



11 Evaluation of Alternatives

This chapter summarizes the evaluation of the No-Build Alternative and Build Alternative for the Project. This summary focuses on information that distinguishes the No-Build and Build Alternatives from each other and is most relevant for Project decision making. The results are intended to demonstrate that the Build Alternative is the preferred alternative under the NEPA and MEPA.

11.1 Evaluation Framework and Methods

The Project purpose and need is presented in Chapter 1 of this Supplemental Final EIS. The project development and evaluation process respond to the requirements of NEPA, MEPA, and the FTA New Starts process.

The purpose statement below was developed during the environmental review phase of the Project that resulted in the 2016 Final EIS and ROD and specifically defines the fundamental reasons why the Project is being proposed:

The purpose of the Project is to provide transit service, which will satisfy the long-term regional mobility and accessibility needs for businesses and the traveling public.

Additionally, the Project will invest in an area that has experienced a history of disinvestment, provide improved connectivity and access for communities in the area, and advance local and regional goals. The Project is needed to effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports economic development goals and objectives of local, regional, and statewide plans. The five factors informing project need are listed below and described in more detail in Section 1.4 of Chapter 1:

- **Factor 1:** Growing Travel Demand
- **Factor 2:** Reducing Local Pollution with a Balanced Transportation Network
- **Factor 3:** Increased Reliance on Transit
- **Factor 4:** Changing Travel Patterns from the COVID-19 Pandemic
- **Factor 5:** Regional Objectives for Growth

This chapter focuses on evaluating the balance between benefits and impacts that would occur under the No-Build Alternative and Build Alternative, to demonstrate why the Build Alternative is the preferred alternative.

11.2 Build and No-Build Alternative Differentiators

The discussion below describes the No-Build Alternative and Build Alternative and summarizes the differentiating adverse impacts and benefits of each, according to the resource topics addressed in this Supplemental Final EIS, and how they address the Project purpose and need. This chapter highlights the impacts and benefits that distinguish the alternatives from each other. This information is summarized in Table 11-1 through Table 11-3, which summarize the comprehensive analysis conducted as part of the Supplemental Final EIS process.

11.2.1 No-Build Alternative

The No-Build Alternative reflects existing and committed improvements to the regional transit network for the horizon year of 2040. Primary among these are other regional transitway projects (Green Line Extension LRT, Gold and Purple Line BRT, and Gold Line Extension) and associated bus service changes in these transitways, as well as the reconstruction of Highway 252 and I-94. The purpose of the No-Build Alternative is to provide a benchmark against which the Project Build Alternative can be compared.



11.2.1.1 Relation to Purpose and Need/Goals and Objectives

The No-Build Alternative would not meet the purpose and need for the Project. It would not effectively address the long-term regional transit mobility and local accessibility needs, nor would it provide efficient, travel-time competitive transit service to support the land use and economic development goals of local, regional, and statewide plans. The No-Build Alternative would not satisfy the five Project need factors listed in Section 11.1.

11.2.1.2 Summary of Differentiating Impacts and Benefits

The No-Build Alternative has only minor adverse impacts related to the committed improvements included in it. However, the No-Build Alternative does not provide measurable transportation benefits compared to existing conditions nor does it address the Project's purpose and need and perpetuates issues of lacking transportation options.

11.2.2 Build Alternative

The Build Alternative would provide LRT service between the Cities of Brooklyn Park and Minneapolis via W Broadway Ave (in the City of Brooklyn Park), CR 81 (in the Cities of Crystal and Robbinsdale), W Broadway Ave, N 21st Ave, Washington Ave N, 10th Ave N, 7th Street N, and 6th Ave N (in the City of Minneapolis).

11.2.2.1 Relation to Purpose and Need/Goals and Objectives

The Build Alternative meets the Project purpose and need in that it would effectively address long-term regional transit mobility and local accessibility needs while providing efficient, travel-time competitive transit service that supports the economic development goals of local, regional, and statewide plans. The alternative satisfies all six Project need factors outlined in Section 11.1 and described in detail in Chapter 1 of this Supplemental Final EIS.



Table 11-1 Build/No-Build Alternative Evaluation Summary – Transportation

Section	Topic	No-Build Alternative	Build Alternative
3.1	Transit Conditions	The No-Build Alternative would not address the Project's need factor to provide improved transit service.	The Build Alternative represents a significant investment in the regional transit system, provides another transportation option to transit dependent populations, enhances the overall transit system in the Twin Cities metro area, and is consistent with regional growth objectives. Construction-period effects would be minimized through the implementation of a Construction Mitigation Plan and Construction Communication Plan.
3.2	Pedestrian Conditions	The current pedestrian environment, which includes several areas with high PLTS, would not change under the No-Build Alternative.	The Build Alternative would reduce PLTS for most of the intersections in the Project area, creating a more comfortable pedestrian environment, and would provide improved pedestrian access to LRT station locations. The construction plans would specify measures to maintain access to sidewalks and trails and provide advanced communication of detour routes throughout the construction period.
3.3	Bicycle Conditions	The current bicycling environment, which includes an extensive network of existing and planned bicycle routes would not be impacted by the No-Build Alternative, but transit-integrated improvements to the network would not occur.	The Build Alternative incorporates multi-use paths, builds new bikeways, and enhances connectivity to existing bikeways in each city along the Project Alignment and reduces or eliminates several vehicle/bicycle conflicts along the Project Alignment. Bicycle access to LRT stations is incorporated into Project design. The construction plans would specify measures to maintain access to bicycle lanes and trails and provide advanced communication of detour routes throughout the construction period.
3.4	Vehicle Traffic	Traffic conditions would not be altered under the No-Build Alternative. Traffic volume projections for 2040 indicate that several intersections in the Cities of Brooklyn Park and Minneapolis would be over capacity in peak periods.	The Build Alternative would introduce additional traffic capacity issues beyond No-Build conditions at three intersections in the City of Brooklyn Park during the morning peak, and at three intersections in the City of Minneapolis during the afternoon peak. Design and signal operation modifications would be implemented to optimize vehicular flow. Contractors would develop MOT Plans in coordination with City and County requirements, and the Council would monitor compliance with the plans.



Section	Topic	No-Build Alternative	Build Alternative
3.5	Vehicle Parking	The No-Build Alternative would not impact on-street or off-street parking.	The Build Alternative would result in the loss of on-street and off-street parking in the Cities of Brooklyn Park, Crystal, Robbinsdale, and Minneapolis. Property owners would be compensated for loss of off-street parking in compliance with the Uniform Act. Off-street parking would be designed and constructed near Penn Ave/W Broadway Ave to mitigate loss of on-street parking in the City of Minneapolis.
3.6	Freight Rail Conditions	The No-Build Alternative would not affect freight rail infrastructure or operations.	The Build Alternative would not affect freight rail infrastructure or operations, other than the need for coordination during construction of the 63rd Ave Station pedestrian bridge, implementation of traffic signal integration with rail crossing warning systems in the Cities of Brooklyn Park and Crystal, and construction on the CR 81 bridge over the CPKC in the City of Crystal.
3.7	Aviation	The No-Build Alternative would not affect aviation in the Project area.	Coordination with the FAA has confirmed that the Build Alternative would not affect operations at the Crystal Airport.

Table 11-2 Build/No-Build Alternative Evaluation Summary – Community and Social

Section	Topic	No-Build Alternative	Build Alternative
4.1	Land Use Plan Compatibility	The No-Build Alternative would not advance regional growth objectives or as robustly work towards transit-related goals of Project cities and county plans.	The Build Alternative is consistent with regional growth objectives and would address the transit-related goals included in Project cities and county plans.
4.2	Community Amenities, Character, and Cohesion	The No-Build Alternative would not impact community amenities or affect community character and cohesion.	Overall, the Build Alternative would improve community cohesion and accessibility of community amenities through improved transit, pedestrian, and bicycle conditions, but result in the acquisition of seven community facilities in the City of Minneapolis. Noise impacts and the transit mall along N 21st Ave would change the character of the residential street; incorporation of special trackwork would mitigate some impacts and the feasibility of sound insulation for residential buildings would be explored. Measures to mitigate adverse effects to community character include incorporation of public realm



Section	Topic	No-Build Alternative	Build Alternative
			improvements, cultural placekeeping design group input, and community investments.
4.3	Acquisitions and Relocations	No acquisitions or relocations would occur under the No-Build Alternative.	The Build Alternative would require property acquisitions in each of the four Project cities and 35 relocations (28 in the City of Minneapolis). Individualized relocation services would be available at two centrally located storefronts and an online portal to inform owners and tenants of their rights to fair compensation, moving costs and re-establishment expenses, vacate notification, lump sum payment options, and other requirements of the Uniform Act. Additional mitigation to offset these impacts would include community investment funding, with funds dispersed through community-based organizations, and a Business Assistance Program.
4.4	Cultural Resources	The No-Build Alternative would not result in adverse effects to historic properties or archaeological resources.	The Build Alternative would result in an adverse effect on the Forest Heights Addition Historic District and the Northwestern National Bank under Section 106 of the NHPA. Mitigation measures would be developed in consultation with SHPO and Consulting Parties to resolve the adverse effects in accordance with Stipulation XIV of the Amended MOA.
4.5	Visual/Aesthetics	The No-Build Alternative would not affect the visual character of the Project area.	The Build Alternative would generally have a neutral impact on most of the visual character of the Project area because of station and TPSS construction, as these features would be designed to complement their surroundings, with variations in design that are consistent with the context of each station and TPSS location. Adverse visual impacts would occur at the northern terminus of the Project where the OMF would be constructed. Adverse visual impacts would also incur around Bass Lake Rd and Bass Lake Rd Station. Visual screens, landscaping, and walls would be designed and installed in sensitive areas where space permits. Context-sensitive, culturally relevant design would be developed through coordination with the affected community.



Section	Topic	No-Build Alternative	Build Alternative
4.6	Economic Effects	<p>The No-Build Alternative would not impact economic conditions in the Project area. However, opportunities for long-term earnings and employment growth afforded by improved transportation access and associated TOD would not be realized.</p>	<p>The Build Alternative would result in long-term economic growth through improved access to housing, employment, and businesses. Induced development TOD around LRT stations could result in increased property values and associated taxes, which could displace current residents and business owners. Loss of parking during construction and operation could harm small businesses along the Project Alignment. Measures to mitigate short- and long-term adverse economic effects include construction of off-street parking near Penn Ave/W Broadway Ave, implementation of a business assistance program, implementation of a workforce development program, technical assistance to apply for Small Business Administration loans and to connect businesses to the Metropolitan Council Underutilized Business and Disadvantaged Business Enterprise programs.</p>
4.7	Safety and Security	<p>The No-Build Alternative would not introduce LRT infrastructure into the Project area. Pedestrian, cyclist, and vehicular safety improvements included in the Project would not be realized.</p>	<p>The Build Alternative would be designed and constructed in accordance with relevant codes, standards and guidance and would not adversely impact safety and security in the Project area. The light rail would be operated in accordance with the SSAP and designed in accordance with Project-specific and Metro LRT Design Criteria. Emergency-preparedness exercises would be conducted by the FLSSC in coordination with regional partners. A police substation would be included in the park and ride facility adjacent to the Downtown Robbinsdale Station.</p>



Table 11-3 Build/No-Build Alternative Evaluation Summary – Physical and Environmental

Section	Topic	No-Build Alternative	Build Alternative
5.1	Utilities	The No-Build Alternative would not affect utilities.	The Build Alternative would require the relocation of both underground and aboveground utilities in the Project area. Utility impacts would be addressed on a case-by-case basis, and relocation requirements would be coordinated with utility owners. Utility relocation affords owners the opportunity to repair and/or upgrade old utilities and therefore better serve their customers.
5.2	Floodplains	The No-Build Alternative would not affect floodplains.	The Build Alternative would impact up to 13.02 acres of floodplain. Contractors would be required to implement BMPs, and the Council would monitor contractor compliance with floodplain permit stipulations.
5.3	Wetlands and Other Aquatic Resources	The No-Build Alternative would not affect wetlands and other aquatic resources.	The Build Alternative is estimated to impact a total of about 8.19 acres of wetland and stormwater basins. Compensatory wetland mitigation would be implemented as per an Amended 2018 Section 404 permit with wetland bank credits purchased from established and approved wetland bank accounts to offset permanent impacts. The Project as currently defined has less impact on wetlands than the defined project in the 2016 Final EIS and ROD.
5.4	Geology, Soils, and Topography	The No-Build Alternative would not impact geology, soils, or topography.	The Build Alternative would not have long-term impacts on geology, soils, or topography. Retention and infiltration BMPs would be designed and implemented to avoid differential soil settlement and avoid impacts to subsurface karst features, if encountered.
5.5	Hazardous Materials Contamination	The No-Build Alternative would not affect contaminated properties.	Local, state, and federal regulations would be followed to mitigate any potential for adverse effects to public health and the environment resulting from the disturbance of hazardous materials. A RAP would be developed for approval by MPCA to address the 130 sites with contaminated soil and 16 sites with contaminated groundwater. Hazardous building material surveys would be conducted and addressed as need in the RAP. A CCP would be developed to address the potential to encounter undocumented soil and groundwater contamination. While



Section	Topic	No-Build Alternative	Build Alternative
			contamination presents a risk that needs to be managed during construction, implementing the Build Alternative would afford an opportunity to remove contaminated materials and potentially reduce exposure risks after construction.
5.6	Noise	The No-Build Alternative would not impact noise-sensitive receptors.	The Build Alternative would result in moderate noise impacts at 5 single family homes in the City of Brooklyn Park. In the City of Minneapolis, the Build Alternative would result in moderate noise impacts at 20 residential properties (265 multi-family dwelling units and 11 single-family properties) and 2 churches and severe noise impacts at 12 residential properties (62 multi-family dwelling units and 8 single-family properties). The moderate noise impacts in the City of Brooklyn Park would be mitigated by installing spring-rail frogs in the crossover tracks between College Park Dr and 85th Ave. Spring-rail frogs would also be installed in the crossover tracks on 21st Ave between Emerson Ave and Bryant Ave, which would effectively mitigate moderate noise impacts at 4 residential properties and reduce 1 severe noise impact to a moderate noise impact. Receiver-based mitigation measures (i.e., sound insulation) will be evaluated for the residential properties and churches in the City of Minneapolis where other types of noise mitigation would not be effective.
5.7	Vibration and Ground-Borne Noise	The No-Build Alternative would have vibration impacts.	The Build Alternative would result in vibration impacts at 2 residential properties (30 dwelling units) in the City of Minneapolis. The spring-rail frog installed at the crossover on 21st Ave and track-based mitigation, such as a ballast mat with highly resilient fasteners, would be installed to mitigate the vibration impacts.
5.8	Biological Environment	The No-Build Alternative would not impact biological resources.	The Build Alternative would impact about 14 acres of forested habitat suitable for NLEB and tricolored bats and about 49 acres of meadow/prairie habitat suitable for monarch butterflies. In addition, the LOD for the Build Alternative slightly overlaps with a rusty patch bumble bee high potential zone. Forested habitat would also be suitable for nesting of various migratory bird



Section	Topic	No-Build Alternative	Build Alternative
			species. Enhanced culverts or other design elements would be designed to facilitate wildlife crossings of the Project corridor. Coordination would continue with USFWS and the need for any permits under the Endangered Species Act, and mitigation measures to protect species of concern will be identified in the Amended ROD based on habitat surveys conducted by the Council. If protected species habitat is present within the LOD, the Council would implement the mitigation measures and comply with all USFWS regulatory requirements. DNR guidelines would be followed to minimize impacts on Blanding's turtles, and BMPs such as contractor awareness training would be implemented. Tree removal would be minimized, and replacement tree locations would be coordinated with the local jurisdiction.
5.9	Water Quality and Stormwater	The No-Build Alternative would not affect existing water quality or stormwater management infrastructure.	The Build Alternative would result in an increase in impervious surface of 52.6 acres and require the installation of drainage systems and extension of multiple stormwater drainpipes. Stormwater treatment ponds, infiltration basins, and filtration basins and systems would be installed to provide rate control, volume control, and address water quality. Recent stormwater regulations are more restrictive than past regulations; the stormwater management improvements required for implementation of the Build Alternative would have a positive effect on water quality in the Project area.
5.10	Air Quality/GHG Emissions	The No-Build Alternative would not affect existing air quality or GHG emissions. The general downward trend of CO and MSATs would continue.	The Build Alternative would result in a regional reduction in GHG emissions and support the general downward trend of CO and MSAT emissions.
5.11	Energy	Regional transportation energy use would remain unaltered under the No-Build Alternative.	The reduction in VMT combined with the greater energy efficiency of LRT as a transportation mode would result in a reduction in regional transportation energy use.



11.3 Environmentally Preferred Alternative

The Supplemental Final EIS has described the transportation, economic, community, and environmental impacts associated with the construction and operation of the Project. The effects of the No-Build and Build Alternatives have been evaluated across a range of subject areas related to the built and natural environment and are summarized in the Evaluation Summary Tables 11-1 through 11-3.

11.3.1 Community Input

Identifying the environmentally preferred alternative included extensive public and stakeholder outreach and the review and approval of the Project design by each of the four cities through the Municipal Consent process. Under the guidance of advisory committees and through coordination with community cohorts and the general public, environmental concerns were identified and analyzed to support the development of mitigation measures and refine the alignment to optimize Project benefits and reduce or eliminate potential negative effects. Concerns related to direct and indirect displacements, public safety and security, adverse effects on businesses during construction and due to loss of parking, community cohesion, and traffic were heard throughout the public engagement period.

Community input influenced the design in a number of ways, most notably:

- Routing on N 21st Ave and Washington Ave to reduce effects on W Broadway Ave businesses and Lyndale Ave N
- Addition of roadway reconstruction and streetscape improvements to support the W Broadway Ave commercial corridor
- Design of Lowry Station at-grade to better integrate with surrounding land use and improve access to the LRT
- Addition of a station at W Broadway Ave to support economic development opportunities and access to jobs
- Shifting the Downtown Robbinsdale Station based on input during the Municipal Consent Process to provide connectivity to the proposed park-and-ride and Downtown Robbinsdale

Community input also influenced the mitigation measures and commitments that will be implemented by the Council to reduce adverse impacts. These include anti-displacement measures, traffic control and access improvements, safety and security enhancements, construction of replacement parking, noise and vibration mitigation, and support for the business community during construction. Ultimately, the Build Alternative best balances community input and concerns, while balancing negative impacts across resource categories with maximizing benefits gained by improving transit mobility.

11.3.2 Balancing Benefits and Impacts

The Build Alternative meets the purpose and need of the Project and is the environmentally preferred alternative because it will cause the least damage to the biological and physical environment and it best protects, preserves, and enhances historic, cultural, and natural resources, while meeting the purpose and need of the Project.

Some adverse effects cannot be overcome due to the design and safety standards that must be met for the Project, the developed character of the communities the Project is intended to serve, and the need to design the Project to be compatible with future operations of other transportation facilities in the Project area. Consequently, the environmentally preferred alternative involves recognizing and understanding that there are trade-offs between the benefits and the impacts of the Build Alternative while proposing a project that best serves the purpose and need.

Where adverse effects of the environmentally preferred alternative remain, FTA, the Council, and Hennepin County have identified potential mitigation measures intended to offset remaining effects to the natural and human environment. Mitigation measures are described in this Supplemental Final EIS and the Amended ROD.



11.4 Next Steps

Local elected officials and the public have been and will continue to be involved in the Project throughout final design and construction through public meetings, advisory committee and stakeholder meetings, and individual briefings.