No	No
Acquisitions and Displacements	No	No
Visual and Aesthetic	No	Yes
Business and Economic Resources	No	No
Noise and Vibration	No	Yes

BUILD ALTERNATIVE 1 (A1-BC-D3)

The evaluation is based on the potential for impacts documented in the *Transportation Resources, Community and Social Resources* and the *Physical and Environmental Resources* technical reports in **Appendix A**.



The existing Metro Transit East Metro Garage, 820 L'Orient St. in Saint Paul, would be used as the Operations and Maintenance Facility (OMF) for the Project (see **Figure 4.8-1** and **Figure 4.8-3**). The East Metro Garage is currently staffed by nearly 400 drivers and 90 mechanics servicing more than 30 routes and housing more than 200 buses.⁷² The addition of the Project's 13 total buses would represent a change of less than 7 percent. It is assumed that operator changes on the Project would occur on the alignment and not at the OMF. As a result, bus traffic to and from the OMF and the corresponding traffic of bus operators traveling to and from work would occur outside of peak hours (before 6 a.m. and after 7 p.m.) when traffic volumes are lower and traffic capacity of the surrounding streets and intersections are not of concern. Based on these factors, no adverse effects on environmental justice populations are expected due to the use of the Metro Transit East Metro Garage.

Table 4.8-4 summarizes the long-term impacts for the selected resources. Resources with no impacts were not carried forward to the next step of analysis. Resources with impacts were considered for their potential for disproportionately high and adverse effects on environmental justice populations.

TABLE 4.8-4: BUILD ALTERNATIVE 1 POTENTIAL FOR LONG-TERM DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS BY RESOURCE

Resource	Potential for Impacts	To be Evaluated for Potential for Disproportionately High and Adverse Effect on Environmental Justice Populations
Transit	No	No
Traffic	No	No
Pedestrian and Bicycle Facilities	No	No
Parking and Driveways	Yes	Yes
Land Use	No	No
Community Facilities, Character and Cohesion	Yes	Yes
Acquisitions and Displacements	Yes	Yes
Cultural Resources	a	a
Visual and Aesthetic	Yes	Yes
Business and Economic Resources	Yes	Yes
Safety and Security	No	No
Noise and Vibration	No	No
Air Quality	No	No

^a To comply with Section 106, a Programmatic Agreement (PA) was established because the effects of the undertaking are not fully known at this stage of design for the Project. The PA establishes and describes how the remaining Section 106 activities will be conducted, including making findings and determinations of National Register eligibility and Project effects. If any adverse effects are identified, FTA will consult with MnSHPO and other consulting parties per the terms of the PA to consider avoidance, minimization, and/or mitigation measures to resolve the adverse effect.

⁷² Metro Transit. East Metro Garage. Source: www.metrotransit.org/east-metro-transit-facility. Accessed October 2018.



Resources not Carried Forward for Further Analysis of Disproportionately High and Adverse Effects

Based on the results shown in **Table 4.8-4** Table 4.8-4, the transit, traffic, pedestrian and bicycle facilities, land use, safety and security, noise and vibration, and air quality resources will not be carried forward for further analysis. Because the Project does not have any potential effects on these resources, there is no potential for a disproportionately high and adverse effect on environmental justice populations.

Transit

As described in *Transportation Technical Report*, long-term impacts to the transit system are largely positive throughout the corridor. Since there are no transit impacts identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Traffic

As described in *Transportation Technical Report*, there are several locations in the corridor where the Project operations have potential impacts to vehicular traffic. However, at each of these locations, improvements would be incorporated that mitigate the traffic impacts and allow for the intersections to operate at an acceptable level of service. These mitigation measures are included in the Project; therefore, there are no traffic impacts identified and no potential for disproportionately high and adverse effects on environmental justice populations.

Pedestrian and Bicycle Facilities

As described in *Transportation Resources Technical Report* in **Appendix A**, the Project would produce improvements to pedestrian and bicycle infrastructure throughout the corridor. Because no impacts resulting from Build Alternative 1 were identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Land Use

As described in the *Community and Social Resources Technical Report*, Build Alternative 1 would be compatible with land use planning policy documents. Since no impacts resulting from Build Alternative 1 were identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Cultural Resources

As described in the *Cultural Resources Technical Report* in **Appendix A**, the FTA, Council, Minnesota Department of Transportation Cultural Resources Unit (MnDOT CRU) and Minnesota State Historic Preservation Office (MnSHPO) prepared a PA (see **Appendix C**) because the effects of the undertaking are not fully known at this stage of design for the Project. The PA establishes and describes how the remaining Section 106 activities will be conducted, including making findings and determinations of Project effects. If there are any adverse effects, FTA, with assistance from MnDOT CRU, will consult with MnSHPO, other consulting parties, and the public to resolve the adverse effects. Resolution of adverse effects will be completed in compliance with the terms of the PA.

Safety and Security

As described in **Section 4.7** of this report, safety and security measures would be implemented for all alignments and all stations built as part of the Project. Adherence to design guidelines as well as appropriate lighting, fencing, and other measures would maintain the safety of commuters, students, and children. A greater level of security may be provided at specific locations, such as a nearby park, if an assessment of security threats to facilities or data showing higher levels of criminal activity at certain facilities determined that additional security measures were warranted. No adverse effects on environmental justice populations are anticipated because a similar level



of safety and security would be provided for all alignments and stations. Since no adverse impacts resulting from the Project were identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Noise and Vibration

As described in the *Physical and Environmental Resources Technical Report* in **Appendix A**, the Project would not produce long-term impacts to noise. Because of the existing noise levels, the low level of bus operations (especially at night) and low bus operating speeds, any impacts from the Project would typically be limited to the roadway right-of-way. Additionally, for locations with highway ramp modifications due to the Project, the modifications shift traffic away from sensitive receptors, which would result in slightly lower noise levels immediately adjacent to the ramp modifications. The Project would result in no vibration impacts. Since no impacts were identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Air Quality

As described in the *Physical and Environmental Resources Technical Report* in **Appendix A**, no air quality impacts are anticipated for the Project. Emissions would likely be lower than present levels in the design year due to the U.S. Environmental Protection Agency’s (EPA) national control programs that are projected to reduce annual mobile source air toxics (MSAT) emissions by 90 percent between 2010 and 2050. The magnitude of the EPA-projected reductions is so great, even after accounting for traffic growth, that MSAT emissions in the study area are likely to be lower under a wide variety of future conditions. Because no impacts were identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Analysis of Potential for Disproportionately High and Adverse Effects

As **Table 4.8-5** shows, disproportionately high and adverse effects on environmental justice populations would not occur along Alignments A1, B, C or D3.

The technical analysis described for each impact resource below further explains the rationale for identification of these impacts. These impacts are compared to the impacts borne by non-environmental justice populations.

TABLE 4.8-5: BUILD ALTERNATIVE 1 POTENTIAL FOR LONG-TERM DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS BY ALIGNMENT

Alignment	Parking and Driveways	Community Facilities	Acquisitions and Displacements	Visual and Aesthetic	Business and Economic
Alignment A1	No	No	No	No	No
Alignment B	No	No	No	No	No
Alignment C	No	No	No	No	No
<i>With Hazel Street Station Option</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>



Alignment	Parking and Driveways	Community Facilities	Acquisitions and Displacements	Visual and Aesthetic	Business and Economic
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	No	No	No	No	No
Alignment D3	No	No	No	No	No

Parking and Driveways

As described in the Parking and Driveways analysis in Section 3.4 of the *Transportation Resources Technical Report* in **Appendix A**, implementation of the Project would result in a loss of on- and off-street parking spaces in several locations in the corridor. **Table 4.8-6** Table 4.8-6 summarizes all on and off-street parking impacts by alignment.

TABLE 4.8-6: BUILD ALTERNATIVE 1 LONG-TERM PARKING IMPACTS BY ALIGNMENT

Alignment	Parking Spaces Eliminated	Parking Spaces Added	Net Parking Impact
Alignment A1	27	0	-27
Alignment B	145	0	-145
Alignment C	218	150	-68
<i>With Hazel Street Station Option</i>	218	150	-68
<i>With Dedicated Guideway Option on Hadley Avenue and 4th Street</i>	218	150	-68
Alignment D3	213	300	+87

Implementation of Alignment A1 would require removal of 27 on-street spaces on 5th; 6th, Sibley and Wacouta streets in Saint Paul, where up to 61 percent of residents are minorities and in block groups where up to 57 percent of residents are in low-income.

Implementation of Alignment B would require removal of approximately 145 on-street parking spaces. These on-street spaces would not be replaced. Of these parking spaces 29 would be eliminated on the north side of Hudson Road between Maria Avenue to Maple Street. Single-family residences are located on the north side Hudson Road where up to 88 percent of residents are minorities and in block groups where 38 percent of residents are low-income. On the south side of Hudson Road from Old Hudson Road to the cul-de-sac past Kennard Street, 116 parking spaced would be permanently eliminated. Single-family residences are located on the north side Hudson Road where up to 82 percent of residents are minorities and in block groups where up to 30 percent of residents are low-income. Alignment B would impact one driveway for Leo’s Chow Mein located on the northeast corner of Earl Street and Hudson Road. Leo’s Chow Mein has two existing access points: one driveway on Earl Street and one driveway on Hudson Road. The Project would maintain the driveway that is located mid-block on Earl Street and would remove the driveway on Hudson Road. The removal of the driveway



on Hudson Road is due to the construction of the dedicated guideway and new signalized intersection with pedestrian accommodations at Earl Street and Hudson Road. The construction of the pedestrian accommodations includes a pedestrian refuge and bump-outs at the northwest and northeast corners. The restaurant is located on the north side of Hudson Road where 54 percent of residents are minorities and in a block group where 33 percent of residents are low-income.

Along Alignment C, the Sun Ray Shopping Center would lose approximately 132 off-street spaces. North of the shopping center, St. Paul Youth Services would lose approximately 68 off-street spaces. Sun Ray Shopping Center and St. Paul Youth Services are in an area where 70 percent of residents are minorities and in block groups where 9 percent of residents are low-income. Two driveways would be removed at St. Paul Youth Services in Saint Paul for construction of the Sun Ray park-and-ride lot and one at Apostolic Bible Institute in Oakdale for construction of guideway. St. Paul Youth Services has three existing access points on Pedersen Street and one on Wilson Avenue. Construction of the new surface park-and-ride lot would require the removal of two existing driveways to optimize parking and circulation within the new surface park-and-ride. Additional access for St. Paul Youth Services would be provided within the new park-and-ride. Acquisition of a commercial parcel at 2757 Hudson Boulevard would result in the removal of 27 off-street private parking spaces. This parcel is in an area where 5 percent of residents are minorities and in block groups where 13 percent of residents are low-income. Near Harley-Davidson, 2899 Hudson Blvd. N. the Project would eliminate 16 on-street and eight off-street parking spaces. Harley-Davidson is in a census block with no population. At 6944 Hudson Boulevard, eight off-street parking spaces would be removed at the Apostolic Bible Institute, which is in an area where 16 percent of residents are minorities, in block groups where up to 13 percent of residents are low-income. The Project would relocate an existing driveway at Apostolic Bible Institute on the corner of Hudson Road to approximately 180 feet to the north.

Neither the Hazel Street Station Option nor the Dedicated Guideway Option at Hadley Avenue and 4th Street would produce additional parking impacts.

Two commercial parcels along Alignment D3 would lose off-street parking spaces. The parcel adjacent to Helmo Avenue north of Hudson Boulevard in Oakdale would be acquired and the associated 156 spaces would be eliminated. This parcel is in a census block where 17 percent of residents are minorities and in a block group where four percent of residents are low-income. The HOM Furniture store at Bielenberg Drive and Hudson Road in Woodbury would lose 57 of its 228 off-street spaces. The HOM property is in a census block with no population.

Finding

Parking impacts along Alignment A1 would not result in an adverse effect for area residents, including environmental justice populations, and businesses. Parking is available nearby on-street, in surface lots, and in parking structures.

Along Alignment B, Hudson Road between Maria Avenue and Maple Street is lined by single-family homes to the north and the I-94 noise barrier to the south. Nearly all single-family homes on this street have garages in the rear. Some homes are accessed via an alley and some have driveways from Hudson Road. Parking on the south side of Hudson Road would remain. Because of the existing off-street facilities and the available parking nearby, the parking impacts on Hudson Road in this segment are not anticipated to be an adverse effect for area residents, including environmental justice populations.

Parking on Hudson Road between Forest Street and Frank Street has been retained in response to community input regarding the importance of on-street parking in the area for local businesses and residents, including environmental justice populations, in nearby apartment buildings that do not have off-street parking facilities.

Hudson Road between Old Hudson Road and the cul-de-sac past Kennard Street is lined by single-family homes to the north and the I-94 noise barrier to the south. Nearly all single-family homes on this street include parking in the rear or to the side and are accessed by driveways from Hudson Road. Parking on the north side of Hudson



Road between Old Hudson Road and Kennard Street has been retained in response to community input regarding the importance of on-street parking in the area for local businesses. However, all south side on-street parking in this area will be removed. Because each residence has parking and parking will be retained on the north side of Hudson Road, the parking impacts on Hudson Road in this segment are not anticipated to be an adverse effect for these residents.

The driveway removal at Leo's Chow Mein would not result in disproportionately high and adverse effects on environmental justice populations since the Project would not impact the existing driveway on Earl Street and the property owner would be compensated in accordance with Minnesota Statutes Chapter 117.

Alignment C would construct a park-and-ride lot at the Sun Ray Station, which would permanently remove 27 of the 68 parking spaces. The park-and-ride lot would have a total of 150 parking spaces for Project users. Parking impacts at St. Paul Youth Services would not result in disproportionately high and adverse effects on environmental justice populations since St. Paul Youth Services would be compensated in accordance with Minnesota Statutes Chapter 117. The Council will continue to coordinate with the City of Saint Paul and St. Paul Youth Services in an effort to further minimize parking impacts as the Project advances through the Project Development and Engineering phases.

Alignment C would partially acquire property at the Sun Ray Shopping Center, eliminating 132 of the property's 973 off-street parking spaces, or 13.5 percent of its lot. The City of Saint Paul parking requirements for the Sun Ray Shopping Center indicate that the existing parking supply at the shopping center is greater than required. The spaces eliminated as part of the Project are farthest from the entrances to the shopping center. Parking impacts at Sun Ray Shopping Center would not result in disproportionately high and adverse effects on environmental justice populations since Sun Ray Shopping Center would be compensated in accordance with Minnesota Statutes Chapter 117. The Council will continue to coordinate with the Sun Ray Shopping Center in an effort to further minimize parking impacts as the Project advances through the Project Development and Engineering phases.

The removal of two of four existing driveways at St. Paul Youth Services would not result in disproportionately high and adverse effects on environmental justice populations because the Project would include additional access for St. Paul Youth Services within the new park-and-ride.

Parking impacts to the two commercial properties along Alignment D3 would not result in disproportionately high and adverse effects on environmental justice populations. Additional discussion of findings related to these properties can be found under the **Business and Economic Resources** subsection.

After consideration of mitigation measures for parking impacts and driveway removals along the corridor, the Project would not result in a disproportionately high and adverse effect on environmental justice populations.

Community Facilities, Character and Cohesion

To accommodate the dedicated guideway along Alignment B, Hudson Road would be converted from two-way traffic to one-way westbound traffic between Frank Street and Wilson Avenue. This roadway conversion would occur next to one community facility, Reach Together, an organization that assists and provides services to refugees and immigrants. This roadway conversion is not expected to impact access to Reach Together because the property does not currently have driveway access from Hudson Road and the facility would retain existing alley and sidewalk access. The one-way configuration was advanced as part of the Project's design after discussion with neighborhood residents and business owners as a way of not removing on-street parking in the area around the Earl Street Station. Because access to Reach Together is not changing, these changes would not adversely affect this community facility or environmental justice populations.

Along Alignment B, one partial acquisition would occur at a community facility, Grace Lutheran Church; however, the strip acquisition of approximately 5,000 square feet is the only impact expected (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions). Along Alignment C, construction of the park-and-ride



facility at the Sun Ray Station permanently remove 27 of the 68 existing parking spaces at St. Paul Youth Services. The park-and-ride would have 150 spaces for METRO Gold Line transit-users. St. Paul Youth Services would be compensated in accordance with Minnesota Statutes Chapter 117. The partial acquisition of Apostolic Bible Institute for a potential secondary BMP location would not impact the facility’s buildings. The Council will continue to coordinate with the City of Saint Paul, St. Paul Youth Services and Apostolic Bible Institute in an effort to further minimize property and parking impacts as the Project advances through the Project Development and Engineering phases.

As documented in the *Community and Social Resources Technical Report*, the Project operations would not have an adverse impact on community facilities in the corridor.

Finding

After consideration of mitigation measures for the partial acquisitions at Grace Lutheran Church, St. Paul Youth Services and Apostolic Bible Institute, the Project would not result in a disproportionately high and adverse effect on environmental justice populations. Access to Reach Together is not changing; therefore, these access changes would not have an adverse impact to this community facility or environmental justice populations.

Acquisitions and Displacements

As shown in **Table 4.8-7**Table 4.8-7, displacements are limited to commercial businesses; no residential or institutional entities would be displaced. Implementation of Alignment C would require acquisition of one parcel in Oakdale owned by Crossroad Properties Inc. (see the 15% Concept Plans in **Appendix B** for locations of permanent acquisitions). The parcel is zoned for commercial use and could result in displacement of approximately three businesses when the Project is constructed. Construction of Alignment D3 would require one full commercial parcel. The parcel contains multiple companies and would displace approximately 18 businesses with construction of the Project. The parcel is in Woodbury at 7500 Hudson Boulevard, and the Project would need to acquire the entire 8-acre site to develop the Helmo Avenue Station park-and-ride.

The Hazel Street Station Option and Dedicated Guideway Option would not result in additional displacements.

TABLE 4.8-7: BUILD ALTERNATIVE 1 DISPLACEMENTS BY ALIGNMENT

Alignment	Residential Unit Displacements ^a	Commercial Businesses Displacements ^a
Alignment A1	0	0
Alignment B	0	0
Alignment C	0	Approximately 3
<i>With Hazel Street Station Option</i>	0	<i>Approximately 3</i>
<i>With Dedicated Guideway Option at Hadley Avenue and 4th Street</i>	0	<i>Approximately 3</i>
Alignment D3	0	Approximately 18

^a Number of displacements is estimated and subject to change. The Council will further refine acquisition, displacement and relocation needs as the Project design advances during the Project Development and Engineering phases.



Finding

The Project would require acquisitions throughout the corridor. The Council would provide property owners payment of fair market compensation and relocation assistance in accordance with Minnesota Statutes Chapter 117.

It is not anticipated that displacement of the businesses located along Alignment C in Oakdale would result in a disproportionately high and adverse effect on environmental justice populations. The parcel is located in a primarily commercial area on the southwest side of Tanners Lake. The parcel is in a census block with 5 percent minority residents, and in a block group where 13 percent of residents are low-income. It is not anticipated that the displacement of the businesses within the multi-tenant commercial parcel in Oakdale located along Alignment D3 would result in a disproportionately high and adverse effect on environmental justice populations. The parcel is in a census block with 17 percent minority residents, and in a block group where 4 percent of residents are low-income. Property owners would be compensated consistent with state and federal requirements.

After consideration of mitigation measures for acquisitions and displacements, the Project would not result in a disproportionately high and adverse effect on environmental justice populations.

Visual and Aesthetic

Some residential areas along Hudson Road in Alignment B would experience visual change from the introduction of the BRT guideway, increased traffic volumes and the loss of roadside vegetation buffers in front of noise barriers. Visual mitigation to affected residential properties along Alignments B will be addressed in the Engineering Phase of this Project.

Finding

Neither minority status nor income level are available for residents who would experience visual impacts due to increased traffic volumes and loss of roadside vegetation. However, because the residents that would experience visual impacts are located in census blocks where up to 82 percent of residents are minority populations and in block groups where up to 38 percent of residents are low-income, it is assumed that environmental justice populations would experience visual impacts, but impacts would not result in disproportionately high and adverse effects, based on a review of the distribution of Project-related visual quality impacts throughout the study area.

Business and Economic Resources

Build Alternative 1 would result in positive and negative business and economic impacts. As discussed above, the Project would displace one commercial parcel owned by a single owner along Alignment C. The acquisition of this parcel could displace approximately three businesses located on the parcel prior to the start of construction for the Project. The Project would also require the acquisition of one multi-tenant commercial parcel at 7500 Hudson Boulevard along Alignment D3. The acquisition of this parcel could displace approximately 18 businesses.

Parking-related impacts are documented above in the analysis of parking and would result in parking loss at commercial properties including Sun Ray Shopping Center, Harley-Davidson and HOM Furniture. Driveway-related impacts are documented above in the analysis of driveways and would result in the removal of one of two driveways for Leo's Chow Mein located on the northeast corner of Earl Street and Hudson Road. The Project would maintain the driveway that is located midblock on Earl Street and would remove the driveway on Hudson Road.

Finding

The HOM Furniture store at Bielenberg Drive and Hudson Road in Woodbury may be negatively affected by the parking impacts that would result from the Project. Findings indicate that HOM Furniture, which owns the building



and land, does not identify as a minority or low-income business. Business and economic parking impacts at this site would not result in a disproportionately high and adverse effect on environmental justice populations.

After consideration of mitigation for parking, driveway removals and displacement of businesses, the impacts resulting from the Project would not result in a disproportionately high and adverse effect on environmental justice populations.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would produce the same long-term impacts to the resources evaluated for this analysis as Build Alternative 1; however, the impacts for Build Alternative 2 would not extend into downtown Saint Paul, as Alignment A2 has a western terminus of Union Depot. Conversely, because Build Alternative 2 would not extend BRT service into downtown Saint Paul, there would be a loss in benefit to environmental justice populations between Smith Avenue and Union Depot.

4.8.5.2. Construction Phase (Short-Term) Impacts

Similar to the process for identifying operating phase impacts, a multistep process was used to identify the potential for disproportionately high and adverse construction effects on environmental justice populations.

The same impact areas that were considered for operational impacts were considered for construction impacts:

- Transit
- Traffic
- Pedestrian and bicycle facilities
- Parking and driveways
- Land use
- Community facilities, character and cohesion
- Acquisitions and displacements
- Cultural resources
- Visual and aesthetic
- Business and economic resources
- Safety and security
- Noise and vibration
- Air quality

These resources were selected because impacts tend to be localized and have the potential for disproportionately high and adverse effects on environmental justice populations. Other resources evaluated in this EA were not considered because they either presented no impacts or their effects would be experienced by all populations living in the study area, regardless of race, ethnicity, or socioeconomic status.

The Council evaluated the Build Alternatives for each resource for potential effects based on the results documented in the *Transportation Resources Technical Report*, the *Community and Social Resources Technical Report* and the *Physical and Environmental Resources Technical Report* (see **Appendix A**). Resources with potential effects were then carried forward to another level of analysis to determine whether those effects were disproportionately high and adverse on environmental justice populations.



BUILD ALTERNATIVE 1 (A1-BC-D3)

The Council identified potential Project-related impacts as documented in the *Transportation Resources*, *Community and Social Resources* and the *Physical and Environmental Resources* technical reports. Resources with no effects are not carried forward for further analysis. Resources with potential impacts are considered for their potential for disproportionately high and adverse effects on environmental justice populations. **Table 4.8-8** lists each evaluated resource’s potential for short-term disproportionately high and adverse effects.

TABLE 4.8-8: BUILD ALTERNATIVE 1 POTENTIAL FOR SHORT-TERM DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS BY RESOURCE

Impact Resources	Potential for Impacts	To be Analyzed for Potential for Disproportionately High and Adverse Effects on Environmental Justice Populations
Transit	No	No
Traffic	No	No
Pedestrian and Bicycle Facilities	No	No
Parking and Driveways	Yes	Yes
Land Use	No	No
Community Facilities, Character and Cohesion	No	No
Acquisitions and Displacements	No	No
Cultural Resources	-- ^a	-- ^a
Visual and Aesthetic	Yes	Yes
Business and Economic Impacts	Yes	Yes
Safety and Security	No	No
Noise and Vibration	Yes	Yes
Air Quality	No	No

^a Construction-phase impacts for the Project will be addressed under the terms of the executed Section 106 PA.

Resources not Carried Forward for Further Analysis of Disproportionately High and Adverse Effects

Based on the results shown in **Table 4.8-8**Table 4.8-8, the transit, traffic, pedestrian and bicycle facilities, land use, community facilities, character and cohesion, acquisitions and displacements, safety and security, and air quality resources will not be carried forward for further analysis of disproportionately high and adverse effects. Because the Project does not have any potential effects in these resources, there is no potential for a disproportionately high and adverse effect on environmental justice communities.

Transit

Construction of Build Alternative 1 would result in intermittent impacts to bus operations on routes within the construction area. These may include temporary stop relocations or closures or route detours. With mitigation



measures, transit impacts were not determined in the *Transportation Resources Technical Report* (see **Appendix A**), there is no potential for disproportionately high and adverse effects on environmental justice populations.

Traffic

The Council anticipates construction of the Project would cause disruptions to traffic operations including lane closures, short-term intersection and roadway closures, and detours that would cause localized increases in congestion.

The details of construction staging will be developed in future phases of Project design. Maintenance of traffic (MOT) criteria and plans will be developed during the final design or construction phases of the Project. The MOT plans will address construction phasing, maintenance of traffic, traffic signal operations, and access through the work zone, road closures, and any traffic detours. With mitigation measures, traffic impacts were not determined in the *Transportation Resources Technical Report* (see **Appendix A**), there is no potential for disproportionately high and adverse effects on environmental justice populations.

Pedestrian and Bicycle Facilities

Temporary closures or detours are anticipated to affect bicycle and pedestrian facilities during construction of Build Alternative 1. Safe access for non-motorized users, as a result of detours, closures, and other inconveniences during construction, would be included in phasing plans. Construction phase impacts are expected to be similar for each alignment, with greater impacts where there are more existing pedestrian and bicycle facilities in or near the construction zone.

Depending on how construction activities would impact sidewalk areas, special facilities (such as handrails, fences, barriers, ramps, walkways, and bridges) may be required to maintain bicyclist and pedestrian safety.

If crosswalks are temporarily closed, pedestrians would be directed to use alternate crossings nearby. Efforts would be made not to close adjacent crosswalks at the same time to allow for continued pedestrian movement across streets. All sidewalks and crosswalks would be required to meet minimum standards for accessibility and be free of slipping and tripping hazards. Temporary sidewalk closures would be discouraged but, if required, would be conducted in such a way as to minimize impacts.

During final design, it is expected that a plan would be developed to manage the closure of pedestrian crossings and other restrictions on non-motorized transportation facilities and crossings throughout the construction process. With mitigation measures, pedestrian and bicycle facilities impacts were not determined in the *Transportation Resources Technical Report* (see **Appendix A**), there is no potential for disproportionately high and adverse effects on environmental justice populations.

Land Use

No short-term impacts to conformance with land use policies have been identified. Since no impacts resulting from the Build Alternatives were identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Community Facilities, Character and Cohesion

Although temporary in nature, construction phase impacts may affect community facilities, character, and cohesion. Traffic detours could increase traffic through residential neighborhoods or change access to community facilities. Similarly, sidewalk closures and detours could affect pedestrian traffic patterns. Construction impacts such as increased levels of noise and dust may temporarily affect neighborhood character, primarily in areas that are relatively quiet. The presence of large construction equipment may be perceived as visually disruptive, resulting in temporary effects on community character, particularly in residential settings. Because these impacts,



with mitigation measures, were not determined in *Community and Social Resources Technical Report* to be adverse, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Cultural Resources

Noise, dust, visual, and traffic impacts would be experienced during construction throughout all segments. These impacts would be short-term and temporary. Short-term impacts and mitigation measures are discussed in the *Physical and Environmental Technical Report*, the *Community and Social Resources Technical Report* and the *Transportation Resources Technical Report* (see **Appendix A**). Short-term impacts for the Project will be addressed under the terms of the executed PA.

Acquisitions and Displacements

Commercial displacements are addressed with the operational phase impacts. No residents or businesses would be displaced temporarily during the construction phase of Build Alternative 1; therefore, there is no potential for disproportionately high and adverse effects on environmental justice populations unique to the construction phase of the Project.

Safety and Security

Worker safety measures and public safety measures would be implemented during construction of Build Alternative 1. Public safety is particularly important in construction areas with pedestrians, bicyclists, area business staff, and spectators. Because safety and security would be addressed equally among all alignments, and no adverse impacts were determined in *Community and Social Resources Technical Report*, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Air Quality

The construction of Build Alternative 1 would affect traffic volumes and operations along roadways in and around the study area. During construction, some intersections may need to temporarily operate with reduced capacities or be temporarily closed. Under these conditions, traffic would be expected to detour to parallel roadway facilities near the study area. This increased traffic may result in increased emissions and higher concentrations of air pollutants near homes and businesses. These emissions levels would not be expected to result in localized concentrations that would exceed any state or federal air quality standards.

In addition to traffic-related emissions increases, construction activities can also result in higher concentrations of air pollutants. Construction equipment powered by fossil fuels emits the same air pollutants as highway vehicles. Exposed earthen materials can also produce increased particulate matter when they are moved or disturbed by wind. It is not expected that concentrations of these air pollutants would exceed any state or federal standards, due in part to the BMPs the Project would implement.

No impacts are anticipated as traffic emissions levels and construction-related air pollutants are not expected to exceed state or federal air quality standards. Since no impacts were identified, there is no potential for disproportionately high and adverse effects on environmental justice populations.

Analysis of Potential for Disproportionately High and Adverse Effects

As **Table 4.8-9** shows, potential for disproportionately high and adverse effects on environmental justice populations during construction of the Project would occur along Alignments B and C.

Specifically, the construction of the guideway on Mounds Boulevard and Hudson Road along Alignment B and C, and the temporary visual impacts along Alignment B. Impacts were identified by a technical analysis of each impact resource described below.



TABLE 4.8-9: BUILD ALTERNATIVE 1 POTENTIAL FOR SHORT-TERM DISPROPORTIONATELY HIGH AND ADVERSE EFFECTS BY ALIGNMENT

Alignment	Parking and Driveways	Visual and Aesthetic	Business and Economic	Noise and Vibration
Alignment A	No	No	No	No
Alignment B	No	Yes	No	Yes
Alignment C	No	No	No	Yes
<i>Hazel Street Station Option</i>	No	No	No	Yes
<i>Dedicated Guideway Option on Hadley Avenue and 4th Street</i>	No	No	No	Yes
Alignment D3	No	No	No	No

Parking and Driveways

Most of the parking spaces eliminated during construction are on Alignments B, C and D3. Project construction would eliminate the following numbers of parking spaces per alignment:

- Alignment A1: 27
- Alignment B: 404
- Alignment C: 218
- Alignment D3: 213

Nearly two thirds of the parking spaces on Alignment B would be replaced when construction is complete. While retained in the operating phase, on-street parking along Alignment B on Hudson Road between Forest and Frank Streets would be temporarily impacted during construction of the Project.

Along Alignment C, parking spaces eliminated during the construction phase of the Project include spaces at St. Paul Youth Services.

For all alignments, construction would produce disruptions to some driveway access points.

Finding

Along Alignment B, construction phase-only parking impacts are limited to Hudson Road between Forest and Frank Streets.

Hudson Road between Forest and Frank Streets is located in census blocks where up to 78 percent of residents are minorities and in block groups where up to 33 percent of residents are low-income. Residential properties in this area have alley access and most have garages in the rear or to the side. Given the available parking nearby, the loss of parking on Hudson Road in this segment is not anticipated to be an impact on area residents, including environmental justice populations. Businesses between Forest and Frank Streets could expect activities to be temporarily affected by changes in parking availability during construction activities. The loss of on-street parking in this area is anticipated to have a temporary impact on businesses but would not be a disproportionately high and adverse effect on environmental justice populations.

Hudson Road is lined by single-family homes to the north and the I-94 noise barrier to the south. Nearly all single-family homes on this street have garages in the rear. Some homes are accessed via an alley and some have driveways from Hudson Road. Parking on the south side of Hudson Road would remain. Because of the existing



off-street facilities and the available parking nearby, the loss of parking on Hudson Road in this segment is not anticipated to be an adverse effect for area residents, including environmental justice populations.

Hudson Road between Old Hudson Road and cul-de-sac past Kennard Street is lined by single-family homes to the north and the I-94 noise barrier to the south. Nearly all single-family homes on this street have garages in the rear or to the side and accessed by driveways from Hudson Road. Parking on the north side of Hudson Road between Old Hudson Road and Kennard Street has been retained in response to community input regarding the importance of on-street parking in the area for local businesses.

St. Paul Youth Services would experience a partial impact to parking during construction of the Sun Ray park-and-ride lot. Construction staging would be implemented to minimize short-term impacts to the greatest extent possible. Given this, it is not anticipated that environmental justice populations would experience disproportionately high and adverse effects related to construction phase parking.

The construction staging plan would identify driveway conflicts and measures to minimize these impacts; therefore, temporary impacts would not result in a disproportionately high and adverse effect on environmental justice populations.

Visual and Aesthetic

Because the area for construction is constrained, construction of the guideway along Hudson Road would only be visually disruptive to the residents whose homes face Hudson Road, generally between Kellogg Boulevard and Griffith Street and between Old Hudson Road and Kennard Street in Alignment B. Similarly, businesses that front on Hudson Road near Earl Street would also experience temporary visual impacts during construction of the guideway and station at this location. Construction in this vicinity would also include relocation of the sound wall between I-94 and Hudson Road, so residents and businesses may also be temporarily exposed to views of interstate infrastructure and traffic during construction.

Construction of a new BRT-exclusive bridge over Johnson Parkway may have temporary visual impacts on several nearby residences and users of the parkway. Construction of the guideway south of Wilson Ridge apartments would have visual impacts as construction in this vicinity would also include relocation of the sound wall between I-94 and the apartment building, so residents may also be temporarily exposed to views of the interchange during construction.

Finding

Minority status and income levels are not known for the individual tenants or owners who would experience visual impacts as a result of construction of the transitway and demolition of the noise barrier along Hudson Road between Kellogg Boulevard and Griffith Street. This area is comprised of census blocks where up to 88 percent of residents are minorities and block groups where up to 38 percent of residents are low-income. Residences between Old Hudson Road and Kennard Street are located in census blocks where up to 82 percent are minority residents and in block groups where up to 30 percent of residents are low-income. It is assumed that these visual impacts related to construction would have a disproportionately high and adverse effect on environmental justice populations.

Visual impacts of construction of a new BRT-exclusive bridge over Johnson Parkway are not expected to disproportionately affect environmental justice populations, as visual impacts of construction would be screened from nearby residents by existing trees. Visual impacts to users of the parkway would affect all users equally; these impacts would not be disproportionately high and adverse on environmental justice populations.

Construction of the guideway and relocation of the noise barrier south of Wilson Ridge apartments would result in disproportionately high and adverse effects on low-income and minority populations. The Wilson Ridge



apartments are located in a census block with 67 percent minority residents and in a block group where 33 percent of residents are low-income.

Construction phase visual impacts would result in a disproportionately high and adverse effect on environmental justice populations along Alignment B.

Business and Economic Resources

Business and economic impacts are addressed with the operational phase impacts. These impacts would commence within the construction phase of the Project and continue into the operational. Business impacts would be limited to only the construction phase. Temporary loss of parking would impact businesses clustered around Hudson Road near Earl Street along Alignment B.

Finding

After consideration of mitigation for construction phase parking impacts, the Project would not result in a disproportionately high and adverse effect on environmental justice populations.

Noise and Vibration

Short-term noise during construction of the Project can be intrusive to residents near the construction sites. Most of the construction would consist of site preparation and paving. This would include excavation, demolition of pavement and several structures, and use of loaders and vibratory rollers on the BRT guideway. At some locations, more extensive work may occur, such as pile driving for elevated structures, noise barriers, and retaining walls. In the downtown Saint Paul area, no pile driving is anticipated and the other of construction activities would be limited to station areas. Temporary construction noise impact could impact residential areas of Alignments B and C.

Temporary vibration impacts could occur in residential areas and at other vibration-sensitive land uses from Project-related construction activities, such as excavation, demolition, and vibratory compaction, as well as pile driving at bridges, noise barriers, and retaining walls. The potential for vibration impact would be greatest at locations near pile-driving for bridges and other structures, pavement breaking, and at locations close to vibratory compactor operations. Temporary vibration impacts could impact residential area of Alignment B and C.

Finding

After consideration of mitigation for construction phase noise and vibration impacts, the Project would not result in a disproportionately high and adverse effect on environmental justice populations.

BUILD ALTERNATIVE 2 (A2-BC-D3)

Build Alternative 2 would produce the same short-term impacts to the resources evaluated for this analysis as Build Alternative 1; however, the impacts for Build Alternative 2 would not extend into Downtown Saint Paul, as Alignment A2 has a western terminus of Union Depot

4.8.6. Offsetting Project Benefits

4.8.6.1. Increased Transit Service

Both environmental justice and non-environmental justice populations in the study area would also benefit from the Project. The following is a list of the benefits to communities in the Project study area:



- Improved connectivity and access to transit
- Reliable and time-competitive service for transit-riders
- High frequency, all day service
- Improved pedestrian and bicycle connections and access in vicinity of the stations
- Improved access to employment, educational, recreational, shopping and cultural opportunities
- Improved overall health of the users of the Project with improvements to security and safety and access to health-care providers
- Positive economic impacts to the local economy, both through direct hiring to fill transit jobs and indirectly as these transit workers spend their earnings

The Project would provide an increase in safe, reliable, and efficient transportation options for minority and low-income populations located along the Project. Research indicates that transit provides a positive role in promoting social equity. A 2010 study by the University of Minnesota Center for Transportation Studies investigated the role of transitways in improving job accessibility for socio-economically disadvantaged workers.⁷³ The study found that low-income workers use transit considerably more than their higher-wage counterparts do and that their transit use patterns differ. Analysis of the METRO Blue Line, which opened in 2004, demonstrated positive changes in low-wage transit employment accessibility. Study results revealed that low-wage workers, as well as low-wage employers, relocated closer to LRT.

Increased transit service would provide minority and low-income populations along the corridor access to shopping, parks, and recreational amenities in the corridor as well. It would also support public transit “trip chaining,” which is a series of trips using one or several modes of transportation; for example, taking BRT to a regional trail, then the trail to a destination.

4.8.6.2. Operational Phase Economic Benefits

The Project is anticipated to create jobs and additional earnings as a result of operations and maintenance expenditures. The expansion of transit service associated with the Project creates an expansion of economic activity in the counties of the Minneapolis-Saint Paul-Bloomington Metropolitan Statistical Area, thus generating recurring net economic impacts in the long-term.

Implementation of the Project is anticipated to result in positive economic impacts to the local economy, both through direct hiring to fill transit jobs and indirectly as these transit workers spend their earnings, thus creating additional consumer demand and jobs to meet that demand.

4.8.7. Environmental Justice Finding

The Project does not have long-term impacts on resources including: transit, traffic, pedestrian and bicycle facilities, land use, safety and security, noise and vibration, and air quality. Therefore, there is no potential for disproportionately high and adverse effects on environmental justice populations related to these resources.

⁷³ Fan, Dr. Yingling; Guthrie, Andrew; and Teng, Rose. Impact of Twin Cities Transitways on Regional Labor Market Accessibility: A Transportation Equity Perspective. *Center for Transportation Studies, University of Minnesota. 2010.* Available at: <http://conservancy.umn.edu/handle/11299/150603>. Accessed November 2018.



Resource-specific conclusions for operating phase are as follows for potential for disproportionately high and adverse effect on environmental justice populations:

- Parking and driveways: no disproportionately high and adverse effects
- Community facilities, cohesion and character: no disproportionately high and adverse effects
- Acquisitions and displacements: no disproportionately high and adverse effects
- Business and economic resources: no disproportionately high and adverse effects
- Visual quality and aesthetics: no disproportionately high and adverse effects

Disproportionately high and adverse effects on environmental justice populations are anticipated to result from the construction phase (short-term impacts) of the Project along Alignments B and C related to noise and vibration impacts and visual impacts along Alignment B.

The Project will implement the following mitigation measures:

- prepare detailed noise and vibration control plan to mitigate short-term construction noise and vibration
- Signage directing business patrons to streets where parking is available
- Ongoing and transparent outreach program to inform business owners and residents of construction activities
- Phased construction activity to minimize duration
- Remove debris and equipment on a regular basis

As identified in the *Indirect Effects and Cumulative Impacts Technical Report* in **Appendix A**, potential indirect effects on environmental justice populations could result from increased development and redevelopment in the station areas. While not every station area is likely to see meaningful change in the short-term, those areas where demand for new development is stronger could experience increased property values and corresponding increases in rents and real estate taxes. While all populations in the study area could experience these impacts, low-income populations are more likely to adversely experience them, particularly if they rent rather than own property. Cumulative impacts from development around station areas in combination with future actions could result in increased property values and corresponding increases in rents and real estate taxes. While all populations in the study area could experience these impacts, low-income populations are more likely to adversely experience them.

The FTA and Council recognize that some of the specific impacts on the Project may adversely affect both environmental justice and non-environmental justice populations and are committed to continue outreach and coordination with community organizations and the would be necessary to maintain continued engagement with environmental justice populations as the Project advances. The Council is committed to continued engagement with the CBAC which are integral to Project decision-making.

After examining the Project in totality, accounting for adverse effects on environmental justice populations during the construction phase and committed mitigation measures, the Council concluded that the Project would not result in disproportionately high and adverse effects on environmental justice populations.



Gold Line

BUS RAPID TRANSIT PROJECT ENVIRONMENTAL ASSESSMENT

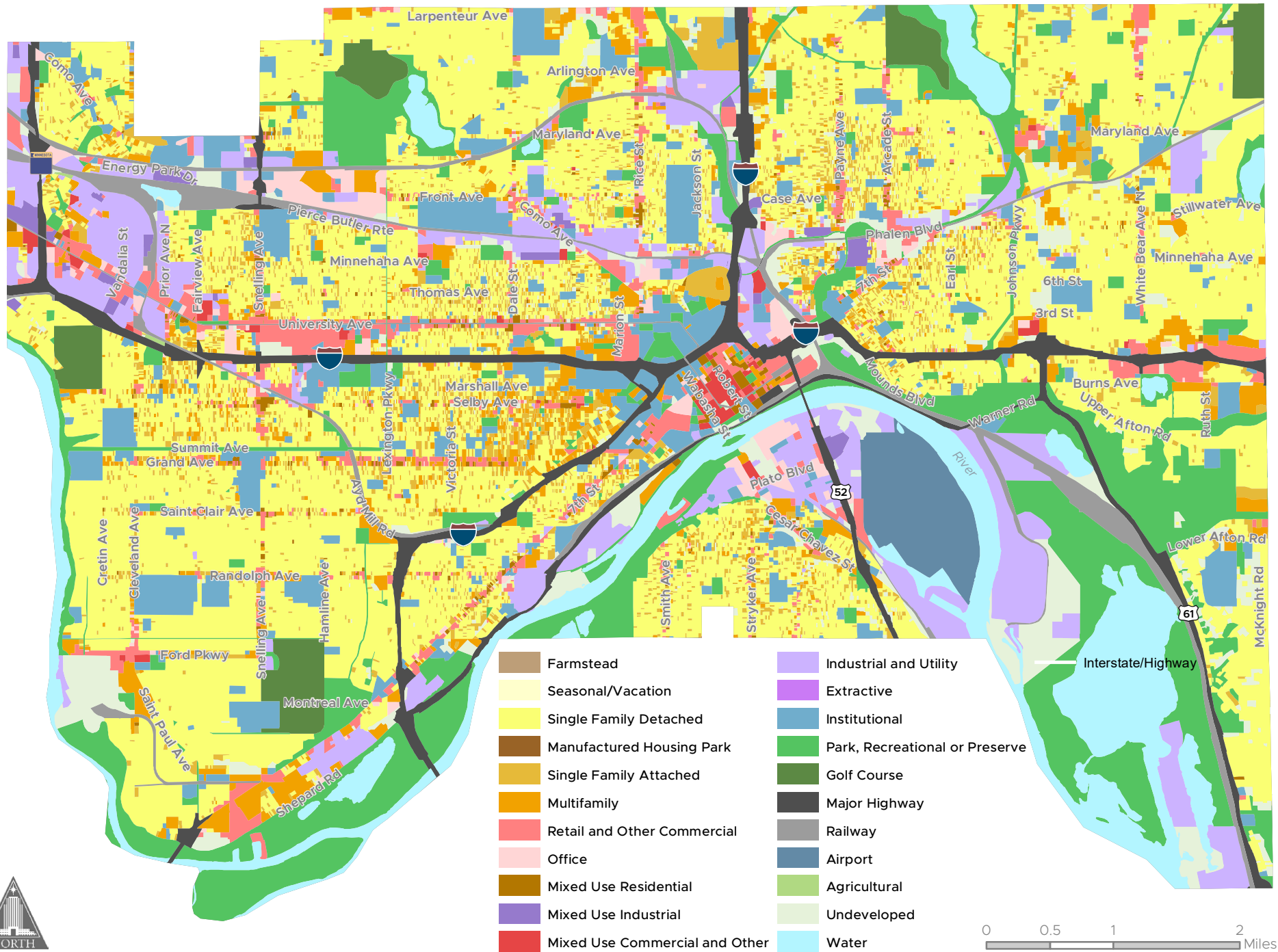
Appendix A: Environmental Assessment Technical Reports

Attachment A-4-1:

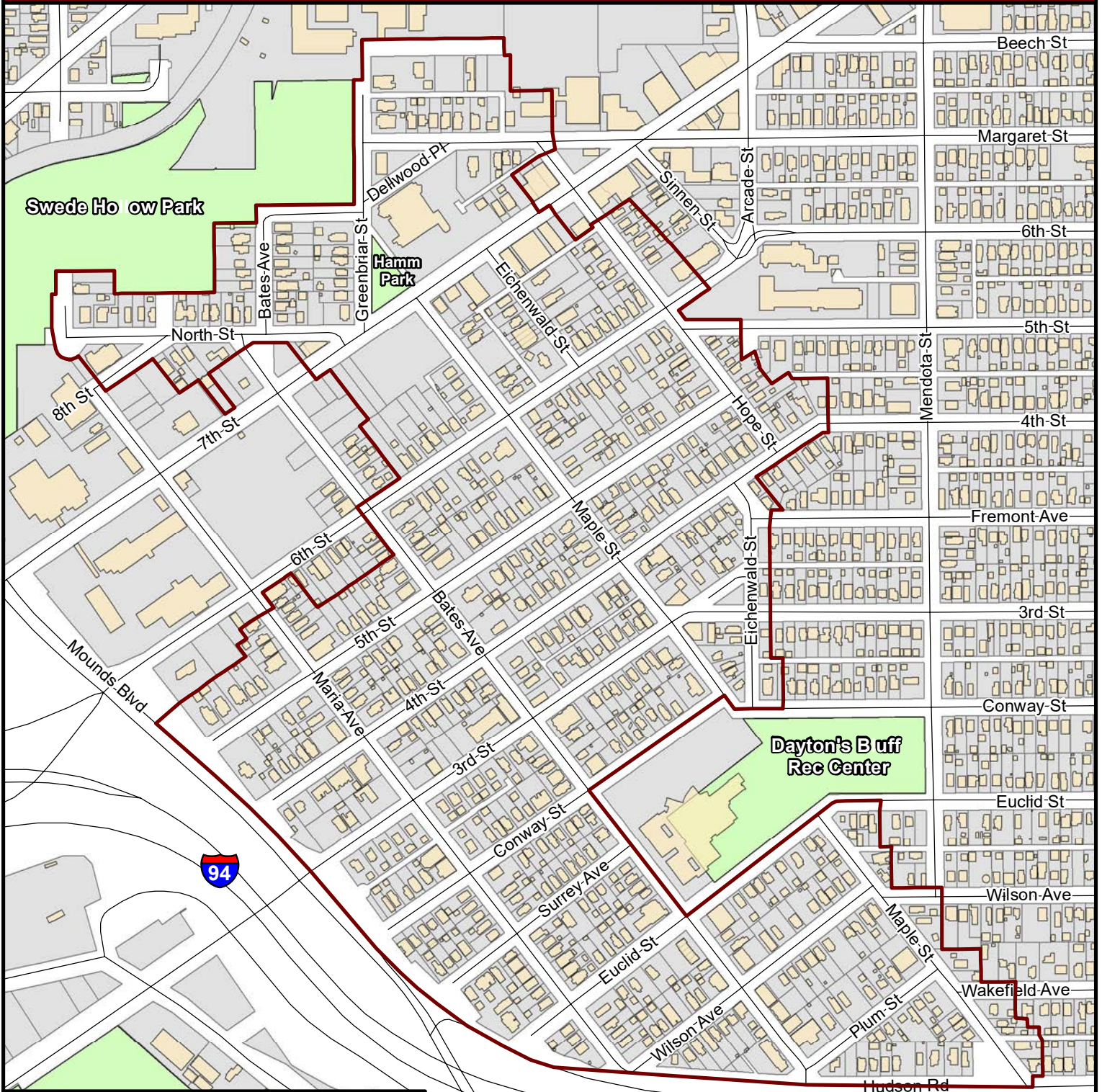
Existing and Planned Land Use Maps

September 2019

Map LU-1: Current Land Use



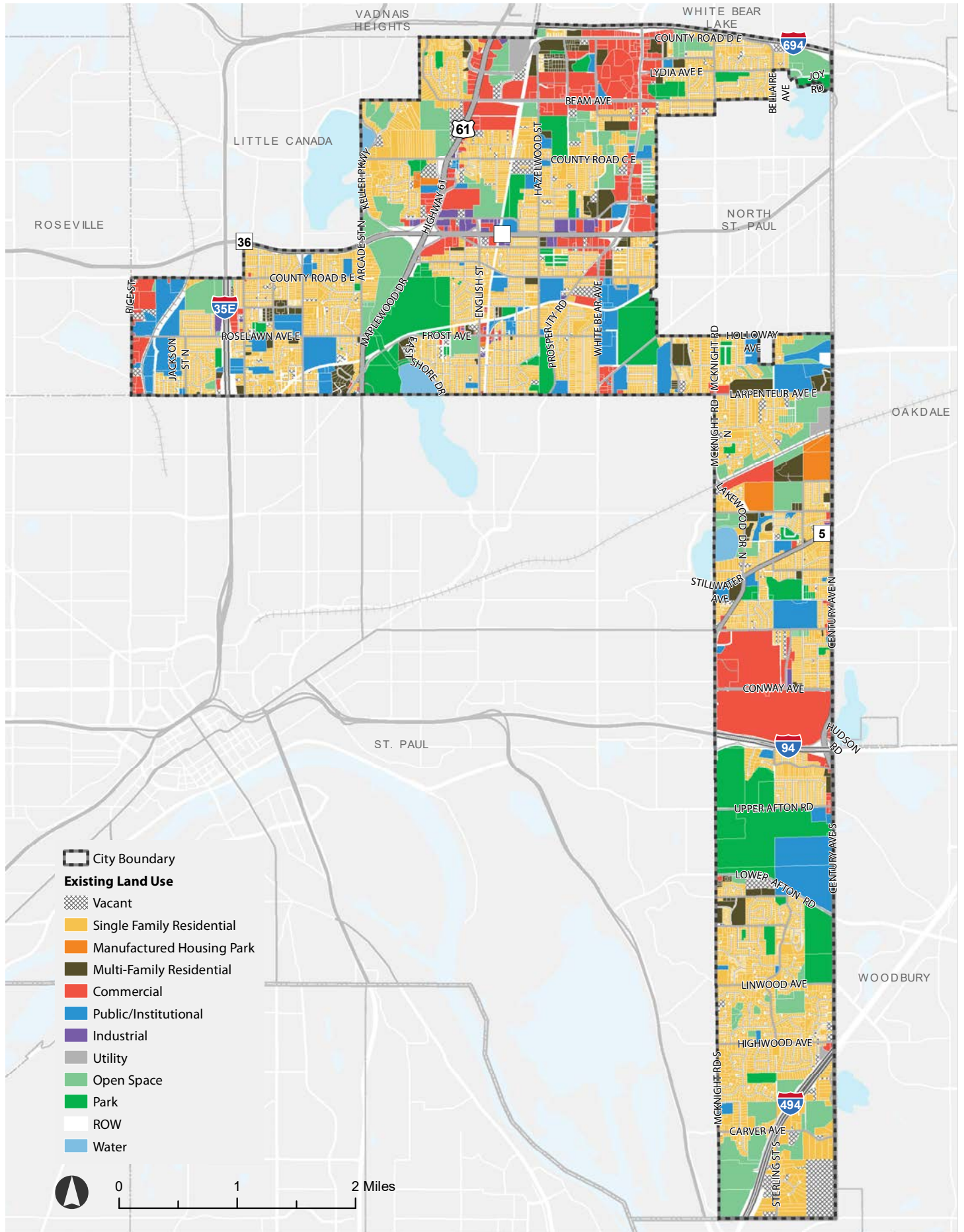
Dayton's Bluff Heritage Preservation District



-  Dayton's Bluff District Boundary
-  Buildings
-  Parks

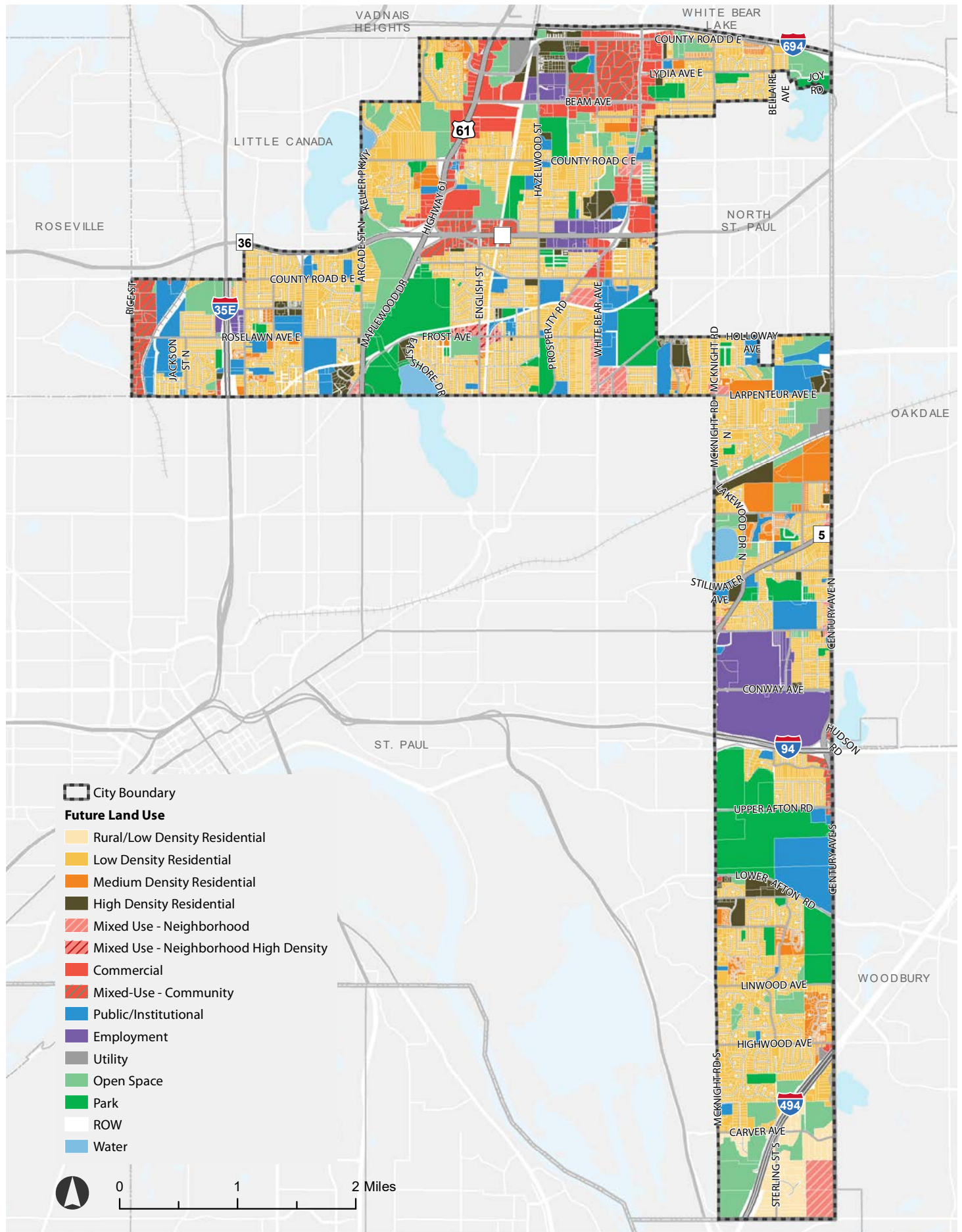


Figure 4-1. Existing Land Use



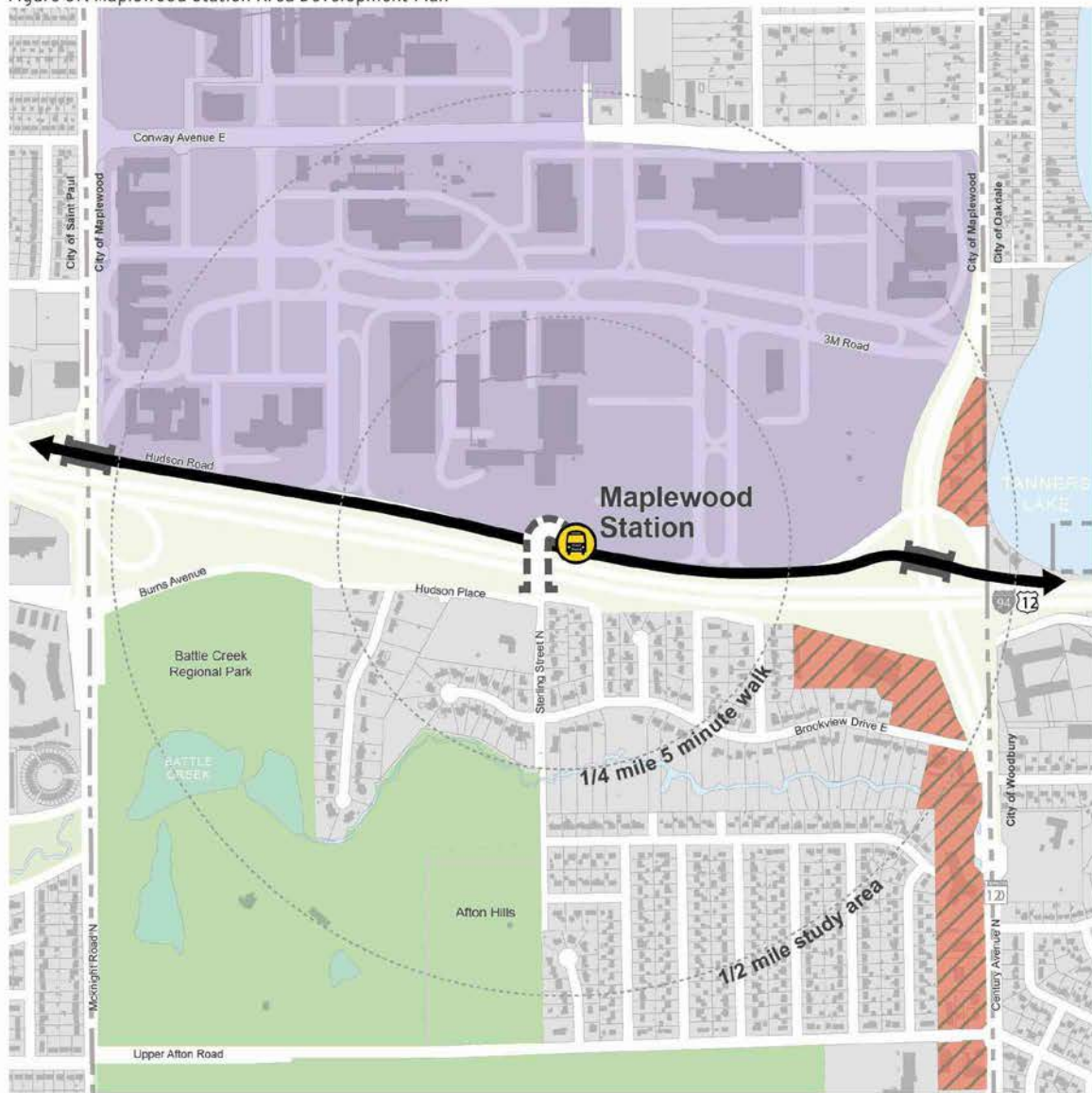
LAND USE

Figure 4-2. Future Land Use



LAND USE

Figure 37. Maplewood Station Area Development Plan



-  Station Location
-  BRT Guideway
-  Mixed-use Community
-  Employment
-  Park
-  Bridge
-  Potential Bridge
-  MndOT Right of Way
-  Open Space
-  Water Body
-  Building
-  Parcel



GOLD LINE
 PARTNERS

B. Existing Land Use

The most prominent land use in Landfall Village is manufactured housing. There are 14 RV lots; six on 2nd Avenue, seven on 3rd Street, and one on Garden Glen. Figure 3 identifies the existing land uses in Landfall Village.

Figure 3: Existing Land Use

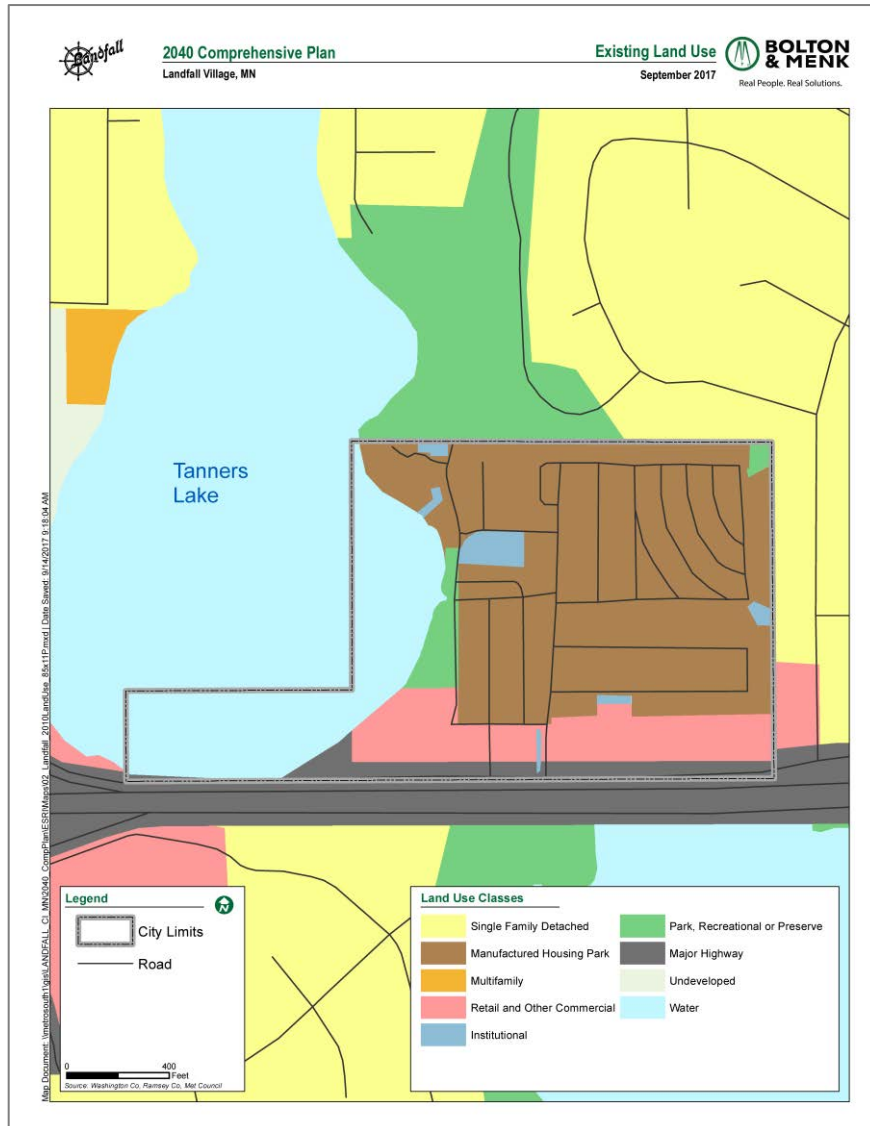


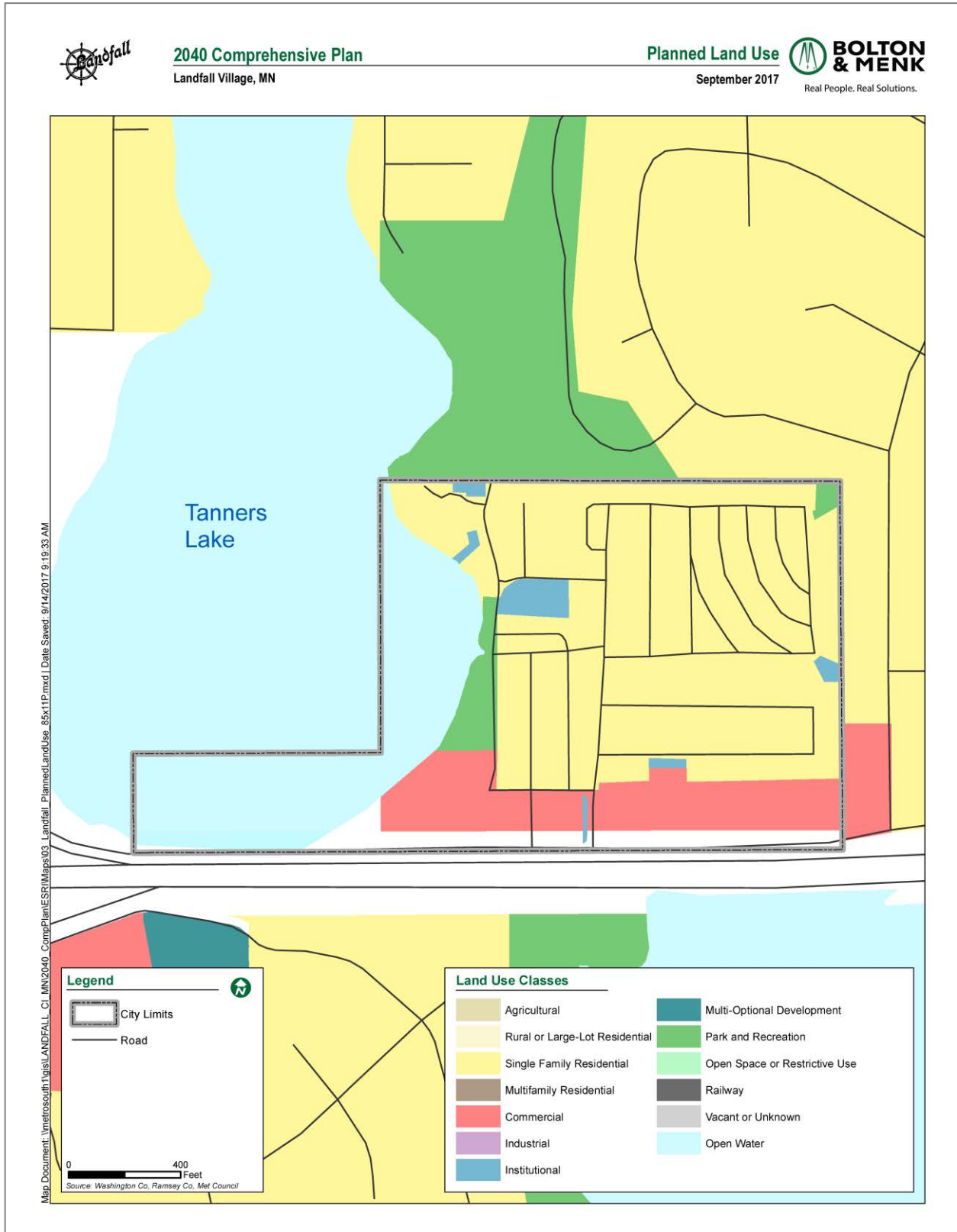
Table 2 summarizes existing land uses by category.

Table 2 Existing Land Use Characteristics		
Category	Gross Acres	% of Total Gross Acres
Manufactured Housing Park	31.12	54.7%
Commercial	7.23	12.7%
Park, Recreational or Preserve	1.62	2.9%
Institutional	1.28	2.2%
Open Water	12.18	21.4%
Hudson Blvd Right-of-Way	3.47	6.1%
Total	56.91	100%

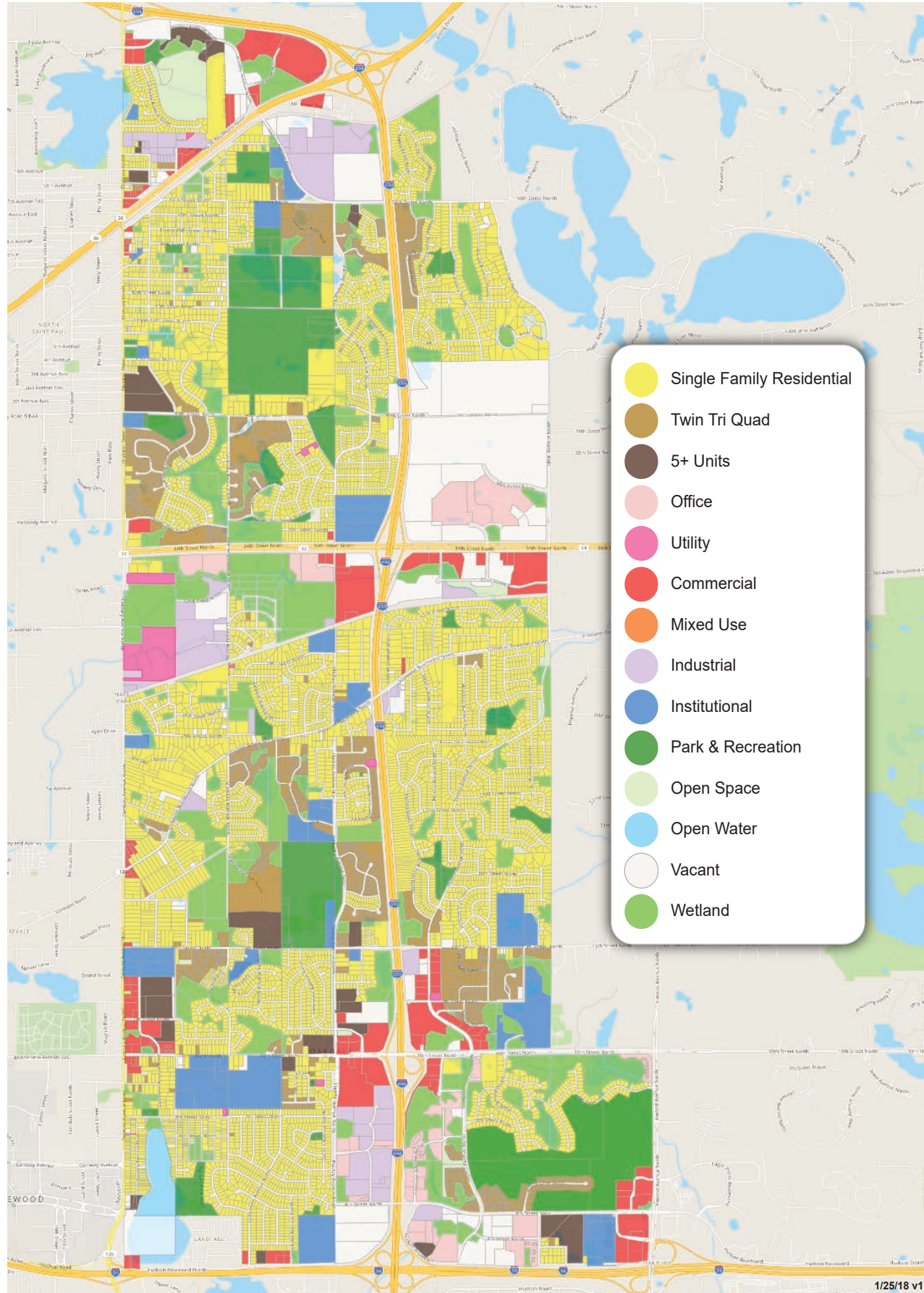
C. Future Land Use

The 2040 Land Use Map (Figure 4) shows the desired land use for all property in Landfall Village.

Figure 4: Planned Land Use



EXISTING LAND USE



FUTURE LAND USE

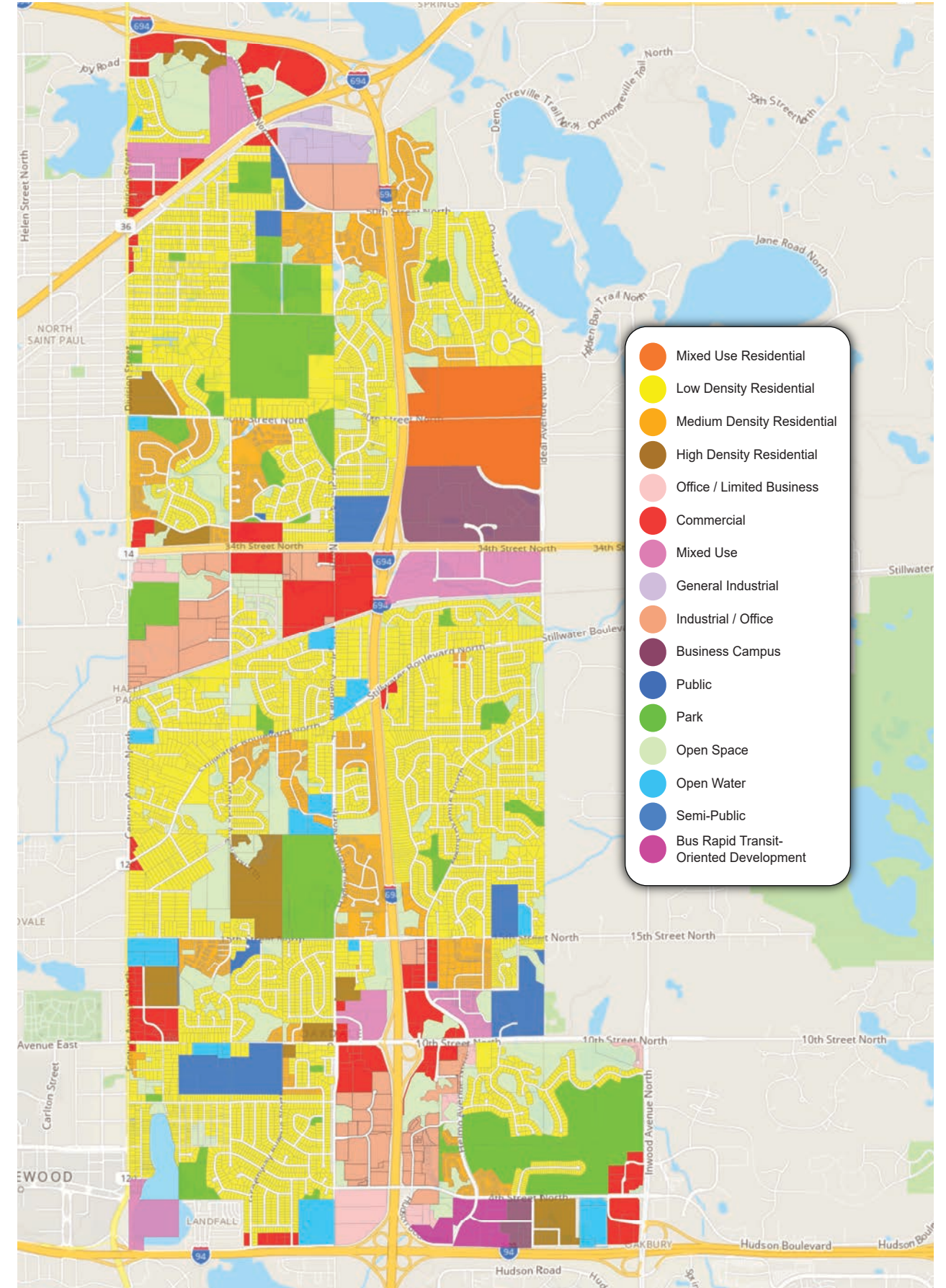


FIGURE 6. LAND USE FRAMEWORK

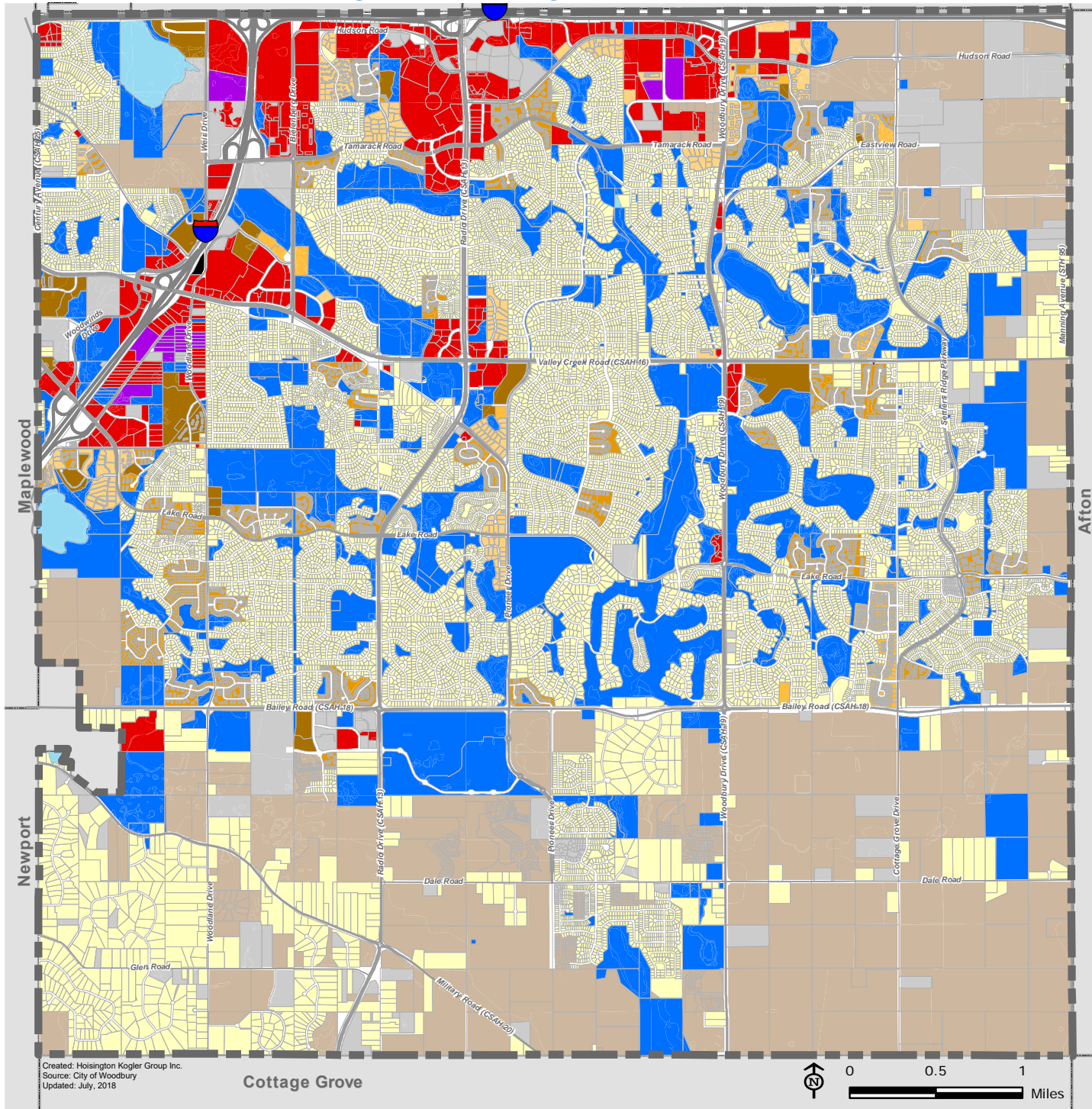


- | | |
|---|--|
|  Station Location |  Retail/Commercial |
|  Park-and-ride |  Multi-Family Medium Density |
|  Guideway |  Multi-Family High Density |
|  Existing Open Space |  Flex (Multi-Family or Flex Office) |
|  Water Body |  Professional Office |
|  Existing Building |  Enhanced Open Space and Trails |
|  Existing Parcel |  Parks and Open Space |
|  Parking |  Plaza |

Not to Scale 



Figure 2-2. Existing Land Use (2016)



Legend

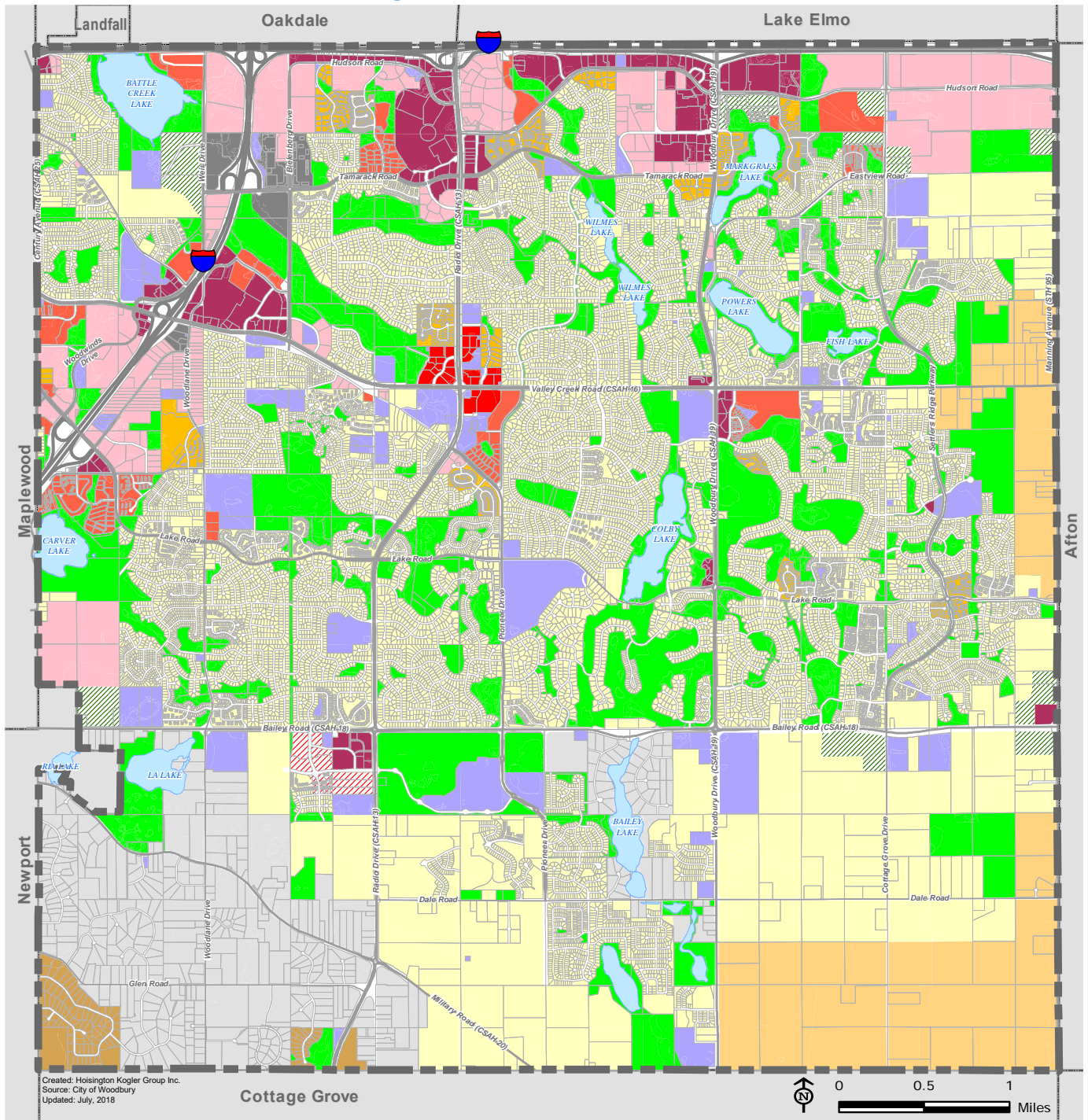
Existing Land Use

- Agricultural
- Single Family Residential - Detached
- Single Family Residential - Attached
- Residential 1-3 Units
- Medium Density Residential
- Residential 4+ Units

- Public/Semi-Public/Institutional
- Commercial
- Industrial
- Public Utilities
- Right-Of-Way
- Vacant
- Lake / Open Water

- Woodbury Boundary
- Parcels

Figure 4-1. Land Use Plan



Created: Hoisington Kogler Group Inc.
 Source: City of Woodbury
 Updated: July, 2018

Legend

- | | | |
|----------------------------|-------------------------------|-------------------|
| Urban Reserve* | City Centre | Woodbury Boundary |
| Rural Estate** | Gateway | Parcels |
| Urban Estate | Places to Shop | |
| Low Density Residential | Places to Work | |
| Medium Density Residential | Other/ROW | |
| High Density Residential | Open Space (Public / Private) | |
| Mixed Use | Public / Semi-Public | |
| Urban Village | Lakes | |

* Rural Estate is not intended to be served by regional sewer infrastructure.

** Urban Reserve is intended for post 2040 development phasing