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GREENWAY AVENUE STATION BRTOD PLAN

City of Landfall . City of Oakdale

GOLD LINE
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INTRODUCTION

The Gold Line Partners (the Partners) brings together local elected officials from the five cities and two counties along the corridor, including business and community leaders, to support the METRO Gold Line Bus Rapid Transit (Gold Line BRT) project. As part of the support for the Gold Line, the Partners commissioned the Metro Gold Line BRTOD Plan project (BRTOD Planning Project) on behalf of the Metropolitan Council and is funded by a grant from the Federal Transit Administration's Pilot Program for Transit-Oriented Development Planning with match from Ramsey and Washington Counties. Washington County Regional Railroad Authority (WCRRA) is the fiscal agent and administrative coordinator for the BRTOD Planning Project, and collaborates directly with the cities along the corridor.

GREENWAY AVENUE STATION BRTOD PLAN

This BRTOD Plan, which will serve as a policy guide for the City of Oakdale is based on:

- Consideration of the City's adopted policies.
- Market studies of the station area and the corridor.
- Gap assessment.
- Best practices and fundamentals for bus rapid transit-oriented development.

The plan identifies projects that will help realize the vision for the station area. Funding sources for projects will need to be determined.



The Gold Line will connect people across the region to job centers, neighborhoods, shopping, recreation, and other key destinations in the Interstate 94 corridor.

The METRO Gold Line Bus Rapid Transit (Gold Line BRT) project is a separate project dedicated to design and engineering of the Gold Line BRT alignment, guideway, stations, and some access improvements.

The Metro Gold Line BRTOD Plan project (BRTOD Planning Project) plans for transit-oriented development around the Gold Line stations.

BRTOOD combines BRT with traditional TOD strategies to create walkable and bikeable communities with housing, shopping, and employment uses concentrated within a half mile of a BRT station.

The Gold Line Corridor includes eleven stations in five cities and two counties.

THE GOLD LINE CORRIDOR

The Gold Line corridor is the mile-wide transit-shed centered along the Gold Line BRT route, generally following Interstate 94 (I-94). The existing potential for creating BRTOD varies in each station area. Planning for a successful Gold Line corridor requires increasing the potential ridership base of the entire corridor while enabling each station area to achieve its transit-oriented, market-driven development potential.

Along the corridor, older areas are concentrated to the west—toward Saint Paul, Maplewood, Landfall and portions of Oakdale—where early 20th century development patterns include a fine-grain street grid with predominantly single-family residences mixed with multi-family housing and commercial uses. These areas are largely fully built-out with few opportunities for new development. Residents come from highly diverse ethnicities, are typically less affluent, and are more transit dependent than in other areas of the corridor.

To the east, in Oakdale and Woodbury, the corridor transitions into newer communities characterized by auto-oriented commercial centers and undeveloped land. These areas present both greater opportunity and greater need for transit-oriented development and walking and biking infrastructure improvements. Residents in these areas tend to be less ethnically diverse, more affluent, and less familiar with transit use.

STATION AREA PLANNING

When planned together, the eleven Gold Line stations assemble into a unified, diverse, and complementary corridor in which transit ridership is maximized, desirable development infrastructure and improvements are built, and vibrant and active station areas are realized.

Together, the BRTOD Plans describe a corridor-wide vision that:

- **Establishes a multi-modal transportation corridor** by linking stations with a continuous biking and walking trail parallel to the BRT guideway.
- **Increases potential ridership** by providing direct access to transit-oriented uses along the corridor with strategic biking and walking improvements along existing, planned, or newly identified routes.
- **Enables station areas to achieve their development potential** by identifying substantial new infill or redevelopment opportunities for people to live and businesses to thrive near transit.

Each Gold Line station is located within a distinct and unique context that presents both opportunities and constraints for achieving BRTOD.

Figure 1. Gold Line Corridor Stations





GREENWAY AVENUE STATION AREA

The Greenway Avenue Station is located at the intersection of Greenway Avenue and Hudson Boulevard and is surrounded by portions of the cities of Landfall, Oakdale, and Woodbury.

The Greenway Avenue Station includes a BRT guideway and mixed-traffic bus lanes and Corridor Trail enhancements located generally within the existing right-of-way of Hudson Boulevard and Hadley Avenue.

Figure 2. Greenway Avenue Station Area

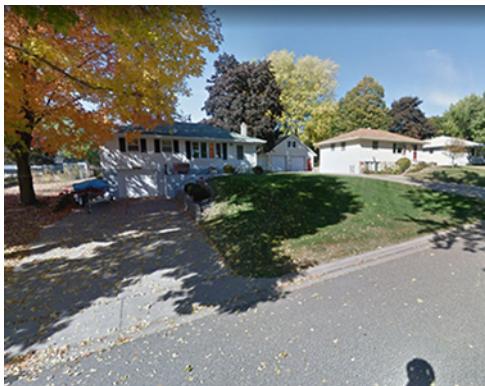


CITY OF LANDFALL

Figure 3. Landfall Neighborhood



Figure 4. Oakdale Neighborhood



Landfall is primarily a low-income, demographically-diverse 300-unit manufactured home community. Two auto-oriented commercial properties fronting Hudson Road provide important tax revenue for the small community.

Dellwood Lane provides the neighborhood's primary auto, bicycle, pedestrian, and transit access. Birch Lane provides a secondary community access point and a service drive for the adjacent commercial uses. There are no sidewalks, bicycle lanes, or trails—except for a 10-foot-wide sidewalk located on the west side of Dellwood Lane. A bus stop is located adjacent to this sidewalk.

CITY OF OAKDALE

The station area includes a southwestern Oakdale neighborhood with a small neighborhood park along Tanners Lake, modest single-family homes, a 57-unit assisted living facility, commercial businesses, and the Apostolic Bible Institute campus. Additional commercial and lodging uses are located west of Tanners Lake along Century Avenue. Tartan High School is just north of 7th Street, outside the study area.

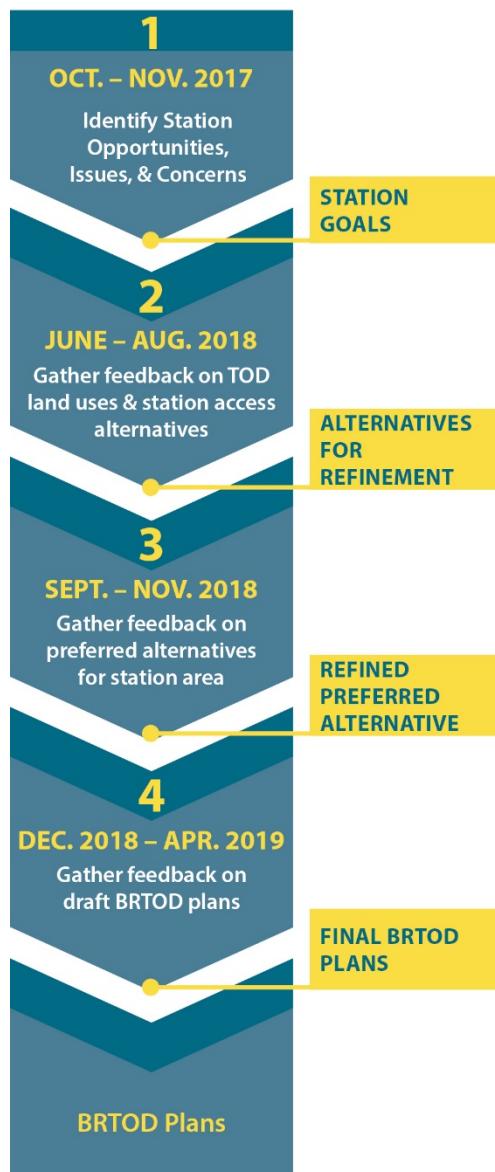
Greenway Avenue, Oakdale's primary access to the station, has several bus stops within the station area. Greystone Avenue is a secondary station access route. There are no pedestrian or bicycle improvements in the neighborhood, other than for the trail along Century Avenue and a narrow trail along Hudson Road from Greenway Avenue to Hadley Avenue.

Figure 5. Greenway Avenue Station Area



BRTOD PLANNING PROCESS

Figure 6. Stakeholder Involvement Process



The planning process for the Greenway Avenue Station BRTOD Plan occurred over nineteen months, beginning in May 2017 and ending in April 2019.

The Greenway Avenue Station BRTOD planning consisted of four phases:

1. **Identification of station area opportunities, issues and concerns to establish station area goals.** Stakeholders reviewed project information, provided feedback on station specific issues, and discussed opportunities and constraints.
2. **Development and review of preliminary BRTOD concepts for transit-oriented development and station access.** Stakeholders reviewed and provided feedback on draft alternatives.
3. **Refinement and review of preferred development plan and circulation plan.** Stakeholders provided feedback on refined development scenarios and development and circulation plans.
4. **Review of the BRTOD Plan document.** Stakeholders provided feedback on the draft BRTOD Plan, including implementation strategies.

STAKEHOLDER INVOLVEMENT

Stakeholder involvement in the Greenway Avenue Station BRTOD Plan built upon extensive engagement conducted prior to the initiation of the BRTOD Planning project and focused on issues related to transit-oriented development. Stakeholder involvement was conducted in close coordination with WCCRA and the staff of the cities of Landfall and Oakdale.

Stakeholder Involvement Plan

The stakeholder involvement plan established engagement objectives; identified stakeholders, level of engagement, and outreach methods; and ensured that core values, goals, and objectives of the overall Gold Line project were addressed. The plan ensured that those affected by planning decisions had the opportunity to be involved in the decision-making process, that their contributions influenced decisions, and their needs were communicated to decision-makers. At the end of each project phase, the influence of stakeholder input was communicated back to stakeholders.

Engagement included in-person events and online engagement:

- Four joint Landfall and Oakdale city council work sessions held at the City Hall in Oakdale.
- **Four community meetings with residents and property owners** of both Landfall and Oakdale at the community center building in Landfall. Translation services were provided for all community meetings and meeting materials were prepared in both Spanish and English.
- **A corridor-wide open house** for both the BRTOD Planning project and the BRT Engineering project was held at the Guardian Angels Catholic Church in Oakdale. Greenway Avenue Station circulation concepts were presented.
- **Online engagement through the Gold Line Partners website** included a survey, a summary describing the survey intent, a description of survey elements, and presentation slides, prepared in both Spanish and English. Online surveys were typically collected over a one-month period, beginning on the date of the community meeting, and were summarized in both English and Spanish.

All key stakeholders were respectfully and inclusively engaged in developing the Greenway Avenue Station BRTOD Plan.

Figure 7. Community Open House





VISION

The Greenway Avenue Station is envisioned as a Neighborhood Station serving the low-income and demographically diverse community of Landfall and the adjacent Oakdale single-family residential neighborhood. The station provides both transit access to the corridor and an opportunity for placemaking in the station area community.

While there are long-term transit-oriented development sites on the periphery of the station area, there are few opportunities for transit-oriented infill or redevelopment within a five-minute walk of the Greenway Avenue Station. Where development opportunities exist, station-activating commercial uses and affordable and market-rate multi-family development are envisioned.

Strategic enhancements and improvements to key multi-modal transportation routes are intended to provide residents with safe, direct, and convenient BRT access and links to future transit-oriented development sites.

BRTOD VISION

The Greenway Avenue Station vision is a synthesis of corridor-wide and station-specific objectives.

Safe and Active Station Environment

A street-oriented commercial development adjacent to the station should provide an active use, with eyes on the station and an opportunity not presently available to meet residents' daily commercial needs within the station area.

Transit-Oriented Infill

Infill buildings should be oriented to Hudson Boulevard and Dellwood Lane, providing an opportunity for new development that fosters transit use and serves the community. Along Dellwood Avenue, the siting of these buildings can establish a gateway entry and 'front door' to the city of Landfall.

Long Term Transit-Oriented Opportunity Sites

Underutilized parcels (Apostolic Bible Institute and Regan properties) along Hudson Boulevard and Hadley Avenue provide opportunities for additional multi-family development and employment within a half mile of the station. New housing development should include options for a range of incomes and ages.

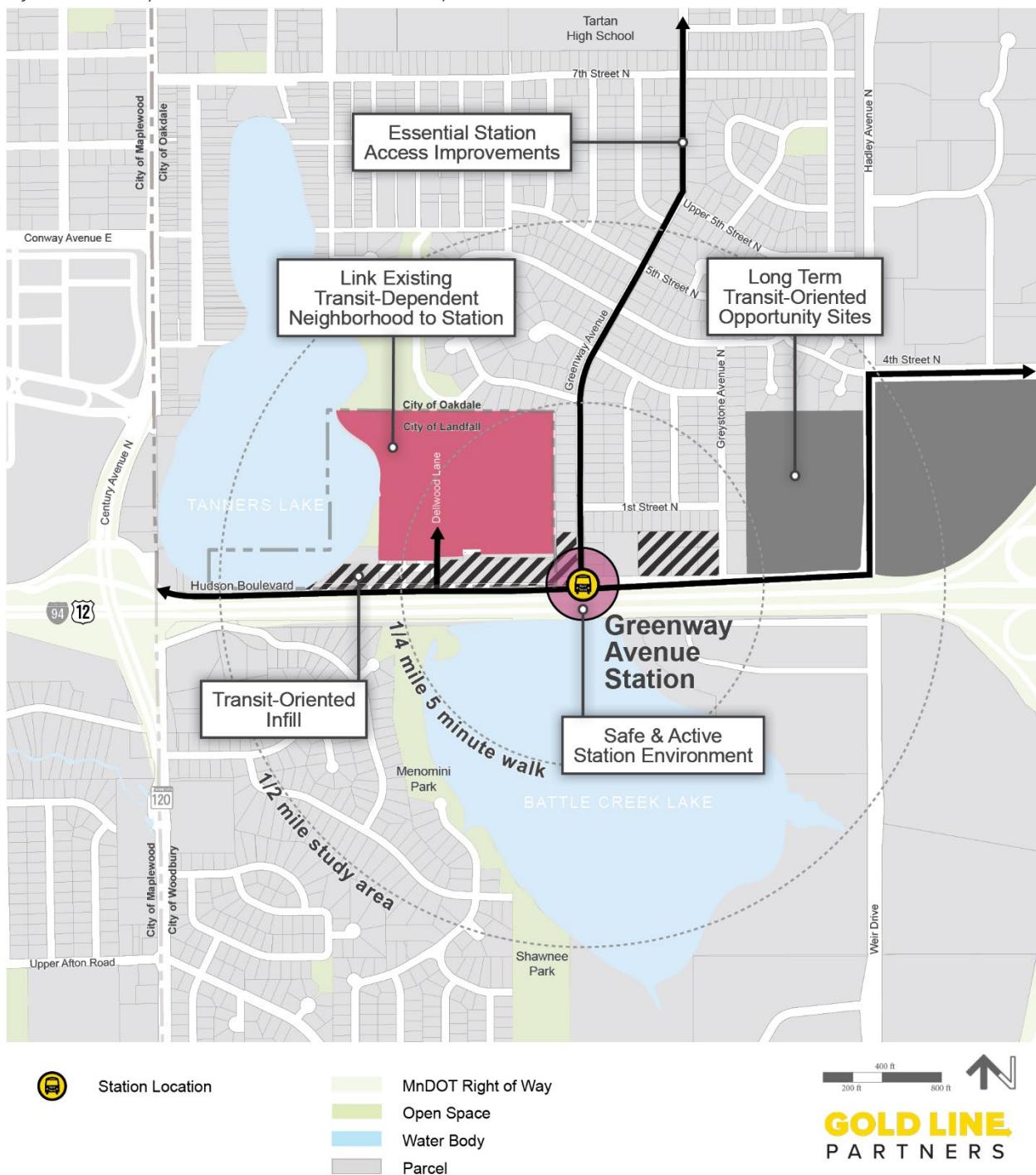
Link Transit-Dependent Neighborhood to Station

Walking and biking improvements are crucial to improving station access for existing residents. These improvements will ensure that Landfall and Oakdale residents benefit from access to corridor-wide job and educational opportunities, health services, and shopping opportunities provided by the Gold Line BRT.

Essential Station Access Improvements

The Gold Line BRT project will provide a continuous bike and walk trail connecting the Greenway Avenue Station to the Maplewood and Helmo stations. Sidewalk and bike improvements on Dellwood Lane provide a direct connection from Landfall to the Greenway Avenue Station. A new trail along Greenway Avenue provides Oakdale residents with safe and direct access to the station and Tartan High School.

Figure 8. Greenway Avenue Station BRTOD Vision Concept





CIRCULATION PLAN

The Circulation Plan focuses on walking and biking access to the station along existing roadways. The Circulation Plan builds upon the basic walking and biking improvements that will be provided by the BRT Engineering project, in some instances identifying minimal enhancements. For other routes, more substantial improvements are proposed to ensure that direct, convenient, and safe station access is provided for walkers and bicyclists.

Circulation plan improvements provide universal access for all, regardless of age and physical ability.



KEY CIRCULATION PLAN ELEMENTS

Corridor Trail

The Corridor Trail links the Greenway Avenue Station west to the Maplewood Station and the 3M Headquarters Building and east of I-694 to the Helmo Station. The Corridor Trail is parallel to the BRT route along Hudson Boulevard, Hadley Avenue, and 4th Street.

Special enhancements are addressed for trail segments on Hudson Boulevard adjacent to Tanner's Lake and along the existing Harley Davidson dealership frontage.

Collector Trails

Collector Trails provide important routes for bicyclists and walkers between the Corridor Trail, neighborhood destinations, and the regional bicycle transportation network. Collector Trails are located along Century Avenue, and Hadley Avenue. Not a part of the BRT project, a future walk and bike bridge between Hadley Avenue and Weir Drive would be desirable for improving station access from south of I-94 and connecting walk and bike facilities between Oakdale and Woodbury.

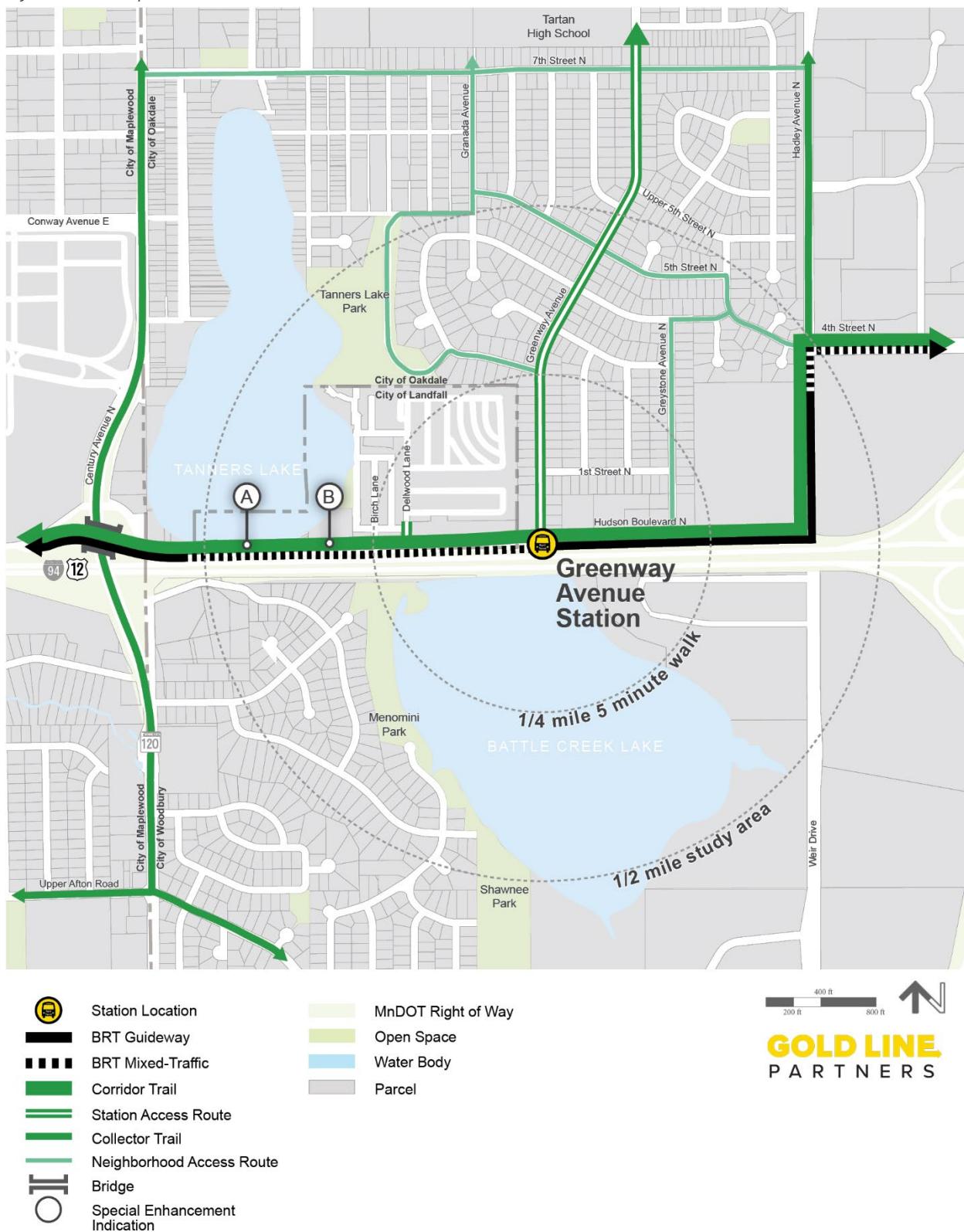
Station Access Routes

Safe and direct pedestrian and bicycle routes along Dellwood Lane and Greenway Avenue provide a 'front door' for Landfall and access from Oakdale neighborhoods and Tartan High School to the station.

Neighborhood Access Routes

Neighborhood Access Routes are low-stress routes linking existing and planned trails.

Figure 9. Greenway Avenue Station Circulation Plan



CORRIDOR TRAIL

The Corridor Trail links the ten stations along the Gold Line corridor.

Figure 10. Existing Hudson Boulevard Trail



The Corridor Trail links the Greenway Avenue Station west to the Maplewood Station and the 3M Headquarters Building and east of I-694 to the Helmo Station.

CORRIDOR TRAIL IMPROVEMENTS

The BRT Engineering project will construct the Corridor Trail between Greenway Avenue and Hadley Avenue.

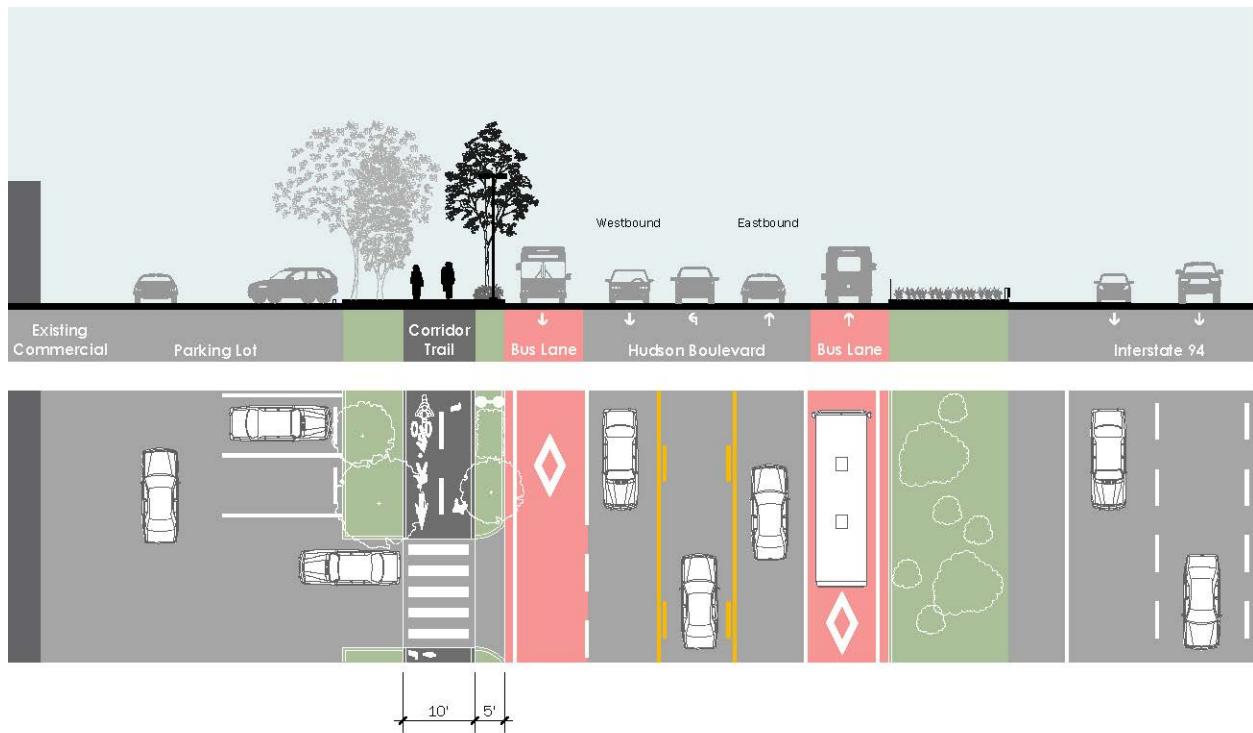
A complete trail design will have the following characteristics:

- Lighting for both the roadway and trail.
- Street trees, shrubs, and groundcover to create a more robust and attractive buffer between vehicles, pedestrians, and bicyclists.
- Relocation of overhead utilities along Hudson Boulevard away from the trail or underground to improve the visual quality of the trail and allow for planting of canopy and ornamental trees along the trail.
- Wayfinding signs at intersections with existing trails.

Special trail elements are located along:

- Ⓐ Hudson Boulevard at Tanners Lake
- Ⓑ Hudson Boulevard at the existing Harley Davidson dealership

Figure 11. Corridor Trail Enhancement



(A) TANNERS LAKE SPECIAL CONDITION

DESIGN ELEMENTS KEY

- 1 CORRIDOR TRAIL
- 2 FENCE
- 3 STREET LIGHTING
- 4 MIXED-USE TRAFFIC LANE
- 5 HUDSON BOULEVARD
- 6 OVERHEAD UTILITIES
- 7 CURB

The Corridor Trail along Tanners Lake between Century Avenue and the Harley Davidson dealership provides a key linkage between Landfall and commercial and lodging development along Century Avenue. To provide adequate trail width and ensure a safe environment separated from high speed traffic, this trail segment is raised above the current roadway elevation with a curb. Additional City enhancements such as overlooks, piers, or other elements that create a recreation amenity along the lake should be considered.

Figure 12. Tanners Lake Existing Condition (Looking East)



Figure 13. Tanners Lake Special Condition (Looking East)

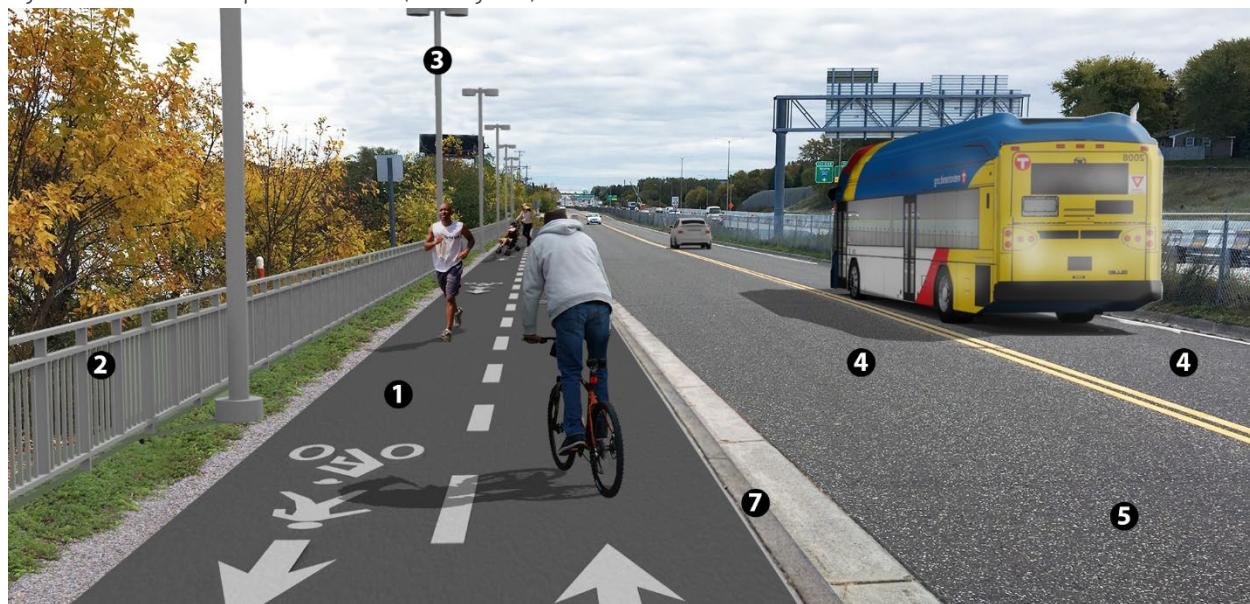
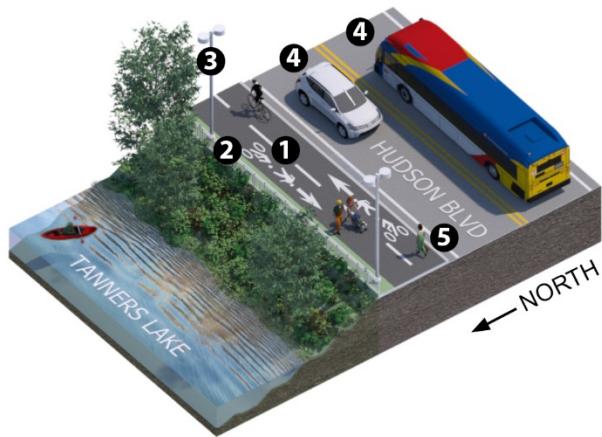
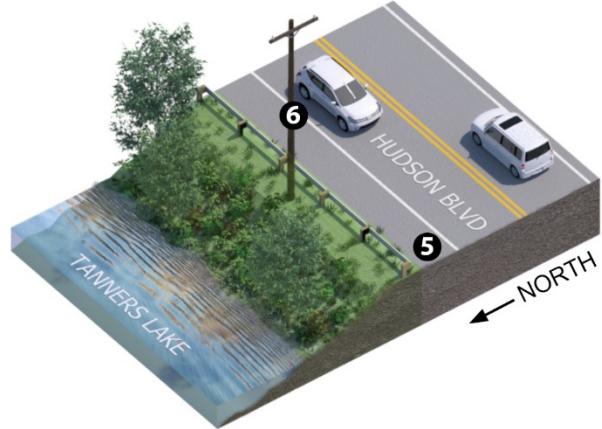


Figure 14. Corridor Trail Special Condition at Tanners Lake

A ENHANCED CONDITION



EXISTING CONDITION



1 CORRIDOR TRAIL

Unobstructed, curb-separated 10-foot-wide trail serving both pedestrians and bicyclists.

2 FENCE

42-inch-tall fence separating the Corridor Trail from Tanners Lake.

3 STREET LIGHTING

Pedestrian-scaled lighting for Corridor Trail users and automobile traffic.

4 MIXED-USE TRAFFIC LANE

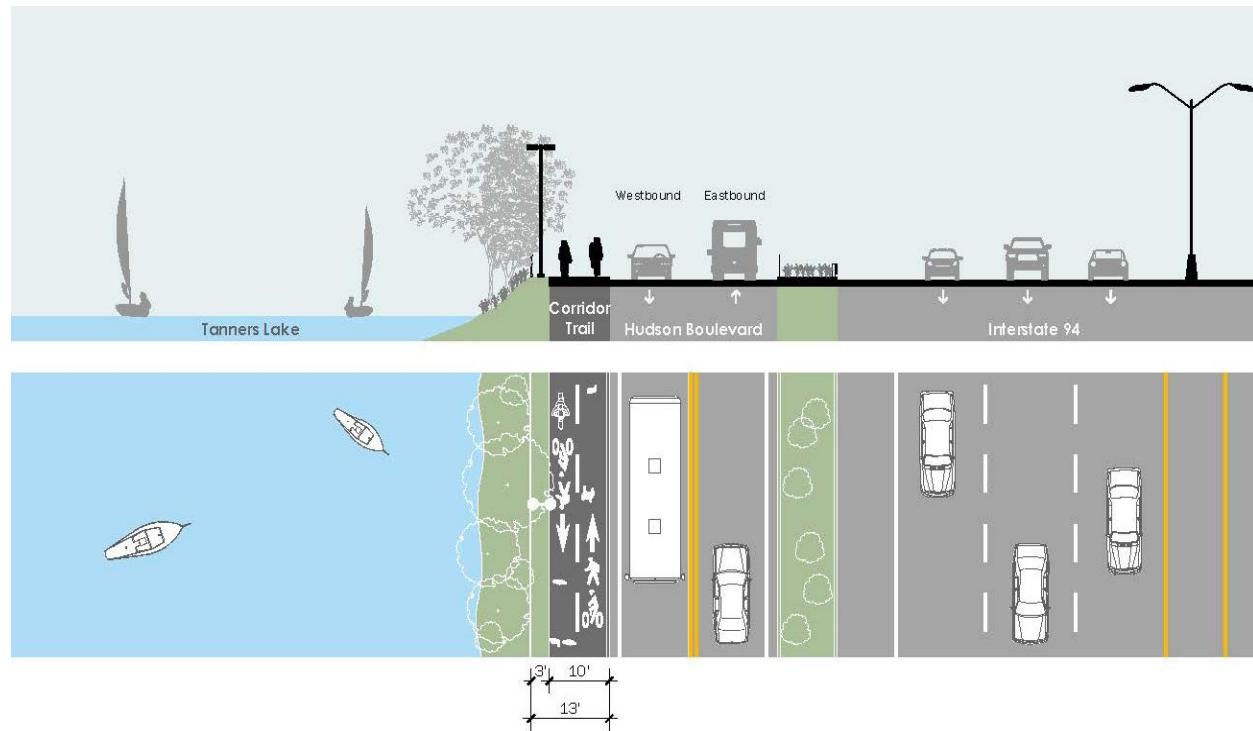
Lane serving Gold Line BRT and automobile traffic.

5 ROADWAY

Existing shoulder and some landscaping to be removed to make room for Corridor Trail and curb.

6 OVERHEAD UTILITY LINES

Existing utility lines to be moved underground to improve visual quality along the lake.



DESIGN ELEMENTS KEY

- ① CORRIDOR TRAIL
- ② LANDSCAPED BOULEVARD
- ③ TRAIL LIGHTING
- ④ MIXED-USE TRAFFIC LANE
- ⑤ HARLEY DAVIDSON DEALERSHIP
- ⑥ EXISTING LANDSCAPING
- ⑦ HUDSON BOULEVARD

(B) HARLEY DAVIDSON SPECIAL CONDITION

To provide adequate trail width and a safe and pleasant environment consistent with the overall character of the Corridor Trail through the Greenway Avenue Station area, enhancements to the BRT Engineering project concept are proposed for the Corridor Trail along the Harley Davidson dealership frontage. Potential City elements include landscaping and lighting.

Figure 15. Harley Davidson Dealership Existing Condition (Looking East)

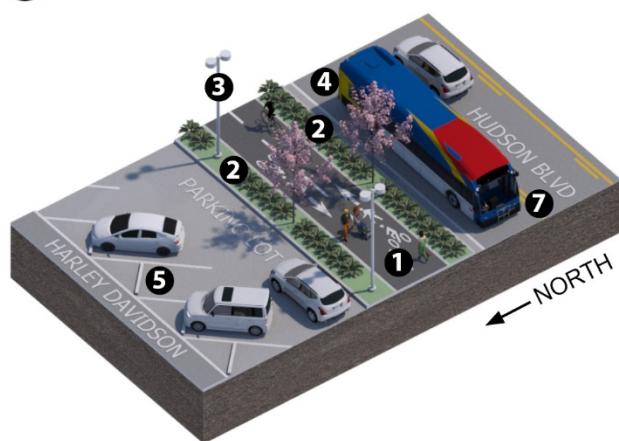


Figure 16. Harley Davidson Dealership Special Condition (Looking East)

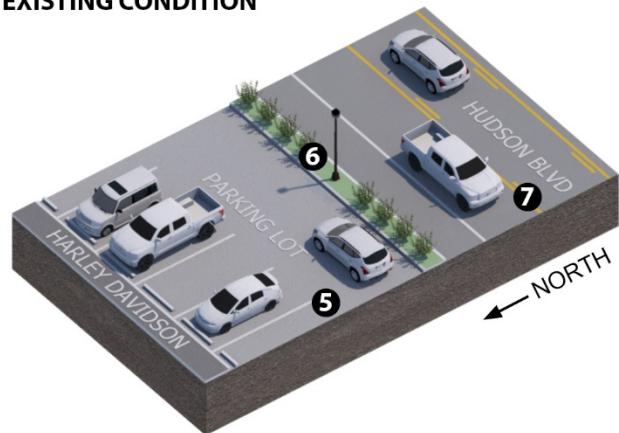


Figure 17. Corridor Trail Special Condition at Harley Davidson Dealership

B ENHANCED CONDITION



EXISTING CONDITION



1 CORRIDOR TRAIL

10-foot-wide multi-use trail serving both pedestrians and bicycles.

2 LANDSCAPED BOULEVARD

Two landscaped boulevards provide visual interest, a traffic buffer for trail users, and snow storage area.

3 TRAIL LIGHTING

Pedestrian-scaled lighting for Corridor Trail users and automobile traffic.

4 MIXED USE TRAFFIC LANE

Lane serving Gold Line BRT and automobile traffic.

5 HARLEY DAVIDSON

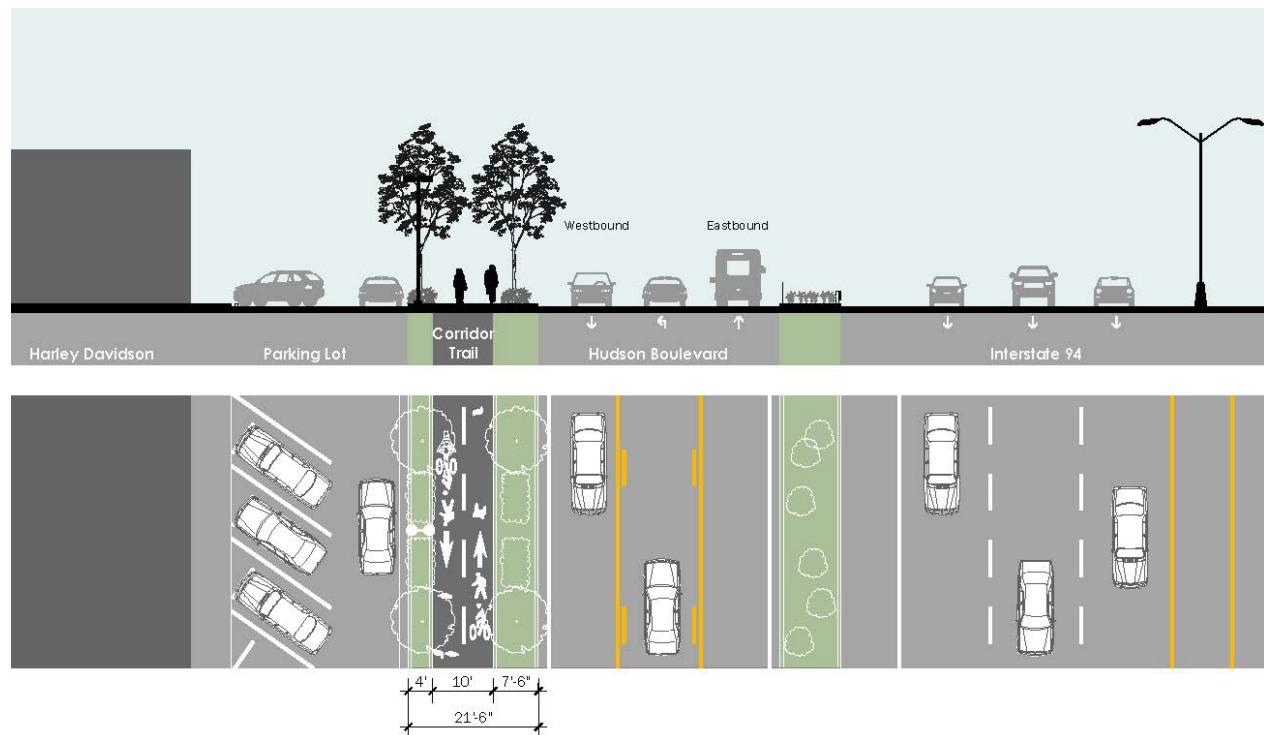
Parking lot narrowed and restriped for one-way car traffic and angled parking.

6 EXISTING LANDSCAPING

Existing landscaped boulevard to be removed to make room for enhanced Corridor Trail.

7 ROADWAY

Existing shoulder to be removed to make room for enhanced Corridor Trail.



Collector Trails are existing and enhanced trails along the periphery of the station area that link the Corridor Trail, neighborhood destinations, and the regional bike network.

Figure 18. Existing Hadley Avenue Trail



Figure 19. New Century Boulevard Trail



Figure 20. Century Avenue and I-94 Intersection



COLLECTOR TRAILS

Located outside the five-minute walking radius, Collector Trails provide important routes for bicyclists and walkers between the Corridor Trail, neighborhood destinations, and the regional bicycle transportation network.

Century Avenue Trail

An existing 10-foot-wide asphalt trail on the east side of Century Avenue between 4th Street and Ridge Drive provides station access south of I-94. The signalized intersection of Hudson Boulevard and Century Avenue currently lacks an east/west crosswalk across Century Avenue.

To improve walk and bike access the BRT Project will:

- Add a pedestrian crossing signal and east/west crosswalk at the intersection of Hudson Boulevard and Century Avenue
- Construct a new 10-foot-wide trail segment on the west side of Century Avenue from the Hudson Boulevard and Century Avenue intersection south to Brookview Drive in Maplewood. This trail will also connect to the Corridor Trail and the 3M campus.
- Future extensions of the Century Avenue trail should continue to 10th Street North

Hadley Avenue

An existing 8-foot-wide asphalt trail links 4th Street north to the regional bicycle transportation network at 10th Street (CSAH 10). The BRT Engineering project will add a 10-foot trail from 4th Street to Hudson Boulevard.

Future I-94 Pedestrian Bridge

A future pedestrian and bicycle bridge over I-94 between Hadley Avenue in Oakdale and Weir Drive in Woodbury would benefit transit riders with improved station access and trail users by connecting trail facilities between the cities.

All of these trails should include:

- Wayfinding signs at intersections with existing trails, BRT station and area destinations.

STATION ACCESS ROUTES

Two Station Access Routes have been identified—Dellwood Lane in Landfall and Greenway Avenue in Oakdale. These routes provide each community with their 'gateway' to transit, without these routes there is no access from Landfall and Oakdale to the BRT station. These routes are identified as important transit connections in each city's Comprehensive Plan.

Since neither Landfall nor Oakdale has a viable alternative for safe, direct, and comfortable walking and biking routes to the station, it is especially important to ensure that routes are well designed. In addition to providing access, both streets are opportunities for 'placemaking' elements that signal the importance of the street, the character of the neighborhood, and the function of adjacent land uses.

Greenway Avenue

Greenway Avenue provides a key linkage between the station, Oakdale neighborhoods and Tartan High School, an important destination just outside the project study area.

Dellwood Lane

As the sole access route between the City of Landfall and the Greenway Avenue Station, Dellwood Lane is a key walking and biking connection to the station. Improvements to Dellwood Lane are the responsibility of the City of Landfall and are identified here for reference.

All of these station access routes should include:

- Wayfinding signs at intersections with existing trails, BRT station and area destinations.

Station Access Routes provide access to transit from destinations outside the Gold Line corridor.

Figure 21. Tartan High School



GREENWAY AVENUE

DESIGN ELEMENTS KEY

- ① MULTI-USE TRAIL
- ② LANDSCAPED BOULEVARD
- ③ STREET LIGHTING
- ④ GREENWAY AVENUE
- ⑤ RESIDENTIAL DRIVEWAY ACCESS
- ⑥ BUS STOP ENHANCEMENTS

Greenway Avenue improvements provide direct, safe, and convenient access within the existing right-of-way from the existing neighborhood north of Hudson Boulevard to the station. A new trail and landscaped boulevard are added along the west side of Greenway Avenue from the station at Hudson Boulevard to 10th Street. On both sides of the street, wide paved areas should be provided at existing Route 219 bus stops to accommodate shelters, benches, signs, and sidewalk ramps.

Figure 22. Greenway Avenue Existing Condition (Looking South)



Figure 23. Greenway Avenue Planned Condition (Looking South)

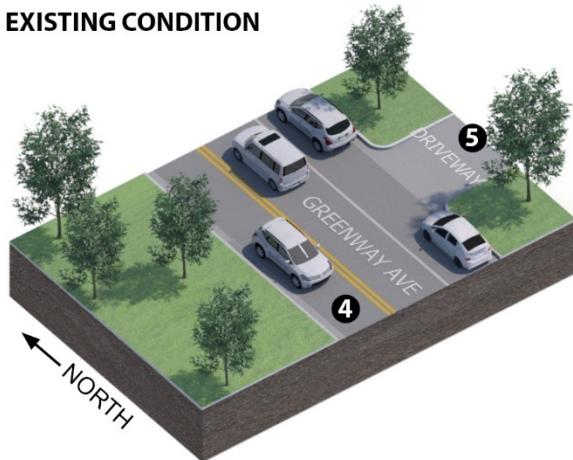


Figure 24. Greenway Avenue

PLANNED CONDITION



EXISTING CONDITION



1 MULTI-USE TRAIL

10-foot-wide walking and biking trail. The location of the trail may vary to avoid significant existing trees or minimize grading impacts to adjacent parcels.

2 LANDSCAPED BOULEVARD

4-foot-wide landscaped boulevard provides a traffic buffer between roadway travel lanes and trail users. During winter months, this area can accommodate snow storage.

3 STREET LIGHTING

Additional pedestrian-scale lighting for both the trail and traffic lanes. Match or maintain existing light poles and fixtures.

4 ROADWAY

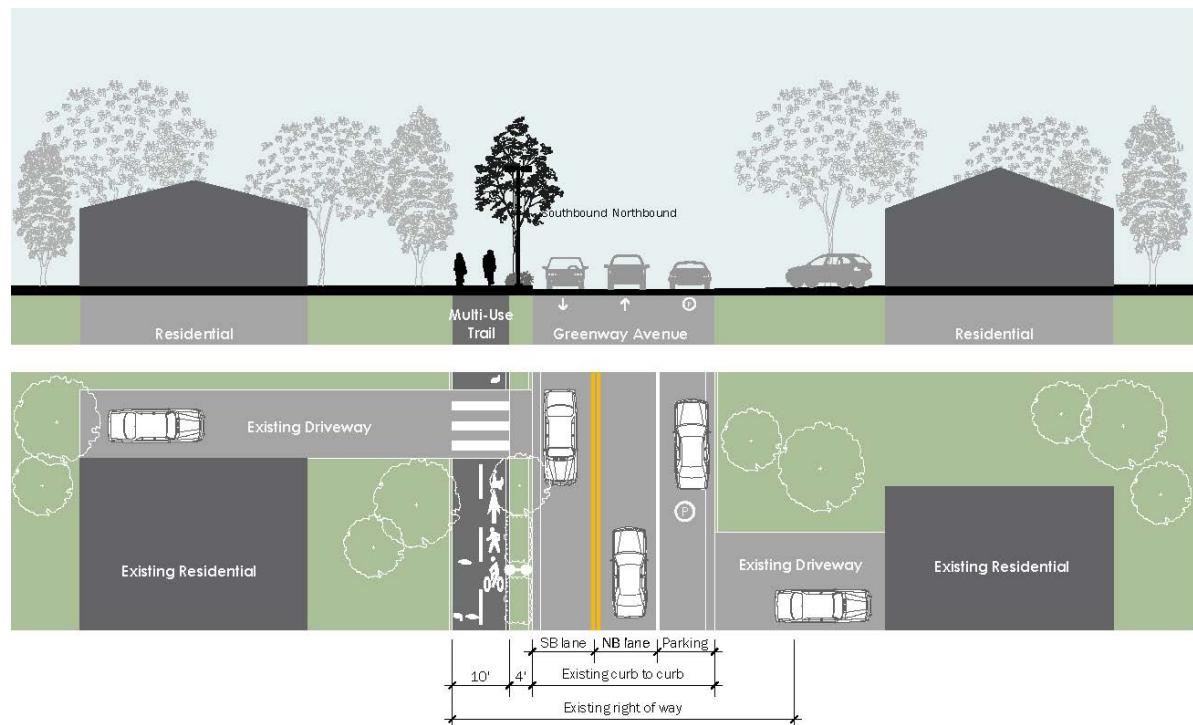
Existing travel lanes and parking are unchanged.

5 RESIDENTIAL DRIVEWAY ACCESS

Existing driveways are maintained along the trail.

6 BUS STOP ENHANCEMENTS

Enhance Route 210 bus stops. Provide handicap ramps, wide paved waiting area, and bench or shelter.



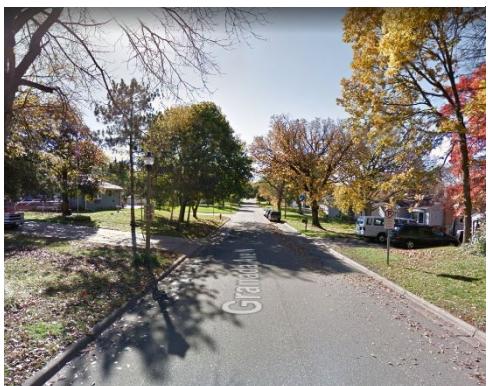
NEIGHBORHOOD ACCESS ROUTES

Streets with low traffic volume provide low-stress walking and biking routes that connect Station Access Routes and the Corridor Trail.

Figure 25. Existing 7th Street



Figure 26. Existing Granada Avenue



The purpose of Neighborhood Access Routes is to connect the neighborhood to the Station Access Routes, Collector Trails, and the Corridor Trail. Walking and biking improvements needed on these streets include:

- **7th Street.** Located outside the half-mile study area, this route provides an important link between existing and planned trails on Century, Hadley and Greenway avenues. A sidewalk exists on the north side of the street; a trail should be studied for the south side of the street.
- **Granada Avenue and Upper 5th Street.** A walking and biking route through the neighborhood may be provided via Granada Avenue N. and 5th Street N. connecting to Hadley Avenue N. via Grovner Avenue N. and 4th Street N. This connection should be studied further for a south/west side off-street trail.
- **Greystone Avenue and 4th Street.** A walking and biking route through the neighborhood may be provided via Greystone Avenue N. and 4th Street N. connecting to Hadley Avenue N.
- **Tanners Lake Park Loop.** Additional walking and biking connections may be provided from the station and neighborhood to the Tanners Lake Park along 2nd Street N. and 5th Street N. An off-street trail should be studied on the south side of 2nd Street N. and either the north or south side of 5th Street N.

All of these trails should include:

- Wayfinding signs at intersections with existing trails, BRT station and area destinations.
- Crosswalks and traffic control devices at busy intersections where warranted.

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DEVELOPMENT PLAN

The Development Plan identifies the type, location, intensity, and character of land uses. The Development Plan should serve as the template to guide new BRTOD policies and regulations.

CITY OF LANDFALL

Landfall's auto-oriented commercial properties provide an opportunity for infill development on large underutilized parking lots. Transit-oriented development on these lots could include commercial infill along Dellwood Lane that preserves and maintains the function of existing uses while creating opportunities for BRTOD.

In Landfall, current zoning restricts commercial uses that might otherwise be attracted to the city and provide goods and services for Landfall residents.

CITY OF OAKDALE

Oakdale's commercial properties at the Greenway Avenue Station and along Hudson Boulevard provide opportunities for bus rapid transit-oriented development in the station area. Further east of the station, approximately 60 acres of underutilized and vacant properties along both sides of Hadley Avenue offer longer-term transit-oriented development opportunities. In Oakdale, transit-oriented development infill opportunities for multi-family housing and commercial uses (retail, services and office) take advantage of existing roadway access, the BRT station, and visibility from I-94.

Figure 27. Dellwood Lane Parking Lots

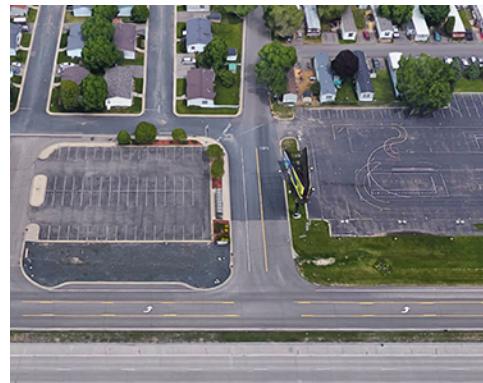


Figure 28. Greenway Avenue Underutilized Parcel



The market analysis identified near term demand (within 7 years) within a ½ mile of the station for 200 market rate apartments, 160 workforce rental apartments, 45,000 square feet of retail and services, and 80,000 square feet of professional office.

The Development Plan locates transit-oriented commercial, multi-family, and employment uses. The densities and amounts of development identified support transit use.

COMMERCIAL

New Dellwood Lane commercial uses provide daily-needs goods and services conveniently accessible for Landfall residents. At the station, convenient commercial uses, such as a café, support an active station environment.

MULTI-FAMILY

Market-rate and workforce rental apartments within walking distance of the station expand housing opportunities in the station area.

EMPLOYMENT

Employment uses provide professional office and flex/office such as research and development and light manufacturing, on sites visible from I-94/I-694 with direct access from 4th Street and Hadley Avenue.

Table 1. Greenway Avenue Station Area Development Plan Summary

| LAND USE | SITE AREA | DENSITY | COMMERCIAL BLDG. AREA ³ | | MULTI-FAMILY ⁴ | | PARKING | |
|--|-----------------------------|-----------------|------------------------------------|------------------------|--------------------------------|-----------------------------|---------------------------|---------------------------|
| | | | EMPLOYMENT | RETAIL/ SERVICES | BLDG. AREA | DWELLING UNITS ⁵ | REQUIRED ⁶ | PROVIDED |
| Landfall Commercial | 36,700 sf | 0.4 FAR (min.) | -- | 16,000 sf ¹ | -- | -- | 40 spaces | 40 spaces |
| Commercial (Hudson Blvd.) | 48,000 sf | 0.20 FAR (min.) | -- | 10,000 sf ² | -- | -- | 25 spaces | 25 spaces |
| Multi-Family (Hudson Blvd. & Greystone Ave.) | 185,000 sf | 20-50 du/ac | -- | -- | 85,000 to 210,000 sf | 85 to 210 du ² | 85 to 210 spaces | 85 to 210 spaces |
| Multi-Family (ABI Property) | 1,070,000 sf | 20-50 du/ac | -- | -- | 343,000 to 850,000 sf | 343 to 850 du ² | 343 to 850 spaces | 343 to 850 spaces |
| Employment (Regan Property) | 1,555,000 sf | 0.50 FAR (min.) | 600,000 sf ² | -- | -- | -- | 1,500 spaces | 1,500 spaces |
| TOTAL | 3,128,000 sf (72 ac) | -- | 600,000 sf | 26,000 sf | 428,000 to 1,060,000 sf | 428 to 1,060 du | Up to 2,625 spaces | Up to 2,625 spaces |

¹ City of Landfall development potential and yield based on development concepts.

² Yield based on development concepts and City of Oakdale estimates.

³ Commercial: Employment consists of uses such as professional office, education, job training, and medical offices and clinics. Retail and Services consists of uses that engage in the sale of goods and merchandise, dining, entertainment, and services such as daycare, financial, and real estate.

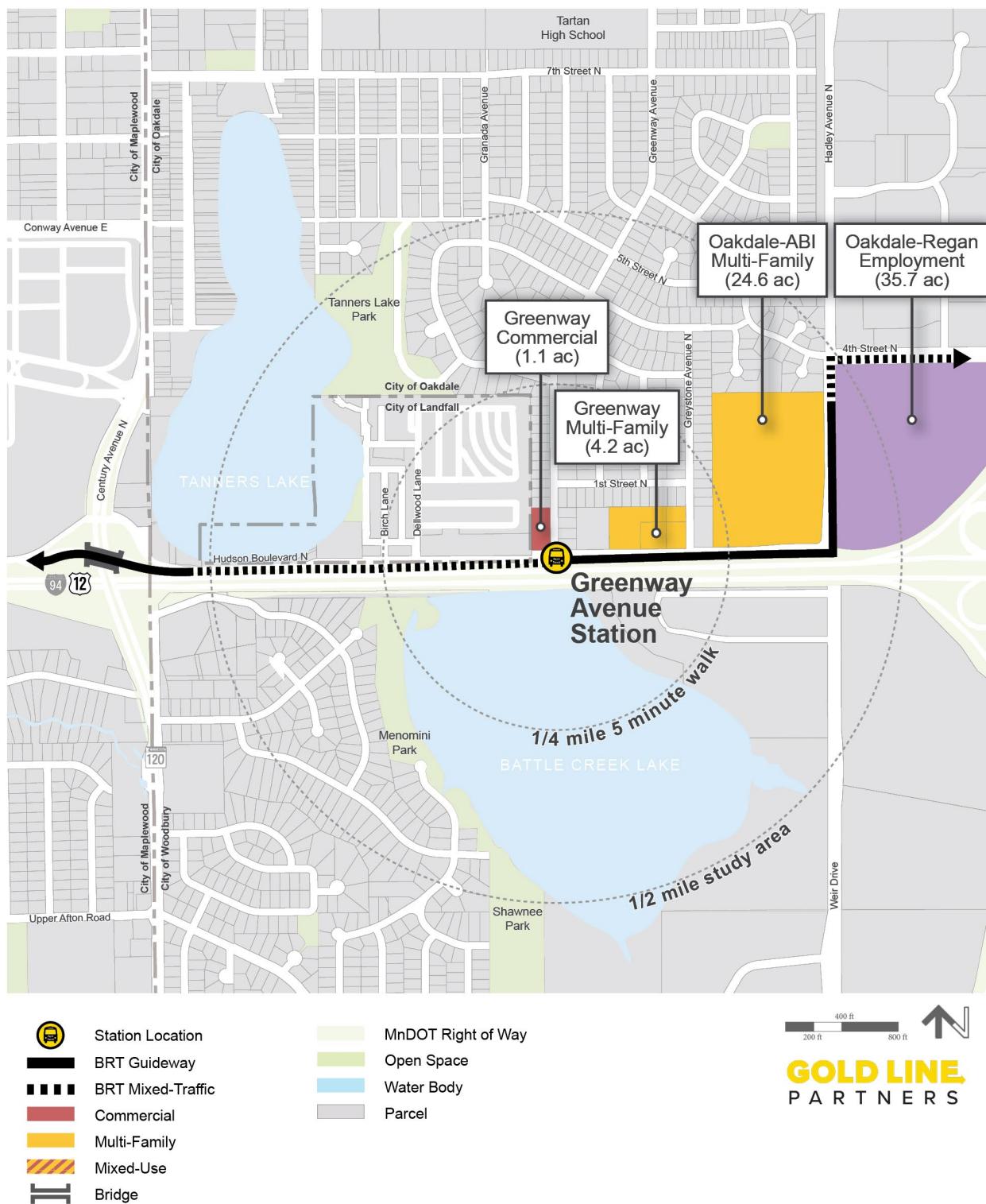
⁴ Multi-Family building heights are limited to a maximum of four stories

⁵ Multi-Family Assumptions: 1-bedroom units; 1000 sf per unit

⁶ Parking Assumptions: 2.5 spaces per 1000 sf commercial; 1 space per dwelling unit multi-family

Units of Measure: Acres (ac); Square Feet (sf); Floor Area Ratio (FAR); FAR calculated as building area divided by site area; Dwelling Units (du)

Figure 29. Greenway Avenue Station Area Development Plan



CITY OF OAKDALE DEVELOPMENT CHARACTER

The Development Plan supports the fundamentals of transit-oriented development and where redevelopment or infill occur, the following characteristics should be fostered:

- Commercial buildings should front Greenway Avenue, be built to the sidewalk, and directly accessible from the Corridor and Greenway Avenue trails.
- Convenient curbside parking located on Greenway Avenue that can also serve as pick-up and drop-off for transit.
- Multi-family buildings should be set back from the street to provide a buffer from Hudson Boulevard and I-94.
- Commercial or multi-family building windows and doors should be oriented to Hudson Boulevard and the Greenway Avenue Station to create an urban street edge and support a pedestrian- and bike-friendly public realm.
- Off-street parking should be located behind, to the side of, or within buildings and properly screened from sidewalks.

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INFRASTRUCTURE PLAN

The Infrastructure Plan summarizes improvements to water, sanitary, and stormwater utilities in the City of Oakdale and in the City of Landfall that are necessary to serve new development parcels identified in the Development Plan.

Infrastructure improvements are calculated based on the density and intensity of anticipated BRTOD commercial and housing uses. The Plan identifies the size and location of supply lines and any potential main line capacity improvements.

The existing water main line has adequate capacity to support existing and future development.



WATER

The City of Oakdale's South Water Zone provides the water distribution system for Oakdale and Landfall within the station area. The water distribution network consists of main line pipes and service line pipes ranging in size from 6 inches to 8 inches in diameter.

Existing water main lines provide adequate service and pressure to meet the both existing peak daily demand and to serve the type and density of future development without impacting the overall existing neighborhood. For all proposed redevelopment sites, new connecting 6-inch water supply lines will be required. To confirm these calculations, updated flow tests will need to be completed prior to development to verify system capacity.

The capacity of existing sanitary service to adequately support new future development is uncertain.



SANITARY

Sanitary sewer service is provided by the Metropolitan Council Environmental Services (MCES) regional sewer system. Service is provided through a network of existing sanitary sewer pipes that drain to a 15-inch diameter pipe along Hudson Road, to a wastewater metering station, and then to a 36-inch diameter pipe. The 36-inch sewer conveys all wastewater to the southwest where it joins the MCES WONE (Woodbury, Oakdale, Northdale, and East Oakdale) east interceptor and discharges to the Metropolitan Wastewater Treatment Facility located in the City of Saint Paul.

Based on the MCES metering station results, meeting the needs of additional development does not exceed the assumed capacity of the 36-inch diameter pipe.

STORMWATER

Due to poor quality soils and high groundwater levels, below-ground vault or filter filtration systems rather than above-ground ponds or swale infiltration systems are recommended for development of parcels along Hudson Boulevard.

A conceptual treatment system for new development includes constructing an underground detention system within each of the development sites. The subsurface filtration system would need to support a 43,000 square feet stormwater treatment area to accommodate the Greenway BRTOD Development Plan for parcels located along Hudson Road and excluding any public improvements within Hudson Boulevard or other public right-of-way. The system would provide capacity for retention of the required filtration volume, as well as larger rainfall events. Depending on the final design, there may be an opportunity to reduce the area dedicated to the regional underground stormwater treatment system by including available pond storage areas adjacent to the development.

Further analysis will be needed for any development plan and consequently could influence the amount of actual development.

A below-ground stormwater filtration system is proposed for each BRTOD development site.





IMPLEMENTATION PLAN

The Implementation Plan identifies the strategies needed to realize the Greenway Avenue Station Circulation and Development Plans.

Projects

Implementation projects are organized into two categories:

- **Circulation projects** provide safe and direct neighborhood access to the station and improve the comfort and character of access routes.
- **Development projects** are regulatory recommendations for the policy updates and additional planning or technical studies that are necessary to construct the circulation projects and build transit-oriented development.

CITY OF OAKDALE

CIRCULATION PROJECTS

Corridor Trail Enhancements

Corridor Trail Elements

The City of Oakdale should prepare a Corridor Trail streetscape plan to include design, construction and funding for trail elements that are outside of the BRT project or that ensure a higher standard and quality than is indicated in the BRT preliminary engineering drawings. The streetscape plan would incorporate elements for trail segments on:

- Hudson Boulevard from Century Avenue to Hadley Avenue
- Hadley Avenue (west side of street) from Hudson Boulevard to 4th Street N
- 4th Street N (north side of street) from Hadley Avenue to the 4th Street Bridge.

Design elements for all segments should include consistent trail-wide standards for:

- Roadway and trail lighting
- Shrubs, groundcover, and street tree plantings within landscaped boulevards
- A 10-foot trail
- Center of trail striping with bike and walk markings on the pavement
- Corridor trail signage and wayfinding

Corridor Trail Hudson Boulevard-Tanner's Lake Segment

Additional elements beyond the BRT Project improvements for this segment should provide for:

- An overlook between the trail and the lake to include benches, ornamental fence and railing and wayfinding.
- Further study for a Tanner's Lake perimeter trail, and other opportunities for interpretive signing, overlooks or shoreline access should be prepared.
- Ornamental fence and railing standards

Greenway Avenue Trail

The City of Oakdale should prepare a Greenway Avenue streetscape plan to include design, construction and funding for trail enhancements on the west side of the street. Trail design elements would extend from Hudson Boulevard to 10th Street and should include

- Consistent standards for roadway and trail lighting
- Shrubs, groundcover, and street tree plantings within a 4-foot landscaped boulevard
- A 10-foot asphalt trail
- Center of trail striping with bike and walk markings for each direction on the pavement
- Trail crossing at driveways should be level
- Concrete curb ramps at intersections with depressed corners and detectable warning to mark the transition between the sidewalk and street
- Corridor trail signage and wayfinding
- Enhanced bus stops

Neighborhood Access Routes

The City of Oakdale should prepare streetscape plans to include further study, design, construction and funding for neighborhood access route improvements as follows:

- **7th Street.** a trail should be studied for the south side of the street.
- **Granada Avenue and Upper 5th Street.** A walking and biking route via Granada Avenue N. and 5th Street N. connecting to Hadley Avenue N. via Grovner Avenue N. and 4th Street N. This connection should be studied further for a south/west side off-street trail.
- **Greystone Avenue and 4th Street.** A walking and biking route through the neighborhood may be provided via Greystone Avenue N. and 4th Street N. connecting to Hadley Avenue N.
- **Tanners Lake Park Loop.** An off-street trail should be studied on the south side of 2nd Street N. and either the north or south side of 5th Street N.

Greenway Avenue Trail

Neighborhood Access Routes

ABI & Regan Properties Small Area Plan

DEVELOPMENT PROJECTS

Future Small Area Plan (ABI and Regan Properties)

More detailed planning is needed to determine the longer-term redevelopment and development potential on the Apostolic Bible Institute (ABI) and Regan properties located between the Greenway Avenue and Helmo Avenue stations.

The properties include a combined sixty acres of under-utilized and vacant parcels along Hadley Avenue and 4th Street. The city's comprehensive plan designates these properties for institutional and office/limited business and are zoned as a Gateway District, intended to support landmark office, conference, medical, or hotel uses that take advantage of high visibility from I-94 and 494. The Gold Line BRT route passes between the properties but without a station.

The small area plan for the Apostolic Bible Institute and Regan properties should precede any development/redevelopment proposals and ought to consider how the uses may be transit supportive. The small area plan should also consider the potential location of an additional BRT station should development intensities and the BRT project office warrant it.

2040 Comprehensive Plan Policy and Zoning Ordinance Amendments

2040 Comprehensive Plan Amendment

Amend the Commercial designation for Oakdale properties identified in the Development Plan to allow for a mix of commercial, multi-family and office uses in proximity to the Greenway Avenue station.

Oakdale 2040 Comprehensive Plan amendments should transition the existing single-use commercial designation for properties along Hudson Boulevard and Greenway Avenue to a mix of transit-supportive development (high density residential, office and commercial/retail uses).

Zoning Ordinance Amendment

The subject properties along Hudson Boulevard are within the Zoning Code's Community Commercial District and allow retail and office uses but not multi-family residential. In order to implement the Development Plan the parcels would need to be rezoned to allow for retail, office and residential uses as either a single use or mixed-use development.

Figure 30. City of Oakdale Projects

