

21ST STREET STATION

CITY OF MINNEAPOLIS

SOUTHWEST CORRIDOR INVESTMENT FRAMEWORK
TRANSITIONAL STATION AREA ACTION PLAN



Hoisington Kogler Group Inc.



SOUTHWEST LRT
community works
www.swlrtccommunityworks.org



Hennepin

ABOUT THIS CHAPTER:

The Transitional Station Area Action Plans are the product of a Hennepin County led effort to help communities along the Southwest LRT corridor prepare for SW LRT's opening day in 2018 and beyond.

An individualized plan has been created for each of the 17 stations in the Southwest Corridor, each plan comprising a chapter in the larger Southwest Corridor Investment Framework. The station area action plans suggest ways to build on local assets, enhance mobility, identify infrastructure needs, and capitalize on promising opportunities for development and redevelopment near each station.

Note: The Metropolitan Council has not determined the Southwest LRT project scope and budget. As of December 2013, the Southwest Project Office recommends two (2) shallow tunnels through the Kenilworth Corridor and the elimination of the 21st Street Station.

Plan Components:

INTRODUCTION 5-2

A brief overview of the station location and its surroundings

WHERE ARE WE TODAY? 5-4

A description of existing conditions in the station area, including:

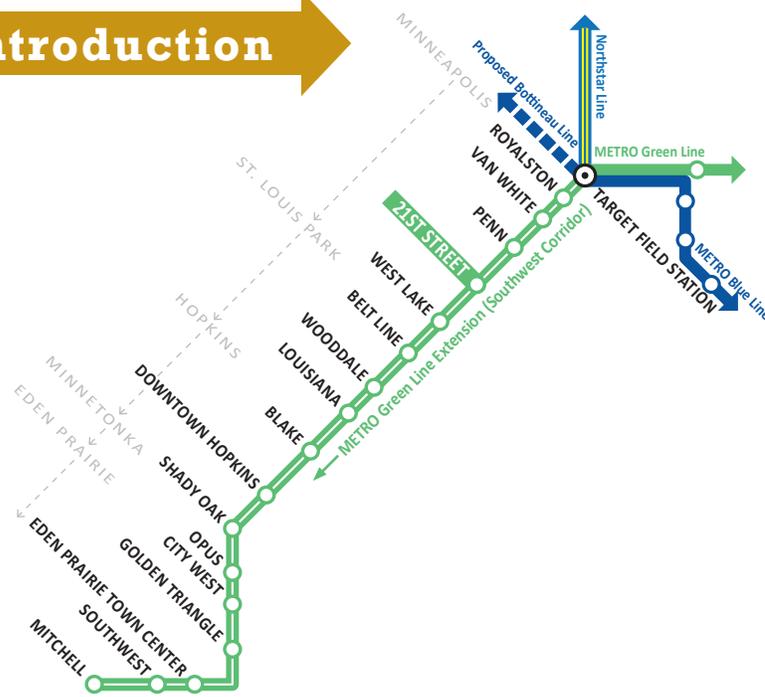
- » Land Use
- » Transit Connections
- » Access + Circulation Issues (Bike, Ped, and Auto)
- » Infrastructure Needs

WHERE ARE WE GOING? 5-8

This section presents a number of recommendations for the station area in anticipation of opening day needs and the long-term TOD environment. Recommendations are provided for both potential station locations. This includes:

- » Access + Circulation Plan
- » Station Area Site Plan
- » Infrastructure Plan
- » Development Potential
- » Summary of Key Initiatives

Introduction



21ST STREET STATION WITHIN THE CORRIDOR:

An important gateway to the regional trail and open space network and neighborhood station.

GREEN GATEWAY The 21st Station is the most significant Green Gateway (see Place Types discussion beginning on p.1-19) along the Southwest LRT Corridor providing access to trails and open space networks that extend throughout the region. East Cedar Beach on Cedar Lake and the Minneapolis Chain of Lakes are within close proximity of the station and provide area residents and visitors with a range of recreational activities.

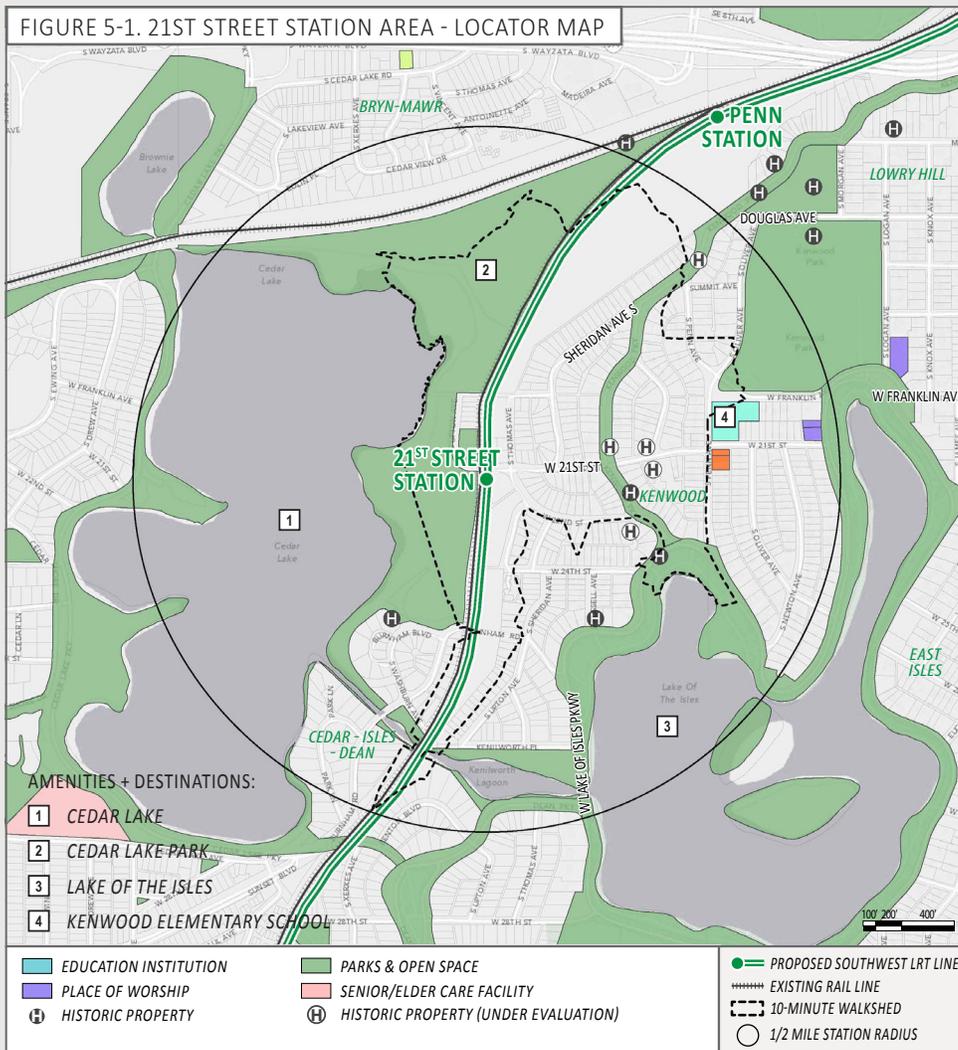
TRAIL CONNECTIONS The busy Kenilworth Trail can be accessed from the east end of the station. With links to the Cedar Lake LRT Regional Trail and the Minneapolis Grand Rounds bike network, the Kenilworth Trail serves as both a recreational destination, commuter bicycling route, and an important neighborhood connector.

NEIGHBORHOOD The station borders the Kenwood neighborhood which consists of mainly single-family housing. Local residents travelling to metro area destinations are expected to generate the transit ridership at the station. The general inaccessibility from arterial streets will make access to the station more challenging for those commuting into the station from beyond local neighborhoods. National Register listed/eligible historic properties in the station area include elements of the Grand Rounds Historic District (Kenwood Parkway, Lake of the Isles Parkway, and Cedar Lake) and several historic houses.

OTHER DESINTATIONS The Kenwood Community Center, situated just north of Lake of Isles on W. Franklin Ave, offers year-round recreational services and facilities. Adjacent to the community center are Kenwood Park and Kenwood Elementary School.

Station Location

The 21st Street station is located between Cedar Lake and the Kenwood neighborhood. The station will likely serve recreational users enjoying Cedar Lake, the Minneapolis Chain of Lakes, the regional trail system, and the Grand Rounds, as well as residents living in the station area.



NOTE: 10-minute walkshed approximates the area accessible within a 10-minute walk from the station platform using only the existing sidewalk/trail network. See Glossary for walkshed assumptions and methodology.

21ST STREET STATION AREA TODAY:



Rail and trail corridor



Cedar Lake LRT Regional Trail



Single-family housing surrounding the station



East Cedar Beach adjacent to the station



Neighborhood residential

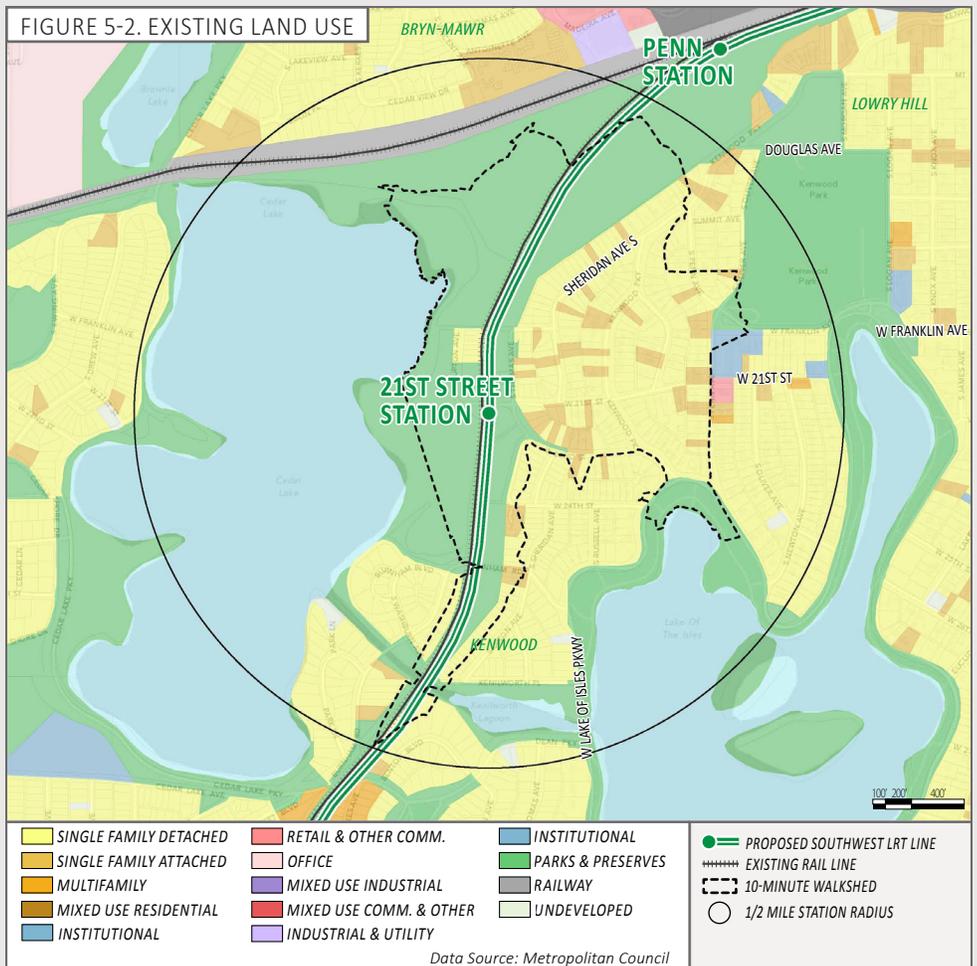
Where Are We Today?

The following section describes the station area's **EXISTING CONDITIONS**, including the local context, land uses, transit and transportation systems, pedestrian and bicycle facilities, assets, destinations, and barriers to accessing the station. This analysis of current conditions presents key issues and opportunities in the station area and informs the recommendations for future station area improvements.

NOTE: Existing conditions maps are based on data provided by Hennepin County and local municipalities. The data used to create each map is collected to varying degrees of accuracy and represents infrastructure and conditions at varying points in time. Actual conditions may vary slightly from what is shown.

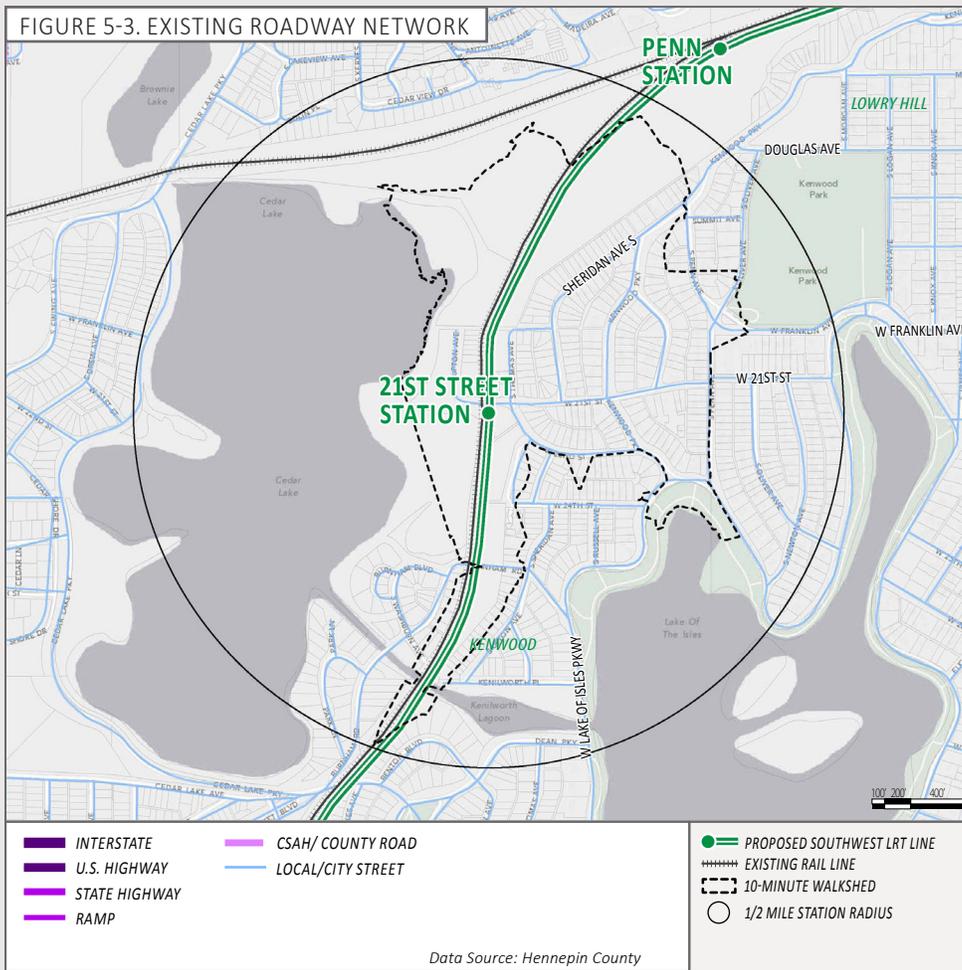
Land Use

Land uses in the 21st Street station area are split between single-family residential and park land. Much of the area within the half-mile radius around the station consist of Cedar Lake and Lake of the Isles. The Kenilworth Trail runs adjacent to the proposed station platform, as well as the freight rail line. East Cedar Beach is located a block to the west of the station on Cedar Lake. A community center, elementary school, and neighborhood commercial node are located to the east of the station, in the center of the Kenwood neighborhood.



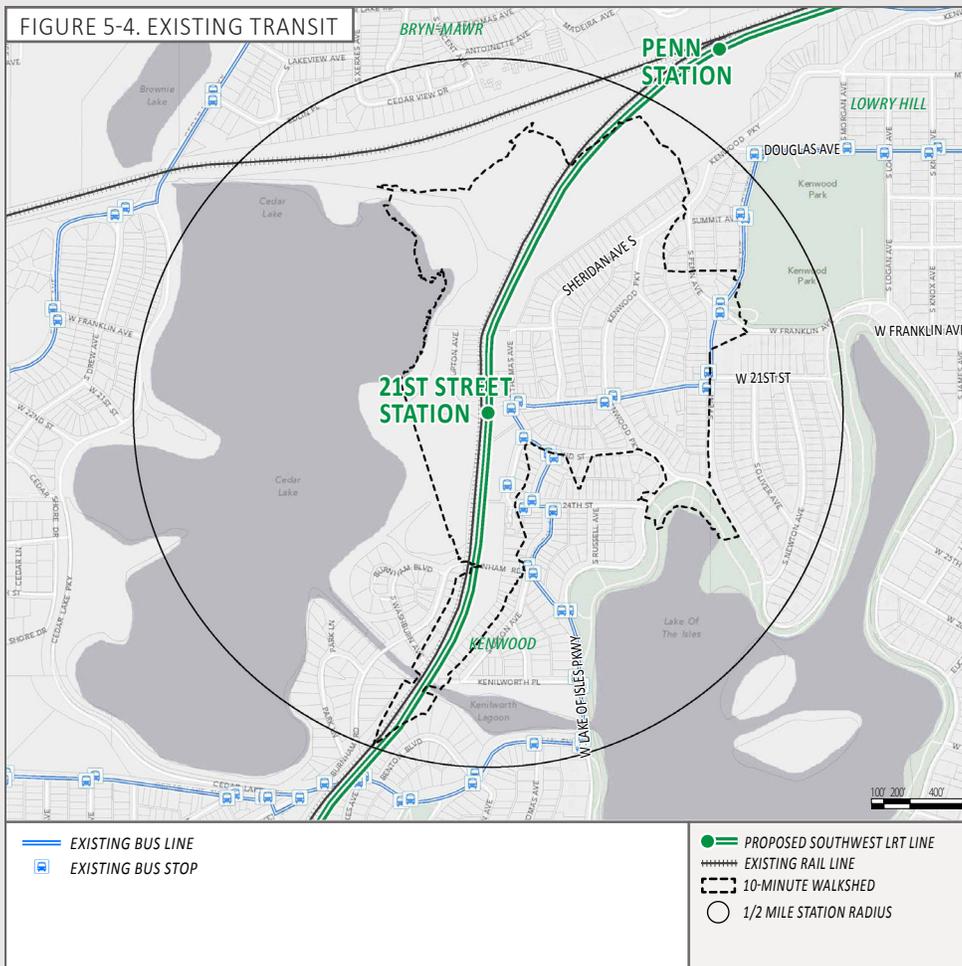
Roadway Network

The roadway system in the station area is dominated by local residential streets. The local street system is circuitous and confusing, making access to the station difficult for people not familiar with the area. This environment might suggest that the primary users of the LRT line at this station will primarily be local residents. There is no direct highway access to the station area and collector roadways are a fair distance from the station.



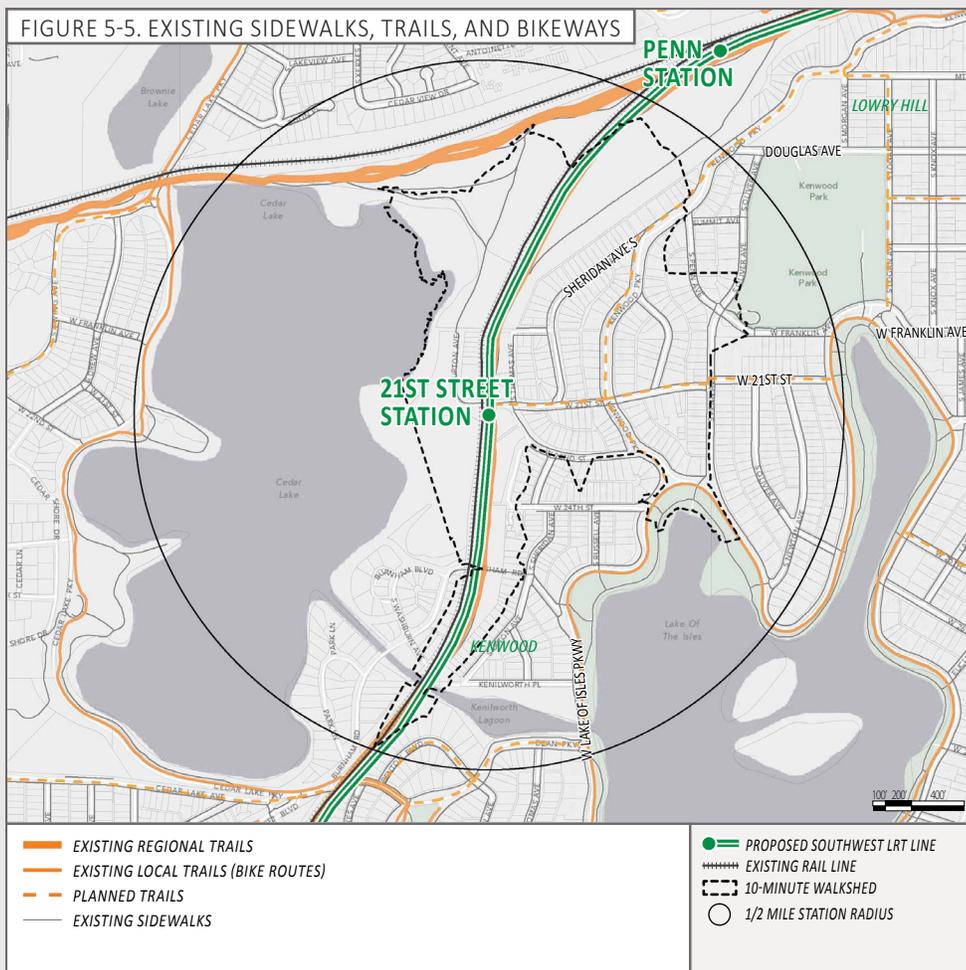
Transit

The station area is currently served by bus route #25. The closest bus stop is currently 300 feet from the proposed station platform.



Sidewalk, Trails and Bikeways

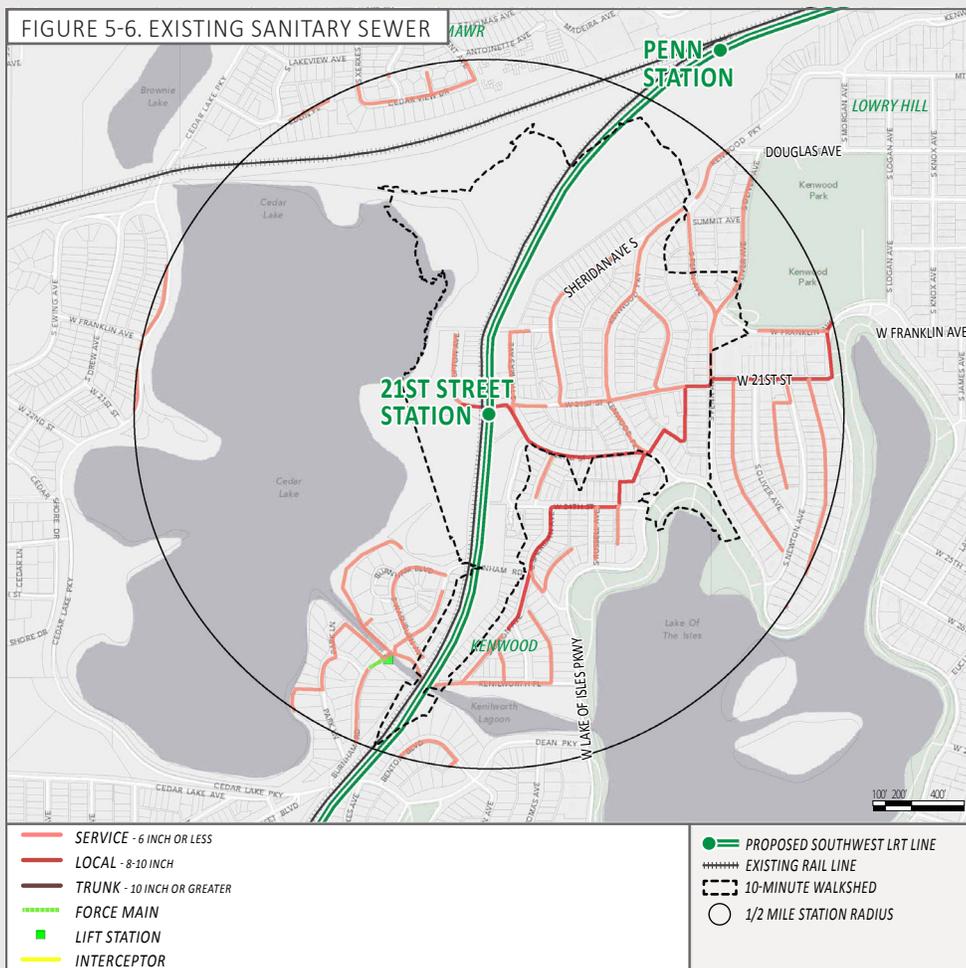
The proposed 21st Street Station is located adjacent to the multi-use Kenilworth Trail. This trail connects to the Cedar Lake LRT Regional Trail and the Minneapolis Grand Rounds system, so it is well connected to regional trail systems. Local streets in the station area contain sidewalks with only a few exceptions. Bike routes have been planned on 21st Street and Sheridan Ave by the City of Minneapolis. These routes will connect transit/bike users to the Chain of Lakes trail system.



Sanitary Sewer

Sanitary sewer infrastructure consists of a collection of gravity flow sewer mains, lift stations, and pressurized forcemains that transport sewage to a wastewater treatment plant (WWTP). An efficient collection system has the capacity to accommodate all of the existing land uses within its particular sewershed. Beyond capacity, the material and age of pipes within a system can also impact a system's effectiveness.

Sanitary sewer infrastructure within the project area is typically maintained by either the City of Minneapolis or by the Metropolitan Council Environmental Services (MCES) Division. MCES maintains a series of interceptor trunk sewers which collect sewage at key locations and convey sewage across community boundaries to regional WWTPs. Wastewater from the station area is treated by the MCES Metro WWTP located in St. Paul.



Water Main

Water main distribution systems serve to supply potable water to individual properties and to support fire suppression throughout the community. A well-designed system can maintain adequate pressure to support demand of individual properties and provide high flow rates to fire hydrants/fire suppression systems in emergency situations. Because of the complexity of water distribution networks and the importance of pressure, flow, and water quality, City water system models are used to evaluate a system's adequacy. The material and age of the system's water mains can also be factors in system breaks, leaks, and pressure and flow degradations.

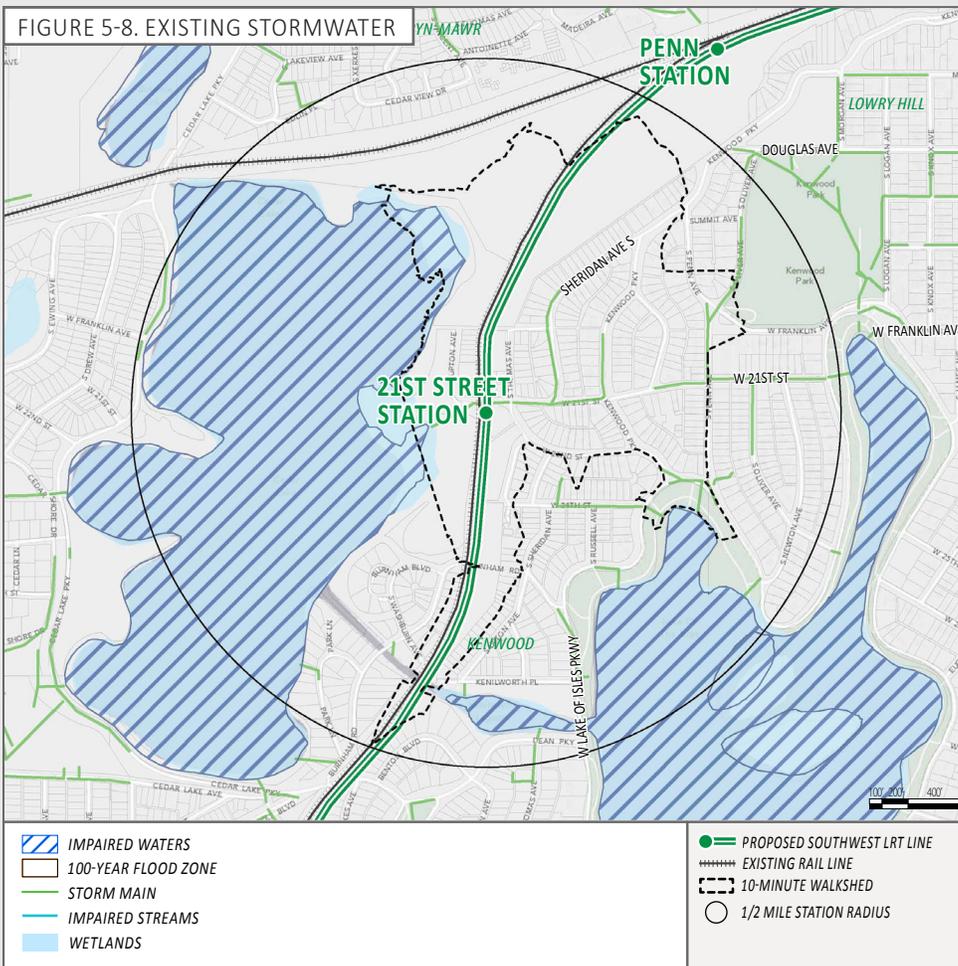
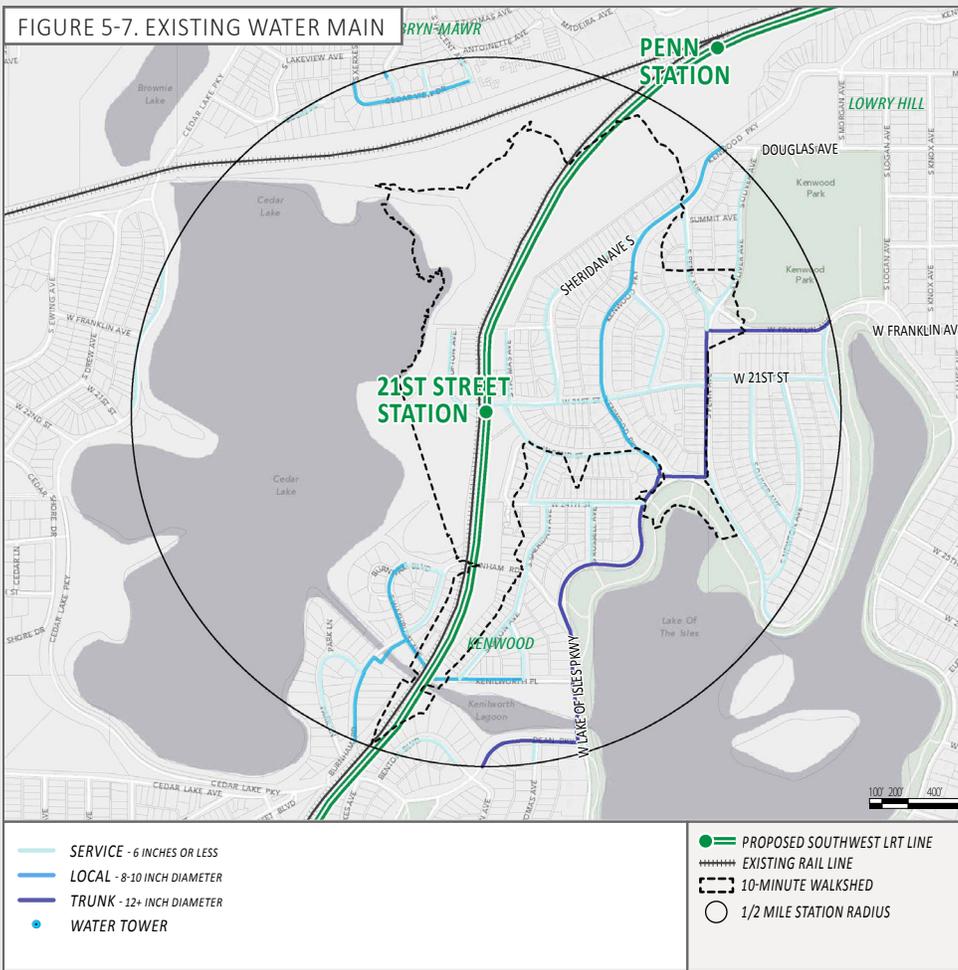
Water pressure and flow rates can be influenced by: the size of water main serving an area, proximity and elevation relative to a water tower, proximity to a trunk water main with high flow capacity, if the main creates a loop, the demand of adjacent land uses, and the condition of the main.

Stormwater

21st Street station is located within the Minnehaha Creek Watershed District (MCWD). Drainage from the 10-minute walk zone drains to Lake of the Isles or Cedar Lake, both of which are impaired by PFOS (Fluorinated chemical used in coatings) and mercury.

Discharging within one mile of impaired water may trigger additional MN Pollution Control Agency NPDES (National Pollution Discharge Elimination System) requirements for additional stormwater management. For impaired waters where a TMDL (Total Maximum Daily Load) has been approved, these requirements may increase further.

Any development/redevelopment that occurs as a result of constructing this station is anticipated to improve the existing drainage conditions as a result of enforcing the City and the watershed requirements.



Where Are We Going?

The plans and diagrams on the following pages illustrate a range of recommendations for infrastructure improvements, station amenities, and potential redevelopment opportunities within the station area.

The ACCESS AND CIRCULATION PLAN shown in Figure 5-9 provides a high level view of how future transit, automobile, bike, and pedestrian systems will connect to the station area and its surroundings.

Figure 5-10 illustrates the STATION AREA IMPROVEMENTS that will facilitate access to and from the station and catalyze redevelopment in the station area (Note: As there are no long-term improvements recommended for this station area, all of the improvements below are targeted for opening day in 2018. These recommendations represent the improvements necessary to enhance the efficient function of the transit station, roadways, pedestrian and bicycle connections, and transit connections on opening day in 2018).

Station Area Improvements

The discussion below outlines a range of future station area improvements. While some of the identified improvements may be constructed as part of the LRT project itself, other improvements must be funded, designed and constructed by other entities and will require coordination between the City, County, and Metro Transit as well as local stakeholder and community groups.

PEDESTRIAN CONNECTIONS

Opening Day Improvements:

- » Focus sidewalk, trail, and streetscape enhancements immediately adjacent to the station platform, connecting with existing sidewalks and trails.
- » Improve pedestrian crossings where needed to provide safe access to the LRT station and nearby destinations (such as Cedar Lake, Lake of the Isles, Kenwood School, Kenwood Park, Kenwood Community Center, Kenwood commercial node at Penn Avenue and 21st Street), particularly along West 21st Street, Kenwood Parkway, and Lake of the Isles Parkway.

BIKE CONNECTIONS

Opening Day Improvements:

- » Provide on-street bike facilities (lanes, routes, signage, etc.) on local streets, such as West 21st Street, Kenwood Parkway, and Burnham Blvd.
- » Provide bike parking, pumping station, and locker facilities in a highly visible area near the station platform.

TRANSIT CONNECTIONS

Opening Day Improvements:

- » Provide additional rider dropoff space at the existing bus stop at the corner of West 21st and 22nd Streets.

KISS AND RIDE

Opening Day Improvements:

- » Provide space for kiss and ride activities near the bus stop at the corner of West 21st and 22nd Streets.

STATION AMENITIES (Beyond SW LRT Base Project Scope)

Opening Day Improvements:

- » Wayfinding- define and install a cohesive and contextual wayfinding system at the LRT station platform and major gateways, such as West 21st Street, Kenilworth Trail, Lake of the Isles, Kenwood Parkway, and Kenwood commercial node.
- » Seating – provide comfortable and durable seating near the station platform and at the bus dropoff area near the station platform.
- » Lighting – provide adequate lighting for the safety of pedestrians, bicyclists, and transit users near the station platform and the bus dropoff area.
- » Pedestrian and Bike Facilities- add pedestrian/bike crossing improvements at intersections along West 21st Street, Kenwood Parkway, and Lake of the Isles Parkway.
- » Public Art- incorporate public art in the station area to create an attractive and identifiable place.

DEVELOPMENT POTENTIAL

- » Hennepin County owns land adjacent to the station, however, development due to LRT transit facilities and services is not expected.

UTILITIES

- » See the “Station Area Utility Plan” beginning on page 5-14 for all utility recommendations.



Transit shelter with informational signage, lighting, and seating



Bike amenities at the station

Key Considerations for Change and Development Over Time

Investments around the station should focus on increasing visibility and enhancing access for pedestrians and cyclists. Key considerations should include:

PUBLIC REALM

- » Developing a small pedestrian plaza at the southwest intersection of West 21st Street and West 22nd Street to enhance views to and from the station platform and create a location for pedestrian and cycling amenities.
- » Initiate streetscape enhancements along West 21st Street including the provision of zebra crossings at intersections and pedestrian-oriented lighting.
- » Provide a higher level of illumination in and around the station platform including the provision of a designated waiting area with two-way intercom system and video surveillance.

MOBILITY

- » Incorporate signed on-street bike facilities along 21st Street to improve access for cyclists traveling between the station and neighborhoods to the east.
- » Create an additional emphasis on wayfinding at the station plaza and trail heads to guide visitors to local destinations and illustrate regional destinations accessible via the trail network.
- » Incorporate a higher level of cycling amenity at the station including the provision of a repair stand, water fountain, and bike pumps.
- » Improve trail crossings of West 21st Street through special paving treatments that can alert drivers to the trail.

FIGURE 5-10. STATION AREA IMPROVEMENTS



Faded symbology indicates existing facilities and infrastructure.

- | | | | | | | | |
|--|--------------|--|-------------------------------------|--|-------------------------------------|--|----------------------------|
| | LRT PLATFORM | | NEW SIDEWALK / SIDEWALK IMPROVEMENT | | NEW ROADWAY | | BIKE PARKING |
| | FREIGHT LINE | | ON STREET BIKE INFRASTRUCTURE | | STREETSCAPE | | WAYFINDING |
| | BUS STOP | | MULTI-USE PATH | | PARK AND RIDE | | PUBLIC ART OPPORTUNITY |
| | BUS SHELTER | | NEW CROSSING / CROSSING IMPROVEMENT | | KISS AND RIDE | | POTENTIAL DEVELOPMENT SITE |
| | | | NEW SIGNALIZED INTERSECTION | | PLAZA SPACE / BUILDING SETBACK AREA | | |

Opening Day Improvements

The following tables and diagrams outline the proposed improvements to be implemented in advance of SW LRT's opening day in 2018. As of December 2013, the 21st Street Station is not part of the SW LRT base project scope, but is presented here as a concept scope. Table 5-1 and Figure 5-11 show opening day improvements that are part of the concept scope (i.e. improvements that could be part of the SW LRT base project scope should this station ultimately be built). Table 5-2 and Figure 5-12 include opening day improvements that are recommended as part of the Southwest Corridor Investment Framework and are beyond the concept scope.

TABLE 5-1. CONCEPT SCOPE (NOT IN SW LRT BASE PROJECT SCOPE) - OPENING DAY STATION AREA IMPROVEMENTS

PLAN KEY	IMPROVEMENT	PROJECT LOCATION	PROJECT NOTES
A	LRT Platform	Along Kenilworth Trail at W. 21st Street	Includes related LRT infrastructure
B	Kiss and Ride	Along W. 22nd Street, south of W. 21st Street	Pullout dropoff area (share with bus dropoff)
C	Bus Facilities	Along W. 22nd Street, south of W. 21st Street	Pullout dropoff area
D	Sidewalk/Trail	Station platform to bus dropoff	New sidewalk
E	Bike Facilities	Near station platform	Allowance for bike storage
F	Wayfinding	Near station platform	Allowance
G	Landscaping	Near station platform	Allowance
H	Water*	Near station platform	New water service and fire hydrant to station
I	Utilities*	Project limit area	Adjustment of existing utilities
J	Stormwater management*	Near station platform	Allowance

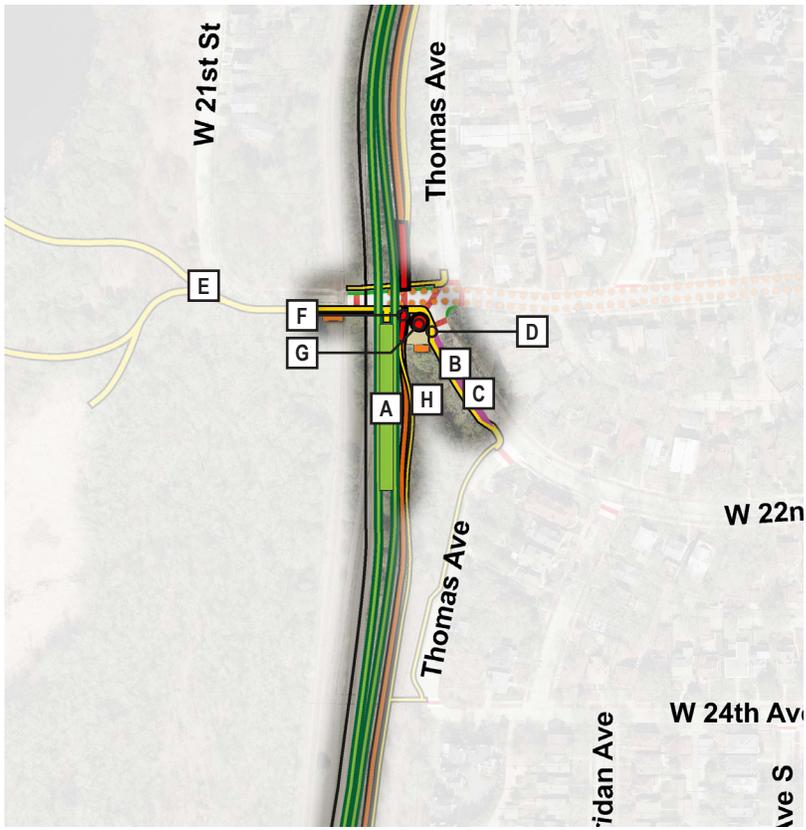
Note: The Metropolitan Council has not determined the project scope and budget. As of December 2013, the Southwest Project Office recommends two (2) shallow tunnels through the Kenilworth Corridor and the elimination of the 21st Street Station.

* Improvement not symbolized on opening day figures

TABLE 5-2. SOUTHWEST CORRIDOR INVESTMENT FRAMEWORK (TSAAP) - OPENING DAY STATION AREA IMPROVEMENTS

PLAN KEY	IMPROVEMENT	PROJECT LOCATION	PROJECT NOTES	PRIORITY
1	Sidewalk/Trail	Varies- within 10 minute walkshed from station platform	Complete any gaps in sidewalk system	Primary
2	Intersection Enhancements	Along W. 21st Street, station platform to Kenwood Pkwy	Enhanced crosswalk markings	Primary
3	Intersection Enhancements	Along W. 22nd Street, Thomas Avenue to Sheridan Avenue	Enhanced crosswalk markings	Primary
4	Intersection Enhancements	Along W. 24th Street, Thomas Avenue to Sheridan Avenue	Enhanced crosswalk markings	Primary
5	Bike Facilities	Near station platform	Bike parking, lockers, pump station and bike share facilities (beyond SPO improvements)	Primary
6	Wayfinding	Near station platform	Signage and wayfinding (beyond SPO improvements)	Primary
7	Public Art	Near station platform	Public art (beyond SPO improvements)	Secondary
8	Public Plaza	Southwest intersection of 21st Street and 22nd Street	Plaza includes, paving, planting and seating (beyond SPO improvements)	Secondary
9	Bike Connection	Along West 24th Street from Lake of the Isles to Kenilworth Trail	Bike lanes and bike path	Secondary

FIGURE 5-11. CONCEPT SCOPE (NOT IN SW LRT BASE PROJECT SCOPE) - OPENING DAY STATION AREA IMPROVEMENTS



Note: The Metropolitan Council has not determined the project scope and budget. As of December 2013, the Southwest Project Office recommends two (2) shallow tunnels through the Kenilworth Corridor and the elimination of the 21st Street Station.

FIGURE 5-12. SOUTHWEST CORRIDOR INVESTMENT FRAMEWORK (TSAAP) - OPENING DAY STATION AREA IMPROVEMENTS



PRIMARY PRIORITY

SECONDARY PRIORITY

Station Area Utility Plan

OVERVIEW + APPROACH

The station area utility plan and strategies recommended below were developed by considering impacts on existing utilities by the construction of the LRT line, and potential future transit-oriented development within the station area, as depicted by the Station Area Improvements Plan (Figure 5-10). Opening day improvements identified in this plan should be considered prior to 2018 due to their proximity to or impact from the proposed LRT line. More improvements may be necessary by 2018, but should be reviewed with any redevelopment in the area. The City of Minneapolis should continue to follow their standard review procedures as it relates to utilities within project areas.

For any publicly initiated projects in the ROW, the City should follow current utility review procedures. This may include identifying needs and opportunities that may be coordinated with proposed improvements to the roadway or other elements in City ROW.

For any privately initiated projects in the area, the City should follow current development/ redevelopment procedures which will likely require developers to show anticipated utility system demand. Developers will need to coordinate with the City to ensure utilities are sized and located properly prior to construction. The City of Minneapolis Community Planning and Economic Development website can be found here: <http://www.ci.minneapolis.mn.us/cped/>. This study recognizes that the ultimate station area development/redevelopment (in 2030) will be driven by market conditions.

GENERAL RECOMMENDATIONS - SANITARY SEWER & WATER MAIN

Utility recommendations for station area improvements include opportunities for Minneapolis to improve the existing sanitary sewer and water main networks without necessarily replacing existing sanitary sewer. As part of the City's standard practice, utilities will be reviewed in conjunction with proposed station area improvements within the ROW; Any necessary utility improvements will be determined at the time of said review. As redevelopment occurs, developers will be required to provide documentation to verify that existing utilities meet the needs of the proposed development. Developers will coordinate with the City prior to project approvals.

GENERAL RECOMMENDATIONS – STORM SEWER

Local storm sewer improvements are recommended to be completed in conjunction with other improvements in the station area. Improvements which may require storm sewer modifications include: roadway realignments, roadway extensions, and pedestrian sidewalk/streetscape improvements. Storm sewer improvements may consist of: storm sewer construction, manhole reconstruction, drain tile extensions, storm sewer relocation, and complete replacement. These local storm sewer improvements are included as part of the overall cost of roadway and streetscape improvements recommended in this plan. Where roadway/streetscape improvements are part of the SW LRT anticipated base project scope, associated storm sewer improvements are assumed to be a project cost. Coordination with the local watershed district and other agencies may be needed to review the condition of and capacity of existing trunk storm sewer systems serving more regional surface water needs.

NOTE: No site specific utility needs have been identified for this station beyond these general utility recommendations and utility improvements identified as part of the SW LRT Anticipated Base Project Scope (see Table 5-1). As such, no diagram is provided for the station area utility plan. General utility recommendations should be reviewed prior to site construction.

STORMWATER BEST MANAGEMENT PRACTICES

There are numerous stormwater best management practices (BMPs) that can be used to address stormwater quality and quantity. As part of this project, BMP guides were developed for four stations (Royalston, Blake, Shady Oak, and Mitchell) which exemplify the range of development intensity and character in the urbanized environment along the Southwest LRT Corridor. The recommendations and practices identified in each of the four BMP guides are applicable to various stations along the corridor.

Potential stormwater management strategies for this station area may be similar to those shown in the BMP guide for the Royalston Station (see p. 2-26). Minneapolis should consider implementing applicable best management practices similar to those in the Royalston station BMP guide. Stormwater management recommendations should be constructed in conjunction with public and private improvements and future development/redevelopment in the station area.

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